

# Douglas S. Santo

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May 19, 2026

Madera County Government Center  
Administrative Management  
200 West 4th Street  
Madera, CA 93637

Attention: Mr. Matthew Treber  
Chief Administrative Officer

Subject: Pavement Condition Survey  
Ahwahnee Estates Area  
Opah Drive/Road 621, Lulniu Lane/Wallu Lane Loop Road  
and Associated Cul-De-Sacs  
Madera County, CA

## **Background and Purpose**

Roads in the Ahwahnee Estates area of Madera County, California are in poor condition. As a resident of this area, I use the roads often and have observed and experienced this condition each time I drive. In my professional career I had 37 years of experience providing geotechnical services to public and private sector clients. I have been responsible for geotechnical investigations for new roads, highways, and freeways, and for investigations for rehabilitation of these structures. I decided to use my experience to characterize and document the condition of our local roads to raise awareness of local decision makers and hopefully get our area in line for road rehabilitation. I have not been hired by any individual or entity to perform this work. I have not received any fee or other compensation for performance of this work.

## **Scope of Work**

The scope of work for this investigation included the following:

- Preparation of a site map showing local roads and topographic features in the study area.
- Division of the local roads into four branches and seven sections. Each section has a separate sample unit covering between 1,800- and 2,800-square feet.

- Assessment of the type and severity of pavement distress by visual observation of sample units in general accordance with ASTM D 6433-23, Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys.
- The quantity of the distress was measured in general accordance with Appendix X1 of the above standard using procedures for flexible pavement.
- Preparation of Pavement Condition Survey Data Sheets for each of the seven sample units including annotated photographs and calculation of Pavement Condition Index for each sample unit.
- Preparation of a map showing the results of the Pavement Condition Survey for each sample unit, section and branch.
- Preparation of this letter report.
- No mechanical field testing, destructive testing, subsurface exploration or laboratory testing was completed as part of this work.

### **Site Conditions**

The 6.5 miles of asphalt-paved road covered in this investigation are shown in Drawing 1. The roads serpentine through rugged hillside terrain of moderate relief at elevations between 2,300- to 2,400-feet above sea level. The area is underlain by granitic bedrock assigned to the Early Cretaceous Bass Lake Tonalite. Bedrock is locally exposed at ground surface where it is heavily weathered, oxidized, and friable to depths up to 10 feet below ground surface. In most areas, bedrock is overlain by a variable thickness layer of colluvial soils that are formed in situ and vary in thickness from a few inches to a few feet. Soil is generally silty sand with variable amounts of gravel and cobbles. Natural slopes in the area are up to 70 feet tall with surface ratios around 4:1 to 6:1 horizontal to vertical, and locally steeper.

The roads service a semi-rural residential area with lot sizes generally from 5 acre to 1 acre, but in some cases up to 40 acres and larger. The roads service about 200 residential lots in total. The roads fall into Road Class II or III in accordance with County of Madera Drawing Number ST-2, revised 3/8/2011.

Based on the age of homes in the area combined with archive aerial photos and topographic maps, I estimate that the roads are 20 to 30 years old. A local resident states that the roads were paved in 1992 making the roads 34 years old.

### **Pavement Condition Survey**

Roads were divided into 3 branches including the Opah Branch, 621 Branch and the Lulniu/Wallu Branch. The Lulniu/Wallu Branch includes three cul-de-sacs, Watoo Court, Omacha Court and Coma Court. The Opah Branch was subdivided into 4 sections. 621 Branch was subdivided into 2 sections. Lulniu/Wallu Branch has 1 section. Each section

of each branch has a pavement sample unit where pavement observations were made that are considered representative of the entire section. This is graphically shown in Drawing 1 and summarized in Table 1.

Observations were made in each sample unit to evaluate 19 pavement distress categories and their relative severity. Distressed areas were summed and the percentage of distressed sample unit area was calculated for each category. The deduct value was estimated using published curves.

**Table 1. Pavement Condition Survey Data.**

Branch	Section		Sample Unit			
	Name or Number	Total Length (mi)	Number	Width (ft)	Length (ft)	Area (sq ft)
Opah	1	0.4	2	23	100	2,300
	2	1.2	5	23	100	2,300
	3	1.0	6	25	100	2,500
	4	0.6	7	28	100	2,800
621	Unpaved	0.7	3	18	100	1,800
	Paved	1.0	4	28	100	2,800
Lulniu/Wallu	1	1.6	1	23	100	2,300

The allowable number of deducts was calculated using a published equation. Corrected Deduct Values were estimated using published curves. The Pavement Condition Index was calculated using the highest Corrected Deduct Value. As previously stated, the field work and analyses were completed in general accordance with the methods and procedures described in ASTM D 6433-23.

Pavement Condition Survey data, analyses and annotated photographs showing pavement surface conditions are shown in Figures 1 through 7. Results of this analysis are graphically shown in Drawing 2 and summarized in Table 2.

### Unpaved Section of Road 621

The unpaved section of Road 621 is locally wash-boarded, includes ruts, bumps, and depressions that cause a bumpy, sometimes choppy ride that requires a reasonable driver to slow down considerably, in some areas to less than 10 mph. The width of the road surface is 18' from embankment to embankment and less in some areas. Drainage ditches and embankments further limit usable road space such that one driver would have to pull to the side and slow or stop to allow an oncoming driver to pass. A fire truck or other emergency vehicle could prevent an oncoming vehicle from passing in some areas.

**Table 2. Pavement Condition Index**

Branch	Section		Sample Unit Number	Pavement Condition Index
	Name or Number	Total Length (mi)		
Opah	1	0.4	2	20 (Serious)
	2	1.2	5	16 (Serious)
	3	1.0	6	22 (Serious)
	4	0.6	7	25 (Very Poor)
621	Unpaved	0.7	3	Not Rated
	Paved	1.0	4	12 (Serious)
Lulniu/Wallu	1	1.6	1	30 (Very Poor)

The unpaved road was recently resurfaced with a motor grader. The road is degraded from rainfall in winter months causing road conditions to be worse. Muddy conditions during

and after rain could cause a vehicle to become stuck and block the road and access to Highway 49. If the road is blocked during an emergency evacuation, the only other access to Highway 49 is Opah Drive.

The exposed subgrade is alluvium that is classified as silty sand. The sand is generally fine-grained with mica flakes. The material is loose and dry to the touch with a tan color and includes few fine to coarse cobbles. I estimate this material is normally consolidated, poorly compacted, and likely has low SPT N-values to a depth of 10' or more. The material likely will have a high R-value and make a good subgrade when properly compacted.

Some areas have mature oak trees within 15' of the road surface. Some trees appear to be very senior and drop branches during storms or high wind conditions as evidenced by large branches on the ground near their bases.

### **Findings and Recommendations**

Paved roads observed in this investigation have a Pavement Condition Index between 30 and 12. These roads classify as Very Poor to Serious condition. When combined with age of the pavement, I estimate the asphalt road surfaces are near the end of their useful lives. Pavement rehabilitation or replacement is required.

The unpaved section of Road 621 does not meet Road Class II or III specifications. Road widening and paving to Road Class II or III specifications are required. Culling or trimming of senior trees to prevent road blockage may be appropriate.

A geotechnical investigation is required to complete asphalt coring, subsurface exploration, laboratory testing and provide design recommendations for road rehabilitation/replacement, and new road construction.

## Closure

This work was completed in accordance with generally accepted professional engineering geology principles and practice in Central California at the present time. I make no other warranty either express or implied. Based on water agency records, census data, parcel boundaries and aerial photographs, I estimate that roughly 500 people living in about 200 residential properties use the Opah Drive – Road 621 corridor as their primary or only means of access to Highway 49. Residents of Ahwahnee Estates, Miami Highlands, Sierra Meadows, Road 621, portions of the Fresno Flats area and other single lot developments depend on this critical corridor for everyday use and for emergency evacuation during wildfires and other emergencies. Sierra Meadows is a privately owned commercial resort covering 1,300 acres and offering 35 rental cabins, local hiking, a conference center, summer concerts and workshops. People visiting and/or staying at the resort use the same roads as the residents and increase vehicular traffic. Please consider placing these roads on the waiting list for future County of Madera projects.

Respectfully submitted,



Douglas S. Santo, PG 5917, CEG 1866, CHG 450  
Consulting Geologist  
Ahwahnee Estates Property Owner



Encl.: References.

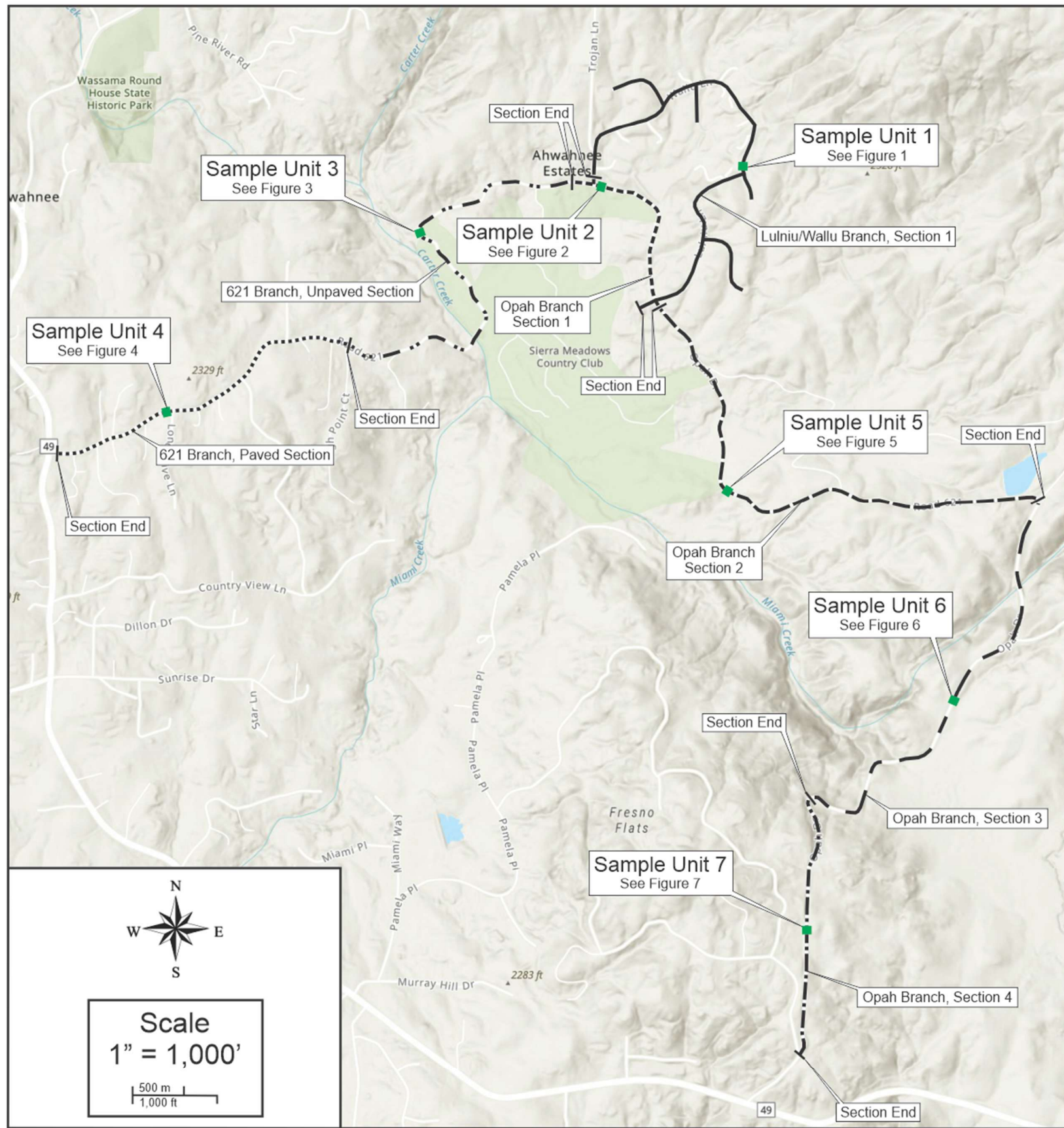
- Drawing 1 - Flexible Pavement Condition Survey Site Map.
- Figure 1 - Flexible Pavement Condition Survey Data, Lulniu/Wallu Branch, Section 1, Sample Unit 1.
- Figure 2 - Flexible Pavement Condition Survey Data, Opah Branch, Section 1, Sample Unit 2.
- Figure 3 - Flexible Pavement Condition Survey Data, 621 Branch, Section Unpaved, Sample Unit 3.
- Figure 4 - Flexible Pavement Condition Survey Data, 621 Branch, Section Paved, Sample Unit 4.
- Figure 5 - Flexible Pavement Condition Survey Data, Opah Branch, Section 2, Sample Unit 5.
- Figure 6 - Flexible Pavement Condition Survey Data, Opah Branch, Section 3, Sample Unit 6.
- Figure 7 - Flexible Pavement Condition Survey Data, Opah Branch, Section 4, Sample Unit 7.
- Drawing 2 - Results of Flexible Pavement Condition Survey.

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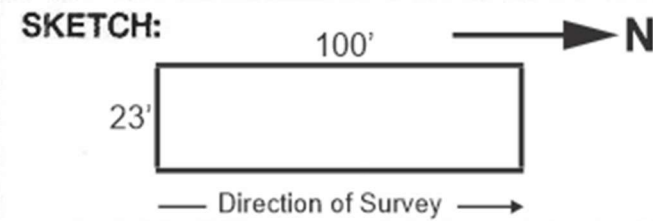
## **References**

American Society for Testing and Materials (ASTM), 2023, Designation: D 6433 – 23, Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys, 48 pages.

U.S. Department of Transportation, Federal Highway Administration, Revised May 2014, Distress Identification Manual for the Long-Term Pavement Performance Program, Publication No. FHWA-HRT-13-092, 146 pages.



**ASPHALT SURFACED ROADS AND PARKING LOTS  
CONDITION SURVEY DATA SHEET**



BRANCH Lulniu/Wallu SECTION 1 SAMPLE UNIT 1  
 SURVEYED BY DS DATE 5/3/26 SAMPLE AREA 2,300 sqft

- |                       |                            |                                  |                         |
|-----------------------|----------------------------|----------------------------------|-------------------------|
| 1. Alligator Cracking | 6. Depression              | 11. Patching & Util Cut Patching | 16. Shoving             |
| 2. Bleeding           | 7. Edge Cracking           | 12. Polished Aggregate           | 17. Slippage Cracking   |
| 3. Block Cracking     | 8. Jt. Reflection Cracking | 13. Potholes                     | 18. Swell               |
| 4. Bumps and Sags     | 9. Lane/Shoulder Drop Off  | 14. Railroad Crossing            | 19. Weathering/Raveling |
| 5. Corrugation        | 10. Long & Trans Cracking  | 15. Rutting                      |                         |

DISTRESS SEVERITY	(Distress severity: L = low M = medium H = high)								TOTAL	DENSITY %	DEDUCT VALUE
	QUANTITY										
1M	19' x 15'	4' x 20'							365	16	57
7M-H	4' x 80'	4' x 80'							640	29	28
10M	90'								90	4	20
19L	23' x 100'								2300	100	16

#	Deduct Values								Total	q	CDV
	1	2	3	4	5	6	7	8			
1	57	28	20	16					121	4	70
2	57	28	20	2					107	3	68
3	57	28	2	2					89	2	64
4	57	2	2	2					63	1	64
5											
6											
7											

**PCI RATING  
30  
VERY POOR**

Allowable number of deducts,  $m = 1 + (9/98)(100-57) = 4.9$   
 Pavement Condition Index,  $PCI = 100-70 = 30$   
 See Drawing 1 for location of Branch, Section, and Sample Unit.

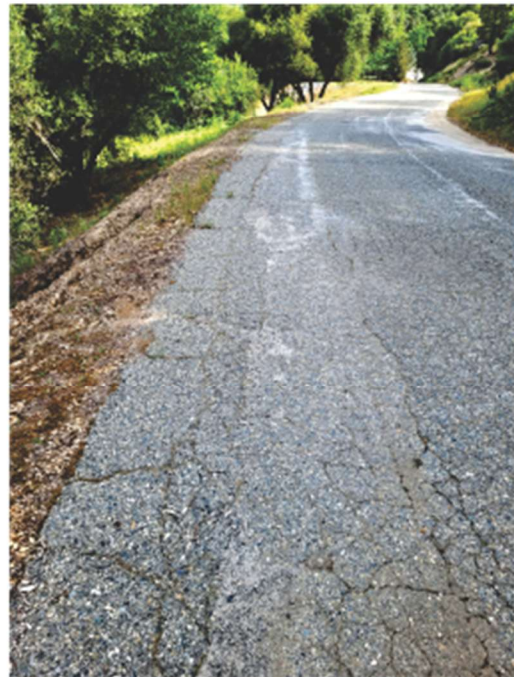


Photo 1 looking north along west edge of road surface showing alligator cracking, edge cracking, centerline longitudinal cracking, and weathering of road surface.



Photo 2, closeup of road surface, showing alligator cracking and weathering. Locally, exposed aggregate is polished but still angular.

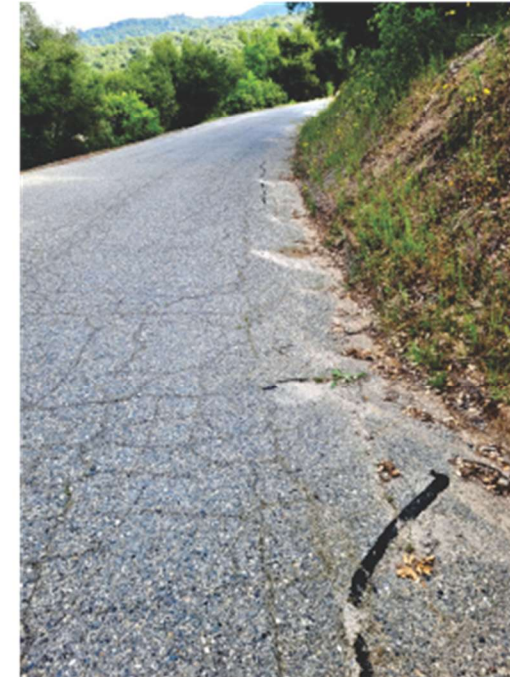
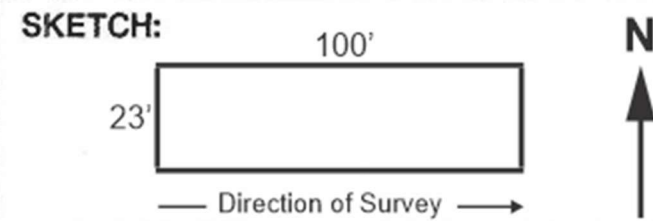


Photo 3 looking north along east edge of road showing previously patched edge cracking and colluvial burial of HMA soil dike.



Photo 4 looking west along west edge of road showing erosion, possible piping, and loss of ground of road fill at buried storm drain outlet. Headscarp of the erosion scar approaches to within ~3' of road surface.

**ASPHALT SURFACED ROADS AND PARKING LOTS  
CONDITION SURVEY DATA SHEET**



BRANCH Opah SECTION 1 SAMPLE UNIT 2  
 SURVEYED BY DS DATE 5/3/26 SAMPLE AREA 2,300 sqft

- |                       |                            |                                  |                         |
|-----------------------|----------------------------|----------------------------------|-------------------------|
| 1. Alligator Cracking | 6. Depression              | 11. Patching & Util Cut Patching | 16. Shoving             |
| 2. Bleeding           | 7. Edge Cracking           | 12. Polished Aggregate           | 17. Slippage Cracking   |
| 3. Block Cracking     | 8. Jt. Reflection Cracking | 13. Potholes                     | 18. Swell               |
| 4. Bumps and Sags     | 9. Lane/Shoulder Drop Off  | 14. Railroad Crossing            | 19. Weathering/Raveling |
| 5. Corrugation        | 10. Long & Trans Cracking  | 15. Rutting                      |                         |

DISTRESS SEVERITY	(Distress severity: L = low M = medium H = high)								TOTAL	DENSITY %	DEDUCT VALUE
	QUANTITY										
1L-H	18' x 90'								1620	70	60
7L-H	4' x 80'								320	14	25
10M	11' 40'								51	2	15
12	4' x 80'								320	14	5
19M-H	23' x 100'								2300	100	44

#	Deduct Values										Total	q	CDV
	1	2	3	4	5	6	7	8	9	10			
1	60	44	25	15	3.5						148	5	76
2	60	44	25	15	2						146	4	80
3	60	44	25	2	2						133	3	80
4	60	44	2	2	2						110	2	76
5	60	2	2	2	2						68	1	66
6													
7													

0.7 x DV because deducts = 5 and m = 4.7

**PCI RATING  
20  
SERIOUS**

Allowable number of deducts,  $m = 1 + (9/98)(100-60) = 4.7$   
 Pavement Condition Index, PCI, = 100-80 = 20  
 See Drawing 1 for location of Branch, Section, and Sample Unit.



Photo 1 looking east along north edge of road surface showing alligator cracking, edge cracking, longitudinal/transverse cracking, and weathering/ravelling of road surface.

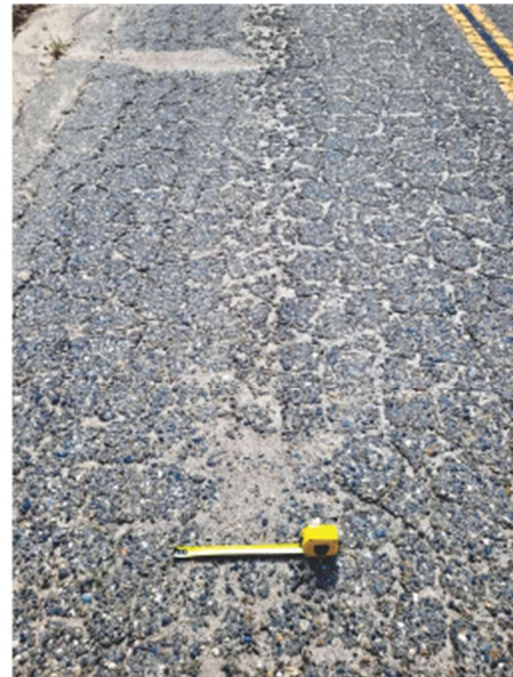


Photo 2, closeup of road surface, showing alligator cracking and weathering/ravelling. Locally, exposed aggregate is polished but still angular.

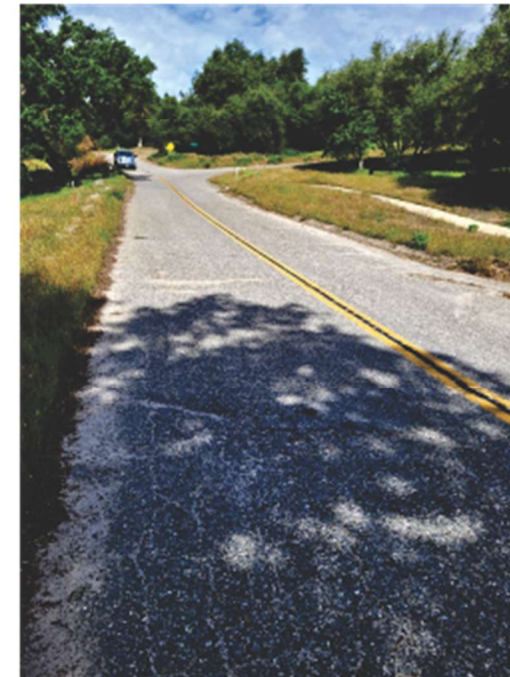


Photo 3 looking west along south edge of road showing edge cracking, transverse cracking, and burial of HMA soil dike.

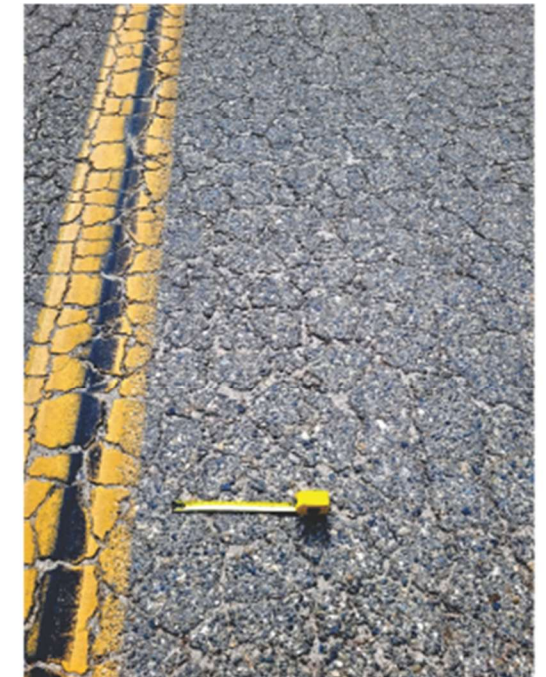
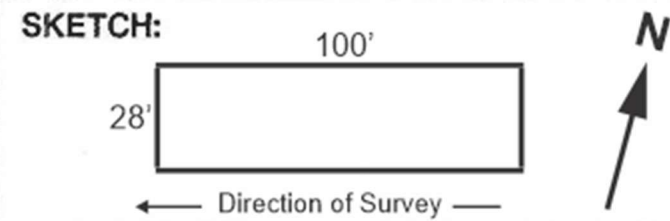


Photo 4, closeup of central road surface showing alligator cracking, and weathering/ravelling. Locally, exposed aggregate is polished but still angular.



**ASPHALT SURFACED ROADS AND PARKING LOTS  
CONDITION SURVEY DATA SHEET**



BRANCH 621 SECTION Paved SAMPLE UNIT 4  
 SURVEYED BY DS DATE 5/3/26 SAMPLE AREA 2,800 sqft

- |                       |                            |                                  |                         |
|-----------------------|----------------------------|----------------------------------|-------------------------|
| 1. Alligator Cracking | 6. Depression              | 11. Patching & Util Cut Patching | 16. Shoving             |
| 2. Bleeding           | 7. Edge Cracking           | 12. Polished Aggregate           | 17. Slippage Cracking   |
| 3. Block Cracking     | 8. Jt. Reflection Cracking | 13. Potholes                     | 18. Swell               |
| 4. Bumps and Sags     | 9. Lane/Shoulder Drop Off  | 14. Railroad Crossing            | 19. Weathering/Raveling |
| 5. Corrugation        | 10. Long & Trans Cracking  | 15. Rutting                      |                         |

DISTRESS SEVERITY	(Distress severity: L = low M = medium H = high)						TOTAL	DENSITY %	DEDUCT VALUE
	QUANTITY								
1L-H	8' x 80'	6' x 40'	6' x 40'				1120	40	65
3L-M	10' x 20'	10' x 10'					300	11	18
6L-M	6' x 50'	4' x 40'					460	16	37
7L-M	4' x 100'	4' x 100'					800	29	28
10M	28'	14'	14'				58	2	15
12	4' x 100'	6' x 50'					700	25	7
19L-M	28' x 100'						2800	100	43

#	0.2 x DV because deducts = 7 and m = 4.2				Deduct Values			Total	q	CDV
1	65	43	37	28	4	3	1.4	181	7	79
2	65	43	37	28	4	3	2	182	6	84
3	65	43	37	28	4	2	2	172	5	84
4	65	43	37	28	2	2	2	165	4	88
5	65	43	37	2	2	2	2	153	3	88
6	65	43	2	2	2	2	2	118	2	79
7	65	2	2	2	2	2	2	77	1	74

**PCI RATING  
12  
SERIOUS**

Allowable number of deducts,  $m = 1 + (9/98)(100-65) = 4.2$

Pavement Condition Index, PCI, =  $100-88 = 12$

See Drawing 1 for location of Branch, Section, and Sample Unit.

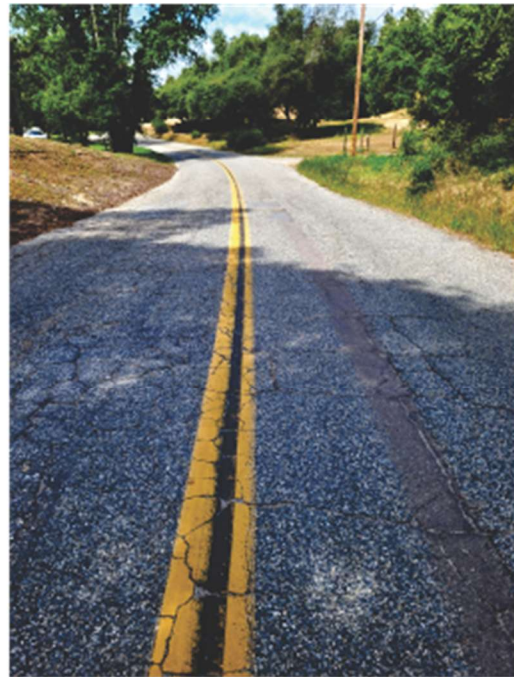


Photo 1 looking southwest showing alligator cracking, block cracking, depressions, and weathering of road surface.



Photo 2, closeup of road surface, showing edge cracking and weathering.



Photo 3 closeup of road surface showing block cracking, alligator cracking, depression, and weathering.

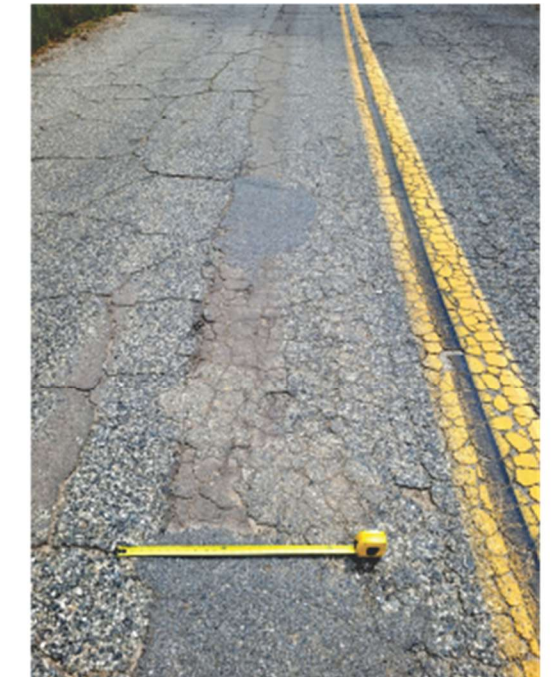
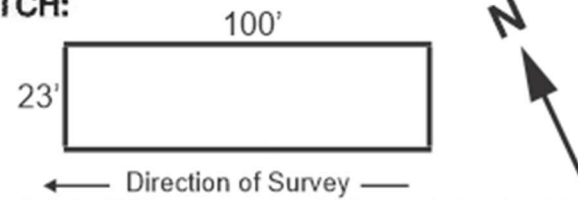


Photo 4, closeup of central road surface showing alligator cracking, block cracking, depression, and weathering/raveling. Locally, exposed aggregate is polished but still angular.

**ASPHALT SURFACED ROADS AND PARKING LOTS  
CONDITION SURVEY DATA SHEET**

SKETCH:



BRANCH Opah SECTION 2 SAMPLE UNIT 5  
 SURVEYED BY DS DATE 5/3/26 SAMPLE AREA 2,300 sqft

- |                       |                            |                                  |                         |
|-----------------------|----------------------------|----------------------------------|-------------------------|
| 1. Alligator Cracking | 6. Depression              | 11. Patching & Util Cut Patching | 16. Shoving             |
| 2. Bleeding           | 7. Edge Cracking           | 12. Polished Aggregate           | 17. Slippage Cracking   |
| 3. Block Cracking     | 8. Jt. Reflection Cracking | 13. Potholes                     | 18. Swell               |
| 4. Bumps and Sags     | 9. Lane/Shoulder Drop Off  | 14. Railroad Crossing            | 19. Weathering/Raveling |
| 5. Corrugation        | 10. Long & Trans Cracking  | 15. Rutting                      |                         |

DISTRESS SEVERITY	(Distress severity: L = low M = medium H = high)					TOTAL	DENSITY %	DEDUCT VALUE
	QUANTITY							
1L-M	11' x 80'					880	38	64
3L-M	8' x 15'	6' x 20'				240	10	17
7L-M	3' x 60'					180	8	22
10M	23'	11'	8'	6'		48	2	15
11M	1.5' x 2'					3	0.1	3
12	8' x 20'	4' x 30'				280	12	4
19L-M	23' x 100'					2300	100	43

#	0.3 x DV because deducts = 7 and m = 4.3				Deduct Values			Total	q	CDV
1	64	43	22	17	5	1	1	153	7	72
2	64	43	22	17	5	1	2	154	6	74
3	64	43	22	17	5	2	2	155	5	78
4	64	43	22	17	2	2	2	152	4	84
5	64	43	22	2	2	2	2	137	3	80
6	64	43	2	2	2	2	2	117	2	78
7	64	2	2	2	2	2	2	76	1	74

**PCI RATING**  
**16**  
**SERIOUS**

Allowable number of deducts,  $m = 1 + (9/98)(100-64) = 4.3$   
 Pavement Condition Index,  $PCI = 100 - 84 = 16$   
 See Drawing 1 for location of Branch, Section, and Sample Unit.



Photo 1 along northeast side of road looking southeast showing edge cracking, alligator cracking, transverse cracking, cracking in HMA soil dike, and weathering of road surface.



Photo 2, closeup of road surface, showing patched and reopened transverse cracking, alligator cracking, edge cracking, weathering, and locally polished aggregate.



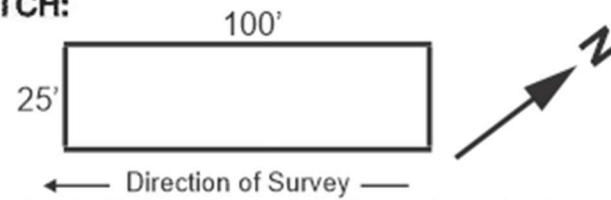
Photo 3 closeup of road surface showing alligator cracking, polished aggregate, and weathering.



Photo 4, closeup of road surface showing alligator cracking, patched pothole, and weathering/raveling.

**ASPHALT SURFACED ROADS AND PARKING LOTS  
CONDITION SURVEY DATA SHEET**

SKETCH:



BRANCH Opah SECTION 3 SAMPLE UNIT 6  
 SURVEYED BY DS DATE 5/3/26 SAMPLE AREA 2,500 sqft

- |                       |                            |                                  |                         |
|-----------------------|----------------------------|----------------------------------|-------------------------|
| 1. Alligator Cracking | 6. Depression              | 11. Patching & Util Cut Patching | 16. Shoving             |
| 2. Bleeding           | 7. Edge Cracking           | 12. Polished Aggregate           | 17. Slippage Cracking   |
| 3. Block Cracking     | 8. Jt. Reflection Cracking | 13. Potholes                     | 18. Swell               |
| 4. Bumps and Sags     | 9. Lane/Shoulder Drop Off  | 14. Railroad Crossing            | 19. Weathering/Raveling |
| 5. Corrugation        | 10. Long & Trans Cracking  | 15. Rutting                      |                         |

DISTRESS SEVERITY	(Distress severity: L = low M = medium H = high)					TOTAL	DENSITY %	DEDUCT VALUE
	QUANTITY							
1L-M	8' x 100'					800	32	62
6L-M	3' x 12'					36	1.4	10
10M	8'	10'	16'	12'	13'	59	2.4	7
11L	10' x 30'	1.5' x 3'	2.5' x 6'			320	13	19
12	4' x 15'	4' x 20'				140	6	2
19L-M	25' x 100'					2500	100	43

#	0.5 x DV because deducts = 6 and m = 4.5					Deduct Values			Total	q	CDV
1	62	43	19	10	4	1			139	6	68
2	62	43	19	10	5	2			141	5	72
3	62	43	19	10	2	2			138	4	78
4	62	43	19	2	2	2			130	3	78
5	62	43	2	2	2	2			113	2	78
6	62	2	2	2	2	2			72	1	70
7											

**PCI RATING  
22  
SERIOUS**

Allowable number of deducts,  $m = 1 + (9/98)(100-62) = 4.5$

Pavement Condition Index, PCI, =  $100-78 = 22$

See Drawing 1 for location of Branch, Section, and Sample Unit.



Photo 1 looking southeast showing alligator cracking, patching, and weathering of road surface.

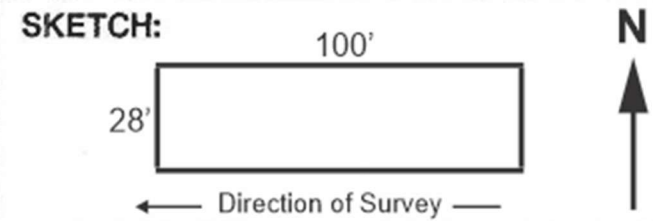


Photo 2, closeup of road surface, showing patched and reopened longitudinal cracking, alligator cracking, weathering, and locally polished aggregate.



Photo 3 closeup of road surface showing alligator cracking, polished aggregate, and weathering.

**ASPHALT SURFACED ROADS AND PARKING LOTS  
CONDITION SURVEY DATA SHEET**



BRANCH Opah SECTION 4 SAMPLE UNIT 7  
 SURVEYED BY DS DATE 5/3/26 SAMPLE AREA 2,800 sqft

- |                       |                            |                                  |                         |
|-----------------------|----------------------------|----------------------------------|-------------------------|
| 1. Alligator Cracking | 6. Depression              | 11. Patching & Util Cut Patching | 16. Shoving             |
| 2. Bleeding           | 7. Edge Cracking           | 12. Polished Aggregate           | 17. Slippage Cracking   |
| 3. Block Cracking     | 8. Jt. Reflection Cracking | 13. Potholes                     | 18. Swell               |
| 4. Bumps and Sags     | 9. Lane/Shoulder Drop Off  | 14. Railroad Crossing            | 19. Weathering/Raveling |
| 5. Corrugation        | 10. Long & Trans Cracking  | 15. Rutting                      |                         |

DISTRESS SEVERITY	(Distress severity: L = low M = medium H = high)							TOTAL	DENSITY %	DEDUCT VALUE
	QUANTITY									
1M	6' x 18'	4' x 12'	4' x 12'	6' x 30'				384	14	50
3M	8' x 12'							96	3.4	9
7M	3' x 20'	3' x 80'						300	11	25
10M	14'	8'	14'	14'	28'	28'	28'	134	5	22
19L-M	20' x 80'							1600	57	37

#	Deduct Values									Total	q	CDV
	1	2	3	4	5	6	7	8	9			
1	50	37	25	22	9					143	5	74
2	50	37	25	22	2					136	4	75
3	50	37	25	2	2					116	3	71
4	50	37	2	2	2					93	2	66
5	50	2	2	2	2					58	1	56
6												
7												

**PCI RATING**  
**25**  
**VERY POOR**

Allowable number of deducts,  $m = 1 + (9/98)(100-50) = 5.6$   
 Pavement Condition Index,  $PCI = 100 - 75 = 25$   
 See Drawing 1 for location of Branch, Section, and Sample Unit.

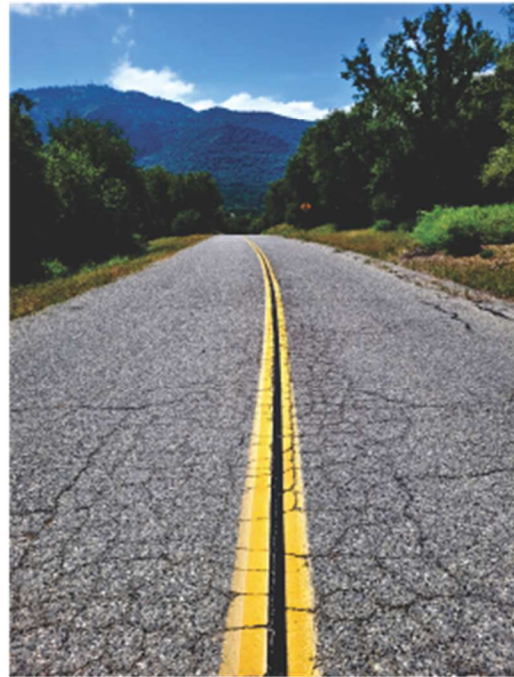


Photo 1 looking south showing alligator cracking, block cracking, longitudinal cracking, and weathering of road surface.



Photo 2, closeup of road surface, showing edge cracking along east side of road, transverse cracking, and weathering.



Photo 3 closeup of road surface showing alligator cracking, longitudinal cracking, and weathering.



Photo 4 closeup of road surface showing patched edge cracking along west side of road, alligator cracking, longitudinal cracking, and weathering.

Pavement Condition Index (PCI)  
Rating Scale

