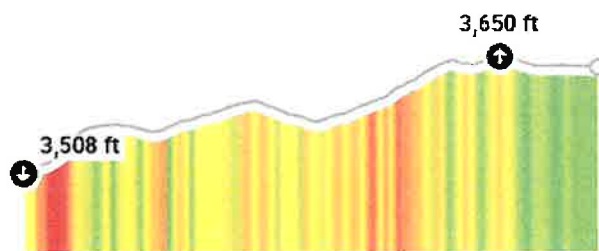


Grimes Pass Road Proposal

This document outlines our preliminary plan for the access road construction on the property's East side of the forest road. The proposed route has been carefully designed to follow natural contours where possible, aiming for an average road grade of approximately 0%-5.3%, which falls well within acceptable limits for dirt or gravel roadways. While most of the route maintains a moderate incline, there are sections that will approach an 8–10% grade. These steeper segments may require adjustments during construction, including minor rerouting, the addition of switchbacks, or cut-and-fill work to ensure long-term durability and safe access.

It's important to note that this plan represents our best estimate based on current topography and mapping tools, but it remains subject to change as we assess ground conditions more precisely during construction. On-site factors such as soil stability, drainage behavior, and vegetation may influence final routing and structural decisions. Flexibility will be critical to achieving both a functional and environmentally sound result.

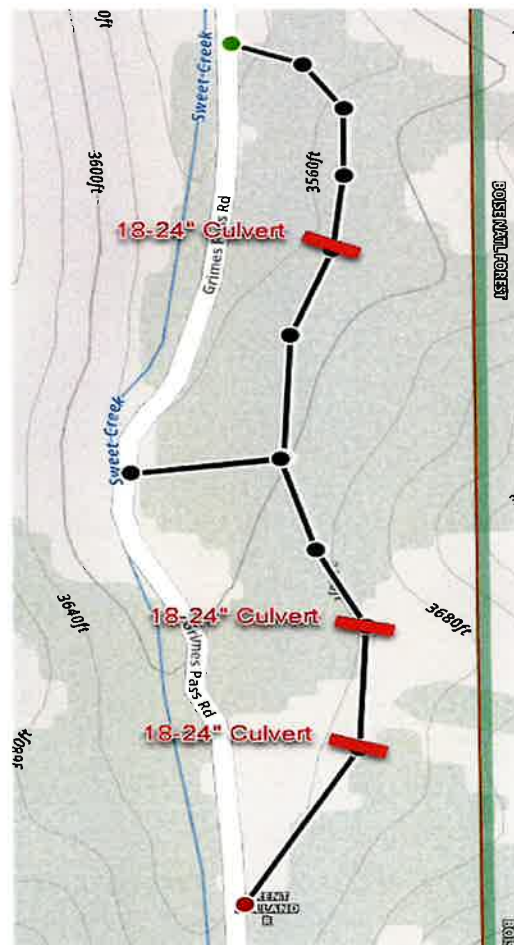
Elevation



Distance
↔ **745** yds

Elevation Gain
↗ **130** ft

Elevation Loss
↘ **0** ft



Road Overview

- The proposed road starts at NF-382 (Grimes Pass Rd) and climbs gently Eastbound into the property, where it then heads South allowing access to potential building sites. There is a mid-point access point which allows for an additional turn around option while keeping separation between potential building sites.
 - The average grade is ~5.3% which is ideal for gravel roads and very manageable for most vehicles, including utility, emergency, and construction traffic. The road is approximately 2,235 feet in length and has roughly 150 feet of elevation gain. Elevation ranges from around 3500 ft to 3650 ft.
 - The road generally follows natural ridgelines and contour lines, which is good for minimizing erosion and road maintenance.
-

Road Plan

1. **Grade Considerations:** We will maintain a road grade of under 8-10%. If needed, we will consider switchbacks or cut-and-fill techniques to maintain safe grades.
 2. **Road Surface:** We will use a dirt or gravel surface with a crown to shed water. We will use a compact subgrade and consider using geotextile fabric in low-lying or wet areas.
 3. **Width:** This will be a single-lane access road ~12 feet wide and will incorporate passing zones every ~500 ft or where there is limited visibility to oncoming traffic.
-

Drainage Plan

1. **Cross-slope and Crowning:** The road will be designed with a 2-5% crown (center higher than edges) to shed water.
2. **Ditches and Water Bars:** Where there are nearby cabins, we will install ditches on the uphill side for drainage to divert runoff and reduce erosion.
3. **Culverts:** There are three seasonal runoff areas we have identified and we will install 18-24" culverts in those areas. If we find any other low points on the road or additional areas with signs of runoff, we will install additional culverts.
4. **Erosion Control:** We will use rock check dams, riprap, or erosion control mats where water exits ditches.

Grimes Pass Dwelling Grading and Drainage Plan

This section outlines our approach to grading and drainage for future dwellings on the property. Due to natural topography, building sites may be situated on light, moderate, or steeper slopes, and we are proactively planning for each case. Our intent is to ensure structural stability, prevent water intrusion, and minimize environmental impact through responsible site development and runoff management.

All grading and drainage will be implemented in compliance with local regulations and best practices for rural development in sloped, forested environments.

Light Slope (0%–5% Grade)

Site Prep and Grading:

- Minimal grading required; shallow cuts and fills to level the building pad.
- Slight excavation around foundation perimeter to promote positive drainage away from the structure.

Drainage Strategy:

- Use of shallow swales or berms to direct runoff around the dwelling.
- Roof water will be collected via gutters and directed to planned run-offs or daylighted away from the structure.

Retaining and Erosion

- No structural retaining walls are expected, although this is subject to change based on conditions assessed during construction.
 - Native vegetation preserved where possible.
 - Straw wattles or silt fencing used during construction to control sediment.
-

Moderate Slope (5%–10% Grade)

Site Prep and Grading:

- Balanced cut-and-fill approach to reduce export/import of soil.
- Foundation may step with the slope to minimize grading impact.

Drainage Strategy:

- Surface water diverted using perimeter swales or French drains.

- Gutters and downspouts directed into rock-filled dispersion trenches or infiltration basins.
- Rocked swales may be used to slow and filter runoff.

Retaining and Erosion

- Low retaining walls (under 4') may be used on the uphill side to manage cut slopes.
 - Landscape terracing to control surface runoff and minimize erosion.
 - Geotextile fabric on slopes steeper than 3:1.
 - Re-seeding or native plant restoration immediately post-grading.
-

Steep Slope (10%+ Grade)

Site Prep and Grading:

- Careful pad placement to minimize large cuts or fills.
- Use of stepped or pier-and-beam foundations to adapt to grade.

Drainage Strategy:

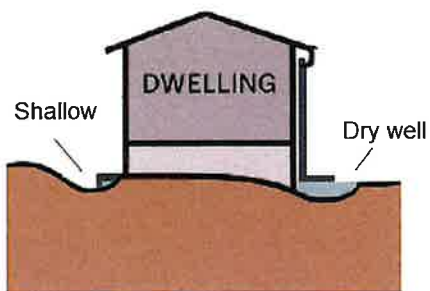
- Interceptor swales upslope to divert water away from the pad.
- Combination of French drains and subsurface drainage to prevent water accumulation behind cut banks.
- Roof runoff directed into a controlled drainage path (e.g., down-drains to riprap splash pads or infiltration pits).

Retaining and Erosion:

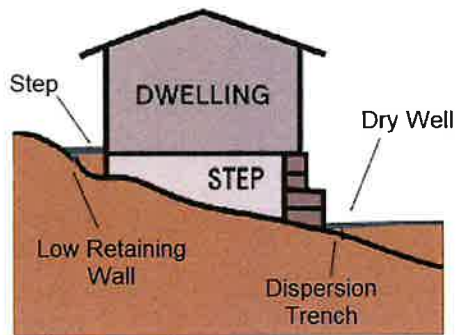
- Engineered retaining walls where required, especially on cut slopes greater than 3:1.
- Reinforced slopes with geogrid or gabion structures if needed.
- Erosion control blankets or mats installed during construction.
- Long-term erosion control via deep-rooted native planting and strategic groundcover.

DWELLING GRADING DRAINAGE PLAN

LIGHT SLOPE (0–5% GRADE)



MODERATE SLOPE (5–10% GRADE)



STEEP SLOPE (10%+ GRADE)

