NV Energy Transmission Line 1104

Conditional Use Permit

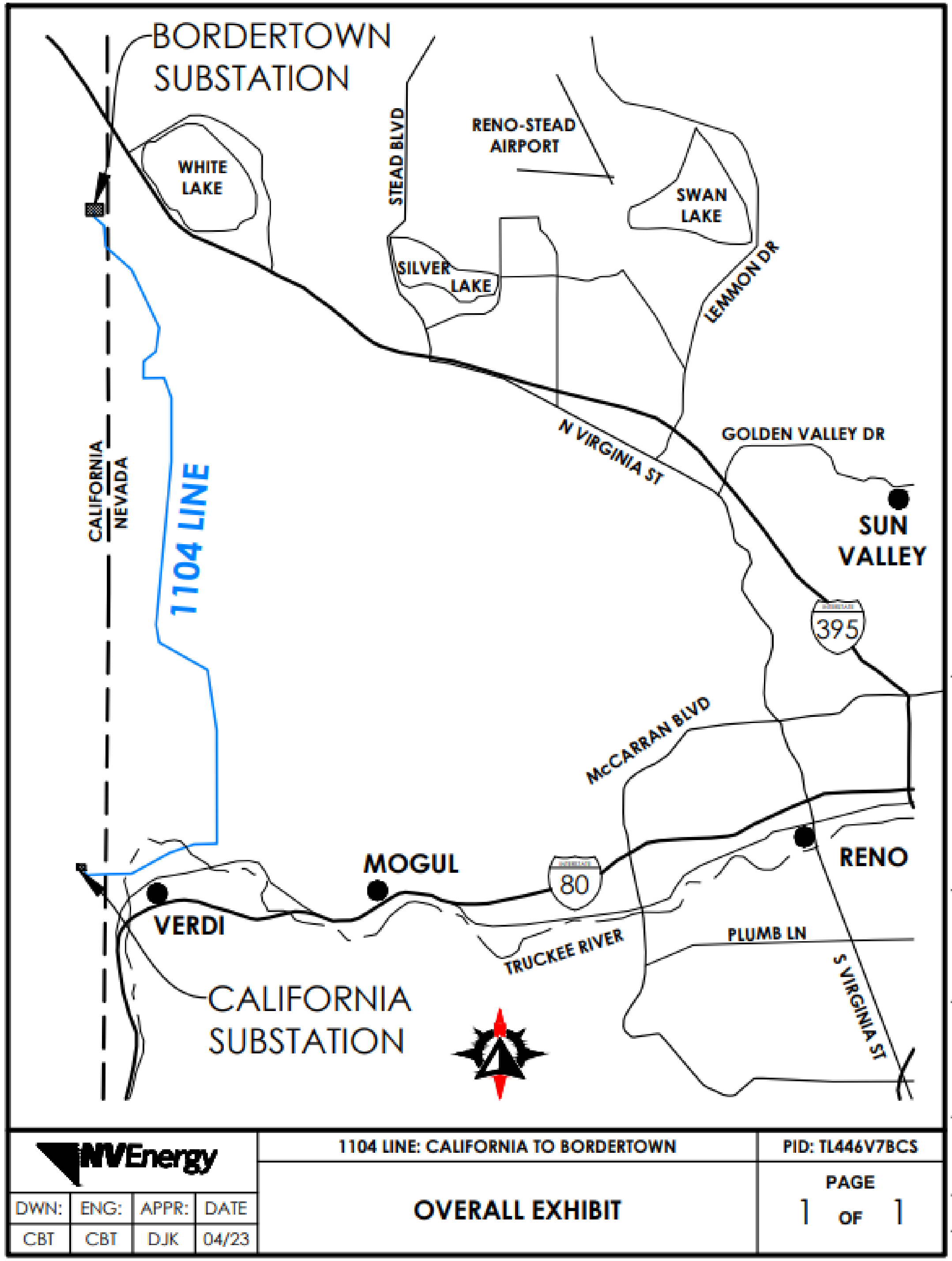
LDC24-00015

Reno Planning Commission Presentation

June 6, 2024

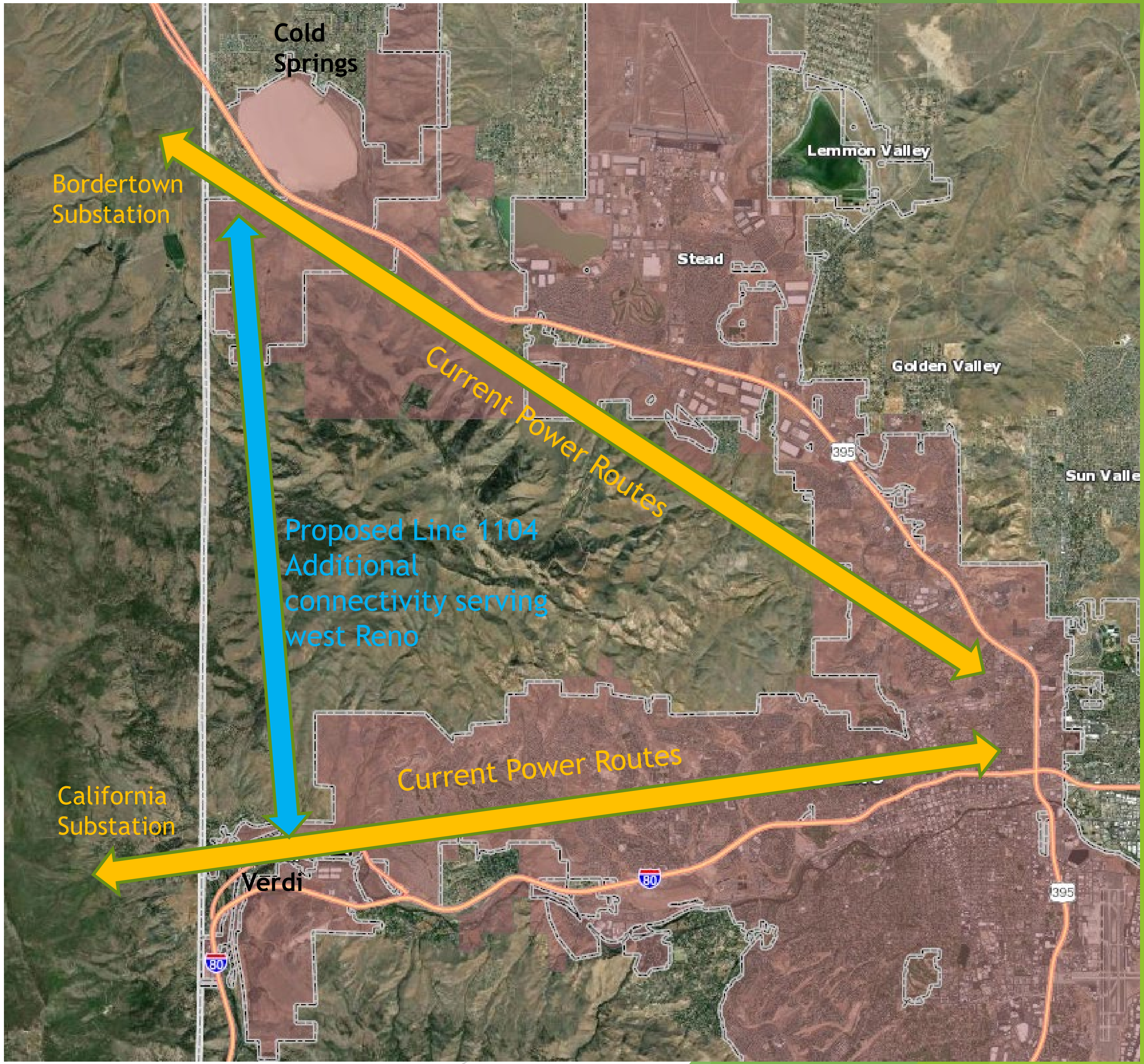
Line 1104 Alignment Request

- Requested is a **conditional use permit (CUP)** for a **major utility** use type and to allow for hillside development.
- 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 being a transmission power line** and a portion of the route proposes the establishment of a **new regional utility corridor for a portion of the route.**
- Project has been **approved by the USFS** known as the Peavine/Poleville Alternative in a Final Record of Decision in **June 2019**



Current Transmission Power Connectivity

- Increases reliability of power service in west Reno
- Per NERC (North American Electric Reliability Corporation) <u>mandatory</u> 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.



Project Overview

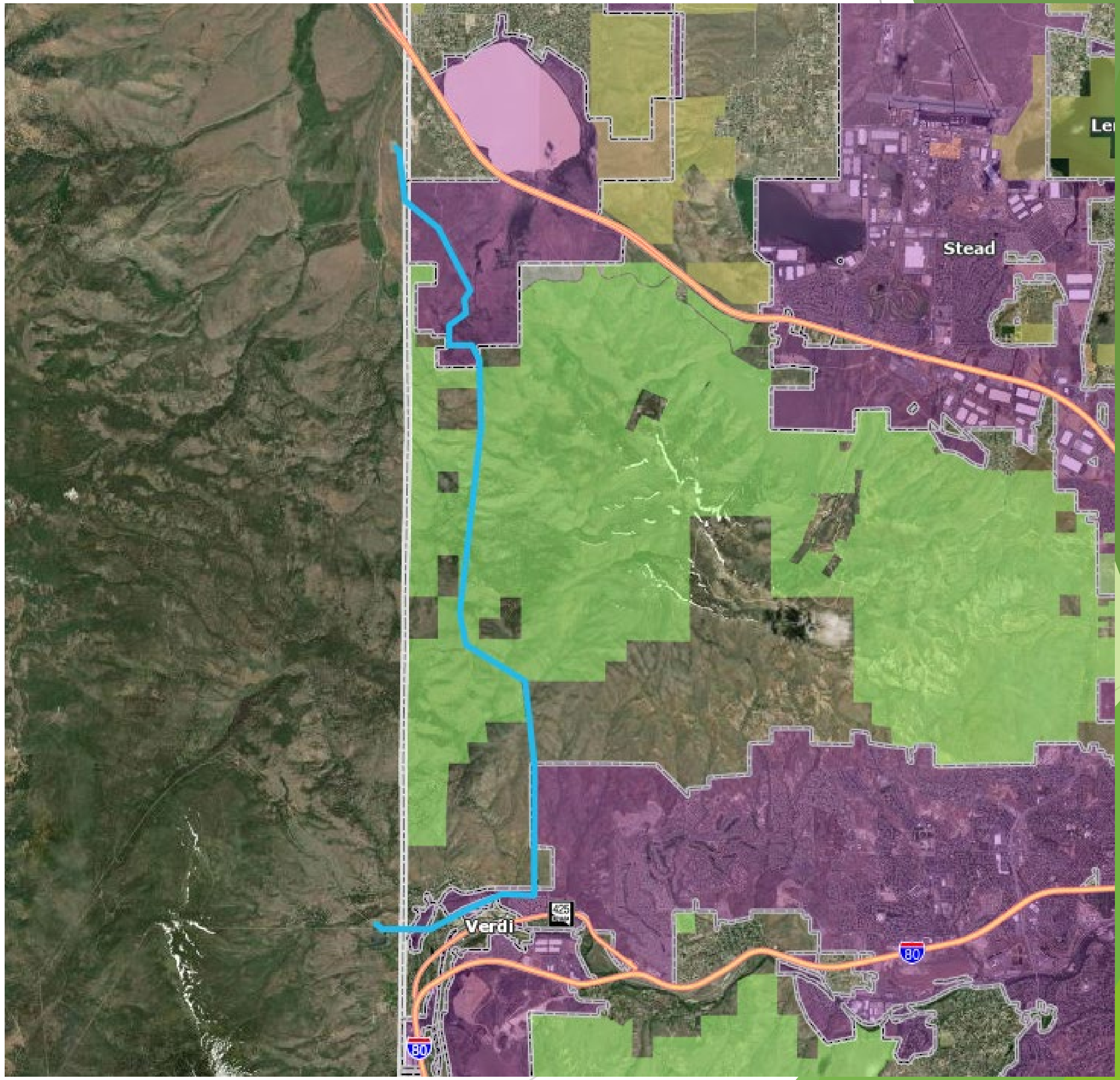
Proposed Line Length - 12.0+/- miles (City of Reno, Washoe County and California segments)

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

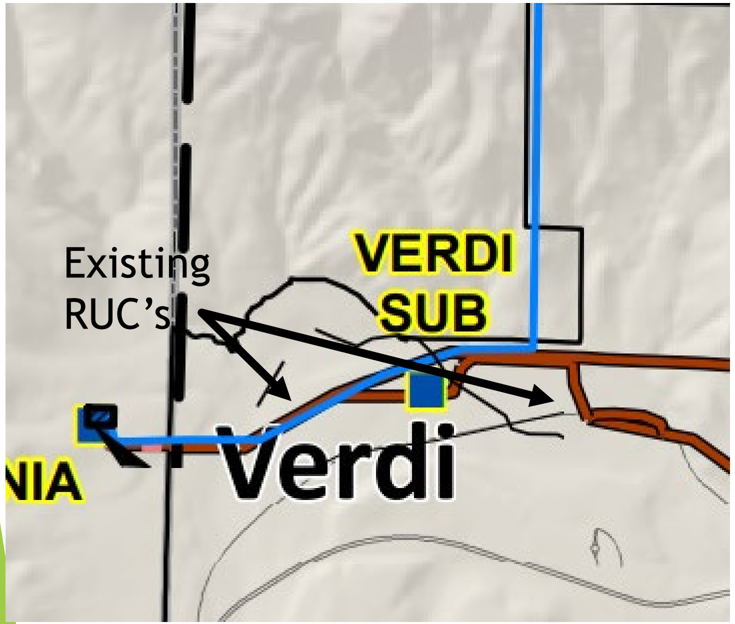
Access routes
- Access routes will predominately **use existing forest service access roads.**
- **Some roads** will need to be **widened** to get the necessary equipment to the alignment.
- Any roads widened or created with the project are required (though the USFS approval) to be **restored to previous conditions after construction.**

City/County Segments & Federally Owned Land

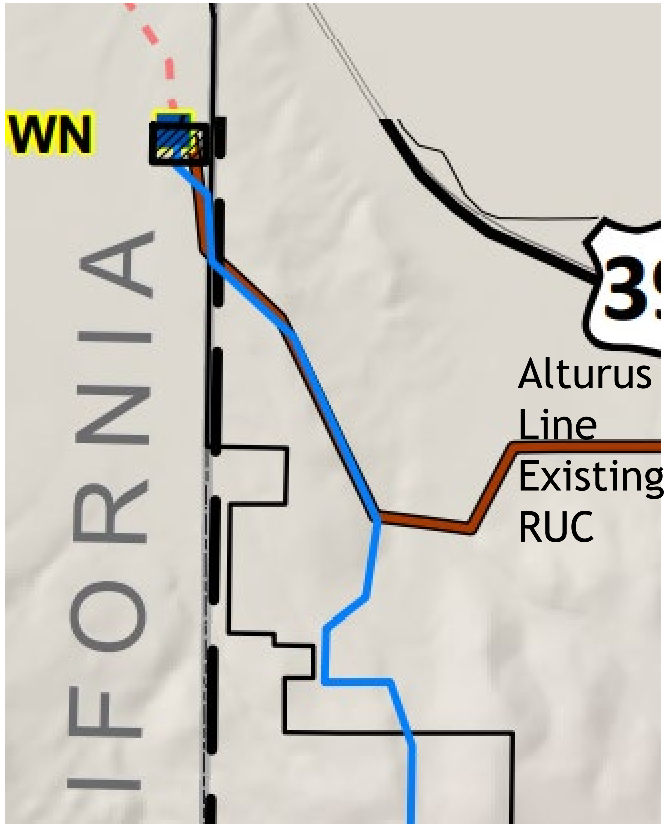


Most of the unincorporated Washoe County land associated with this application is within Federal holding.

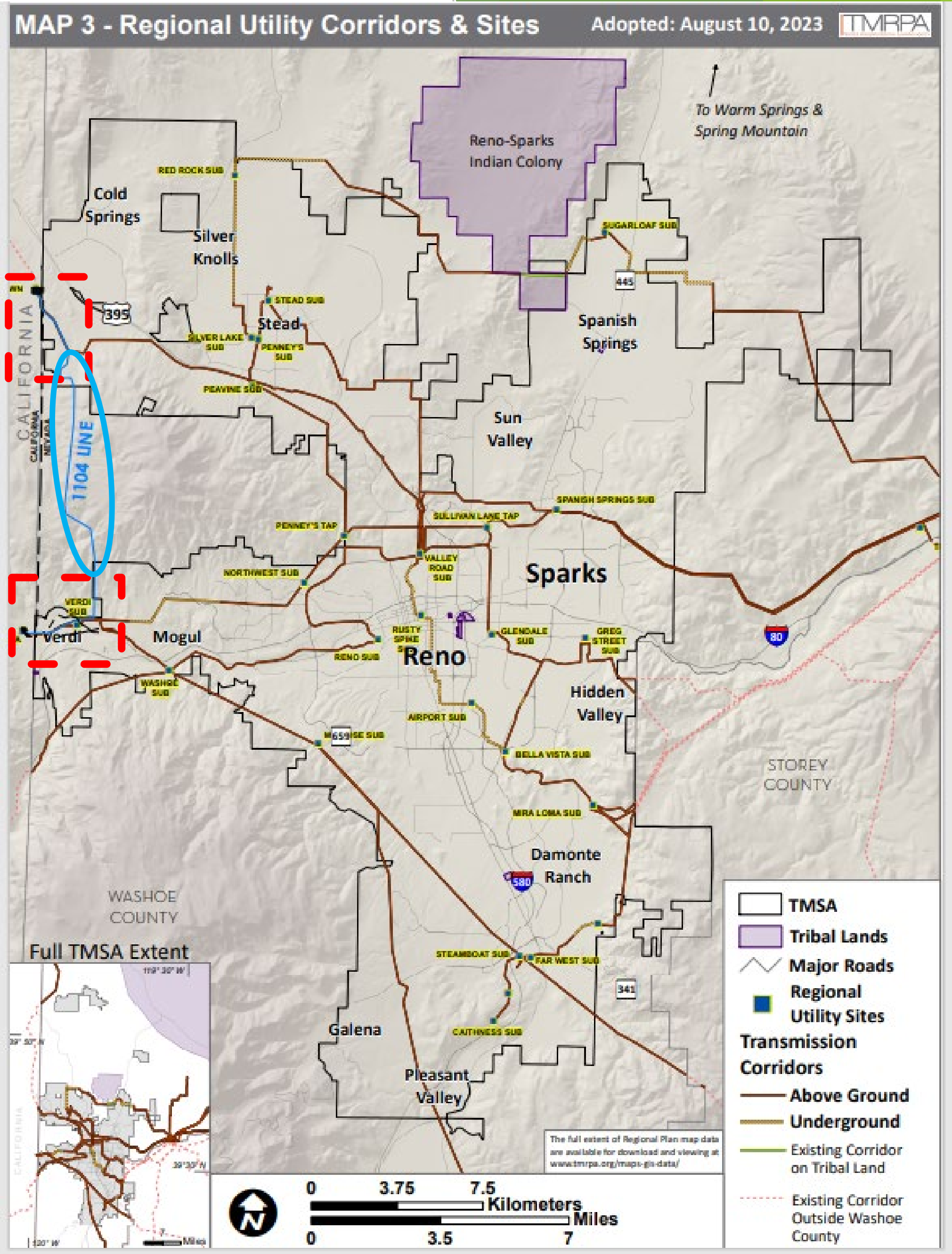
Truckee Meadows Regional Plan – Regional Utility Corridor Map



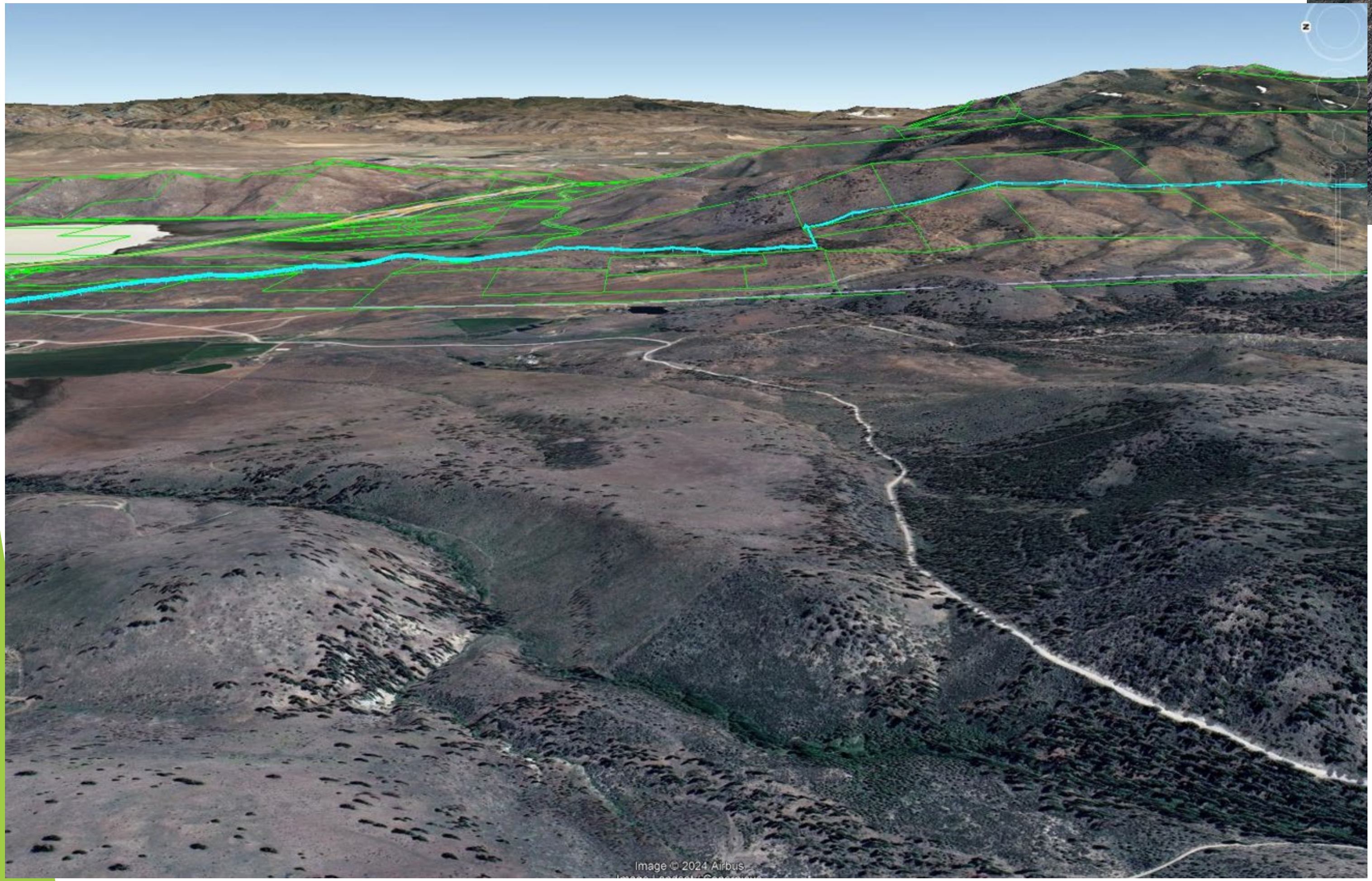
California Substation Area
Verdi

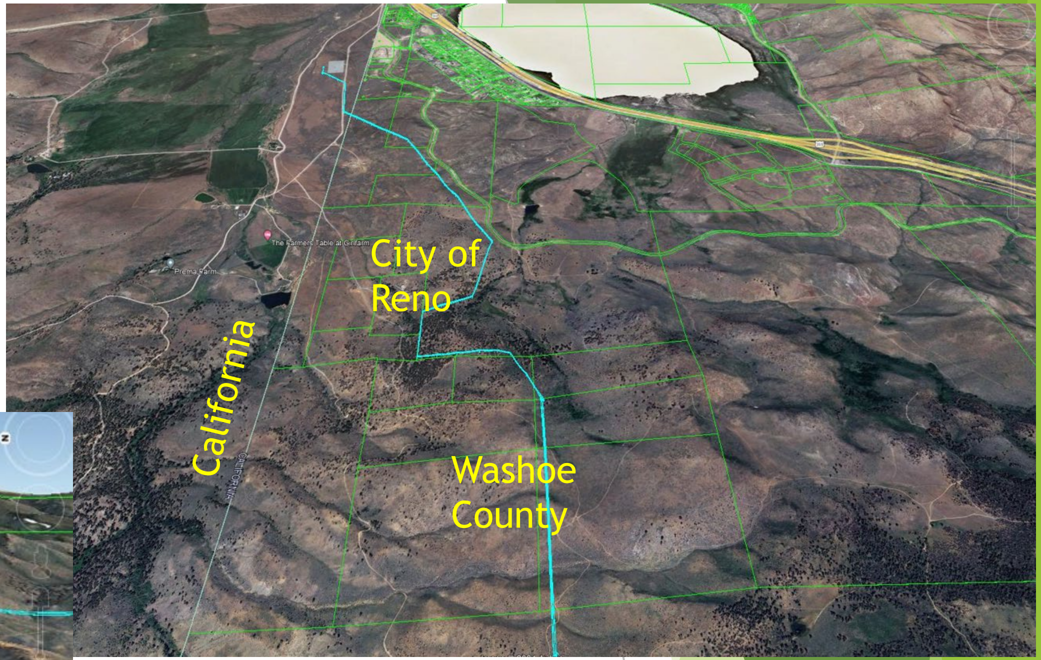


Bordertown Substation Area
Cold Springs



Cold Springs Area Section





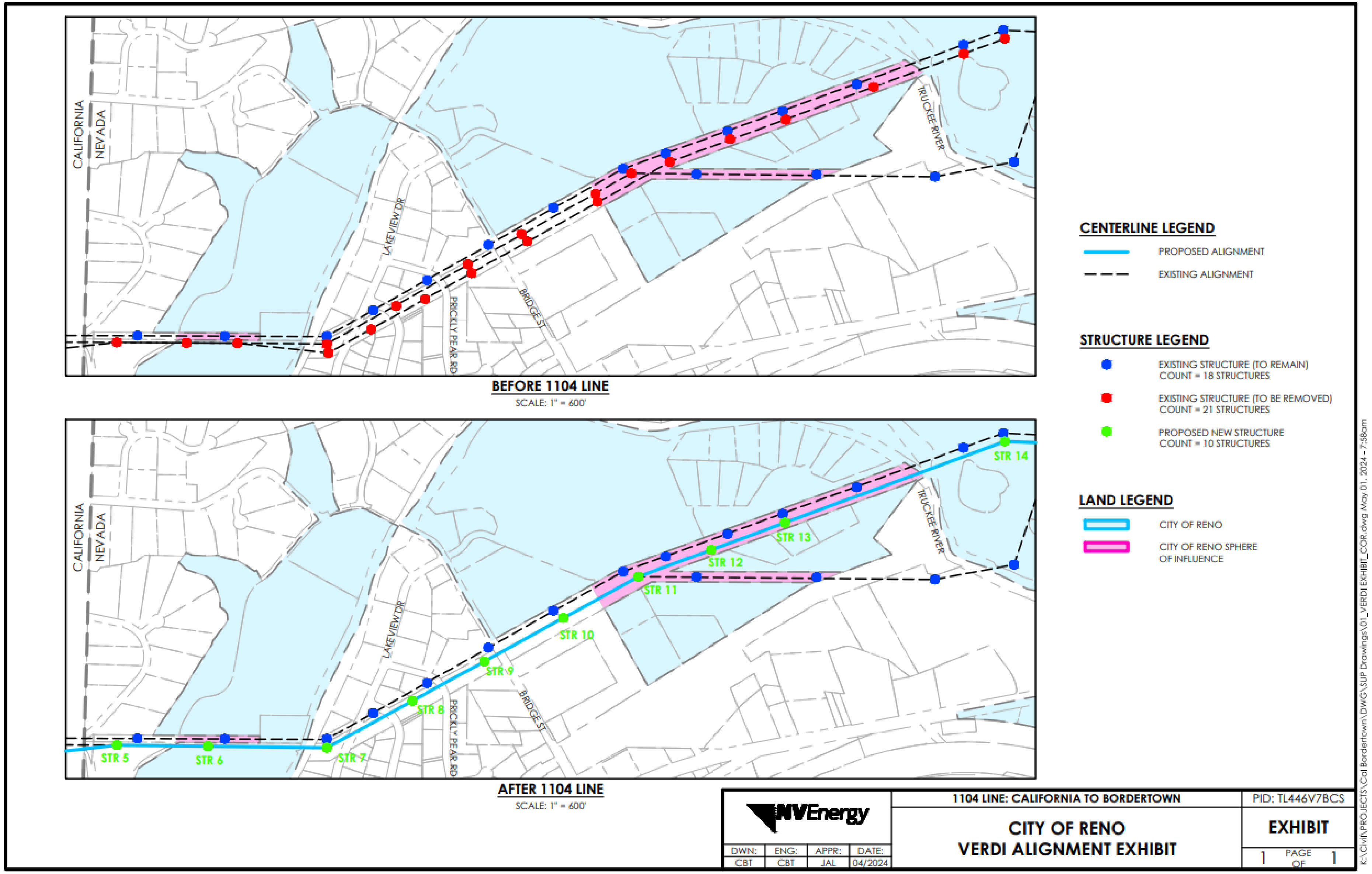
Removal/Replacement Pole Structures (Verdi Corridor)

City of Reno

Washoe County

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

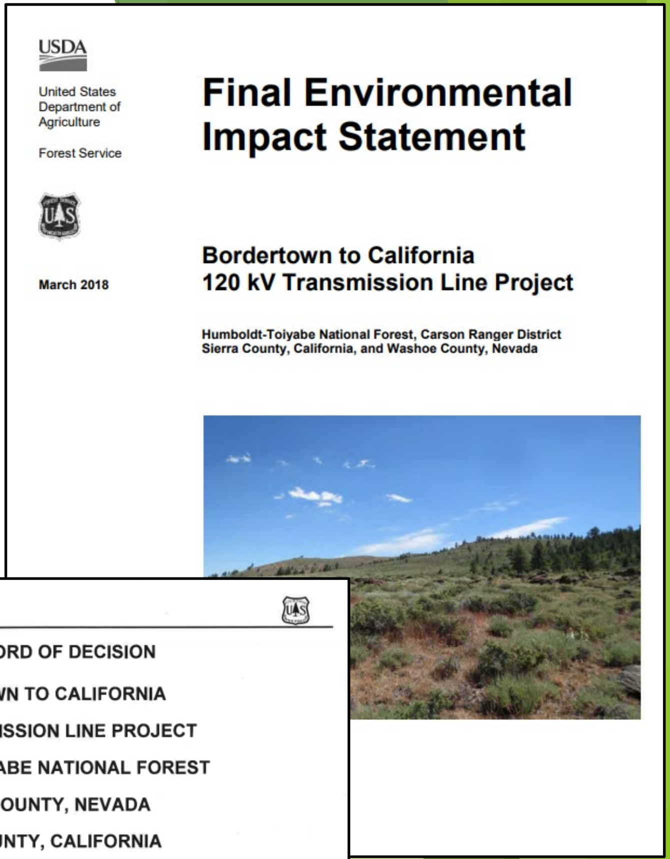
Net loss of 11 pole structures.



USFS Review and Approval 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 ROD states that the decision of approval of the chosen alternative **<u>"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."</u>**


USDA

United States Department of Agriculture

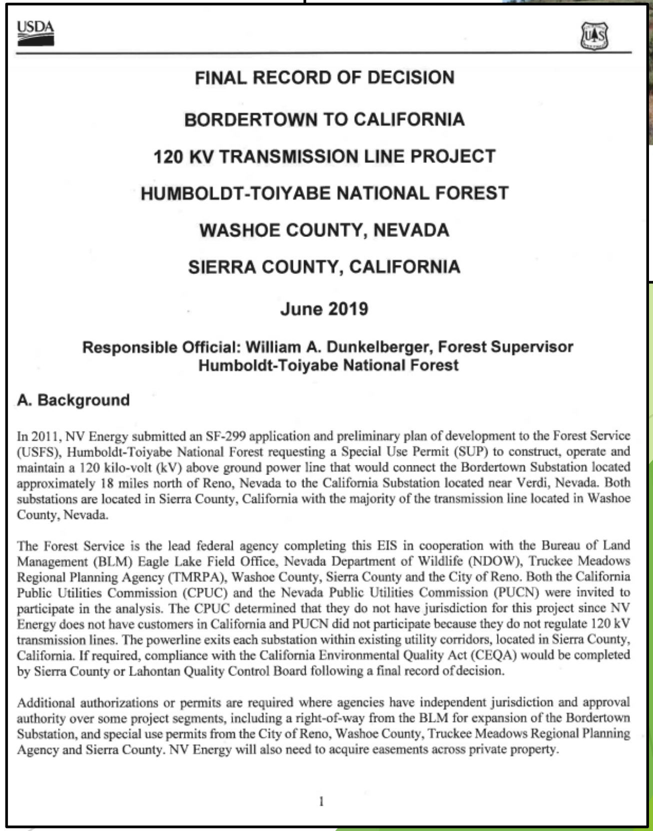
Forest Service

March 2018

Final Environmental Impact Statement

Bordertown to California 120 kV Transmission Line Project

Humboldt-Toiyabe National Forest, Carson Ranger District
Sierra County, California, and Washoe County, Nevada


USDA

FINAL RECORD OF DECISION

BORDERTOWN TO CALIFORNIA

120 KV TRANSMISSION LINE PROJECT

HUMBOLDT-TOIYABE NATIONAL FOREST

WASHOE COUNTY, NEVADA

SIERRA COUNTY, CALIFORNIA

June 2019

Responsible Official: William A. Dunkelberger, Forest Supervisor
Humboldt-Toiyabe National Forest

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

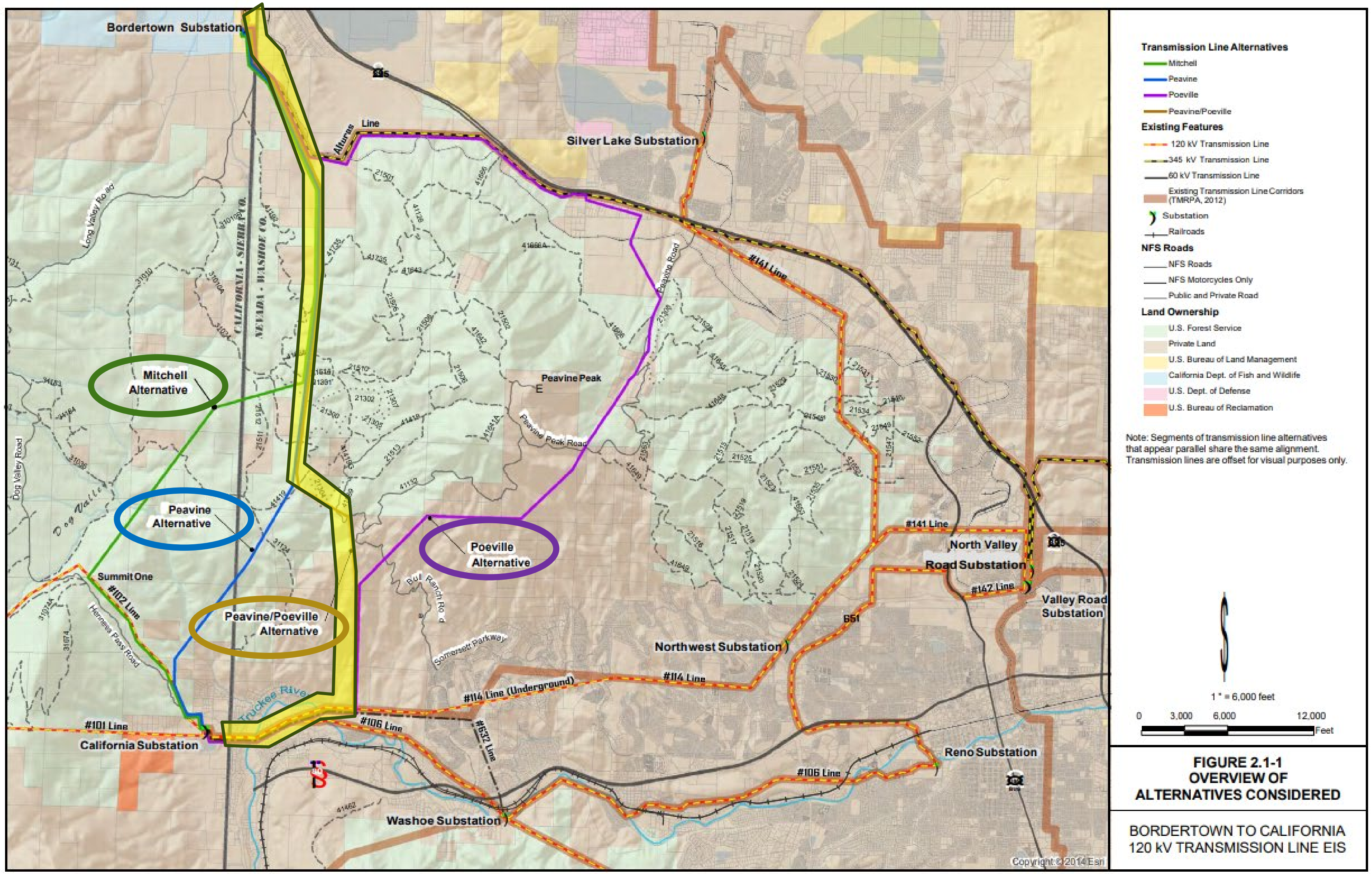
Decision/Considerations by USFS

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

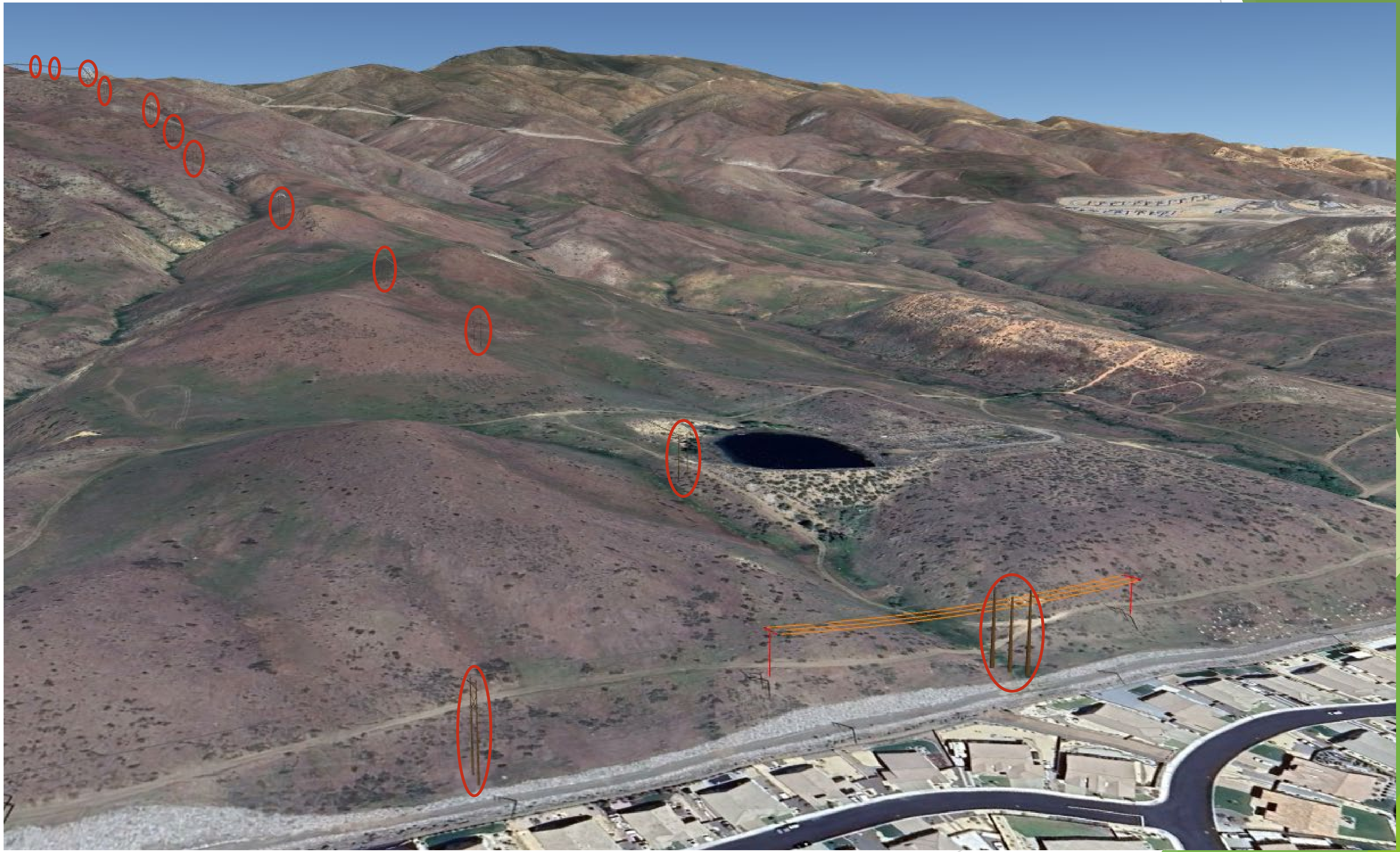
- Land Use and Private Property;
- Public Health and Safety;
- Visual Resources;
- Vegetation Resources;
- Special Status Plants;
- Wildlife Habitat; and
- Cultural Resources

Decision by USFS – Final EIS and Final ROD

- Mitchell Alternative
- Peavine Alternative
- Poeville Alternative
- Peavine/Poeville Alt
- Do Nothing Alt



Line North of West Meadows Estates Subdivision



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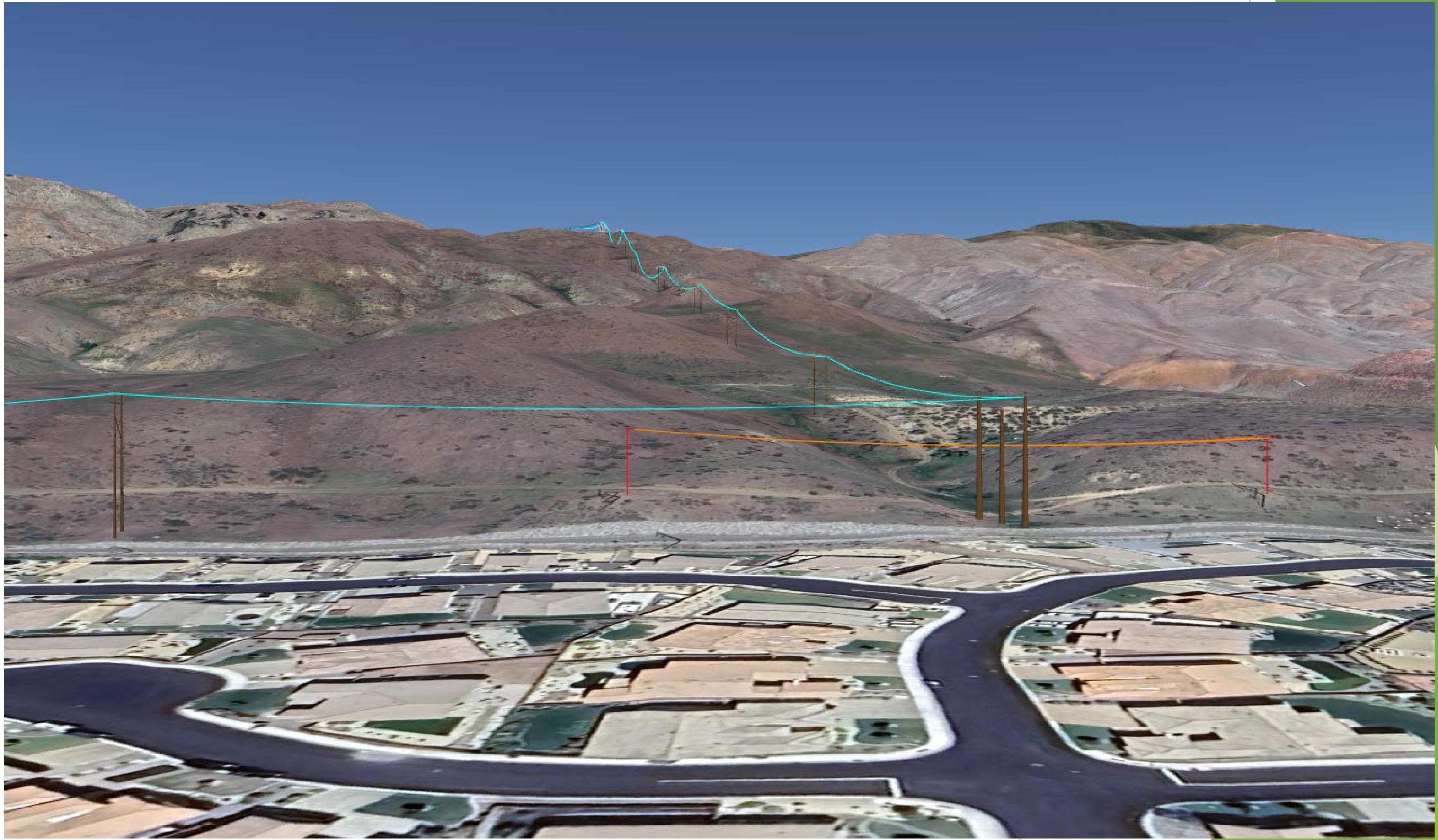
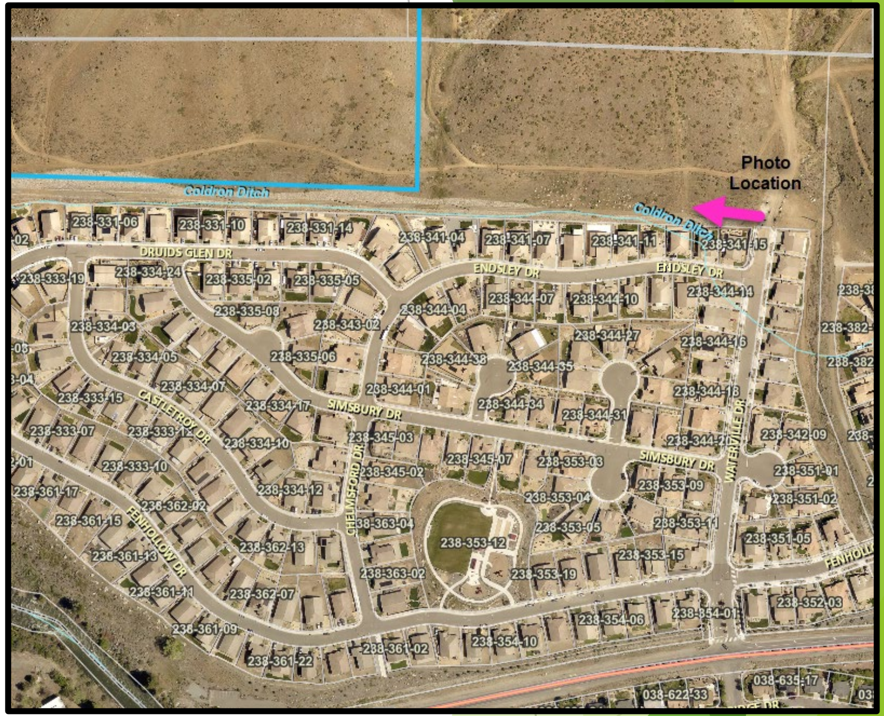
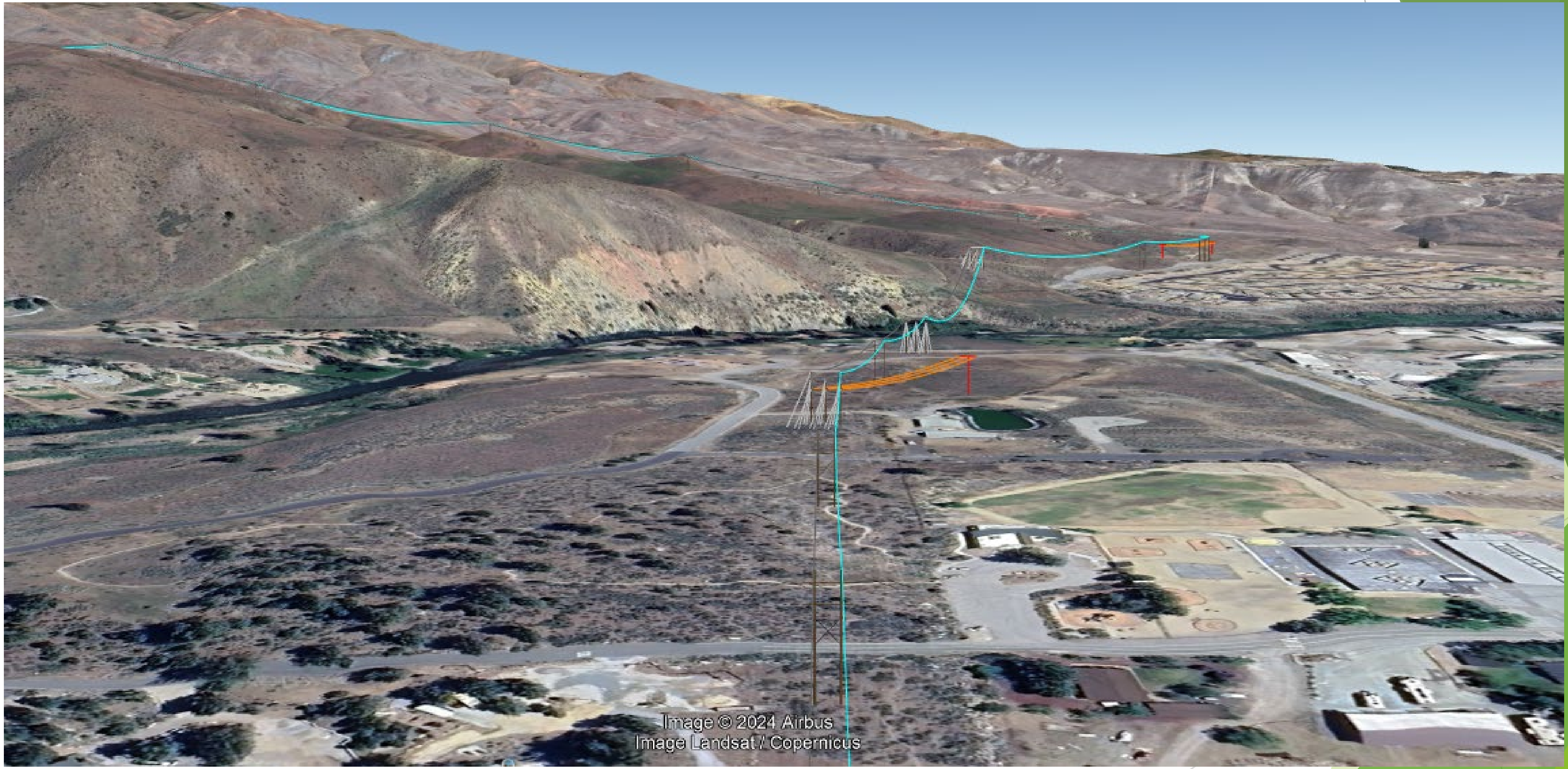


Existing Regional Utility Corridor
North of West Meadows Estates Subdivision



Existing view to the west from the northern terminus of Waterville Drive

Elevated Perspective View to the East – West of Bridge Street



Verdi Corridor
Existing Line Photos

Eastern Bridge St. Corridor

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

Western Bridge St. Corridor

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

Fire Concerns

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

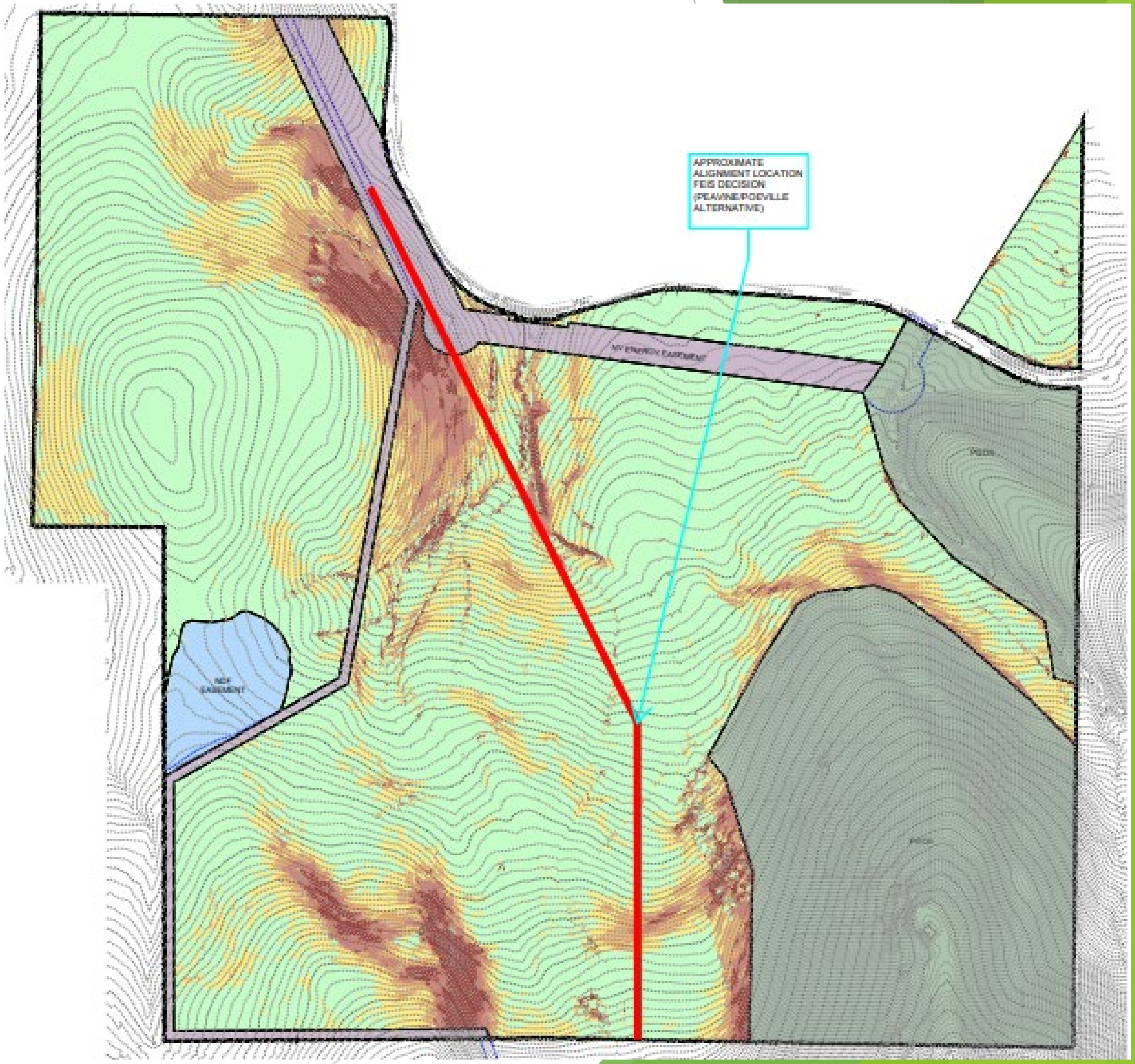
- Use of steel structures rather than combustible wood structures.
- Targeted vegetation management programs that include the removal of ground vegetation in easements, pole grubbing so ground areas around the poles are clear of combustible vegetation, and removal of hazardous trees to minimize the chances 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.

Overhead v. Underground Transmission Lines

The line will be constructed overhead for several reasons. Undergrounding 120kV transmission lines cost on average seven 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.

Condition 9 – Requested Elimination

Staff Proposed Language –
9 – The proposed alignment in the Cold Springs area shall match the general alignment as presented in the FEIS as illustrated in **(Exhibit D)**



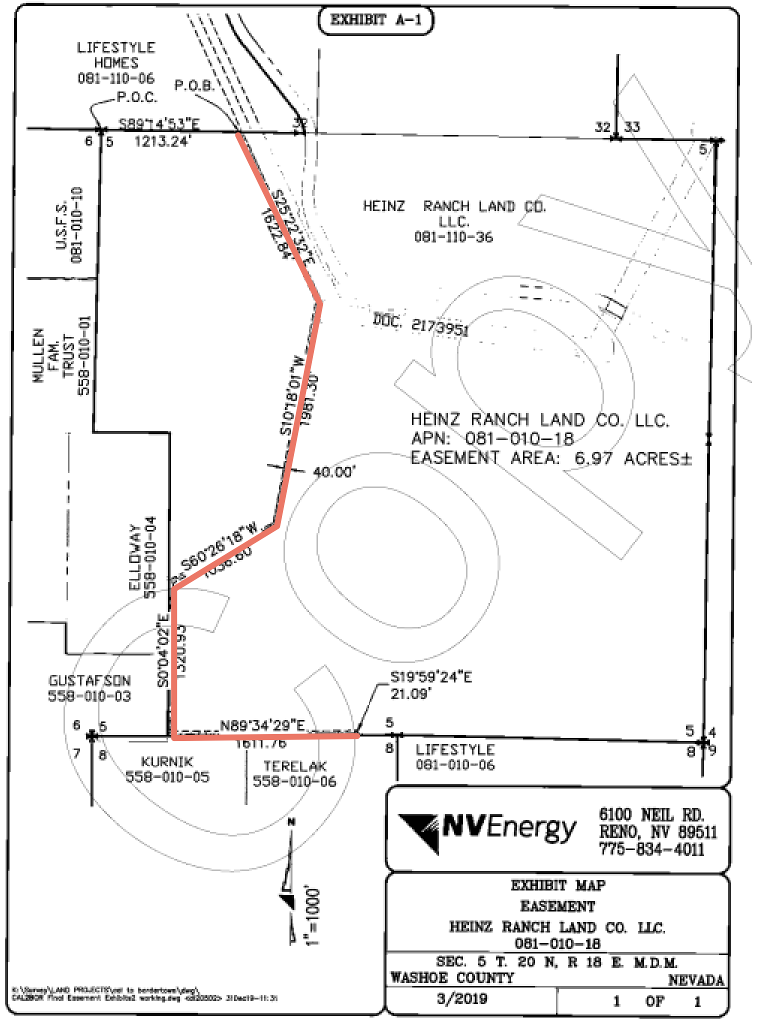
Condition 9 – Request Elimination – Existing Easements

40’ wide easements have been recorded on APNs 081-010-18 and 558-010-06 in the Washoe County Recorder’s Office.

Easement locations were negotiated with the property owners at the time of easement recordation in 2020.

Recorded Doc. 5017460
April 7, 2020

5017460 Page 6 of 6 - 04/07/2020 12:59:28 PM



Recorded Doc. 5016519
April 2, 2020

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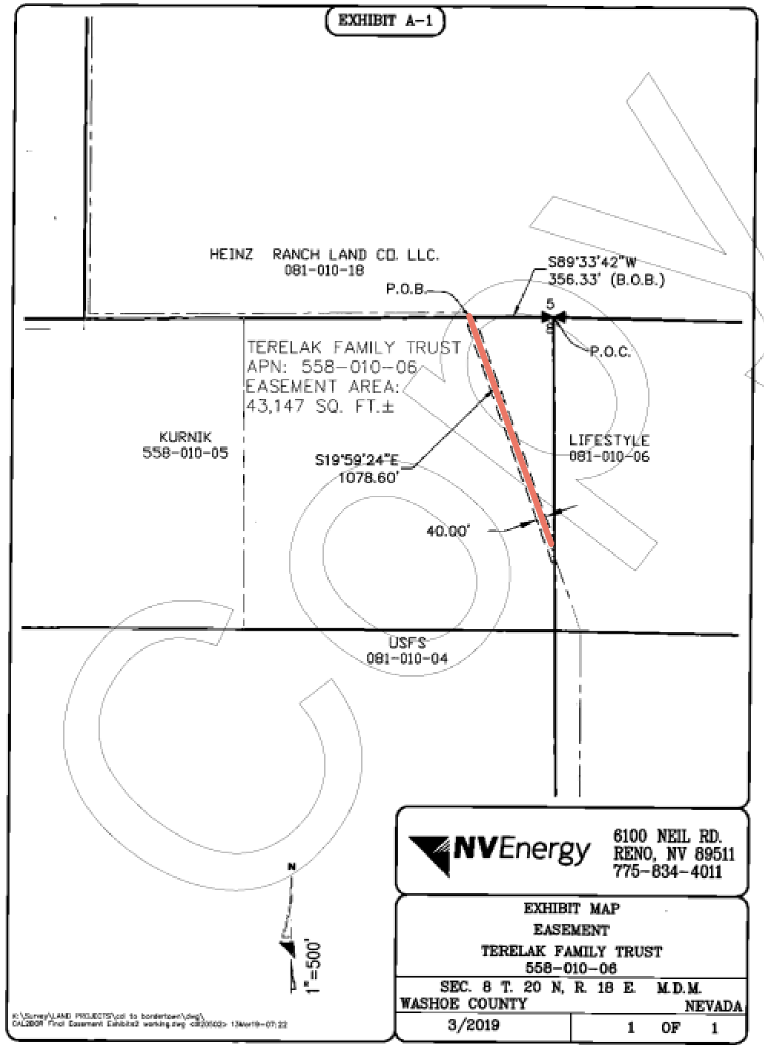


Anticipated Application Steps and Timeframes

Washoe County Process (SUP)

- Neighborhood Meeting – August 30, 2023
- Verdi Community Council – May 21, 2024
- Washoe County PC – May 7, 2024

City of Reno Process (CUP)

- Ward 4 NAB April 18, 2024
- Ward 5 NAB – May 14, 2024
- Reno PC – June 6, 2024
- Reno City Council – TBD, If Necessary

TMRPA - Regional Planning Hearings -- Dates TBD

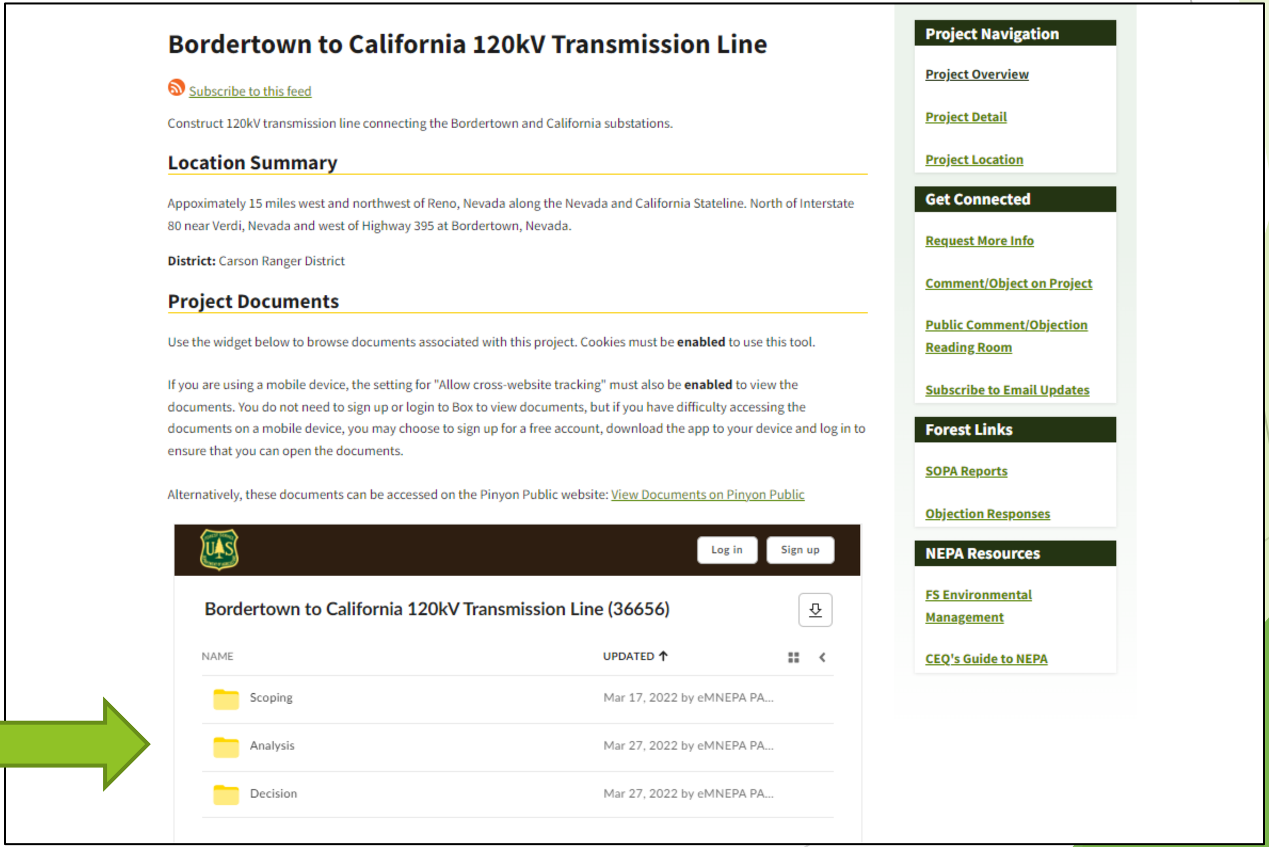
Questions

Additional Slides Available for Questions

Finding FEIS and FROD

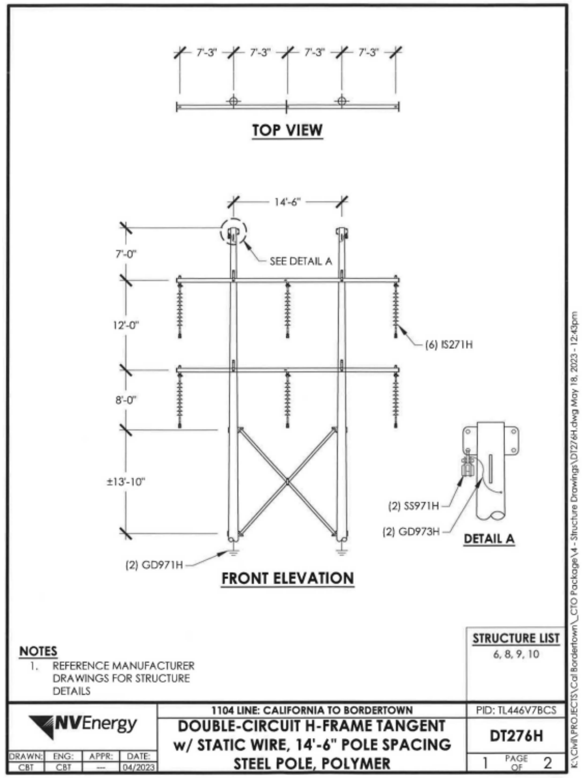
USFS site: https://www.fs.usda.gov/project/?project=36656&exp=overview

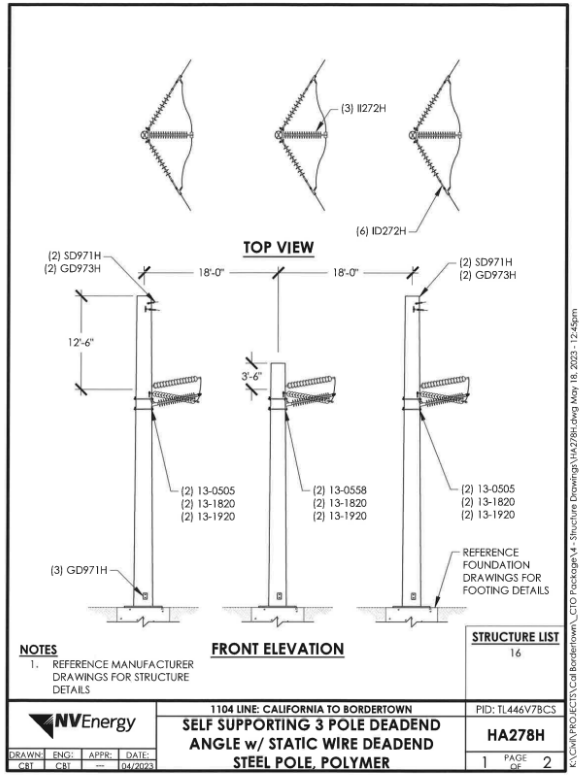
Or search: FINAL RECORD OF DECISION BORDERTOWN TO CALIFORNIA 120 KV TRANSMISSION LINE PROJECT

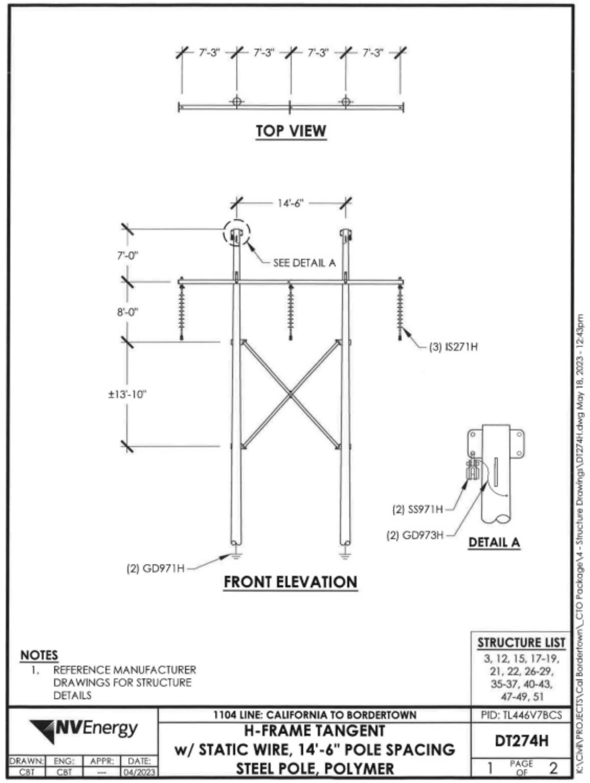


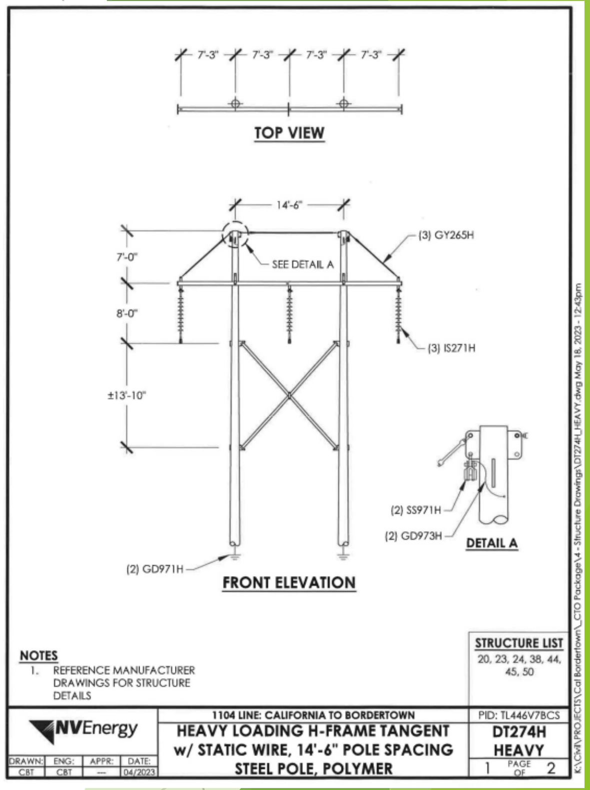
Links to Documents

Pole Structures (Ward 5 Sections)



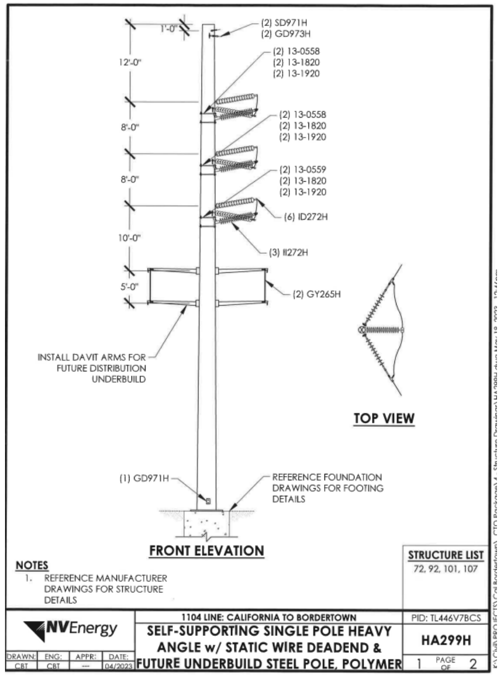


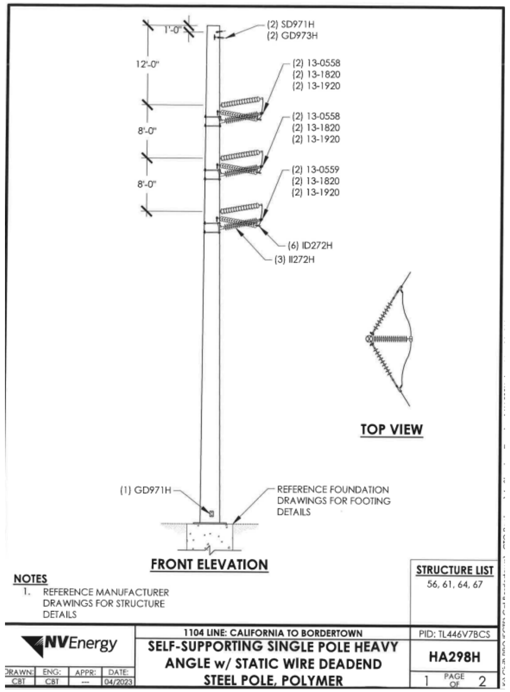


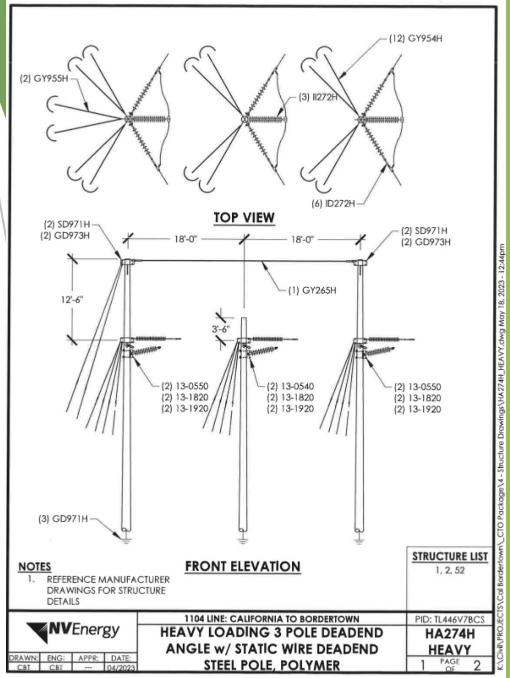


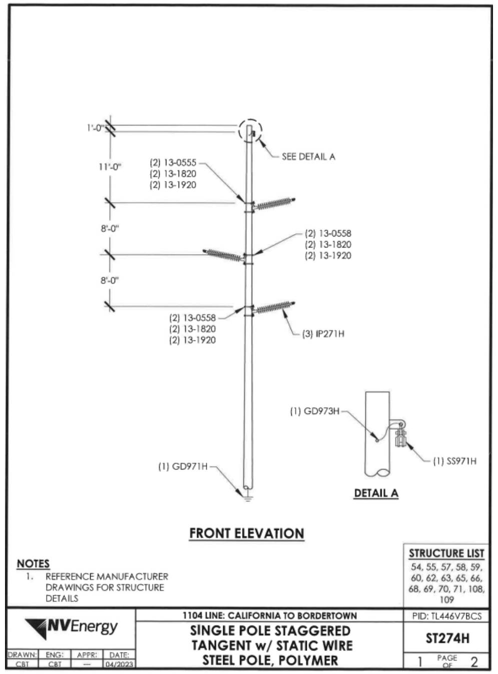
Various Pole Appearance Reno Ward 4 Section

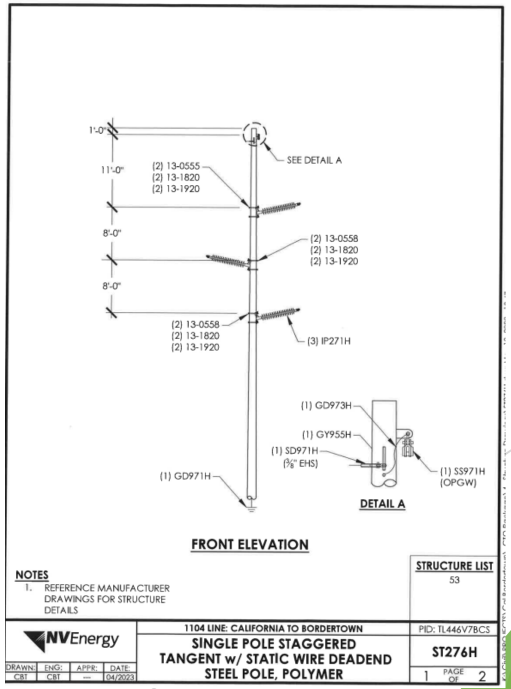
Pole Type		#
HA274H (Heavy)		1
HA298H		4
HA299H		2
ST274H		14
ST276H		1
ST278H		26

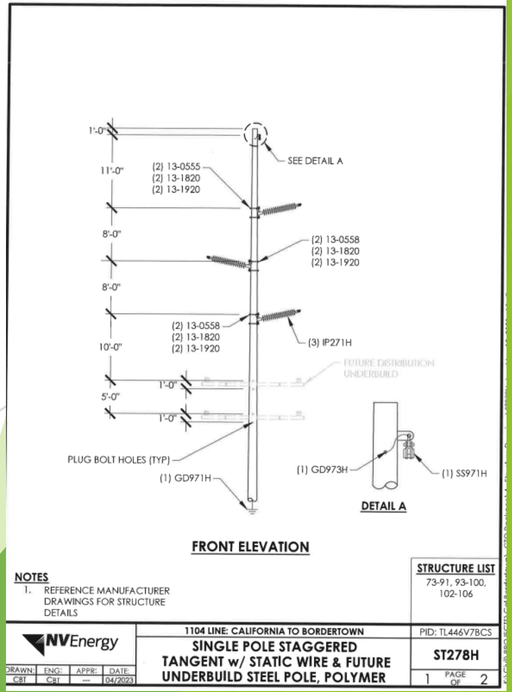


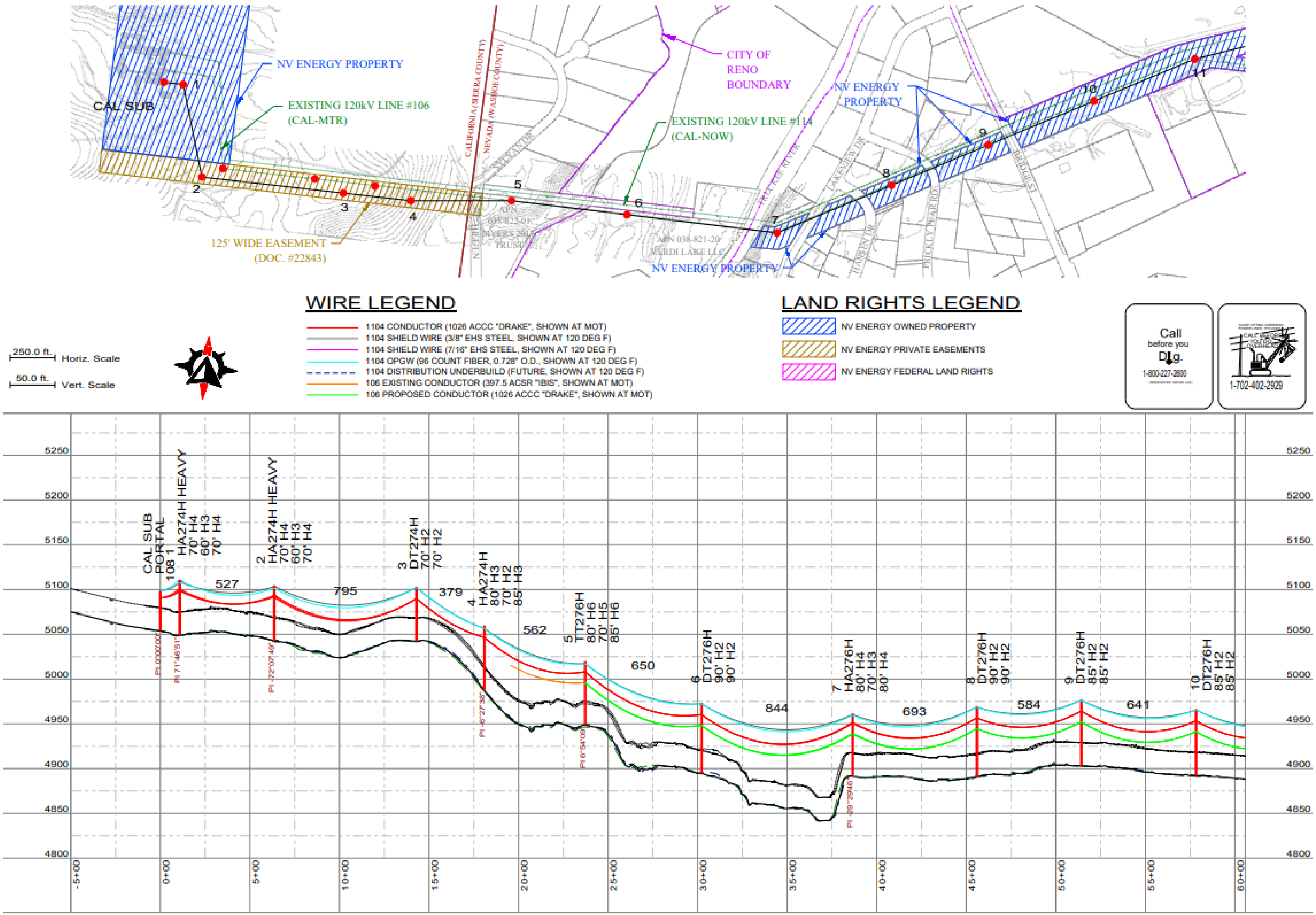












10/2023 - FOR BIDDING PURPOSES ONLY, NOT FOR CONSTRUCTION

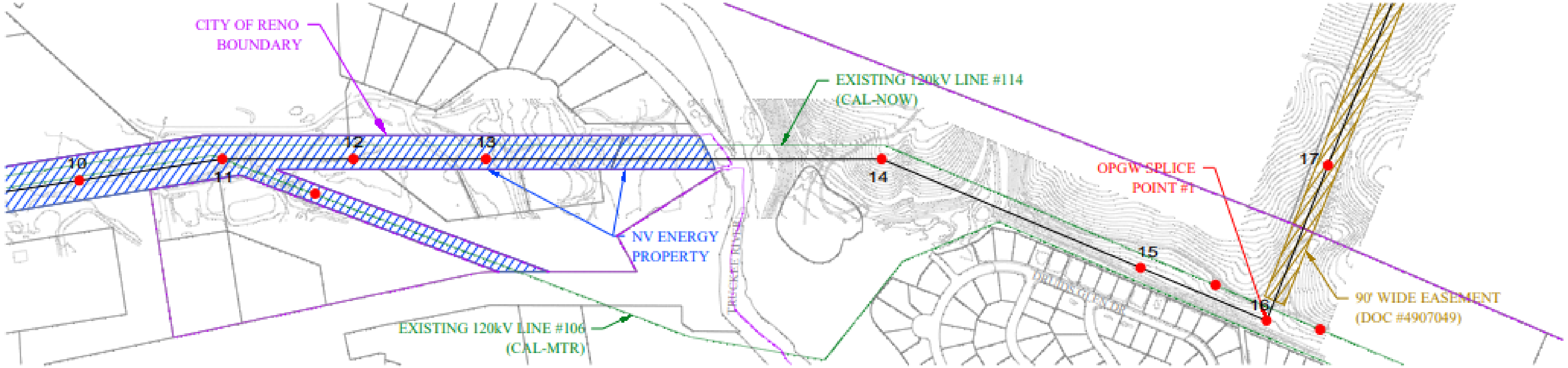
DESIGN SUMMARY

NV Energy

1104 LINE

CALIFORNIA - BORDERTOWN

SHEET 1 OF 12



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)

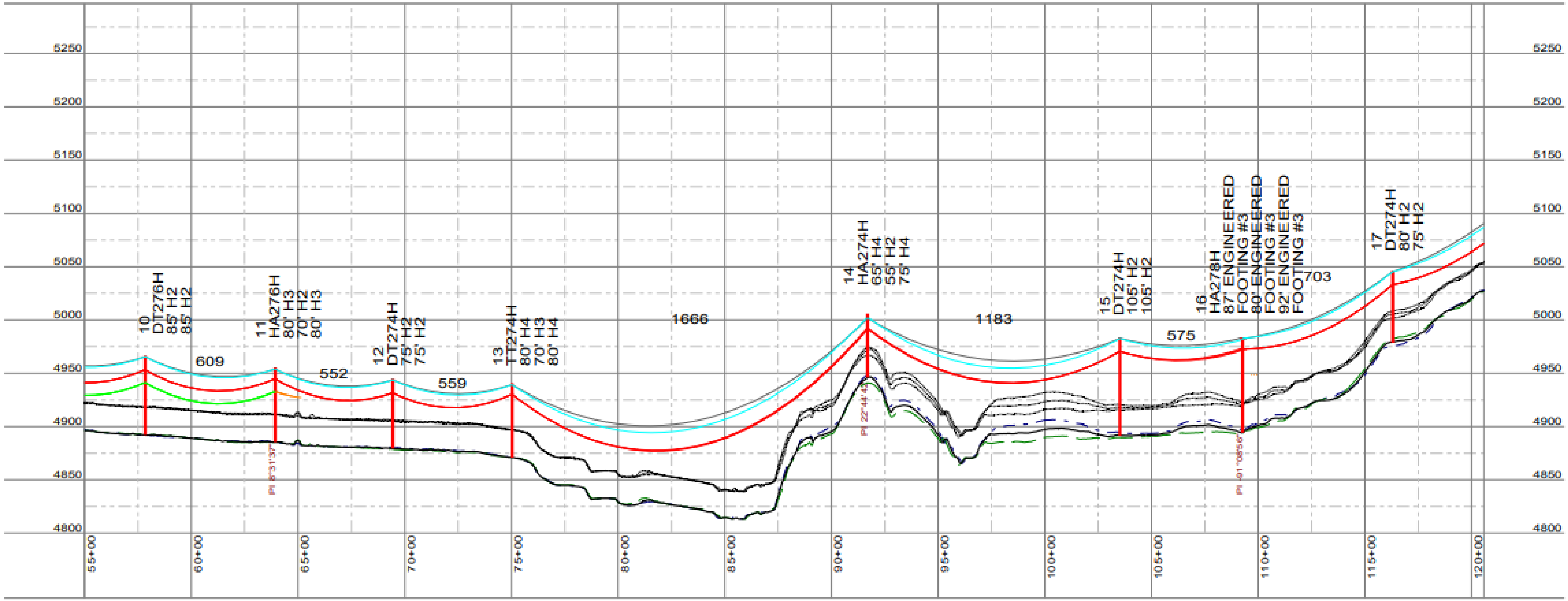
LAND RIGHTS LEGEND

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

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

Call before you Dig. 1-800-227-2600

1-702-402-2929



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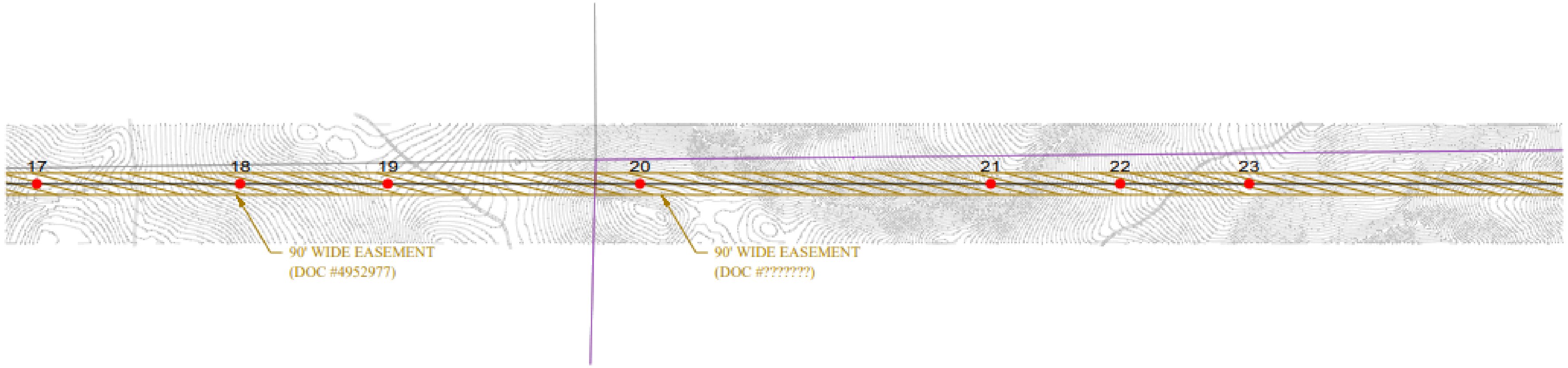
SHEET 2 OF 12



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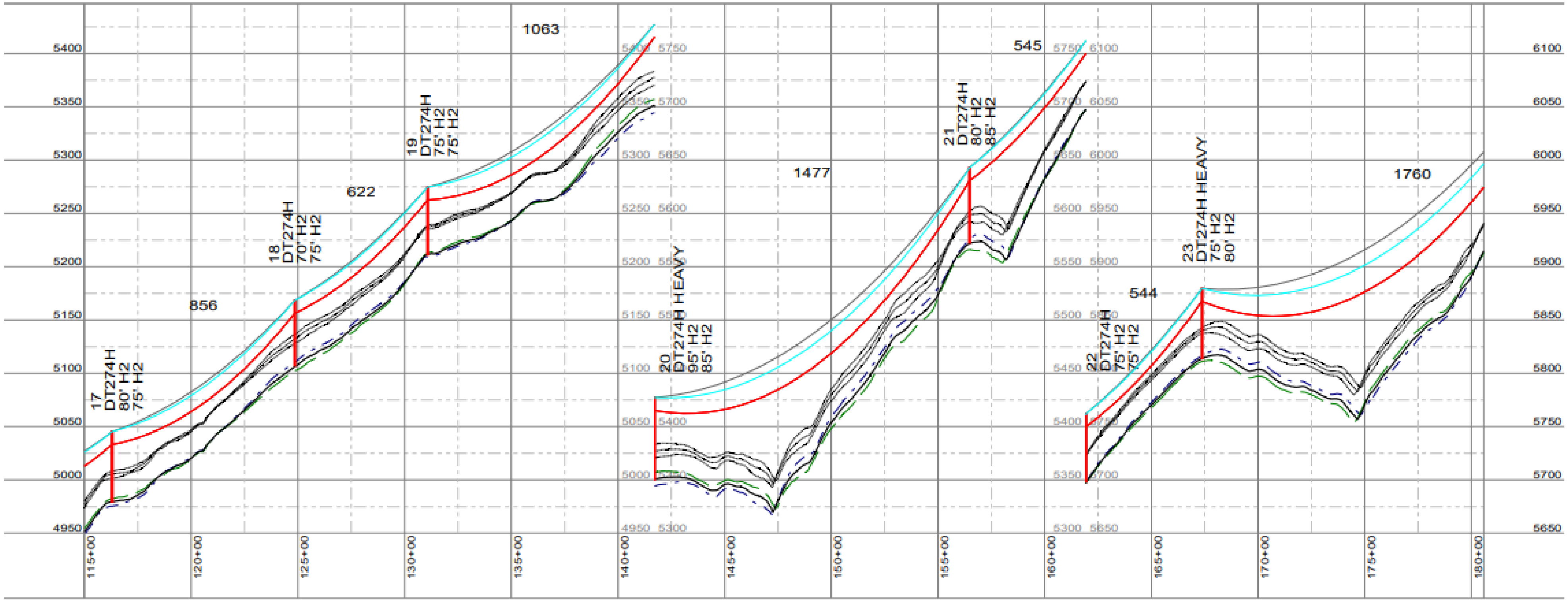

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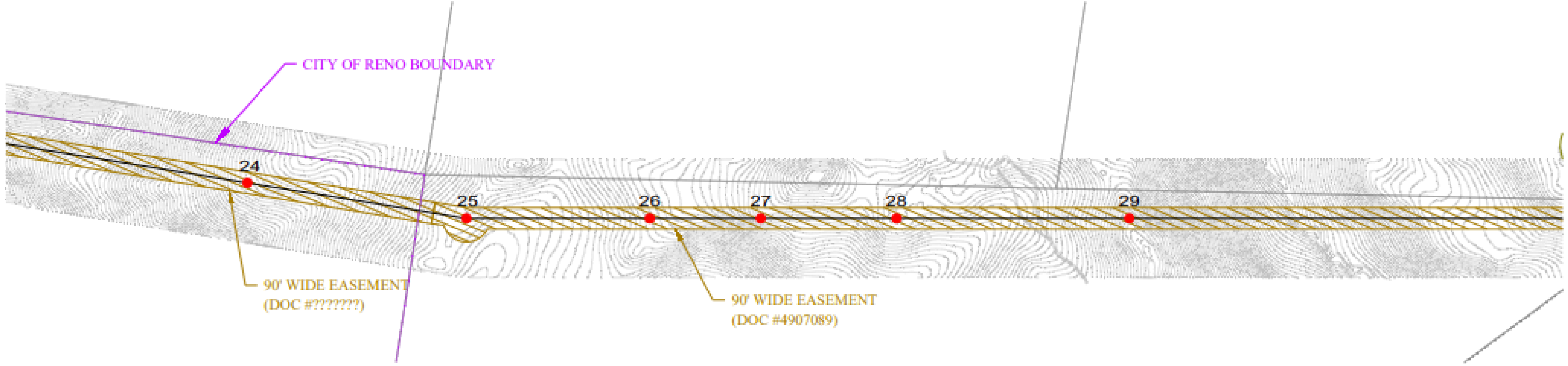
NV Energy

1104 LINE

CALIFORNIA - BORDERTOWN

SHEET 3 OF 12



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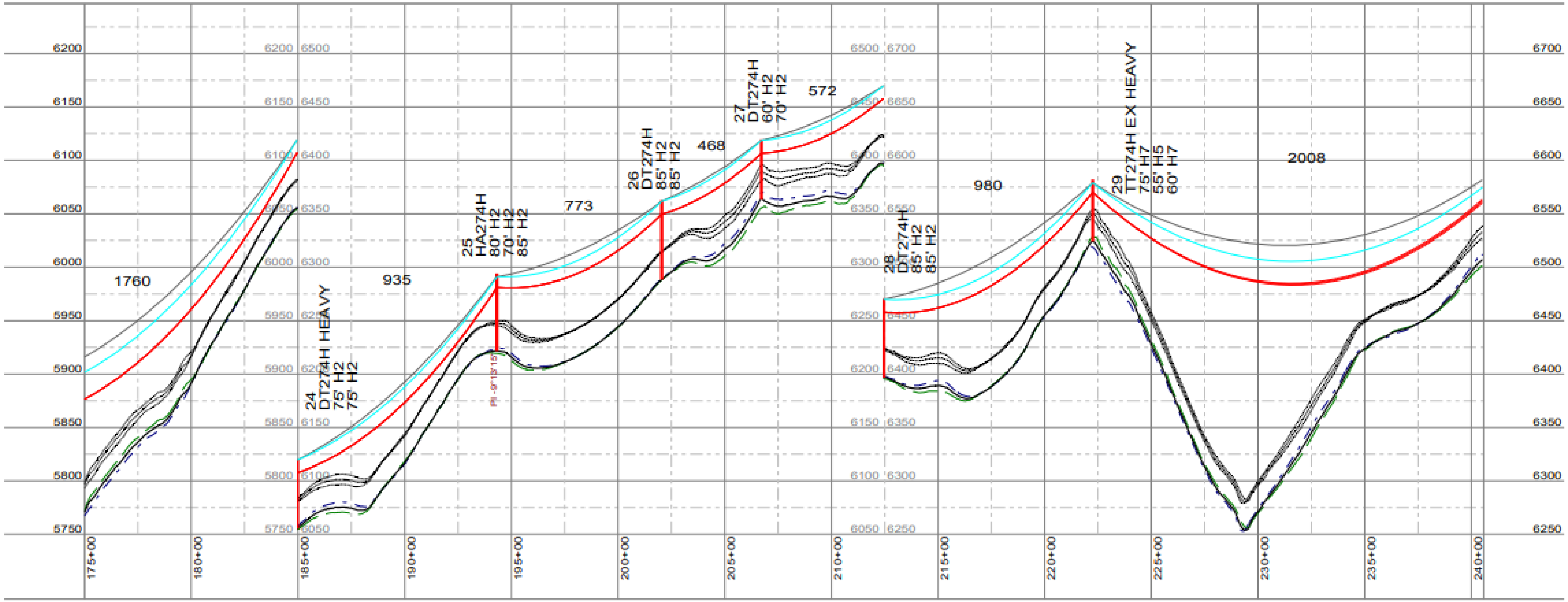

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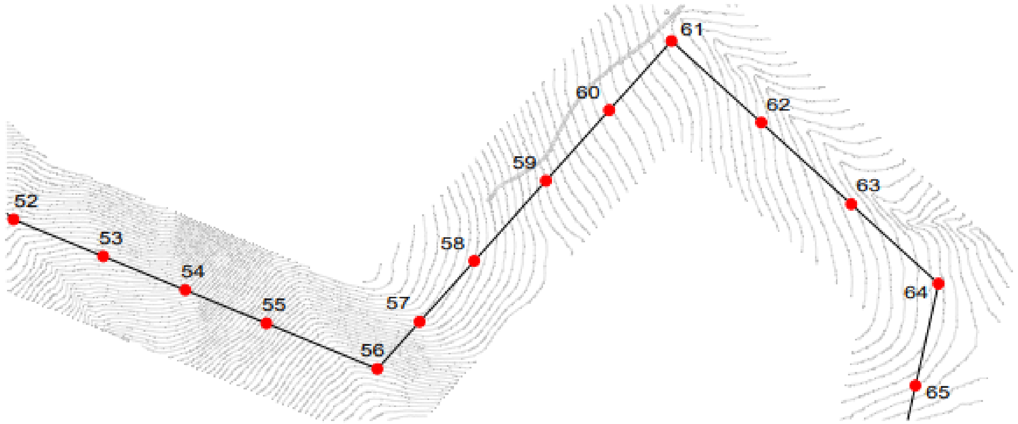
DESIGN SUMMARY

NVEnergy

1104 LINE

CALIFORNIA - BORDERTOWN

SHEET 4 OF 12



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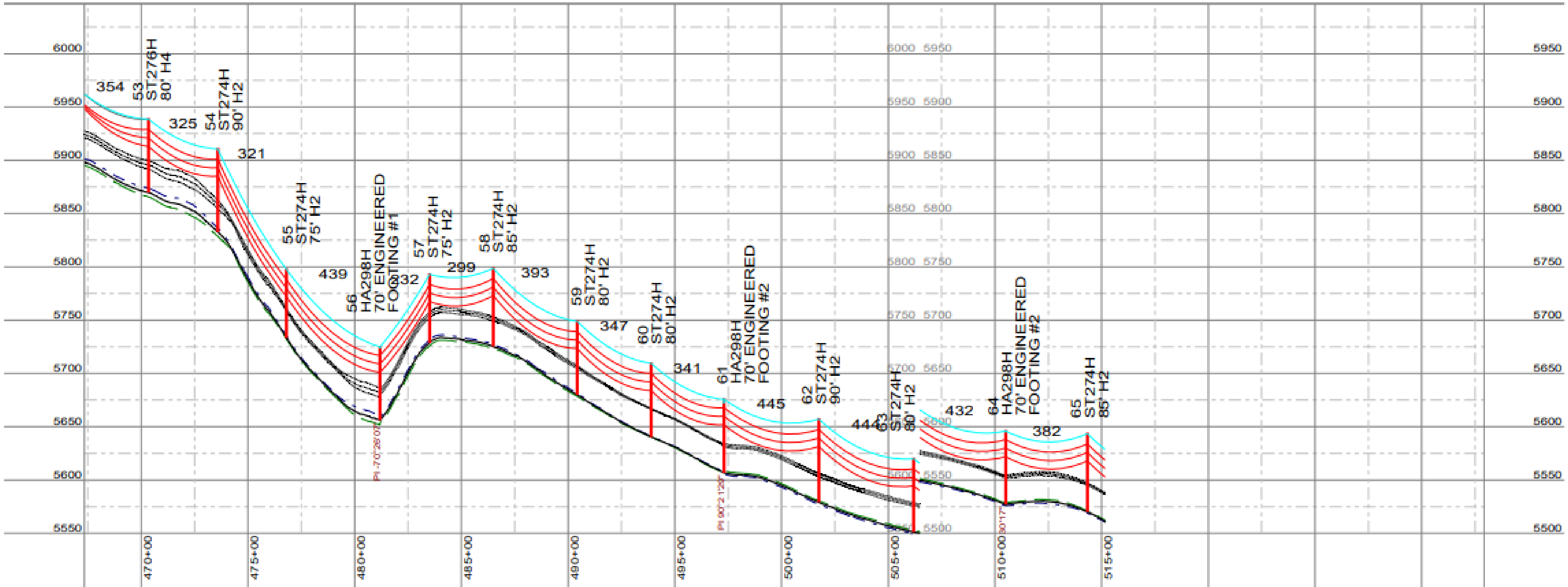

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DESIGN SUMMARY

SHIELD WIRE	3/8" EHS, 7/16" EHS, OPGW
CONDUCTOR	1026 ACCC "DRAKE"
DESIGN L-G CLEAR	[illegible]
DESIGN LOADING	NESC HEAVY
IN-SERVICE	--

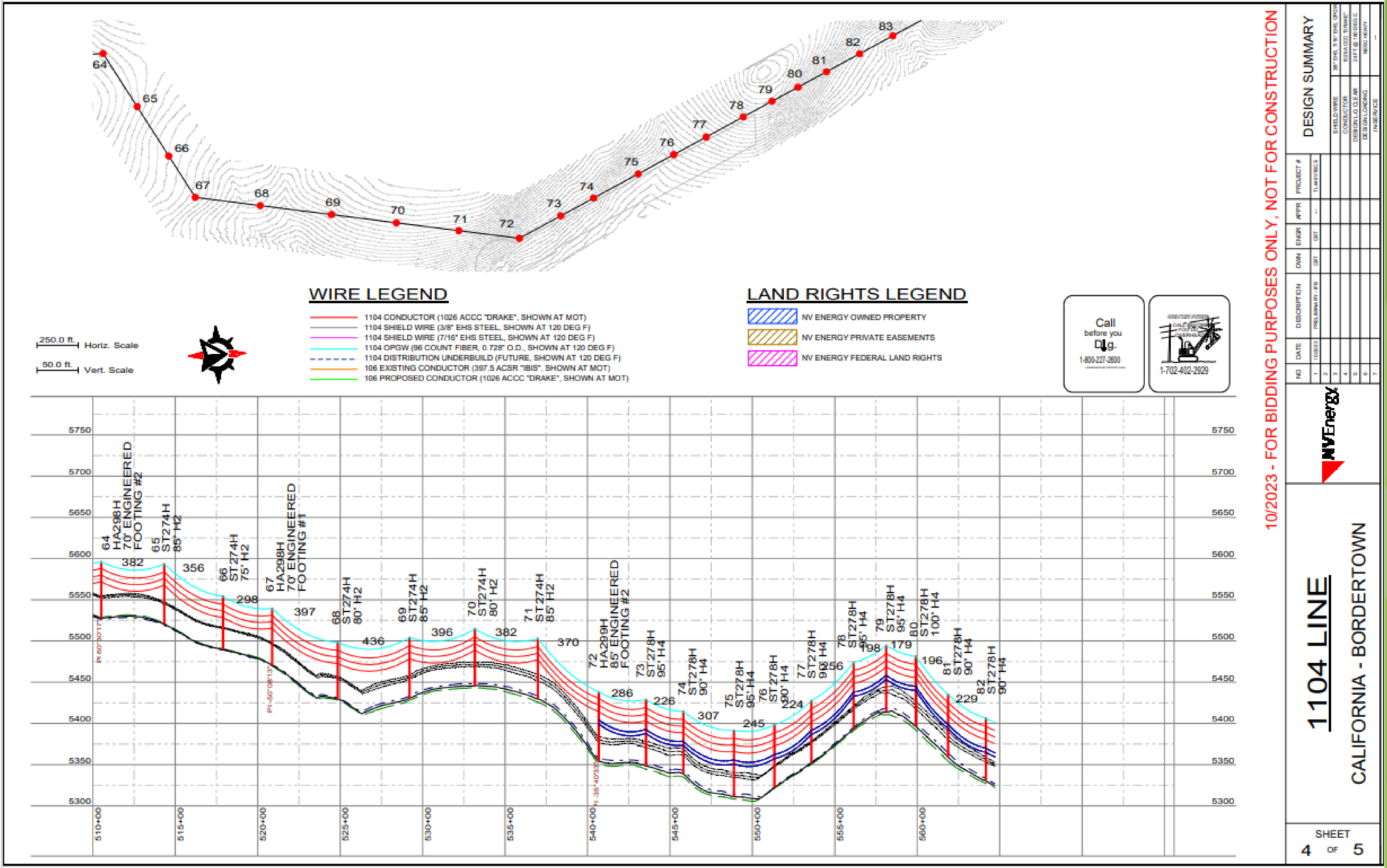
NO	DATE	DESCRIPTION	DWN	ENGR	APPR	PROJECT #
1	[illegible]	PRELIMINARY - IFB	CBT	CBT	--	[illegible]
2						
3						
4						
5						
6						
7						

NV Energy

1104 LINE

CALIFORNIA - BORDERTOWN

SHEET 3 OF 5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1104 SHIELD WIRE (7/16" EHS STEEL, SHOWN AT 120 DEG F)
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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
250.0 ft. Horiz. Scale
50.0 ft. Vert. Scale
Call before you Dig.
1-800-227-2600
1-702-402-2929
10/2023 - FOR BIDDING PURPOSES ONLY, NOT FOR CONSTRUCTION
DESIGN SUMMARY
NVEnergy
1104 LINE
CALIFORNIA - BORDERTOWN
SHEET 4 OF 5
64 HA298H 70' ENGINEERED FOOTING #2
65 ST274H 85' H2
66 ST274H 75' H2
67 HA298H 70' ENGINEERED FOOTING #1
68 ST274H 80' H2
69 ST274H 85' H2
70 ST274H 80' H2
71 ST274H 85' H2
72 HA299H 85' ENGINEERED FOOTING #2
73 ST278H 95' H4
74 ST278H 90' H4
75 ST278H 95' H4
76 ST278H 90' H4
77 ST278H 90' H4
78 ST278H 95' H4
79 ST278H 95' H4
80 ST278H 100' H4
81 ST278H 90' H4
82 ST278H 90' H4
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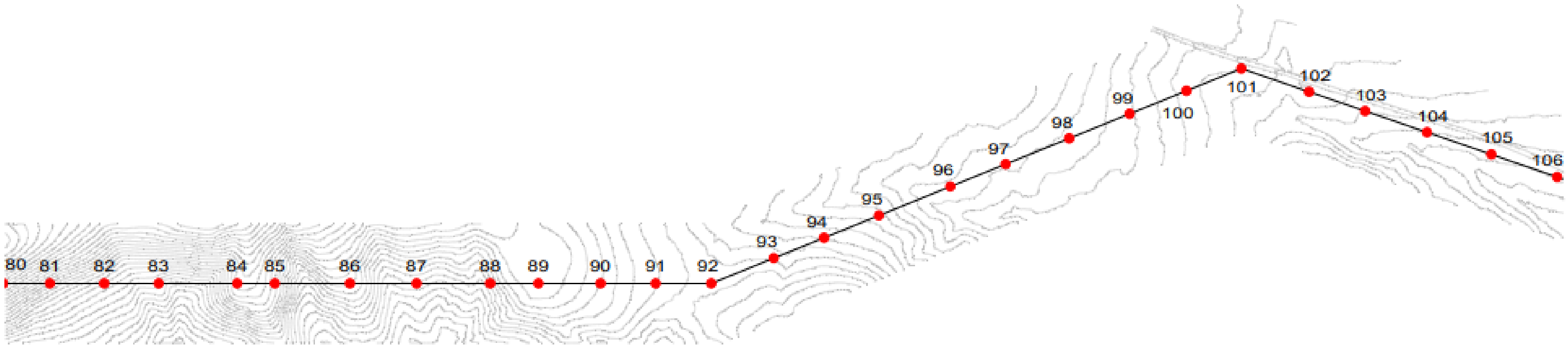
550+00
555+00
560+00



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

250.0 ft. Horiz. Scale

50.0 ft. Vert. Scale

Call before you Dig. 1-800-227-2600

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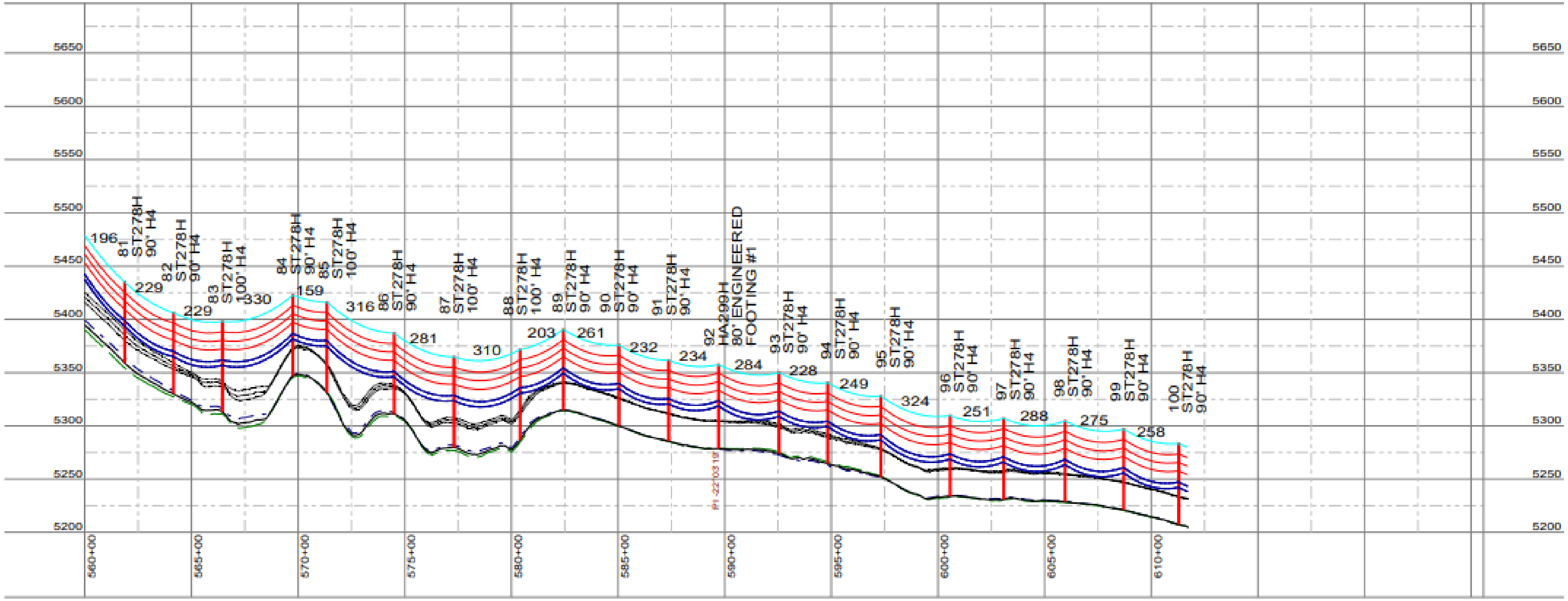


10/2023 - FOR BIDDING PURPOSES ONLY, NOT FOR CONSTRUCTION

DESIGN SUMMARY

NO	DATE	DESCRIPTION	DWN	ENGR	APPR	PROJECT #
1	10/2023	PRELIMINARY - FB	DBT	DBT	--	

NV Energy

1104 LINE

CALIFORNIA - BORDERTOWN

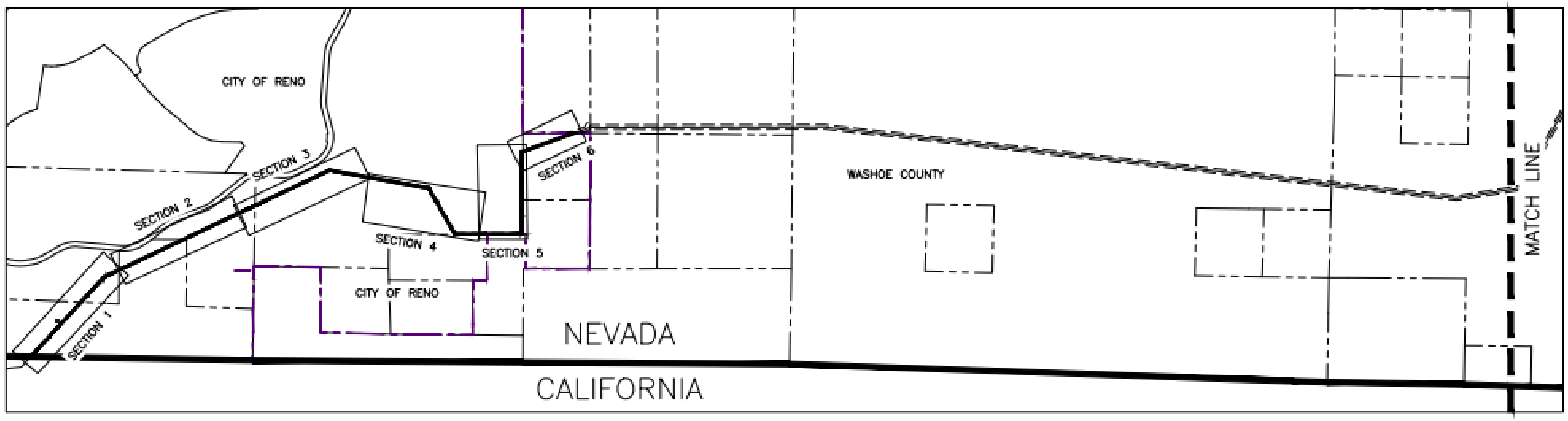
SHEET 5 OF 5

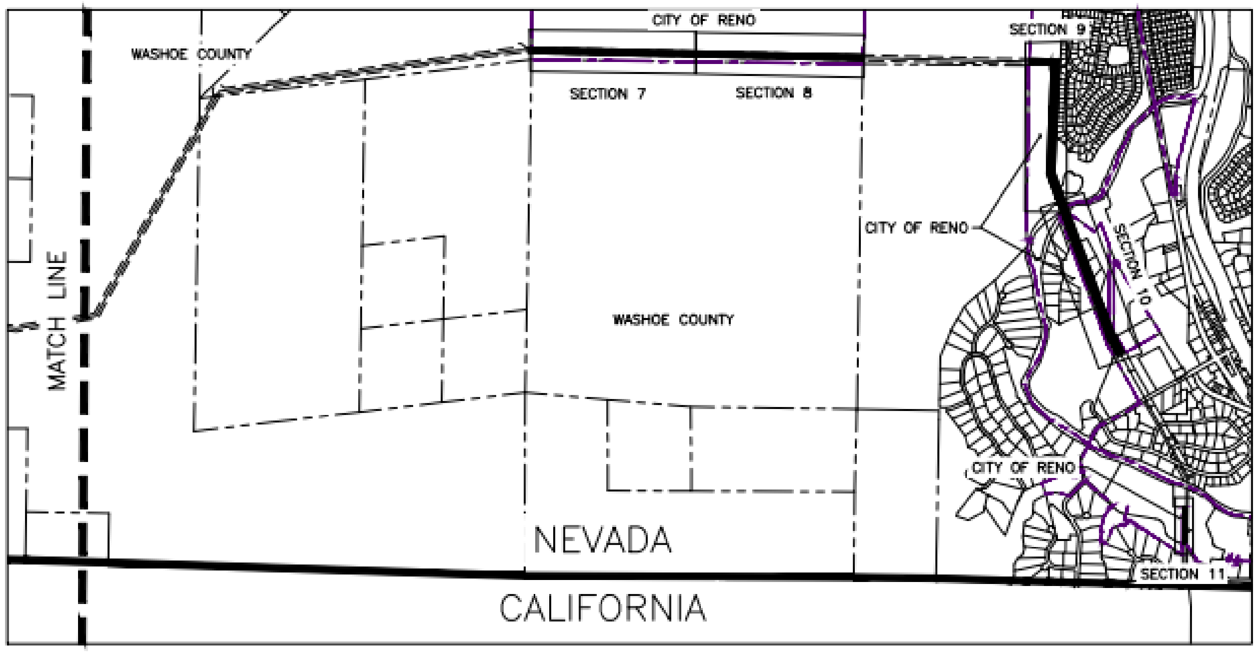
NV ENERGY LINE 1104

SLOPE ANALYSIS MAP (CITY OF RENO AND CITY SOI EASEMENT AREA/ROW)

OVERALL

GRAPHIC SCALE





Slopes Table						
Number	Minimum Slope	Maximum Slope	Area (SF)	Area (Acres)	Percentage of Total Area	Color
1	0.00%	15.00%	709450.55	16.29	40.04%	
2	15.00%	20.00%	153488.53	3.52	8.65%	
3	20.00%	25.00%	145859.46	3.35	8.24%	
4	25.00%	30.00%	169448.52	3.89	9.56%	
5	30.00%	1000.00%	593534.47	13.63	33.50%	

PARCEL BORDER

COR – WASHOE COUTY BORDER

MATCHLINE

EASEMENT

PRELIMINARY NOT FOR CONSTRUCTION

NV ENERGY LINE 1104

SLOPE ANALYSIS MAP OVERALL

RENO NEVADA

CFA, a Bowman company
LAND SURVEYORS
CIVIL ENGINEERS
LAND USE PLANNERS
1150 CORPORATE BLVD. | RENO, NV 89502
775-856-1150 MAIN | CFARENO.COM

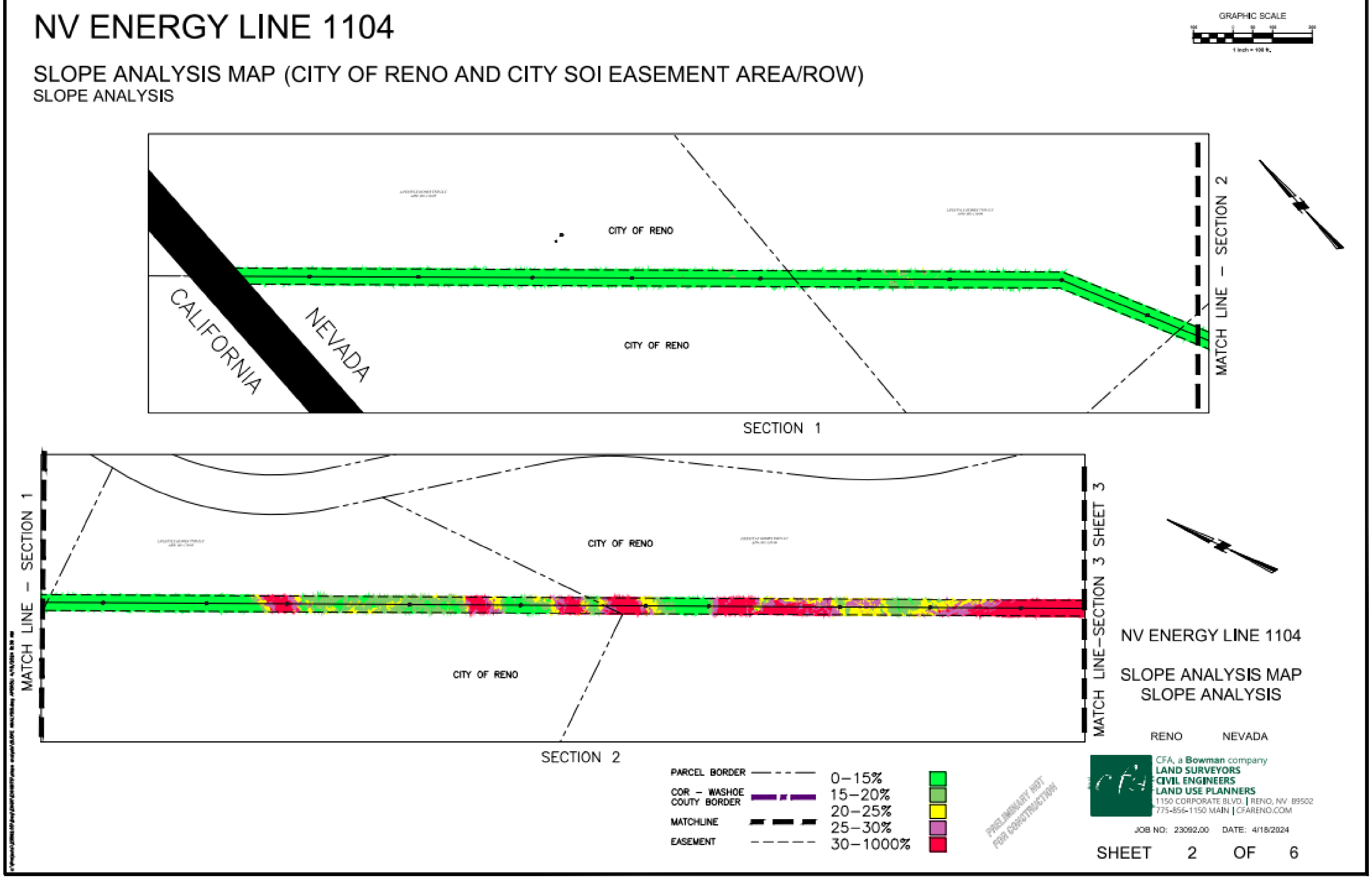
JOB NO: 23092.00 DATE: 4/18/2024

SHEET 1 OF 6

NV ENERGY LINE 1104

SLOPE ANALYSIS MAP (CITY OF RENO AND CITY SOI EASEMENT AREA/ROW)

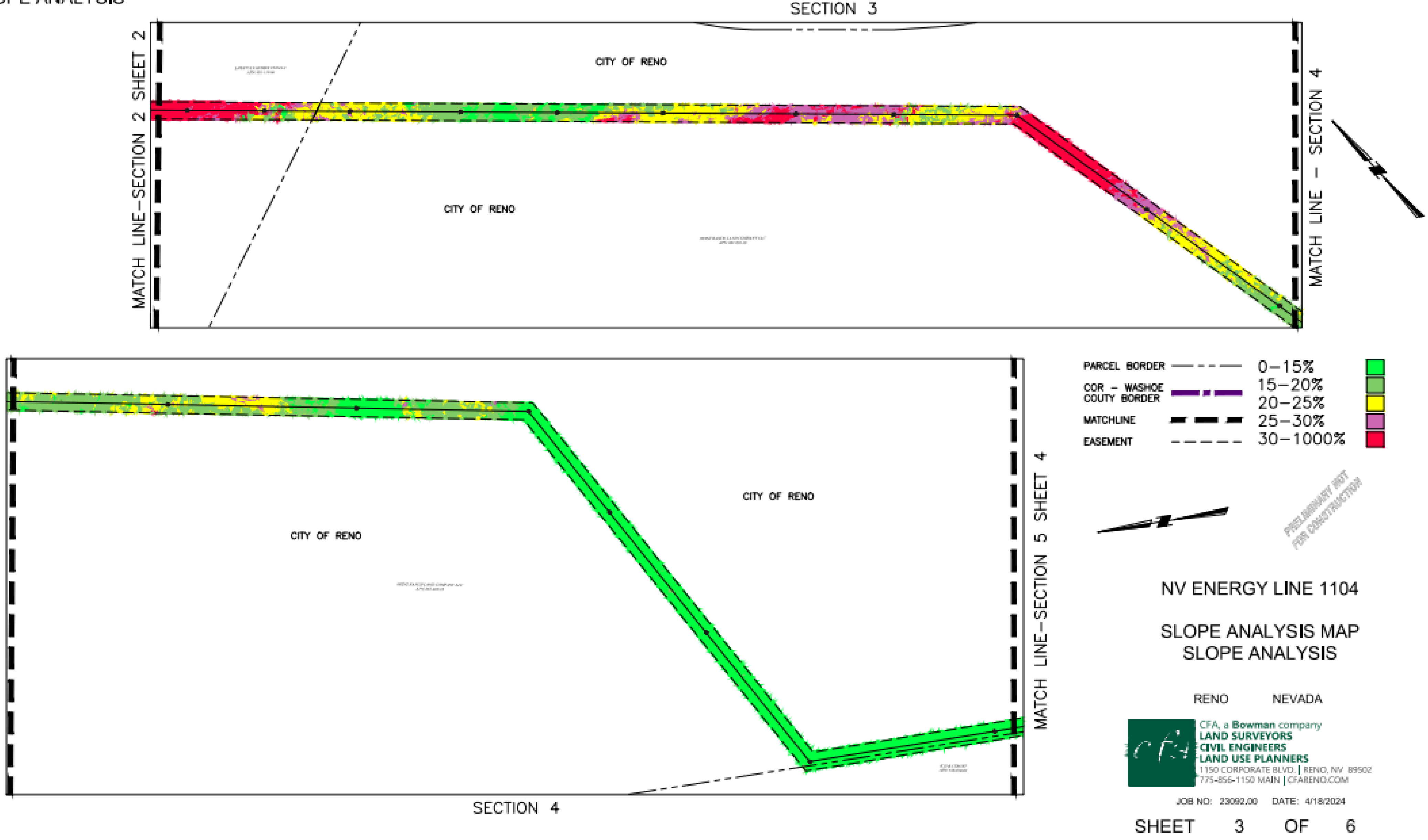
SLOPE ANALYSIS



NV ENERGY LINE 1104

SLOPE ANALYSIS MAP (CITY OF RENO AND CITY SOI EASEMENT AREA/ROW)

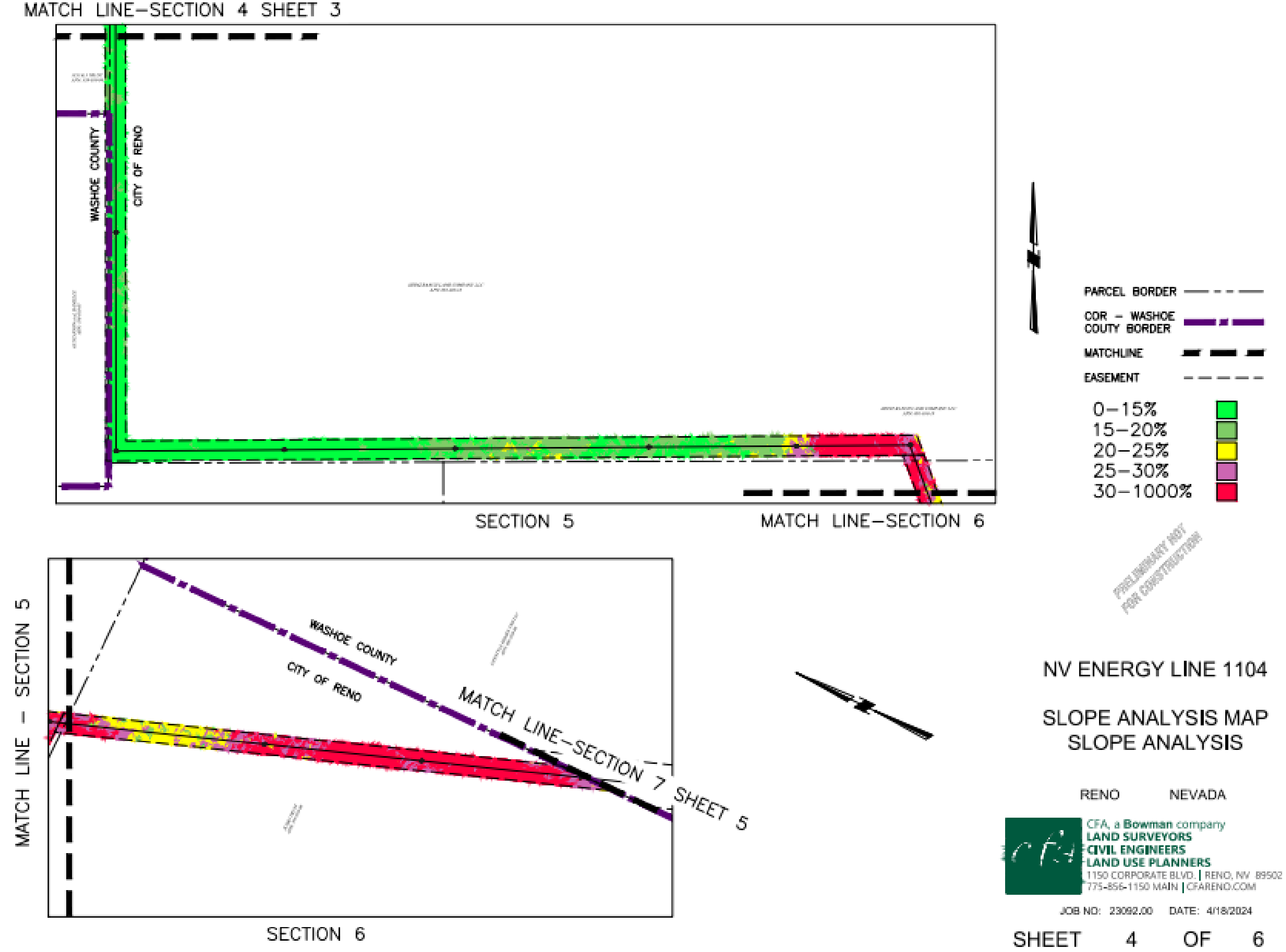
SLOPE ANALYSIS



NV ENERGY LINE 1104

SLOPE ANALYSIS MAP (CITY OF RENO AND CITY SOI EASEMENT AREA/ROW)

SLOPE ANALYSIS



NV ENERGY LINE 1104

SLOPE ANALYSIS MAP
SLOPE ANALYSIS

RENO NEVADA

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JOB NO: 23092.00 DATE: 4/18/2024

SHEET 4 OF 6

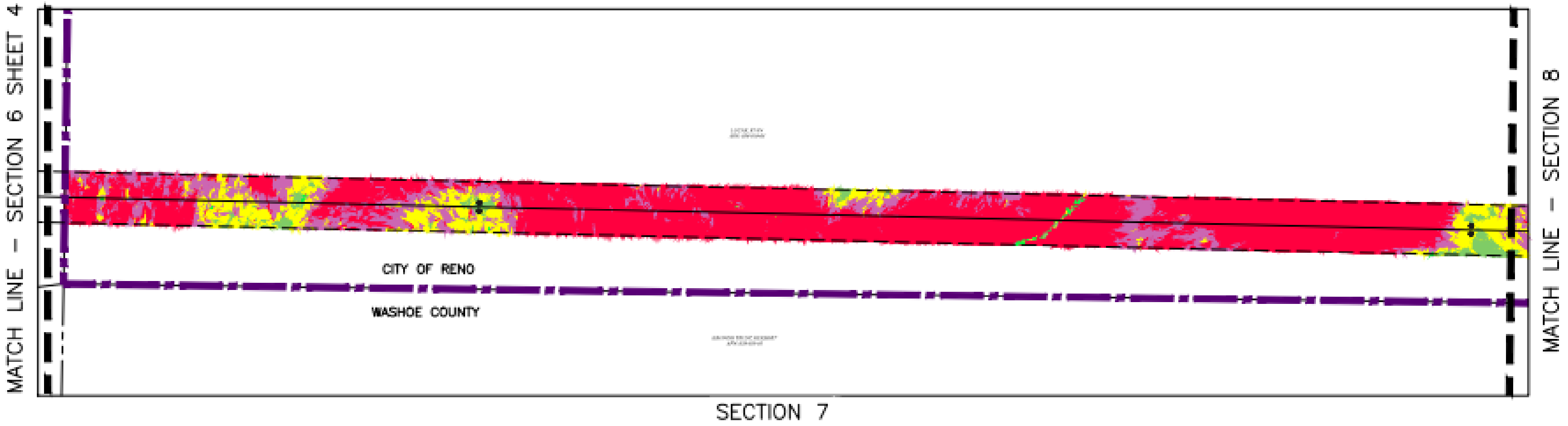
NV ENERGY LINE 1104

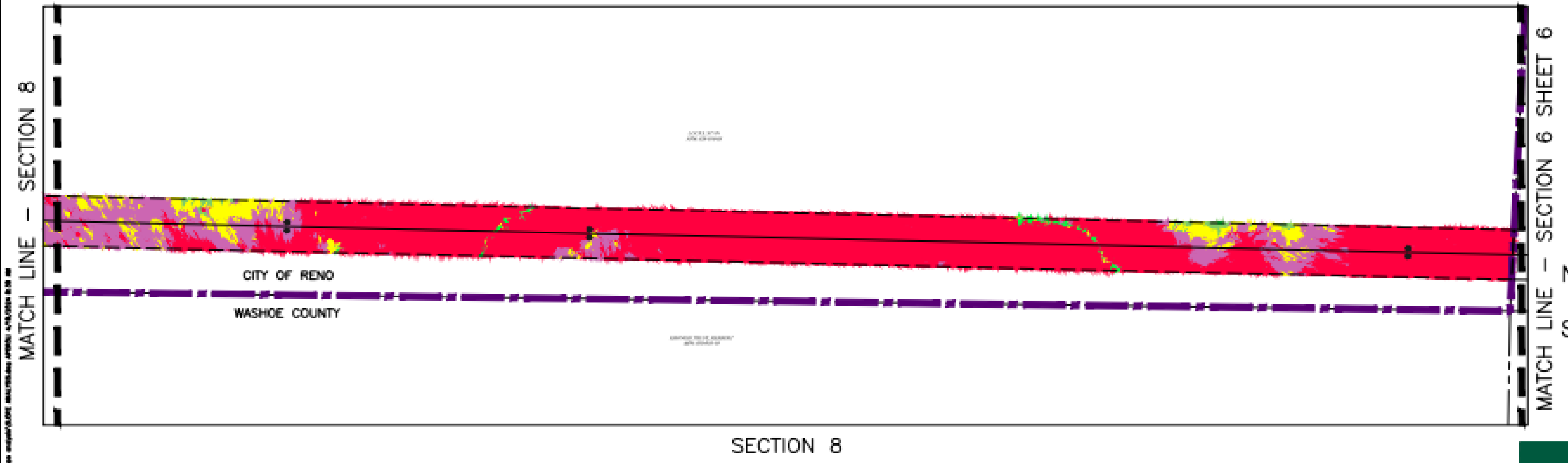
SLOPE ANALYSIS MAP (CITY OF RENO AND CITY SOI EASEMENT AREA/ROW)

SLOPE ANALYSIS

GRAPHIC SCALE

1 inch = 100 ft.





PARCEL BORDER

COR – WASHOE COUTY BORDER

MATCHLINE

EASEMENT

0–15%

15–20%

20–25%

25–30%

30–1000%

NV ENERGY LINE 1104

SLOPE ANALYSIS MAP

SLOPE ANALYSIS

RENO NEVADA

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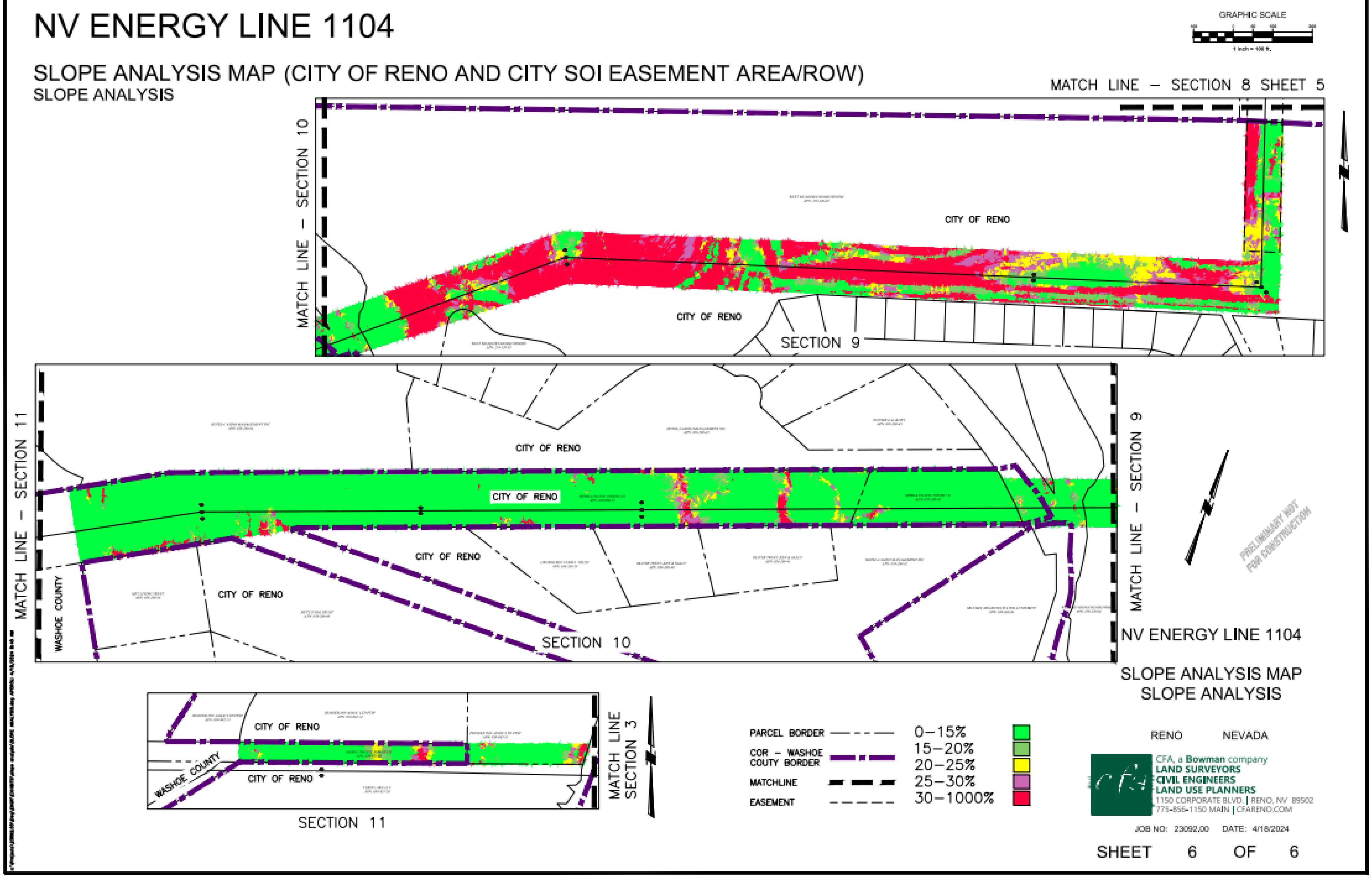
JOB NO: 23092.00 DATE: 4/18/2024

SHEET 5 OF 6

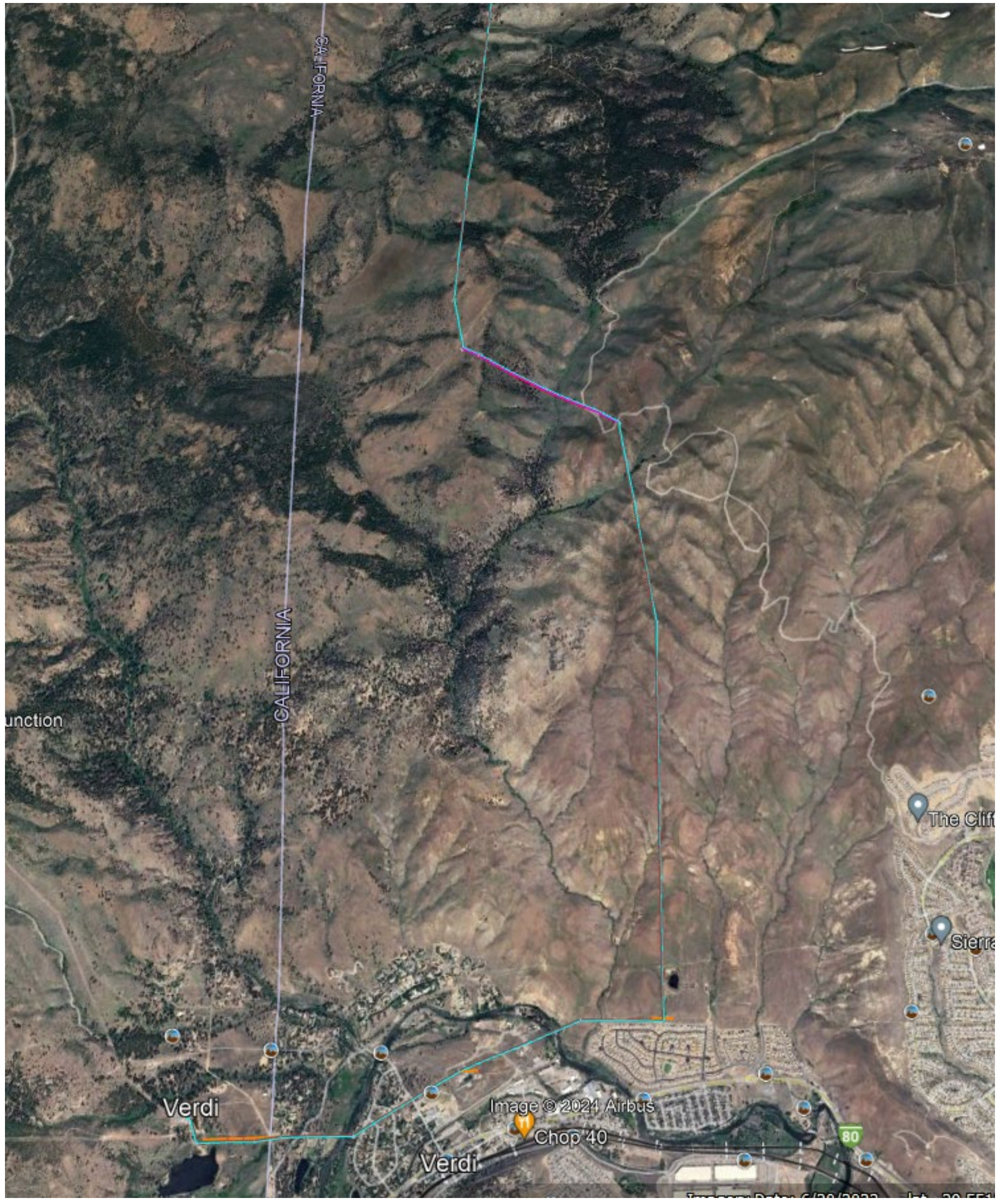
NV ENERGY LINE 1104

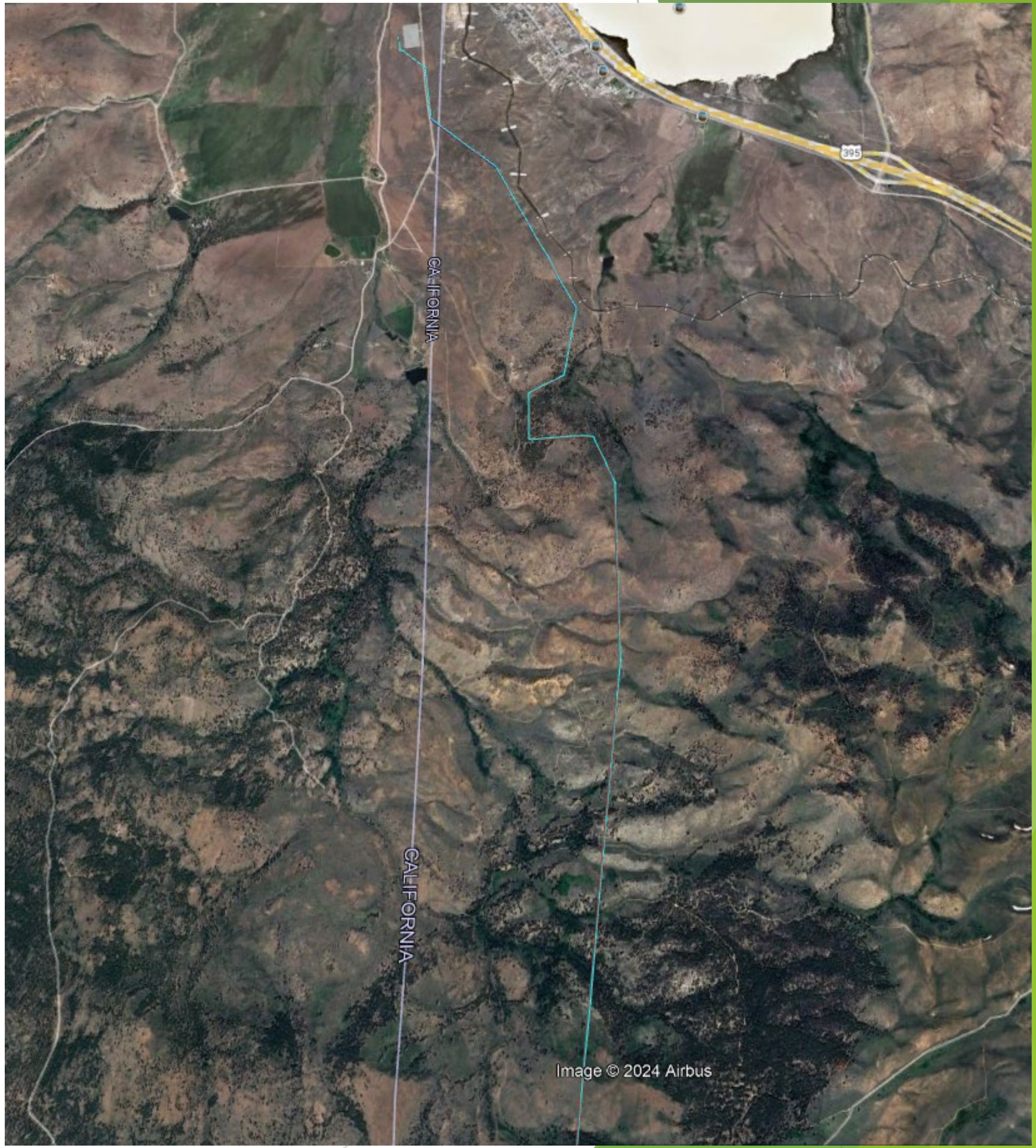
SLOPE ANALYSIS MAP (CITY OF RENO AND CITY SOI EASEMENT AREA/ROW)

SLOPE ANALYSIS



Preferred Alignment – Sparse Vegetation





Alignment Topography – Washoe County Portion

FEIS Exhibit

Temporary Road Improvements