

NATIONAL HIGHWAY SYSTEM LENGTH - 2020 MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 1 OF 4

October 26, 2021

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	428	88	24	15	7	3	3	2	571	5	994	770	124	54	27	14	7	7	1,997
Alaska	20	230	337	147	103	71	39	25	31	982	322	102	174	79	79	66	49	38	79	667
Arizona	7	558	193	71	44	22	10	5	5	909	11	337	390	196	120	77	36	17	19	1,192
Arkansas	-	224	136	39	18	9	5	3	4	439	-	373	793	336	210	103	56	32	34	1,938
California	0	472	378	149	100	56	26	13	16	1,209	58	957	1,616	616	343	186	81	52	79	3,930
Colorado	-	106	295	114	52	27	27	18	10	648	-	587	1,090	448	217	114	59	35	27	2,576
Connecticut	-	17	10	1	1	0	-	0	0	29	0	27	66	34	16	7	4	2	1	157
Delaware	-	-	-	-	-	-	-	-	-	-	0	40	72	16	5	2	2	1	1	138
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Florida	-	622	77	10	5	2	1	0	-	717	3	1,290	1,090	242	85	37	10	3	5	2,762
Georgia	-	306	176	34	11	6	3	1	1	538	-	1,262	1,391	372	133	52	16	7	12	3,245
Hawaii	-	-	-	-	-	-	-	-	-	-	1	3	25	17	11	9	6	4	4	79
Idaho	2	340	123	29	12	5	1	2	8	519	7	599	716	172	78	38	24	16	52	1,695
Illinois	-	800	306	71	32	18	7	4	5	1,243	0	433	900	437	267	173	88	51	59	2,408
Indiana	0	441	207	53	30	16	9	6	6	769	0	779	618	188	93	37	15	7	7	1,745
Iowa	-	265	233	61	31	12	4	2	3	610	34	907	1,169	568	334	185	107	60	63	3,392
Kansas	0	380	177	50	19	9	3	1	1	640	1	1,689	1,019	169	74	42	18	11	9	3,031
Kentucky	1	521	132	29	13	9	3	2	1	710	6	701	554	209	101	41	16	10	7	1,638
Louisiana	3	191	136	89	64	31	11	3	1	527	4	117	445	236	139	84	49	27	28	1,125
Maine	-	167	62	32	10	5	2	1	1	279	1	341	246	79	43	31	18	12	31	800
Maryland	-	67	57	11	4	1	1	0	1	142	0	186	140	24	9	6	4	4	4	377
Massachusetts	-	38	17	3	2	1	0	0	0	63	0	81	179	69	42	23	14	8	13	430
Michigan	4	188	249	59	29	17	8	5	4	558	0	954	995	279	128	64	32	15	17	2,483
Minnesota	-	250	238	58	26	11	3	2	1	588	0	1,387	1,237	428	219	120	54	25	19	3,488
Mississippi	-	370	143	28	17	12	5	2	2	578	-	494	771	244	153	81	34	17	19	1,812
Missouri	-	610	176	29	15	6	2	1	1	842	-	1,302	1,174	307	120	54	20	12	11	3,001
Montana	-	556	405	71	33	16	6	4	5	1,095	-	662	1,263	449	195	89	46	25	43	2,773
Nebraska	-	219	146	30	13	4	1	1	1	415	1	1,079	945	284	158	98	52	29	36	2,682
Nevada	-	409	33	8	4	2	0	0	0	457	-	912	462	95	42	20	8	4	2	1,544
New Hampshire	-	115	21	4	1	1	0	0	0	142	-	177	133	31	17	11	8	4	6	387
New Jersey	-	19	19	5	2	1	0	0	-	45	-	65	75	19	15	9	5	3	4	195
New Mexico	-	501	200	60	37	22	12	5	7	843	-	581	691	224	118	64	33	17	21	1,749
New York	8	377	268	71	38	22	10	4	7	798	33	352	1,128	375	192	102	52	30	29	2,259
North Carolina	21	406	99	20	10	5	2	1	1	544	25	628	1,034	322	112	44	18	8	8	2,174
North Dakota	-	351	130	19	6	2	1	1	0	510	-	1,477	975	253	111	52	27	17	33	2,945
Ohio	0	374	171	46	26	13	6	3	4	643	1	637	811	249	104	49	21	11	12	1,893
Oklahoma	9	331	208	43	24	14	8	4	4	637	14	496	948	375	211	115	62	40	48	2,295
Oregon	2	278	158	36	13	5	1	1	1	494	4	637	1,330	379	157	75	35	21	19	2,653
Pennsylvania	-	548	329	90	42	26	11	8	12	1,066	0	443	861	299	138	65	35	19	26	1,885
Rhode Island	-	15	2	0	0	0	0	-	0	18	-	17	19	15	19	16	11	6	4	108
South Carolina	-	381	110	30	14	7	3	1	1	546	4	336	745	257	131	62	29	13	16	1,589
South Dakota	-	267	259	46	13	4	2	1	0	591	-	882	1,173	429	213	100	47	27	18	2,889
Tennessee	0	528	81	17	10	4	3	1	0	645	11	745	656	166	81	42	19	11	8	1,728
Texas	1	900	787	192	66	29	13	6	5	2,000	17	2,482	3,037	1,180	530	225	91	41	33	7,621
Utah	-	363	247	53	14	5	1	0	1	685	-	245	514	228	120	49	16	6	5	1,183
Vermont	1	174	59	11	5	3	2	1	0	255	0	108	121	33	19	10	7	5	5	307
Virginia	-	289	250	41	11	4	1	0	0	598	0	305	903	319	145	55	21	8	5	1,760
Washington	-	210	142	35	17	8	6	5	7	429	1	297	858	414	181	79	43	25	27	1,924
West Virginia	-	137	128	23	14	7	3	3	5	319	7	137	389	217	120	66	33	21	30	1,013
Wisconsin	4	225	159	61	32	19	7	3	3	508	45	762	962	586	375	221	104	54	50	3,114
Wyoming	-	494	203	56	27	14	7	3	2	807	54	572	873	280	118	43	17	6	6	1,914
U.S. Total	84	16,052	8,560	2,260	1,124	592	282	157	171	29,199	674	30,980	38,546	13,365	6,693	3,420	1,664	925	1,097	96,691
Puerto Rico	1	0	13	10	5	5	4	4	12	53	0	0	5	8	10	12	8	7	17	68
Grand Total	85	16,053	8,573	2,270	1,129	598	286	160	183	29,252	674	30,980	38,551	13,374	6,703	3,432	1,672	933	1,115	96,759

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2020
MILES BY MEASURED PAVEMENT ROUGHNESS - RURAL

TABLE HM-47
SHEET 2 OF 4

October 26, 2021

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	1,422	858	148	69	34	17	10	9	2,568
Alaska	342	332	511	226	182	138	88	62	110	1,648
Arizona	18	895	583	268	164	99	46	22	24	2,101
Arkansas	-	598	929	375	228	113	61	35	38	2,377
California	59	1,429	1,994	765	443	242	107	65	95	5,139
Colorado	-	693	1,385	562	269	140	86	53	36	3,224
Connecticut	0	44	76	35	17	7	4	2	1	186
Delaware	0	40	72	16	5	2	2	1	1	138
District of Columbia	-	-	-	-	-	-	-	-	-	-
Florida	3	1,911	1,167	251	90	39	11	4	5	3,479
Georgia	-	1,567	1,568	406	144	58	19	8	13	3,784
Hawaii	1	3	25	17	11	9	6	4	4	79
Idaho	9	939	839	201	90	43	25	18	59	2,214
Illinois	0	1,233	1,206	507	299	191	95	55	64	3,652
Indiana	0	1,220	826	241	123	53	24	14	13	2,514
Iowa	34	1,171	1,401	628	365	196	111	62	66	4,002
Kansas	1	2,069	1,196	220	93	50	21	12	10	3,670
Kentucky	7	1,222	686	238	114	50	19	12	7	2,348
Louisiana	6	308	581	325	202	115	60	30	30	1,651
Maine	1	508	308	111	53	36	19	13	31	1,080
Maryland	0	254	197	35	13	7	5	4	4	519
Massachusetts	0	120	196	73	45	24	15	8	13	492
Michigan	4	1,142	1,244	338	157	81	40	20	21	3,041
Minnesota	0	1,638	1,474	486	245	131	56	26	20	4,076
Mississippi	-	864	914	272	170	93	38	20	20	2,391
Missouri	-	1,912	1,350	337	135	60	23	14	12	3,843
Montana	-	1,218	1,669	520	228	105	52	29	48	3,868
Nebraska	1	1,298	1,092	314	170	101	54	30	37	3,096
Nevada	-	1,321	495	103	45	22	9	4	2	2,001
New Hampshire	-	292	153	35	18	12	8	4	6	529
New Jersey	-	83	94	24	17	10	5	3	4	240
New Mexico	-	1,082	891	284	155	87	45	22	28	2,593
New York	41	729	1,396	447	229	124	62	35	36	3,057
North Carolina	46	1,035	1,133	342	122	49	19	9	10	2,718
North Dakota	-	1,828	1,106	271	117	54	28	18	33	3,455
Ohio	2	1,011	982	295	129	62	27	14	16	2,536
Oklahoma	24	827	1,156	419	235	129	70	44	51	2,932
Oregon	6	915	1,488	416	170	80	36	21	20	3,146
Pennsylvania	0	990	1,189	388	180	91	46	28	39	2,951
Rhode Island	-	33	21	16	19	17	11	6	4	126
South Carolina	4	717	854	287	145	69	32	15	17	2,135
South Dakota	-	1,149	1,432	475	226	104	48	28	19	3,481
Tennessee	11	1,273	737	183	92	46	22	12	9	2,373
Texas	18	3,382	3,824	1,372	597	255	104	47	39	9,621
Utah	-	608	761	281	134	54	17	7	6	1,868
Vermont	1	281	180	44	24	13	8	6	6	562
Virginia	0	594	1,153	360	156	59	22	9	5	2,358
Washington	1	506	999	449	198	87	49	30	34	2,353
West Virginia	7	274	518	240	134	72	36	24	35	1,332
Wisconsin	49	986	1,121	647	407	240	112	57	52	3,622
Wyoming	54	1,065	1,077	336	145	57	24	9	8	2,721
U.S. Total	758	47,032	47,106	15,626	7,817	4,012	1,946	1,082	1,268	125,890
Puerto Rico	1	1	18	18	15	17	12	11	30	121
Grand Total	759	47,033	47,124	15,644	7,832	4,029	1,958	1,093	1,298	126,011

For footnotes, see Footnotes Page.

**NATIONAL HIGHWAY SYSTEM LENGTH - 2020
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN**

TABLE HM-47
SHEET 3 OF 4

October 26, 2021

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	268	76	32	20	14	8	7	8	433	13	432	513	145	78	45	24	16	24	1,277
Alaska	0	38	25	8	4	2	1	0	1	78	1	27	55	29	18	12	6	5	8	161
Arizona	8	135	71	19	10	5	3	1	1	245	20	162	201	135	113	83	53	34	40	820
Arkansas	-	118	105	39	21	12	7	5	5	310	0	69	215	114	83	63	39	30	65	678
California	4	219	431	216	160	100	54	30	33	1,243	381	392	895	788	875	861	686	612	2,467	7,575
Colorado	-	65	107	54	39	19	10	4	6	304	0	127	385	249	198	135	91	64	130	1,380
Connecticut	-	148	119	27	13	6	3	1	2	318	14	97	275	181	132	93	55	39	72	944
Delaware	0	9	15	7	3	3	1	1	1	40	1	35	112	47	22	13	9	6	11	256
District of Columbia	-	1	3	3	2	1	1	1	0	12	1	1	3	2	5	7	8	12	83	121
Florida	0	488	184	50	28	16	7	3	2	778	7	1,274	1,801	660	339	203	100	64	103	4,542
Georgia	-	439	163	53	29	15	6	2	2	709	-	758	1,105	379	206	123	63	45	69	2,747
Hawaii	0	1	10	10	10	9	7	4	3	55	9	25	60	56	49	38	23	18	40	311
Idaho	1	53	27	5	3	2	1	-	0	92	2	61	96	32	19	12	10	6	20	255
Illinois	-	382	340	80	55	39	22	10	13	942	2	213	759	580	456	340	224	177	406	3,156
Indiana	0	222	132	60	35	22	10	5	6	492	5	210	227	97	59	40	20	12	17	682
Iowa	-	54	72	23	12	8	3	3	3	178	21	96	204	181	137	92	62	48	99	919
Kansas	1	129	56	23	13	6	4	2	1	235	1	132	159	66	48	38	24	17	26	509
Kentucky	2	114	67	22	13	8	3	1	1	230	35	143	238	134	73	41	24	16	22	691
Louisiana	10	122	95	53	49	46	23	14	12	414	51	104	229	157	141	125	90	72	161	1,078
Maine	-	55	22	6	2	2	1	0	0	87	12	25	38	24	18	13	10	6	15	148
Maryland	0	136	121	29	15	11	6	6	11	336	6	243	387	165	113	90	65	57	191	1,311
Massachusetts	3	340	95	25	15	12	6	4	5	502	44	220	373	293	283	280	199	167	490	2,305
Michigan	3	132	304	91	53	40	22	15	15	673	36	206	622	449	358	286	206	165	407	2,699
Minnesota	-	102	140	43	18	12	6	2	2	325	1	226	331	141	69	37	18	10	15	848
Mississippi	-	153	55	17	12	9	5	3	1	253	-	125	312	178	118	80	53	39	92	997
Missouri	-	307	136	38	26	16	8	5	4	538	-	324	426	196	126	100	58	42	76	1,347
Montana	-	47	39	6	3	1	1	1	0	98	-	27	59	38	25	21	13	10	26	219
Nebraska	-	19	28	12	5	2	2	1	0	69	3	29	93	58	51	50	38	35	107	461
Nevada	-	84	30	20	17	7	3	1	1	162	-	115	114	60	49	32	18	11	20	419
New Hampshire	-	71	10	2	0	0	0	-	-	83	0	129	81	34	24	17	10	7	17	319
New Jersey	-	135	143	36	23	13	12	9	16	387	-	316	562	293	250	218	170	146	386	2,341
New Mexico	-	83	42	11	8	6	3	1	2	156	-	72	95	60	51	33	21	14	34	380
New York	9	230	333	143	79	51	30	21	36	923	111	154	927	614	487	380	290	247	832	3,931
North Carolina	13	440	221	64	25	12	9	4	5	780	23	351	708	429	268	151	80	49	71	2,107
North Dakota	-	31	22	5	2	0	0	0	0	61	1	34	53	33	28	19	11	9	18	205
Ohio	3	436	279	90	53	30	19	11	12	931	11	333	631	326	253	192	129	98	240	2,201
Oklahoma	2	98	105	35	17	13	7	4	5	284	14	97	218	113	82	51	30	22	38	651
Oregon	2	110	81	18	10	7	4	2	1	233	16	102	278	164	122	84	51	38	71	910
Pennsylvania	-	297	285	85	52	30	16	12	21	797	4	295	831	604	478	376	247	173	408	3,414
Rhode Island	-	29	17	3	1	1	1	0	0	52	6	35	46	43	52	45	40	105	418	
South Carolina	-	171	84	25	14	7	2	1	0	304	41	93	371	235	167	109	60	37	46	1,117
South Dakota	-	21	46	13	5	2	1	0	-	88	2	11	38	28	24	19	16	9	10	154
Tennessee	0	383	105	34	16	9	4	2	2	556	4	559	703	275	174	117	66	54	108	2,057
Texas	4	385	551	236	144	83	34	14	10	1,457	81	795	1,884	1,181	854	630	407	335	818	6,905
Utah	-	76	108	35	18	10	4	2	1	253	-	140	261	126	72	42	21	14	21	697
Vermont	-	35	22	4	1	1	1	0	0	64	2	14	32	14	9	7	3	4	5	87
Virginia	-	168	234	62	27	16	8	4	2	521	0	139	559	345	257	184	114	77	89	1,765
Washington	-	138	118	39	18	12	5	3	2	335	15	179	461	291	241	186	129	102	265	1,854
West Virginia	1	100	69	18	15	12	7	4	10	235	3	44	153	81	46	31	16	12	26	411
Wisconsin	-	102	110	63	45	26	13	4	2	366	46	85	285	302	311	287	169	144	313	1,896
Wyoming	-	41	28	16	8	5	3	2	2	106	3	30	57	30	20	12	9	8	10	177
U.S. Total	69	7,962	6,080	2,109	1,267	790	412	234	267	19,120	1,051	9,908	19,520	11,255	8,532	6,550	4,382	3,469	9,234	72,851
Puerto Rico	3	3	44	40	34	27	21	18	40	227	11	1	15	24	42	55	52	50	175	412
Grand Total	72	7,965	6,123	2,148	1,301	818	432	253	306	19,347	1,063	9,909	19,536	11,279	8,574	6,604	4,434	3,519	9,409	73,263

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2020
MILES BY MEASURED PAVEMENT ROUGHNESS - URBAN

TABLE HM-47
SHEET 4 OF 4

October 26, 2021

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	700	589	177	98	60	32	22	32	1,709
Alaska	1	65	80	37	23	14	6	6	9	239
Arizona	28	296	271	154	123	89	55	35	41	1,065
Arkansas	0	186	320	153	104	75	45	34	70	989
California	385	611	1,326	1,004	1,035	961	740	642	2,500	8,818
Colorado	0	192	492	303	237	154	101	68	137	1,683
Connecticut	14	246	394	207	144	99	58	40	74	1,261
Delaware	1	44	128	54	25	17	11	7	12	296
District of Columbia	1	1	6	6	7	8	10	13	83	133
Florida	7	1,762	1,984	710	367	218	107	67	105	5,320
Georgia	-	1,197	1,268	432	235	138	69	47	71	3,456
Hawaii	10	27	71	66	59	47	31	22	43	366
Idaho	3	114	123	37	22	14	11	6	21	347
Illinois	2	595	1,100	661	511	379	246	187	420	4,098
Indiana	5	433	359	157	94	62	29	17	23	1,173
Iowa	21	150	276	204	150	99	65	51	102	1,096
Kansas	2	261	214	89	61	44	28	19	27	743
Kentucky	37	258	305	156	86	49	27	17	23	921
Louisiana	61	226	324	210	190	171	113	86	173	1,492
Maine	12	80	59	29	20	15	10	6	15	235
Maryland	6	379	508	194	128	101	71	63	203	1,647
Massachusetts	47	559	468	318	298	292	205	171	495	2,807
Michigan	39	339	926	540	411	326	228	180	422	3,371
Minnesota	1	329	471	184	87	49	24	13	17	1,174
Mississippi	-	277	367	195	130	88	58	41	93	1,250
Missouri	-	631	562	234	152	116	66	47	79	1,886
Montana	-	74	98	43	28	22	14	10	27	317
Nebraska	3	49	121	70	56	52	39	36	108	530
Nevada	-	199	144	80	67	39	20	12	21	581
New Hampshire	0	201	91	35	24	17	10	7	17	402
New Jersey	-	452	706	330	273	230	181	154	402	2,728
New Mexico	-	155	137	71	59	39	24	16	36	536
New York	121	384	1,260	758	565	431	320	268	867	4,853
North Carolina	36	792	929	493	294	163	89	53	76	2,888
North Dakota	1	65	75	37	31	20	11	9	18	266
Ohio	13	769	910	416	307	222	148	109	251	3,132
Oklahoma	17	196	323	148	99	65	37	26	43	935
Oregon	18	212	359	182	131	91	55	40	72	1,142
Pennsylvania	4	592	1,115	690	530	406	264	185	429	4,211
Rhode Island	6	64	63	46	53	53	46	40	105	470
South Carolina	41	264	456	260	181	115	62	38	46	1,422
South Dakota	2	32	84	40	29	21	17	9	10	242
Tennessee	4	943	808	308	191	126	70	56	111	2,613
Texas	85	1,180	2,435	1,417	998	713	441	349	828	8,362
Utah	-	215	369	161	90	52	25	16	22	950
Vermont	2	49	54	18	10	8	3	4	6	151
Virginia	0	307	793	407	284	200	123	81	91	2,285
Washington	15	317	579	330	259	198	133	105	267	2,188
West Virginia	5	144	221	100	61	44	23	17	36	646
Wisconsin	46	187	395	365	357	314	182	148	315	2,262
Wyoming	3	72	85	46	28	17	12	10	12	282
U.S. Total	1,120	17,870	25,600	13,363	9,799	7,340	4,794	3,703	9,501	91,971
Puerto Rico	14	4	59	64	76	82	72	68	215	639
Grand Total	1,134	17,874	25,659	13,427	9,875	7,422	4,866	3,771	9,715	92,610

For footnotes, see Footnotes Page.

NATIONAL HIGHWAY SYSTEM LENGTH - 2020

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.