



NorthPoint Consulting Group, Inc.
P.O. Box 44
Eureka, CA 95502
(707) 798-6438



Exhibit D

January 21, 2019

Humboldt County Department of Public Works
531 K St. Eureka, CA 95501

RE: Humboldt Optimal Growth Farms, LLC. Road Evaluation Report
APN: 221-101-012
Apps# 11317

Dutyville Road and Doody Ridge Road provide access for numerous property owners in the Ettersburg area and are classified as *very low-volume local roads*. The American Association of State Highways and Transportation Officials (AASHTO, 2001) defines a *very low-volume local road* as a road that is functionally classified as a local road and has a design average daily traffic volume (ADT) of 400 vehicles per day or less. The subject parcel, APN: 221-101-012 is accessed from Doody Ridge Road, which leads off from Dutyville Road. Dutyville Road leads off from Ettersburg-Honeydew Roads which is paved and maintained by the County of Humboldt. Separate Road Evaluation Reports have been completed for Dutyville Road and Doody Ridge Road, leading to the subject parcel.

This Road Evaluation Report is comprised of the following:

- Exhibit 1: Dutyville Road Evaluation Summary and Road Evaluation Map
- Exhibit 2: Doody Ridge Road Evaluation Summary and Road Evaluation Map
- Exhibit 3: Road Evaluation Photographs

Road Points (RPs) were located along Dutyville Road and Doody Ridge Road, and the Road Points were analyzed. RPs are defined as interest points along the subject roads; locations of pinch points, locations of sight distance restrictions or intersections. The road widths were measured, photos were taken, and recommendations were prescribed at each Road Point. The recommendations are based on whether the RPs pose a site-specific problem. See Exhibit 3: Road Evaluation Photographs for photos of each RP. The photos also contain indication of the location of any remediation/treatment, if any were recommended for that corresponding RP.

In conclusion, the subject roads leading to the subject parcel need only minor modification to accommodate the increased traffic due to Humboldt Optimal Growth Farms, LLC's proposed project. Minor modifications include the installation of signs notifying motorists of a single lane bridge, the installation of new turn outs and maintaining existing turnouts. See Exhibit 1 for a summary of the Road Evaluation for Dutyville Road and see Exhibit 2 for a summary of the Road Evaluation for Doody Ridge Road. All proposed modifications should be coordinated with members of the existing road maintenance association.

If you have any questions, please contact me at (707) 798-6438.

Sincerely,

Praj White, P.E.

Dutyville Road Evaluation Summary

This Road Evaluation Summary describes the first 4.89 miles of Dutyville Road, leading off from Ettersburg-Honeydew Road. See the attached Road Evaluation Map for the section of Dutyville Road that was evaluated, the location of the Road Points (RP), and location of any prescribed treatment. Table 1 below contains a description of the Road Points, Latitude and Longitude, and the measure road width of each RP. The table also describe if there is a turn out present within appropriate distance to the RPs, and the recommended prescription for each RP. See Exhibit 3: Road Evaluation Photographs for photos of each Road Point. The photos also contain indication of the location of any remediation/treatment, if any were recommended for that corresponding RP. Not including the RPs, all other sections of the subject road are at least 20 feet in width, do not restrict visibility and do not pose a site-specific problem.

Table 1: Description of Road Points for Dutyville Road.

RP	Figure(s)	Lat. Long	Description (Current)	Measured Width (ft.)	Turnout provided?	Recommendation
1	1	40.1402, -123.9906	Intersection of Ettersburg-Honeydew Rd & Dutyville Rd.	25'+	N/A	N/A
2	2	40.1431, -123.9900	Bridge, 18'x90'. Sight distance restriction present.	18'	YES	Install "ONE LANE BRIDGE AHEAD" sign in each direction
3	3	40.1544, -123.9947	Bridge, 9'x64'. No sight distance restriction.	9'	YES	Clear existing turnout of debris and maintain
4	4 & 5	40.1718, -123.9908	Pinch Point. No sight distance restriction.	13'	YES	NONE
5	6 & 7	40.1786, -123.9894	Pinch Point. No sight distance restriction.	13.5'	YES	Clear existing turnout of debris and maintain

The average daily traffic (ADT) of the 4.89-mile section of Dutyville Road is estimated to be 96. There are 24 parcels located off of Dutyville Road. Based on 2 trips per day per parcel that access the subject section of road, the ADT was estimated to be 96. During the peak operating season, Humboldt Optimal Growth employs four (4) employees. During this time, the ADT is estimated to increase to only 104. The increase in traffic is minimal and is not expected to negatively impact the surrounding area. Furthermore, the designated road speed for Dutyville Road is 25 miles per hour (Humboldt County WebGIS), classifying it as a very low-volume road with low speeds (AASHTO, 2001).

The AASHTO guidelines also suggest that rural very low-volume roads are traveled by drivers that are familiar with the road segments, which corresponds to even fewer auto accidents. The AASHTO guidelines suggest that existing, very low-volume roads with low speeds should not be modified except in cases where there is evidence of a site-specific safety problem.

There are two bridges located on the 4.89-mile section of Dutyville Road (RP2 and RP3). The bridge at RP2 poses sight distance restriction. It is recommended to install signs indicating that there is a one lane bridge ahead. The signs should be installed before the bridge, in each direction and meet state and local specifications. The bridge at RP3 is narrow but does not pose sight distance restriction and has turnouts provided at each side of the bridge to allow for oncoming vehicles to pass safely. It is also recommended to clear all existing turnouts of overgrown vegetation and debris. Table 1, the attached map and Exhibit 3 describe the location of each prescribed recommendation. All other sections of Dutyville Road are equivalent to category 4 road standards.

See Exhibit 2: Doody Ridge Road Summary and Road Evaluation Map for the remaining roads leading to the subject parcel.

Humboldt Optimal Growth Farms, LLC.
Road Evaluation Map - Dutyville Road

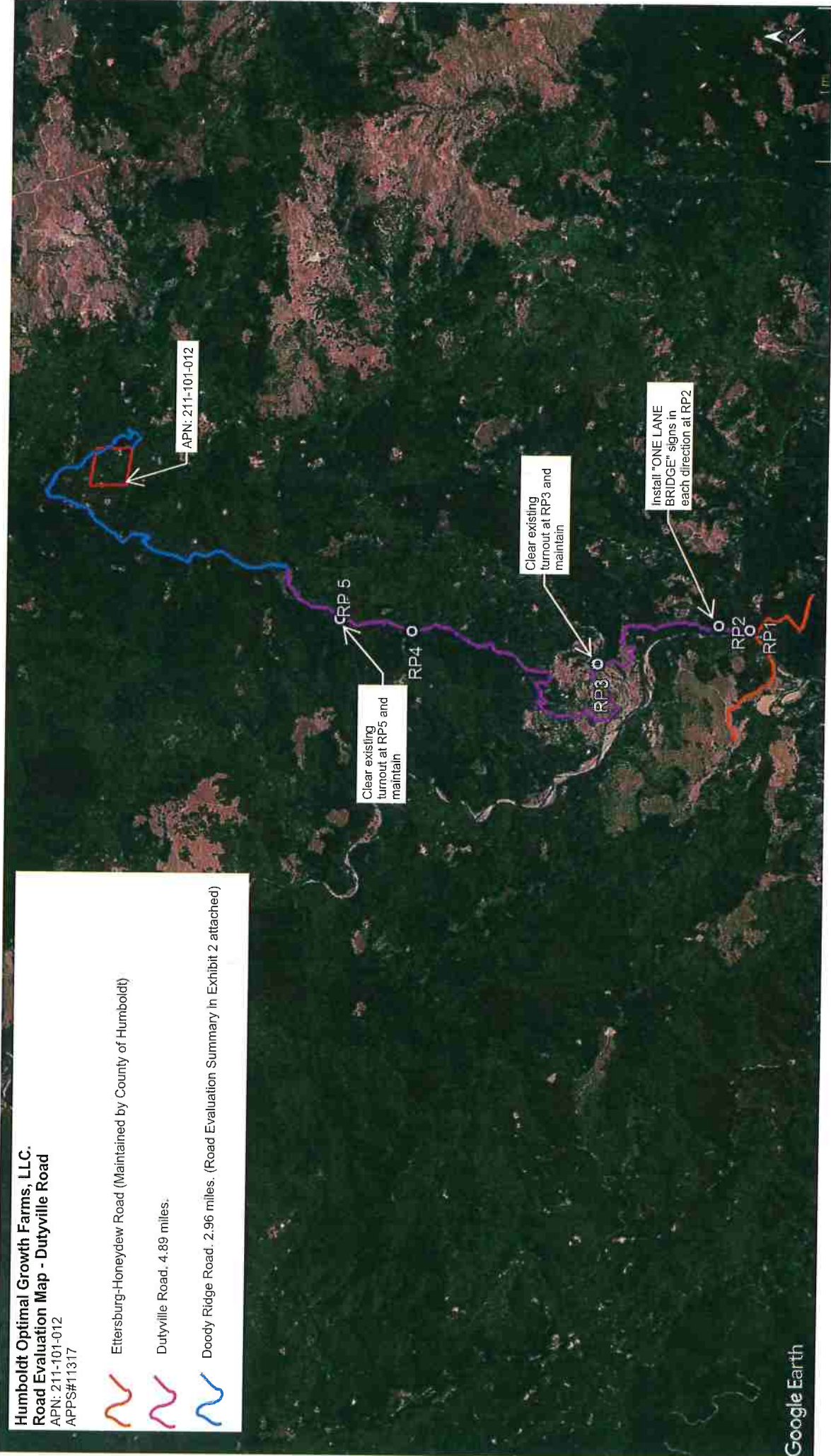
APN: 211-101-012
APPS#11317



Eftersburg-Honeydew Road (Maintained by County of Humboldt)

Dutyville Road, 4.89 miles.

Doody Ridge Road, 2.96 miles. (Road Evaluation Summary in Exhibit 2 attached)



HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS
ROAD EVALUATION REPORT

PART A: *Part A may be completed by the applicant*

Applicant Name: Humboldt Optimal Growth Farms, LLC. APN: 221-101-012

Planning & Building Department Case/File No.: 11317

Road Name: Dutyville Rd. (complete a separate form for each road)

From Road (Cross street): Ettersburg-Honeydew Rd.

To Road (Cross street): Doody Ridge Rd.

Length of road segment: 4.89 miles Date Inspected 10/18/2018

Road is maintained by: ☐ County ☒ Other Private
(State, Forest Service, National Park, State Park, BLM, Private, Tribal, etc)

Check one of the following:

Box 1 ☐ The entire road segment is developed to Category 4 road standards (20 feet wide) or better. If checked, then the road is adequate for the proposed use without further review by the applicant.

Box 2 ☐ The entire road segment is developed to the equivalent of a road category 4 standard. If checked, then the road is adequate for the proposed use without further review by the applicant.

An equivalent road category 4 standard is defined as a roadway that is generally 20 feet in width, but has pinch points which narrow the road. Pinch points include, but are not limited to, one-lane bridges, trees, large rock outcroppings, culverts, etc. Pinch points must provide visibility where a driver can see oncoming vehicles through the pinch point which allows the oncoming vehicle to stop and wait in a 20 foot wide section of the road for the other vehicle to pass.

Box 3 ☒ The entire road segment is not developed to the equivalent of road category 4 or better. The road may or may not be able to accommodate the proposed use and further evaluation is necessary. Part B is to be completed by a Civil Engineer licensed by the State of California.

The statements in PART A are true and correct and have been made by me after personally inspecting and measuring the road.

Signature

Date

Name Printed

PART B: Only complete Part B if Box 3 is checked in Part A. Part B is to be completed by a Civil Engineer licensed by the State of California. Complete a separate form for each road.

Road Name: Dutyville Rd. Date Inspected: 10/18/2018 APN: 211-101-012
From Road: Ettersbuer-Honeydew Rd. (PM RP1)
To Road: Doody Ridge Rd. (PM)
Planning & Building
Department Case/File No.:
11317

1. What is the Average Daily Traffic of the road?

ADT: 96 Date(s) measured:

Method used to measure ADT: ☐ Counters ☒ Estimated using ITE Trip Generation Book

Is the ADT of the road less than 400? ☒ Yes ☐ No

If **YES**, then the road is considered very low volume and shall comply with the design standards outlined in the American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)*. Complete sections 2 and 3 below.

If **NO**, then the road shall be reviewed per the applicable policies for the design of local roads and streets presented in AASHTO policy on Geometric Design of Highways and Streets, commonly known as the Green Book. Complete section 3 below.

2. Identify site specific safety problems with the road that include, but are not limited to: (Refer to Chapter 3 in AASHTO *Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)* for guidance.)

- A. Pattern of curve related crashes.
Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.
- B. Physical evidence of curve problems such as skid marks, scarred trees, or scarred utility poles
Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.
- C. Substantial edge rutting or encroachment.
Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.
- D. History of complaints from residents or law enforcement.
Check one: ☒ No. ☐ Yes ☐ check if written documentation is attached)
- E. Measured or known speed substantially higher than the design speed of the road (20+ MPH higher)
Check one: ☒ No. ☐ Yes.
- F. Need for turn-outs.
Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.

3. Conclusions/Recommendations per AASHTO. Check one:

- ☐ The roadway can accommodate increased traffic from the proposed use.
- ☒ The roadway can accommodate increased traffic from the proposed use if the recommendations on the attached report are done. ☐ check if a *Neighborhood Traffic Management Plan* is also required and is attached.)
- ☐ The roadway cannot accommodate increased traffic from the proposed use. It is not possible to address increased traffic.

A map showing the location and limits of the road being evaluated in PART B is attached. The statements in PART B are true and correct and have been made by me after personally evaluating the road.

Praj White
Signature of Civil Engineer

1-22-19
Date



Exhibit 2: Doody Ridge Road Evaluation Summary and Road Evaluation Map

Doody Ridge Road Evaluation Summary

This Road Evaluation Summary describes the first 2.96 miles of Doody Ridge Road, leading off from Dutyville Road. See the attached Road Evaluation Map for the section of Doody Ridge Road that was evaluated, the location of the Road Points, and location of any prescribed treatment. See Exhibit 2 for a Road Evaluation summary for Dutyville Road. Table 2 below contains a description of the Road Points, Latitude and Longitude, and the measure road width of each RP along Doody Ridge Road. The table also describe if there is a turn out present within appropriate distance to the RPs, and the recommended prescription for each RP. See Exhibit 3: Road Evaluation Photographs for photos of each Road Point. The photos also contain indication of the location of any remediation/treatment, if any were recommended for that corresponding RP. Not including the RPs, all other sections of the subject road are at least 20 feet in width, do not restrict visibility and do not pose a site-specific problem.

Table 2: Description of Road Points for Doody Ridge Road.


RP	Figure(s)	Lat. Long	Description (Current)	Measured Width (ft.)	Turnout provided?	Recommendation
6	8 & 9	40.1879, -123.9831	Pinch Point. Sight distance restriction present.	13'	NO	Install turnout south of RP6
7	10, 11 & 12	40.1926, -123.9825	Pinch point. No sight distance restriction.	12.5'	YES	NONE
8	13	40.1965, -123.9800	Pinch Point. No sight distance restriction.	13'	NO	Install turnout south of RP8
9	14, 15 & 16	40.2057, -123.9736	Pinch Point. Sight distance restriction present.	12.5'	YES	NONE
10	17, 18 & 19	40.2053, -123.9725	Pinch point. No sight distance restriction.	14.5'	YES	NONE
11	20 & 21	40.1999, -123.9683	Pinch point. No sight distance restriction.	15.5'	NO	Install turnout north of RP11
12	22 & 23	40.1983, -123.9669	Land slide. Pinch Point. No sight distance restriction.	16'	YES	Repair slide, pull material out of road way and stabilize failed slope
13	24 & 25	40.1981, -123.9689	Entrance to subject parcel.	23'	N/A	NONE


The average daily traffic (ADT) of the 2.96-mile section of Doody Ridge Road is estimated to be 40. There are 10 parcels located off of Doody Ridge Road. Based on 2 trips per day per parcel that access the subject section of road, the ADT was estimated to be 40. During the peak operating season, Humboldt Optimal Growth employs four (4) employees. During this time, the ADT is estimated to increase to only 48. The increase in traffic is minimal and is not expected to negatively impact the surrounding area. Furthermore, the designated road speed for Doody Ridge Road is 25 miles per hour (Humboldt County WebGIS), classifying it as a very low-volume road with low speeds (AASHTO, 2001).

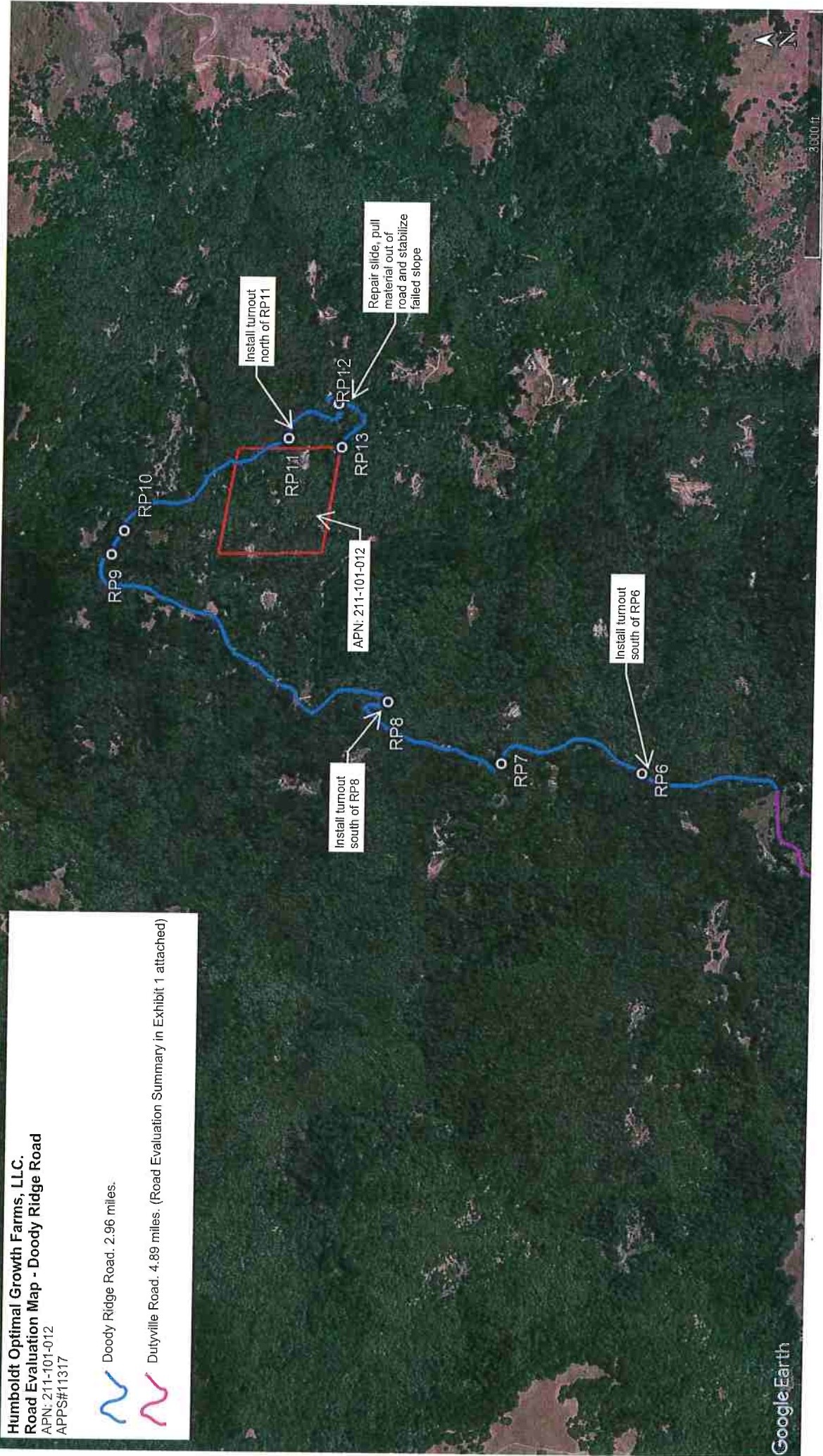
The AASHTO guidelines also suggest that rural very low-volume roads are traveled by drivers that are familiar with the road segments, which corresponds to even fewer auto accidents. The AASHTO guidelines suggest that existing, very low-volume roads with low speeds should not be modified except in cases where there is evidence of a site-specific safety problem. There are four sections that may pose a site-specific safety problem; PR6, RP8, RP11 AND RP12.

It is recommended to install turnouts at RP6, RP8 and RP11 to allow for oncoming vehicles to safely pass. It is also recommended to clear all existing turnouts of overgrown vegetation and debris. There is a moderate land slide located at RP12, causing sediment to fall onto the roadway. The Applicant has covered the loose sediment with a plastic tarp as a temporary stabilization measure. It is recommended to pull all sediment from the road way and compact it back onto the hill side. After compaction, the hill side is to be seeded and covered with mulch or jute netting to encourage vegetation growth and provide stabilization. Table 2, the attached map and Exhibit 3 describe the location of each prescribed recommendation. All other sections of Doody Ridge Road are equivalent to category 4 road standards.

Humboldt Optimal Growth Farms, LLC.
Road Evaluation Map - Doody Ridge Road
 APN: 211-101-012
 APPS#11317

 Doody Ridge Road. 2.96 miles.

 Dutyville Road. 4.89 miles. (Road Evaluation Summary in Exhibit 1 attached)



HUMBOLDT COUNTY DEPARTMENT OF PUBLIC WORKS
ROAD EVALUATION REPORT

PART A: *Part A may be completed by the applicant*

Applicant Name: Humboldt Optimal Growth Farms, LLC. APN: 221-101-012

Planning & Building Department Case/File No.: 11317

Road Name: Doody Ridge Rd. *(complete a separate form for each road)*

From Road (Cross street): Dutyville Rd.

To Road (Cross street): Private Access Rd.

Length of road segment: 2.96 miles Date Inspected 10/18/2018

Road is maintained by: ☐ County ☒ Other Private
(State, Forest Service, National Park, State Park, BLM, Private, Tribal, etc)

Check one of the following:

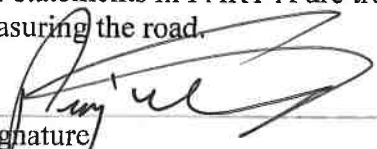
Box 1 ☐ The entire road segment is developed to Category 4 road standards (20 feet wide) or better. If checked, then the road is adequate for the proposed use without further review by the applicant.

Box 2 ☐ The entire road segment is developed to the equivalent of a road category 4 standard. If checked, then the road is adequate for the proposed use without further review by the applicant.

An equivalent road category 4 standard is defined as a roadway that is generally 20 feet in width, but has pinch points which narrow the road. Pinch points include, but are not limited to, one-lane bridges, trees, large rock outcroppings, culverts, etc. Pinch points must provide visibility where a driver can see oncoming vehicles through the pinch point which allows the oncoming vehicle to stop and wait in a 20 foot wide section of the road for the other vehicle to pass.

Box 3 ☒ The entire road segment is not developed to the equivalent of road category 4 or better. The road may or may not be able to accommodate the proposed use and further evaluation is necessary. Part B is to be completed by a Civil Engineer licensed by the State of California.

The statements in PART A are true and correct and have been made by me after personally inspecting and measuring the road.

Signature 

Date 1-22-19

Name Printed PAAS White

PART B: Only complete Part B if Box 3 is checked in Part A. Part B is to be completed by a Civil Engineer licensed by the State of California. Complete a separate form for each road.

Road Name: Doody Ride Road Date Inspected: 10/18/18 APN: 221-101-012
From Road: Dutyville Road (PM) Planning & Building
To Road: APN: 221-101-012 (PM RP13) Department Case/File No.:

1. What is the Average Daily Traffic of the road?

ADT: 40 Date(s) measured: 10/18/18

Method used to measure ADT: ☐ Counters ☒ Estimated using ITE Trip Generation Book

Is the ADT of the road less than 400? ☒ Yes ☐ No

If **YES**, then the road is considered very low volume and shall comply with the design standards outlined in the American Association of State Highway and Transportation Officials (AASHTO) *Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)*. Complete sections 2 and 3 below.

If **NO**, then the road shall be reviewed per the applicable policies for the design of local roads and streets presented in AASHTO policy on Geometric Design of Highways and Streets, commonly known as the Green Book. Complete section 3 below.

2. Identify site specific safety problems with the road that include, but are not limited to: (Refer to Chapter 3 in AASHTO *Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)* for guidance.)

A. Pattern of curve related crashes.

Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.

B. Physical evidence of curve problems such as skid marks, scarred trees, or scarred utility poles

Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.

C. Substantial edge rutting or encroachment.

Check one: ☒ No. ☐ Yes, see attached sheet for PM locations.

D. History of complaints from residents or law enforcement.

Check one: ☒ No. ☐ Yes ☐ check if written documentation is attached)

E. Measured or known speed substantially higher than the design speed of the road (20+ MPH higher)

Check one: ☒ No. ☐ Yes.

F. Need for turn-outs.

Check one: ☐ No. ☒ Yes, see attached sheet for PM locations.

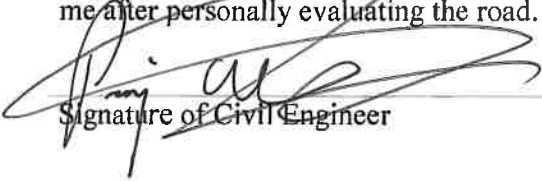
3. Conclusions/Recommendations per AASHTO. Check one:

☐ The roadway can accommodate increased traffic from the proposed use.

☒ The roadway can accommodate increased traffic from the proposed use if the recommendations on the attached report are done. ☐ check if a *Neighborhood Traffic Management Plan* is also required and is attached.)

☐ The roadway cannot accommodate increased traffic from the proposed use. It is not possible to address increased traffic.

A map showing the location and limits of the road being evaluated in PART B is attached. The statements in PART B are true and correct and have been made by me after personally evaluating the road.


Signature of Civil Engineer

1-22-19
Date



Exhibit 3: Road Evaluation Photographs

Road Evaluation Photographs

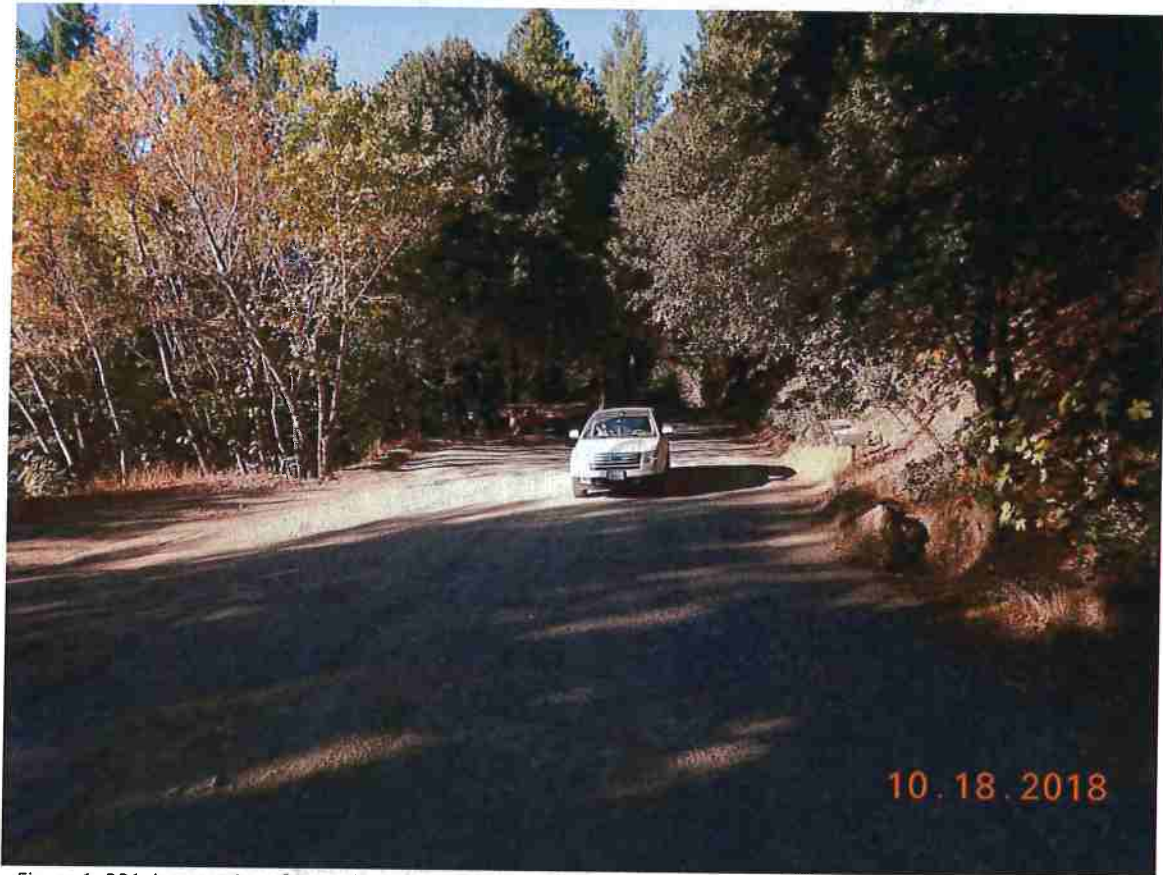


Figure 1: RP1. Intersection of Dutyville Rd. and Ettersburg-Honeydew Rd. 25'+ road width. No sight distance restriction. Facing north.



Figure 2: RP2. 18' x 90' Bridge on Dutyville Rd. Sight distance restriction is present. Facing south. Install "ONE LANE BRIDGE AHEAD" sign in each direction.



Figure 3: RP3. 9' x 64' bridge on Dutyville Rd. No sight distance restriction. Turnouts provided. Facing south. Clear Existing turnout of debris and maintain.



Figure 4: RP4. Pinch Point. No sight distance restriction. Turnout provided. Facing south.



Figure 5: RP4. Turn out for pinch point. Facing south.



Figure 6: RP5. Pinch point. No sight distance restriction. Turnout provided. Facing south. Clear Existing turnout of debris and maintain.



Figure 7: RP5. Turn out provided for pinch point. Facing north. Clear Existing turnout of debris and maintain. Clear Existing turnout of debris and maintain.



Figure 8: RP6. Pinch point and sight distance restriction. No turn out provided. Facing north. Install turnout south of RP6.



Figure 9: RP6. Pinch point and sight distance restriction. No turn out provided. Facing south. Install turnout south of RP6.



Figure 10: RP7. Pinch point. No sight distance restriction. Turnout provided. Facing north.



Figure 11: RP7. Pinch point. No sight distance restriction. Turnout provided. Facing south.



Figure 12: RP7. Turn out provided for pinch point. Facing south.



Figure 13: RP8. Pinch point. No sight distance restriction. No turnout provided. Facing north. Install turnout south of RP8.



Figure 14: RP9. Pinch point and sight distance restriction. Turnout provided. Facing north.

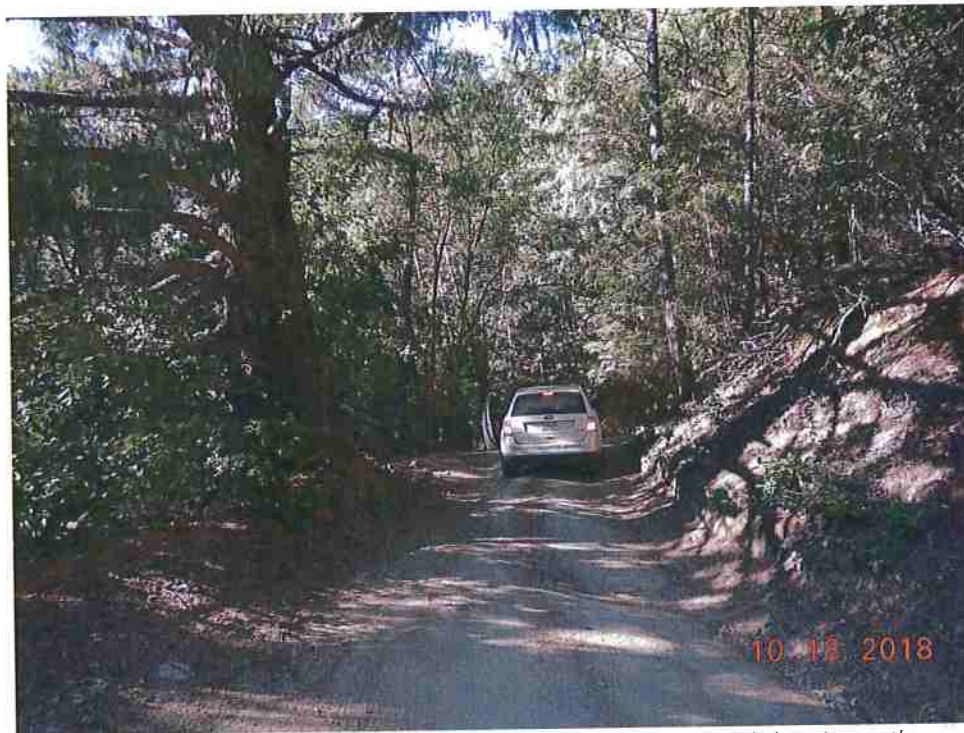


Figure 15: RP9. Pinch point and sight distance restriction. Turnout provided. Facing south.



Figure 16: RP9. Turn out provided for pinch point. Facing north.



Figure 17: RP10. Pinch point. No sight distance restriction. Turnout provided. Facing south-east.

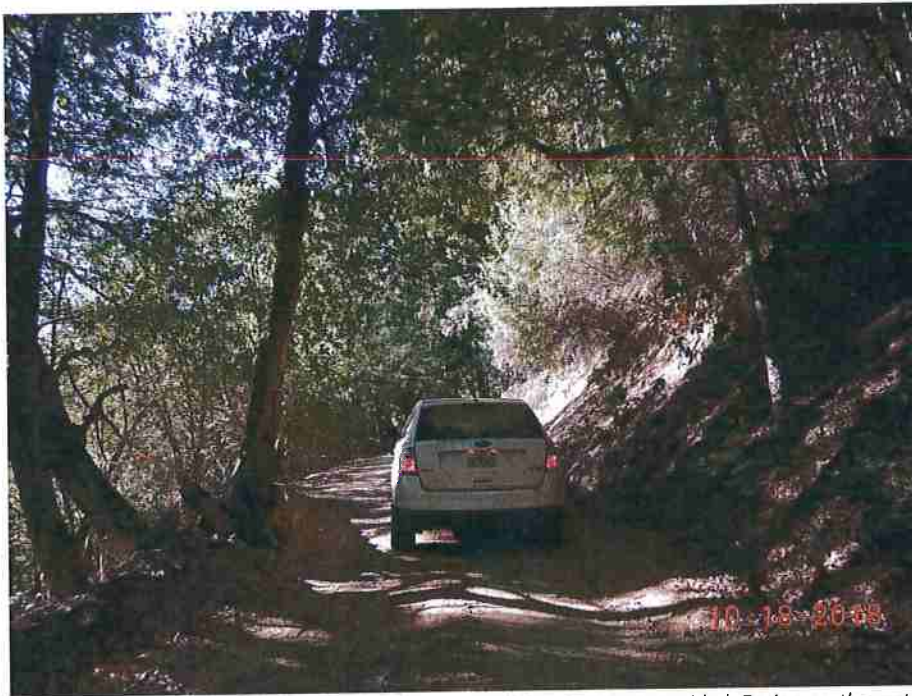


Figure 18: RP10. Pinch point. No sight distance restriction. Turnout provided. Facing north-west.

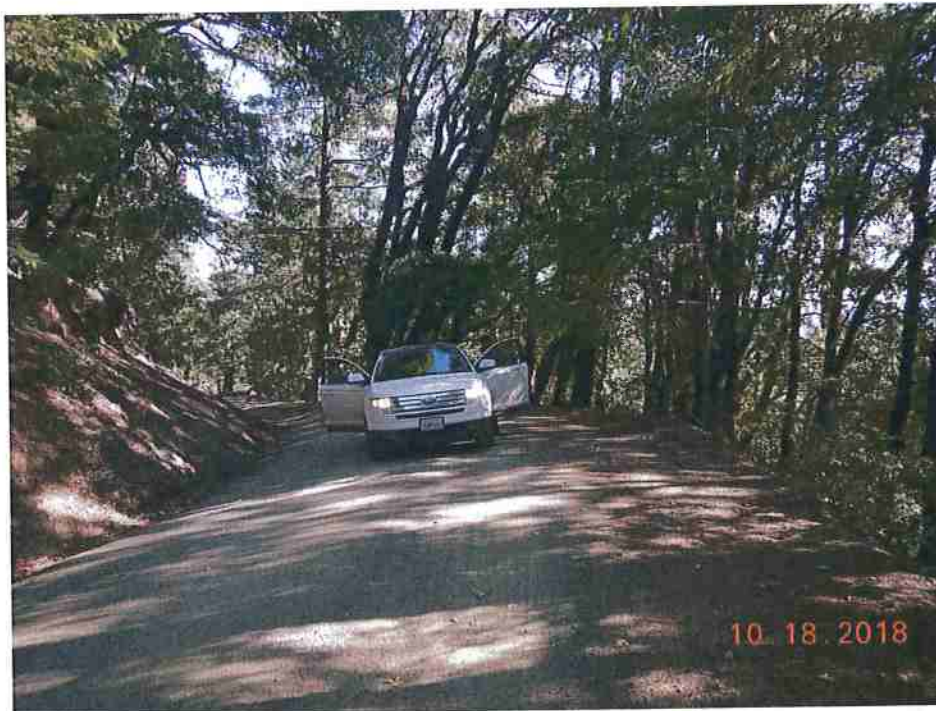


Figure 19: RP10. Turn out provided for pinch point. Facing south-east.



Figure 20: RP11. Pinch point. No visibility restriction. No turn out provided. Facing south. Install turnout north of RP11.



Figure 21: RP11. Pinch point. No visibility restriction. No turn out provided. Facing north.



Figure 22: RP12. Facing south. Repair slide, pull material out of road way and stabilize failed slope.

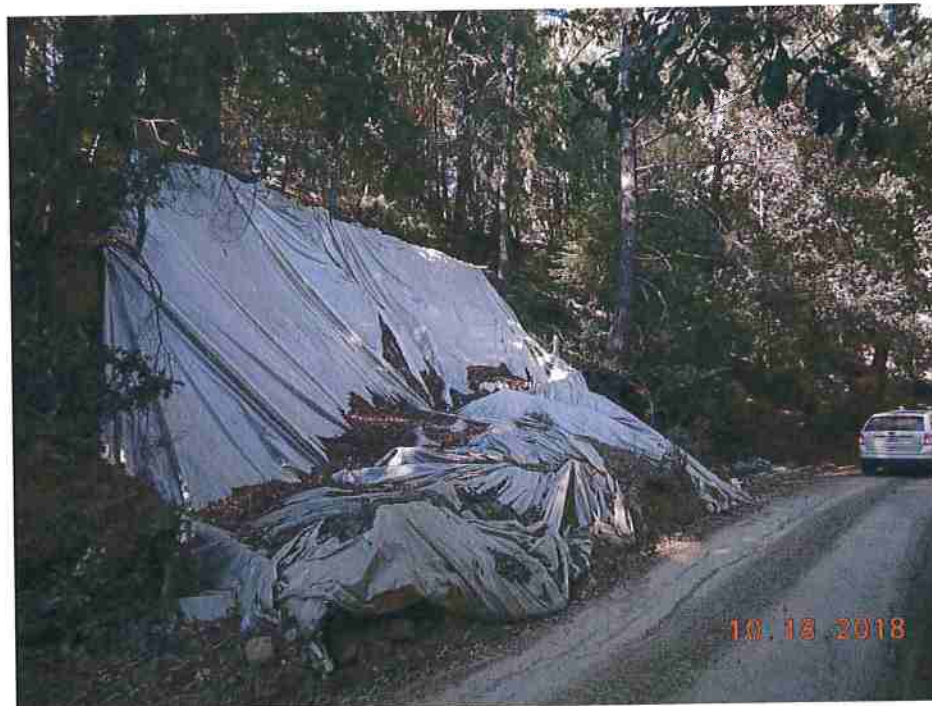


Figure 23: RP12. Facing north. Repair slide, pull material out of road way and stabilize failed slope.



Figure 24: RP13. Entrance to subject parcel. Facing north-west.



Figure 25: RP13. Entrance to subject parcel. Facing south-east.