

NATIONAL HIGHWAY SYSTEM LENGTH - 2014
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 1 OF 4

OCTOBER 2015

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	1	327	167	40	20	8	4	3	3	571	1	916	807	151	63	35	18	10	9	2,008
Alaska	12	169	329	178	130	86	48	24	27	991	272	80	165	90	83	72	64	51	115	721
Arizona	1	488	291	73	32	22	7	4	4	920	29	481	412	138	78	39	14	6	4	1,171
Arkansas	5	170	149	43	22	11	5	3	2	405	89	297	860	355	196	103	45	19	12	1,887
California	23	358	418	151	119	67	31	17	23	1,185	1,927	256	635	319	176	98	37	26	46	1,592
Colorado	-	99	283	128	63	39	20	10	6	648	-	491	1,093	490	253	131	59	31	30	2,576
Connecticut	-	9	13	5	0	1	0	0	0	29	-	13	60	38	20	9	3	3	4	150
Delaware	-	-	-	-	-	-	-	-	-	-	-	39	90	20	3	2	1	0	0	154
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	75	395	217	18	9	2	1	0	0	643	72	1,000	1,290	254	70	29	7	4	3	2,658
Georgia	0	250	187	58	23	10	4	2	2	536	45	881	1,603	386	128	52	18	10	13	3,090
Hawaii	-	-	-	-	-	-	-	-	-	-	0	1	19	17	16	11	6	4	5	80
Idaho	-	276	169	45	17	7	4	3	1	522	16	490	844	239	89	40	18	11	8	1,736
Illinois	-	597	509	121	16	-	-	-	-	1,243	-	406	1,114	390	250	111	29	10	8	2,317
Indiana	101	376	150	43	25	17	10	6	8	634	3	713	610	173	83	37	20	9	19	1,665
Iowa	3	285	204	64	28	12	6	3	7	609	155	807	985	467	309	215	135	95	163	3,176
Kansas	-	435	163	30	13	4	2	0	0	647	17	1,737	982	192	67	36	14	7	5	3,039
Kentucky	7	443	103	22	8	4	1	1	0	582	27	793	679	160	59	26	9	5	6	1,737
Louisiana	1	224	123	82	59	30	9	4	2	532	33	210	429	157	95	65	35	22	23	1,036
Maine	-	193	81	19	-	6	-	0	-	299	-	43	332	222	108	59	27	1	1	795
Maryland	1	54	70	11	3	1	1	0	1	141	15	157	135	25	15	8	4	3	3	348
Massachusetts	64	-	-	-	-	-	-	-	-	-	121	-	-	-	-	-	-	-	-	-
Michigan	0	210	223	62	30	20	13	4	5	566	4	1,195	865	216	98	52	25	13	20	2,486
Minnesota	-	210	261	62	28	17	9	4	2	594	17	1,056	1,265	533	276	158	72	40	50	3,450
Mississippi	-	279	133	29	14	8	4	4	2	473	-	604	763	242	139	72	31	15	16	1,881
Missouri	0	511	265	38	16	6	3	2	1	841	15	1,013	1,281	366	151	81	41	20	16	2,969
Montana	-	401	571	77	27	12	4	1	2	1,094	-	715	1,327	389	166	80	37	24	35	2,773
Nebraska	-	245	132	38	1	1	-	-	-	416	7	1,035	911	394	239	89	33	47	14	2,761
Nevada	0	205	70	33	35	33	25	19	29	448	5	399	703	282	77	20	14	16	24	1,536
New Hampshire	-	117	18	4	1	1	1	0	0	142	1	138	137	41	25	16	11	8	11	388
New Jersey	-	25	16	2	1	1	0	0	0	45	0	27	53	35	31	19	12	6	10	193
New Mexico	1	583	196	38	15	6	4	1	1	845	2	795	614	176	87	44	20	12	9	1,757
New York	-	198	439	92	33	15	8	6	11	803	3	165	1,137	463	264	115	51	36	20	2,250
North Carolina	11	322	156	33	15	7	1	1	1	536	69	496	1,038	308	130	54	23	15	17	2,082
North Dakota	-	220	235	42	11	2	1	0	0	511	0	1,005	1,240	380	147	76	38	23	41	2,950
Ohio	0	245	322	55	15	4	2	0	0	643	1	442	941	279	103	46	9	4	3	1,827
Oklahoma	-	263	278	72	17	7	7	1	0	646	-	292	1,020	418	331	95	38	19	31	2,244
Oregon	2	225	192	54	14	4	3	1	1	493	14	500	1,343	439	192	91	41	20	17	2,644
Pennsylvania	1	465	472	108	41	16	7	8	3	1,119	26	407	862	303	164	86	44	27	29	1,924
Rhode Island	-	15	2	0	0	0	-	-	0	18	2	1	13	16	11	9	6	5	10	70
South Carolina	-	214	265	52	12	3	0	-	0	546	-	108	832	382	186	58	9	15	3	1,592
South Dakota	-	127	391	57	14	1	1	-	0	591	2	892	3,175	1,360	673	548	177	98	33	6,957
Tennessee	1	535	62	10	8	3	1	1	1	621	8	857	629	151	70	27	13	7	5	1,761
Texas	-	713	957	206	72	31	10	6	5	2,001	9	1,712	3,394	1,487	663	288	112	51	53	7,760
Utah	-	335	317	31	1	0	-	0	-	684	-	119	539	344	115	41	11	5	0	1,174
Vermont	2	186	58	7	5	1	-	0	-	257	1	71	144	45	21	11	5	5	6	308
Virginia	1	171	325	101	38	10	2	1	1	649	23	246	1,010	366	152	55	22	11	8	1,871
Washington	-	173	144	47	23	16	9	6	6	425	-	342	916	352	154	75	37	26	23	1,926
West Virginia	-	40	259	37	30	3	-	-	-	368	2	28	453	295	162	90	20	12	15	1,075
Wisconsin	-	154	156	63	44	27	11	8	2	464	0	593	825	935	342	225	107	70	110	3,207
Wyoming	0	364	304	71	38	16	7	4	3	807	6	456	916	348	148	65	24	11	13	1,980
U.S. Total	312	12,895	10,843	2,653	1,184	601	284	160	163	28,783	3,037	25,518	41,490	15,629	7,479	3,867	1,649	985	1,117	97,731
Puerto Rico (3)	-	-	1	10	4	11	5	4	7	42	-	-	1	3	13	2	-	-	-	19
Grand Total	312	12,895	10,844	2,663	1,188	611	289	164	170	28,825	3,037	25,518	41,491	15,629	7,492	3,869	1,649	985	1,117	97,750

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2014
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
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OCTOBER 2015

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	1	1,243	974	191	82	43	21	13	12	2,579
Alaska	283	249	494	268	213	158	112	75	141	1,712
Arizona	29	969	703	211	110	61	21	10	8	2,092
Arkansas	93	467	1,009	398	218	115	50	22	14	2,292
California	1,950	614	1,053	470	296	164	68	43	68	2,777
Colorado	-	589	1,375	619	316	170	79	41	36	3,225
Connecticut	-	22	73	43	20	10	4	3	4	178
Delaware	-	39	90	20	3	2	1	0	0	154
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	147	1,395	1,507	272	79	31	8	4	4	3,300
Georgia	45	1,131	1,791	443	150	63	22	12	14	3,626
Hawaii	0	1	19	17	16	11	6	4	5	80
Idaho	16	765	1,013	284	105	47	21	14	9	2,258
Illinois	-	1,003	1,623	511	266	111	29	10	8	3,560
Indiana	104	1,089	759	216	108	54	30	16	28	2,299
Iowa	159	1,092	1,188	531	337	227	141	98	170	3,785
Kansas	17	2,171	1,145	222	80	40	16	7	5	3,686
Kentucky	34	1,236	782	182	67	30	11	6	6	2,319
Louisiana	34	434	552	238	154	96	44	25	25	1,568
Maine	-	236	413	242	108	65	27	1	1	1,093
Maryland	16	210	204	36	18	9	5	3	4	490
Massachusetts	185	-	-	-	-	-	-	-	-	-
Michigan	4	1,406	1,088	278	128	73	38	17	25	3,052
Minnesota	17	1,267	1,525	595	304	176	81	43	52	4,044
Mississippi	-	883	896	271	153	80	35	19	18	2,354
Missouri	15	1,524	1,546	404	166	87	44	22	16	3,810
Montana	-	1,115	1,898	466	193	92	41	25	37	3,867
Nebraska	7	1,280	1,042	432	240	90	33	47	14	3,177
Nevada	5	603	773	315	112	53	39	35	53	1,983
New Hampshire	1	255	155	45	25	17	12	8	12	529
New Jersey	0	52	69	38	32	20	12	6	10	238
New Mexico	3	1,378	810	214	102	50	24	13	10	2,602
New York	3	363	1,576	555	297	130	59	42	31	3,053
North Carolina	80	818	1,194	341	145	61	25	16	17	2,618
North Dakota	0	1,225	1,475	422	158	78	38	23	41	3,461
Ohio	2	687	1,263	333	118	50	11	4	3	2,470
Oklahoma	-	555	1,298	490	348	102	46	20	31	2,891
Oregon	16	725	1,535	493	206	95	44	21	17	3,137
Pennsylvania	28	872	1,335	411	205	103	51	34	32	3,043
Rhode Island	2	15	15	16	11	9	6	5	10	88
South Carolina	-	322	1,097	434	198	60	9	15	3	2,138
South Dakota	2	1,019	3,566	1,418	688	549	178	98	33	7,548
Tennessee	8	1,391	691	161	78	30	15	9	6	2,381
Texas	9	2,426	4,351	1,693	735	320	122	57	58	9,761
Utah	-	454	855	375	116	41	11	5	0	1,858
Vermont	2	257	202	52	26	12	5	5	6	564
Virginia	24	417	1,335	467	191	65	25	12	9	2,521
Washington	-	515	1,061	399	177	91	47	32	30	2,351
West Virginia	2	68	712	332	192	93	20	12	15	1,443
Wisconsin	0	747	981	998	386	252	118	78	112	3,671
Wyoming	6	820	1,221	419	186	81	30	15	16	2,788
U.S. Total	3,349	38,414	52,333	18,279	8,663	4,467	1,933	1,145	1,280	126,514
Puerto Rico (3)	-	-	3	13	17	13	5	4	7	61
Grand Total	3,349	38,414	52,335	18,292	8,680	4,480	1,938	1,148	1,287	126,575

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2014
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 3 OF 4

OCTOBER 2015

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	2	189	126	41	30	18	10	7	7	428	32	423	461	137	75	48	34	24	35	1,237
Alaska	2	19	37	10	5	3	1	1	1	77	3	9	45	28	19	16	11	7	19	154
Arizona	0	142	70	18	10	4	2	0	0	247	170	184	216	93	61	31	17	12	33	647
Arkansas	6	74	107	40	23	19	10	7	8	288	65	61	218	125	74	55	31	23	37	623
California	88	107	398	207	154	109	64	51	66	1,156	2,068	150	662	657	769	861	682	689	1,263	5,733
Colorado	-	45	134	56	36	15	7	5	4	304	1	81	318	229	226	178	117	80	151	1,379
Connecticut	-	104	123	43	23	12	6	3	4	317	0	63	205	169	152	121	75	56	106	946
Delaware	-	3	19	9	4	2	2	1	1	41	0	14	106	45	21	13	9	7	14	227
Dist. of Columbia	-	-	0	0	5	3	1	2	1	12	0	-	-	3	3	3	7	7	99	122
Florida	72	357	263	44	24	10	5	2	1	706	179	1,006	1,913	637	332	182	86	56	98	4,309
Georgia	0	332	229	72	36	19	11	6	4	711	234	558	1,092	374	202	118	69	48	109	2,569
Hawaii	-	1	14	9	11	8	6	3	3	55	2	24	49	48	47	45	30	23	45	311
Idaho	-	38	34	9	5	2	1	1	0	90	25	51	119	59	39	27	19	14	34	363
Illinois	-	243	476	114	82	17	6	1	2	942	-	194	742	669	600	422	255	184	327	3,392
Indiana	74	155	114	51	32	19	12	10	6	399	19	334	528	277	212	168	113	83	192	1,907
Iowa	6	62	63	21	10	6	4	2	6	173	64	91	216	143	101	78	50	38	111	828
Kansas	2	98	59	32	20	10	4	2	1	226	56	140	161	50	65	41	32	33	19	540
Kentucky	8	119	62	12	5	2	1	1	0	203	40	186	233	97	61	39	25	16	30	686
Louisiana	1	101	87	51	46	41	23	12	11	371	140	102	242	162	148	132	92	84	182	1,143
Maine	-	22	23	16	2	4	-	-	-	67	-	1	46	44	31	22	5	8	10	167
Maryland	3	116	135	31	16	13	7	6	10	336	80	236	437	198	148	111	75	56	161	1,421
Massachusetts	509	-	-	-	-	-	-	-	-	-	2,271	-	-	-	-	-	-	-	-	-
Michigan	0	167	259	106	57	37	27	17	15	685	1	238	612	429	350	278	208	175	443	2,733
Minnesota	-	74	136	50	26	15	9	5	5	320	28	198	327	138	95	63	36	25	55	937
Mississippi	-	107	66	21	13	9	5	3	2	226	0	148	321	160	114	82	52	42	123	1,043
Missouri	1	266	171	44	24	16	8	4	4	537	261	245	437	181	116	70	41	27	37	1,155
Montana	-	46	38	6	3	2	1	0	1	98	6	24	64	38	27	17	11	7	22	211
Nebraska	-	5	27	26	4	4	1	-	-	66	4	18	62	39	53	82	92	57	68	471
Nevada	8	49	49	19	12	8	2	1	1	141	24	128	130	56	36	19	9	6	11	393
New Hampshire	-	62	16	2	1	1	0	0	-	83	1	93	93	41	23	16	12	10	30	318
New Jersey	3	132	125	48	27	15	11	9	17	384	10	214	478	306	276	249	188	151	474	2,336
New Mexico	-	102	29	8	7	4	1	1	1	153	5	90	159	91	76	64	41	32	60	614
New York	2	115	451	143	72	46	33	22	50	932	40	74	799	686	517	378	293	212	1,004	3,961
North Carolina	36	268	262	78	37	17	6	4	2	674	107	248	896	464	294	165	89	60	119	2,335
North Dakota	-	22	32	4	1	0	-	0	0	60	-	19	47	34	27	15	15	9	20	186
Ohio	-	267	441	143	51	16	8	2	2	931	7	250	877	553	440	313	223	158	386	3,200
Oklahoma	-	48	135	54	21	15	4	6	4	286	48	53	254	191	146	130	100	87	155	1,117
Oregon	4	71	104	27	12	10	4	2	1	231	60	108	263	154	103	75	51	34	73	860
Pennsylvania	8	221	314	88	54	28	18	10	6	739	171	200	765	579	483	360	251	195	395	3,229
Rhode Island	0	24	19	5	2	1	0	0	0	52	59	15	49	45	47	49	38	32	86	361
South Carolina	-	81	148	45	22	6	2	0	0	304	1	46	391	332	204	110	39	17	21	1,160
South Dakota	0	5	51	23	7	1	-	-	-	88	3	6	52	39	31	38	15	6	8	193
Tennessee	2	326	92	30	15	8	4	3	3	481	41	563	603	234	138	99	63	43	90	1,832
Texas	13	314	568	227	139	89	35	19	11	1,403	73	641	2,088	1,235	884	644	408	325	991	7,216
Utah	-	78	113	42	16	4	0	0	-	253	-	78	276	154	93	53	18	5	5	682
Vermont	2	36	19	3	2	1	0	-	-	60	7	12	34	20	15	9	6	4	9	110
Virginia	14	80	209	77	40	25	11	9	5	455	127	68	392	234	188	146	88	64	79	1,259
Washington	-	121	124	41	23	11	7	5	5	338	0	154	390	267	224	181	148	134	376	1,875
West Virginia	-	17	129	24	10	2	3	2	0	187	6	4	115	82	59	34	17	17	20	349
Wisconsin	1	82	91	40	39	11	7	5	3	278	2	114	331	308	359	550	152	162	334	2,310
Wyoming	-	25	44	19	8	4	3	2	2	107	2	27	71	42	27	18	11	10	22	229
U.S. Total	868	5,538	6,836	2,330	1,326	740	397	255	277	17,699	6,543	7,983	19,386	11,373	8,840	7,018	4,551	3,654	8,587	71,383
Puerto Rico (3)	2	-	30	74	47	44	28	8	6	238	2	-	2	7	11	33	21	11	25	109
Grand Total	869	5,538	6,866	2,404	1,373	784	425	262	283	17,937	6,545	7,983	19,388	11,380	8,840	7,051	4,572	3,665	8,612	71,492

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2014

MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

OCTOBER 2015

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) (1)									
	TOTAL URBAN NHS									TOTAL REPORTED
	NOT REPORTED (2)	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	
Alabama	34	612	587	178	105	66	44	30	42	1,665
Alaska	6	27	83	38	24	18	13	8	20	231
Arizona	170	325	286	111	71	35	20	12	33	894
Arkansas	70	135	326	165	97	73	41	29	45	910
California	2,157	257	1,060	863	923	970	746	741	1,330	6,889
Colorado	1	126	452	285	262	193	124	85	156	1,682
Connecticut	0	167	327	212	175	133	81	58	110	1,264
Delaware	0	17	125	54	25	14	11	8	15	268
Dist. of Columbia	0	-	0	4	7	6	8	9	100	134
Florida	251	1,364	2,176	681	355	192	91	58	98	5,015
Georgia	234	890	1,322	447	238	137	80	54	113	3,281
Hawaii	2	25	63	57	58	53	36	26	48	366
Idaho	25	89	153	68	44	30	20	15	35	453
Illinois	-	437	1,219	783	682	439	260	185	329	4,334
Indiana	94	489	643	328	244	186	125	93	198	2,306
Iowa	69	152	279	164	112	84	54	41	116	1,002
Kansas	57	237	220	81	86	50	37	35	20	766
Kentucky	48	305	295	109	66	41	26	17	30	889
Louisiana	141	203	329	213	195	173	114	95	193	1,514
Maine	-	23	69	60	33	26	5	8	10	234
Maryland	83	352	572	229	164	124	82	62	171	1,757
Massachusetts	2,780	-	-	-	-	-	-	-	-	-
Michigan	2	405	871	534	407	315	235	191	459	3,418
Minnesota	28	272	463	188	121	78	45	30	61	1,258
Mississippi	0	255	388	181	128	91	57	45	125	1,269
Missouri	262	510	608	225	139	86	50	31	41	1,692
Montana	6	70	103	44	30	20	12	8	23	309
Nebraska	4	23	89	64	57	86	93	57	68	537
Nevada	33	177	178	75	48	27	12	7	12	535
New Hampshire	1	156	109	43	24	17	13	10	30	401
New Jersey	13	346	603	354	303	264	199	160	490	2,719
New Mexico	5	193	188	100	84	68	43	33	61	768
New York	43	189	1,250	829	589	423	326	234	1,054	4,893
North Carolina	143	516	1,158	542	332	182	95	64	121	3,010
North Dakota	-	41	80	38	28	15	15	10	20	246
Ohio	7	517	1,318	696	491	329	232	160	387	4,131
Oklahoma	48	102	389	245	168	145	104	93	159	1,403
Oregon	64	179	366	180	115	84	55	36	74	1,091
Pennsylvania	179	421	1,079	667	537	388	270	205	401	3,968
Rhode Island	59	39	68	50	49	51	38	32	86	413
South Carolina	1	127	539	378	226	115	41	18	21	1,464
South Dakota	3	11	103	62	37	39	15	6	8	281
Tennessee	42	889	695	264	153	108	67	46	92	2,314
Texas	86	955	2,657	1,462	1,024	733	443	343	1,002	8,619
Utah	-	156	389	195	109	57	18	5	5	935
Vermont	9	48	52	23	17	10	7	4	9	170
Virginia	141	148	601	310	228	171	99	73	84	1,714
Washington	0	275	514	309	247	192	156	139	381	2,214
West Virginia	6	20	244	105	69	37	20	19	21	535
Wisconsin	3	196	422	348	398	562	159	168	337	2,588
Wyoming	2	52	115	61	35	22	14	12	24	336
U.S. Total	7,411	13,522	26,223	13,703	10,155	7,758	4,948	3,909	8,864	89,082
Puerto Rico (3)	4	-	32	82	58	77	49	19	31	347
Grand Total	7,414	13,522	26,255	13,785	10,213	7,835	4,997	3,928	8,895	89,429

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2014

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.