

**NATIONAL HIGHWAY SYSTEM LENGTH - 2011
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL**

TABLE HM-47
SHEET 1 OF 4

JANUARY 2013

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	0	328	130	28	23	10	6	5	6	536	4	1,029	768	136	59	26	11	5	5	2,039
Alaska	-	102	303	209	168	109	58	33	21	1,004	283	30	139	113	110	97	67	43	109	709
Arizona	18	451	376	86	26	14	5	1	3	962	151	400	368	106	60	28	13	2	-	977
Arkansas	0	203	138	45	22	13	7	7	6	441	23	301	762	317	186	99	44	21	12	1,740
California	166	207	391	213	138	66	36	23	38	1,112	481	303	1,346	513	296	167	68	44	15	2,752
Colorado	-	104	288	170	50	50	16	4	1	685	-	246	841	474	189	77	22	9	4	1,862
Connecticut	-	0	30	11	-	1	-	-	-	43	-	7	56	48	24	16	1	4	1	158
Delaware	-	-	-	-	-	-	-	-	-	-	4	16	96	37	9	2	1	1	2	164
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	3	459	251	23	8	3	1	0	0	745	55	688	611	86	36	18	7	3	5	1,453
Georgia	3	300	291	76	36	7	2	-	1	713	228	1,110	1,735	167	44	7	1	1	0	3,066
Hawaii	-	0	2	2	1	1	0	0	0	6	5	4	22	19	17	12	7	6	13	101
Idaho	-	434	68	14	4	2	0	0	-	522	8	995	519	80	25	9	3	2	2	1,634
Illinois	-	538	587	138	20	72	-	-	0	1,356	5	203	767	356	155	93	35	25	20	1,654
Indiana	93	291	182	56	34	24	10	9	13	619	1	504	461	133	49	26	13	10	25	1,220
Iowa	21	166	309	102	27	2	-	-	-	608	136	287	644	448	265	168	58	17	7	1,893
Kansas	-	310	243	71	20	11	-	-	-	656	37	780	1,391	268	73	25	7	2	-	2,546
Kentucky	71	302	162	32	13	7	4	3	2	525	101	669	621	178	74	31	15	7	7	1,601
Louisiana	-	133	156	134	62	48	0	1	-	533	2	38	557	220	110	84	38	27	12	1,086
Maine	-	143	105	32	16	3	-	0	-	299	0	43	379	210	78	59	17	7	1	794
Maryland	1	78	83	11	5	3	1	1	1	183	4	185	183	46	21	10	6	4	4	459
Massachusetts	1	29	44	9	4	2	1	1	1	90	23	18	39	40	28	11	4	1	2	143
Michigan	-	212	250	66	35	25	11	6	4	609	0	1,064	676	197	97	52	21	13	21	2,141
Minnesota	-	133	289	107	52	26	11	8	3	630	21	509	942	413	257	172	98	58	54	2,503
Mississippi	-	176	226	62	15	13	10	-	-	502	1	343	972	208	99	61	14	21	3	1,721
Missouri	0	370	305	31	8	4	3	1	1	724	3	925	1,081	244	102	42	19	7	5	2,426
Montana	-	328	597	113	56	20	6	3	5	1,129	-	603	1,367	331	155	80	34	19	27	2,617
Nebraska	-	190	185	30	13	-	-	-	-	418	-	673	855	370	177	106	51	60	17	2,309
Nevada	415	0	26	8	-	-	-	-	-	34	999	152	275	4	1	-	-	-	-	432
New Hampshire	-	108	23	8	5	2	4	-	-	149	-	76	206	60	35	16	6	8	0	407
New Jersey	-	26	30	5	1	1	1	1	1	65	0	22	74	55	45	28	16	10	9	259
New Mexico	-	437	348	36	15	11	0	1	-	848	-	670	757	147	106	27	11	2	1	1,720
New York	-	226	475	71	35	17	6	9	9	847	2	105	787	369	137	53	14	10	15	1,489
North Carolina	19	275	176	36	18	9	4	2	2	522	39	367	994	296	132	61	26	15	17	1,908
North Dakota	-	222	275	22	-	-	-	-	-	519	-	596	1,111	231	89	51	11	-	0	2,090
Ohio	-	226	387	81	21	6	1	1	0	723	-	338	880	297	75	37	19	3	4	1,652
Oklahoma	-	239	312	91	17	17	6	1	0	684	-	281	922	459	208	95	60	46	27	2,099
Oregon	-	125	267	150	8	4	0	-	-	553	0	367	1,485	411	223	106	13	8	6	2,619
Pennsylvania	3	412	492	137	53	9	1	1	2	1,106	13	328	836	332	157	65	20	10	7	1,755
Rhode Island	-	13	9	-	-	-	-	-	-	21	0	-	-	4	10	9	3	8	14	47
South Carolina	-	185	320	59	15	2	-	-	0	581	-	114	640	229	106	20	1	2	2	1,113
South Dakota	68	87	354	73	9	11	-	0	0	535	121	364	1,180	295	162	42	18	4	0	2,065
Tennessee	1	591	70	14	6	3	2	0	0	686	15	723	589	134	57	25	11	6	3	1,548
Texas	10	612	1,071	269	59	19	6	2	2	2,039	76	968	2,738	1,511	653	206	66	16	10	6,169
Utah	-	222	344	93	40	20	4	-	1	724	1	33	419	268	123	67	28	11	4	952
Vermont	1	174	86	11	4	2	1	0	0	279	0	46	162	49	25	15	8	6	10	320
Virginia	-	142	424	58	29	4	0	-	-	656	2	107	792	236	81	9	18	1	0	1,244
Washington	-	142	182	67	29	15	13	11	8	467	-	271	1,057	426	130	61	41	27	11	2,024
West Virginia	-	55	250	25	20	10	-	7	1	368	16	46	522	222	165	51	21	8	12	1,047
Wisconsin	-	105	196	86	56	26	6	2	1	478	-	439	875	558	336	152	66	25	31	2,483
Wyoming	0	259	391	123	34	6	-	-	-	812	30	151	1,012	522	157	51	7	3	12	1,915
U.S. Total	895	10,871	12,498	3,399	1,328	728	244	143	137	29,347	2,889	18,536	36,510	12,874	6,008	2,825	1,157	647	570	79,126
Puerto Rico 3/	-	-	1	10	4	11	5	4	7	42	-	-	1	3	13	2	-	-	-	19
Grand Total	895	10,871	12,499	3,409	1,332	739	249	147	144	29,389	2,889	18,536	36,511	12,877	6,021	2,827	1,157	647	570	79,145

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2011
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 2 OF 4

JANUARY 2013

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	5	1,357	899	164	82	36	17	10	11	2,576
Alaska	283	132	442	323	278	206	125	76	130	1,712
Arizona	170	850	744	191	86	42	19	3	3	1,939
Arkansas	23	504	899	362	208	112	50	27	18	2,181
California	647	510	1,737	726	433	232	105	68	53	3,864
Colorado	-	350	1,129	644	240	127	38	13	5	2,547
Connecticut	-	8	86	60	24	18	1	4	1	201
Delaware	4	16	96	37	9	2	1	1	2	164
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	58	1,147	861	109	44	21	8	3	6	2,199
Georgia	231	1,410	2,026	243	80	14	3	1	1	3,779
Hawaii	5	5	24	21	18	13	8	6	13	107
Idaho	8	1,429	587	94	29	11	3	2	2	2,156
Illinois	5	741	1,354	494	176	165	35	25	21	3,010
Indiana	94	795	643	189	82	49	23	19	38	1,839
Iowa	156	453	953	551	292	171	58	17	7	2,501
Kansas	37	1,090	1,634	340	93	36	7	2	-	3,202
Kentucky	173	972	783	209	88	39	19	9	9	2,127
Louisiana	2	171	713	354	172	131	38	28	12	1,619
Maine	0	186	484	242	93	62	17	7	1	1,093
Maryland	5	263	267	57	26	13	7	4	6	642
Massachusetts	24	46	82	50	32	13	5	2	3	234
Michigan	0	1,275	926	263	132	77	32	19	25	2,750
Minnesota	21	642	1,231	520	309	198	109	66	57	3,133
Mississippi	1	519	1,198	270	114	74	24	21	3	2,223
Missouri	3	1,296	1,386	276	110	46	22	8	6	3,150
Montana	-	932	1,964	445	211	100	40	22	32	3,747
Nebraska	-	863	1,040	400	190	106	51	60	17	2,726
Nevada	1,414	152	301	11	1	-	-	-	-	466
New Hampshire	-	184	228	69	39	18	10	8	0	556
New Jersey	0	48	104	60	46	29	17	11	10	324
New Mexico	-	1,107	1,105	182	120	38	11	3	1	2,568
New York	2	330	1,262	440	172	70	20	19	24	2,336
North Carolina	58	642	1,170	332	151	70	30	16	20	2,430
North Dakota	-	818	1,386	254	89	51	11	-	0	2,610
Ohio	-	563	1,267	378	96	43	20	4	4	2,375
Oklahoma	-	520	1,234	550	225	113	66	47	27	2,782
Oregon	0	492	1,751	561	231	109	13	8	6	3,172
Pennsylvania	16	740	1,328	469	210	74	21	11	9	2,861
Rhode Island	0	13	9	4	10	9	3	8	14	68
South Carolina	-	299	960	288	120	21	1	2	2	1,694
South Dakota	189	451	1,533	368	171	54	18	5	0	2,599
Tennessee	16	1,313	659	148	63	28	13	7	3	2,234
Texas	86	1,580	3,809	1,780	712	225	72	18	13	8,208
Utah	1	255	762	361	163	86	32	11	5	1,676
Vermont	1	220	248	60	29	17	9	6	11	599
Virginia	2	248	1,217	294	110	13	18	1	0	1,901
Washington	-	413	1,239	493	159	77	54	37	19	2,491
West Virginia	16	101	772	247	186	61	21	15	13	1,415
Wisconsin	-	544	1,071	645	392	178	72	27	32	2,960
Wyoming	30	410	1,403	645	191	56	7	3	12	2,727
U.S. Total	3,784	29,406	49,008	16,272	7,337	3,553	1,401	790	707	108,473
Puerto Rico 3/	-	-	3	13	17	13	5	4	7	61
Grand Total	3,784	29,406	49,010	16,285	7,353	3,566	1,406	793	714	108,534

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NATIONAL HIGHWAY SYSTEM LENGTH - 2011
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 3 OF 4

JANUARY 2013

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	0	157	101	37	30	17	10	8	7	368	14	295	256	71	39	22	8	7	8	707
Alaska	-	21	30	15	8	2	1	-	1	78	1	2	15	10	23	6	5	2	5	69
Arizona	72	51	48	10	3	1	1	1	1	116	289	21	47	18	28	32	14	16	195	195
Arkansas	0	52	64	32	23	18	11	8	6	214	29	27	97	52	29	25	18	13	12	272
California	197	57	311	197	131	102	74	50	50	970	185	72	419	296	198	127	79	46	48	1,285
Colorado	-	40	121	52	36	11	7	1	-	268	-	35	206	131	167	83	57	29	44	753
Connecticut	-	40	164	48	29	13	3	3	3	303	-	21	125	92	88	62	28	20	24	459
Delaware	-	2	18	12	4	3	1	2	0	41	2	9	50	30	13	10	4	3	7	126
Dist. of Columbia	5	-	-	1	1	1	1	2	2	8	1	-	0	2	2	3	6	5	49	67
Florida	29	321	294	54	25	12	6	3	3	718	53	392	603	140	67	39	19	13	27	1,301
Georgia	104	199	167	44	17	2	-	-	-	427	81	304	510	153	42	15	7	3	2	1,037
Hawaii	0	4	10	6	6	6	5	4	7	48	12	31	42	28	24	17	11	8	20	181
Idaho	-	68	19	3	0	0	0	-	-	90	13	35	25	12	8	4	1	1	1	88
Illinois	-	136	289	101	47	236	7	-	9	826	100	56	393	308	306	252	158	105	216	1,794
Indiana	64	126	132	53	29	24	13	10	9	396	6	116	157	71	50	34	21	20	34	504
Iowa	5	13	73	27	19	12	3	3	-	149	43	9	68	102	84	24	29	19	21	356
Kansas	-	49	72	52	35	9	1	-	-	218	5	35	196	43	21	10	8	2	4	320
Kentucky	32	70	68	17	6	5	2	1	2	172	50	77	118	50	29	19	10	6	13	323
Louisiana	-	34	88	107	46	59	22	8	2	365	48	18	147	120	85	74	71	47	58	620
Maine	-	18	33	17	1	-	0	0	-	69	-	5	31	24	31	18	8	9	8	133
Maryland	2	96	117	28	16	11	9	6	12	295	51	97	158	61	46	35	26	16	51	491
Massachusetts	15	205	172	35	16	11	9	7	13	467	234	91	189	127	130	117	87	70	179	990
Michigan	-	142	263	100	55	33	21	12	10	635	1	151	332	227	154	111	83	121	192	1,371
Minnesota	3	32	118	49	36	27	14	3	3	281	21	54	212	100	82	39	19	15	10	532
Mississippi	-	33	100	40	17	11	1	-	-	201	0	59	184	83	37	22	18	11	11	424
Missouri	0	207	196	37	17	11	5	5	6	482	15	203	327	112	58	28	18	10	12	770
Montana	-	21	34	2	4	1	0	0	0	63	-	6	21	17	8	4	5	2	8	70
Nebraska	-	6	31	15	8	3	0	-	-	64	8	12	40	13	20	70	38	34	42	269
Nevada	100	7	12	1	-	0	-	-	-	21	119	25	13	4	2	0	-	0	-	44
New Hampshire	-	41	31	4	0	-	-	-	-	76	1	40	68	22	12	5	5	3	3	159
New Jersey	9	106	113	49	30	18	13	11	18	357	9	83	326	258	189	148	101	80	194	1,380
New Mexico	-	62	64	13	10	2	-	1	0	152	5	41	68	35	30	17	7	4	8	210
New York	2	80	436	142	59	49	22	26	41	855	26	50	488	398	310	188	140	89	299	1,963
North Carolina	18	241	243	69	33	16	8	2	2	614	33	175	422	156	85	43	20	11	20	932
North Dakota	-	18	33	1	-	-	-	-	-	52	-	5	22	17	12	9	3	-	0	69
Ohio	-	178	426	141	59	26	9	9	3	850	1	76	498	228	170	102	51	36	69	1,231
Oklahoma	-	47	105	40	25	8	8	5	10	249	-	26	158	64	40	31	17	16	17	367
Oregon	-	13	120	30	4	8	1	-	0	176	3	27	117	103	62	43	17	14	18	400
Pennsylvania	14	161	317	144	54	24	11	4	1	716	73	142	541	405	281	196	105	68	99	1,837
Rhode Island	-	7	31	9	1	2	0	0	-	50	1	4	26	31	24	16	13	12	15	141
South Carolina	-	94	113	30	21	7	4	1	1	270	-	62	227	184	109	48	16	9	9	664
South Dakota	7	-	42	13	5	6	1	1	-	69	6	1	15	17	14	10	5	3	1	66
Tennessee	1	273	91	24	11	6	3	2	6	416	18	271	243	92	56	38	21	13	22	757
Texas	20	154	484	261	144	76	29	13	6	1,167	167	218	1,095	869	647	435	235	217	245	3,961
Utah	-	65	74	42	23	6	2	0	-	213	20	31	120	57	31	28	10	4	3	285
Vermont	-	28	9	1	0	1	0	0	1	40	2	2	17	8	6	5	4	3	9	54
Virginia	2	43	219	118	42	27	3	6	2	460	49	29	371	228	150	109	57	38	34	1,016
Washington	0	49	149	44	21	14	11	4	4	297	2	64	202	108	66	40	35	22	81	619
West Virginia	-	29	125	19	6	4	3	-	0	187	-	13	97	44	32	16	7	7	8	223
Wisconsin	-	37	94	78	34	12	6	3	-	265	-	25	171	197	191	143	106	76	96	1,004
Wyoming	1	11	50	28	6	2	4	0	-	100	3	4	26	25	13	7	0	0	4	79
U.S. Total	703	3,947	6,514	2,490	1,253	951	365	227	239	15,986	1,801	3,651	10,302	6,046	4,389	2,974	1,850	1,378	2,376	32,966
Puerto Rico 3/	2	-	30	74	47	44	28	8	6	238	2	-	2	7	11	33	21	11	25	109
Grand Total	705	3,947	6,544	2,564	1,301	995	394	234	245	16,224	1,803	3,651	10,304	6,053	4,400	3,007	1,871	1,389	2,401	33,075

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2011
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

JANUARY 2013

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	14	452	358	109	69	39	19	14	15	1,075
Alaska	1	24	44	25	32	9	6	2	6	148
Arizona	361	73	95	28	21	29	33	15	17	311
Arkansas	30	79	161	83	52	43	28	21	19	486
California	382	129	730	492	330	229	153	96	97	2,255
Colorado	-	75	328	183	203	94	64	30	44	1,021
Connecticut	-	61	289	140	117	75	31	23	27	762
Delaware	2	11	68	41	16	13	5	5	7	167
Dist. of Columbia	6	-	0	3	3	4	7	7	50	75
Florida	82	713	896	194	92	51	26	17	30	2,018
Georgia	185	503	677	197	59	17	7	3	2	1,464
Hawaii	13	35	52	35	30	23	16	12	27	229
Idaho	13	103	43	14	8	4	2	1	1	178
Illinois	100	192	683	409	353	488	165	105	225	2,620
Indiana	70	242	290	124	79	57	34	30	43	899
Iowa	48	22	141	129	104	35	32	21	21	505
Kansas	5	84	268	95	56	19	9	2	4	538
Kentucky	82	147	186	67	35	24	13	7	15	495
Louisiana	48	52	234	227	131	133	93	55	60	985
Maine	-	23	64	41	31	18	9	9	8	202
Maryland	53	193	275	89	62	46	35	23	63	786
Massachusetts	249	296	361	162	146	128	95	77	192	1,457
Michigan	1	294	595	327	209	143	104	132	202	2,006
Minnesota	23	86	329	149	118	66	34	19	13	813
Mississippi	0	91	284	122	53	32	19	11	11	625
Missouri	15	410	523	149	75	39	23	15	18	1,253
Montana	-	27	55	19	12	5	5	2	8	133
Nebraska	8	18	71	28	29	73	38	34	42	333
Nevada	219	33	26	5	2	1	-	0	-	65
New Hampshire	1	81	99	26	12	5	5	3	3	234
New Jersey	18	189	439	307	219	166	114	91	212	1,737
New Mexico	5	103	133	48	39	19	7	5	8	362
New York	28	130	924	541	369	237	162	115	340	2,818
North Carolina	51	416	666	225	118	58	28	14	21	1,546
North Dakota	-	23	55	19	12	9	3	-	0	121
Ohio	1	254	924	369	229	128	60	45	73	2,081
Oklahoma	-	73	263	104	66	39	24	21	27	617
Oregon	3	41	236	133	66	51	19	14	18	577
Pennsylvania	87	303	858	549	334	219	116	72	100	2,553
Rhode Island	1	11	58	40	25	17	13	12	15	191
South Carolina	-	156	341	213	129	55	20	10	10	934
South Dakota	14	1	58	30	20	16	6	4	1	135
Tennessee	19	544	333	116	67	44	24	16	28	1,173
Texas	188	373	1,579	1,131	791	511	264	230	251	5,129
Utah	20	96	194	100	53	34	12	5	3	498
Vermont	2	30	27	9	6	5	4	3	9	94
Virginia	51	72	590	345	193	136	60	44	37	1,476
Washington	2	113	351	152	88	54	46	27	84	916
West Virginia	-	43	222	63	37	20	10	7	8	410
Wisconsin	-	62	266	276	225	155	111	79	96	1,269
Wyoming	4	15	76	53	19	8	4	0	4	180
U.S. Total	2,504	7,598	16,816	8,536	5,642	3,925	2,216	1,604	2,615	48,953
Puerto Rico 3/	4	-	32	82	58	77	49	19	31	347
Grand Total	2,507	7,598	16,848	8,618	5,700	4,002	2,265	1,623	2,646	49,300

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2011

MILES BY MEASURED PAVEMENT ROUGHNESS

HM-47 Footnotes Page:

- 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.
- 3/ 2009 data.