



COLORADO

Department of Transportation

Cottonwood Pass Concept Design
Property Owner/Residential
Issue Task Force (ITF) Meeting #2
November 15, 2022



Welcome!

AGENDA

- Project overview
- Design options and existing conditions considerations
- Next steps
- Group discussion/Q&A

WHAT TO EXPECT

- A mix of presentation and interactive polling
- Respectful communication
- ITF input used to inform evaluation and refinement of concept designs at each site



Project team presenters



Karen Berdoulay
CDOT Region 3
East Program
Engineer



Jacob Rivera
CDOT Region 3
Project Manager



Stacy Tschuor
David Evans and
Associates, Inc.
Project Manager



**Sarah Rachal-
Dormand**
David Evans and
Associates, Inc.
Engineer



Leah Langerman
David Evans and
Associates, Inc.
Public Engagement



What is your main interest in the Cottonwood Pass Corridor?

- I own property adjacent to one of the site design options
- I own property/live somewhere else along Cottonwood Pass
- I own property/live along CR 113, 114, or 115
- I commute along Cottonwood Pass
- I bike along Cottonwood Pass
- Other



Project Overview





Project purpose

FOCUS

- Cottonwood Pass between Gypsum in Eagle County and CO 82 in Garfield County

PURPOSE

- Road safety improvements to make the county roads safer and more functional as a vital travel connection between the local communities

IMPETUS

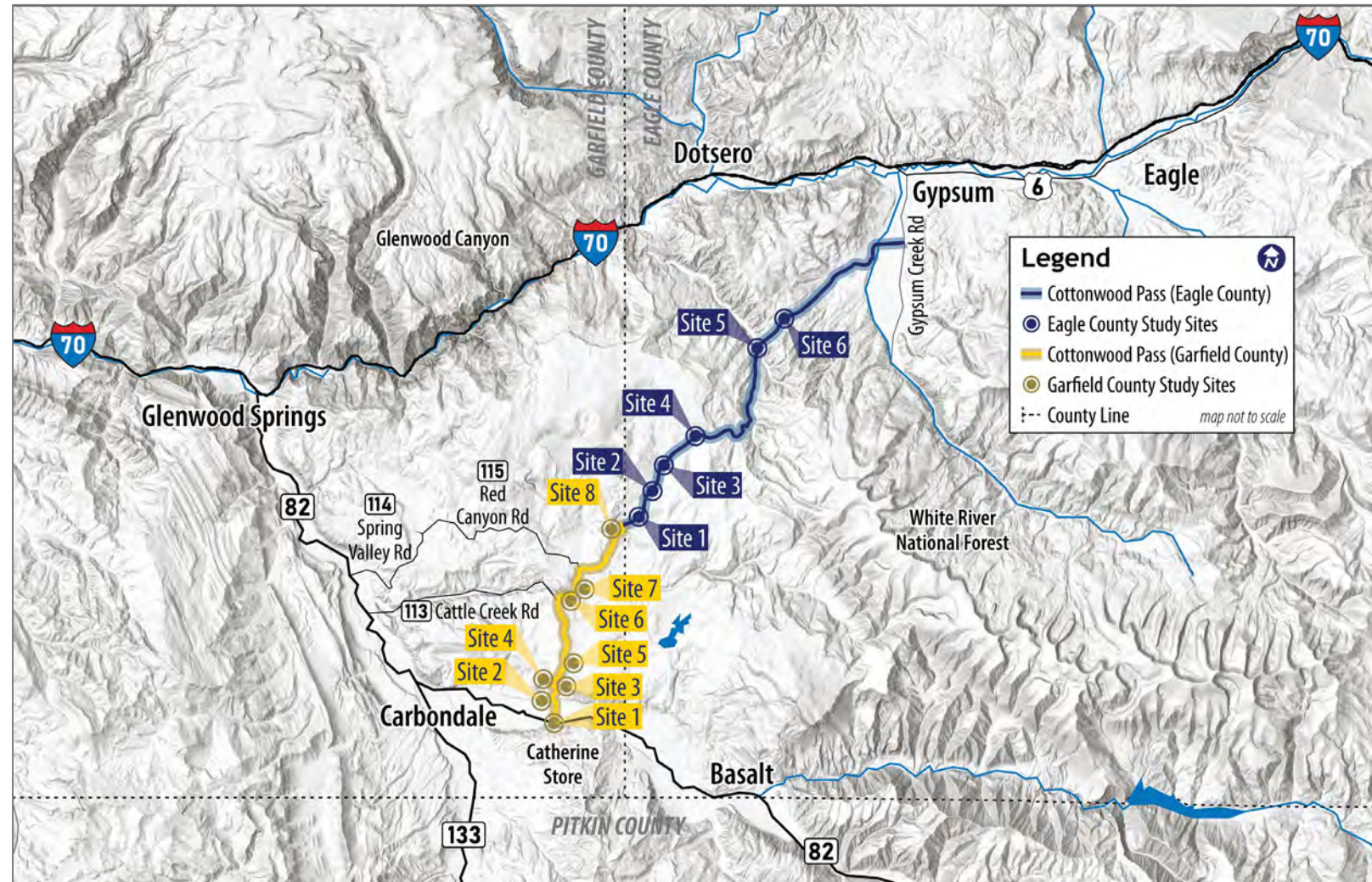
- Eagle and Garfield counties recognized the need for safety improvements
- This need became more apparent during Glenwood Canyon closures

This project IS NOT preparing Cottonwood Pass to be a detour route for I-70 traffic! The detour will remain north of I-70. Cottonwood Pass improvements are needed for the safety of local travelers.



Project site key map

- Focus on 14 specific sites:
 - 6 in Eagle County
 - 8 in Garfield County
- Potential improvement areas account for 14% of total length of Cottonwood Pass
 - Corridor-wide improvements are not being considered with this project



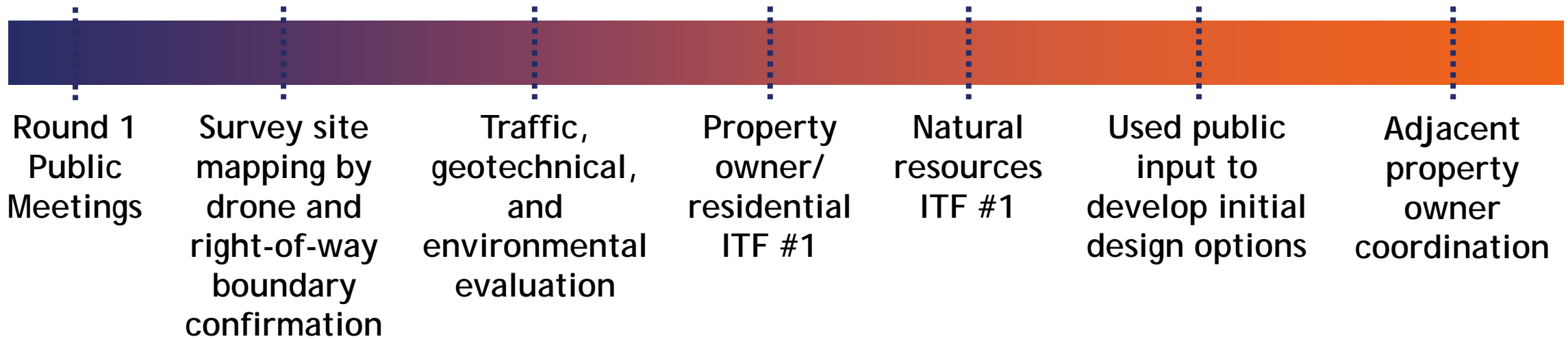


Where do you live?

- Eagle County
- Garfield County
- Other



Progress to date





Adjacent owner comments

- Concerns about additional traffic using Catherine Store Road
- Agreement some improvements are needed (stepped implementation)
- Concerns improving curves could worsen speeding issues and negate the safety benefits
 - Desire for other ways to slow traffic
 - Need for enforcement for speeding
- Many errant vehicles go off the road causing private property damage and road erosion when they are pulled back up
- Need more road maintenance (washboard surface)
- Daily commuters cause more problems than detour traffic



Improvement concepts

- Concepts focus on balance of improved driver safety without increasing traffic volume or speeds
- Safety - curves and narrow areas with known concerns
 - Curve paths
 - Lane and shoulder widths
 - Sight distance
- Traffic - hot spot improvements only
 - Overall corridor mountainous with curves, steep grades, and narrow areas
 - Current vehicle length and size restrictions remain

Project team considering other ways to address speeding concerns that could be implemented with projects as they move forward at individual sites



Increased Signage

- Pros:
- Reduced speeds, especially unfamiliar drivers
- Cons:
- Maintenance



Enhanced Signs

- Pros:
- Interactive
 - Reduced speeds
- Cons:
- Cost
 - Maintenance
 - Visual impacts



Speed Feedback Signs

- Pros:
- Interactive
 - Reduced speeds
- Cons:
- Cost
 - Maintenance
 - Visual impacts



Rumble Strips

- Pros:
- Promotes drivers to stay in lane/slow down
- Cons:
- Cost
 - Noise impacts



Context Sensitive Solutions (CSS) process

- ✓ Establishing project goals
- ✓ Establishing participant roles and responsibilities
- ✓ Establishing criteria for evaluating alternatives
- ✓ Developing options for improvements
- Evaluating design options based on established criteria
- Documenting the process and final recommendations



Evaluation criteria - Core Values

Core Values

The core values identified below are intended to be used to evaluate safety improvements at 14 locations as part of this concept design project.

WHAT IS IMPORTANT?

SAFETY

Improve driver safety by making improvements at critical areas of geometric deficiencies

RESPECTING CORRIDOR CHARACTER

Maintain the rural feel of road

Minimize impacts to private property

Mitigate visual impacts from improvements

NATURAL RESOURCE PRESERVATION

Minimize impacts to nearby wildlife habitat and waterways

COLLABORATIVE IMPROVEMENTS

Engage public and stakeholders to provide meaningful input into the concept design process



Evaluation criteria

Core Value	Criteria/Measure
Safety	Assessment of changes to vehicular safety concerns at site (speed, off-road vehicles, two-way traffic conflicts)
Respecting Corridor Character	Ability to maintain rural feel of road
	Potential right-of-way impacts to private property
	Potential visual impacts
Natural Resource Preservation	Potential impacts to wildlife habitat and waterways
Collaborative Improvements	Concerns and support from adjacent property owners
	Concerns and support from corridor travelers and general public



Design Options and Existing Conditions Considerations by Site





TRAFFIC

- Catherine Store Road - April 2019 count
 - Average 1,240 vehicles/day (weekday = 1,390; weekend = 930)
 - Mean speed = 34.6 mph; 85th-percentile speed = 39.6 mph
- Cattle Creek Rd - June/July 2019 count
 - Average 330 vehicles/day (weekday = 345; weekend = 310)
- Cottonwood Pass Road - Summer 2021 counts
 - With Canyon open: Average 400 vehicles/day (weekday = 370; weekend = 470)
 - With Canyon closed: Average 3,700 vehicles/day (weekday = 3,790; weekend = 3,650)



ENVIRONMENTAL

- High-level overview with available information, windshield survey, and input from regulatory agencies and area stakeholders
 - Field survey verification needed with future design
- Federal, State, and BLM listed species with potential to occur require further evaluation to determine potential impacts with future design
- Roadways (CR 100/Catherine Store Rd and Cottonwood Pass Rd) are cultural resources, but a site project option is unlikely to result in adverse effects to the resource

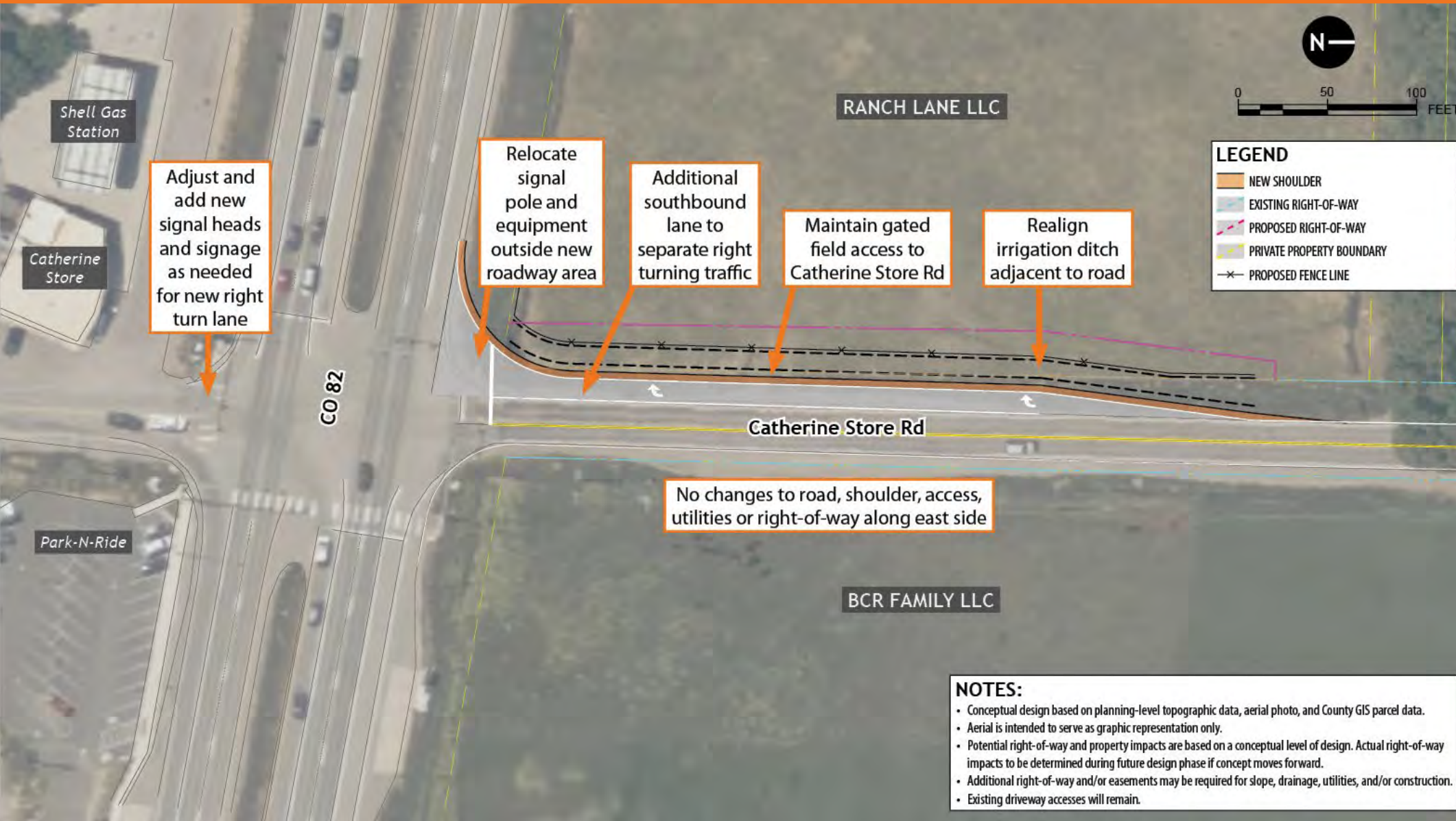


CONCEPTS

- Conceptual design based on planning-level survey data, aerial photo, and County GIS parcel data
- Potential right-of-way and property impacts are based on conceptual design
 - Actual right-of-way impacts to be determined during future design
- Driveways and access will remain



Garfield County Site 1



CONSIDERATIONS

- **Environmental**
 - Irrigation ditch presumed to be a non-jurisdictional water
 - No federal or state-listed threatened & endangered species habitat
 - Cultural resources - Patterson Ditch, CO 82, Catherine Building, 1972 residential building
- **Geotechnical**
 - Collapsible and evaporite soils

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.

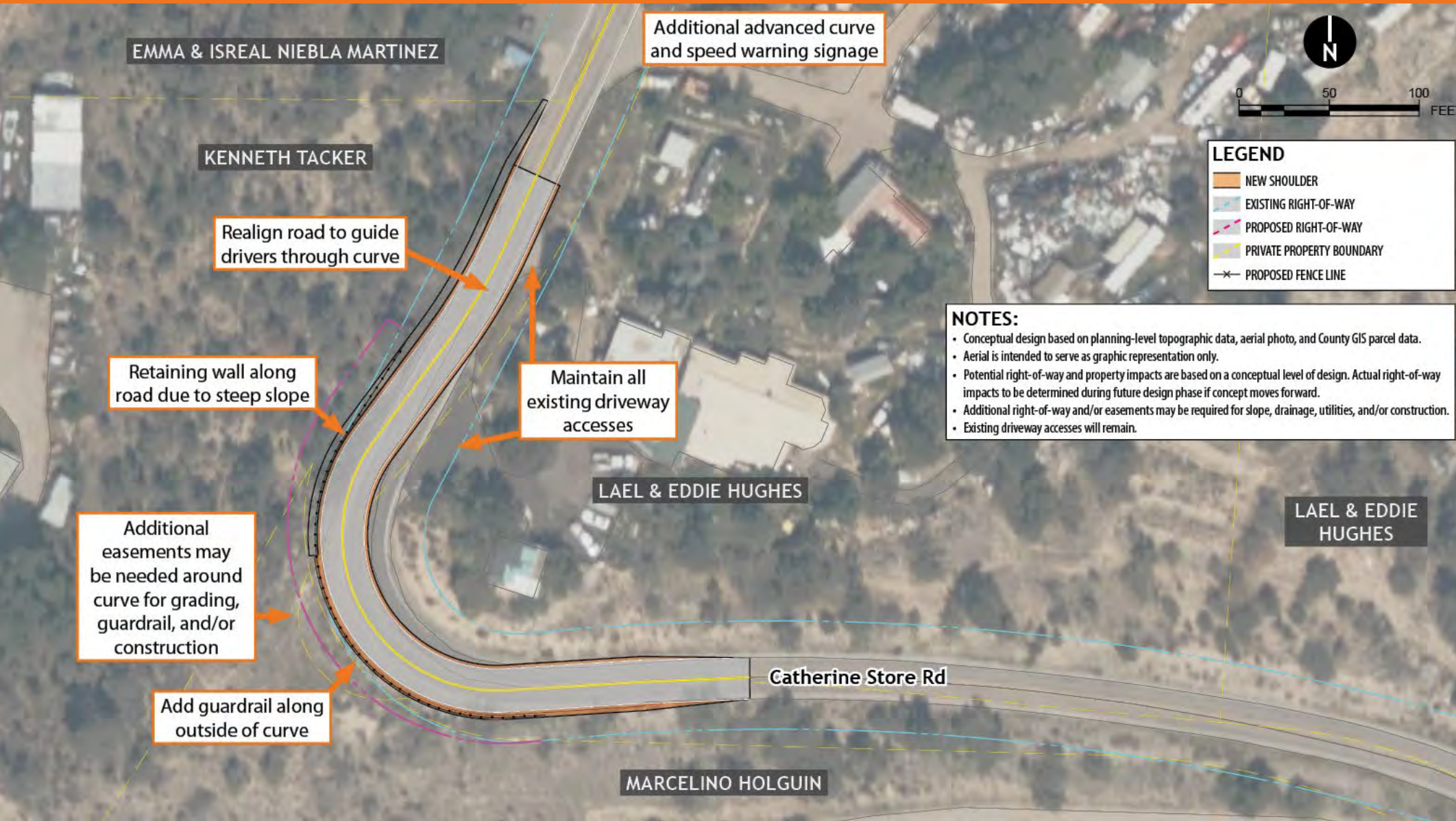


Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



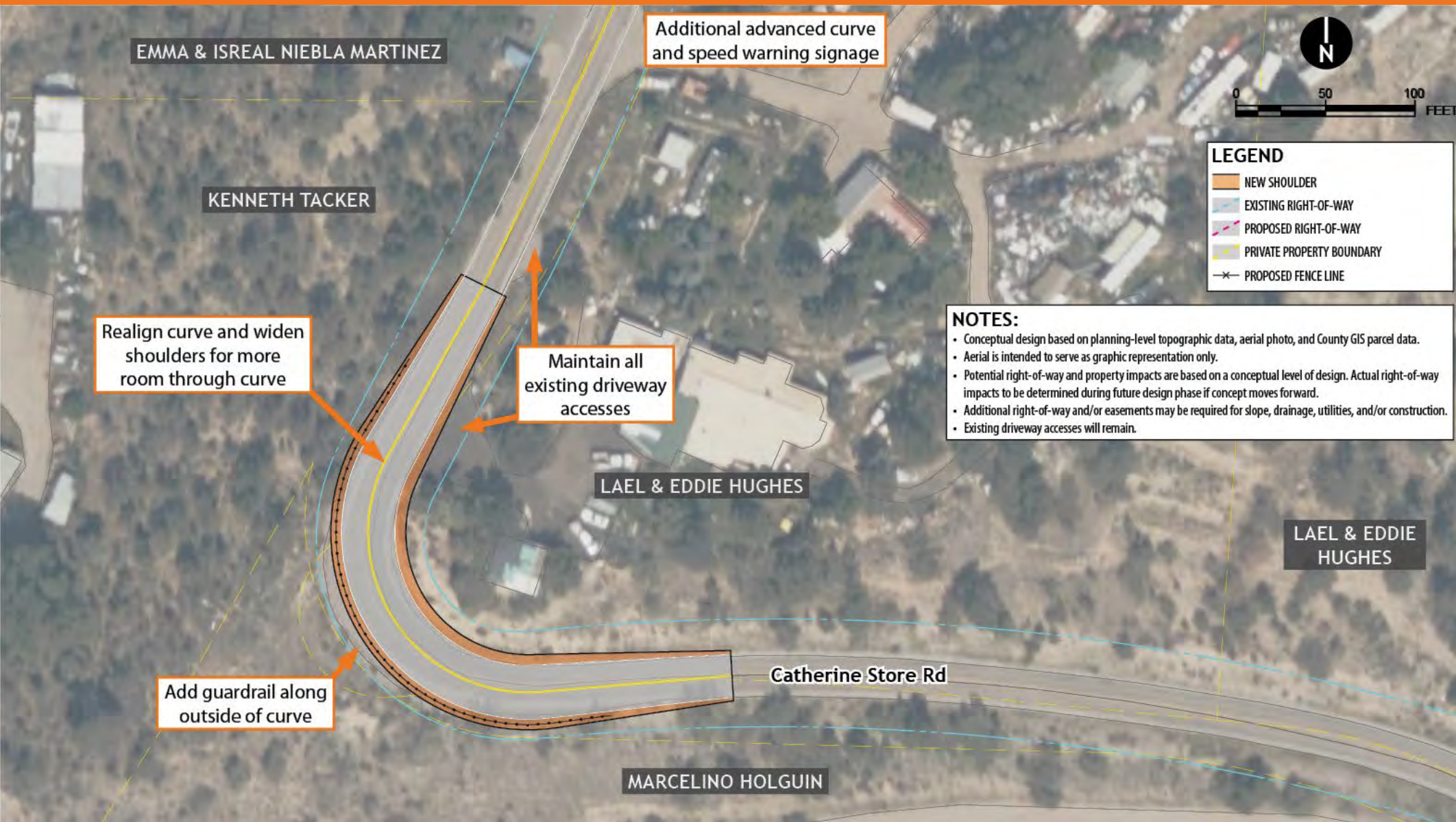
Garfield County Site 2 - Option 1



- CONSIDERATIONS**
- Environmental
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - Cultural resource - 1960 residential building
 - Geotechnical
 - Collapsible and evaporite soils



Garfield County Site 2 - Option 2



CONSIDERATIONS

- Environmental
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - Cultural resource - 1960 residential building
- Geotechnical
 - Collapsible and evaporite soils



Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Which design option do you prefer?
- Do you suggest any tweaks to the design options presented?



Garfield County Site 3

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



CONSIDERATIONS

- Environmental
 - Potential jurisdictional mapped stream (unnamed)
 - No federal or state-listed threatened & endangered species habitat
 - No cultural resources near site
- Geotechnical
 - Collapsible and evaporite soils
 - Site within mapped landslide, but no evidence of slope failure or movement

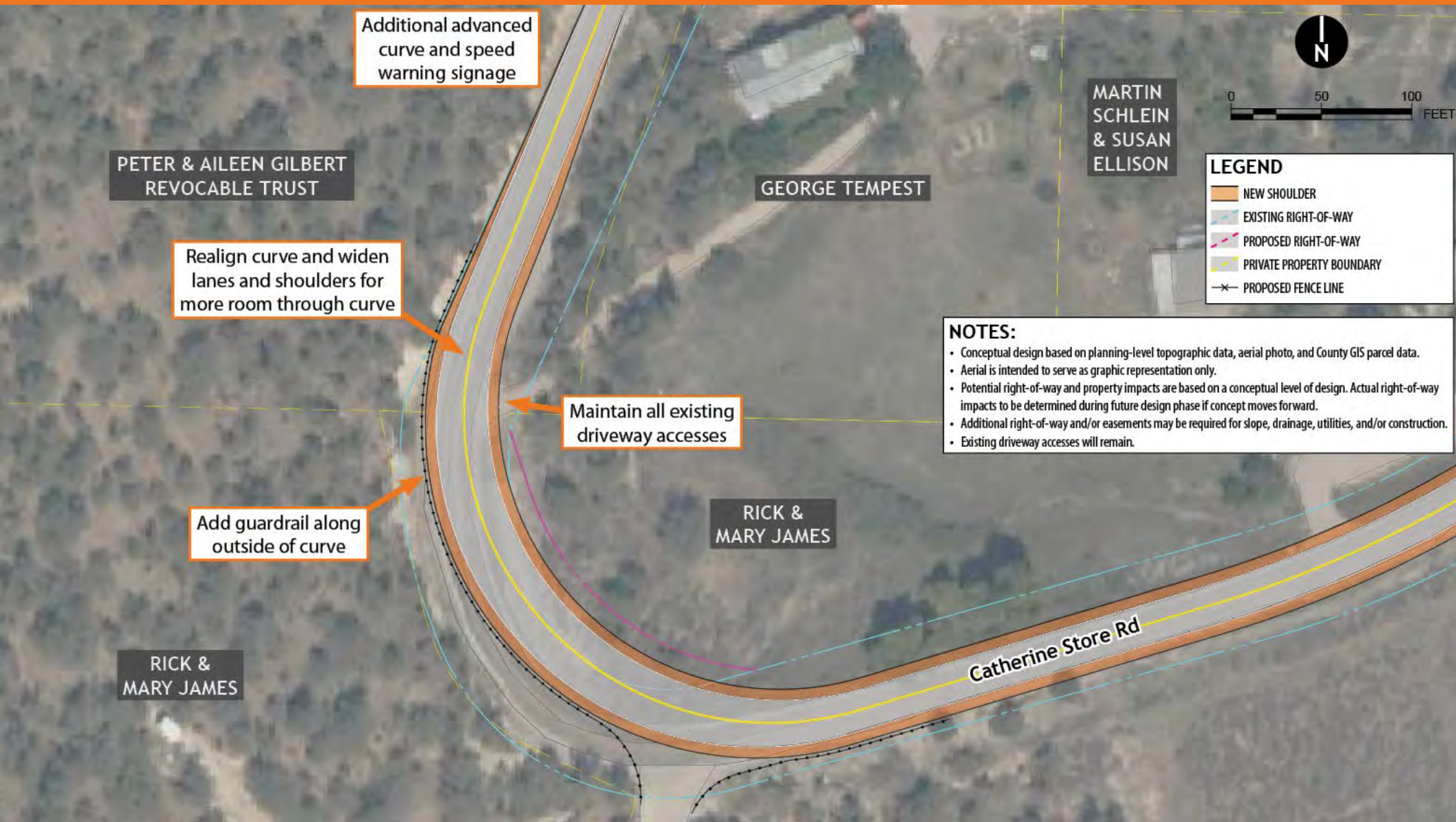


Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Garfield County Site 4



NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.

CONSIDERATIONS

- Environmental
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - No cultural resources near site
- Geotechnical
 - Collapsible and evaporite soils
 - Site within mapped landslide, but no evidence of slope failure or movement



Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Garfield County Site 5



CONSIDERATIONS

- **Environmental**
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - No cultural resources near site
- **Geotechnical**
 - Collapsible and evaporite soils
 - Site within mapped landslide, but no evidence of slope failure or movement
 - Rockfall analysis and protection may be required with excavation into rock outcrops

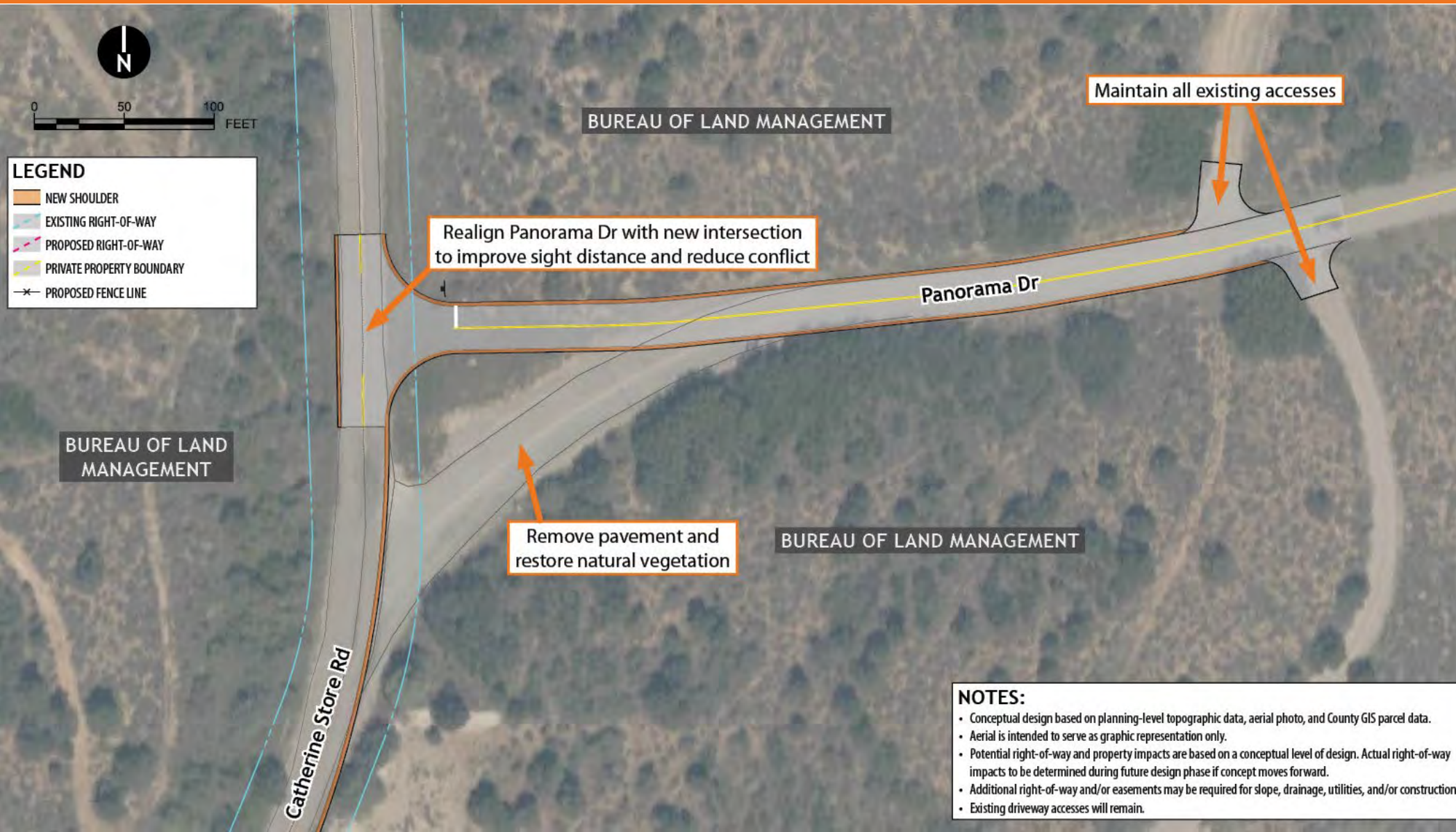


Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Garfield County Site 6



CONSIDERATIONS

- Environmental
 - Potential jurisdictional mapped stream (unnamed)
 - Potentially suitable habitat for federal threatened & endangered species (yellow-billed cuckoo and Ute ladies'-tresses orchid)
 - Cultural resource - Panorama Dr
 - Cultural resources (Hopkins-Basalt Section 15kv Transmission Line and Needham Ditch) to be avoided
- Geotechnical
 - Collapsible and evaporite soils
 - Site within mapped landslide, but no evidence of slope failure or movement

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



Mentimeter (open-ended response)

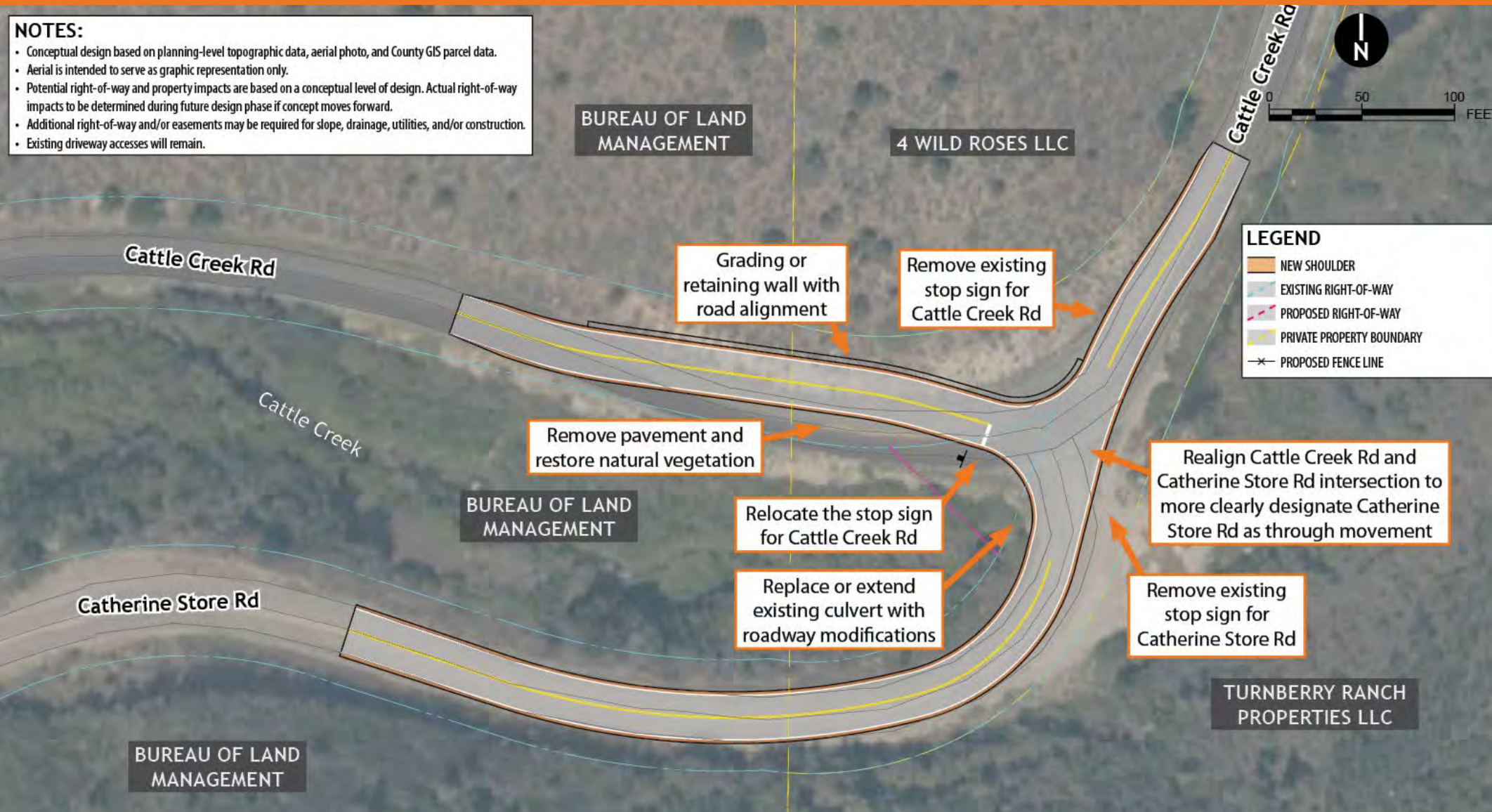
- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Garfield County Site 7 - Option 1

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



CONSIDERATIONS

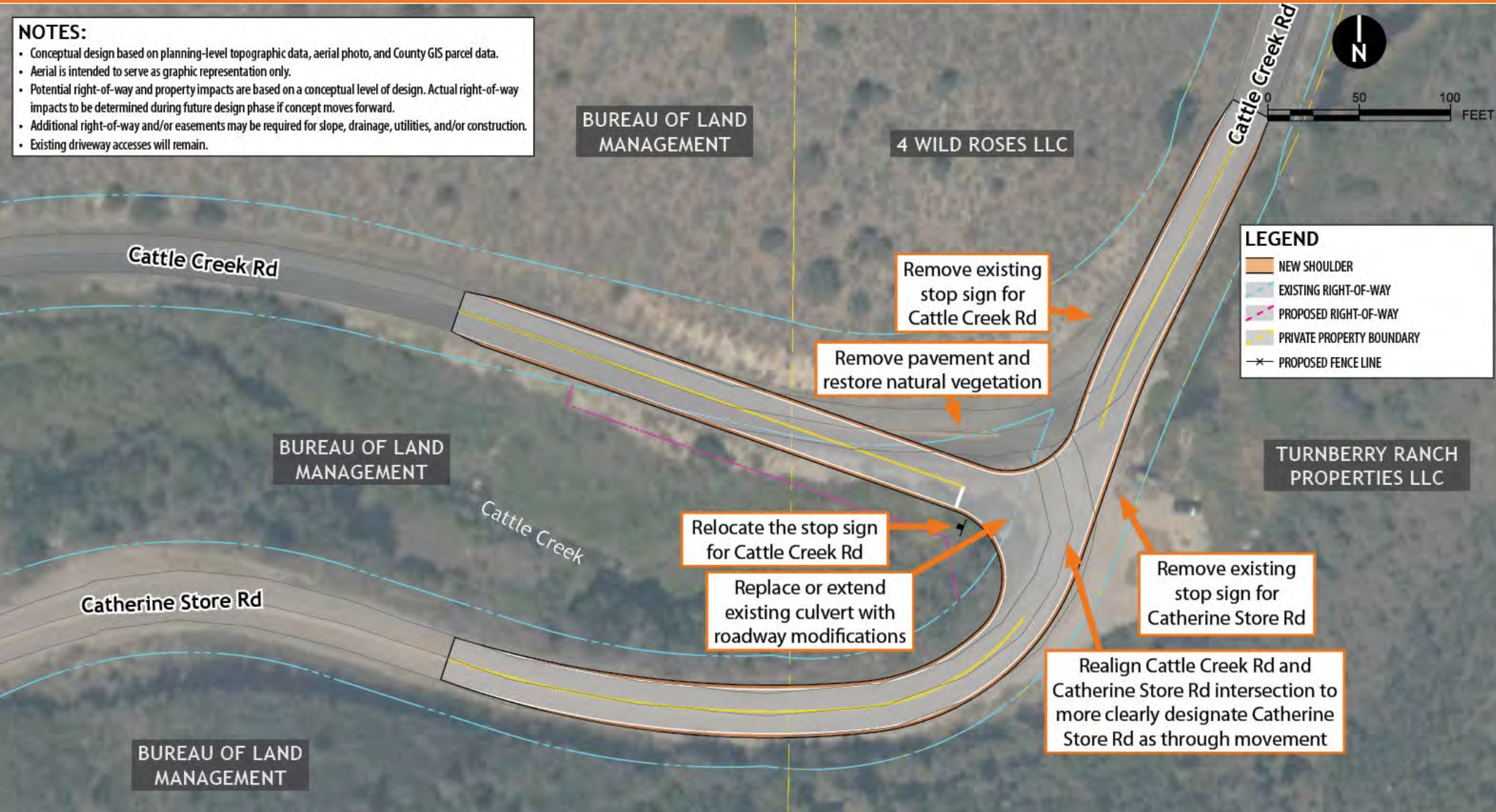
- **Environmental**
 - Cattle Creek and associated wetlands presumed to be jurisdictional waters
 - Potentially suitable habitat for federal threatened & endangered species (yellow-billed cuckoo and Ute ladies'-tresses orchid)
 - Cultural resource - Cattle Creek Rd
- **Geotechnical**
 - Collapsible and evaporite soils
 - Site within mapped landslide, but no evidence of slope failure or movement



Garfield County Site 7 - Option 2

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



- CONSIDERATIONS**
- **Environmental**
 - Cattle Creek and associated wetlands presumed to be jurisdictional waters
 - Potentially suitable habitat for federal threatened & endangered species (yellow-billed cuckoo and Ute ladies'-tresses orchid)
 - Cultural resource - Cattle Creek Rd
 - **Geotechnical**
 - Collapsible and evaporite soils
 - Site within mapped landslide, but no evidence of slope failure or movement



Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Which design option do you prefer?
- Do you suggest any tweaks to the design options presented?



Garfield County Site 8



- CONSIDERATIONS**
- **Environmental**
 - No mapped streams or wetlands
 - Potentially suitable habitat for federal threatened & endangered species (yellow-billed cuckoo and Ute ladies'-tresses orchid)
 - No cultural resources near site
 - **Geotechnical**
 - Collapsible and evaporite soils
 - Rock outcrops were observed and bedrock appears workable for cut slopes

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.

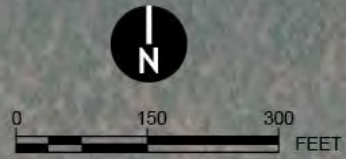


Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?

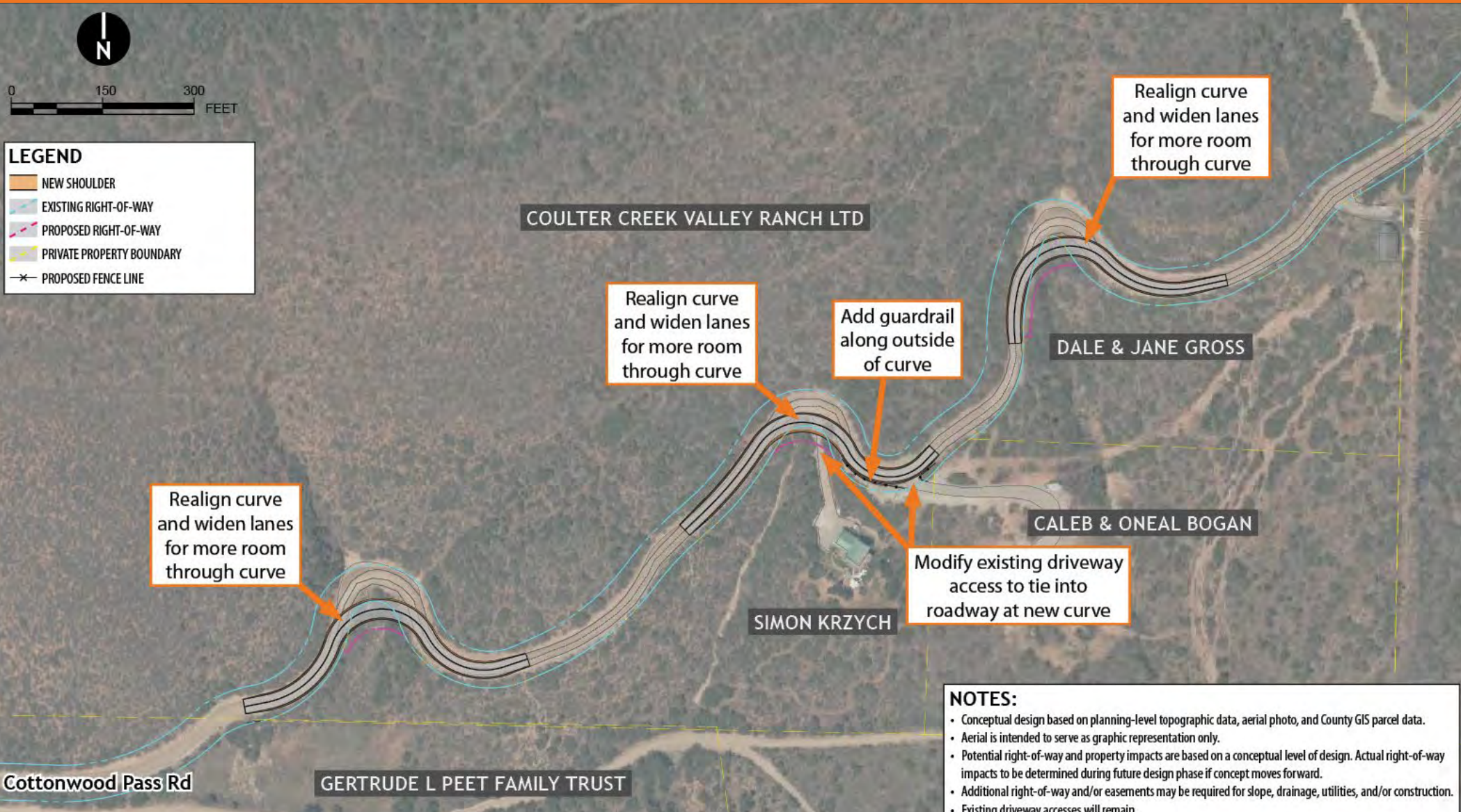


Eagle County Site 1 - Option 1



LEGEND

- NEW SHOULDER
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PRIVATE PROPERTY BOUNDARY
- PROPOSED FENCE LINE



CONSIDERATIONS

- **Environmental**
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - No cultural resources near site
- **Geotechnical**
 - Collapsible soils
 - Rock outcrops were observed and bedrock appears workable for cut slopes

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.

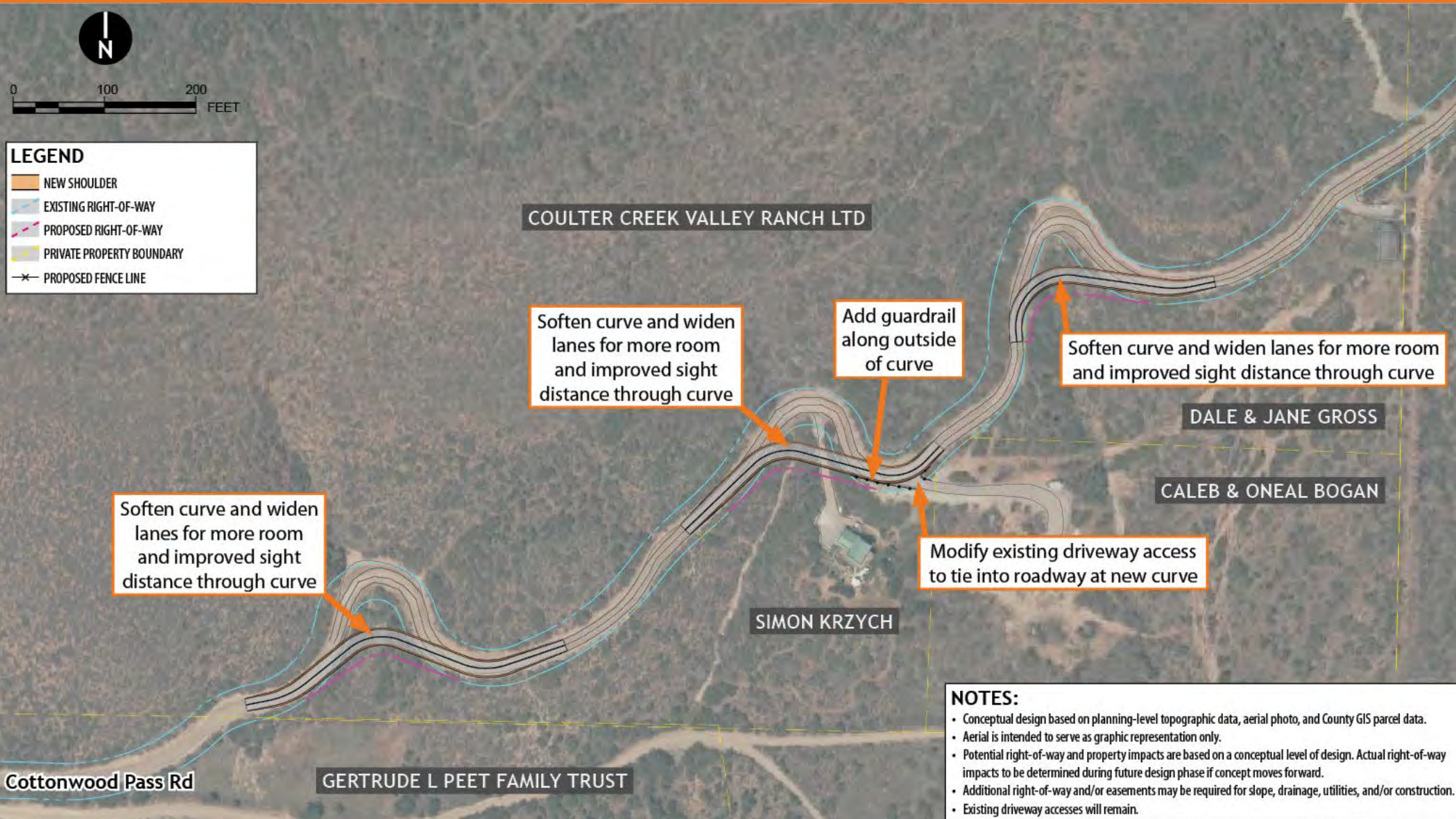


Eagle County Site 1 - Option 2



LEGEND

- NEW SHOULDER
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PRIVATE PROPERTY BOUNDARY
- PROPOSED FENCE LINE



NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.

- CONSIDERATIONS**
- **Environmental**
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - No cultural resources near site
 - **Geotechnical**
 - Collapsible soils
 - Rock outcrops were observed and bedrock appears workable for cut slopes



Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Which design option do you prefer?
- Do you suggest any tweaks to the design options presented?



Eagle County Site 2



LEGEND

- NEW SHOULDER
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PRIVATE PROPERTY BOUNDARY
- PROPOSED FENCE LINE



NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.

CONSIDERATIONS

- **Environmental**
 - East Coulter Creek and associated wetlands presumed to be jurisdictional waters
 - No federal or state-listed threatened & endangered species habitat
 - Cultural resource - unnamed 1908 Trail
- **Geotechnical**
 - Site within mapped landslide, but no evidence of slope failure or movement
 - Rock outcrops were observed and bedrock appears workable for cut slopes

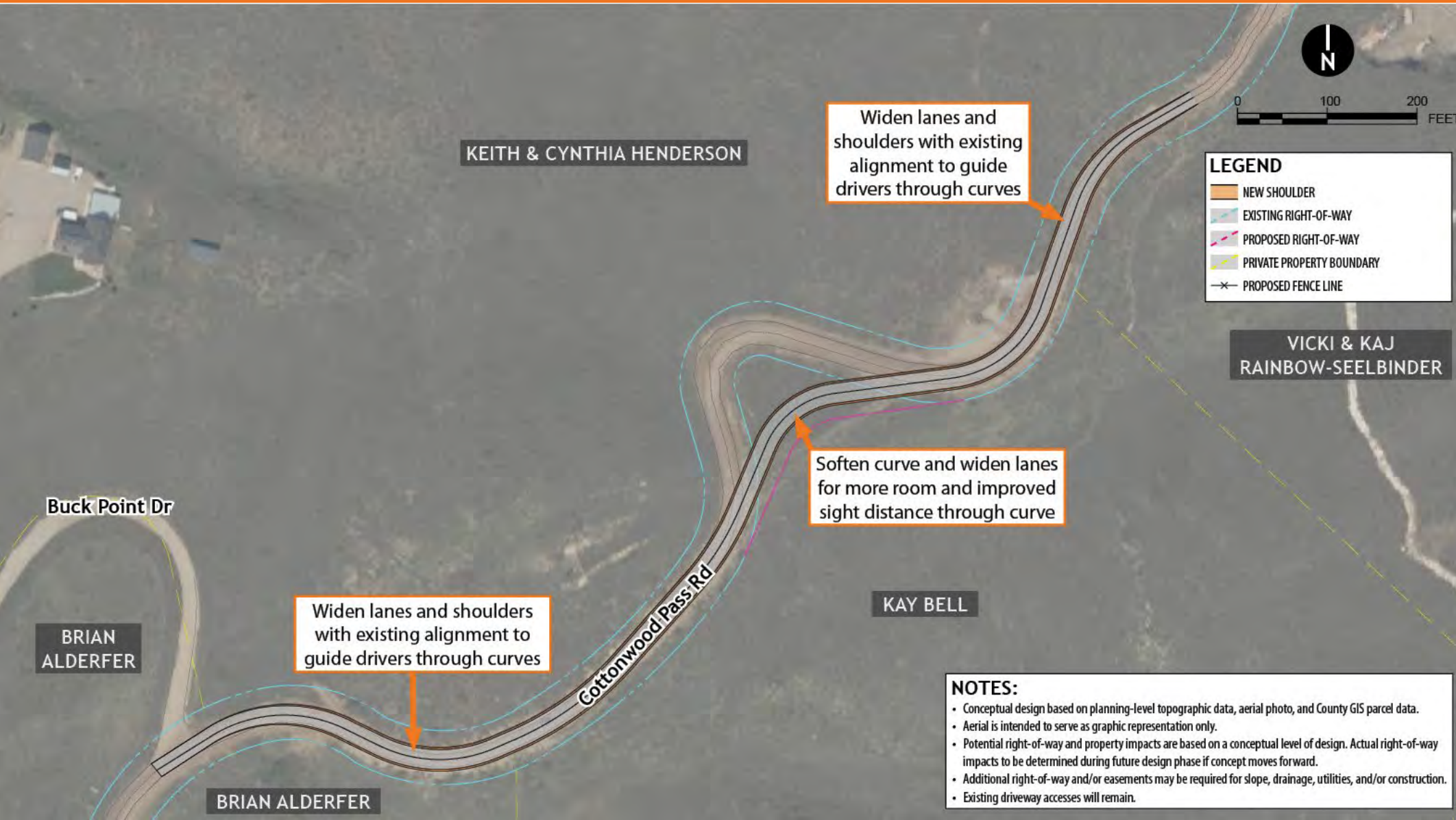


Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Eagle County Site 3 - Option 1



CONSIDERATIONS

- Environmental
 - Potentially jurisdictional mapped stream (unnamed) and wetlands associated with Von Springs Reservoir 1
 - No federal or state-listed threatened & endangered species habitat
 - Cultural resource - the Lower Von Springs Reservoir and dam

Geotechnical

- Potential for evaporite soils
- Site within mapped landslide, but no evidence of slope failure or movement

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



Eagle County Site 3 - Option 2



CONSIDERATIONS

- Environmental
 - Potentially jurisdictional mapped stream (unnamed) and wetlands associated with Von Springs Reservoir 1
 - No federal or state-listed threatened & endangered species habitat
 - Cultural resource - the Lower Von Springs Reservoir and dam

Geotechnical

- Potential for evaporite soils
- Site within mapped landslide, but no evidence of slope failure or movement

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Which design option do you prefer?
- Do you suggest any tweaks to the design options presented?



Eagle County Site 4

NOTES:

- Conceptual design based on planning-level topographic data, aerial photo, and County GIS parcel data.
- Aerial is intended to serve as graphic representation only.
- Potential right-of-way and property impacts are based on a conceptual level of design. Actual right-of-way impacts to be determined during future design phase if concept moves forward.
- Additional right-of-way and/or easements may be required for slope, drainage, utilities, and/or construction.
- Existing driveway accesses will remain.



LEGEND

- NEW SHOULDER
- EXISTING RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY
- PRIVATE PROPERTY BOUNDARY
- PROPOSED FENCE LINE

CONSIDERATIONS

- Environmental
 - No mapped streams or wetlands
 - No federal or state-listed threatened & endangered species habitat
 - No cultural resources near site
- Geotechnical
 - No evidence of geologic hazards or geotechnical features that would adversely impact design or construction



Mentimeter (open-ended response)

- How would the potential improvements being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Eagle County Sites 5 & 6 (Blue Hill)



**CONCEPT IN
PROCESS**



Mentimeter (open-ended response)

- How would the potential alignment being considered benefit or impact nearby private properties?
- Do you suggest any tweaks to the design option presented?



Next Steps

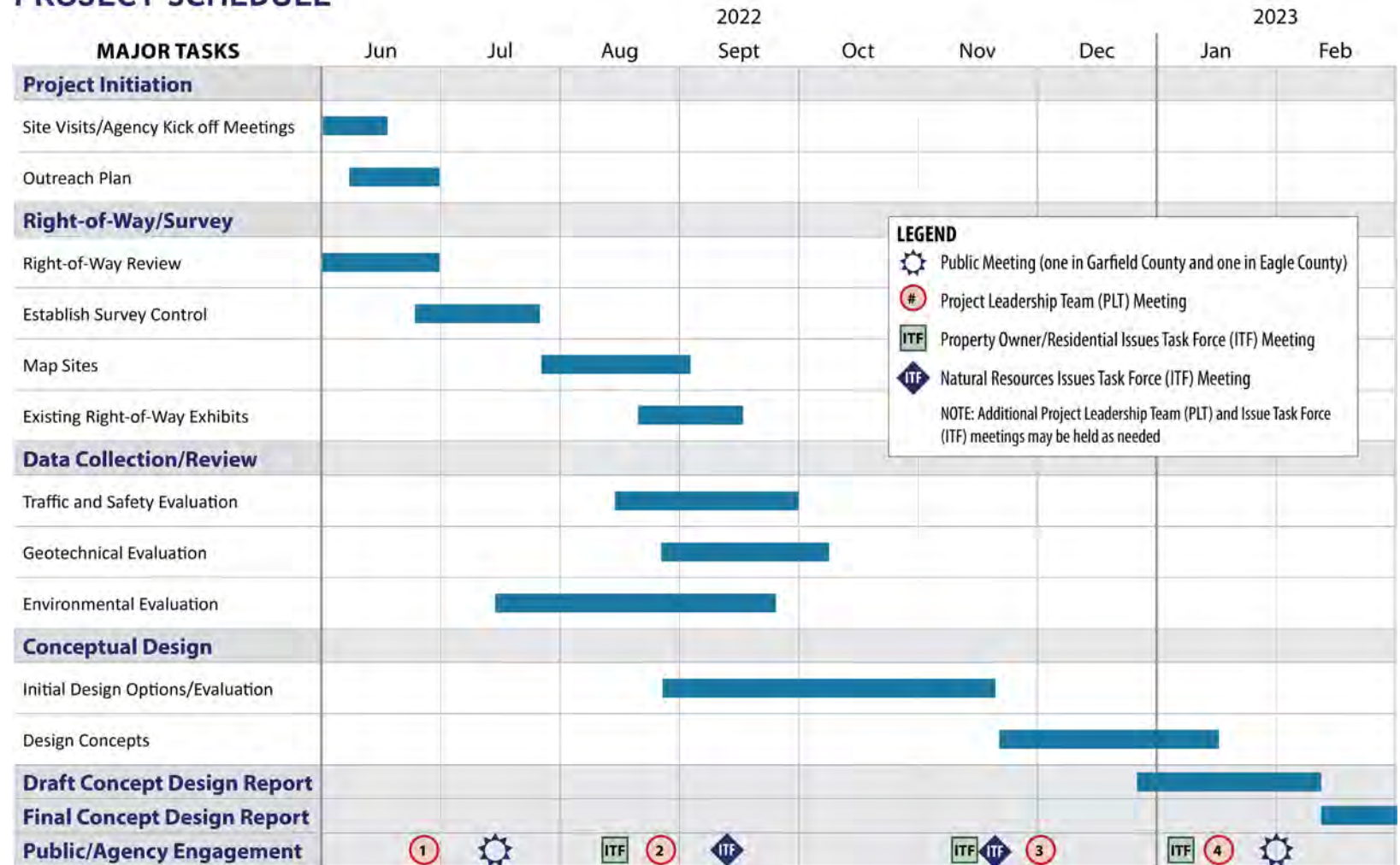




Next steps

- Next meeting of this group in January to discuss site assessments and refined designs

PROJECT SCHEDULE





Group Discussion/Q & A





Thank you!

www.codot.gov/projects/cottonwood-pass-concept-design