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STATE OF CALIFORNIA

DIVISION OF HIGHWAYS

MATERIALS AND RESEARCH DEPARTMENT

A PROGRESS REPORT ON THE PERFORMANCE OF CEMENT TREATED BASES CONSTRUCTED TO DATE IN CALIFORNIA

District I

By

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51-06

DND

February 14, 1951

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February 14, 1951

District I

In 1938, the base material on a short section of State Highway near Macdoel in Siskiyou County, District II, was treated with cement, using farm equipment for mixing. In 1939, three other projects, one in Contra Costa County and two in Kern County, were constructed by similar methods. In 1940, plant mix methods were introduced for mixing the cement, water, and soil or aggregate. Since 1940, a large number of projects, involving cement treatment of one type or another, have been constructed throughout the State. The total length of such projects already completed is now in excess of 600 miles with many others under construction or being planned.

Inasmuch as a number of the cement treated bases had been subjected to traffic for ten years or more, it was considered advisable to make a statewide, comprehensive study of all such projects constructed in order to determine their performance and present condition as well as to appraise the relative merits of cement treatment as compared to other types of base construction under flexible type surfaces.

The first step in the program was the compilation of a list of all projects completed to date and the tabulation of such construction data as might be available. The various projects

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on which it has been possible to obtain data have been listed by Districts, showing the project, contract number, job limits, length, contract dates, contractor, resident engineer, etc.

Construction data, test results, contract costs, etc., for each project were recorded on work sheets. This compilation involved the study of plans and specifications, test reports on materials, and the resident engineer's final report of construction.

Tables I and II, attached to this report, summarize the data obtained to date for District I. Appendix A, also attached, consists of copies of the field notes on the appearance of each project inspected, the location of cracks, damage due to fill settlement or other earth movements, etc.

A total of 18 contracts, all on State Highway Route 1, had been completed by January 1951. These projects comprise approximately 71 miles of highway and are all comparatively new with the oldest having a service record of about 3 1/2 years. One or two other projects have been completed on secondary highways in which very low cement contents were used. These projects are not included in Tables I and II.

It is not considered advisable to attempt a complete appraisal of the District I projects until the data for the entire State has been obtained and analyzed. The following summary shows the information available to date.

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1. With one exception; viz., Contract 1TC16-F, N.W.P. Grade Crossing to N.W.P. Underpass, I-Men-1-E; all projects are in very good condition.
2. Slides, slipouts, or fill settlements have damaged the pavement in a number of places but the areas so damaged are usually small and affect a very small fraction of the total construction. The forces causing this damage have nothing to do with the base itself and would cause similar or greater damage no matter what type of base and pavement had been constructed.
3. Cracking which may be attributed to shrinkage of the treated base is very rare and does not occur at all on many of the jobs.
4. Those cracks which do occur are almost entirely located on fills or at the grade points between fill and cut. It is probable that 90% or more of such cracks have been caused by movement of the foundation material supporting the base. Except where ground movement has been so extensive as to cause settlement or up-

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heaval of the pavement, no roughness or other difficulty has been noticed in the cracked areas. Most of the cracks are very fine or narrow and some have existed without change since shortly after the construction was completed.

5. Many of the cracks in the cuts are located over soft or wet areas or where instability exists in the entire soil mass.

6. Data available to date does not warrant any distinction between the projects utilizing the old bituminous roadbed as source of material for cement treatment and those involving the importation of sand and gravel as material for treatment. The lower crack frequency on some of the bituminous projects may well be due to the fact that the old established roadbed was used and no new fills or heavy grading were involved.

7. I-Men-1-E, Contract 1TC16-F, appears to be a special case and further investigation will be necessary before definite reasons can be assigned to the apparent failure of the surfacing and the excessive cracking on this project. However,

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this project, too, shows much more cracking on fills than in the large cut. Those cracks which occur in the cut are very largely located in areas where trouble with water and poor soil was noted in the construction report.

8. Those men in District I whose duties bring them in contact with the maintenance or construction of the highways are well pleased with the performance of the cement treated bases.

9. In projects, such as I-Men-1-B, where the new surfacing was placed over cement treated base and intervening sections of old undisturbed roadbed, those areas where no cement treated base was constructed are usually rougher than the areas over the treated base.

The present system of data cards, etc., appears to be satisfactory for use in field inspections but it is recommended that a set of plans be obtained for each project for use in making the field inspections in order to determine more accurately the relation of cracks to fills, sidehill cut and fill, etc.

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Field Notes by J. L. Beatty

I-Men-1-B
Hopland to Crawford Ranch
Contract No. 1TC19
Date of Inspection 2-13-51

Construction Limits CTB Station	to Station	Width	Remarks	Surface Condition as of 2-13-51
5+47	9+75	50'	Full Str. Width	No cracks observed. Appearance of surface very good. All on old city street, little or no change in grade. Good riding qualities.
9+75	14+36	2 @ 7'	Widening Strips	
14+36	18+78	50'	Full Str. Width	
18+78	20+48	2 @ 9'	Widening Strips	
20+48	28+50	50'	CCO #1 27+50 to 28+50	No cracks 20+48 to 25+00. A few short and fine cracks, both transverse and longitudinal, between 25+00 and 26+00, old grade on hillside slope.
No CTB				Some damaged and cracked areas 46+50 to 48+00. Can be classed as incipient failures - No CTB.
68+00	121+00	24'	CCO #1 68+77	No cracks observed. Surface in good condition.
121+00	122+90	12	Rt. side only	No cracks observed. Surface in good condition.
124+90	142+00	24'		A few longitudinal cracks in Rt.lane 140 to 144 on fill over marshy area.
143+30	156+65	24'		
162+10	179+30	24'		No cracks noted.
193+52	223+50	24'		Three short transverse cracks in Rt.lane near Sta.217. These are the same as they were when first noted by Lovering in 1949.
223+50	250+00	48'	4-Lane	Some longitudinal cracking, mostly along c/l and in left lane on fill, Sta.224 to 226 with occasional transverse cracks and one diagonal crack, latter at 225 in Rt.lane. Fairly high fill.
250+00	253+62	24'		No cracks noted.

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I-Men-1-B
Contract No. 1TC19
Sheet 2

Construction Limits CTB				
Station	to Station	Width	Remarks	Surface Condition as of 2-13-51
253+62	254+46	8'	Lt. side only	No cracks noted.
254+46	255+25	24'		No cracks noted.
255+25	259+23	8'	Lt. side only	No cracks noted.
259+23	260+71	24'		No cracks noted.
269+09	366+00	24'		No cracks noted, very low fill over most of this section. Present surface is rougher riding over areas where CTB was omitted. A number of cracks in cut near 160 to 161 show seepage of water. No CTB under that portion. General appearance of project very good. No appreciable displacement at any of the cracks. Cracked areas and incipient failures are beginning to appear, Sta. 46+50 to 48+00 where no CTB was constructed. This area at toe of hill slope. Water seepage noticeable when inspection was made.

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I-Men-1-C,D
1.5 mi. S. to 3.5 mi. N. Forsythe Creek
Contract No. 1TC24
Date of Inspection 2-13-51 and 2-14-51

Station	
380 to 404	Sta. 390 to 404, through cut and on flat occasional transverse and longitudinal cracking. No longitudinal cracks in the cut. Most of these cracks very fine and hard to see except in cold mornings. Lovering noted many more cracks in the base, prior to surfacing, than are now visible through the surfacing. Transverse cracks in cut are probably shrinkage cracks. No cracks other portions.
404 to 433	A number of cracks occur in the fill section north of the Forsythe Creek Bridge,(Sta.424). Most of these are longitudinal cracks near c/l or in right lane,(northbound) but part are transverse at irregular intervals. At 432, a longitudinal crack curves to the outer edge of the right lane. All appear to have been caused by fill settlement.
433 to 450	Cut section, no cracks observed. A slide has encroached on pavement at 448 but no damage to pavement was observed.
450 to 451	A few, irregularly spaced transverse cracks were noted on a low fill.
451 to 461+50(C) = 0+00(D)	No cracks were observed in this portion.
0+00 to 65+00	No cracks noted. Near Sta.20 a horseshoe shaped breakout of surface course of plant mix was noted in the right (northbound) lane. It was caused by a strip of 1/2" x 5/8" sponge rubber. Ends of the rubber strip were still embedded in the pavement at the northbound lane.
65 to 92	Near 67, shoulder failures and a few pavement cracks occur on a sidehill cut and fill. Slide trouble had been noted for this area in the final construction report. At 82+50 a transverse crack occurs at the center of a cut in a slide area where trouble had been reported during construction. A small slide has occurred at this point.

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Station	
92 to 109	From 92 to 93, a slipout of a high sidehill fill has caused cracking and depression of left lane. A slide, 93 to 94 has reached edge of pavement but the right lane is still O.K. Center, longitudinal cracking extends for some distance on this apparently unstable sidehill fill. Trouble during construction at 101. Some cracking, both longitudinal and transverse, in both cut and fill sections 92 to 109 but the cracking was much more pronounced on the fills than in the cuts.
109 to 120	Very little cracking through this area.
120 to 142	Pavement failures occur 121+50 to 122, apparently pushup caused by slide. Frequent and pronounced longitudinal cracking on high sidehill fill north from 122 for several hundred feet, then good to 141 where numerous cracks have occurred on a fill.
142 to 165	Near 152, settlement occurred during construction. Some evidence of further settlement with pronounced cracking near culvert at 152+10. Longitudinal cracking on fill 152 to 157. No cracking in cut north of 157, then re-occurrence of cracking on fill north of cut. Each fill has pronounced cracking and some settlement with especially severe damage to surface from 164 to 165.
165 to 191+50	Cracking and downhill slippage on fill near 173+50 and near 186. Very little or no cracking except on fills.

Except for the portion of the project south of 404 where some of the cracking may be due to shrinkage, all cracks occur in areas where subgrade movement is probable. Much of this project is on new grade and some on new alignment. Areas of surface settlement or displacement are all on unstable fills. Sections over low fills or in fairly stable cuts are free from cracking.

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I-Men-1-E
NWP Grade Crossing to NWP Underpass
Sta. 568+37 to 614+40
Contract No. 1TC16-F
Date of Inspection 2-14-51

Station	
568+37 to 574	No cracks from start of job to 571 on fill. Some longitudinal c/l cracking and some craze cracking in lt. lane, 571 to 571+25 craze cracking may be in surfacing only. No cracking on rest of fill and through part of cut to 574.
574 to 577	Some fine cracking 574 to 574+50, then no cracks on low fill to 577.
577 to 580	Moderate amount longitudinal cracking rt. lane and c/l 577 to 577+70. Two lines of pronounced longitudinal cracks 577+70 to 578+50, with frequent longitudinal cracking in left lane, as well 578+50 to 579. Many cracks, including some ladder cracking in both lanes 579 to 580. Few cracks 580 to 580+50.
580 to 586	Very few cracks 580 to 580+50. Moderate cracking 580+50 to 581+75. Badly cracked area in left lane near 582. Inner wheel track in left lane shattered and depressed around 583 near the end of a fill. Similar, but slightly less pronounced area in right lane at 583+50. Many cracked and broken areas in both lanes 583+50 to 584 near service station where fill is only about 2' high. No cracking on this low fill 584 to 585+50 where fill becomes higher. Moderate cracking to 586.
586 to 614	Pronounced ladder cracking, slight depression outer track rt. lane 586 to 588+50. Similar in lt. lane 586+50 to 590+75. Bad in center both lanes 588 to 588+40. Highest part of fill here. Rt. lane in better condition 588+50 to 590+75 but still numerous cracks. Center better except 589 to 589+40 and 590+20 to 590+60. Outer track lt. lane exceptionally bad 588+50 to 590+75. Enter cut 591. Both lanes good 590+75 to 591+25. Cracked area both lanes 591+25 to 591+50. Only a few cracks 591+50 to 593 usually transverse. None 593+50 to 594+50. Small one lt. lane 594+70.

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Station	
586 to 614(cont.)	Slide on rt. 594+50 to 597. Transverse crack lt. lane 595. Then about 10 ft. spacing lt. lane (downhill) to 596+50. Breaks in outer track lt. 596+50 to 596+75. Worst part of present slide. Occasional cracks lt. lane 596+75 to 597+50 but no cracks rt. 594+50 to 597+50. Small transverse crack that location and none to 600. Occasional transverse cracks 8 to 20 ft. spacing in lt. lane to 599 with several areas of bad cracking at extreme edge. (Inner side of curve) No cracks lt. lane 599 to 600. Occasional cracks both lanes with greater frequency in lt. lane to end of cut at 602+25 on rt. Old grade line on diagonal rt. to left 602+25 to 602+70. Pavement badly cracked both lanes north old edge of ground. Frequent cracking to 607. Mainly longitudinal cracks in rt. lane with craze cracking to 3" blocks in many areas of outer track (downhill) of lt. lane. Only small amount longitudinal cracking 607 to 608. No cracking rt. lane 610 to 611+70 with a few longitudinal and transverse cracks 608 to 610. Few cracks rt. lane 611+70 to end of job. More frequent cracking left lane 608 to end with occasional bad spots, especially over culvert 612+02. Outer half lt. craze or ladder cracked many portions this length.

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I-Men-1-H
Sherwood Road to Sapp Creek
Sta. 0+00 to 443+75
Contract No. 1-1TC36
Date of Inspection 2-21-51

Station	Mile	
444+60	= 7.46	
437+25	= 7.64	
425+65	= 7.85	No cracks so far
405+50	= 8.24	
390+25	= 8.52	No cracks 444+60 to 363+00 Craze cracking on surface at 8.86 (363+00) longitudinal and diagonal cracking some depression at 8.87 (362+50) near centerline and left lane grade point - sidehill fill - small gully.
364+50	= 8.89	No cracks south of 362+50
355+85	= 9.15	
314+50	= 9.95	
298+00	= 0.25	
286+10	= 0.48	Flat county - better soil condition
279+00	= 0.62	on this project than on others of
272+75	= 0.77	District I
259+00	= 1.00	
231+00	= 1.54	
216+50	= 1.80	
206+75	= 2.00	
192+25	= 2.29	
184+30	= 2.45	
160+00	= 2.89	No cracks 363+50 to 160+00

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I-Men-1-H
Contract No. 1-1TC36
Sheet 2

Station	Mile	
134+90	= 3.36	Upheaval of right lane at 3.40(132+50) caused by slide.
129+60	= 3.46	No cracks 129+60 to 90+00
126+00	= 3.54	
108+30	= 3.86	
	4.20	Crack at grade line (approx. Sta. 90+00)
80+73	= 4.39	
70+00	= 4.60	No cracks south of the one at Sta. 90 to end of project at 0+00.
50+40	= 4.96	
36+96	= 5.22	
29+53	= 5.38	
11+55	= 5.65	
	5.90	Bridge

End of contract

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I-Men-1-H,I
2.8 mi. S. to 1.0 mi. N. of Rattlesnake Summit
Sta. 534+61 to 713+72(H) = 0+00 (I) to 54+00 (613+99 = 628+50)
Contract No. 0-1TC22
Date of Inspection 2-21-51

Station	Mile	
54+00	= 1.65	
49+00	= 1.75	Centerline cracking at sidehill fill. Continues at intermittent intervals to 1.83 (47+00)
45+50	= 1.80	
40+97	= 1.90	No transverse cracking from 47+00 to 39+00
38+50	= 1.95	Centerline cracking again for short distance. Sidehill fill in opposite direction to that at 49+00. Enter cut at 1.95 (38+50).
37+50	= 1.97	Longitudinal cracking near center in cut (20 ft. long).
33+50	= 2.05	Centerline cracking at 2.06(33+00) with transverse cracks in right lane - potential slide area. Transverse cracks at 15 ft. intervals to 2.08 (31+00)
29+35	= 2.13	Longitudinal cracking left lane, sidehill fill at 2.15 (28+50).
26+00	= 2.20	Few small transverse cracks right lane.
25+00	= 2.21	Occasional short transverse cracking sidehill fill.
23+05	= 2.25	
21+50	= 2.28	Longitudinal cracking left lane sidehill fill. Occasional transverse cracks right lane this area.
20+00	= 2.31	Transverse crack left lane.
18+50	= 2.34	Longitudinal cracking at grade line sidehill fill. 3 or more parallel cracks.
16+00	= 2.38	Some centerline longitudinal cracking on fill.

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Station	Mile	
15+00	= 2.40	Transverse cracks at grade line.
14+50	= 2.41	Centerline cracking sidehill fill. Continues at intervals to 2.47 (12+00).
8+52	= 2.54	
4+75 to 5+75		Longitudinal cracking near inner half right lane for 100 ft.
0+00	= 2.63	= 713+72 (Section line I to H)
713+72 to 709	= 2.78	No cracking in cut. No cracking in next cut.
706+00	= 2.82	Centerline cracking at grade line for 75 ft.
704+80	= 2.86	
704 to 703		Longitudinal cracking right lane, some in left lane, sidehill fill.
698+00	= 2.98	Occasional longitudinal cracks left lane sidehill fill.
689+50	= 3.15	No cracks on through fill nor in cut to 3.15 (689+50) near end of cut. Longitudinal cracking at left lane for 50 ft.
688+34	= 3.18	
677+00	= 3.40	Longitudinal cracking right lane short distance high fill.
675+20	= 3.44	
677+00	= 3.58	Longitudinal and craze cracking outer half left lane in cut. Occasional longitudinal cracking in left lane to 666+50
666+00	= 3.60	A few longitudinal small cracks right lane this area, sidehill fill.

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Station	Mile	
660+62	= 3.70	
655+50	= 3.81	Few short longitudinal cracks.
654+00	= 3.87	Transverse cracks right lane.
649+00 to 648+00		Longitudinal cracks left lane and c/l on fill over gully. Steep sidehill.
644+90	= 4.00	Some longitudinal cracking left lane this area sidehill fill.
642+	= 4.10	(642+ approximately) Centerline cracking sidehill grade point.
639+14	= 4.15	
631+00 to 630+00		Longitudinal cracking left lane sidehill.
613+00 to 612+00		Sidehill cracking. Continues at intervals in right and left lanes.
609+30	= 4.39	All steep sidehill.
604+50		Longitudinal cracking near centerline and in right lane to 603+00 sidehill.
601+00	= 4.56	
595+04	= 4.67	
589+90	= 4.77	
581+00	= 4.93	Broken spot in surfacing center of cut, may be surfacing only that is damaged.
	4.95	Longitudinal cracking both lanes and centerline on fill.
577+50	= 5.00	Longitudinal cracking here both lanes sidehill fill.
570+00	= 5.15	Centerline cracking in cut for 30 ft.

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I-Men-1-H,I
Contract No. 0-1TC22
Sheet 4

Station	Mile	
549+92	= 5.19	
540+28	= 5.38	
534+19	= 5.49	End of job

General appearance very good - no visible depression at most areas where cracks are noted.

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I-Men-1-K
Tan Oak Park to Rattlesnake Creek Bridge #3
Constructed by Maintenance
Date of Inspection 2-21-51

Station	
365	Cracks at sidehill slip-out
330 to 331	Left lane very rough on sidehill fill.

Remainder of project shows very little cracking although the bituminous surfacing shows some peeling and ravelling. Occasional small broken areas near Tan Oak Park.

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I-Men-1-K
Red Mountain Creek to Piercy
174+86 to 424+00, except 299+41 to 301+77
Contract No. 1TC17-F
Date of Inspection 2-16-51

Southbound

Station	Mile	
419+90 =	20.2	
411+50 =	20.39	
	20.47	Crack fill both NB & SB.
	20.60	Crack fill at grade point.
394+05 =	20.73	-
372+06 =	21.15	-
367+02 =	21.25	-
360+90 =	21.36	Diagonal crack at grade point.
353+72 =	21.50	-
	21.64	Crack at underdrain.
347+60 =	21.65	Crack
346+75		Crack all the way across.
346+60		Diagonal crack.
345+75		Crack wet hillside cut with underdrains.
345+50		Crack wet hillside cut with underdrains.
345+40		Crack
345+25		Crack also long crack 3' from EP 20' long.
344+00		Crack at underdrain.
343+75		Crack
343+43		Crack
342+93		Crack

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Station	Mile	
342+70		Crack
342+40		Crack
342+15		Crack
342+65		Crack
341+00		)
		)Series of diagonal cracks.
340+35		)
331+21 =	21.94	4 cracks
	22.03	End viaducts
319+54		Cracks movement of fill
314+50		)
		)Fill movement with cracks
313+50		)
313+00		Crack
310+50		) Wet sidehill
		)Fill settlement high fill
309+00		)
307+00		Occasional cracks and seepage of water.
299+40 =	22.56	McCoy Creek
297+00		3 cracks
291+92 =	22.69	-
290		)
		)2 cracks wet sidehill with underdrains
275+00		)
	23.11	Crack at underdrain
	23.18	Crack at grade point fill
267+03 =	23.19	-

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I-Men-1-K
Contract No. 1TC17-F
Sheet 3

Station	Mile	
	23.34	Crack
255+23 =	23.40	-
	23.69	Crack old slide w/drains.
239+14 =	23.72	-
235 =	23.8	Long cracks 40± at high fill.
219+00 =	24.08	Patch - cut wet with underdrains
204+58 =	24.34	-
195+20 =	24.54	-
	24.55	Diagonal crack high fill
	24.73	))Patch fill settlement high fill
182+00 =	24.77	)
174+86 =	24.84	Red Mountain Creek

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I-Hum-1-D, E and I-Hum-1-E
Jordan Creek to S. Scotia Bridge and Greenlaw Bluffs to Scotia
Contract No. 1TC20 and Contract No. 1TC18
Date of Inspection 2-15-51

Station	Mile	
252+00 =	97.05	-
248+00 =	91.10	5 cracks to here
244+50		Crack
244+08		Crack
234+50		Crack
234+00 =	97.38	-
199+00 =	98.05	-
	98.24	Crack fill
180+30 =	98.40	-
171+96 =	98.58	-
144+50 =	99.10	-
124+44 =	99.28	-
	99.45	Loadometer Pit No Cracks
	99.53	Bridge
	99.70	Bridge
91+50 =	99.95	-
	100.45	Crack, pond on right
	100.64	Crack sidehill fill
49+35 =	100.77	-
46+50 =	100.83	Crack
43.42 =	100.89	-
38+34 =	100.96	-
36+50 =	101.00	Long crack 2' from edge (gully and sidehill fill).

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Station	Mile	
	101.06	Long crack 20' long (sidehill cut and fill)
35+75 =	101.07	-
30+40 =	101.14	-
24+82 =	101.25	-
19+16 =	101.35	-
	101.54	Crack
9 =	101.58	Crack
8+75 =	101.55	-
	101.69	Jordan Creek Bridge (4-13)
	Northbound	
	101.88	Jordan Creek Bridge (4-13)
11+20 =	102.05	-
27+47 =	102.35	-
	102.49	Long crack 2' from pvt.edge 80 - 100' long) Sidehill Sect. Fill Settlement on Rt.
35+50 =	102.51	-
43+42 =	102.68	-
	102.74	Crack
49+35 =	102.79	-
91+50 =	103.60	-
	103.85	South Scotia Bridge (EEL River)
	104.05	End South Scotia Bridge
118+00 =	104.13	Loadometer Pit
121+25 =	104.18	-

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I-Hum-1-D,E and I-Hum-1-E
Contract Nos. 1TC20 and 1TC18
Sheet 3

Station	Mile	
126+44 =	104.29	Crack at center (transverse)
131+00 =	104.38	-
144+50 =	104.45	-
	104.70	Culvert Test Section
	104.75	-
	104.89	Culvert
170+23 =	104.95	Culvert
176+60 =	105.07	Culvert
	105.19	2 cracks 15' apart.
183+70 =	105.20	Crack near culvert
	105.25	Crack (gully)
199+13 =	105.50	-
200+90± =	105.54	2 cracks 10' apart - gully.
201+32 =	105.55	-
201+50		Crack
203+21 =	105.59	-
215+91 =	105.8	-
218+00 =	105.86	-
224+00 =	105.98	-
230+00 =	106.10	-
234+10		)Long crack 2 - 3' from edge
234+05		)Sidehill fill sect.-wet slope on rt.
240+00 =	106.29	-

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I-Hum-1-D,E and I-Hum-1-E
Contract Nos. 1TC20 and 1TC18
Sheet 4

Station Mile	
249+00	Crack
249+23	Crack
249+43	Crack
249+70	Crack
252+00 = 106.54	End of job.

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I-Hum-1-E,F, Fta
No. Scotia Br. to 16th Street in Fortuna
Contract No. 0-1TC25
Date of Inspection 2-15-51

Station		Mile	
411+50 E to 277+88 F			)Exception
16th St. Fortuna to 335+00 Sect. F			PCC Pavement SB - Sta. 335+42 to end (0.25PMS 4 lane section. 30 transverse cracks (1 crack at culvert) 4 longitudinal (0.50CTB cracks (1 at fill Sta. 300) (1.00IB
291+00			NB - Begin 4 lane. 1 crack at dr. structure (middle of fill) 1 long diagonal crack at mail box (Beaudette) Due to fill readjustment where OG meets fill Mi. 80.05 app. Br. to yellow trim = Sta. 300 frequent cracks 10' - 15' spacing. 30 transverse cracks (Sta. 290+75 to 322+16) 8 transverse cracks clear across.
300+00	=	80.05	)30 cracks
322+16	=	80.45	
328+88	=	80.6	)No cracks
335+25	=	80.7	
NB - 319+00	=	90.9	)No cracks
341+74	=	91.35	
347+50	=	91.46	1 crack
354+16	=	91.59	Begin 2 lane
354+30			Tr. crack
+60			Tr. Crack
361+30	=	91.78	Tr. Crack
367+00	=	91.83	

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I-Hum-1-E,F,Fta
Contract No. 0-1TC25
Sheet 2

Station		Mile	
369+00			Crack
369+75	=	91.88	Crack
374+60	=	91.96	-
377+40			End fill
378+12	=	92.05	Culvert
409+00	=	92.15	End of job (Total 9 transverse cracks (3 transverse cracks (clear across
SB - 409+00	=	92.20	-
378+00	=	92.34	-
364+60	=	92.39	-
369+90	=	92.49	Culvert transverse crack
367+00	=	92.55	Culvert
364+00	=	92.60	
361+80	=	92.65	End fill 9 cracks to here
354+10	=	92.79	
354+50			End cut begin fill
348+50			))3 cracks
348+00			)
347+56	=	92.93	-
319+00	=	93.46	End job and end of 4 lane

Summary

16 transverse cracks in 2 lane section and transition section. No cracks on 4 lane section.

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I-Hum-1-J
From 0.5 mi. S. of Stone Lagoon Summit to 1.0 mi. S. of Orick
1007+40 to 1205+61 (except 1196+40 to 1197+00)
Contract No. 51-1TC7-F
Date of Inspection 2-20-51

Station	Mile	
1205+60	= 8.15	At section corner, junction F-16-3 and F-16-4. End of freeway R/W
1204+00	= 8.18	Crack. Surface ravelling
1197+00	= 8.34	Poor seal coat to bridge. From bridge c/l to 100 ft. S. of bridge it looks as though surfacing has been resealed.
1191+19	= 8.46	
1190+50		Crack lt. lane only (10 to 15 ft. fill
1190+00		Crack (this section
1179+14	= 8.67	
1173+03	= 8.80	
1172+75		Crack in rt. lane connects to longitudinal c/l crack extending to 1172+25. Some short longitudinal cracking in left lane at same place. Fill 15' high with water standing on both sides of road.
1168+60	= 8.88	
1166+50	= 8.91	)Longitudinal cracking left lane, some
		)transverse cracking. Slight probable
1165+50	= 8.93	)settlement.
1165+00	= 8.94	Crack left lane
1163+50	= 8.98	)Longitudinal crack center of right lane
		)with some transverse cracks to outer
1162+00	= 9.01	)edge.
1163+00	= 8.99	)
		)Ditto left lane.
1162+50	= 9.01	)
1162+50	= 9.01	Transverse crack.

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I-Hum-1-J
Contract No. 51-1TC7-F
Sheet 2

Station	Mile	
1160+50	= 9.03	)Longitudinal crack left lane with transverse)cracking at 9.04 (1160+00). Swamp on left,
1159+50	= 9.05	)fill 15 - 20 ft. high.
1157+60		Crack
1154+45	= 9.10	
1146+85	= 9.30	
1131+00	= 9.60	
1130+50		Crack outer half left lane.
1191+50	= 0.38	))4 cracks on 10-15 ft.spacing near grade point.
1191+00	= 0.39	)
1190+00	= 0.41	Crack at grade point, start of cut.
1085+70	= 0.48	
1083+56	= 0.52	
1083+00		Crack at grade point of ravine and start of new cut.
1078+00	= 0.61	Crack at summit in cut.
1075+50	= 0.66	
1073+50	= 0.70	Crack at sidehill fill.
1070+30	= 0.76	
1068+30		Crack at grade line. Culvert on diagonal crack at right angle to c/l.
1067+60		Crack in cut
1062+00	= 0.94	Incipient crack just south of grade line (on fill)
1059+00	= 1.00	
1054+88	= 1.06	Ravelling of seal south of lagoon, especially in right lane.

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I-Hum-1-J
Contract No. 51-1TC7-F
Sheet 3

Station	Mile		
1051+00	= 1.15		
1045+64	= 1.25		
1042+15	= 1.31	Crack sidehill fill.	
1041+80		Crack	
1041+60		Crack	
1041+46	= 1.34		
1041+00	= 1.35	Crack	
1039+00	= 1.38	Crack	
1037+50	= 1.40	Crack	
1037+10		Crack	:Some c/l long cracking here
1037+00	= 1.41	Crack (culvert)	:sidehill fill down to right.
1032+00	= 1.51	Crack	:
1031+50	= 1.52	Crack (grade point)	:
1030+00	= 1.55	Crack at grade point also at 1.56 Slip-out of left shoulder in narrow ravine.	)4 lane)section
1029+50	= 1.56		
1028+00	= 1.58	Crack in cut	
1027+15	= 1.60	Cracks at 1027+10, +40 and +60, all in cut.	
1026+00	= 1.62	Crack at sidehill fill. 3 cracks from 1.62 (1026+00) to 1.65 (1024+24).	
1024+24	= 1.65		
1023+90		Crack	
1022+00		Crack	
1021+80	= 1.70		

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I-Hum-1-J
Contract No. 51-1TC7-F
Sheet 4

Station	Mile	
1021+75		Crack at edge of culvert
1021+25	= 1.71	Crack left half grade point.
1018+67	= 1.75	
1018+75		Crack
1019+00		Crack
1019+25		Crack
1018+45 to 1019+25		Longitudinal crack inner left lane. Very high sidehill fill.
1016+80	= 1.76	Crack left outer lane.
1011+00	= 1.89	Crack
1010+08	= 1.91	
1008+00	= 1.95	Crack grade point.
1007+03	= 1.98	

Some cracks may be shrinkage, most look like settlement. In 4-lane area some cracks occur in left half only. Occasionally one in right half at different location than in left. All new cut and fill construction.

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I-Hum-1-K
From 1 mi. S. to 2-1/2 mi. N. of Orick (Approx.)
Contract No. 51-1TC5 - South Portion
Date of Inspection 2-20-51

Station Mile	
149+53	9 transverse cracks on flat to 144+85.
144+85 = 4.55	8 transverse cracks to 4.63 (140+50) on 30' to 100' spacing.
133+00 = 4.75	
128+05 = 4.85	Cracks from 140+50 to here occur on 20' to 100' spacing.
126+00 = 4.90	End of flat area.
121+02 = 4.96	No cracks from 4.90 (126+00) to culvert at 118+52 = 5.03. Crack over culvert. Road is on sidehill 20 to 30 ft. above floor of valley.
110+40 = 5.17	2 cracks at 20' just south of 118+50, then none to 110+40.
104+50 = 5.30	No cracks to here
100+00 = 5.40	Crack at grade line. 4 cracks to Prairie Creek Bridge.
86+04 = 5.65	Cracks occur at 20 to 100 ft. intervals south of bridge to grade point at 5.69 (85+00).
69+23 = 5.96	Cracks on 30 to 150 ft. spacing around the curve on sidehill south from 69+00.
53+10 = 6.28	Same rate of cracking to this point.
42+25 = 6.44	Same rate of cracking to this point.
42+00 = 6.45	No cracks except 2 or 3 short ones to 6.90 (20+00) on flat.
20+00 = 6.90	Cracks at 30' to 100' intervals to 6.97 (16+50) then none to 7.04 (13+00). Two here at 30' spacing then none to bridge at 7.10 (9+50).

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I-Hum-1-K
Contract No. 51-1TC5
Sheet 2

Station	Mile	
1450+70	= 7.25	South end bridge.
1435+50	= 7.54	Cracks from bridge to here are 30 to 500 ft. apart. Some to 7.68 (1428+00) then none to 7.85 (1419+00) one at 7.85 (1419+00).
1414+00	= 7.95	Crack. One at 8.06 and at 8.07
	8.15	End of project.

Cracks slightly more numerous in left lane. Some extend to c/l, some to middle of right lane, a few only in outer half left lane. Look more like shrinkage but note the few south of Orick on the flat section.

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I-Hum-1-K
From 2.8 mi. to 7.6 mi. North of Orick
Contract No. 0-1TC23
Date of Inspection 2-19-51

Station	Mile	
413+00	= 3.80	
409+80	= 3.88	Crack
405+24	= 3.95	
405+00		Crack near end of culvert
398+68	= 4.09	
398+20	= 4.10	Crack
393+00	= 4.20	Crack
389+00	= 4.25	
384+16	= 4.35	Crack
383+80		Crack
383+50	= 4.36	
382+00	= 4.39	Crack
380+00	= 4.43	Crack
379+50	= 4.44	Crack
377+00	= 4.49	Crack
376+80	= 4.49	Crack
374+97	= 4.54	
367+94	= 4.66	Crack over culvert
366+00		Crack over wet fill.
365±		20' center line crack
363+00	= 4.75	Crack another 20 ft. south
362+00	= 4.79	Crack
359+20	= 4.84	Crack

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I-Hum-1-K
Contract No. 0-1TC23
Sheet 2

Station Mile	
354 to 358	15 transverse cracks at intervals of 20 to 50 ft.
355 to 356+50	Centerline cracking. This area is a low fill across swampy ground.
455+50	1 crack directly over culvert.
354+50 = 4.94	Crack
351+50 = 4.99	Crack
351+00 = 5.00	
348+50 = 5.05	Crack
346 to 348	5 or 6 cracks on 20 to 30 ft. spacings.
344+80 = 5.10	
344+60	Crack
344+40	Crack
344+00	Crack
343+50	Crack
343+00	Crack
341+25	Crack
341+75 = 5.18	
328+20 = 5.25	Centerline and transverse cracks in left lane from culvert to 329+00 low fill small stream. No cracks in right lane.
328	Crack
327+70	Crack
327+50	Crack

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I-Hum-1-K
Contract No. 0-1TC23
Sheet 3

Station Mile	
327+30	Crack
327+00	Crack and at 15 to 30 ft. intervals to 5.34 (323+00).
323+50 to 322+50	Block cracking outer half left lane at 5.34 for a distance of 50 ft. (323+50 to 322+50 approx.) Flat meadow area south of 328+00. (Prairie Creek Deer Farm, Elk Refuge).
322+50 to 308+54 = 5.61	Cracking slightly less pronounced in right lane than in left. Very little cracking south of 322+50 for 300 ft. then occasional transverse cracks for next 300 ft. Cracks at 20 to 50 ft. intervals for 200 ft. Occasional cracks remaining distance to 308+54 = 5.61. All cracks south of 324 to 308 are very fine.
308+54 to 300+40 = 5.76	A few small widely spaced very faint cracks south from culvert. Rising ground south of 300. No cracks to 5.84 where left lane cracked both longitudinal and transversely at frequent intervals for 50 ft. Occasional faint cracks, some longitudinal on this turnpike section for next 200 ft. At 5.89, cracking frequent. Fairly frequent both
289+00 = 6.00	types at 290. 289+00 = 6.00. Numerous fine cracks near culvert at 289+00. Occasional fine cracks south of culvert. (15 to 50 ft.
284+00 = 6.08	intervals) to station 284+00 = 6.08. Similar fine cracking on somewhat wider
278+25 = 6.20	intervals 279+50 to 278+25 = 6.20 crack over culvert occasional fine cracks to 275. No cracks to bridge. Centerline cracking for short distance south of bridge 6.36, (267+00)
262+00 = 6.38	2 cracks left lane 6.38 (262+00). Occasional centerline and transverse cracks (centerline
265+60 = 6.45	cracks short to 265+60 = 6.45 crack near culvert 265+40. Cracking at 20 ft. intervals 264+50 (fine). Only one faint crack in cut section to grade line at 261+00. Crack at grade line and crack at 20 ft. intervals in this fill.

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I-Hum-1-K
Contract No. 0-1TC23
Sheet 4

Station	Mile	
260+00	= 6.55	Some centerline cracking this fill near 258+00 = 6.58. Considerable cracking in left lane near 250+00, then a few cracks to 249+50. Cracks at 20 to 50 ft. intervals next 500 ft. south (some pronounced) to 253+00 = 6.66. Sidehill construction. Similar condition on irregular spacing to 249+50 and on to south - some longitudinal cracking 249 to 248+40. Cracking this area more frequent and more pronounced in left lane.
253+00	= 6.66	
243+50	= 6.85	
244 to 241		Left lane cracking at 15 ft. intervals some longitudinal cracks this area.
241 to 239		Very little cracking, then frequent over swampy area to 237.
237 to 235		Cracking on 30 ft. or larger spacing 237 to 235 - crack over culvert at 235. No cracks 235 to 233.
232		20 ft. of craze cracking outer half left lane on high side hill fill. No cracking to station 230.
230+00	= 7.09	Longitudinal cracking near centerline.
229+50 to 230		(All steep sidehill cut and fill.) Some transverse cracking south of 230 at wide intervals.
227+00	= 7.15	Centerline cracking. Potential slide area.
225+00	= 7.20	Centerline and transverse cracking.
223+67	= 7.24	Centerline cracking not continuous. Similar cracking fairly frequent to 222+00. Occasional transverse cracks and a few centerline cracks to 219+00.
219+00	= 7.32	

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I-Hum-1-K
Contract No. 0-1TC23
Sheet 5

Station Mile	
	Very little cracking to 216+30, then transverse cracks on 20 ft. intervals to 215. Cracks widely spaced to start of fill at 7.43 (212+50)
208+55 = 7.52	then on 10 to 30 ft. spacing to 7.52 = 208+55 A few short centerline cracks in this area.
204+00 = 7.63	2 or 3 cracks only to 204+00. Some to bridge,
195+37 = 7.77	Lost Man Creek, station 195+37. Centerline and transverse cracking south of bridge for 100 ft. Then occasional cracking usually
190+50 = 7.84	on wide spacing to 7.84 (190+50) with occasional centerline cracking from 7.84 to 7.95 (190+00) then few or no cracks to
189+00 = 7.96	7.96 (189+00).
184+25 = 7.99	Cracking 185+00 to 184+00 fairly frequent.
184+00 to 177+00 = 8.11	Cracks on fairly wide spacing.
174+00 = 8.17	Very few cracks, then frequent to 8.20 (172+00) wide spacing on 171+25.
171 to 170	Centerline cracking 171 to 170. Transverse cracking on 20 ft. spacing this area.
168+25 = 8.28	Centerline cracking again at 8.28 (168+25) with frequent transverse cracking to 8.30 (167+00). Occasional transverse cracking to 166+10. 2 cracks over culvert (166+10) 20 to 50 ft. spacing for transverse cracks to 160+50. Very wide spacing of cracks to 8.50.
152+73 = 8.58	Same to 152+73 (very few cracks)

End of Project

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I-Hum-1-K
From 7.6 mi. to 10.4 mi. North of Orick
Contract No. 1-1TC33
Date of Inspection 2-19-51

Station	Mile	
559+12	= 1.03	
566+25		Crack, sidehill
554+56	= 1.10	
549+00		Crack, sidehill
548+00	= 1.24	Crack
546+00	= 1.28	
542+50		Crack at culvert
542+00		Crack
541+50		Double crack
540+40		Crack
540+00	= 1.39	Crack at culvert
539+50		Crack
539+25	= 1.40	Crack
539+00	= 1.41	Crack
538+50	= 1.42	Crack
538+00	= 1.43	Crack
536+50	= 1.45	
536		Transverse crack
535+50		Transverse crack
535 and 534+80		2 cracks
534 and 533+60		Crack
533+10		Longitudinal crack near centerline 533 to 532+50. Transverse cracks in left lane at irregular intervals (20 -30 ft.) to 531+00.

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I-Hum-1-K
Contract No. 1-1TC33
Sheet 2

Station	Mile	
530+50		Crack
528+67	= 1.60	
526+00	= 1.65	
519+50	= 1.78	Crack at 519+60
515+00	= 1.86	
508+83	= 2.00	
506+00	= 2.04	Crack at grade line
505+00		Crack at grade line
502+57	= 2.10	
499+00	= 2.17	
402+54	= 2.30	Crack over culvert
491+60		Crack
405+72	= 2.42	
481+00	= 2.51	
479+00	= 2.34	Crack
477+96		2 cracks at culvert
477+00	= 2.60	Crack in crest of rise in cut.
469+80	= 2.73	
464+74	= 2.82	
460+00		Crack at 460+00. 3 cracks near grade line that area (20 ft. spacing).
454+52	= 3.02	Crack over culvert
450+65		Crack near culvert.
450+00	= 3.10	Crack over culvert

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I-Hum-1-K
Contract No. 1-1TC33
Sheet 3

Station	Mile		
449+70		Crack	
449+50		Crack cut area	
448+00		Crack	
444+65 =	3.20		
439+67 =	3.30		
	3.34	Crack	
435+65 =	3.39		
431+50		Crack near culvert - 20 ft.fill	)Grade is at approximate ground level in this area.
430+50 =	3.50	Crack	
428+00 =	3.55	Crack	
426+00 =	3.59	Crack	
420+89 =	3.67		
413+50		Crack near culvert.	

End of Project.

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I-Hum-1-K
From 4 mi. to 2 mi. South of Del Norte County Line (Approx.)
Contract No. 51-1TC5 - North Portion
Date of Inspection 2-19-51

Station	Mile	
649+83	= 9.32	
645+15	= 9.40	
640+50	= 9.50	Some ravelling of seal and surface.
633+67	= 9.63	
625+50	= 9.76	
619+27	= 9.89	
614+00	= .00	
608+50	= 0.09	
603+50	= 0.18	Crack at 0.18 or Station 603+50 fill.
602+98	= 0.20	
593+17	= 0.39	
586+76	= 0.50	
578+50	= 0.66	Crack
577+40	= 0.68	
577+20		Crack. Low sidehill fill
572+50	= 0.76	
565+00	= 0.91	
562+50	= 0.95	

End of Contract - North Portion.

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I-Hum-DN-1-K,A
2 mi. S. to 0.05 mi. N. Del Norte Co. line
Contract No. 0-1TC30
Date of Inspection 2-19-51

Station	Mile	
27+00	= 6.77	Approximate station
	6.79	Crack
	6.85	Diagonal crack at grade line.
20+75	= 6.88	
20 to 18+50		Centerline cracking on sidehill fill. Some Evidence of slight slippage.
12+00	= 7.05	
0+65	= 7.27	
	7.29	Humboldt County Line. No cracks station 18 to county line. Largely sidehill construction.
755+50	= 7.30	
741+45	= 7.57	
	7.70	Crack on fill
	7.74	Short crack
724+88	= 7.89	
	8.00	Water seepage but no visible cracks.
715+65	= 8.05	
	8.15	Crack at grade line.
703+60	= 8.30	
	8.32	Settlement on right edge pavement. Damaged on right edge high sidehill fill.
700+00		Some centerline cracking, sidehill fill.
700+55	= 8.35	
692+00 to 693		Centerline cracking

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I-Hum-DN-1-K,A
Contract No. 0-1TC30
Sheet 2

Station	Mile	
691+91 =	8.51	
688+00		Damaged area, slight slip out on grade point or deep fill damage may have been aggravated by falling tree 686+35 = 8.64.
671+38 =	8.91	
672+52 to 670+50		Centerline cracking 672+52 to 670+50 sidehill fill. Again at 8.96 (short)
	9.00	Crack
665+62 =	9.04	
666+00 to 664+00		Centerline cracking 666+00 to 664+00 sidehill fill some transverse this area.
663+50 to 663+00		Longitudinal cracking 663+50 to 663+00 sidehill fill.
661+45 =	9.0	Centerline cracking continuous to 661 also sidehill fill.
	9.18	Longitudinal cracking centerline draw and sidehill fill (50 ft. long). Above fills slope to right.
652+25 to 651		Centerline cracking on fill

End of Project

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I-DN-1-A,B
10.3 mi. to 6.3 mi. South of Crescent City
Southern Section, Sta. 195+00 to 307+01(A)
Contract 1-1TC34
Date of Inspection 2-19-51

Station	Mile	
	1.70	South end Klamath River Bridge
		Centerline cracking and transverse cracking on fill both lanes
292+12 =	1.77	Station 298 to 293 Longitudinal cracking on sidehill fill 2.08
281+50 =	2.06	Occasional transverse crack 2.06 to 2.08
281+94 =	2.05	No cracks in cut
281 to 282		Centerline cracking Occasional transverse cracks
278+50		Transverse crack parallel to grade line both lanes. Some surface ravelling
275		Transverse crack grade line
274+47 =	2.2	
246+50 to 245+50		A few short transverse cracks this fill. Centerline cracking with sidehill fill. No cracks in cut. Transverse crack paralleling grade line cut end of fill 268+40
267+60 =	2.36	
		End of fill 267+00 some center cracking this fill. Transverse cracking at end of fill (grade line)
266+00 =	2.39	Transverse crack sidehill fill. No cracks in previous cut
262+25 =	2.44	Crack at 262+50
261 to 255+50		Center cracking on sidehill fill 261 to 255+50 with occasional transverse cracks both lanes. Occasional transverse cracks and small patched areas to 2.58 (254+00) some longitudinal center cracking on fill 2.58 (254+00) to 2.62 (252+00) with occasional transverse cracks small patched areas apparently surface only.

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I-DN-1-A,B
Contract No. 1-1TC34
Sheet 2

Station	Mile	
252+00 =	2.62	Some more cracking 2.62 (252+00) to 2.65 (250+50) sidehill fill occasional transverse and longitudinal cracking continues on sidehill fill 2.68 (249+00)
248+80 =	2.69	Crack
247+50 =	2.72	Crack at grade line
246+63 =	2.75	
245+50 =	2.76	2 cracks at grade line also a short longitudinal crack on sidehill fill south from 245+50
242+50 =	2.81	Crack as well as longitudinal center cracks 2.82 = 242+00 numerous transverse cracks 242+00 to 241+50 grade line at 241+50 no cracks in cut
238+00		Centerline cracks in fill near 238+00 transverse crack at grade line 237+75
235+50 =	2.95	Crack in cut
235+50 =	2.95	
234+50		2 cracks at grade point
229+50 =	3.05	No cracks in cut but damaged spot apparently in surface on centerline
226+75 =	3.10	Crack at end of cut
226+00 =	3.12	No cracks this fill crack at end of fill grade point
224 =	3.15	Short crack
219+00 =	3.25	Longitudinal crack at centerline on high fill with transverse crack at 3.25 (219+00) Longitudinal cracking extends to 3.30 with 2 pronounced transverse cracks at grade line 3.30 (216+50)

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I-DN-1-A,B
Contract No. 1-1TC34
Sheet 3

Station	Mile	
214+00 =	3.35	Crack in cut
213+30		Crack on fill 213+30 and one at 212+10
212+00 =	3.39	
212		Occasional cracks from 212 to 3.45 (208+50) some centerline some transverse and diagonal on sidehill fill
208+50		Center longitudinal and transverse cracks 208+50 to 206+00
206+00		Sidehill fill no cracks to 206+00 to 205+00
205+00		Fill slip out between 205+00 and 204+00 has depressed shoulder but has not affected pavement except for a few small longitudinal cracks in left lane between 204+50 and 204+00
202+50 =	3.57	Crack
197+60 =	3.65	

End of project 3.70 (195+00)

Except for the occasional cracks noted in the cuts all occurred on fills or sidehill cut and fill. Some surface ravelling of seal and surface throughout. General condition very good.

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I-DN-1-A
Klamath River Bridge to Wilson Creek
Sta. 318+48 to 682+39
Contract No. 51-1TC4
Date of Inspection 2-19-51

Station	Mile	
686+00	= 2.25	
683+60	= 2.30	
681+85	= 2.36	
670+00	= 2.55	
664+11	= 2.65	No cracks either lane to this point
655+27	= 2.85	
643+25	= 3.06	
637+75	= 3.16	
630+11	= 3.31	
621+30	= 3.50	No cracking noted 664 to 618+50
		Settlement with cracking in southbound lane 617 to 618 sidehill fill
611+63	= 3.66	
559+63	= 3.90	
588+20	= 4.10	
580+35	= 4.25	
573+50	= 4.40	
564+80	= 4.57	
551+50	= 4.81	
534+00 to 531+50	5.15 5.20	Longitudinal cracks near left edge
		This area low fill on flat meadow
529+35	= 3.24	

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I-DN-1-A
Contract No. 51-1TC4
Sheet 2

Station	Mile	
		Left shoulder has been built up throughout entire meadow area since construction. May have been due to flood damage.
522+74	= 5.36	High Prairie Creek Bridge
508+00	= 5.66	Centerline and diagonal cracking right lane
507+75 to 505+00		Some settlement left lane. Long diagonal crack from 505 on lt. to 506 on rt. with settlement to left and ahead. Hillside cut on rt. ends at 506. From 506 to 507+75 c/l crack most noticeable. Water on both sides 506 to 508. On left 503 to 508. Fill settlement. Longitudinal cracks vary at outer edge of left lane approximately for 50 ft. - near 504
500+38	= 5.78	
492+80		Shoulder wash out on left edge.
445+10	= 6.08	
490 to 492		Occasional transverse cracking. Wet meadow area.
	6.3	Bridge out.
466+55	= 6.45	Panther Creek Bridge
442+87	= 6.88	Some longitudinal cracking left lane sidehill fill.
442+00 to 442+50		Pronounced cracking and settlement left lane.
440 to 441+50		Sidehill fill
432+08	= 7.09	
426+78	= 7.20	

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I-DN-1-A
Contract No. 51-1TC4
Sheet 3

Station	Mile	
383+00	= 7.93	
359+29	= 8.41	
380+44	= 8.63	Longitudinal crack outer edge left lane. Gully and sidehill fill (20 ft.)

Occasional surface ravelling throughout this project. No cracks except where noted. Aside from slight ravelling and settlement damage job is in excellent condition.

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I-DN-1-A,B
10.3 mi. to 6.3 mi. South of Crescent City
Contract No. 1-1TC34 - North Portion
Station 157+00 to 385+00 (B)
Date of Inspection 2-19-51

Station	Mile	
385+00		Start of project
386+00	= 4.55	
379+00	= 4.69	2 cracks near old grade point on fill
376+00	= 4.76	Short center crack. Transverse crack same area
374+00	= 4.79	
373+50	= 4.80	Crack
372+00	= 4.83	Crack over culvert
371+80		Crack 20 ft. south
368+70		Crack
368+60	= 4.90	
368+50		Crack in northbound lane
370		Occasional center cracks 370 to 330 sidehill fill
367+75		Crack
366+50 to 365+00	= 5.95	Center, longitude, diagonal and transverse cracks with some settlement in southbound lane 366+50 to 5.95 (365+00) approximate.
364		Some evidence of sidehill fill settlement
363		Occasional transverse cracks on 20 ft. spacings 363 to 360+50
359+60	= 5.06	
356+00	= 5.15	Diagonal crack (underdrain) Crack follows old grade line
349+19	= 5.25	No crack

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I-DN-1-A,B
Contract No. 1-1TC34
Sheet 2

Station	Mile	
348+50		Crack
342+77	= 5.39	
340+00	= 5.45	Crack. None from 348+50 to this point. This crack at summit of grade in a cut
331+50	= 5.60	Diagonal crack right lane. Longitudinal center crack to 330+40. Occasional transverse crack in left lane low fill on left high sidehill on right - some settlement
329+80	= 5.64	
324+42	= 5.74	
316+57	= 5.89	
309+76	= 6.01	Few cracks at this point
	6.28	(20 ft. apart) in cut - 3 cracks
	6.40	Crack
293+23	= 6.33	
285+82	= 6.48	
279+70	= 6.98	
268+67	= 6.79	
264+61	= 6.86	
262+50	= 6.91	Break and settlement of left lane 30 ft. long steep hillside cut and fill from right to left longitudinal cracking both lanes, probable settlement from station 259+50 to 260+50 same sidehill
258+65	= 6.99	
257+75		Diagonal cracks
252+46	= 7.10	

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I-DN-1-A,B
Contract No. 1-1TC34
Sheet 3

Station	Mile	
247+50	= 7.20	
240+16	= 7.34	
239+70		Crack sidehill
233+50	= 7.46	
226+00	= 7.60	3 small cracks at grade point
220+67	= 7.70	
220+00		Crack sidehill fill
219+00		Crack sidehill fill
218+50	= 7.75	Crack
213+00	= 7.85	Longitudinal center crack sidehill
195+50	= 8.16	
189+50	= 8.30	
183+00	= 8.44	
172+30	= 8.62	
169+00		Crack at end of fill
162+70	= 8.81	Longitudinal crack center and right lane
162 to 163		Sidehill fill on right apparent settlement
155+49	= 8.97	

Except where settlement was noted, all cracks are fine or hair line, general condition of pavement excellent.

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I-DN-1-A,B
Contract No. 1-1TC34
Sheet 4

Inspection made while travelling north

Station	Mile	
162+70	= 9.14	
183+00	= 9.51	
196+50	= 9.78	
205+00	= 9.95	Crack
233+50	= 0.50	
244+09	= 0.67	
262		Diagonal crack 1.0 settlement, see notes S. lt. lane
268+67	= 1.15	
279+70	= 1.38	
314+04	= 2.00	
324+42	= 2.20	
	2.36	Diagonal crack approximate station 333 (grade line) Center line cracking at 3.00 approximate station 368 and 367
386+00	= 3.40	

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