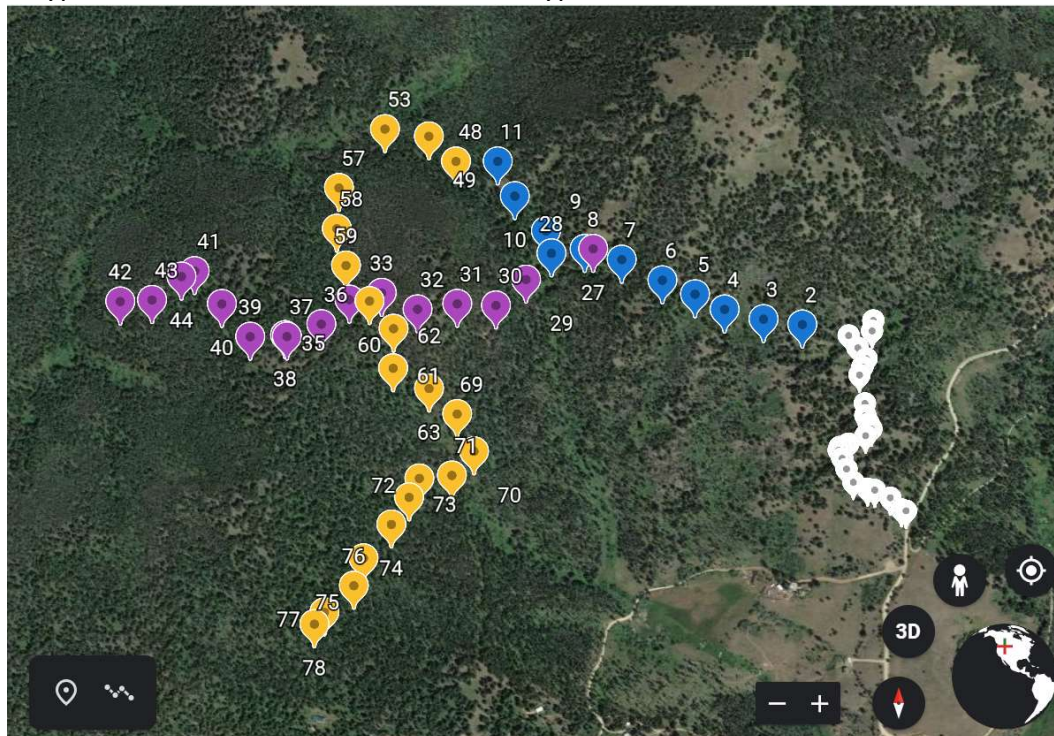


#4000-NS04 is the longest, nearly horizontal blue road extending farthest to the west on the *Alternative 4 Transportation, Trails, and Road Closure/Obliteration Map*.

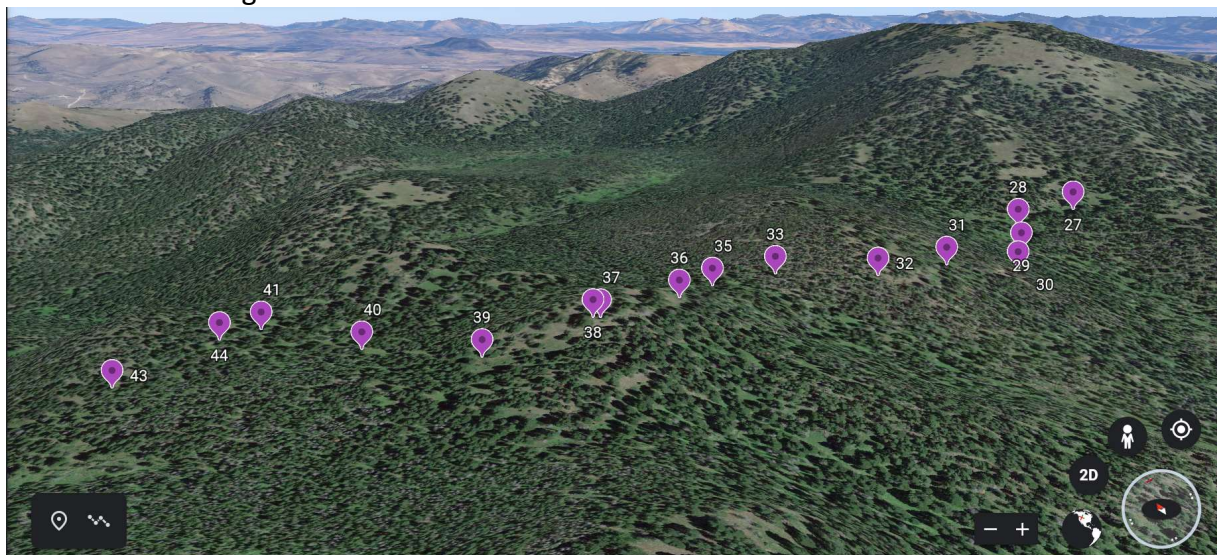
Google Earth map provides a perspective of how 4000-NS04 (purple) lays upon the land with respect to #4000-001 (yellow) and #4000-NS01 (blue), as well as the newly constructed “Feature” road to the IRA boundary. NS04 departs from #4000-NS01 travelling west, at waypoint 8, and crosses #4000-001 at waypoint 60.



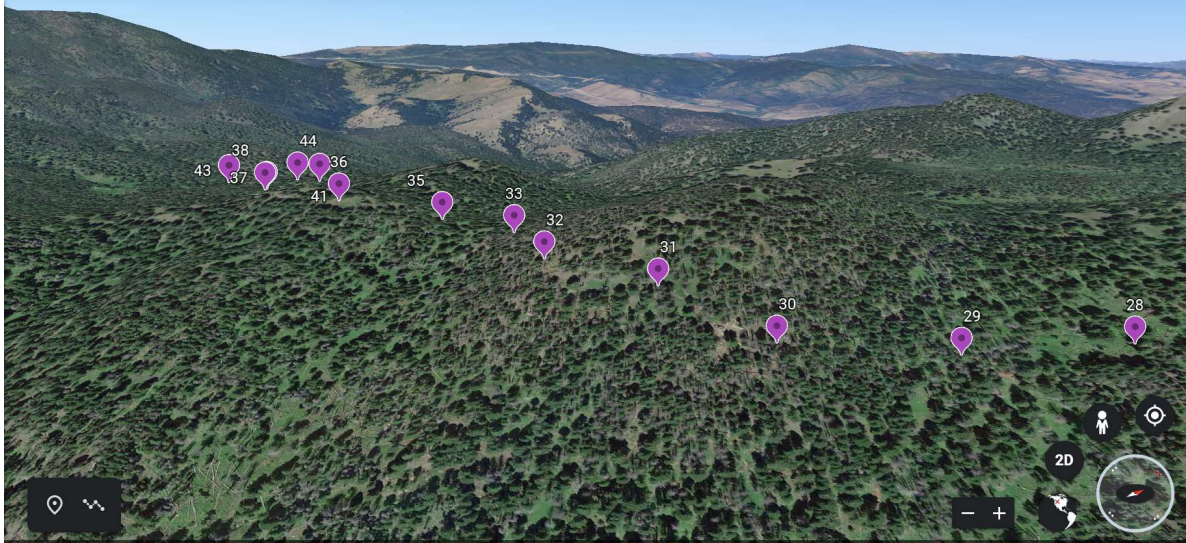
Two dimensional aerial view – a road cannot be seen along the path of #4000-NS04.



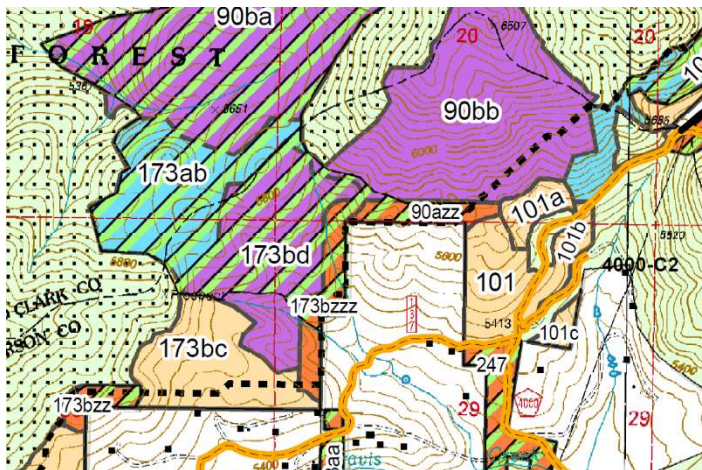
#4000-ONS04 Three dimensional aerial view to the northeast shows the bare ridgeline of the Mount Helena Ridge in the center mid-distance.



Three dimensional aerial view to the west of #4000-NS04. Travis Creek drainage is in the near foreground. Lazyman Parks are in the left center with the ridgeline running up to the left to Black Mountain. Highway 12 can be seen in the distance, topping out on MacDonald Pass on the left skyline.



4000-NS04 would access the middle portion of Vegetation Unit 173ab, a shaded-fuel break with mechanical treatment and the upper half of 173bd, a mechanized burn, both of which allow for green tree timber sales.



Coming from the west out of Unit 173ab, road 4000-NS04 travels east to connect with 4000-NS01 through Unit 90bb and 90azz, then joins with the newly constructed Feature road (white road, above map) to connect to County Road 4000—a major haul route. Or, timber can be hauled via 4000-001 south to private land below regeneration unit 173bc, to join with private road 137 then County Road 4000.

#### METHODS:

Waypoint = Placemark.

At this time I did not have a mapping app so I used the *Alternative 4 Transportation, Trails, and Road Closure/Obliteration Map*, the Black Mountain topographic maps (1:64,000), and a Garmin XL12 GPS device to document the location of #4000-NS04 on its western end where the roadbed become very indistinct. In fact, multiple old prospecting two-tracks wander around on the landscape, making it difficult to locate this particular route without a mapping app such as Avenza (which was later obtained on May 1).

A Google Earth Projection requires gps projection of decimal degrees, minutes, and seconds. Therefore, waypoints were recorded in, DDD° MM' SS.S", in order to place waypoints on a

satellite image using Google Earth. It was not possible for me to download the waypoints to a topographic map.

Google Earth was used to map waypoints on a 3-dimensional satellite image of the “road” and surrounding terrain (below).

Waypoints were taken approximately every 100 yards (120 steps). Sixteen waypoints and 41 photos were taken and filed. At least one photo from each waypoint is displayed here. If multiple photos from each waypoint are displayed, they are all placed on one page.

**Name of Surveyor:** Gayle Joslin  
**Date(s) surveyed:** April 30, 2020  
**GPS Model:** Garmin XL12  
**Datum:** WGS84  
**GPS Position Format:** hddd°mm’ss.s”  
**Mapping Apps:** At this time I did not have a mapping app that would geo-reference the FS Tenmile-South Helena Project Alternative 4 Transportation, Trails, and Road Closure/Obliteration map (D5\_2d\_20161115\_MapTenmileALT4Transport) so I used this map in addition to the 1:64,000 Black Mountain topographic map and my gps to locate route 4000-NS04.  
Google Earth 3D waypoint map  
**Time spent:** April 30, 2020 3 hours, 40 minutes

**Survey (waypoints, photos, and narrative):**

#4000-NS04 accesses a mining claim between waypoint 30 and 31 (see photo 12). It extended to other turn-of-the-19<sup>th</sup>-Century mine exploration claims to waypoint 42 and beyond. It is one of many old exploration two-tracks created by wandering miners. The bottom logs of a miners cabin exists in a meadow along the creek just to the west of Waypoint 42. A roadbed exists from waypoint 27 to 37 but become indistinct and fades periodically beyond waypoint 37. Downfall impedes even walking travel between waypoint 27 and 33.

Both white-tailed deer and mule deer are present, as well as the occasional moose, but the area is heavily used by elk, particularly during the fall, because of its excellent security value. Great gray owls regularly nest in this vicinity.

**Existing National Forest Transportation System road?** [Matt – Yes/No and explain]

**Will road be added to National Forest Transportation System during project, as per Tenmile project ROD?**

**Will road be used by mechanized equipment as per Tenmile project ROD?** Yes [ Matt - explain, if possible]

**Purpose of the road as per Tenmile project ROD:**

[Matt – i.e., to access units \*\* which include \*\* and will entail \*\*.]

**Closure method proposed for road after project complete as per Tenmile ROD:** [Matt – explain obliteration etc.. and what that entails/other info. from record etc..]



Waypoint 27.1 #4000.NS01 goes right and #4000-NS04 goes left. Looking southwest. Tape = 6'. 25% slope. Seedlings growing in old roadbeds.



Waypoint 27.2 Downfall obstructs #4000-NS04. Looking west.



Waypoint 27.3 Looking back to east.



Waypoint 27.4 Tangle of downfall. Tape = 3'. Thick carpet of kinnikinick. West.



Waypoint 27.5 Looking back to East.



Waypoint 28.6 Good sized Ponderosa growing in middle of roadbed. Looking southwest.



Waypoint 28.7 Same Ponderosa with 6" dbh.



Waypoint 28.8 Several large young trees (4-5" dbh) have reclaimed the roadbed, which curves to the south. Abundant elk pellet groups.



Waypoint 28.9 Old corral from a long-ago hunting camp. Looking south. Well developed ground cover over old roadbed.



Waypoint 29.10 Looking south with steep hill to right. 7' roadbed.



Waypoint 29.11 Looking back at the corral to northeast. Chessman Ditch contours below this old roadbed within 30 yards.



Waypoint 30.12 Tape = 9'. Old abandoned truck left at mine site.



Waypoint 30.13 Abundant elk sign. Looking back to north-northeast. There is a favored elk foraging area approximately 400 yards beyond this point.



Waypoint 30.14 Old abandoned truck at mine adit that has caved in. Roadbed diminishes in scope beyond this point.



Waypoint 31.15 Looking southwest. Tape = 6'. 30% Navigable downfall.



Waypoint 31.16 Looking back to east. Deep downfall.



Waypoint 32.17 Approaching end of the worst downfall. Tape = 7'. NW



Waypoint 33.20 4000-NS04 turns to south to go up very steep hill in the pass between Colorado Gulch and North Fork of Travis Creek. Looking southwest. Junction with #4000-001. Abundant elk pellet groups.



Waypoint 35.23 Steep hill looking up to south. 3' tape laying over trail. Looking south. 35%



Waypoint 35.24 Looking down to north and the pass between Colorado Gulch and Travis Creek.



Waypoint 36.25 From this point onward, very little blowdown, but much paint on trees. Top of grassy hill. Clearly heavily used by elk. Heavily vegetated old roadbed = 9'.



Waypoint 36.26 Doug-fir saplings growing to 5' in height in roadbed. Looking northeast. 5%



Waypoint 36.27 doug-fir and Ponderosa saplings in roadbed. Looking west-southwest.



Waypoint 37.28 Looking west at Black Mountain just above the trees. Trail only from here. 15% slope. Elk pellet groups everywhere.



Waypoint 38.29 Trail only covered in rocks and saplings of Ponderosa pine and Doug-fir. Looking back to east-northeast.



Waypoint 39.30 Barely a trail. Tape = 3'. Looking northwest. 10% slope. Open Douglas fir forest. Lots of timber cruising paint on trees.



Waypoint 39.31 Curve in the trail. Tape = 3'. Thick grass and saplings. Looking south-southeast. 20% slope.



Waypoint 40.32 No trail. Tape = 3'. Looking northwest. Gentle slope.



Waypoint 40.33 Looking back uphill to southeast. Tape = 3'. Seedlings.



Waypoint 41.34 Looking back to south-southwest. Faint trail curves to east. Flat.



Waypoint 41.35 No road or trail. Tape to 3'. NNE aspect. Flat. Many seedlings growing in the curve of where a roadbed would be. With a thunderstorm threatening, at this point I hiked out to find the end of the "road" then worked my way back to this spot.



Waypoint 42.36 END of the "road" looking down to the west. Many boulders and some downfall. Outside both edges of photo are Unit vertical-stripe boundary trees (not shown), marking the edge of Unit 173ab – a shaded fuel break



Waypoint 42.37 END of the “road” looking up to the east. From here I started back toward waypoint 41, in order to more quickly fill in the survey before an imminent thunderstorm.



Waypoint 43.38 Looking back down to the southwest. A trail exists but no roadbed. 10% slope



Waypoint 43.39 Orange vertical stripe denotes edge of harvest unit 173ab. Although the ancient roadbed continues down the mountain, the *Road Closure/Obliteration* map ends #4000-NS04 at the unit boundary. Looking NE.



Waypoint 44.40 No Trail. Looking south. Flat.



Waypoint 44.41 NE Flat

(100 steps back to my pack and waypoint 41)

Field Form 4000-NS04

NEG = No Bare Ground 4000-NS04

HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORTATION/RD CLOSURE MAP										Technician: Gayle Joslin	
Route Location: TAVIS NF		Lower Bucket Loop		Route# (from map): 4000-NS04 (Lazyman) or Jericho (circle)		Waypoint every 300'		Pg 1 of 2			
Date: 4-30-2020		Time Out: 11:55		Time In: 3:45		Duration: 3 hrs. 40 min.					
GPS Model/ID: GARMIN XL12		Datum: WGS 84		GPS position (UTM/hdms): 463053.4		Elevation: 5515					
Comments: Eg: Improvements needed for heavy equipment? Big rocks; Tree removal; Side slope (vehicle would roll); Sharp turns											
Field Tools: GPS, map, camera, clip board, field forms, compass, pencils, batteries, personal gear (sunglasses, hat)											
Time	Wpt	Steps	Photo#	Description (of photo)	Comment	Aspect	Width	Slope	Water	Lat-Long/UTM	
12:27	27	0	1	NS04 - Take off from NS01 Lower road	0.5 mi. RT	SW	6 ft	25%	N	463053.0	463057.1112 08 29.30
		95	2	Downfall DE PP - 2.0 Truss	Big Down Truss at	W					
		98	3	180°	Up to detn (caution)	E					
44	28	0	4	HUGE Downfall of King's Clink	No Trail	S	4	57%		463056.8	112 09 23.7
		5	5	180°	Colorado's side	E					
		30	6	PP groove Big down old DF	lot in background	SW	6'	5%			
		45	7	PP 1/2 dbn grassy in roots							
		70	8	Gravel Trail 4-5" dbn PP + LF	EIK pellets						
		70	9	Corral - 2' across rd	at road	S					
125	29	0	10	Grass Strawberry NEG	4 OT	S	7'	40%		463054.9	112 08 36.1
		0	11	130° Corral Duff	RT - Duff	NE	7'	steep			
		30	12	Try get at old mine PP in route	EIK ↑	SW	9'			463053.0	112 08 29.6
		0	13	180° across route	EIK pellets	NNE					
		30	14	Old Track + Colapad mine							
22	31	0	15	1 leg on grass	EIK pellets	SW	6.1'	30%		463053.1	112 08 43.7
		0	16	180° Hi loop over rt	Mon's bucket	E					
28	32	0	17	Track Downfall grass 0.6 slope		NW	7'	25%		463052.7	112 08 47.9
		0	18	180° PP DF "Seedling King"		NE					
40	33	0	19	RT flat Downfall King 2.0 or LFT	Big 2.0 or LFT	NW	1'	15%	Trail end of the track	463053.9	112 08 51.7
		0	20	180° huge jumble Bd DF down on top others		SE	5'	15%			
44	34	0	21	Big DF w/long on top 2.0 or LFT	Colorado's side	NW	9'	Flat	Wide	463053.6	112 08 53.7
		0	22	180° Hand on Duff		SE		Flat			
200	35	60	23	Turn S on top ridge between TAVIS-COLORADO	EIK pellets						
46	35	0	24	Setup Hill up	3 TAPE	S	Trail	25%	Flat	463053.4	112 08 55.1
		0	25	Down to Pass + detn w/ 100-001	NEG	N		25%	Forget the triple		
48	36	0	26	Top Hill - grass NEG		SW	9'			463051.6	112 08 58.0
		0	27	180° DF Seedling to 5' mt grass Shannon Mt		NE		5%			
		60	28	DF 2-3" " Big Snag on LFT	Sky view	WSW					

TAPE MEASURE out to 3' for value size reference

NS04

HELENA HUNTERS & ANGLERS FIELD ANALYSIS OF TSH PROJECT TRANSPORTATION/RD CLOSURE MAP										Technician: Gayle Joslin	
Route Location: TAVIS - Colorado		Lower Bucket Loop		Route# (from map): 4000-NS04 (Lazyman) or Jericho (circle)		Waypoint every 300'		Pg 2 of 2			
Date: APR 16 2020		Time Out: 11:55		Time In: 3:45		Duration: 3 hrs. 40 min.					
GPS Model/ID: GARMIN XL12		Datum: WGS 84		GPS position (UTM/hdms): 463053.4		Elevation: 5515					
Comments: Eg: Improvements needed for heavy equipment? Big rocks; Tree removal; Side slope (vehicle would roll); Sharp turns											
Field Tools: GPS, map, camera, clip board, field forms, yard stick, compass, pencils, personal gear (sunglasses, hat)											
Time	Waypoint	Photo#	Description (of photo)	Comment	Aspect	Width	Slope	Water	Comments	Lat-Long/UTM	
2:31	37	28	Looking down toward Black Mt	NEG	W	Trail	15%		EIK pellets everywhere	463050.8	112 09 01.6
		29	ROCKS on trail end of old rd lead Trail		NE	Tr				463050.8	112 09 01.6
		39	Big DF on LFT - Downfall DE background - looking down		NW	Tr	10			463050.7	112 09 05.6
		40	180° Curve w/ lots DF in trail for 20 ft		SE	Tr	20			463053.0	112 09 08.1
		41	180° up hill		NW	no trail	grade			55.0	112 09 08.1
		41	180° up hill		SE					55.0	112 09 08.1
		41	180° up hill		NE	Flat				55.5	112 09 11.6
		41	180° up hill		SW					55.5	112 09 11.6
3:27	42	29	END of RD at "Unit marks"	on either side + not shown	W	20 BED	20%			463053.3	112 09 19.7
		40	" 3 on left		E					53.3	112 09 19.7
		43	180° going back to my pack		SW	Tr	10		Big rock Pt tow	463053.4	112 09 16.2
		43	180° going back to my pack		NE	Tr	10			55.1	112 09 16.2
		44	180° going back to my pack		S						
3:40	44	43	180° to S limb on grass		NE					463055.1	112 09 13.0
		44	180° to S limb on grass							55.1	112 09 13.0

**WAYPOINTS for 4000-NS04****April 30, 2020**

WAYPOINT,027,46.51587188,-112.14147457,30-APR-20 18:35,  
WAYPOINT,028,46.51578605,-112.14268156,30-APR-20 18:43,  
WAYPOINT,029,46.51525497,-112.14344868,30-APR-20 19:09,  
WAYPOINT,030,46.51472926,-112.14433917,30-APR-20 19:14,  
WAYPOINT,031,46.51475072,-112.14546033,30-APR-20 19:22,  
WAYPOINT,032,46.51464343,-112.14664050,30-APR-20 19:31,  
WAYPOINT,033,46.51496530,-112.14769193,30-APR-20 19:36,  
WAYPOINT,034,46.51515841,-112.14824446,30-APR-20 20:06,  
WAYPOINT,035,46.51484191,-112.14863607,30-APR-20 20:15,  
WAYPOINT,036,46.51432693,-112.14943537,30-APR-20 20:17,  
WAYPOINT,037,46.51408553,-112.15049216,30-APR-20 20:28,  
WAYPOINT,038,46.51406407,-112.15050825,30-APR-20 20:33,  
WAYPOINT,039,46.51408553,-112.15154358,30-APR-20 20:43,  
WAYPOINT,040,46.51472390,-112.15224632,30-APR-20 20:51, ,  
WAYPOINT,041,46.51541054,-112.15322264,30-APR-20 21:00,  
WAYPOINT,042,46.51479900,-112.15547034,30-APR-20 21:20,  
WAYPOINT,043,46.51483655,-112.15451011,30-APR-20 21:28,  
WAYPOINT,044,46.51529789,-112.15361961,30-APR-20 21:31,