



NV Energy

Transmission Line 1104

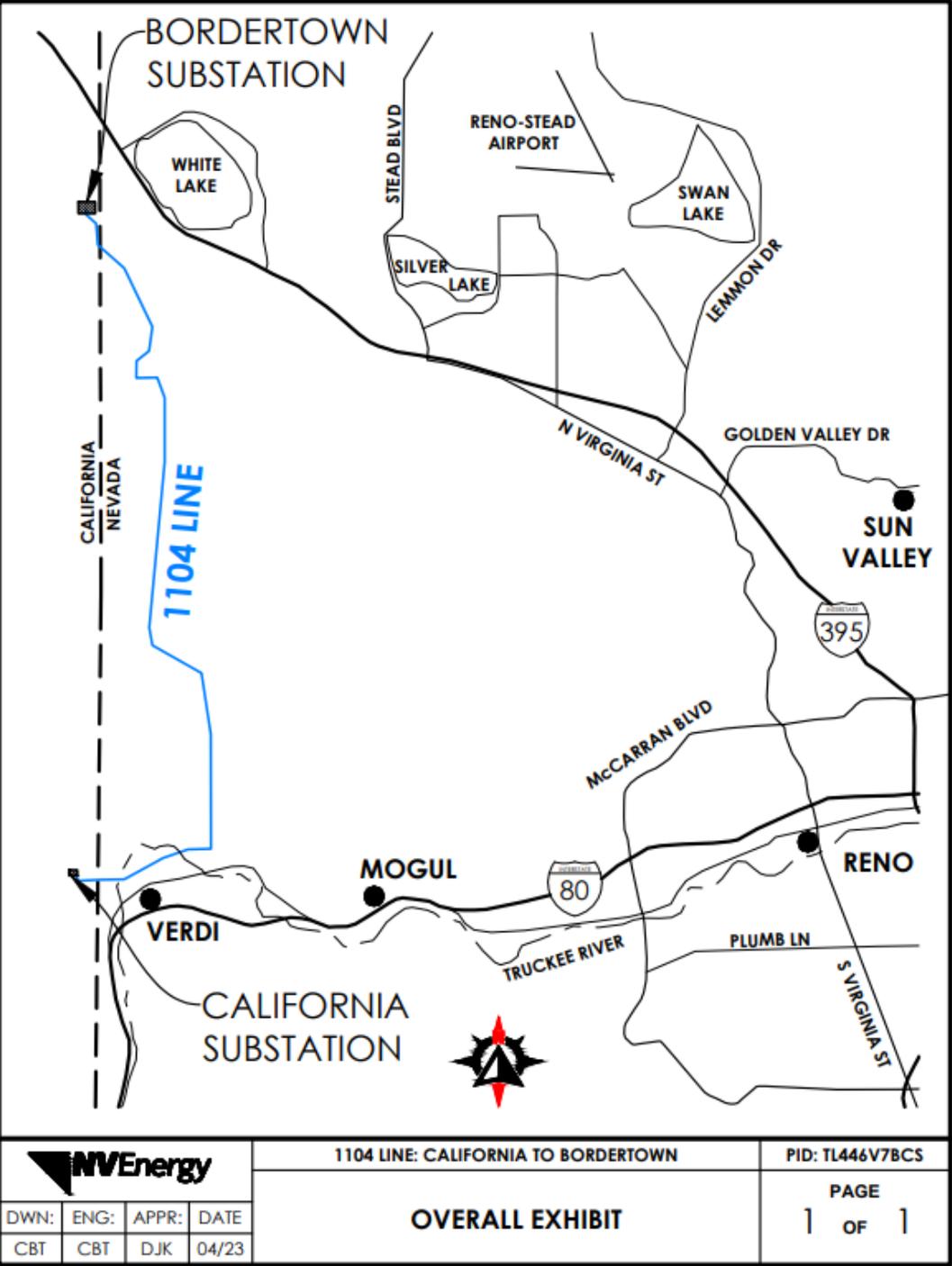
Special Use Permit Application

WSUP23-0032

Washoe County Planning Commission
Presentation
May 7, 2024

Line 1104 Alignment Request

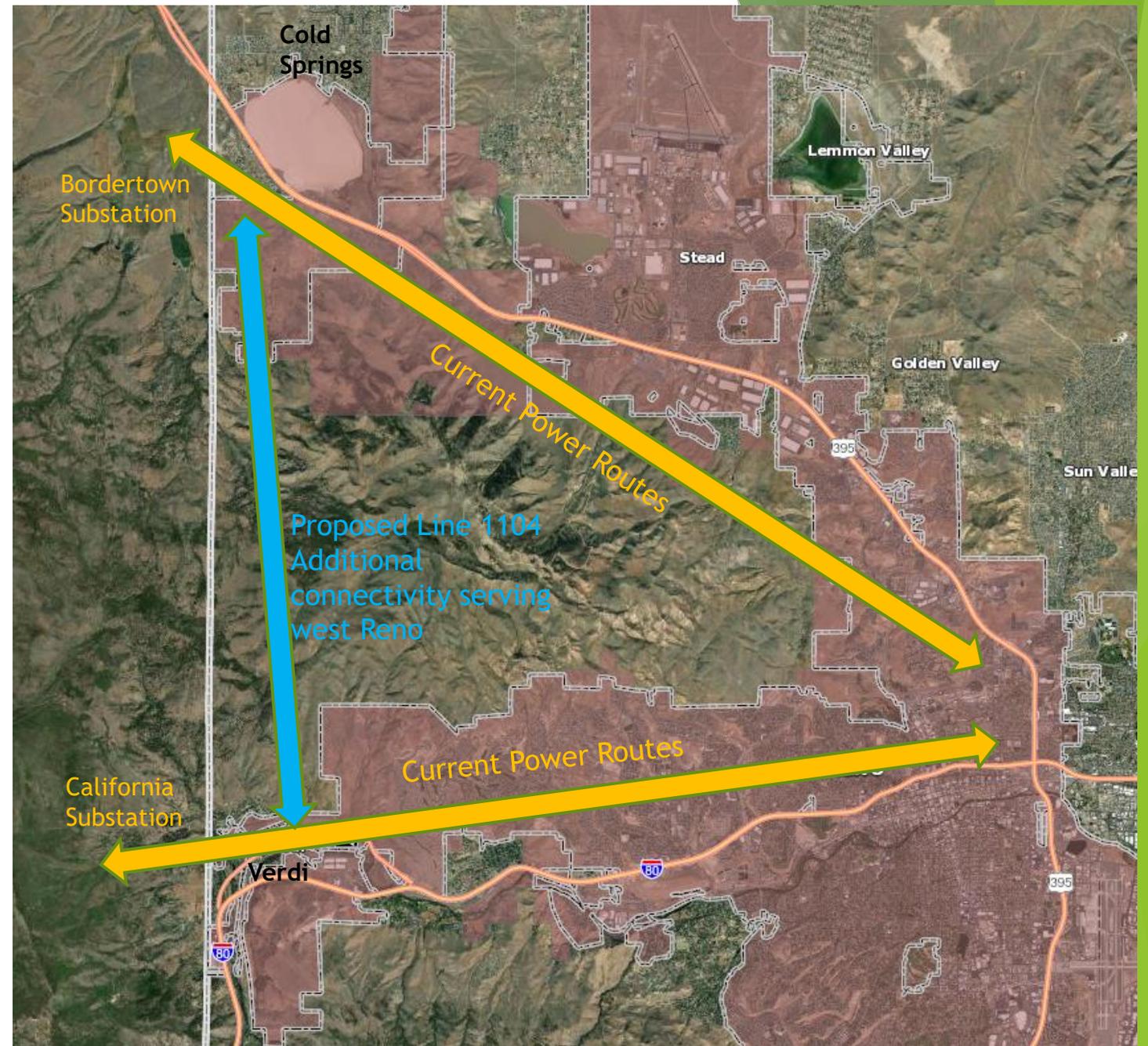
- ▶ Requested is a special use permit (SUP) for a major public facility use type and for major grading. A wavier to landscaping, parking requirements and allowance of heights for poles as high as 105 feet.
- ▶ The project entails the construction of a 120kV transmission power line to connect between the California Substation (near Verdi) and the Bordertown Substation (near Cold Springs).
- ▶ The project considered to be a project of regional significance and requests the establishment of a new regional utility corridor.
- ▶ Project has been approved by the USFS known as the Peavine/Poleville Alternative in a Final Record of Decision in June 2019



				1104 LINE: CALIFORNIA TO BORDERTOWN		PID: TL446V7BCS	
				OVERALL EXHIBIT			
DWN:	ENG:	APPR:	DATE:				
CBT	CBT	DJK	04/23				

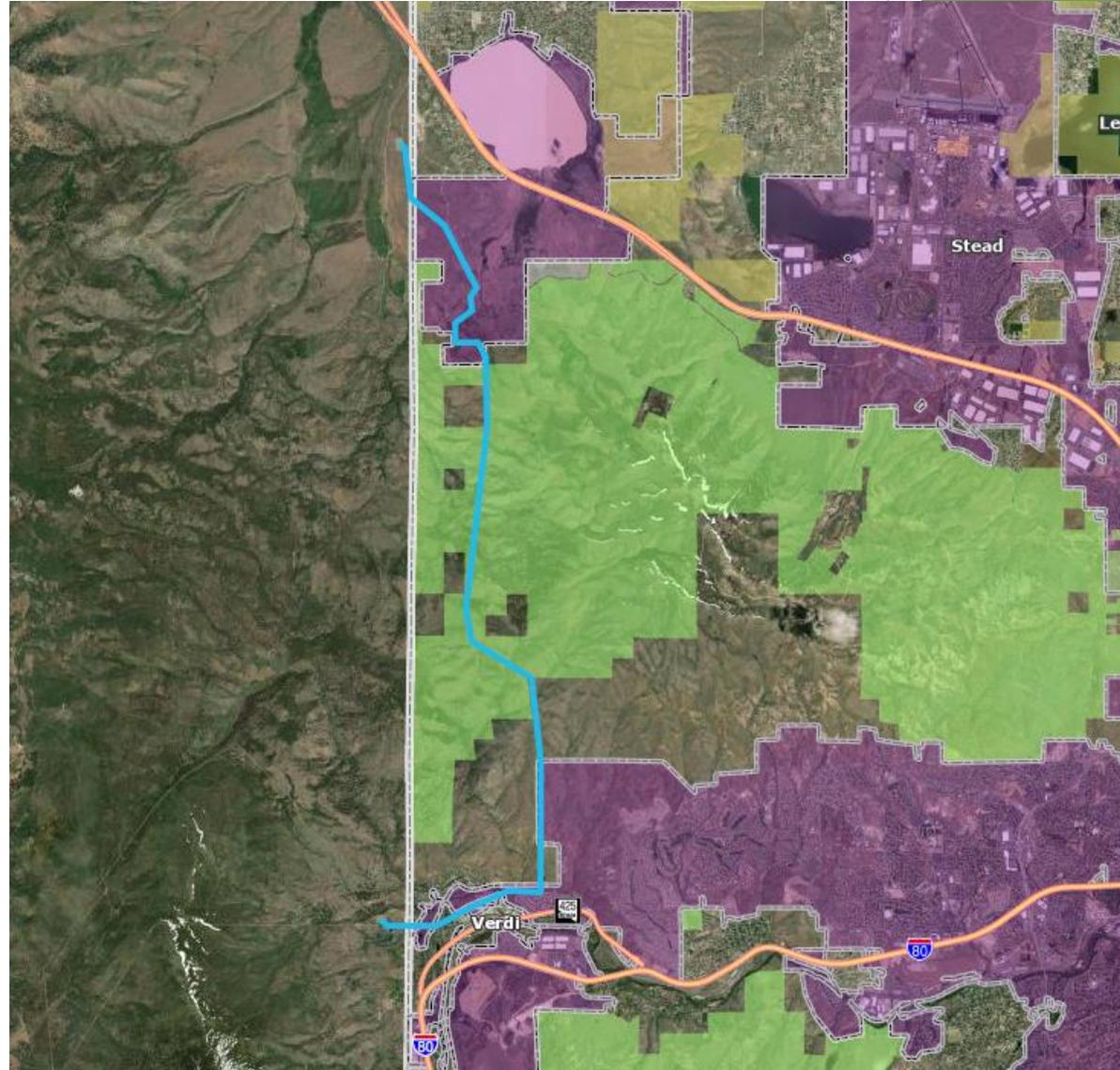
Current Transmission Power Connectivity

- ▶ Increases reliability of power service in west Reno
- ▶ Per NERC (North American Electric Reliability Corporation) mandatory transmission standards, NV Energy is required to provide reliable service in the instance of a line failure.
- ▶ If one line fails in the area, it can cause other lines to trip as well, leaving the entire region without power. Line 1104 is proposed to mitigate the possibility of such occurrences.



City/County Segments & Federally Owned Land

Most of the unincorporated Washoe County land associated with this application is within Federal holding.

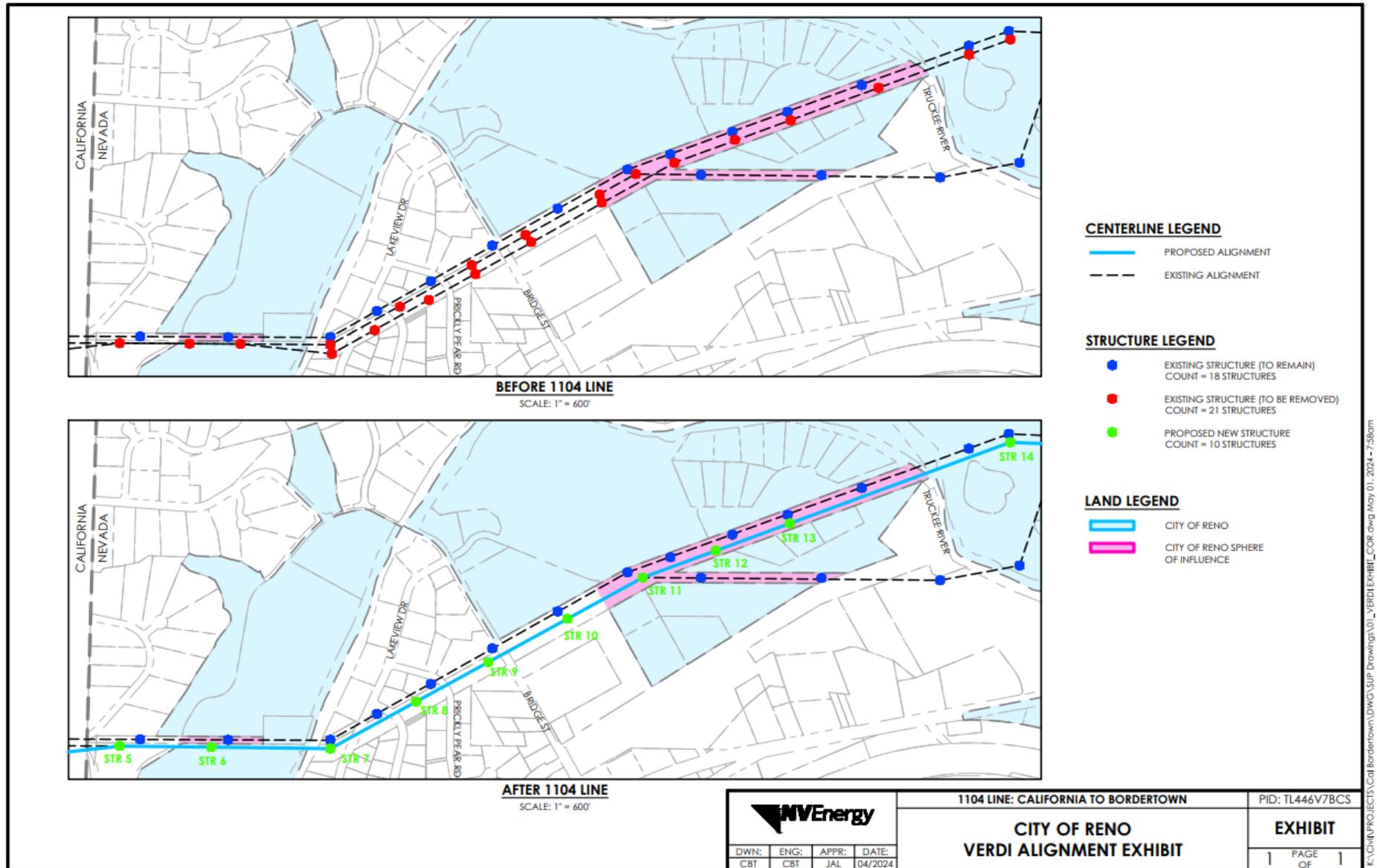


City/County Line Segments (Verdi Corridor)

- City of Reno
- Washoe County

Through the existing Verdi Utility Corridor there will be 21 poles removed and 10 added in the section shown.

Net loss of 11 pole structures.



I:\City\PROJECTS\Cal\Bordertown\DWG\SUP Drawings\01_Verdi\EXHIBIT_Corridor\dwg May 01, 2024 - 7:58am

Project Overview

Proposed Line Length - 12.0+/- miles (City of Reno, Washoe County and California segments)

10.9+/- miles to be constructed in Nevada (City of Reno and Washoe County)

- 4.1 miles within the City of Reno and the remaining 6.8 miles in Washoe County

Provides redundancy and stability between the Bordertown Substation (near Cold Springs) and the California Substation (near Verdi), **providing mandated reliability** to the electric transmission capacity for the west side of Reno

Access routes

- Access routes will predominately use **existing forest service access roads**.
- **Some roads** will need to be **widened** to get the necessary equipment to the alignment. It is in these road widening areas that grading thresholds requiring a major grading SUP are necessitated.
- Any roads widened or created with the project are required (through the USFS approval) to be **restored to previous conditions after construction**.

USFS Review of Project

This transmission line has been reviewed and approved by the USFS and a final environmental impact statement (EIS) and record of decision (ROD) have been completed.

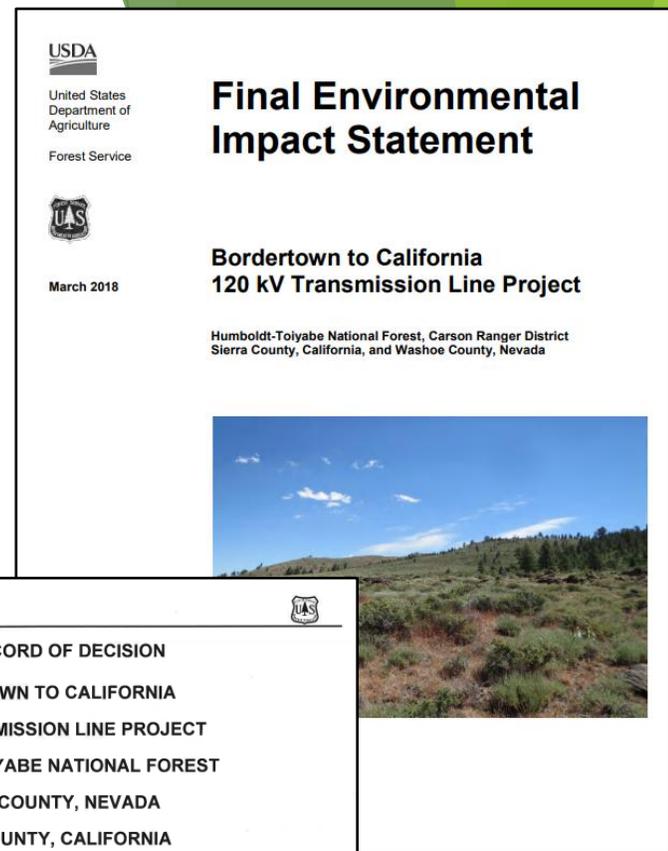
The final EIS and final ROD can be found at the following site:

<https://www.fs.usda.gov/project/?project=36656&exp=overview>

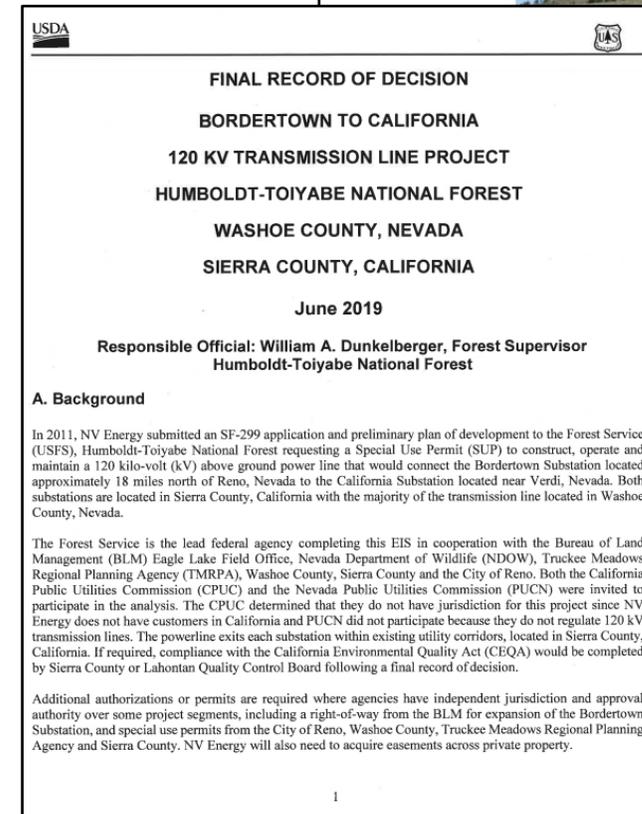
You can also get to the USFS site and to the project by searching:

FINAL RECORD OF DECISION BORDERTOWN TO CALIFORNIA 120 KV TRANSMISSION LINE PROJECT

The Final ROD states that the decision of approval of the chosen alternative **“provides the needed benefits of reliable electric transmission capacity to the west side of Reno consistent with the reliability standards that NV Energy is mandated to achieve.”**



The cover of the Final Environmental Impact Statement (EIS) for the Bordertown to California 120 kV Transmission Line Project. It features the USDA logo and text: "United States Department of Agriculture Forest Service", "Final Environmental Impact Statement", "Bordertown to California 120 kV Transmission Line Project", "March 2018", and "Humboldt-Toiyabe National Forest, Carson Ranger District Sierra County, California, and Washoe County, Nevada". A photograph of a landscape with hills and a blue sky is visible on the right side.



The cover of the Final Record of Decision (ROD) for the Bordertown to California 120 kV Transmission Line Project. It features the USDA logo and text: "FINAL RECORD OF DECISION", "BORDERTOWN TO CALIFORNIA 120 KV TRANSMISSION LINE PROJECT", "HUMBOLDT-TOIYABE NATIONAL FOREST WASHOE COUNTY, NEVADA SIERRA COUNTY, CALIFORNIA", "June 2019", and "Responsible Official: William A. Dunkelberger, Forest Supervisor Humboldt-Toiyabe National Forest". A photograph of a landscape with hills and a blue sky is visible on the right side.

A. Background

In 2011, NV Energy submitted an SF-299 application and preliminary plan of development to the Forest Service (USFS), Humboldt-Toiyabe National Forest requesting a Special Use Permit (SUP) to construct, operate and maintain a 120 kilo-volt (kV) above ground power line that would connect the Bordertown Substation located approximately 18 miles north of Reno, Nevada to the California Substation located near Verdi, Nevada. Both substations are located in Sierra County, California with the majority of the transmission line located in Washoe County, Nevada.

The Forest Service is the lead federal agency completing this EIS in cooperation with the Bureau of Land Management (BLM) Eagle Lake Field Office, Nevada Department of Wildlife (NDOW), Truckee Meadows Regional Planning Agency (TMRPA), Washoe County, Sierra County and the City of Reno. Both the California Public Utilities Commission (CPUC) and the Nevada Public Utilities Commission (PUCN) were invited to participate in the analysis. The CPUC determined that they do not have jurisdiction for this project since NV Energy does not have customers in California and PUCN did not participate because they do not regulate 120 kV transmission lines. The powerline exits each substation within existing utility corridors, located in Sierra County, California. If required, compliance with the California Environmental Quality Act (CEQA) would be completed by Sierra County or Lahontan Quality Control Board following a final record of decision.

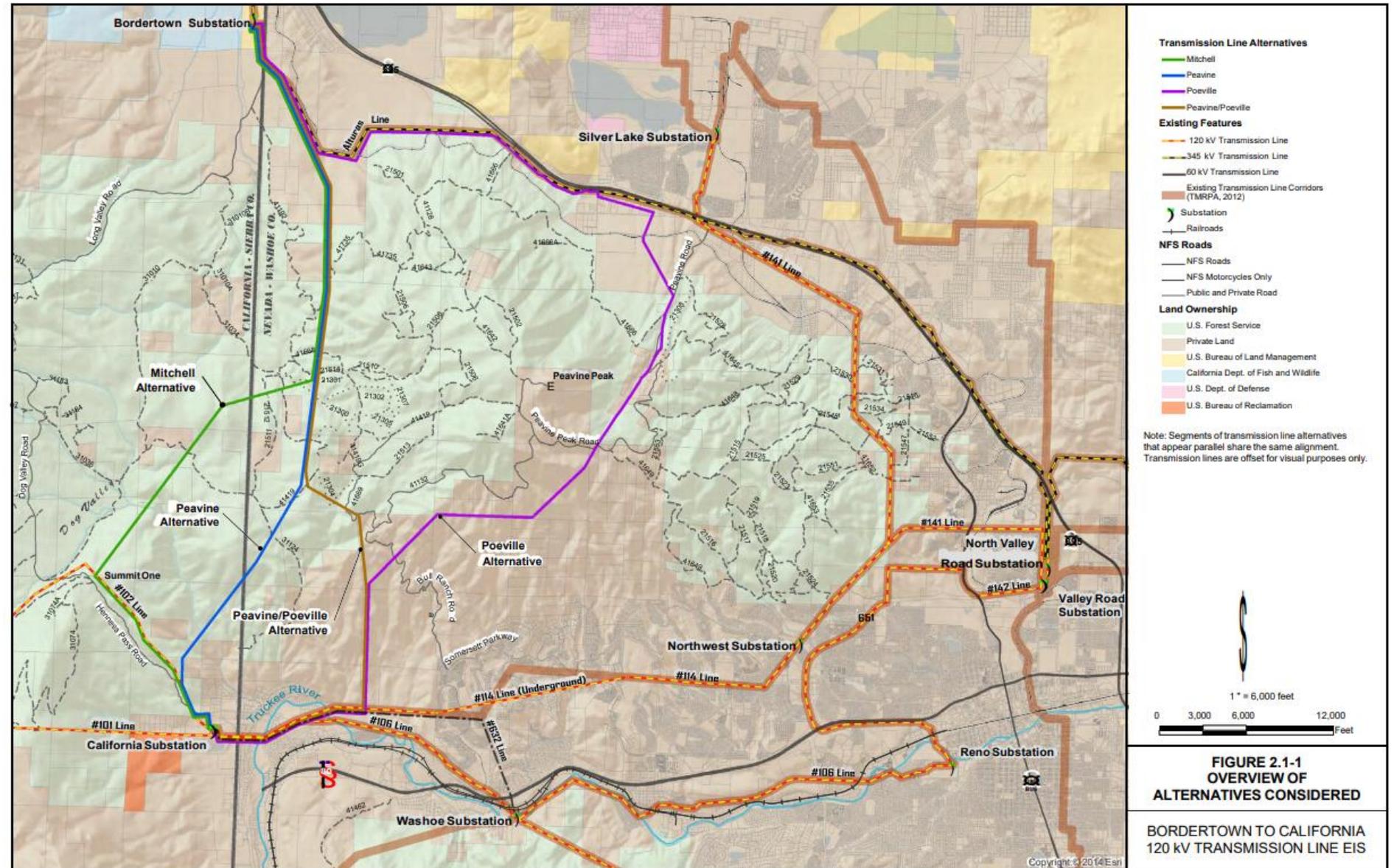
Additional authorizations or permits are required where agencies have independent jurisdiction and approval authority over some project segments, including a right-of-way from the BLM for expansion of the Bordertown Substation, and special use permits from the City of Reno, Washoe County, Truckee Meadows Regional Planning Agency and Sierra County. NV Energy will also need to acquire easements across private property.

1

Decision by USFS - Final EIS and Final ROD

The Peavine/Poeville “alternative would use a regionally designated utility corridor east of the California Substation and federally designated portions of the Section 368 Energy Corridor near Bordertown Substation. This alternative minimizes routing across private land and avoids a property listed on the NRHP. This route maximizes crossing land previously disturbed by wildland fire, and minimizes crossing pine forest communities and avoids designated critical habitat for *Webber ivesia* (*Ivesia webberi*), a threatened plant species protected under the Endangered Species Act (ESA) of 1973.”

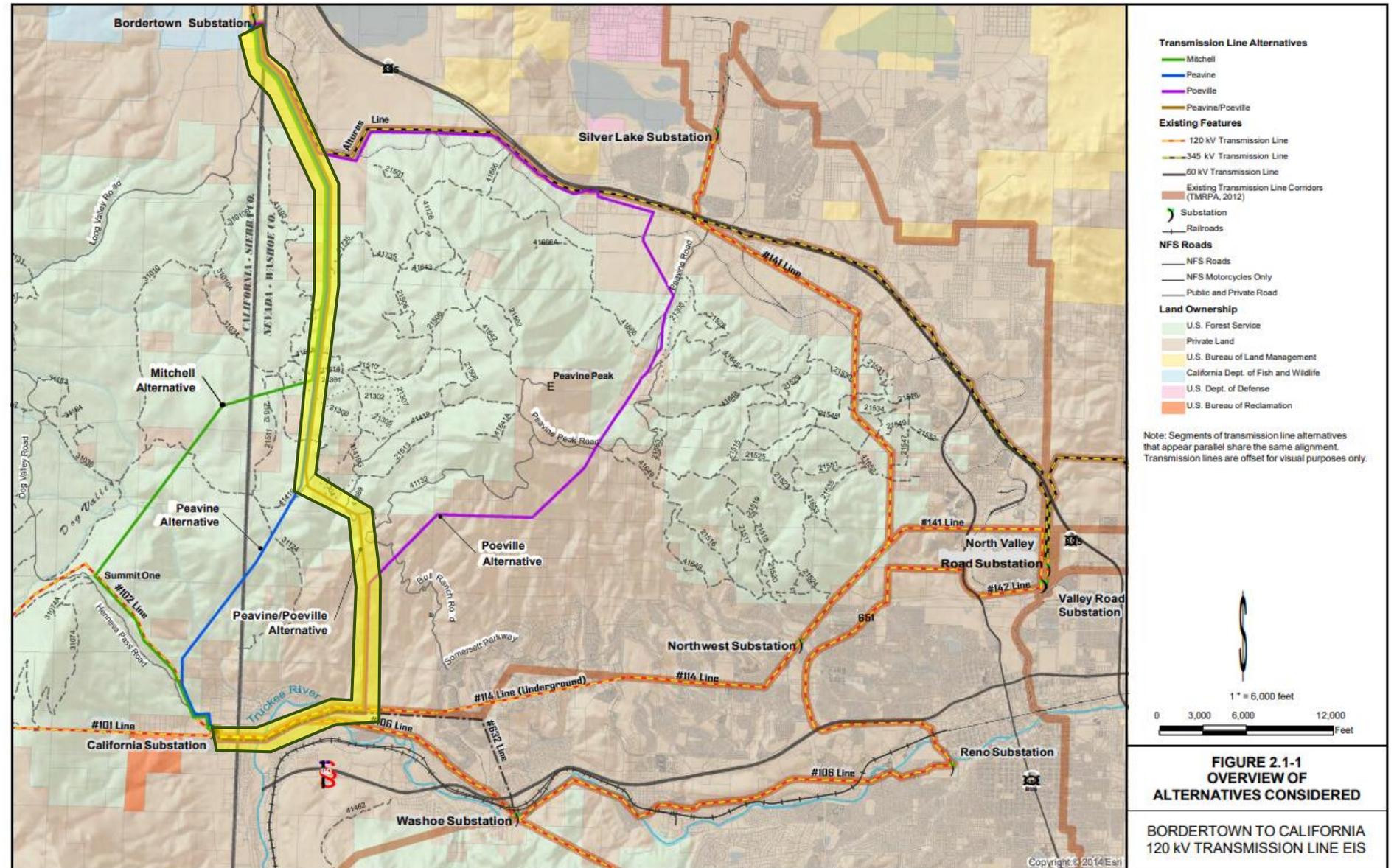
Source - Final EIS - Bordertown to California 120 kV Transmission Line Project



Decision by USFS - Final EIS and Final ROD

The Peavine/Poeville “alternative would use a regionally designated utility corridor east of the California Substation and federally designated portions of the Section 368 Energy Corridor near Bordertown Substation. This alternative minimizes routing across private land and avoids a property listed on the NRHP. This route maximizes crossing land previously disturbed by wildland fire, and minimizes crossing pine forest communities and avoids designated critical habitat for *Webber ivesia* (*Ivesia webberi*), a threatened plant species protected under the Endangered Species Act (ESA) of 1973.”

Source - Final EIS - Bordertown to California 120 kV Transmission Line Project



Decision by USFS

The federal government's decision on the line was reviewed relative to:

- Land Use and Private Property;
- Public Health and Safety;
- Visual Resources;
- Vegetation Resources;
- Special Status Plants;
- Wildlife Habitat; and
- Cultural Resources

The following rationale is provided in the Final ROD for the approval of the route for this transmission line:

- Provides a back-up power line to serve west Reno;
- Minimizes crossing forest land while utilizing regionally and federally designated utility corridors;
- Minimizes routing across private land;
- Avoids properties listed on National Register of Historic Places;
- Avoids critical habitat and T&E species areas;
- Maximizes the crossing of land previously disturbed by wildland fire; and
- Minimizes the crossing of mature forest vegetation areas.

Verdi Corridor

Existing Line Photos



Western Bridge St. Corridor
Pole on right side of photo to be removed
and replaced with joint circuited poles



Eastern Bridge St. Corridor

Pole on right side of photo to be removed
and replaced with joint circuited poles



Pole on left side of photo to be removed
and replaced with joint circuited poles

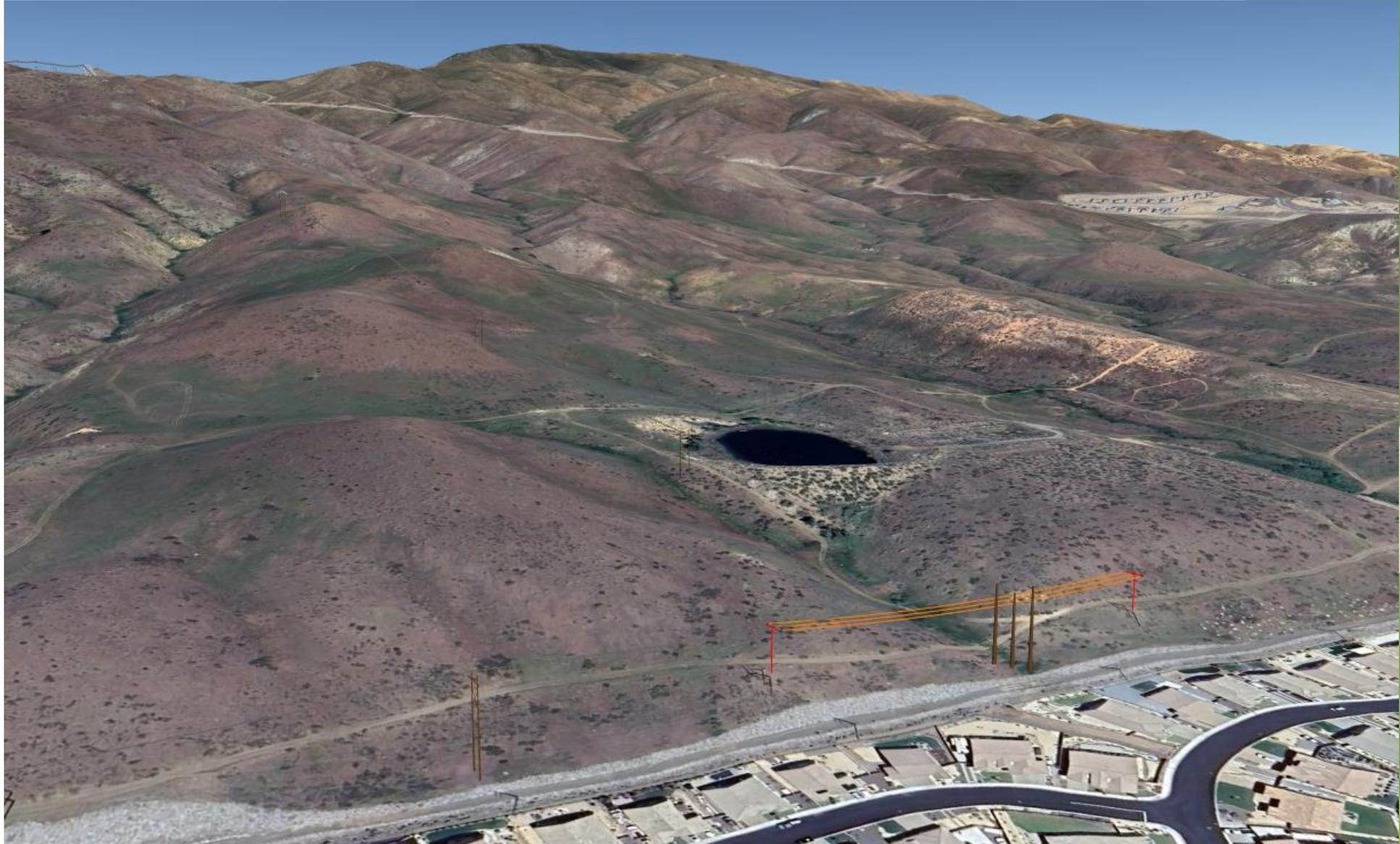


Cold Springs/ Alturas Corridor

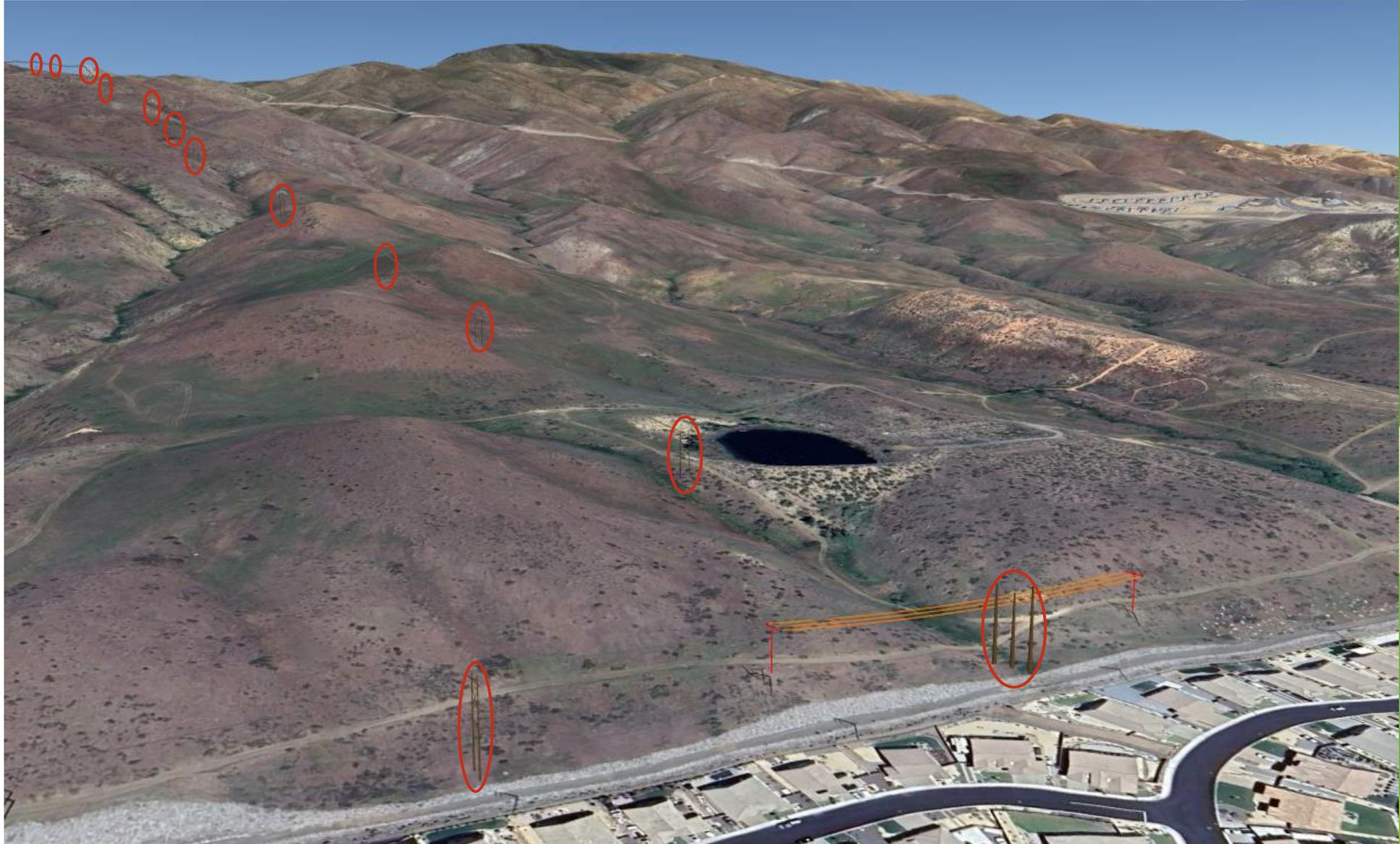
Existing Line Photos
Near California State Line



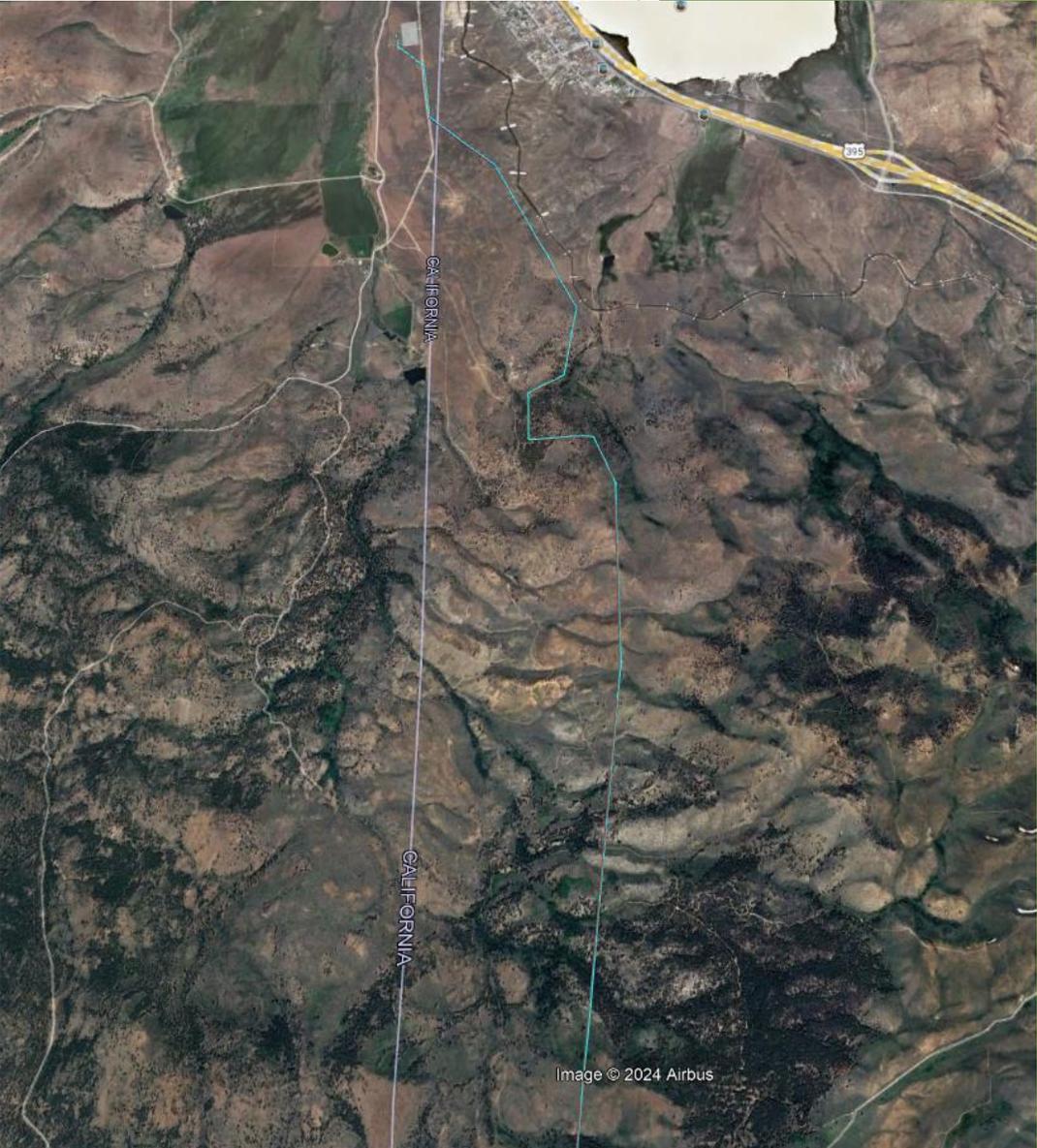
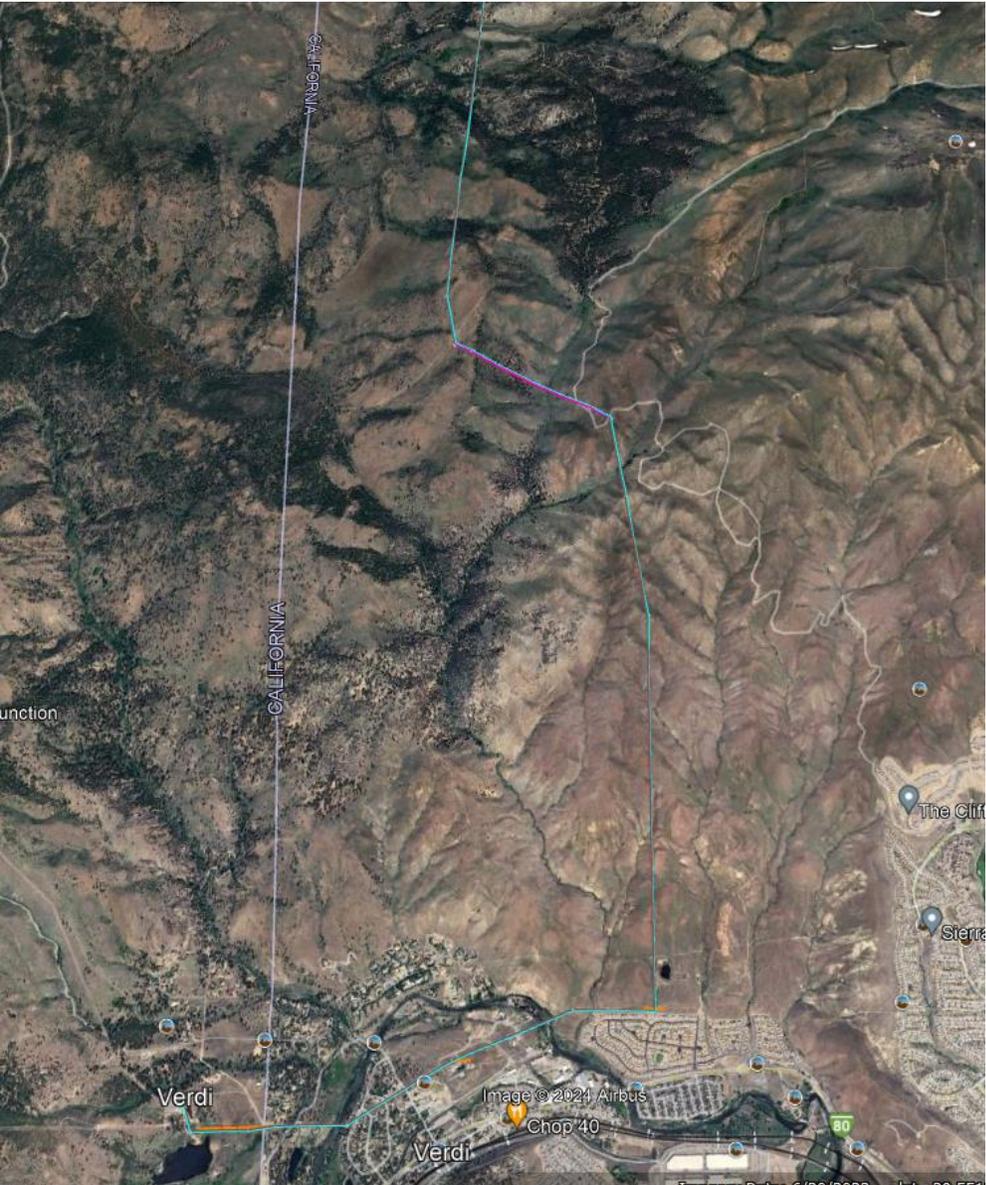
Line North of West Meadows Estates Subdivsion



Line North of West Meadows Estates Subdivsion



Preferred Alignment - Sparse Vegetation



Alignment Topography - Washoe County Portion



Finding FEIS and FROD

USFS site: <https://www.fs.usda.gov/project/?project=36656&exp=overview>

Or search: [FINAL RECORD OF DECISION BORDERTOWN TO CALIFORNIA 120 KV TRANSMISSION LINE PROJECT](#)

Bordertown to California 120kV Transmission Line

[Subscribe to this feed](#)

Construct 120kV transmission line connecting the Bordertown and California substations.

Location Summary

Approximately 15 miles west and northwest of Reno, Nevada along the Nevada and California Stateline. North of Interstate 80 near Verdi, Nevada and west of Highway 395 at Bordertown, Nevada.

District: Carson Ranger District

Project Documents

Use the widget below to browse documents associated with this project. Cookies must be **enabled** to use this tool.

If you are using a mobile device, the setting for "Allow cross-website tracking" must also be **enabled** to view the documents. You do not need to sign up or login to Box to view documents, but if you have difficulty accessing the documents on a mobile device, you may choose to sign up for a free account, download the app to your device and log in to ensure that you can open the documents.

Alternatively, these documents can be accessed on the Pinyon Public website: [View Documents on Pinyon Public](#)

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NEPA Resources

- [FS Environmental Management](#)
- [CEQ's Guide to NEPA](#)

Bordertown to California 120kV Transmission Line (36656)

NAME	UPDATED ↑
Scoping	Mar 17, 2022 by eMNEPA PA...
Analysis	Mar 27, 2022 by eMNEPA PA...
Decision	Mar 27, 2022 by eMNEPA PA...

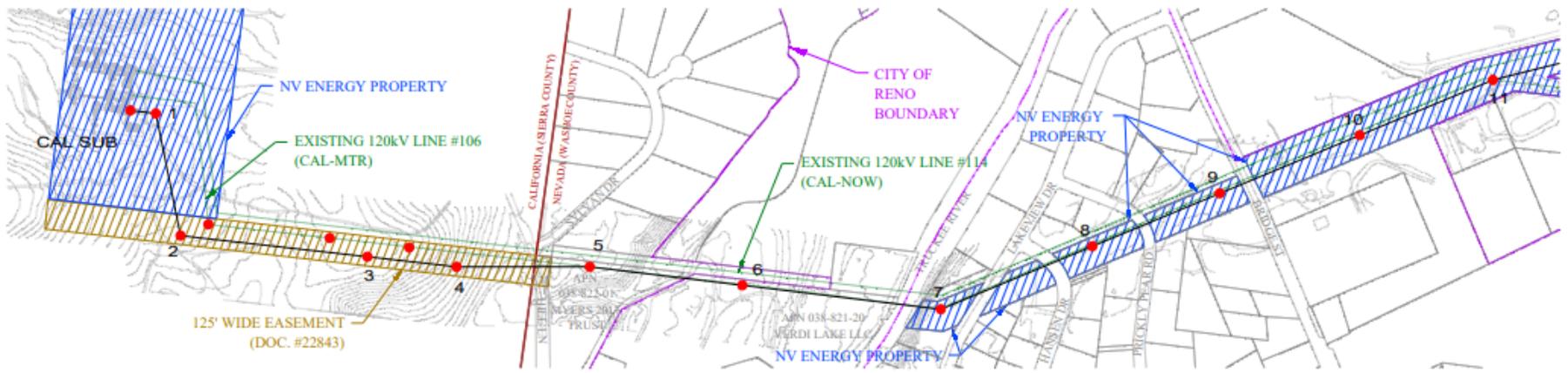
Links to Documents



The applicant agrees with the staff's review and analysis of the application and agrees with the recommendation of approval for the project. We believe, as does staff that all of the legal findings can be made for this project, and we respectfully request your approval of the project this evening.

Questions

Additional Slides Available for Questions



250.0 ft. Horiz. Scale
50.0 ft. Vert. Scale



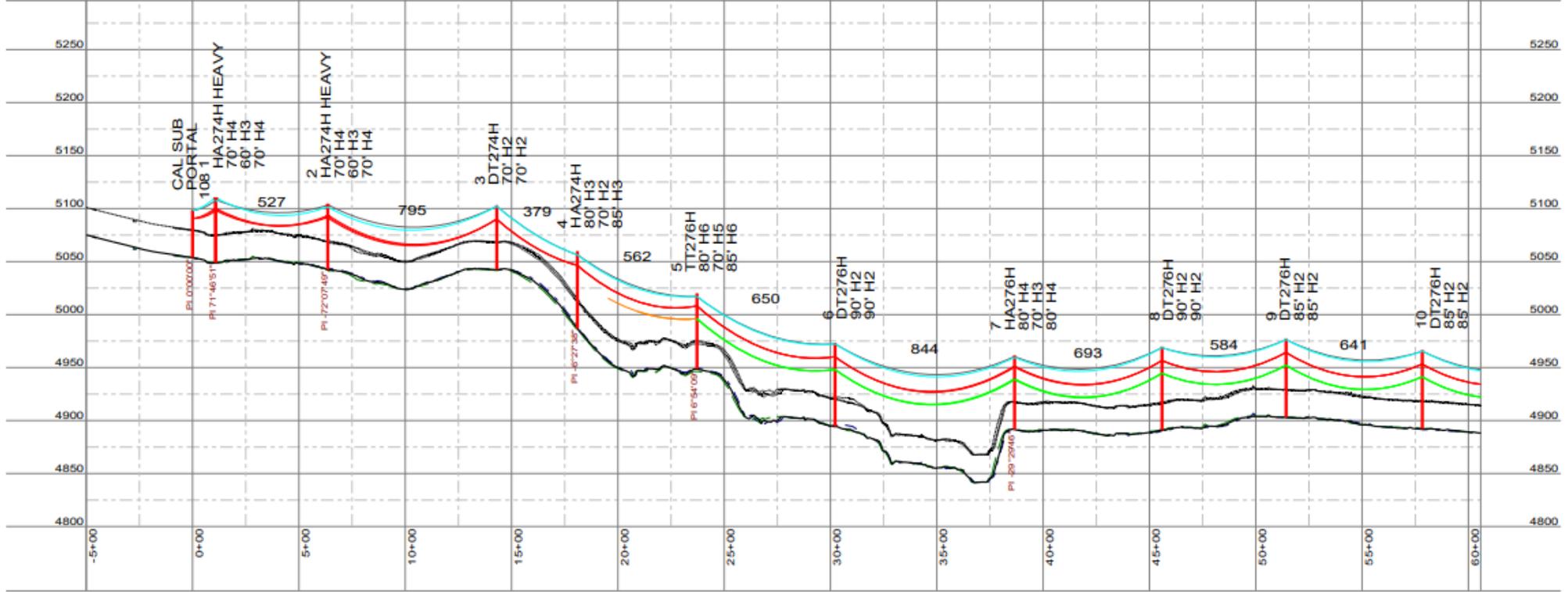
WIRE LEGEND

- 1104 CONDUCTOR (1026 ACCC "DRAKE", SHOWN AT MOT)
- 1104 SHIELD WIRE (3/8" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 SHIELD WIRE (7/16" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 OPGW (96 COUNT FIBER, 0.728" O.D., SHOWN AT 120 DEG F)
- - - 1104 DISTRIBUTION UNDERBUILD (FUTURE, SHOWN AT 120 DEG F)
- 106 EXISTING CONDUCTOR (397.5 ACSR "IBIS", SHOWN AT MOT)
- 106 PROPOSED CONDUCTOR (1026 ACCC "DRAKE", SHOWN AT MOT)

LAND RIGHTS LEGEND

- NV ENERGY OWNED PROPERTY
- NV ENERGY PRIVATE EASEMENTS
- NV ENERGY FEDERAL LAND RIGHTS

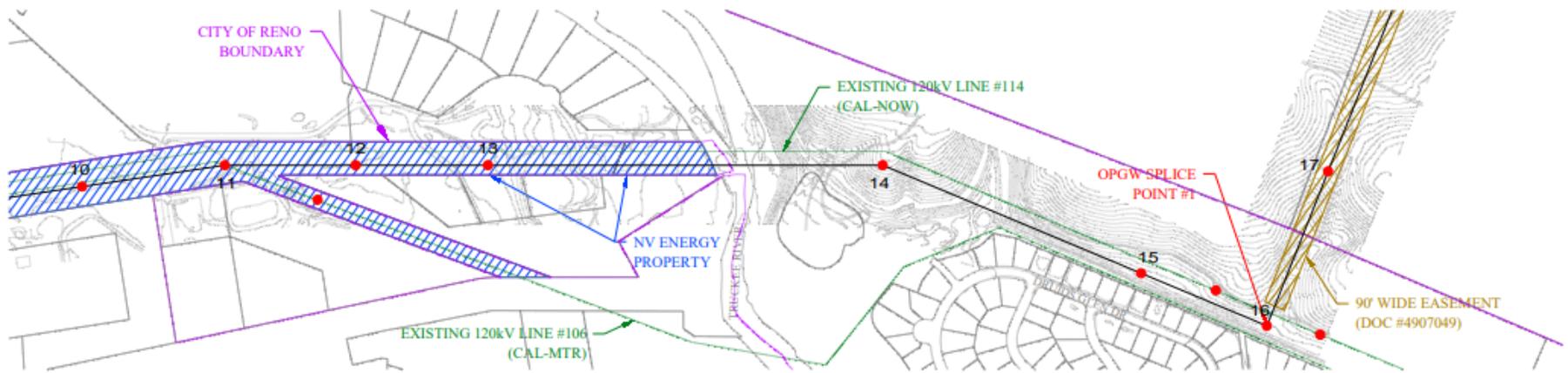
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NO		DATE	DESCRIPTION	DWN	ENGR	APPR	PROJECT #	DESIGN SUMMARY				
		1	PRELIMINARY-PI	CIT	CIT		TL448-BUS	SHIELD WIRE	CONDUCTOR	DESIGN-LOAD CLEAR	DESIGN-LOADING	INS-SERVICE
1		10/02/23						3/8" EHS STEEL @ 120 DEG F	1026 ACCC "DRAKE"	8 FT @ 120 DEG F C	120 DEG F	INS-SERVICE
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4												
5												
6												
7												

1104 LINE
CALIFORNIA - BORDERTOWN



WIRE LEGEND

- 1104 CONDUCTOR (1026 ACCC "DRAKE", SHOWN AT MOT)
- 1104 SHIELD WIRE (3/8" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 SHIELD WIRE (7/16" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 OPGW (96 COUNT FIBER, 0.728" O.D., SHOWN AT 120 DEG F)
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- 106 PROPOSED CONDUCTOR (1026 ACCC "DRAKE", SHOWN AT MOT)

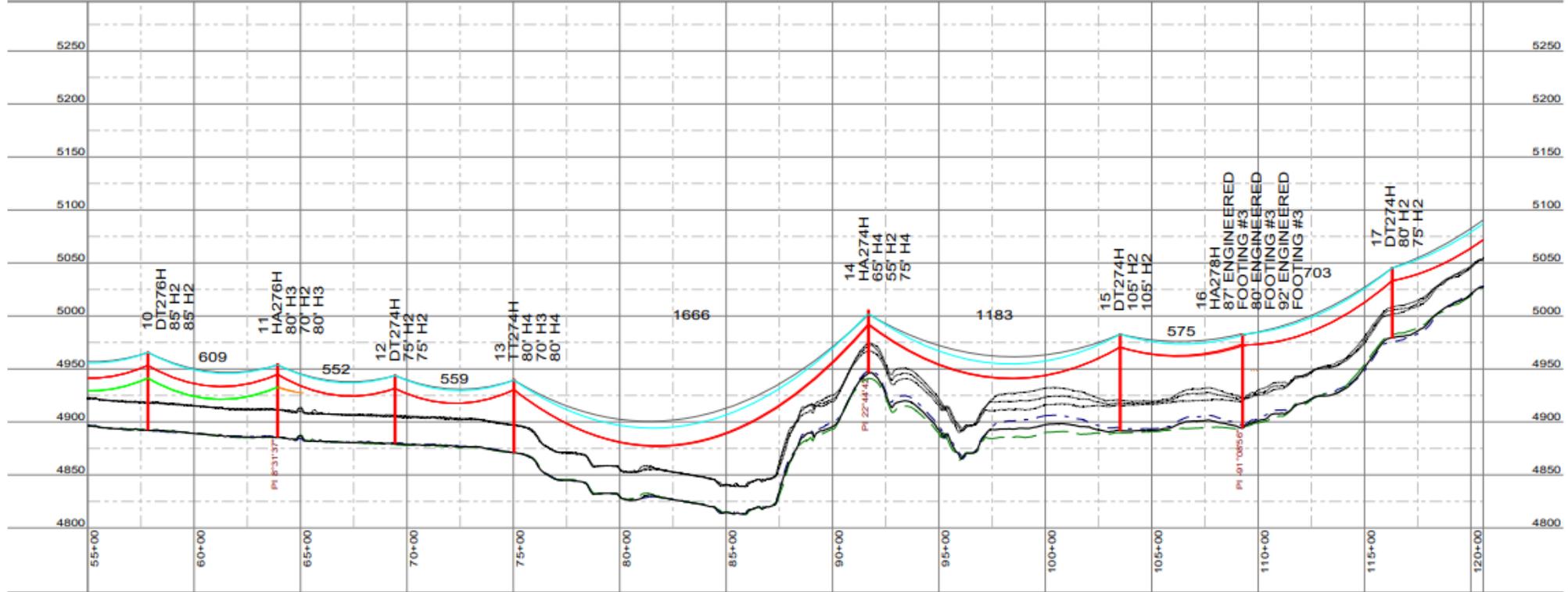
LAND RIGHTS LEGEND

- NV ENERGY OWNED PROPERTY
- NV ENERGY PRIVATE EASEMENTS
- NV ENERGY FEDERAL LAND RIGHTS

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1-702-402-2629

250.0 ft. Horiz. Scale
50.0 ft. Vert. Scale



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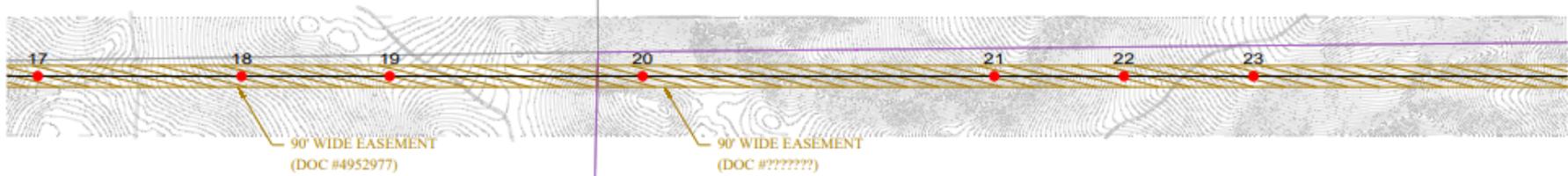
1104 LINE

CALIFORNIA - BORDERTOWN

DESIGN SUMMARY

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SHEET 2 OF 12



WIRE LEGEND

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- 1104 SHIELD WIRE (3/8" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 SHIELD WIRE (7/16" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 OPGW (96 COUNT FIBER, 0.725" O.D., SHOWN AT 120 DEG F)
- - - 1104 DISTRIBUTION UNDERBUILD (FUTURE, SHOWN AT 120 DEG F)
- 106 EXISTING CONDUCTOR (397.5 ACSR "IBIS", SHOWN AT MOT)
- 106 PROPOSED CONDUCTOR (1026 ACCC "DRAKE", SHOWN AT MOT)

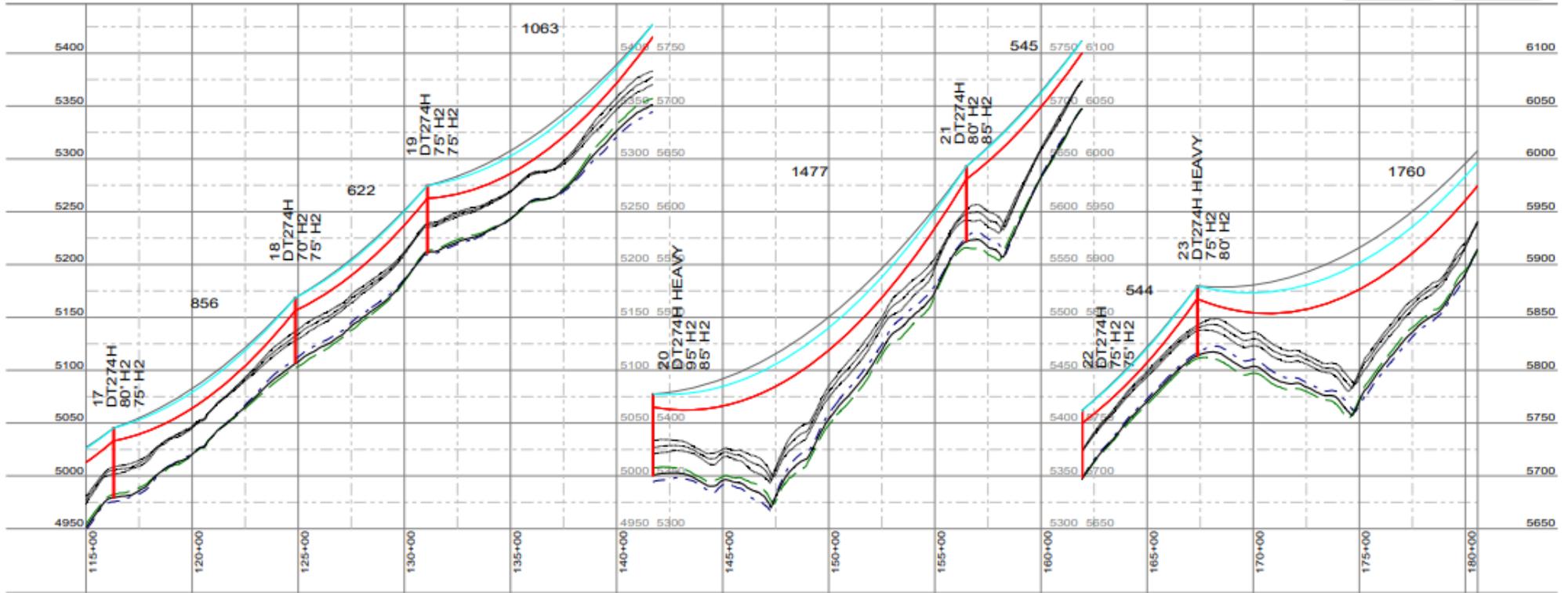
LAND RIGHTS LEGEND

- NV ENERGY OWNED PROPERTY
- NV ENERGY PRIVATE EASEMENTS
- NV ENERGY FEDERAL LAND RIGHTS

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250.0 ft Horiz. Scale
50.0 ft Vert. Scale



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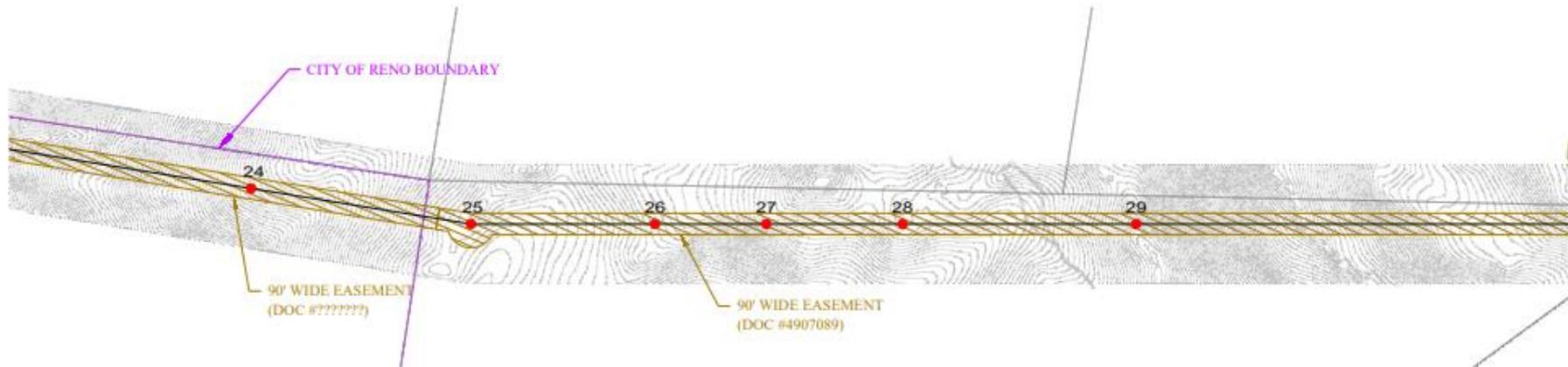
DESIGN SUMMARY

SHIELD WIRE	3/8" DIA. 1.6" DIA. GROUND
CONDUCTOR	1026 ACCC "DRAKE"
DESIGN CLEAR	24 FT @ 120 DEG C
DESIGN LOADING	WEBC HEAVY
INSULATION	---

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1104 LINE
CALIFORNIA - BORDERTOWN



WIRE LEGEND

- 1104 CONDUCTOR (1026 ACCC "DRAKE", SHOWN AT MOT)
- 1104 SHIELD WIRE (3/8" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 SHIELD WIRE (7/16" EHS STEEL, SHOWN AT 120 DEG F)
- 1104 OPGW (96 COUNT FIBER, 0.728" O.D., SHOWN AT 120 DEG F)
- - - 1104 DISTRIBUTION UNDERBUILD (FUTURE, SHOWN AT 120 DEG F)
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LAND RIGHTS LEGEND

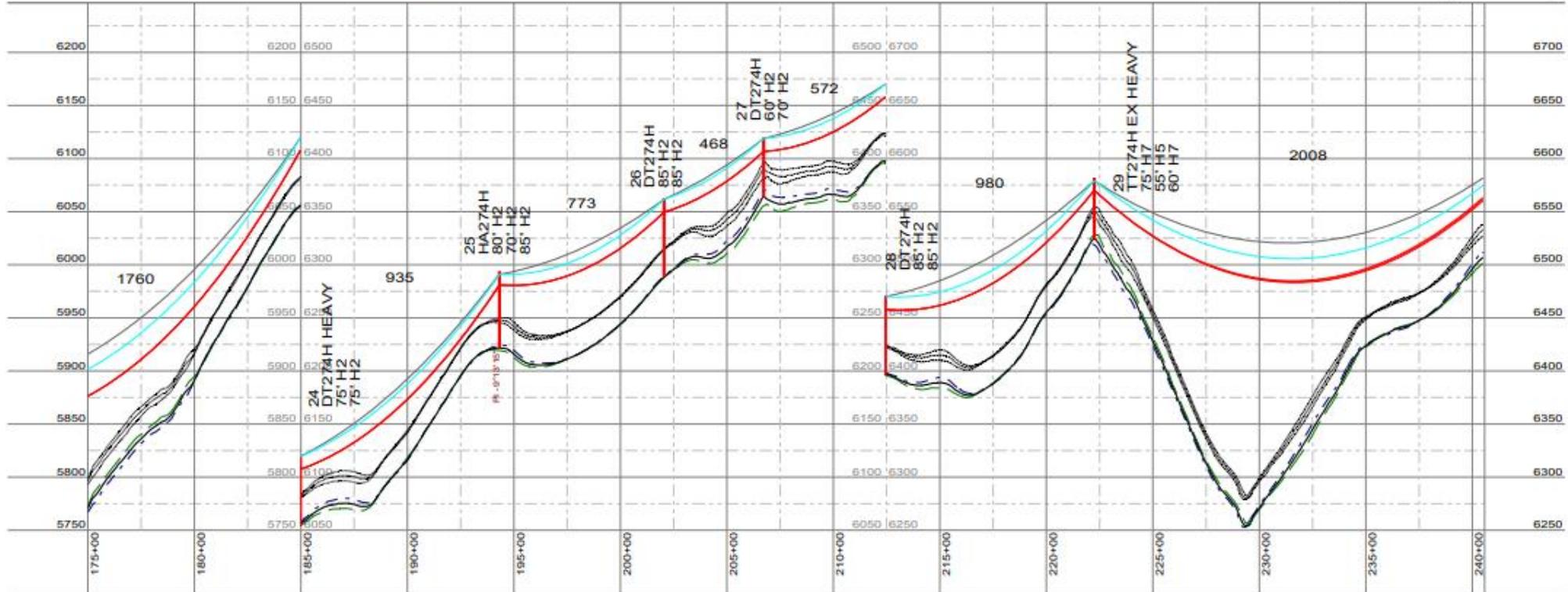
- NV ENERGY OWNED PROPERTY
- NV ENERGY PRIVATE EASEMENTS
- NV ENERGY FEDERAL LAND RIGHTS

250.0 ft. Horiz. Scale
50.0 ft. Vert. Scale



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1-702-402-2929



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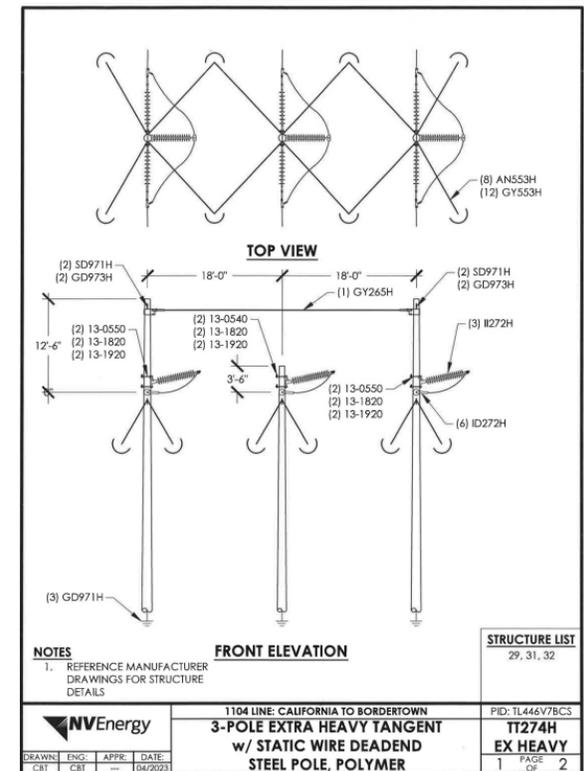
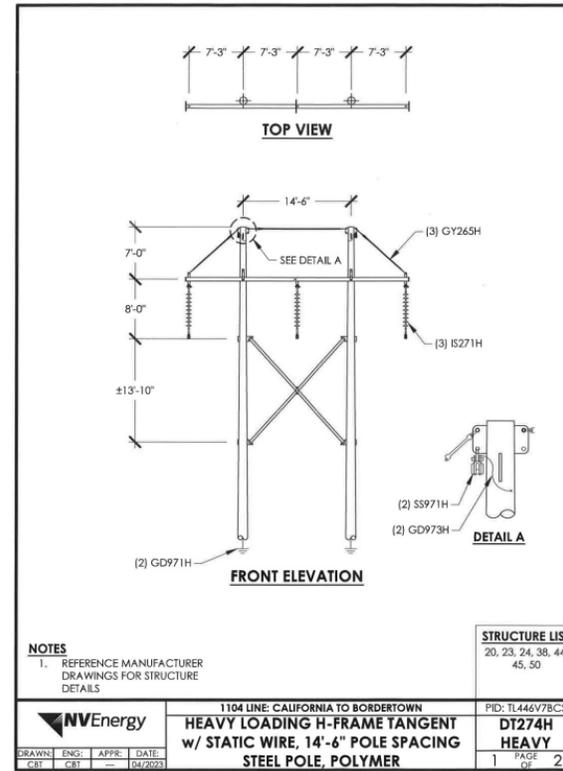
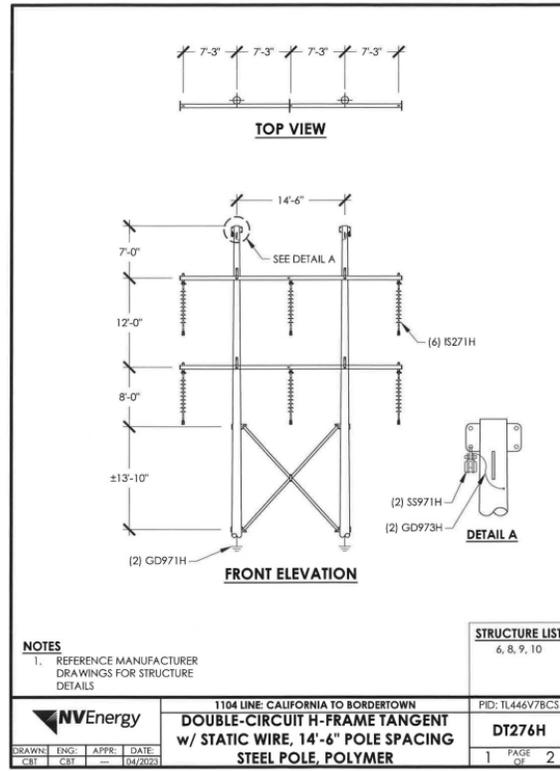
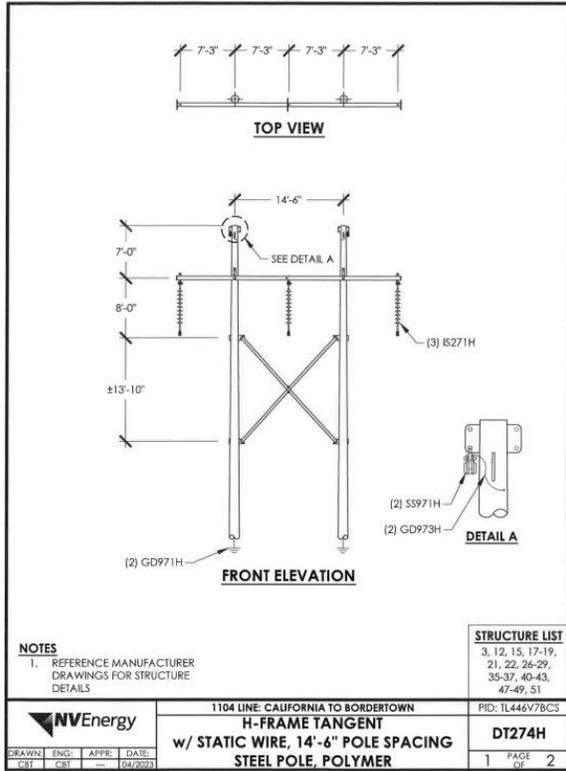
DESIGN SUMMARY	
PROJECT #	1144V023
CONTRACTOR	EVANS & SUTHERLAND
DESIGNER	EVANS & SUTHERLAND
DESIGNING	EVANS & SUTHERLAND
INSTRUMENT	EVANS & SUTHERLAND

NO	DATE	DESCRIPTION	DWG	ENGR	APPR	PROJECT #
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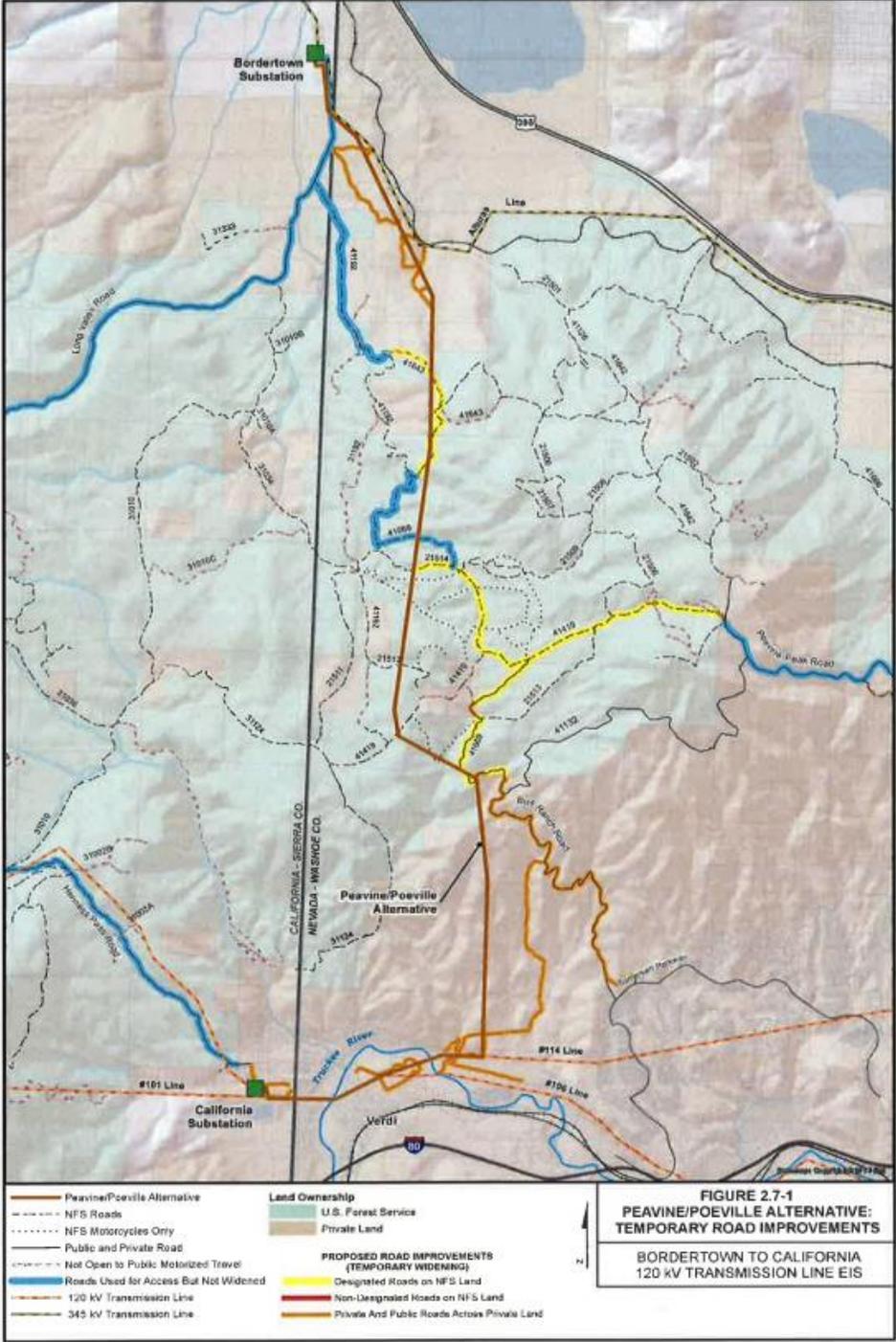
1104 LINE
CALIFORNIA - BORDERTOWN

Pole Structures (unincorporated county sections)



FEIS Exhibit

Temporary Road Improvements



Fire Concerns

Wildfire concerns are addressed through NV Energy's system hardening methods that are being deployed throughout the area.

- Use of steel structures rather than combustible wood structures.
- Targeted vegetation management programs that include the removal of ground vegetation in easements, pole grubbing so ground areas around the poles are clear of combustible vegetation, and removal of hazardous trees to minimize the chances of them striking power lines.
- Protective devices on the transmission line with high-speed relay equipment that can deenergize the line within 0.1 seconds.
- Public safety preparation and prevention programs, including Public Safety Outage Management (PSOM) as a last resort in extreme fire risk areas.

Anticipated Application Steps and Timeframes

Washoe County Process (SUP)

- ▶ Washoe County PC - Tonight
- ▶ Washoe County Commission TBD

City of Reno Process (CUP)

- ▶ Ward 5 NAB - May 14, 2024
- ▶ Reno PC - May 15, 2024
- ▶ Reno City Council - TBD

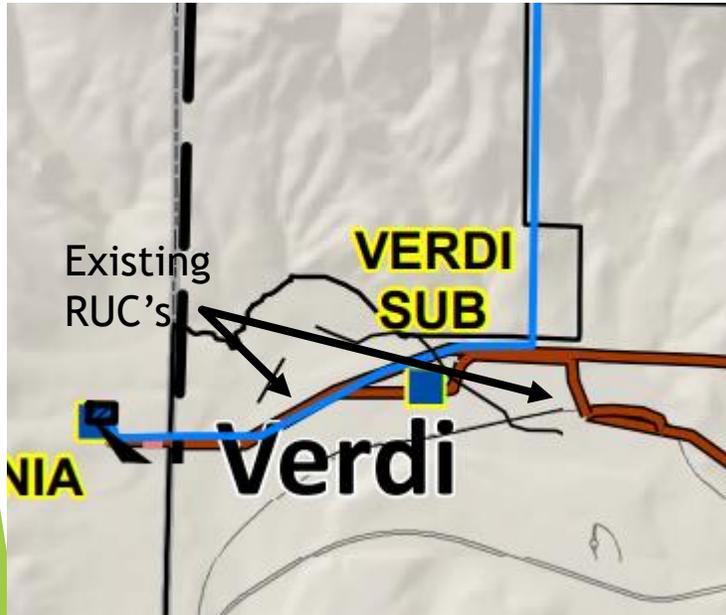


After WC BOCC and RCC hearings - Regional Planning Hearings
Likely in July and August

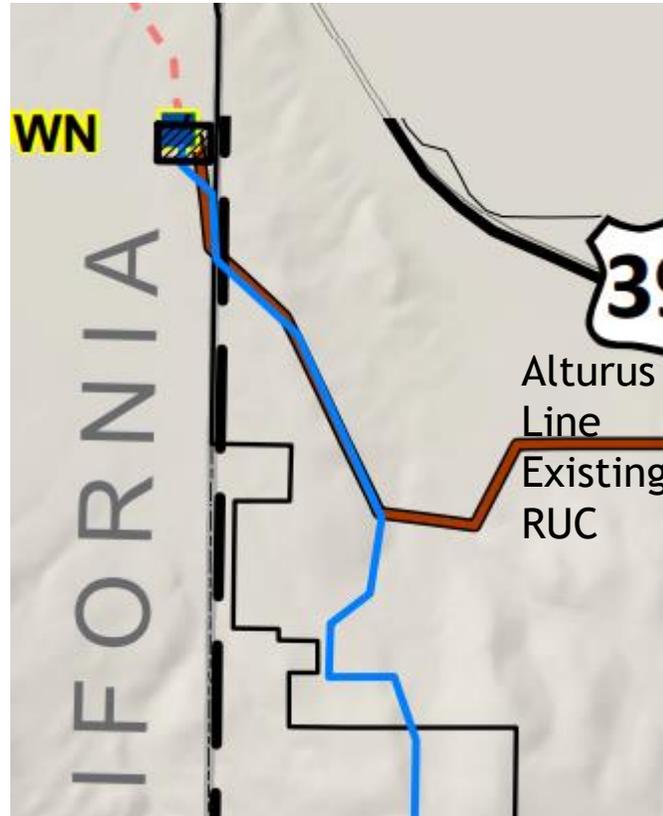
Overhead v. Underground Transmission Lines

The line will be constructed overhead for several reasons. Undergrounding 120kV transmission lines cost on average five to ten times more than construction of overhead transmission lines. Those increased costs can affect NV Energy's rate payers. Failures on undergrounded transmission lines are not easily rectified and can negatively impact the service area which is fed by the transmission line up to a year while equipment and personnel are mobilized.

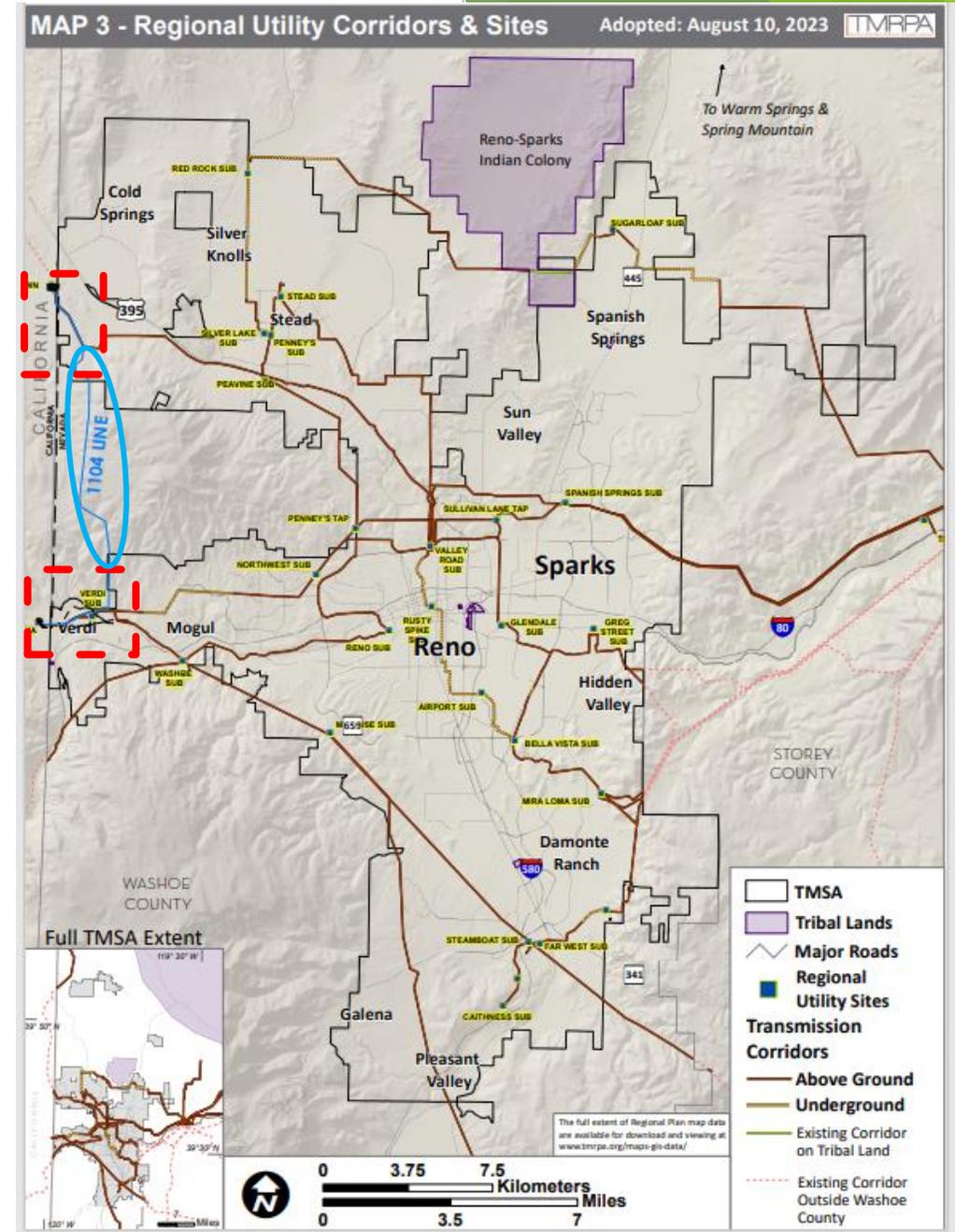
Truckee Meadows Regional Plan - Regional Utility Corridor Map



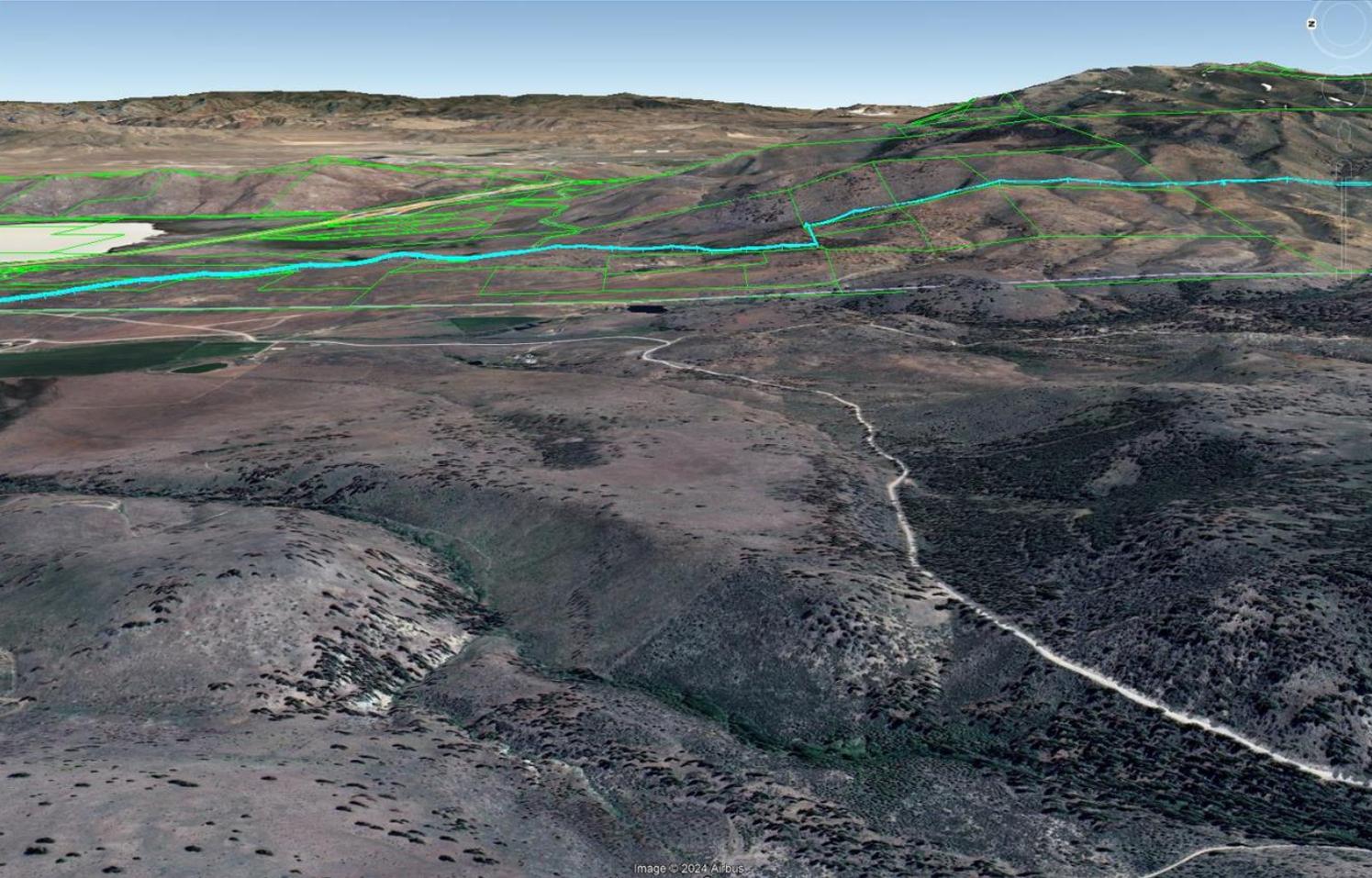
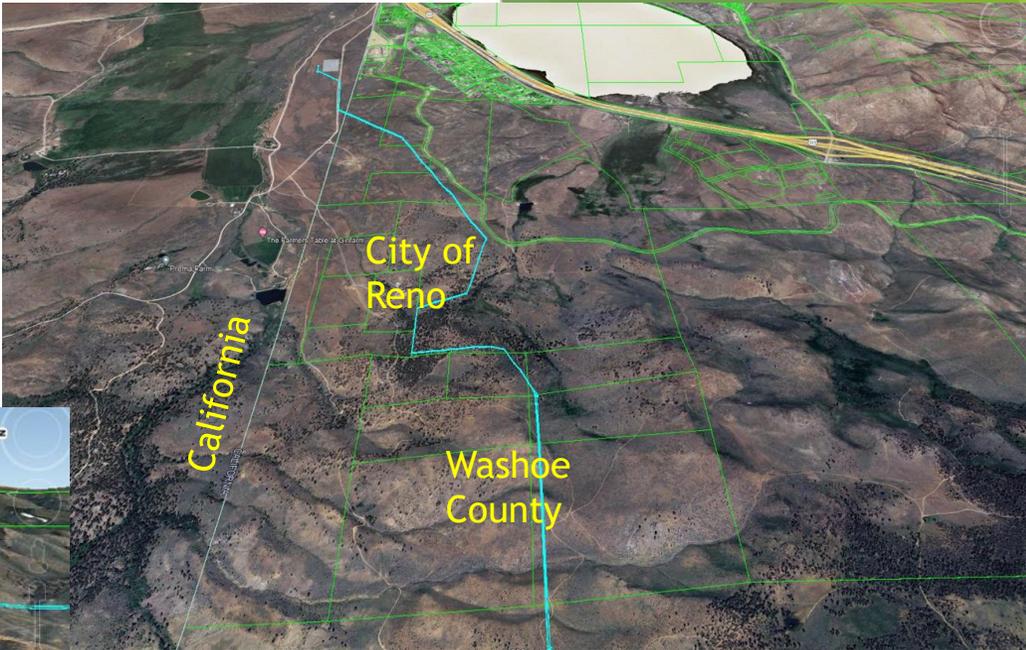
California Substation Area
Verdi



Bordertown Substation Area
Cold Springs



Cold Springs Area Section



Key Observation Point from FEIS

KOP 7 (Forest Route 41192 – North)
Existing Conditions



KOP 7 (Forest Route 41192 – North)
Visual Simulation



Project Necessitates and Benefits

