

## NATIONAL HIGHWAY SYSTEM LENGTH - 2022 MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47  
SHEET 1 OF 4

January 29, 2024

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	461	52	23	16	8	5	2	3	570	4	1,101	663	137	56	28	10	7	5	2,008
Alaska	1	211	363	159	103	71	36	23	34	1,001	278	126	214	79	75	59	43	35	78	710
Arizona	9	556	190	64	42	25	11	9	10	907	8	340	405	195	117	67	34	17	18	1,195
Arkansas	-	255	116	32	19	11	6	3	5	445	-	479	808	306	163	87	42	23	28	1,937
California	1	449	395	151	99	56	27	16	17	1,209	53	889	1,659	679	369	215	102	59	84	4,056
Colorado	-	85	311	123	52	31	17	12	16	648	-	576	1,091	428	224	122	59	38	39	2,576
Connecticut	-	19	8	1	1	0	0	-	0	29	-	23	63	35	19	8	5	2	2	158
Delaware	-	-	-	-	-	-	-	-	-	-	-	33	73	20	6	3	2	1	1	138
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	3	599	93	13	6	2	1	0	0	715	0	1,296	1,046	258	95	42	15	6	7	2,765
Georgia	-	341	153	23	12	6	2	1	1	538	-	1,302	1,311	394	153	54	18	8	7	3,247
Hawaii	-	-	-	-	-	-	-	-	-	-	1	5	30	18	10	7	4	2	3	79
Idaho	9	327	138	28	13	5	3	1	2	516	65	593	699	198	81	37	16	9	7	1,639
Illinois	-	805	301	75	30	18	9	4	6	1,247	0	604	847	403	243	144	73	46	50	2,411
Indiana	0	482	205	64	32	14	6	4	5	812	4	882	543	173	86	34	11	5	3	1,737
Iowa	-	264	231	68	28	12	4	2	3	611	14	892	1,189	581	350	188	96	57	58	3,411
Kansas	1	412	154	42	22	6	2	1	1	639	2	1,638	1,042	189	77	40	18	12	13	3,029
Kentucky	1	505	136	34	18	8	5	2	1	710	6	884	546	127	53	21	7	6	4	1,648
Louisiana	0	186	125	91	60	41	15	6	3	527	3	114	392	227	149	94	55	33	31	1,095
Maine	-	228	42	6	1	1	0	0	0	279	1	364	247	76	41	28	16	11	18	800
Maryland	-	67	57	11	4	2	1	0	1	142	1	186	153	27	10	6	4	2	4	391
Massachusetts	-	36	16	4	2	2	1	1	1	63	0	93	179	61	32	19	10	8	9	410
Michigan	4	304	170	31	24	14	7	5	4	558	10	1,426	716	171	78	40	21	12	13	2,476
Minnesota	-	297	236	37	12	3	2	0	0	588	-	1,452	1,266	405	193	95	42	21	18	3,492
Mississippi	-	361	147	32	16	11	6	2	2	578	0	504	695	255	150	100	50	28	31	1,813
Missouri	-	634	146	36	15	9	4	2	1	847	0	1,280	1,149	322	138	62	27	12	11	2,999
Montana	-	552	425	72	30	11	3	2	0	1,095	-	755	1,226	434	195	83	38	19	21	2,772
Nebraska	1	208	147	36	15	5	2	1	0	414	4	930	1,007	333	189	104	48	30	36	2,678
Nevada	-	411	30	8	4	2	1	0	0	414	-	897	482	109	49	18	7	3	1	1,567
New Hampshire	-	117	17	6	1	1	0	-	-	142	-	191	129	33	14	9	6	3	3	387
New Jersey	-	20	19	4	1	1	0	0	-	45	-	85	73	17	8	5	3	2	2	195
New Mexico	0	502	195	61	35	23	11	9	8	844	0	569	652	240	129	75	39	20	24	1,750
New York	8	352	275	76	42	25	10	6	11	797	35	339	1,140	388	187	103	48	28	24	2,257
North Carolina	0	447	114	16	9	4	2	1	2	595	27	603	974	354	131	51	19	10	9	2,152
North Dakota	-	332	142	25	7	2	1	0	1	510	-	1,351	1,050	301	132	56	23	13	19	2,946
Ohio	0	410	158	39	18	11	4	2	2	643	1	727	763	231	100	45	17	10	7	1,901
Oklahoma	10	314	235	43	22	12	7	4	2	639	31	498	926	399	216	114	56	36	48	2,292
Oregon	0	302	144	33	8	5	2	1	1	495	1	723	1,291	363	143	64	28	19	24	2,656
Pennsylvania	-	580	321	74	41	22	12	7	10	1,066	0	462	868	301	136	63	34	18	26	1,907
Rhode Island	-	13	3	1	0	-	-	-	-	18	1	16	19	13	17	17	11	7	6	106
South Carolina	18	349	110	32	19	11	5	2	1	529	5	378	736	237	123	59	25	12	11	1,580
South Dakota	-	335	227	17	6	3	1	1	0	591	0	961	1,142	416	201	86	41	22	19	2,889
Tennessee	0	520	78	22	12	7	3	1	2	645	0	737	653	169	88	50	21	15	10	1,742
Texas	5	878	807	200	69	32	13	6	3	2,008	46	2,933	3,250	1,230	553	248	96	41	31	8,382
Utah	-	380	226	53	17	5	2	1	0	685	-	276	507	216	112	49	16	6	4	1,186
Vermont	0	169	64	10	5	3	2	2	1	255	0	91	130	36	18	11	5	3	12	307
Virginia	-	300	235	38	11	4	1	1	0	591	0	287	891	336	155	61	21	11	5	1,768
Washington	-	215	127	37	22	11	6	5	6	429	0	341	866	389	167	78	34	24	24	1,924
West Virginia	1	186	91	19	10	7	3	2	1	319	15	145	380	207	122	65	34	25	26	1,004
Wisconsin	-	291	126	54	23	10	5	2	1	512	13	1,133	872	478	309	173	83	48	47	3,143
Wyoming	-	518	187	55	26	12	5	2	1	807	55	642	873	244	97	36	11	6	5	1,914
U.S. Total	71	16,585	8,286	2,182	1,082	581	272	154	168	29,311	688	33,152	37,929	13,241	6,560	3,322	1,546	889	987	97,627
Puerto Rico	-	3	14	9	5	4	3	4	13	54	0	-	5	11	12	12	7	6	13	67
Grand Total	71	16,588	8,300	2,190	1,087	585	275	158	181	29,365	688	33,152	37,934	13,253	6,572	3,334	1,553	896	1,000	97,694

For footnotes, see Footnotes Page.

**NATIONAL HIGHWAY SYSTEM LENGTH - 2022**  
**MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL**

TABLE HM-47  
SHEET 2 OF 4

January 29, 2024

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	4	1,562	715	161	72	36	15	9	8	2,578
Alaska	279	338	577	239	179	130	80	58	112	1,710
Arizona	17	896	595	259	159	92	46	27	29	2,102
Arkansas	-	734	924	338	182	98	48	26	34	2,383
California	54	1,339	2,053	830	468	270	129	75	101	5,265
Colorado	-	661	1,402	551	276	153	76	51	55	3,224
Connecticut	-	41	71	36	20	8	5	2	2	186
Delaware	-	33	73	20	6	3	2	1	1	138
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	3	1,894	1,140	271	102	44	16	6	7	3,480
Georgia	-	1,643	1,463	417	165	60	20	9	8	3,786
Hawaii	1	5	30	18	10	7	4	2	3	79
Idaho	74	920	837	226	94	42	18	10	9	2,155
Illinois	0	1,409	1,148	478	273	162	82	50	56	3,658
Indiana	4	1,364	749	236	118	48	17	9	8	2,549
Iowa	14	1,156	1,420	649	378	200	100	60	60	4,023
Kansas	2	2,050	1,196	231	99	46	20	13	14	3,668
Kentucky	7	1,390	682	161	71	29	12	8	5	2,358
Louisiana	4	300	518	318	208	136	70	39	34	1,622
Maine	1	592	290	82	42	29	16	11	18	1,079
Maryland	1	253	209	38	14	8	4	2	5	533
Massachusetts	0	129	195	65	34	20	11	8	9	473
Michigan	15	1,730	886	202	102	53	28	17	16	3,034
Minnesota	-	1,748	1,502	443	205	98	44	21	18	4,080
Mississippi	0	866	843	288	166	111	55	30	33	2,391
Missouri	0	1,914	1,295	358	153	71	31	14	11	3,846
Montana	-	1,307	1,651	506	226	93	42	21	21	3,867
Nebraska	5	1,139	1,154	370	204	109	50	31	36	3,092
Nevada	-	1,308	512	117	53	20	8	4	2	2,024
New Hampshire	-	308	146	39	15	9	6	3	3	529
New Jersey	-	105	92	21	9	6	3	2	2	240
New Mexico	0	1,071	848	301	165	98	51	29	32	2,594
New York	43	691	1,415	464	229	128	58	34	35	3,055
North Carolina	27	1,050	1,088	370	140	54	22	11	11	2,747
North Dakota	-	1,683	1,193	327	139	58	24	14	20	3,456
Ohio	1	1,137	921	270	118	56	21	11	10	2,544
Oklahoma	41	812	1,161	442	238	126	63	39	50	2,931
Oregon	1	1,025	1,434	396	151	69	30	20	25	3,151
Pennsylvania	0	1,042	1,189	376	177	85	46	25	35	2,974
Rhode Island	1	29	22	15	18	17	11	7	6	124
South Carolina	22	727	846	270	141	70	30	13	11	2,109
South Dakota	0	1,297	1,369	434	207	89	42	23	20	3,480
Tennessee	0	1,257	730	191	100	57	23	16	12	2,387
Texas	51	3,811	4,057	1,430	622	280	109	47	34	10,390
Utah	-	656	733	270	129	55	17	6	5	1,871
Vermont	1	260	194	46	23	14	7	5	13	563
Virginia	0	586	1,126	375	167	66	23	12	6	2,359
Washington	0	557	993	427	189	88	40	30	30	2,353
West Virginia	16	331	471	225	132	72	37	26	27	1,323
Wisconsin	13	1,423	998	532	331	184	89	49	48	3,654
Wyoming	55	1,161	1,060	299	122	48	16	8	6	2,721
U.S. Total	759	49,737	46,215	15,423	7,642	3,904	1,817	1,044	1,155	126,937
Puerto Rico	0	3	18	20	17	16	10	10	26	121
Grand Total	760	49,740	46,233	15,443	7,660	3,920	1,828	1,054	1,181	127,059

For footnotes, see Footnotes Page.

**NATIONAL HIGHWAY SYSTEM LENGTH - 2022  
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN**

TABLE HM-47  
SHEET 3 OF 4

January 29, 2024

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	312	56	23	15	9	6	5	6	432	129	461	447	118	61	35	19	10	12	1,164
Alaska	-	30	31	11	4	2	1	-	0	79	11	22	46	26	18	12	8	7	12	150
Arizona	11	119	71	24	17	7	2	1	1	241	11	168	193	129	119	87	53	35	46	830
Arkansas	-	130	96	39	23	16	8	6	6	323	0	105	234	103	67	49	31	23	68	679
California	8	244	401	219	156	101	57	30	30	1,237	425	392	976	872	957	961	774	688	1,964	7,582
Colorado	-	57	103	50	42	27	12	6	7	304	1	113	374	258	204	136	95	63	138	1,381
Connecticut	-	144	116	31	13	8	2	2	2	318	2	91	302	184	131	88	55	35	70	956
Delaware	1	12	12	6	3	2	2	1	1	40	0	39	103	44	26	15	9	6	14	256
District of Columbia	1	-	2	2	2	1	1	1	1	11	4	0	1	2	5	10	11	13	76	119
Florida	28	488	185	40	19	10	5	1	1	750	8	1,218	1,764	676	357	218	118	73	124	4,548
Georgia	7	427	169	58	28	15	7	2	2	709	0	780	1,093	389	204	117	59	39	69	2,749
Hawaii	0	1	11	12	10	9	6	3	2	55	3	30	66	49	40	40	26	20	46	317
Idaho	3	49	35	5	3	2	0	0	0	93	28	50	87	33	21	15	8	7	10	231
Illinois	0	378	332	89	57	37	19	13	13	938	2	301	742	545	441	327	223	170	406	3,156
Indiana	-	235	126	64	34	19	7	3	4	492	8	243	225	91	56	32	16	11	12	686
Iowa	1	46	74	29	13	7	3	2	1	175	9	110	219	182	140	92	59	43	87	931
Kansas	3	127	57	24	13	7	4	1	1	234	36	135	143	62	42	34	22	13	23	473
Kentucky	0	114	65	22	13	9	4	2	2	233	41	164	235	90	59	41	28	21	36	673
Louisiana	3	126	83	48	50	50	28	14	15	414	52	100	224	150	138	119	93	78	181	1,081
Maine	-	62	17	5	2	1	0	0	0	87	2	34	44	22	18	14	7	6	14	159
Maryland	0	134	125	29	16	8	6	6	12	336	9	242	365	155	109	85	67	57	216	1,296
Massachusetts	2	350	80	24	18	12	7	4	7	504	49	258	383	290	281	264	192	162	467	2,296
Michigan	2	248	247	65	43	30	17	10	14	675	436	324	588	386	289	217	154	121	218	2,297
Minnesota	1	119	139	33	18	10	3	2	1	324	0	254	324	139	65	34	17	9	12	855
Mississippi	-	144	58	18	12	10	5	3	3	253	2	149	280	168	117	86	51	40	100	991
Missouri	-	295	141	40	27	18	8	6	3	538	0	305	430	196	129	98	65	45	77	1,344
Montana	-	55	31	6	4	2	0	0	-	98	-	35	69	34	23	20	12	10	17	221
Nebraska	-	17	30	13	4	3	1	1	0	69	34	25	83	51	47	48	37	33	106	430
Nevada	-	90	31	17	14	6	3	1	0	162	-	120	119	60	43	30	20	12	19	424
New Hampshire	-	73	8	1	0	0	-	-	-	83	-	137	85	35	22	13	8	6	13	320
New Jersey	-	184	116	28	21	13	9	7	9	387	0	405	593	294	237	207	156	131	319	2,341
New Mexico	-	83	40	13	7	5	3	2	2	155	0	69	110	56	45	33	19	13	34	380
New York	20	207	351	137	81	51	33	20	35	916	145	134	911	622	489	385	285	253	831	3,910
North Carolina	0	448	242	59	22	11	8	4	5	799	13	318	684	428	276	169	89	56	81	2,101
North Dakota	-	23	27	7	2	1	0	0	-	61	1	31	55	34	28	18	12	9	18	204
Ohio	2	454	275	88	50	30	15	12	11	936	16	357	629	335	250	195	126	99	207	2,197
Oklahoma	6	82	110	39	20	13	6	4	4	277	15	87	234	118	83	52	31	25	43	674
Oregon	-	124	74	16	10	5	4	1	2	234	43	134	255	151	113	77	50	36	75	891
Pennsylvania	-	342	266	76	46	25	14	10	19	797	0	311	831	579	484	363	247	176	417	3,408
Rhode Island	0	34	12	3	2	1	-	0	0	52	14	31	53	42	55	57	46	37	87	409
South Carolina	17	173	74	19	11	7	2	1	1	287	6	132	416	237	160	100	48	32	36	1,161
South Dakota	-	22	48	11	4	2	1	0	0	88	1	15	39	26	25	19	13	9	8	155
Tennessee	1	379	103	36	17	11	5	3	4	556	5	607	676	276	171	118	66	51	102	2,067
Texas	4	379	552	234	149	84	37	17	7	1,460	103	800	1,848	1,112	773	581	373	288	694	6,488
Utah	-	76	106	38	17	9	4	1	1	253	0	135	275	126	73	40	24	12	20	705
Vermont	-	40	19	2	2	0	0	0	0	64	2	16	26	13	9	7	5	3	7	87
Virginia	-	158	228	71	34	19	10	6	3	528	0	121	547	339	261	200	119	78	92	1,756
Washington	0	135	114	41	22	11	5	4	3	334	11	181	445	290	240	187	132	108	272	1,855
West Virginia	1	117	63	22	16	8	5	3	2	235	2	56	145	81	47	34	16	11	22	412
Wisconsin	-	102	124	60	44	21	9	3	3	367	34	142	312	287	279	255	174	134	321	1,905
Wyoming	-	46	30	12	7	4	3	2	2	106	5	40	50	28	18	13	8	8	12	175
U.S. Total	123	8,232	5,905	2,056	1,260	774	400	226	245	19,099	1,722	10,525	19,376	11,011	8,366	6,445	4,375	3,429	8,352	71,878
Puerto Rico	0	6	44	42	36	30	19	17	36	231	9	1	19	30	47	54	51	48	152	401
Grand Total	124	8,238	5,950	2,098	1,296	804	419	244	281	19,330	1,731	10,526	19,394	11,041	8,412	6,499	4,426	3,477	8,504	72,279

For footnotes, see Footnotes Page.

# NATIONAL HIGHWAY SYSTEM LENGTH - 2022

## MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47  
SHEET 4 OF 4

January 29, 2024

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	130	773	504	142	76	44	25	15	18	1,596
Alaska	11	52	77	37	22	13	9	7	12	229
Arizona	23	287	264	153	136	94	56	36	46	1,071
Arkansas	0	235	329	141	90	65	39	29	74	1,001
California	434	635	1,377	1,090	1,113	1,062	830	718	1,994	8,820
Colorado	1	170	477	308	246	163	107	69	144	1,684
Connecticut	2	235	418	215	145	95	58	37	71	1,273
Delaware	1	51	115	50	29	17	10	7	15	296
District of Columbia	5	0	3	4	7	11	13	14	77	130
Florida	36	1,707	1,948	716	376	228	124	75	125	5,298
Georgia	7	1,207	1,263	447	232	132	66	41	70	3,458
Hawaii	3	31	77	62	50	50	31	23	49	372
Idaho	31	99	121	38	24	17	8	7	11	325
Illinois	2	678	1,075	634	499	364	242	183	419	4,094
Indiana	8	479	350	155	91	51	24	14	16	1,179
Iowa	10	156	293	211	153	99	62	45	88	1,106
Kansas	39	263	200	85	55	40	26	14	24	707
Kentucky	42	278	300	112	73	50	32	23	38	906
Louisiana	55	226	306	198	188	169	121	92	196	1,495
Maine	1	96	61	27	20	15	8	7	14	246
Maryland	9	377	489	184	125	94	73	63	228	1,632
Massachusetts	51	608	463	314	300	277	199	166	473	2,800
Michigan	438	572	834	451	332	247	171	132	232	2,972
Minnesota	2	373	463	172	83	44	19	11	13	1,179
Mississippi	2	293	338	185	129	96	56	44	102	1,244
Missouri	0	600	571	236	156	116	74	51	80	1,882
Montana	-	91	100	40	27	21	12	10	17	319
Nebraska	34	42	113	64	51	50	39	34	106	499
Nevada	-	210	150	77	57	36	23	14	20	586
New Hampshire	-	209	94	36	23	14	8	6	13	403
New Jersey	0	588	709	322	258	220	165	138	328	2,727
New Mexico	0	152	151	69	52	38	22	16	36	536
New York	165	341	1,262	759	571	436	318	274	866	4,827
North Carolina	13	766	926	486	298	180	98	60	86	2,901
North Dakota	1	54	82	41	30	19	12	9	18	265
Ohio	18	811	904	422	300	225	142	111	219	3,133
Oklahoma	20	169	344	156	103	66	38	29	47	951
Oregon	43	258	329	166	122	82	53	37	77	1,125
Pennsylvania	0	653	1,097	655	530	389	261	185	436	4,205
Rhode Island	14	65	65	45	57	58	46	38	88	462
South Carolina	23	305	490	256	171	106	50	33	36	1,448
South Dakota	1	37	87	37	29	21	14	9	8	243
Tennessee	6	986	778	312	188	129	70	54	106	2,623
Texas	106	1,179	2,400	1,346	942	665	410	305	702	7,948
Utah	0	211	381	165	90	49	27	14	21	958
Vermont	2	56	45	15	11	7	5	4	7	151
Virginia	0	279	775	410	295	218	129	83	95	2,284
Washington	11	315	559	331	261	199	137	112	275	2,189
West Virginia	3	173	208	103	63	42	21	14	24	647
Wisconsin	34	244	436	348	323	276	184	138	324	2,272
Wyoming	5	85	80	40	25	17	10	10	14	280
U.S. Total	1,845	18,757	25,281	13,067	9,625	7,219	4,775	3,655	8,597	90,977
Puerto Rico	9	7	63	71	82	85	70	66	187	632
Grand Total	1,855	18,764	25,344	13,139	9,708	7,304	4,845	3,721	8,785	91,609

For footnotes, see Footnotes Page.

# **NATIONAL HIGHWAY SYSTEM LENGTH - 2022**

## **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.