

MEASURED PAVEMENT ROUGHNESS - RURAL - 1994 <sup>1</sup>  
MILEAGE BY FUNCTIONAL SYSTEM <sup>2</sup>

TABLE HM-64  
SHEET 1 OF 4  
OCTOBER 1995

MILEAGE AS OF DECEMBER 31, 1994  
COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) <sup>3</sup>										
	NOT REPORTED <sup>4</sup>	INTERSTATE									TOTAL REPORTED
		< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220		
Alabama	-	521	63	7	6	-	-	-	4	601	
Alaska	-	-	190	263	273	120	104	36	47	1,033	
Arizona	-	324	516	96	39	9	7	-	-	991	
Arkansas	8	5	48	36	96	84	60	41	25	395	
California	147	80	581	216	161	91	35	9	35	1,208	
Colorado	-	19	239	173	136	62	133	6	-	768	
Connecticut	3	-	43	13	13	16	6	7	-	98	
Delaware	-	-	-	-	-	-	-	-	-	-	
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	
Florida	-	54	252	232	360	44	6	5	-	953	
Georgia	334	151	269	48	5	-	-	-	-	473	
Hawaii <sup>5</sup>	-	-	-	-	-	-	-	-	-	-	
Idaho	-	8	166	151	118	64	13	9	3	532	
Illinois	-	4	394	470	342	161	31	10	9	1,421	
Indiana	3	44	359	217	66	121	10	-	5	822	
Iowa	16	26	261	192	99	40	3	-	-	621	
Kansas	-	64	293	119	117	73	14	7	11	698	
Kentucky	-	48	244	52	96	68	28	-	-	536	
Louisiana	47	217	133	103	46	27	5	-	30	561	
Maine	54	93	145	16	3	-	1	-	-	258	
Maryland	-	-	112	71	23	5	2	11	3	227	
Massachusetts	-	-	76	66	19	-	-	1	-	162	
Michigan	125	76	219	151	87	51	19	7	5	615	
Minnesota	-	-	41	76	145	159	126	91	43	681	
Mississippi	-	11	201	160	104	38	23	12	9	558	
Missouri	-	35	353	259	128	29	-	6	-	810	
Montana	-	11	361	307	209	152	68	28	-	1,136	
Nebraska <sup>5</sup>	-	1	76	127	140	22	37	23	11	437	
Nevada	67	205	160	21	18	9	-	-	-	413	
New Hampshire	-	25	147	4	-	-	-	-	-	176	
New Jersey	6	-	8	47	29	16	4	4	-	108	
New Mexico	-	36	330	218	167	84	32	10	16	893	
New York	2	38	465	169	76	19	11	6	11	795	
North Carolina	1	2	168	147	113	120	63	8	11	632	
North Dakota	-	-	141	194	115	47	33	-	-	530	
Ohio	-	206	523	85	14	1	-	-	-	829	
Oklahoma <sup>5</sup>	-	85	363	170	42	37	14	3	1	715	
Oregon	-	1	248	266	62	4	-	-	-	581	
Pennsylvania	-	27	337	317	171	105	61	34	28	1,080	
Rhode Island	-	-	1	6	8	5	1	-	-	21	
South Carolina	-	142	296	153	56	17	4	-	-	668	
South Dakota	-	9	60	180	209	130	24	17	-	629	
Tennessee	-	64	403	176	74	15	7	-	-	739	
Texas	141	-	3	747	816	321	90	44	41	2,062	
Utah	-	361	306	85	18	1	-	-	-	771	
Vermont	-	86	158	27	2	6	1	-	-	280	
Virginia	-	5	287	271	46	28	11	60	-	708	
Washington	-	-	81	209	142	52	7	9	1	501	
West Virginia	-	11	124	84	129	97	10	1	3	459	
Wisconsin	-	37	169	172	83	20	4	-	5	490	
Wyoming	-	-	33	154	267	299	69	5	-	827	
Total <sup>6</sup>	-	955	3,132	10,446	7,523	5,488	2,869	1,177	510	31,502	
Percent/System Reported <sup>6</sup>	-	-	9.9	33.3	23.9	17.4	9.1	3.7	1.6	100.0	

MEASURED PAVEMENT ROUGHNESS - RURAL - 1994 1  
MILEAGE BY FUNCTIONAL SYSTEM 2

TABLE HM-64  
SHEET 2 OF 4  
OCTOBER 1995

MILEAGE AS OF DECEMBER 31, 1994  
COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 3																			TOTAL REPORTED	
	NOT REPORTED 4	OTHER PRINCIPAL ARTERIAL									TOTAL REPORTED 4	MINOR ARTERIAL									
		< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	< 60		60-94	95-119	120-144	145-170	171-194	195-220	> 220			
Alabama	-	566	934	402	90	35	9	1	25	2,062	-	815	1,366	1,153	294	37	-	-	-	3,665	
Alaska	-	-	50	101	112	41	14	7	2	327	634	-	13	47	115	33	-	79	-	2,877	
Arizona	-	75	555	286	124	50	44	14	9	1,157	-	128	359	436	133	62	33	104	-	1,255	
Arkansas	462	9	503	529	338	193	110	25	9	1,716	-	2	859	791	263	244	69	43	14	2,294	
California	950	61	1,003	821	567	300	80	41	2	2,875	-	224	1,929	1,784	1,525	906	243	123	174	6,908	
Colorado	-	13	670	612	468	253	71	112	-	2,199	-	72	1,560	799	829	398	4	-	11	3,673	
Connecticut	-	2	94	30	75	30	32	21	7	261	89	-	22	56	84	73	89	84	-	408	
Delaware	-	-	43	62	43	18	15	10	18	209	-	-	42	23	19	7	1	7	5	104	
Dist. of Columbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Florida	-	103	949	868	386	129	86	32	-	3,361	-	19	850	629	667	422	95	99	4	2,785	
Georgia	2,355	350	68	1	-	-	-	-	-	419	3,939	1,086	536	-	-	-	-	-	-	1,622	
Hawaii 5	117	-	-	-	1	2	2	1	-	6	326	-	-	-	-	4	43	-	1	48	
Idaho	-	-	34	122	432	633	335	108	19	1,683	-	-	17	17	279	403	304	115	66	1,201	
Illinois	5	1	408	994	619	317	204	102	96	2,731	-	38	1,014	1,617	912	492	357	252	130	4,812	
Indiana	300	50	369	377	320	141	91	43	25	1,416	7	196	788	594	211	167	206	85	17	2,244	
Iowa	258	174	803	500	671	695	244	54	7	3,148	353	152	766	502	689	846	317	275	58	3,605	
Kansas	-	277	1,448	727	434	160	68	43	10	3,167	-	231	1,427	895	933	341	405	25	43	4,300	
Kentucky	-	38	738	573	303	245	45	6	6	1,954	-	-	240	639	365	283	27	40	1	1,595	
Louisiana	-	111	133	607	112	65	33	40	113	1,214	-	311	292	164	340	286	91	17	120	1,621	
Maine	118	76	300	155	64	30	12	9	6	652	31	37	320	270	178	98	59	20	73	1,055	
Maryland	-	-	192	230	72	28	16	5	5	548	-	-	189	449	235	44	23	10	-	950	
Massachusetts	154	1	35	86	33	15	8	6	1	165	92	-	56	184	163	110	43	-	16	572	
Michigan	200	409	1,052	463	348	175	55	27	16	2,545	121	395	1,501	562	523	510	259	57	61	3,868	
Minnesota	-	1	447	735	699	547	359	230	553	3,571	-	-	259	2,081	982	865	730	422	1,146	6,485	
Mississippi	-	3	536	584	342	192	49	47	21	1,774	-	-	978	816	1,218	324	273	8	303	3,920	
Missouri	35	39	691	1,121	721	328	68	17	19	3,004	55	-	652	1,064	794	604	231	-	6	3,351	
Montana	-	16	590	813	547	403	159	55	39	2,622	48	-	265	756	666	806	297	147	5	2,942	
Nebraska 5	-	22	797	633	630	369	202	51	41	2,745	-	56	1,148	937	594	665	461	168	153	4,182	
Nevada	81	324	398	411	153	24	1	-	-	1,311	14	155	143	287	113	-	-	-	3	701	
New Hampshire	-	-	254	129	43	13	4	-	10	453	-	14	220	168	61	20	-	7	1	491	
New Jersey	243	19	19	142	57	25	9	24	24	295	48	-	3	26	161	55	42	4	28	319	
New Mexico	-	110	616	320	282	168	83	74	162	1,815	-	30	408	527	245	116	170	131	249	1,816	
New York	99	44	770	404	236	138	98	91	131	1,912	138	-	1,216	1,304	589	620	144	75	66	4,014	
North Carolina	77	6	590	599	466	217	98	70	92	2,138	182	23	403	514	543	766	321	100	117	2,787	
North Dakota	-	56	390	495	847	542	391	142	67	2,930	-	-	373	443	698	494	242	159	104	2,513	
Ohio	-	267	1,513	254	106	40	20	3	3	2,206	-	546	1,696	394	65	51	-	-	-	2,817	
Oklahoma 5	-	28	249	274	418	388	466	144	303	2,270	-	15	209	511	483	149	698	172	605	2,842	
Oregon	-	706	435	988	518	222	62	29	10	2,890	-	28	377	432	446	455	353	89	45	2,225	
Pennsylvania	1	3	652	775	622	331	131	60	38	2,612	5,091	-	-	-	-	-	-	-	-	-	
Rhode Island	-	-	2	18	11	9	5	1	17	63	-	-	11	16	15	13	7	7	11	80	
South Carolina	1	19	772	289	184	149	23	4	5	1,445	-	5	1,642	780	741	382	34	71	8	3,663	
South Dakota	-	145	358	580	575	569	203	76	36	2,542	-	281	527	292	663	1,016	249	164	151	3,343	
Tennessee	-	84	877	346	255	116	49	13	6	1,748	-	43	1,038	992	850	369	145	4	2	3,443	
Texas	1,186	57	1,318	1,992	1,078	421	196	118	-	5,180	-	788	98	1,861	3,259	2,203	917	196	188	8,722	
Utah	-	269	568	111	32	26	-	2	-	1,008	-	239	760	445	74	22	2	-	-	1,542	
Vermont	-	15	72	86	73	39	15	15	2	317	-	46	145	160	181	146	39	4	13	734	
Virginia	57	1	270	666	344	124	21	12	8	1,444	-	281	1,214	726	582	40	63	5	5	2,911	
Washington	-	1	118	540	830	433	130	66	22	2,140	-	-	6	196	634	586	402	81	41	1,946	
West Virginia	784	2	57	27	58	60	23	8	4	239	109	79	501	329	225	144	49	70	56	1,453	
Wisconsin	-	353	1,213	875	458	304	141	36	6	3,386	-	374	1,895	640	958	576	434	19	143	5,039	
Wyoming	4	-	115	297	463	476	175	86	17	1,629	-	-	58	240	329	481	378	128	60	1,674	
Total 6	7,489	4,828	23,807	22,188	18,036	11,178	5,028	2,284	2,157	89,559	13,294	5,640	29,436	29,002	25,041	18,287	9,310	3,777	4,384	124,877	
Percent/System Reported 6	-	5.4	26.5	24.8	20.2	12.5	5.6	2.6	2.4	100.0	10.6	4.5	23.6	23.2	20.1	14.6	7.5	3.0	3.5	100.0	

**MEASURED PAVEMENT ROUGHNESS - URBAN - 1994 1**  
**MILEAGE BY FUNCTIONAL SYSTEM 2**

TABLE HM-64  
 SHEET 3 OF 4  
 OCTOBER 1995

MILEAGE AS OF DECEMBER 31, 1994  
 COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 3									
	NOT REPORTED 4	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED
Alabama	-	226	67	8	2	-	-	-	-	303
Alaska	-	-	16	18	13	3	2	1	-	53
Arizona	-	30	83	37	22	4	1	1	-	178
Arkansas	4	1	10	31	28	33	17	12	4	136
California	205	35	216	211	215	97	45	43	5	867
Colorado	-	3	58	60	52	7	6	-	7	186
Connecticut	-	-	53	65	56	24	16	24	7	245
Delaware	-	-	11	6	4	8	4	3	5	41
Dist. of Columbia	-	-	-	1	3	-	-	3	2	12
Florida	-	31	155	82	163	75	9	3	1	519
Georgia	270	57	101	7	-	-	-	-	-	165
Hawaii 5	40	-	-	-	-	2	1	-	-	3
Idaho	-	-	23	33	11	11	1	-	-	79
Illinois	1	-	103	200	140	70	92	19	8	632
Indiana	3	33	67	115	44	14	27	7	3	310
Iowa	14	-	28	38	37	19	12	-	-	134
Kansas	-	7	92	58	15	1	1	-	-	174
Kentucky	-	-	71	38	34	48	15	13	7	226
Louisiana	18	50	50	45	54	26	16	4	7	252
Maine	3	10	38	2	1	-	-	-	-	51
Maryland	-	-	101	66	40	20	11	9	8	255
Massachusetts	-	9	138	189	48	12	2	2	3	403
Michigan	61	25	154	110	85	39	12	10	2	437
Minnesota	-	-	26	54	58	39	13	19	24	233
Mississippi	-	-	26	42	41	11	5	2	-	127
Missouri	1	5	103	139	76	29	9	5	1	367
Montana	1	4	13	25	5	4	1	-	1	52
Nebraska 5	-	-	2	8	8	7	7	6	7	45
Nevada	5	6	18	36	7	7	1	-	-	75
New Hampshire	-	10	30	8	-	-	-	-	-	48
New Jersey	76	-	27	36	87	35	33	9	3	230
New Mexico	-	8	20	23	21	12	13	6	4	107
New York	18	6	244	124	72	70	53	41	73	683
North Carolina	6	1	51	56	82	65	41	15	20	331
North Dakota	-	-	2	18	12	9	-	-	-	41
Ohio	-	104	434	136	37	17	8	6	1	743
Oklahoma 5	-	16	84	30	27	27	12	16	2	214
Oregon	-	-	23	47	60	13	2	1	-	146
Pennsylvania	3	2	101	168	116	66	29	19	5	506
Rhode Island	-	-	20	16	10	1	1	-	1	49
South Carolina	1	21	65	33	11	5	5	1	-	141
South Dakota	-	-	-	3	21	17	7	1	-	49
Tennessee	-	14	116	77	52	36	14	9	5	323
Texas	58	-	5	114	205	204	198	118	129	973
Utah	-	36	64	49	15	5	-	-	-	169
Vermont	-	6	31	3	-	-	-	-	-	40
Virginia	-	-	88	146	69	68	9	16	2	398
Washington	-	-	22	73	88	49	15	14	1	262
West Virginia	-	-	20	26	13	21	8	2	-	90
Wisconsin	-	7	15	67	29	16	3	5	6	148
Wyoming	-	-	11	13	25	23	11	2	2	87
Total 6	788	763	3,296	2,990	2,314	1,369	791	467	348	12,338
Percent/System Reported 6	-	6.2	26.7	24.2	18.8	11.1	6.4	3.8	2.8	100.0

MEASURED PAVEMENT ROUGHNESS - URBAN - 1994 1  
MILEAGE BY FUNCTIONAL SYSTEM 2

TABLE HM-64  
SHEET 4 OF 4  
OCTOBER 1995

MILEAGE AS OF DECEMBER 31, 1994  
COMPILED FROM REPORTS OF STATE AUTHORITIES

STATE	INTERNATIONAL ROUGHNESS INDEX (IRI) 3															TOTAL REPORTED 4						
	NOT REPORTED 4	< 60	60-94	95-119	120-144	145-170	171-194	195-220	> 220	TOTAL REPORTED 4	NOT REPORTED 4	< 60	60-94	95-119	120-144		145-170	171-194	195-220	> 220	TOTAL REPORTED 4	
Alabama	-	-	9	6	6	-	-	-	-	21	-	43	300	367	150	54	16	9	5	9	910	
Alaska	-	-	-	-	-	-	-	-	-	-	-	-	7	20	8	9	5	3	4	7	57	
Arizona	-	-	8	-	28	20	12	5	1	-	-	-	74	529	119	115	41	18	5	8	1,028	
Arkansas	-	48	-	-	11	11	7	6	-	-	-	-	21	408	39	30	25	15	14	22	166	
California	-	352	-	49	289	249	224	138	51	39	1	1,040	3,104	641	406	654	388	196	122	196	2,962	
Colorado	-	-	-	-	53	64	60	14	11	14	-	216	1	88	283	125	76	32	170	66	840	
Connecticut	-	-	4	-	31	44	32	33	16	33	5	194	82	118	162	59	95	21	65	-	520	
Delaware	-	-	-	-	1	2	1	-	1	2	3	7	11	22	32	27	18	8	8	21	136	
Dist. of Columbia	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	
Florida	-	-	14	108	92	150	26	3	3	8	8	404	54	49	798	527	594	335	183	91	2,682	
Georgia	-	140	23	5	1	-	-	-	-	-	-	29	1,632	102	22	-	3	-	-	-	127	
Hawaii 5	-	26	-	-	2	-	-	3	3	-	-	8	114	-	-	-	-	8	-	-	21	
Idaho	-	-	-	-	-	-	-	-	-	-	-	-	-	9	20	29	32	32	75	25	222	
Illinois	-	-	-	18	28	7	12	5	1	8	-	79	59	17	156	437	397	306	336	469	2,556	
Indiana	-	21	10	18	16	23	17	15	9	4	-	112	802	28	113	117	123	115	62	81	745	
Iowa	-	-	-	-	-	-	-	-	-	-	-	-	453	9	41	48	67	48	25	101	248	
Kansas	-	-	-	20	50	30	18	7	-	2	-	136	8	72	96	55	136	134	18	8	626	
Kentucky	-	-	9	33	3	15	29	11	-	1	-	92	4	10	147	142	140	82	42	30	627	
Louisiana	-	9	-	8	15	3	1	1	5	3	-	36	4	21	39	556	28	51	40	44	844	
Maine	-	2	-	4	3	5	1	1	-	1	-	15	93	3	36	19	13	7	2	1	63	
Maryland	-	-	-	55	70	39	26	12	7	17	-	226	1	-	54	173	148	121	73	69	856	
Massachusetts	-	64	1	30	69	18	9	2	2	2	-	133	1,178	2	25	80	88	84	45	19	375	
Michigan	-	70	3	42	38	30	27	8	-	1	-	149	241	11	71	178	216	285	259	204	1,711	
Minnesota	-	-	-	5	24	17	22	17	15	27	-	127	-	-	26	62	61	97	63	67	577	
Mississippi	-	-	4	11	6	18	-	-	2	-	-	41	-	-	110	120	112	122	44	45	624	
Missouri	-	34	-	29	73	59	58	12	1	16	-	248	621	-	37	87	86	79	50	36	1,110	
Montana	-	-	-	-	-	-	-	-	-	-	-	-	9	-	20	30	37	26	18	13	165	
Nebraska 6	-	-	-	-	5	2	2	2	2	4	-	17	135	-	11	21	36	40	42	42	283	
Nevada	-	2	5	14	1	1	1	-	-	-	-	21	46	32	74	31	18	21	3	4	186	
New Hampshire	-	-	36	3	3	1	-	-	-	-	-	40	7	77	44	13	11	2	11	6	171	
New Jersey	-	145	-	32	43	39	-	8	-	-	-	173	598	-	14	36	155	284	63	16	600	
New Mexico	-	-	-	3	-	-	-	-	-	-	-	3	-	14	82	248	52	38	25	19	27	505
New York	-	40	8	139	132	145	128	91	72	76	-	791	423	2	240	322	308	254	181	155	2,085	
North Carolina	-	32	2	58	40	35	42	20	15	15	-	228	472	5	162	195	173	141	67	32	1,099	
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-	1	-	6	40	25	25	20	17	163	
Ohio	-	-	28	180	81	36	27	9	6	3	-	370	-	48	598	480	370	222	122	71	1,989	
Oklahoma 5	-	-	21	26	19	23	7	24	11	5	-	136	-	18	105	128	91	65	38	345	831	
Oregon	-	-	3	31	14	3	1	-	1	1	-	53	-	28	51	101	113	124	84	66	666	
Pennsylvania	-	-	84	105	113	109	46	20	10	10	-	487	4	1	186	341	420	572	300	187	2,270	
Rhode Island	-	-	17	15	18	6	4	3	5	-	-	68	-	-	4	33	43	57	44	45	352	
South Carolina	-	-	8	42	11	7	2	-	-	-	-	70	4	35	267	156	106	65	31	15	694	
South Dakota	-	-	3	3	-	-	-	-	-	-	-	3	-	12	23	14	18	16	9	8	113	
Tennessee	-	-	2	39	30	20	14	3	4	2	-	114	32	32	442	322	213	132	65	40	1,295	
Texas	-	328	-	5	70	139	265	150	97	152	-	876	2,825	-	6	162	398	492	286	203	7,020	
Utah	-	-	6	3	-	-	-	-	-	-	-	9	-	37	116	59	28	19	8	2	270	
Vermont	-	-	-	12	3	2	2	1	-	-	-	20	-	2	7	21	18	12	9	4	97	
Virginia	-	43	-	26	94	31	23	6	7	4	-	191	118	1	89	382	195	172	77	46	1,042	
Washington	-	6	1	35	72	96	64	24	10	10	-	312	801	-	14	48	84	45	30	27	269	
West Virginia	-	-	6	-	3	1	-	-	-	-	-	4	130	-	7	21	15	17	5	3	71	
Wisconsin	-	-	13	32	39	45	-	13	4	5	-	177	28	1	195	225	216	230	135	141	1,344	
Wyoming	-	-	-	3	-	-	-	-	-	-	-	3	-	28	27	32	28	17	6	-	176	
Total 4	-	1,377	224	1,593	1,681	1,539	1,206	586	385	404	-	7,618	14,492	1,480	6,398	7,320	6,532	5,775	3,238	3,037	4,818	38,598
Percent System Reported 4	-	-	2.9	20.9	22.1	20.2	15.8	7.7	5.1	5.3	-	100.0	-	3.8	16.6	18.9	16.9	15.0	8.4	7.9	12.5	100.0

1 As summarized from the Highway Performance Monitoring System (HPMS) universe data for the Principal Arterials and as expanded from the HPMS standard sample data for other systems.  
2 Data are required for all rural Arterials and urban Principal Arterial Systems.  
3 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. See the "Roadway Extent, Characteristics and Performance" text at the front of the mileage tables.  
4 Some States did not report for all required mileage. Includes unpaved mileage in the following systems: rural

Other Principal Arterial—1 mile in Maine and 12 miles in Michigan; rural Minor Arterial—434 miles in Alaska, 34 miles in Montana; urban Other Principal Arterial—1 mile in Colorado, 8 miles in Kansas, 2 miles in Louisiana, 6 miles in Michigan, and 1 mile in North Dakota.  
5 1993 data used (1994 base data not available). For Nebraska the 1993 base data were factored to 1994 levels by FHWA.  
6 Totals only reflect those States reporting usable or partially usable data.