

NATIONAL HIGHWAY SYSTEM LENGTH - 1999
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 1 OF 4

OCTOBER 2000

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	INTERSTATE SYSTEM										OTHER									
	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	228	260	73	33	4	3	-	-	601	-	493	1,179	303	53	8	10	2	-	2,048
Alaska	-	23	318	346	218	79	35	-	11	1,030	455	7	135	55	197	59	15	22	8	498
Arizona	-	747	205	30	8	5	1	-	1	997	-	219	374	267	143	75	26	13	20	1,137
Arkansas	15	-	56	35	78	87	51	41	31	379	181	9	523	541	314	184	66	23	15	1,675
California	-	7	613	302	235	124	40	13	27	1,361	3	24	1,012	1,144	785	432	87	47	2	3,533
Colorado	-	73	492	103	62	34	4	-	-	768	-	66	806	442	233	198	65	9	16	1,835
Connecticut	-	-	58	20	13	6	2	1	2	102	-	-	54	79	67	33	15	4	1	253
Delaware	-	-	-	-	-	-	-	-	-	-	9	4	78	88	18	2	3	3	1	197
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	22	769	70	16	49	24	3	-	-	931	42	921	657	109	46	9	-	1	-	1,743
Georgia	-	596	185	26	-	-	-	-	-	807	8	1,867	583	35	-	5	-	-	-	2,490
Hawaii	6	-	-	-	-	-	-	-	-	-	141	-	-	-	-	-	-	-	-	-
Idaho	-	220	198	94	3	3	4	3	1	526	-	269	659	464	196	54	15	4	2	1,663
Illinois	-	43	549	469	282	159	10	-	2	1,514	-	41	567	506	444	158	75	46	21	1,858
Indiana	-	454	341	52	4	1	-	-	-	852	4	258	579	236	122	45	40	1	-	1,281
Iowa	1	101	308	190	33	-	1	-	-	633	114	312	730	346	183	202	102	14	16	1,905
Kansas	-	201	342	116	28	6	5	-	-	698	32	552	1,498	339	122	80	24	8	2	2,625
Kentucky	-	133	250	23	95	35	-	-	-	536	-	315	908	272	175	51	7	-	1	1,729
Louisiana	65	-	142	149	95	105	33	6	17	547	38	13	401	222	195	130	111	63	28	1,163
Maine	29	15	222	36	8	2	-	-	-	283	7	57	410	173	74	43	7	11	6	781
Maryland	1	28	157	30	10	1	-	-	-	226	10	46	325	129	22	9	11	3	4	549
Massachusetts	-	-	90	65	6	-	-	-	1	162	8	-	56	150	40	41	20	4	4	315
Michigan	-	67	257	187	127	55	23	14	11	741	-	430	919	436	273	150	49	20	30	2,307
Minnesota	-	216	315	56	71	23	1	-	-	682	-	772	927	526	230	76	29	9	9	2,578
Mississippi	-	85	230	114	62	40	19	8	-	558	-	143	755	421	222	75	15	23	4	1,658
Missouri	-	3	178	328	184	103	9	1	1	807	3	20	456	790	764	361	122	28	29	2,570
Montana	-	339	516	139	83	45	7	5	-	1,134	-	259	1,355	541	215	140	63	24	9	2,606
Nebraska	-	175	107	75	51	21	9	-	-	438	-	517	646	490	233	114	151	69	33	2,253
Nevada	-	126	265	48	20	11	7	1	1	479	19	131	627	230	256	149	25	-	-	1,418
New Hampshire	-	51	95	28	2	-	-	-	-	176	-	58	257	77	21	21	18	6	5	463
New Jersey	9	1	41	41	9	11	4	3	1	111	89	-	43	116	85	120	35	7	49	455
New Mexico	-	-	89	442	261	59	17	16	8	892	-	44	556	571	283	140	55	41	50	1,740
New York	15	-	533	154	87	51	40	30	29	924	28	2	994	354	148	115	82	36	71	1,802
North Carolina	-	69	256	143	90	65	6	20	1	650	-	77	1,095	509	234	172	59	20	9	2,175
North Dakota	-	143	276	90	20	1	-	-	-	530	-	382	1,015	498	142	26	5	20	1	2,089
Ohio	-	293	421	95	15	3	2	-	-	829	-	269	1,149	291	90	20	10	3	7	1,839
Oklahoma	-	81	339	162	102	14	22	1	1	722	-	39	901	568	292	190	79	23	17	2,109
Oregon	1	-	205	340	35	-	-	-	-	580	118	32	317	1,314	745	125	32	3	1	2,569
Pennsylvania	1	127	733	216	69	31	12	11	8	1,207	1	132	897	608	308	170	82	35	19	2,251
Rhode Island	-	-	18	3	-	-	-	-	-	21	-	-	24	23	9	5	1	2	-	64
South Carolina	-	275	295	81	13	1	6	-	-	671	-	68	830	240	74	31	17	10	3	1,273
South Dakota	2	2	262	210	41	99	12	-	-	626	122	34	444	486	423	337	139	104	102	2,069
Tennessee	-	128	530	58	13	5	-	-	-	734	48	97	801	310	157	67	16	1	-	1,449
Texas	-	407	1,378	304	84	38	1	-	-	2,212	-	311	3,191	2,058	615	177	64	15	6	6,437
Utah	-	166	368	127	44	54	9	2	-	770	-	27	454	337	119	59	17	-	-	1,013
Vermont	-	-	200	31	32	9	2	5	2	281	-	-	78	58	69	59	25	12	18	319
Virginia	-	18	586	109	9	2	1	-	-	725	-	6	627	462	209	116	40	13	21	1,494
Washington	-	211	218	51	19	-	2	-	-	501	13	339	1,271	353	79	31	5	4	2	2,084
West Virginia	-	47	246	57	46	35	8	9	8	456	-	102	395	315	172	51	19	19	4	1,077
Wisconsin	1	66	235	167	53	41	5	1	-	568	-	244	815	653	432	227	122	85	76	2,654
Wyoming	-	384	352	71	14	5	-	-	-	826	3	841	925	117	29	37	-	3	3	1,955
U.S. Total	168	7,118	14,400	6,102	2,916	1,497	416	191	164	32,804	1,496	10,849	34,298	19,652	10,357	5,179	2,075	913	725	84,048
Puerto Rico	-	-	8	23	51	13	5	-	3	103	3	-	-	2	6	27	6	-	2	43
Grand Total	168	7,118	14,408	6,125	2,967	1,510	421	191	167	32,907	1,499	10,849	34,298	19,654	10,363	5,206	2,081	913	727	84,091

NATIONAL HIGHWAY SYSTEM LENGTH - 1999
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 2 OF 4

OCTOBER 2000

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	TOTAL RURAL NHS									
	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	721	1,439	376	86	12	13	2	-	2,649
Alaska	455	30	453	401	415	138	50	22	19	1,528
Arizona	-	966	579	297	151	80	27	13	21	2,134
Arkansas	196	9	579	576	392	271	117	64	46	2,054
California	3	31	1,625	1,446	1,020	556	127	60	29	4,894
Colorado	-	139	1,298	545	295	232	69	9	16	2,603
Connecticut	-	-	112	99	80	39	17	5	3	355
Delaware	9	4	78	88	18	2	3	3	1	197
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	64	1,690	727	125	95	33	3	1	-	2,674
Georgia	8	2,463	768	61	-	5	-	-	-	3,297
Hawaii	147	-	-	-	-	-	-	-	-	-
Idaho	-	489	857	558	199	57	19	7	3	2,189
Illinois	-	84	1,116	975	726	317	85	46	23	3,372
Indiana	4	712	920	288	126	46	40	1	-	2,133
Iowa	115	413	1,038	536	216	202	103	14	16	2,538
Kansas	32	753	1,840	455	150	86	29	8	2	3,323
Kentucky	-	448	1,158	295	270	86	7	-	1	2,265
Louisiana	103	13	543	371	290	235	144	69	45	1,710
Maine	36	72	632	209	82	45	7	11	6	1,064
Maryland	11	74	482	159	32	10	11	3	4	775
Massachusetts	8	-	146	215	46	41	20	4	5	477
Michigan	-	497	1,176	623	400	205	72	34	41	3,048
Minnesota	-	988	1,242	582	301	99	30	9	9	3,260
Mississippi	-	228	985	535	284	115	34	31	4	2,216
Missouri	3	23	634	1,118	948	464	131	29	30	3,377
Montana	-	598	1,871	680	298	185	70	29	9	3,740
Nebraska	-	692	753	565	284	135	160	69	33	2,691
Nevada	19	257	892	278	276	160	32	1	1	1,897
New Hampshire	-	109	352	105	23	21	18	6	5	639
New Jersey	98	1	84	157	94	131	39	10	50	566
New Mexico	-	44	645	1,013	544	199	72	57	58	2,632
New York	43	2	1,527	508	235	166	122	66	100	2,726
North Carolina	-	146	1,351	652	324	237	65	40	10	2,825
North Dakota	-	525	1,291	588	162	27	5	20	1	2,619
Ohio	-	562	1,570	386	105	23	12	3	7	2,668
Oklahoma	-	120	1,240	730	394	204	101	24	18	2,831
Oregon	119	32	522	1,654	780	125	32	3	1	3,149
Pennsylvania	2	259	1,630	824	377	201	94	46	27	3,458
Rhode Island	-	-	42	26	9	5	1	2	-	85
South Carolina	-	343	1,125	321	87	32	23	10	3	1,944
South Dakota	124	36	706	696	464	436	151	104	102	2,695
Tennessee	48	225	1,331	368	170	72	16	1	-	2,183
Texas	-	718	4,569	2,362	699	215	65	15	6	8,649
Utah	-	193	822	464	163	113	26	2	-	1,783
Vermont	-	-	278	89	101	68	27	17	20	600
Virginia	-	24	1,213	571	218	118	41	13	21	2,219
Washington	13	550	1,489	404	98	31	7	4	2	2,585
West Virginia	-	149	641	372	218	86	27	28	12	1,533
Wisconsin	1	310	1,050	820	485	268	127	86	76	3,222
Wyoming	3	1,225	1,277	188	43	42	-	3	3	2,781
U.S. Total	1,664	17,967	48,698	25,754	13,273	6,676	2,491	1,104	889	116,852
Puerto Rico	3	-	8	25	57	40	11	-	5	146
Grand Total	1,667	17,967	48,706	25,779	13,330	6,716	2,502	1,104	894	116,998

NATIONAL HIGHWAY SYSTEM LENGTH - 1999
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 3 OF 4

OCTOBER 2000

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/																			
	INTERSTATE SYSTEM										OTHER									
	NOT REPORTED	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	85	115	36	34	27	7	-	-	304	-	207	335	111	33	8	6	2	4	706
Alaska	-	1	31	12	2	7	1	-	-	54	-	-	7	30	19	7	5	2	2	72
Arizona	-	96	36	31	8	2	-	-	-	173	1	64	126	82	51	36	9	1	5	374
Arkansas	4	2	13	31	27	33	18	10	9	143	50	4	54	48	31	43	16	9	20	225
California	1	24	169	214	272	231	103	62	18	1,093	-	32	210	276	422	276	112	56	43	1,427
Colorado	-	30	80	46	16	12	1	-	-	185	15	18	138	163	87	52	27	65	34	584
Connecticut	-	1	80	90	35	19	8	5	6	244	-	-	59	97	70	60	38	17	21	362
Delaware	1	-	7	11	7	3	6	2	3	39	-	4	25	24	7	2	1	1	2	66
Dist. of Columbia	1	-	3	2	-	1	1	4	3	14	2	-	-	1	4	7	11	11	31	65
Florida	33	269	144	30	20	17	6	-	-	486	93	346	438	121	52	20	9	5	6	997
Georgia	1	307	118	8	-	1	2	-	-	436	25	491	251	36	13	3	-	-	-	794
Hawaii	49	-	-	-	-	-	-	-	-	-	109	-	-	-	-	-	-	-	-	-
Idaho	-	25	29	9	4	13	4	1	-	85	-	11	23	20	19	6	6	5	6	96
Illinois	1	40	190	200	115	61	40	3	-	649	72	36	324	331	251	200	173	120	167	1,602
Indiana	-	72	165	53	12	9	4	2	-	317	17	26	80	71	71	47	36	5	24	360
Iowa	-	2	48	36	30	10	19	2	-	147	52	53	63	46	39	45	14	5	25	290
Kansas	2	7	74	69	19	1	1	1	-	172	56	20	69	46	18	19	7	6	5	190
Kentucky	-	61	85	23	36	6	12	3	-	226	-	39	149	133	39	23	6	3	1	393
Louisiana	59	-	21	72	25	62	29	3	11	223	101	6	84	50	53	50	49	41	72	405
Maine	10	1	36	6	1	-	-	-	-	44	17	-	42	28	14	16	6	5	5	116
Maryland	9	5	114	74	24	9	9	5	5	245	10	20	112	87	43	37	22	28	43	392
Massachusetts	2	-	182	147	43	23	6	1	-	402	208	1	90	174	180	140	95	68	98	846
Michigan	1	20	179	112	94	44	25	13	12	499	-	16	102	158	155	176	151	113	303	1,174
Minnesota	1	66	105	41	12	4	2	-	-	230	-	89	163	112	60	18	14	3	11	470
Mississippi	-	2	20	46	45	10	2	3	-	128	1	23	79	54	50	28	8	10	16	268
Missouri	-	-	47	119	107	68	17	6	6	370	24	-	32	105	138	124	103	48	41	591
Montana	-	4	27	12	9	4	1	-	-	57	-	-	11	18	14	7	4	4	5	63
Nebraska	-	2	19	15	3	3	1	-	1	44	11	7	19	27	29	34	36	21	55	228
Nevada	-	11	26	21	6	14	-	-	-	78	-	11	60	26	7	8	3	5	5	125
New Hampshire	-	14	26	7	-	-	1	-	-	48	-	7	65	18	12	8	2	2	1	115
New Jersey	30	2	52	114	44	40	5	7	7	271	213	-	58	136	194	194	131	56	108	877
New Mexico	-	-	12	38	28	17	5	2	6	108	3	3	41	58	30	19	8	8	8	175
New York	17	-	259	135	81	65	58	32	82	712	110	6	311	289	211	189	112	104	313	1,535
North Carolina	-	2	163	80	59	24	9	22	10	369	-	2	165	110	78	68	29	11	10	473
North Dakota	-	14	20	4	2	-	-	-	-	40	-	3	20	10	8	6	2	2	4	63
Ohio	-	124	406	142	35	19	6	7	3	742	-	61	318	237	112	96	39	24	30	917
Oklahoma	-	3	55	49	32	28	22	11	9	209	-	-	71	66	52	41	25	13	7	275
Oregon	4	-	27	76	30	8	-	1	-	142	17	2	28	98	76	71	25	13	11	324
Pennsylvania	3	16	254	150	62	35	16	10	5	548	7	24	285	302	280	230	128	80	100	1,429
Rhode Island	-	-	16	13	13	5	1	-	-	48	-	1	44	41	24	7	5	2	2	126
South Carolina	-	43	78	21	7	4	5	-	-	158	-	14	157	127	65	52	20	14	26	475
South Dakota	-	-	9	8	8	17	5	2	1	50	44	-	3	1	4	4	2	2	1	17
Tennessee	-	63	150	69	35	12	8	2	-	339	41	29	279	146	66	45	16	10	9	600
Texas	-	39	400	308	178	76	18	2	-	1,021	6	81	796	875	706	402	556	95	136	3,647
Utah	-	16	63	43	27	10	7	1	-	167	-	6	81	57	32	30	10	3	5	224
Vermont	-	-	27	6	7	-	-	-	-	40	-	-	7	14	9	10	4	2	8	54
Virginia	-	-	159	118	84	13	10	8	1	393	34	-	184	239	157	102	53	41	50	826
Washington	1	65	108	29	24	27	5	4	-	262	138	44	207	81	49	25	13	7	12	438
West Virginia	-	11	53	15	6	5	3	1	-	94	-	4	38	26	19	16	7	4	3	117
Wisconsin	4	15	55	34	31	32	4	1	-	172	1	6	74	102	114	136	101	69	160	762
Wyoming	-	23	26	24	8	4	1	-	1	87	-	26	36	8	2	4	2	1	-	79
U.S. Total	234	1,583	4,581	3,049	1,807	1,135	514	239	199	13,107	1,478	1,843	6,413	5,516	4,271	3,249	2,261	1,222	2,054	26,829
Puerto Rico	1	-	5	48	40	23	18	7	6	147	7	-	2	21	13	27	11	6	7	87
Grand Total	235	1,583	4,586	3,097	1,847	1,158	532	246	205	13,254	1,485	1,843	6,415	5,537	4,284	3,276	2,272	1,228	2,061	26,916

NATIONAL HIGHWAY SYSTEM LENGTH - 1999

MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

OCTOBER 2000

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 1/									
	TOTAL URBAN NHS									
	NOT REPORTED 2/	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	292	450	147	67	35	13	2	4	1,010
Alaska	-	1	38	42	21	14	6	2	2	126
Arizona	1	160	162	113	59	38	9	1	5	547
Arkansas	54	6	67	79	58	76	34	19	29	368
California	1	56	379	490	694	507	215	118	61	2,520
Colorado	15	48	218	209	103	64	28	65	34	769
Connecticut	-	1	139	187	105	79	46	22	27	606
Delaware	1	4	32	35	14	5	7	3	5	105
Dist. of Columbia	3	-	3	3	4	8	12	15	34	79
Florida	126	615	582	151	72	37	15	5	6	1,483
Georgia	26	798	369	44	13	4	2	-	-	1,230
Hawaii	158	-	-	-	-	-	-	-	-	-
Idaho	-	36	52	29	23	19	10	6	6	181
Illinois	73	76	514	531	366	261	213	123	167	2,251
Indiana	17	98	245	124	83	56	40	7	24	677
Iowa	52	55	111	82	69	55	33	7	25	437
Kansas	58	27	143	115	37	20	8	7	5	362
Kentucky	-	100	234	156	75	29	18	6	1	619
Louisiana	160	6	105	122	78	112	78	44	83	628
Maine	27	1	78	34	15	16	6	5	5	160
Maryland	19	25	226	161	67	46	31	33	48	637
Massachusetts	210	1	272	321	223	163	101	69	98	1,248
Michigan	1	36	281	270	249	220	176	126	315	1,673
Minnesota	1	155	268	153	72	22	16	3	11	700
Mississippi	1	25	99	100	95	38	10	13	16	396
Missouri	24	-	79	224	245	192	120	54	47	961
Montana	-	4	38	30	23	11	5	4	5	120
Nebraska	11	9	38	42	32	37	37	21	56	272
Nevada	-	22	86	47	13	22	3	5	5	203
New Hampshire	-	21	91	25	12	8	3	2	1	163
New Jersey	243	2	110	250	238	234	136	63	115	1,148
New Mexico	3	3	53	96	58	36	13	10	14	283
New York	127	6	570	424	292	254	170	136	395	2,247
North Carolina	-	4	328	190	137	92	38	33	20	842
North Dakota	-	17	40	14	12	8	6	2	4	103
Ohio	-	185	724	379	147	115	45	31	33	1,659
Oklahoma	-	3	126	115	84	69	47	24	16	484
Oregon	21	2	55	174	106	79	25	14	11	466
Pennsylvania	10	40	539	452	342	265	144	90	105	1,977
Rhode Island	-	1	60	54	37	12	6	2	2	174
South Carolina	-	57	235	148	72	56	25	14	26	633
South Dakota	44	-	12	9	12	21	7	4	2	67
Tennessee	41	92	429	215	101	57	24	12	9	939
Texas	6	120	1,196	1,183	884	478	574	97	136	4,668
Utah	-	22	144	100	59	40	17	4	5	391
Vermont	-	-	34	20	16	10	4	2	8	94
Virginia	34	-	343	357	241	115	63	49	51	1,219
Washington	139	109	315	110	73	52	18	11	12	700
West Virginia	-	15	91	41	25	21	10	5	3	211
Wisconsin	5	21	129	136	145	168	105	70	160	934
Wyoming	-	49	62	32	10	8	3	1	1	166
U.S. Total	1,712	3,426	10,994	8,565	6,078	4,384	2,775	1,461	2,253	39,936
Puerto Rico	8	-	7	69	53	50	29	13	13	234
Grand Total	1,720	3,426	11,001	8,634	6,131	4,434	2,804	1,474	2,266	40,170

1/ Data are reported as the International Roughness Index (IRI) in inches per mile. Reference: World Bank Technical Paper Number 46, 1986. Lower IRI represents smoother riding roadways. To obtain a comprehensive assessment of pavement condition, additional measures of pavement distress are needed.

2/ May include sections entirely on structures and unpaved miles.