



AUTOMATIC TRAFFIC RECORDERS

2009 - 2019

Prepared by

OFFICE OF SYSTEMS PLANNING

In Cooperation With

**UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**

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INTRODUCTION

This report contains graphic comparisons of daily and monthly traffic collected on Iowa's highway system at 176 Permanent Continuous Automatic Traffic Recorder locations. Eighteen (18) stations are located on the Rural Interstate system, thirteen (13) are on the Municipal Interstate system, eighty (80) are on the Rural Primary system, twenty-five (25) are on the Municipal Primary system, twenty-six (26) are on the Rural Secondary system and fourteen (14) are on the Municipal Street system. The map on page 26 shows the general location of count sites. Specific descriptions of locations, along with AADT's for the previous eleven years for each station, start on page 19. Sites without an AADT for 2019 were not used not in the calculations or graphs.

The report compares travel trends from 1980 to present. Traffic is shown for rural, municipal and statewide travel.

Factors for estimating Design Hour Volumes from Annual Average Daily Traffic are shown by highway system. The values are developed from the straight-line relationships between Design Hour Volume and Annual Average Daily Traffic for the period of 2010 - 2019.

Information from the permanent traffic recorders indicates a 0.4% increase in statewide travel from 2018 to 2019. The estimated vehicle miles of travel for 2019 is 33.65 billion. Final 2019 traffic figures will be published near June 2020, when all traffic data collected during 2019 has been processed.

More travel occurs on Friday than any other day of the week on all road systems. Sunday is the lowest travel day on all systems except Rural Interstate. This is typical of other years.

TRAFFIC VOLUME VARIATIONS

ON

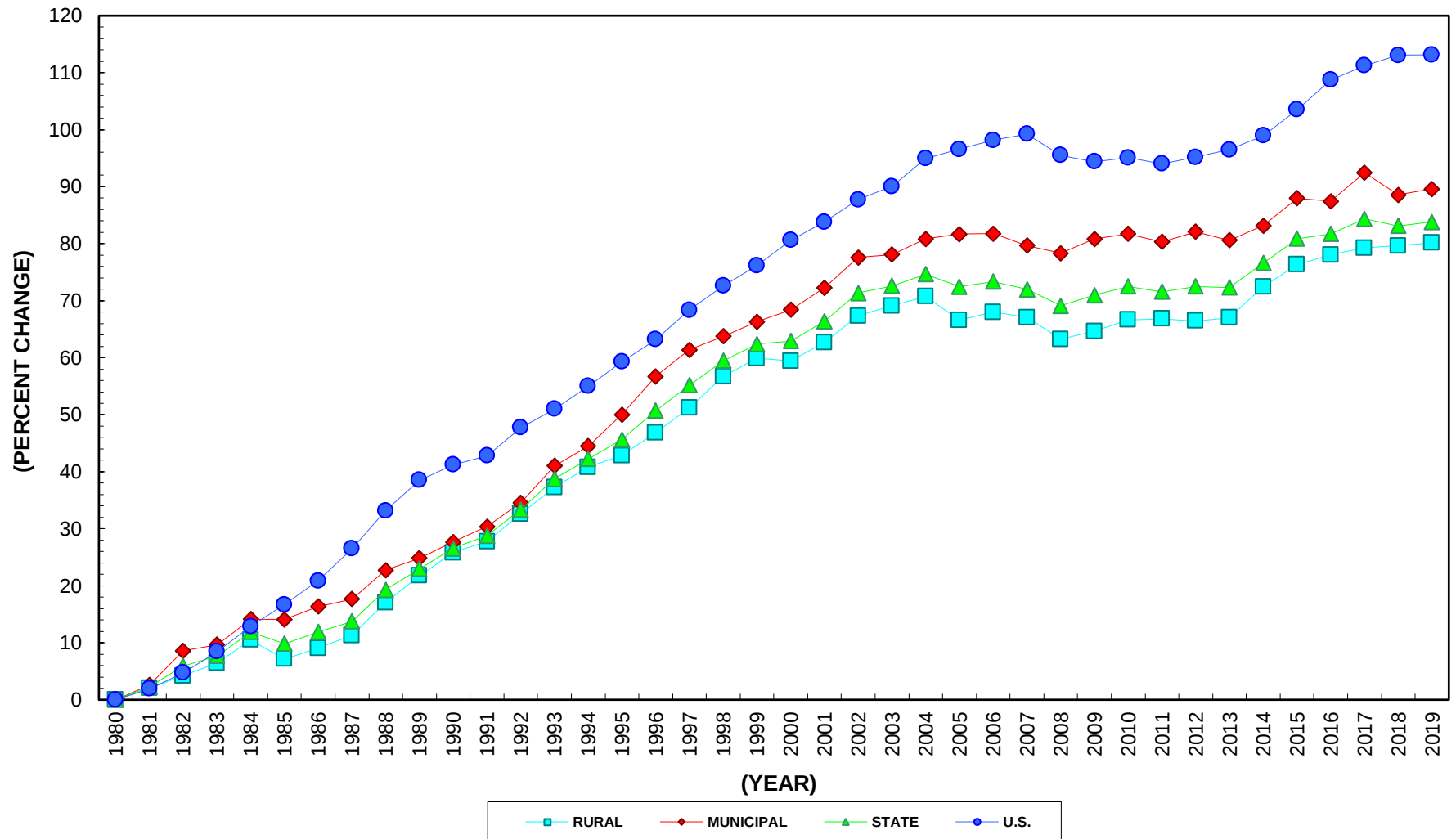
IOWA ROAD SYSTEMS

	2019 COMPARED TO 2018
RURAL INTERSTATE	+ 0.9 %
RURAL PRIMARY	+ 0.9 %
RURAL SECONDARY	+ 0.4 %
RURAL TOTAL	+ 0.7 %
MUNICIPAL INTERSTATE	- 0.1 %
MUNICIPAL PRIMARY	+ 0.7 %
MUNICIPAL STREETS	- 0.4 %
MUNICIPAL TOTAL	NO CHANGE
STATE TOTAL	+ 0.4 %

Data collected at continuous automatic traffic recorder locations (see pages 19 – 25) were utilized to compute the above percentages. The rural, municipal and state totals were weighted based on estimated vehicle miles of travel.

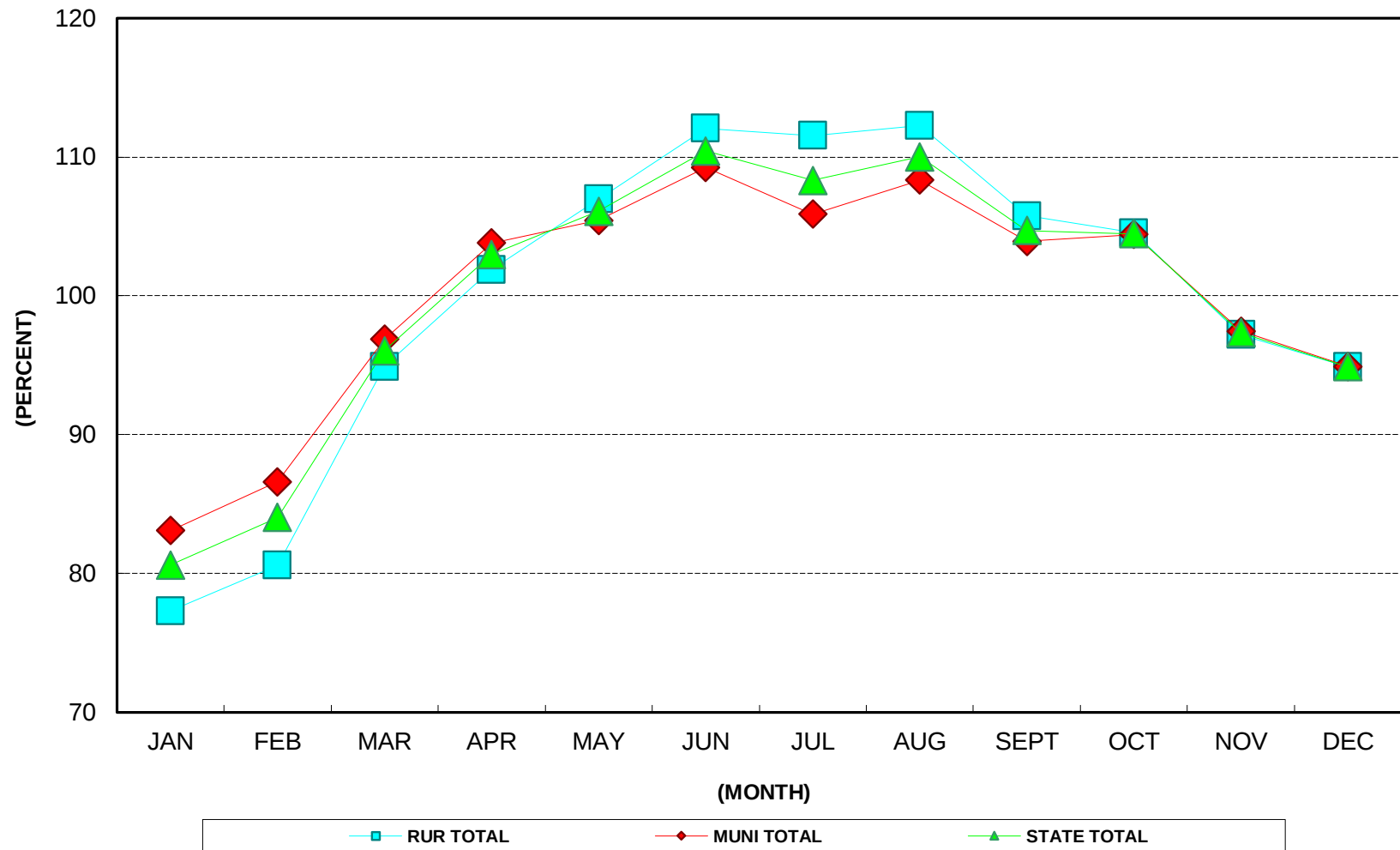
PERCENT CHANGE IN TRAFFIC

BASE YEAR 1980



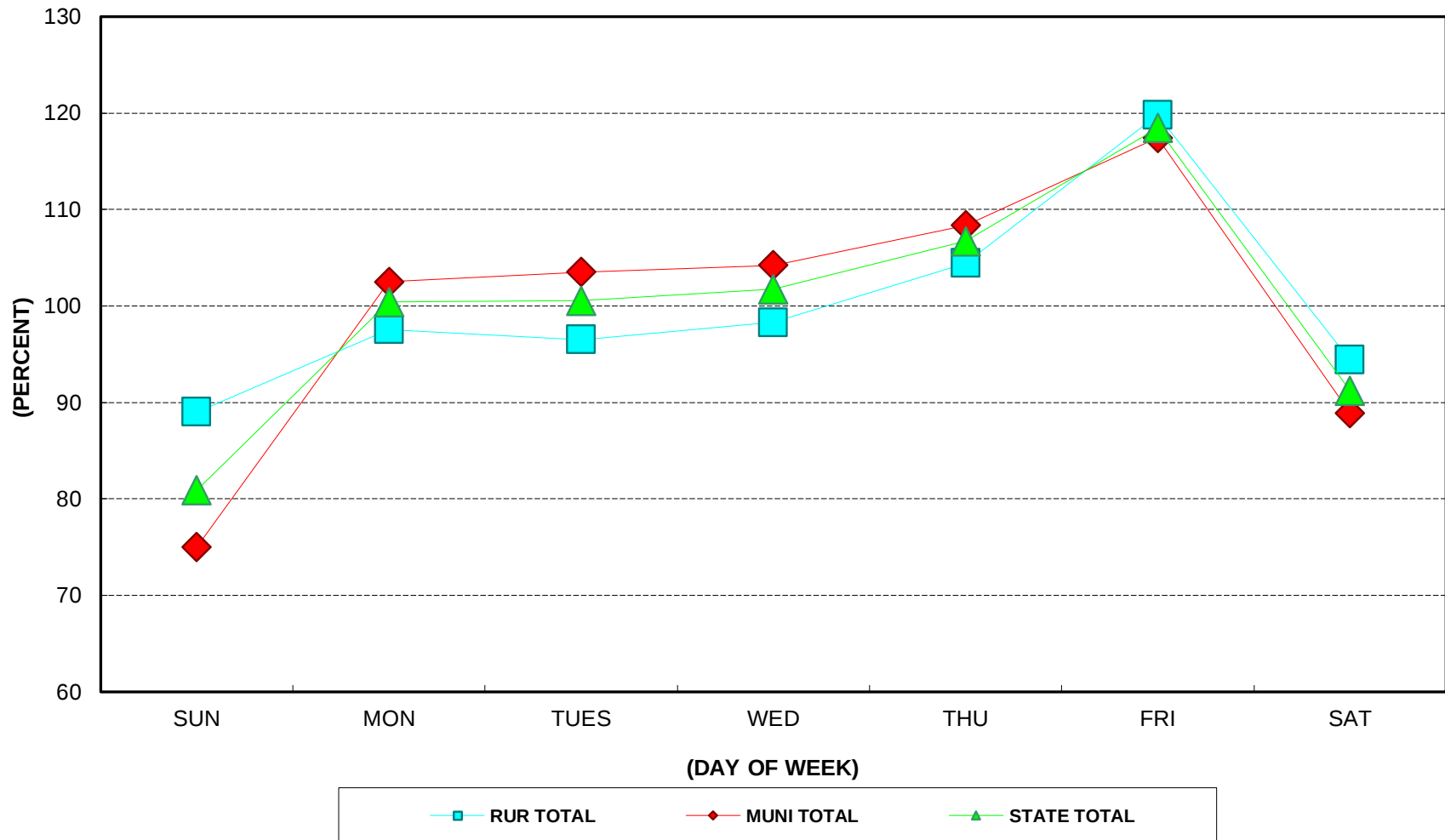
2019 MONTHLY TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



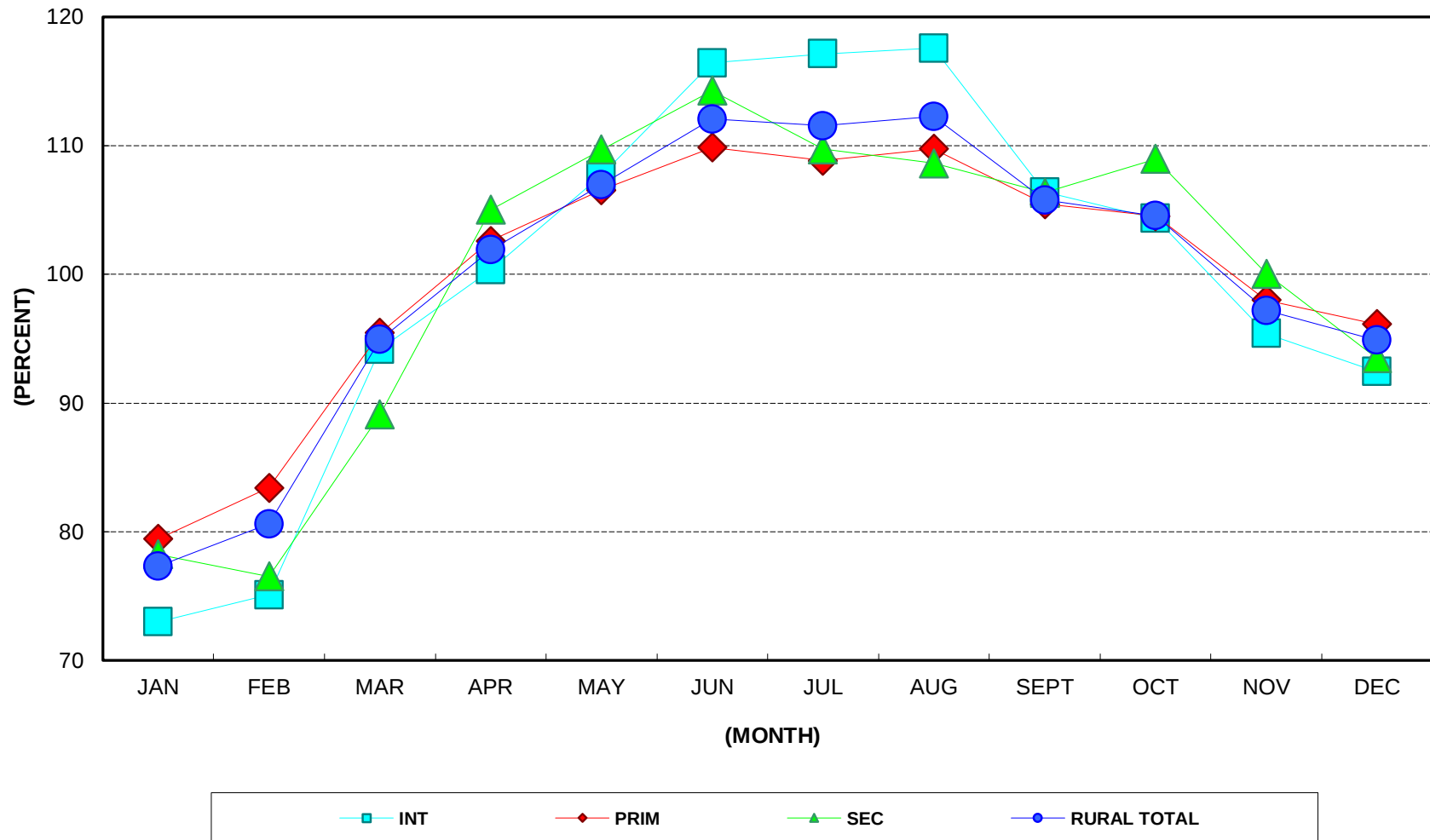
2019 DAY OF WEEK TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



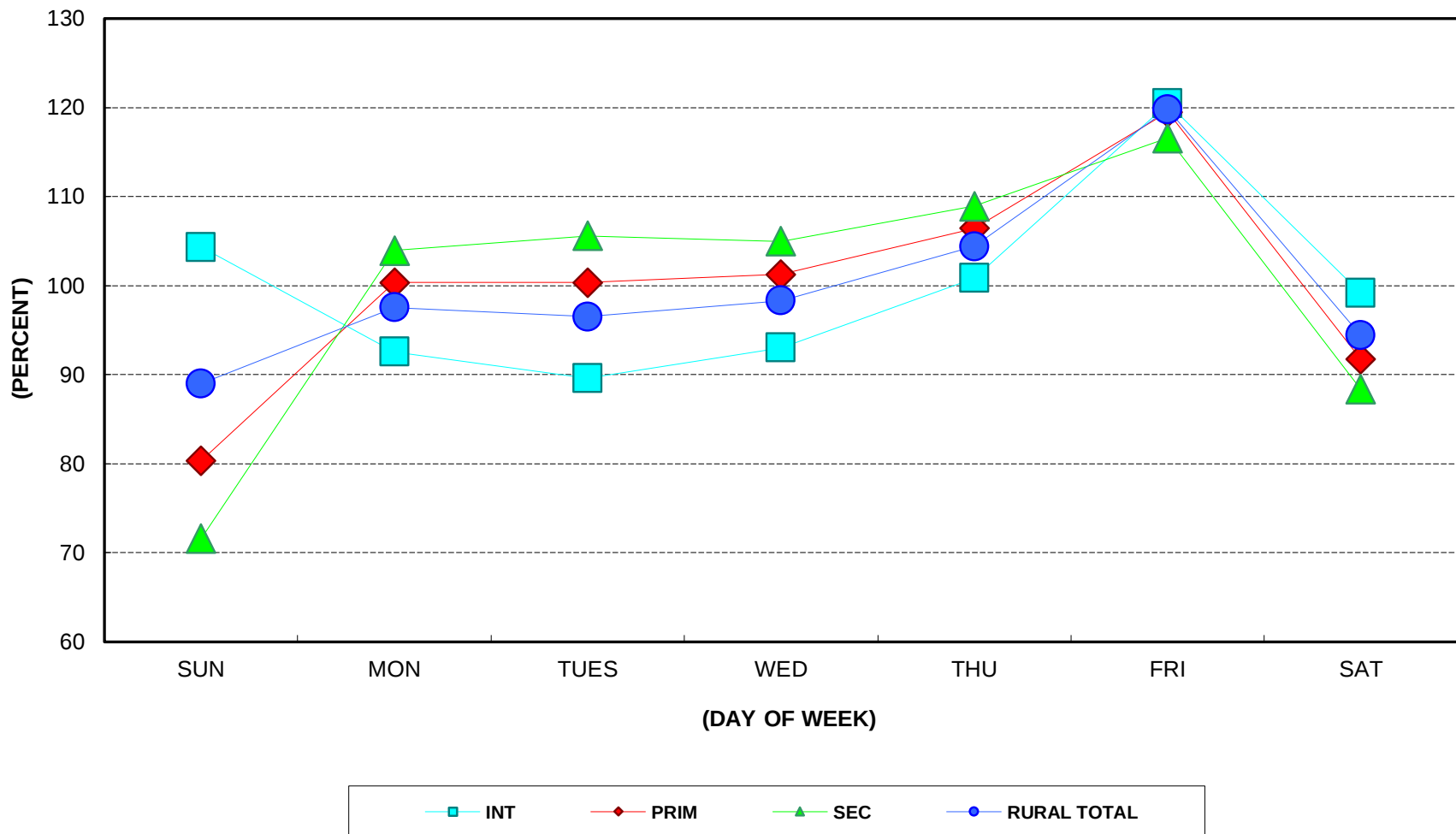
2019 RURAL MONTHLY TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



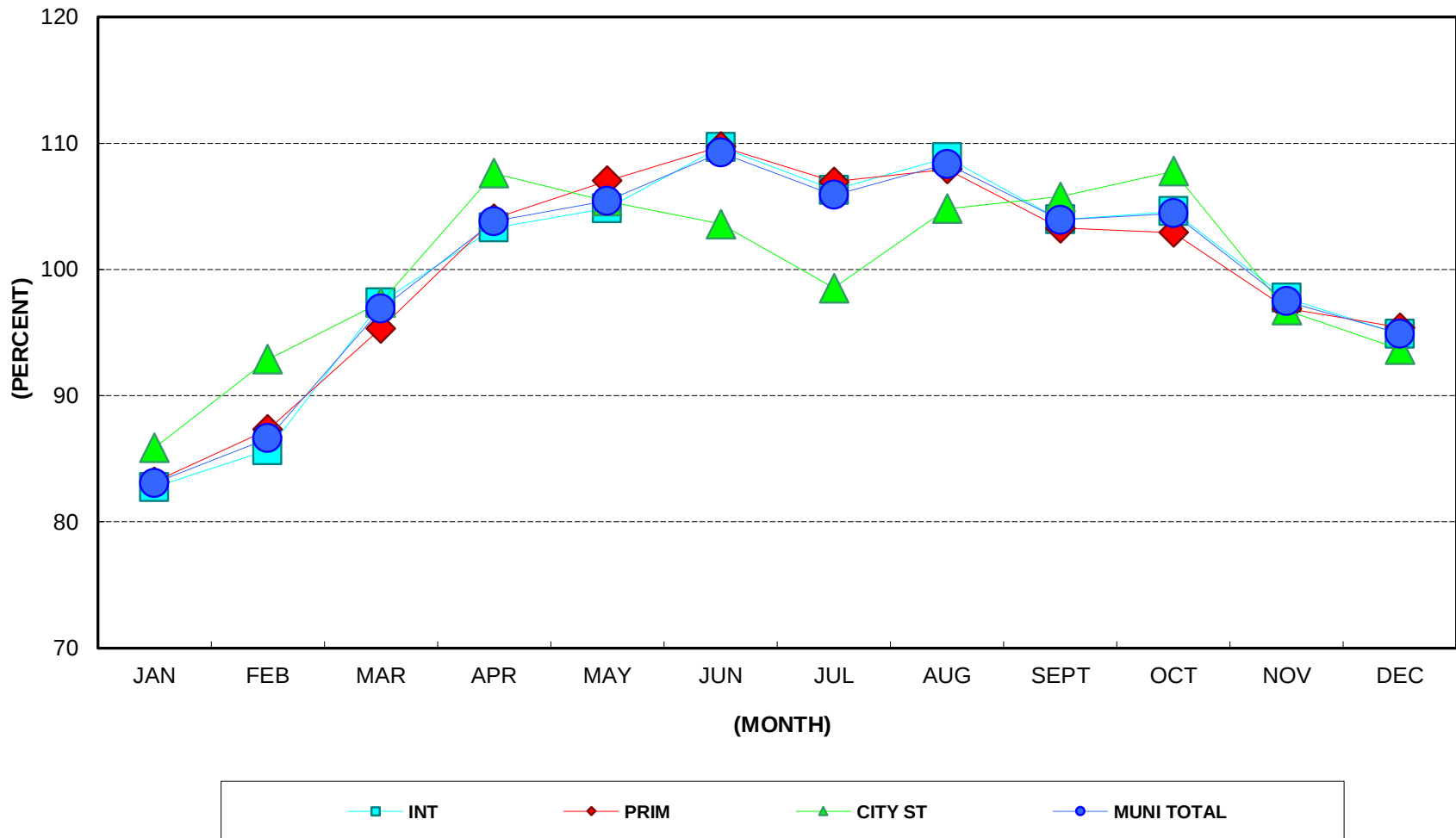
2019 RURAL DAY OF WEEK TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



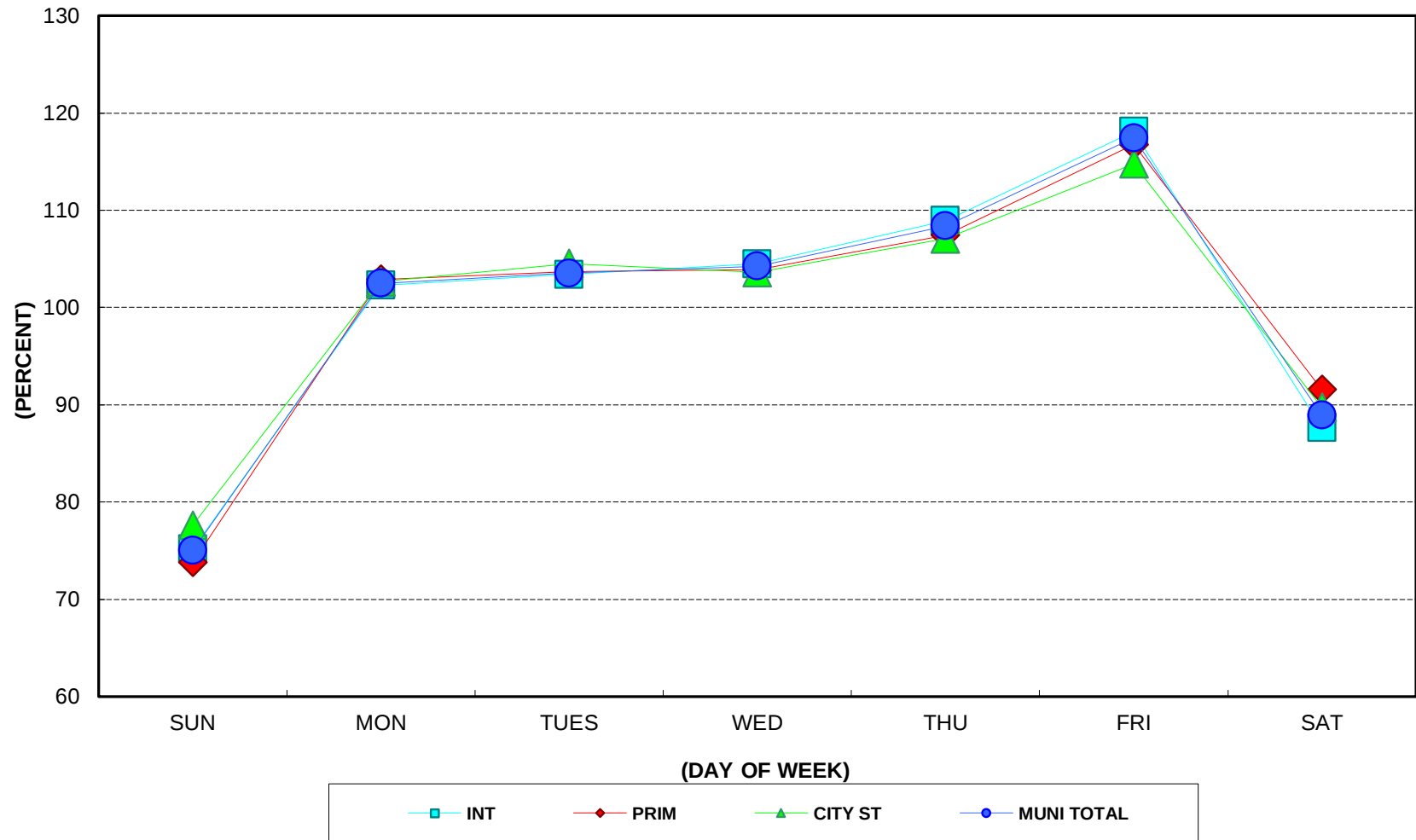
2019 MUNICIPAL MONTHLY TRAFFIC

AS A % OF ANNUAL AVERAGE DAILY TRAFFIC

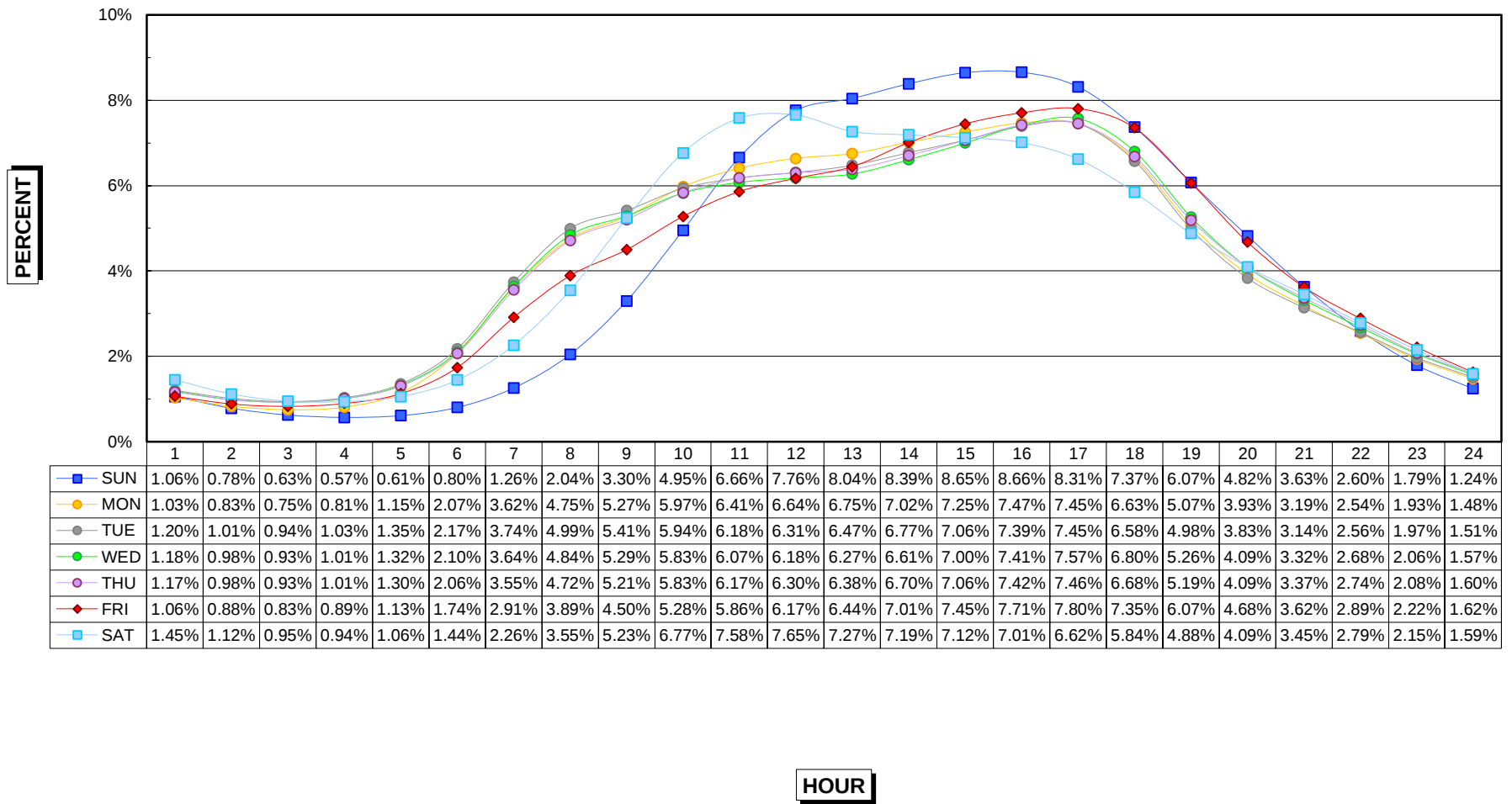


2019 MUNICIPAL DAY OF WEEK TRAFFIC

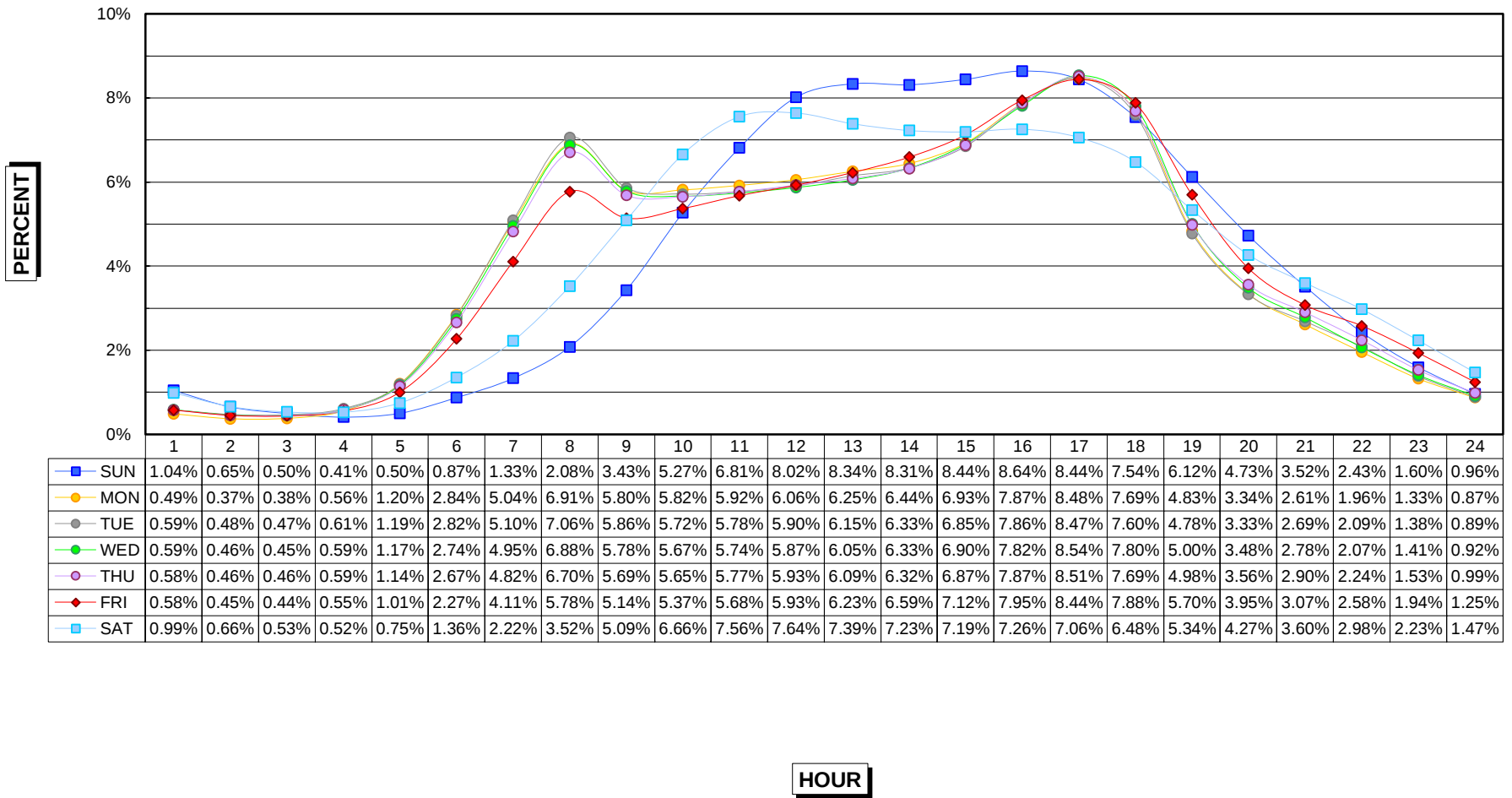
AS A % OF ANNUAL AVERAGE DAILY TRAFFIC



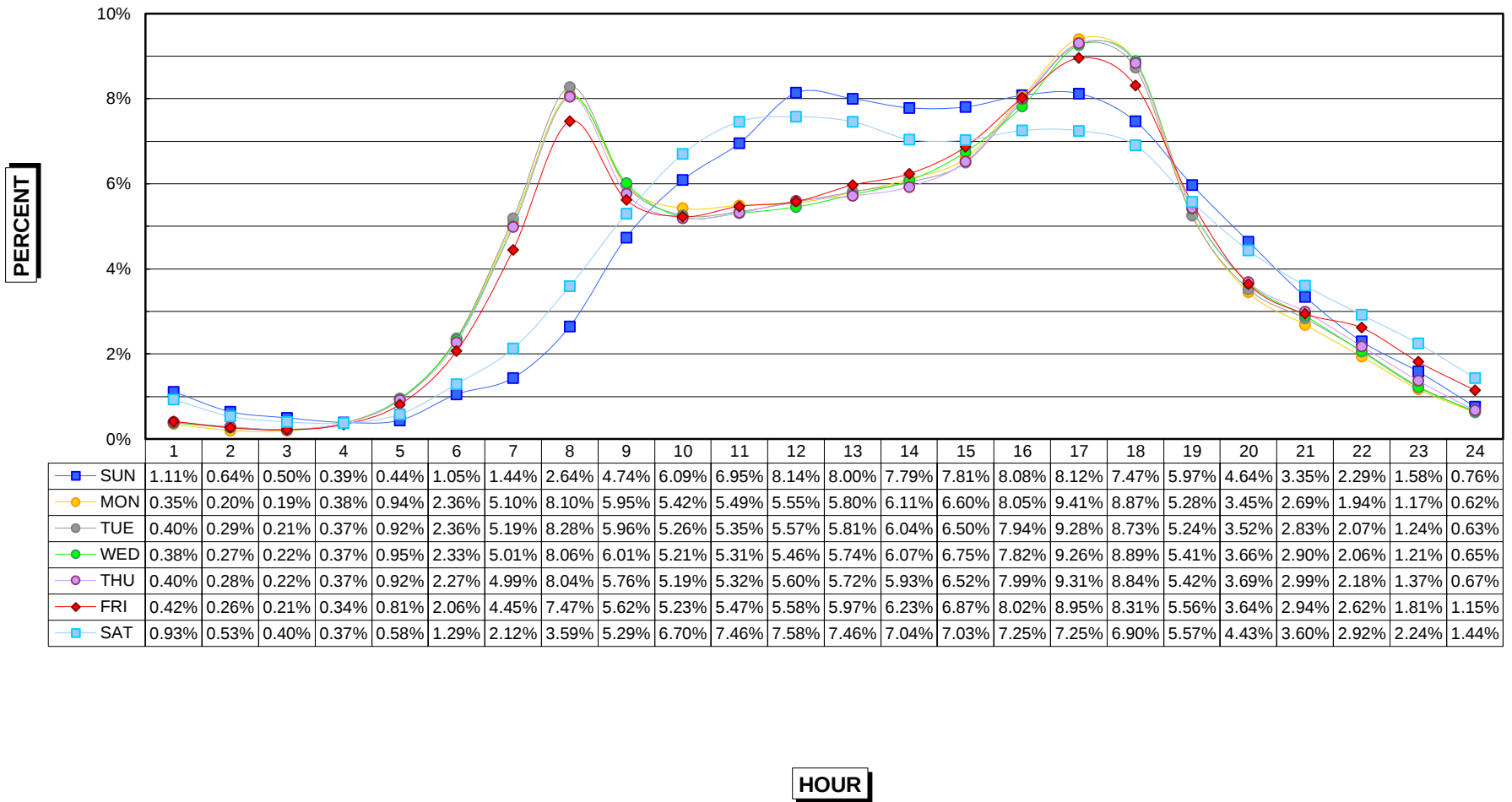
HOURLY DISTRIBUTION OF DAILY TRAFFIC 2019 RURAL INTERSTATE



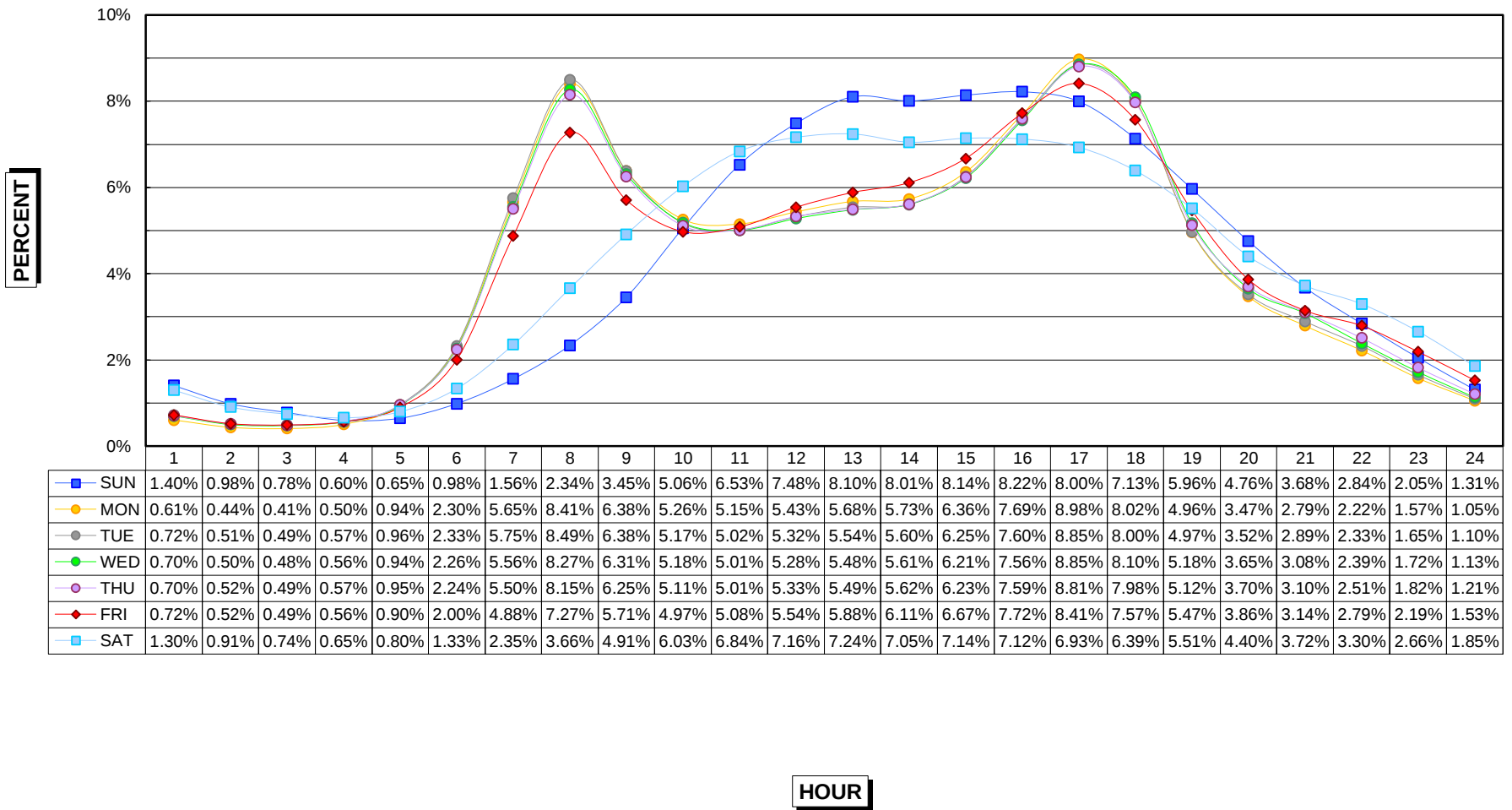
HOURLY DISTRIBUTION OF DAILY TRAFFIC 2019 RURAL PRIMARY



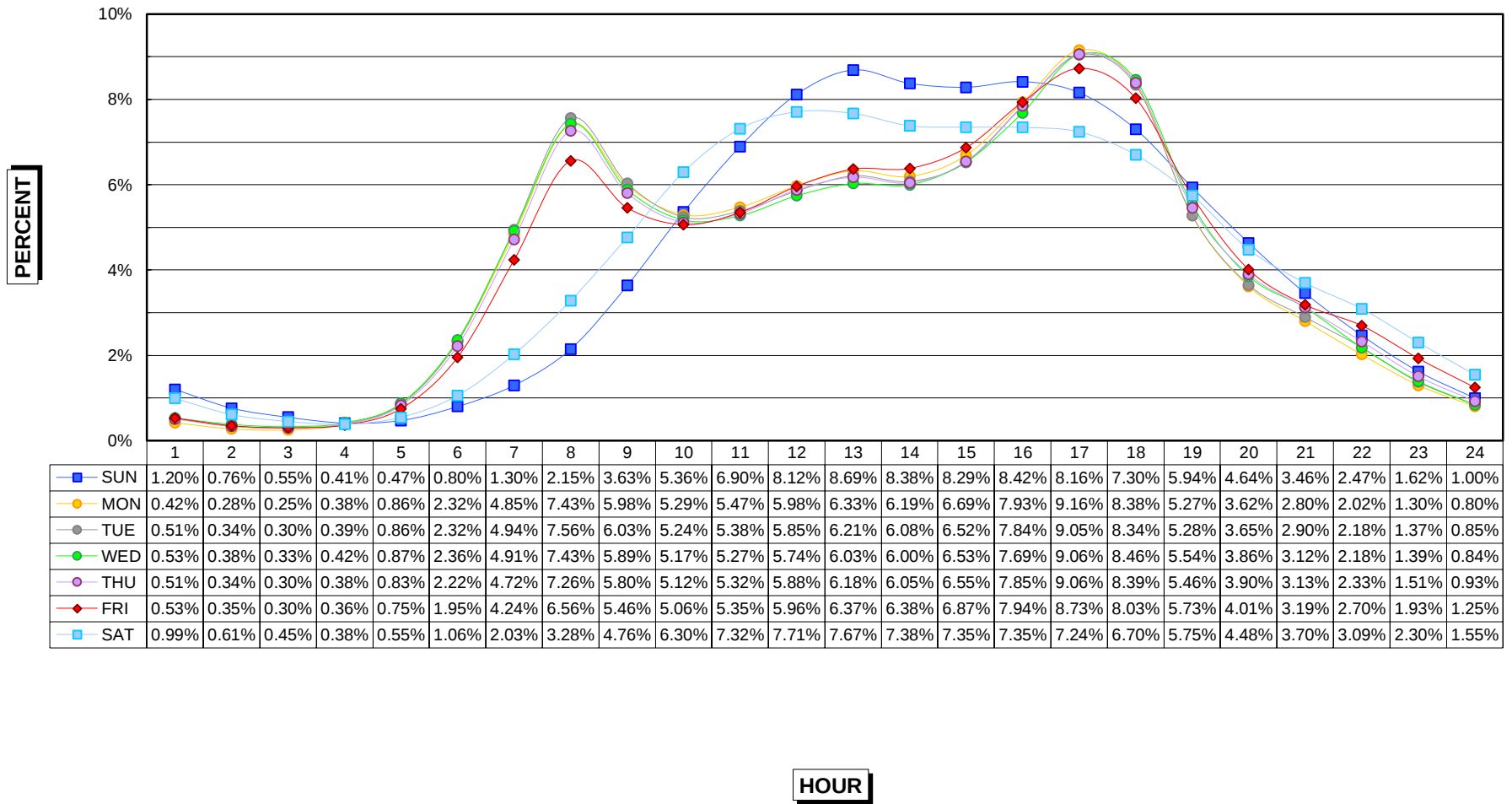
HOURLY DISTRIBUTION OF DAILY TRAFFIC 2019 RURAL SECONDARY



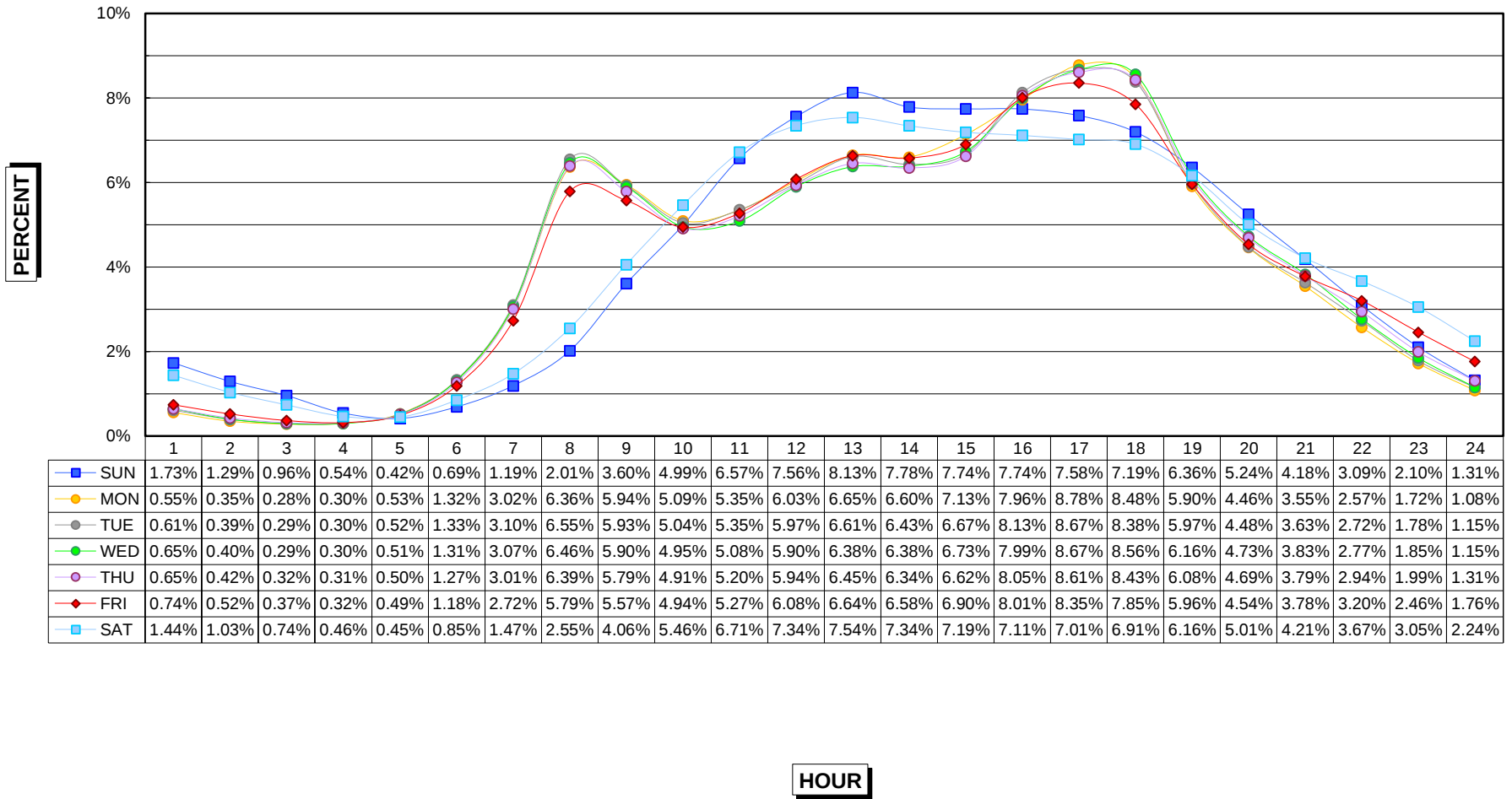
HOURLY DISTRIBUTION OF DAILY TRAFFIC 2019 MUNICIPAL INTERSTATE



HOURLY DISTRIBUTION OF DAILY TRAFFIC 2019 MUNICIPAL PRIMARY



HOURLY DISTRIBUTION OF DAILY TRAFFIC 2019 MUNICIPAL STREETS



SUMMARY OF ANALYSIS

Analysis of the Thirtieth Highest Hour at the Permanent Continuous Automatic Traffic Recorder Stations 2010 - 2019

Permanent automatic traffic recorder data is collected on a continuing basis in Iowa to facilitate the expansion of the short-time manual and portable recorder traffic counts to Annual Average Daily Traffic and to make possible a means of estimating design hour volumes from the Annual Average Daily Traffic. A record of the 50 highest hourly volumes at each rural automatic recorder station has been kept since 1949 and at each urban station since 1959, making possible the fitting of first degree curves to desired design hours periodically as the data has been accumulated.

From permanent automatic traffic recorder data a straight-line relationship between the design hour volume and the Annual Average Daily Traffic can be expressed mathematically as:

$$Y = a + bx$$

Where Y = nth high hour volume (design hour)

x = Annual Average Daily Traffic

a = A constant of minimum relationship

b = The slope relationship which can be expressed as a percentage of the Annual Average Daily Traffic

The constant "a" and the relationship "b" have been recomputed for the 30th highest hour as the data for each succeeding year has become available. Table 1 shows the 30th high hour results computed from data collected over a ten-year period, 2010 through 2019.

Table 1

Calculations of Design Hour Volumes (30th high hour) From Annual Average Daily Traffic

	PRIMARY		INTERSTATE		SECONDARY		CITY STREET	
	"a" Constant	"b" %AADT	"a" Constant	"b" %AADT	"a" Constant	"b" %AADT	"a" Constant	"b" %AADT
Rural	16.11	10.77	396.35	9.63	3.82	12.50	-	-
Municipal	-9.38	10.86	-3.11	10.71	-	-	48.12	10.07

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019

RURAL INTERSTATE

STATION	ROUTE	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
100	I 29	2.0 MI N OF S JCT I 680 HONEY CREEK	20170	20593	NONE	19730	19907	20696	21770	22259	NONE	22409	NONE
102	I 29	7.0 MI S OF US 34 PACIFIC JCT	11761	11868	NONE	12008	12337	13563	13530	13780	14226	14056	NONE
103	I 80	1.0 MI W OF US 63 GRINNELL	26234	26569	26045	26046	26235	26523	27320	28119	28598	28661	28414
104	I 35	3.0 MI N OF IA 175 JEWELL	20509	NONE	21248	21437	21726	21775	22963	23783	24342	24452	24908
105	I 29	3.8 MI S OF IA 175 ONAWA	12512	12791	NONE	12587	12667	13150	14096	14350	14694	14635	NONE
106	I 35	1.5 MI N OF IA 2 LEON	12715	12786	12783	12699	NONE	NONE	13661	14115	14246	14279	14590
109	I 35	3.0 MI N OF CO B20 HANLONTOWN	18757	19118	19192	19254	19184	19324	20097	20923	21338	NONE	21581
110	I 80	1.5 MI W OF CO M16 SHELBY	22189	22950	NONE	NONE	23070	23517	24441	25519	25906	24920	24999
111	I 80	2.0 MI E OF IA 149 WILLIAMSBURG	29950	NONE	NONE	NONE	30642	31210	32352	33298	33865	33735	33414
113	I 380	1.5 MI N OF IA 150 BRANDON	15084	15665	15796	15905	15937	16186	16741	17520	17658	17645	17725
115	I 80	2.0 MI E OF US 71 ATLANTIC	19067	19879	19661	19740	19821	20113	21331	22176	22541	22190	21747
119	I 80	1.5 MI E OF MIDDLE RD LECLAIRE	27398	NONE	29604	29978	29000	30825	32582	NONE	NONE	NONE	NONE
120	I 80	2.5 MI E OF CO RD X40 TIPTON	31386	32327	NONE	31963	32640	33523	NONE	NONE	36095	36266	36045
121	I 35	2.0 MI N OF CO RD R75 DOWS	13822	NONE	14291	14270	14195	14506	15227	15730	15995	16050	16060
122	I 35	1.0 MI N OF IA 92 CUMMING	21339	21205	21105	21087	21044	NONE	NONE	21974	22577	23321	23792
123	I 80	4.8 MI E OF E JCT US 65 MITCHELLVILLE		35329	35061	35253	34996	NONE	NONE	NONE	NONE	NONE	NONE
124	I 680	6.4 MI W OF I 80 BEEBEETOWN		6196	NONE	5947	5913	6039	6311	NONE	NONE	NONE	NONE
126	I 29	9.0 MI S OF IA 2									14507	14520	NONE

2019 EXPANSION FACTORS

RURAL INTERSTATE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.292	1.240	1.037	1.007	0.914	0.864	0.860	0.857	0.949	0.960	1.006	1.073
Sunday	1.042	1.079	0.949	0.955	0.968	0.935	0.904	0.917	0.958	0.910	1.003	1.064
Monday	1.096	1.049	1.141	1.066	1.074	1.096	1.084	1.118	1.048	1.109	1.136	1.142
Tuesday	1.064	1.064	1.114	1.108	1.161	1.135	1.132	1.144	1.132	1.153	1.076	1.067
Wednesday	1.013	1.019	1.048	1.089	1.104	1.073	1.075	1.085	1.098	1.099	0.976	1.016
Thursday	0.979	0.959	0.984	0.974	0.987	0.989	1.021	1.000	1.015	1.004	1.033	0.969
Friday	0.836	0.833	0.816	0.822	0.805	0.831	0.861	0.832	0.826	0.813	0.875	0.829
Saturday	1.026	1.060	1.037	1.065	0.999	1.020	0.995	0.996	1.004	1.019	0.957	0.984

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019

MUNICIPAL INTERSTATE

STATION	ROUTE	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
701	I 380	BTWN WILSON AND 33RD CEDAR RAPIDS	65296	66377	66597	66619	66629	67456	69639	71681	NONE	73258	71146
703	I 380	AT J AVE S OF COLDSTREAM CEDAR RAPIDS	80465	84299	82907	82911	82286	83915	85038	81120	NONE	88560	86233
704	I 29/80	0.6 MI W OF IA 192 COUNCIL BLUFFS	75586	75988	NONE	75521	NONE	NONE	NONE	NONE	NONE	NONE	NONE
705	I 74	0.6 MI S OF US 6 BETTENDORF	47738	NONE	45756	47653	49404	49577	NONE	NONE	52108	NONE	NONE
707	I 29	AT SOUTH DAKOTA BORDER SIOUX CITY	28175	SITE REMOVED JANUARY 2010									
708	I 280	0.3 MI S OF IA 22 DAVENPORT		NONE	19943	NONE	NONE	NONE	NONE	NONE	24970	23577	NONE
709	I 35	N OF ORALABOR ROAD ANKENY		NONE	59603	57945	60027	62687	NONE	65440	66343	67231	66246
710	I 235	E. INNERLEG OF 35TH ST WEST DES MOINES		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
711	I 235	S OF GUTHRIE AVENUE DES MOINES		66548	64950	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
712	I 235	E OF SECOND AVENUE DES MOINES		NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
713	I 35/80	E OF MERLE HAY ROAD DES MOINES		NONE	NONE	SITE REMOVED MARCH 2012							
714	I 235	0.7 MI N OF EUCLID AVENUE DES MOINES					NONE	65417	68332	72475	74926	75741	75688
715	I 29	1.5 MI E OF IA 12 SIOUX CITY							33150	NONE	NONE	36099	NONE
716	I 35/80	0.8 MI W OF IA 415 DES MOINES								NONE	NONE	100804	99952
717	I 380	1.0 MI W OF EVANS DALE DR EVANS DALE								NONE	NONE	33972	33819
116	I 80	0.8 MI W OF 74TH ST WAUKEE	34437	35427	35272	35527	NONE	NONE	39315	45973	48840	50147	50360
117	I 80	1.8 MI E OF E JCT I 35/80/235 ALTOONA	69757	72678	73105	74017	74863	75290	NONE	77337	NONE	86136	87038
125	I 380	6.0 MI N OF I 80 NORTH LIBERTY			NONE	48518	49835	51703	53335	NONE	56073	57112	56200

2019 EXPANSION FACTORS

MUNICIPAL INTERSTATE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.155	1.104	1.019	0.971	0.952	0.928	0.958	0.938	0.982	0.976	1.019	1.081
Sunday	1.414	1.457	1.325	1.336	1.298	1.300	1.246	1.254	1.278	1.283	1.358	1.368
Monday	1.036	0.983	0.998	0.976	1.058	0.983	0.970	1.000	1.049	0.993	0.983	1.019
Tuesday	0.963	0.958	0.953	0.957	0.969	0.963	0.979	0.977	0.968	0.979	0.933	0.974
Wednesday	0.913	0.939	0.929	0.962	0.946	0.950	0.964	0.951	0.950	0.954	0.905	0.938
Thursday	0.895	0.901	0.919	0.909	0.901	0.921	0.946	0.928	0.919	0.922	0.970	0.896
Friday	0.822	0.841	0.847	0.855	0.848	0.865	0.869	0.865	0.842	0.849	0.880	0.850
Saturday	1.173	1.138	1.196	1.162	1.121	1.155	1.133	1.136	1.128	1.159	1.130	1.125

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019

RURAL PRIMARY

STATION	ROUTE	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
201	US 65	2.7 MI N OF IA 3 HAMPTON	2824	NONE	2786	2814	2832	2879	2881	2937	3009	2941	2947
202	US 71	2.0 MI N OF IA 44 HAMLIN	3393	3537	NONE	3505	NONE	NONE	NONE	NONE	3363	3369	3413
204	US 75	1.3 MI N OF CO C60 HINTON	12671	12918	NONE	12953	12985	13148	13820	14353	14378	14519	14412
205	US 218	2.7 MI S OF IA 78 SWEDSBURG	11484	11812	11809	11768	11798	12074	12816	13208	13444	13397	13362
206	US 30	AT BOONE/STORY CO LINE NAPIER	13356	13578	NONE	13930	14076	14583	14913	15538	NONE	15412	15408
207	US 18	2.2 MI E OF US 169 ALGONA	3326	3377	3402	3444	3460	3361	3425	3372	3340	3322	3288
208	US 6	3.0 MI E OF CO V66 MARENGO	3153	3256	NONE	3202	NONE	3181	3325	3441	3455	3416	3296
209	US 67	1.5 MI S OF CO F45 PRINCETON	4132	NONE	4264	4286	4207	4087	4106	4173	4092	4078	4901
210	US 18	4.2 MI E OF IA 60 SHELTON	4120	4213	4109	4207	4178	4077	4272	4365	NONE	4033	4162
212	IA 92	0.6 MI W OF CO V45 SIGOURNEY	2602	2632	2570	NONE	2445	2501	2560	NONE	NONE	2524	2499
213	US 30	1.8 MI E OF US 65 COLO	5047	NONE	NONE	5719	5872	6248	6587	6891	6999	7117	7094
214	US 61	3.8 MI N OF US 34 BURLINGTON	6814	6635	6520	6592	6612	6690	6882	6977	6804	6888	6758
216	US 34/169	2.5 MI E OF W JCT US 169 AFTON	3665	3870	3864	3845	3701	3661	3708	3688	3657	3671	3643
217	IA 122	2.5 MI E OF I 35 CLEAR LAKE	14489	NONE	13763	13740	13508	13582	13712	NONE	14190	13630	13594
218	IA 44	0.2 MI W OF US 169 ADEL	3406	3457	3476	3559	3458	3561	NONE	3781	3893	3813	3834
219	US 34	1.0 MI W OF I 35 OSCEOLA	4624	4711	4725	4792	4674	4589	4641	4682	4700	4729	4762
220	US 52	1.0 MI NW OF US 18 POSTVILLE	1609	1676	1616	1614	NONE	1516	NONE	NONE	1561	1538	1515
221	IA 9	2.5 MI W OF CO N52 ARMSTRONG	1631	NONE	NONE	1657	NONE	1613	1627	1614	1645	1595	1622
222	IA 3	0.1 MI W OF CO P66 HUMBOLDT	1793	1917	2004	NONE	1732	NONE	NONE	NONE	2011	NONE	1900
223	IA 48	4.0 MI S OF IA 92 GRISWOLD	1164	1190	1199	1225	1218	1212	1213	1215	1240	1254	1245
224	US 59	0.5 MI S OF CO F16 DEFIANCE	2590	2638	NONE	2656	2623	2642	2696	2820	2788	2724	2777
226	US 18	3.8 MI E OF CO W14 WEST UNION	2291	2269	NONE	NONE	2501	2425	2489	NONE	2470	2482	2491
228	IA 117	2.5 MI S OF US 65 MINGO	993	951	NONE	NONE	NONE	847	933	NONE	1000	956	908
229	IA 78	1.2 MI W OF CO X23 WINFIELD	748	750	761	NONE	765	781	772	802	795	767	793
230	US 169	3.5 MI S OF S JCT IA 92 WINTERSET	1651	1686	1657	1677	1631	NONE	1669	1754	1768	1736	1667
231	IA 148	9.3 MI N OF IA 92 ANITA	763	NONE	NONE	NONE	NONE	818	853	883	889	897	927
233	IA 110	1.5 MI S OF CO C65 SCHALLER	1306	NONE	NONE	1331	1293	1322	1307	1331	NONE	1285	1440
234	IA 12	2.5 MI N OF CO K18 AKRON	1277	1342	NONE	1287	1224	1248	1244	1306	1295	1248	1261
235	IA 143	3.4 MI S OF IA 10 MARCUS	746	785	NONE	NONE	889	894	NONE	NONE	1047	1036	1067
236	IA 196	3.0 MI S OF US 20 SAC CITY	1131	1169	NONE	1133	1150	1186	NONE	NONE	1653	1697	1735
238	IA 149	2.1 MI N OF IA 78 MARTINSBURG	1102	1180	1164	NONE	1196	1154	1224	1234	1223	1204	1248
240	IA 2	3.0 MI E OF US 275 SIDNEY	1772	1899	NONE	1872	1862	1948	1947	1978	2040	2008	1907
241	IA 13	5.0 MI S OF US 20 RYAN	4069	4270	4142	4184	4205	4226	4340	4448	4537	4529	4576
242	US 61	3.8 MI N OF CO F41 ELDRIDGE	16374	16748	16530	16678	16651	16718	17300	17808	18285	18118	18059
243	US 30	0.3 MI E OF CO Z24 DEWITT	9678	9841	9704	NONE	NONE	NONE	NONE	9869	10134	10066	10029
244	IA 1	0.8 MI S OF CO F67 KALONA	5694	5566	5493	5535	5473	NONE	NONE	5773	5718	5872	5960
245	US 20	1.5 MI E OF CO V62 JESUP	10789	11025	11052	NONE	9964	10566	10976	NONE	11023	11035	10897
246	IA 141	1.0 MI E OF WILLIS AVE PERRY	9478	9556	9256	9581	9239	9332	NONE	9996	10586	10323	10102
247	US 20	1.9 MI E OF E JCT IA 17 WEBSTER CITY	7834	NONE	NONE	NONE	8211	8828	9134	9325	9515	9760	10393
248	IA 21	2.8 MI N OF US 6 BELLE PLAINE	1135	1148	1159	1163	1145	1108	1162	1211	1185	1154	1150
249	US 218	4.3 MI S OF IA 1 HILLS	19548	19804	19698	19594	19810	20472	20683	21112	21103	21326	21406
252	US 18/63	0.5 MI S OF CO B54 NEW HAMPTON	4909	5091	5099	5175	5225	5396	5624	5749	5860	5938	5997
253	US 218	3.5 MI S OF CO T64 CHARLES CITY	8643	NONE	9123	9218	9044	9074	9395	9678	9908	9942	9594
254	IA 60	4.1 MI N OF IA 9 SIBLEY	3296	3378	NONE	NONE	3268	3484	3725	NONE	NONE	4161	4147
255	US 20	1.0 MI E OF US 65 IOWA FALLS	8335	8548	8497	8608	8730	8859	9144	9216	9243	9332	9555
256	US 18	3.3 MI E OF I 35 MASON CITY	7612	7878	7911	8029	7975	7901	8242	NONE	8905	8872	8555
257	US 20	3.6 MI W OF W JCT US 59 HOLSTEIN	2926	2954	NONE	3022	NONE	NONE	3609	NONE	NONE	NONE	5213
258	US 30	0.6 MI E OF CO V66 BLAIRSTOWN	NONE	NONE	NONE	6553	6630	6876	7461	7789	7993	7995	7990
259	US 30	3.5 MI E OF IA 1 LISBON	5610	5753	5739	5812	5584	5598	5792	5978	5969	5893	5893
260	US 71	0.6 MI S OF CO J64 BRADYVILLE	2301	2377	NONE	2404	2346	NONE	NONE	2416	2425	2260	2266
261	US 169	2.3 MI N OF CO D14 FORT DODGE	5389	NONE	NONE	NONE	5604	5679	5790	6015	6001	5861	5772
262	US 63	1.6 MI S OF IA 2 BLOOMFIELD	2288	2318	2253	2225	2218	2255	2297	2305	2277	2231	2103
263	US 52	0.3 MI E OF CO X47 GARNAVILLE	2267	NONE	NONE	2382	2400	2409	2452	2484	2502	2563	2394
264	IA 27	3.0 MI S OF CO W62 ARGYLE	5079	5402	5651	5797	5891	NONE	NONE	6745	6741	6738	6443
265	US 61	1.0 MI N OF CO E17 MAQUOKETA	7236	7475	7444	7537	NONE	NONE	NONE	8097	8351	8317	8233
266	IA 2	0.8 MI W OF US 63 WEST GROVE	1535	1596	1550	1557	1559	1619	1715	1772	1825	1829	1800
267	US 34	3.0 MI W OF US 59 EMERSON	4380	4476	NONE	4421	4225	4162	4308	4580	4589	4522	NONE
268	US 30	4.0 MI SW OF CO M14 DOW CITY	3022	NONE	NONE	2995	3028	3064	3143	3180	3201	3155	3018
269	US 30	3.6 MI E OF IA 144 GRAND JUNCTION	4320	4359	4343	4384	4196	4272	4466	4548	NONE	4293	4323
270	US 71	3.1 MI S OF IA 3 STORM LAKE	2441	2594	NONE	2685	2833	3010	3058	NONE	NONE	3056	3049
271	US 18	4.3 MI E OF IA 4 ENNETSBURG	3218	3386	3233	3347	3283	3120	3084	3080	2997	2903	2948
272	US 71	5.2 MI S OF W JCT US 6 ATLANTIC	2228	NONE	NONE	2330	2253	2294	2354	2405	2401	2272	2308
273	US 34	3.6 MI E OF CO RD S56 RUSSELL	2109	2073	2070	2116	2047	2123	2222	2229	2230	2169	2124
274	IA 163	2.6 MI NW OF CO RD G28 PELLA	10331	10795	10858	11056	11215	NONE	11927	12341	12511	12526	12773
275	US 20	0.5 MI W OF CENTER AVE EPWORTH	12096	12376	12573	12661	12652	12696	13205	13479	13866	13867	14222
276	US 63	1.5 MI N OF IA 9 LIME SPRINGS	2870	2961	2920	2903	3016	3096	3169	3281	3248	3351	3474
277	US 34	1.1 MI E OF IA 16 AGENCY	7804	7792	7883	8047	8085	8380	8562	9117	9096	9001	8824
279	IA 13	1.5 MI N OF CO RD C64 DUNDEE	2311	2344	2305	2349	2358	2361	2395	2488	2453	2403	2402
280	IA 2	2.0 MI W OF I 35 LEON	1303	NONE	NONE	1262	1232	1274	1299	1326	1334	1353	1343
281	US 151	4.4 MI S OF IA 38 MONTICELLO	10635	10625	10807	10940	11122	11609	11994	12178	12203	12136	
282	US 52	9.5 MI S OF IA 62 BELLEVUE	NONE	842	842	799	824	NONE	NONE	888	851	710	783
283	US 61/218	0.8 MI S OF N JCT US 61/218 KEOKUK	7810	7666	8009	8004	8257	8684	8730	8422	8187	8210	
284	IA 9	1.0 MI W OF 6TH STREET LANSING	2163	NONE	2010	1939	1970	2066	2006	1978	1913	1981	
285	US 20	1.3 MI E OF IA 4 ROCKWELL CITY		NONE	3407	4745	5444	5952	6112	6110	6392	7265	
286	US 34	2.0 MI W OF I 29 GLENWOOD							6554	6675	7187	NONE	
287	US 20	0.6 MI E OF US 75 LAWTON							11584	12266	12045	13248	
288	US 63	0.5 MI S OF IA 163 OSKALOOSA									NONE	12591	
289	US 61	3.3 MI N OF E JCT IA 22 & IA 38 MUSCATINE									NONE	11800	

2019 EXPANSION FACTORS

RURAL PRIMARY

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.203	1.147	1.043	0.979	0.919	0.900	0.919	0.918	0.942	0.951	1.009	1.063
Sunday	1.381	1.432	1.291	1.277	1.211	1.204	1.187	1.202	1.235	1.236	1.324	1.342
Monday	1.054	0.980	1.016	0.984	1.057	1.004	0.993	1.022	1.037	1.007	0.998	1.020
Tuesday	1.001	0.966	0.984	0.981	1.016	1.003	1.002	1.009	0.993	1.010	0.962	0.975
Wednesday	0.955	0.947	0.946	1.006	0.995	0.983	0.987	0.985	0.992	0.992	0.939	0.957
Thursday	0.913	0.921	0.935	0.927	0.940	0.950	0.964	0.952	0.949	0.946	0.973	0.918
Friday	0.812	0.848	0.838	0.849	0.840	0.859	0.864	0.845	0.833	0.841	0.867	0.843
Saturday	1.074	1.113	1.140	1.112	1.038	1.088	1.086	1.088	1.079	1.092	1.076	1.101

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019

MUNICIPAL PRIMARY

STATION	ROUTE	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
802	US 71	W OF MEMPHIS AVE SPIRIT LAKE	11961	11827	11701	11723	11777	12076	11714	11665	11507	12385	11380
803	IA 12	ON VIADUCT E OF COURT ST SIOUX CITY	NONE	NONE	22563	NONE	20642	NONE	NONE	NONE	NONE	NONE	NONE
804	IA 4	N OF 4TH AVE NW POCAHONTAS	2868	2965	3246	3290	3091	3094	3177	3229	3257	3242	3091
805	IA 148	S OF 11TH ST CORNING	2867	2811	2797	2802	2637	2711	2720	2758	2620	2692	2567
806	US 6	E OF SHASTA WINDSOR HEIGHTS	19481	NONE	NONE	18681	19223	18151	18610	18621	NONE	17937	17661
808	US 71	S OF BIRCH ST AUDUBON	4769	NONE	NONE	4675	4601	4567	4545	NONE	NONE	4346	4314
809	IA 14	N OF WOODLAND ST MARSHALLTOWN	6119	6228	6000	5836	5746	5641	5648	NONE	NONE	5517	5482
810	IA 92	W OF N ST INDIANOLA	11024	11061	11036	11047	10985	11251	NONE	NONE	NONE	11457	11025
812	IA 122	W OF VIRGINIA AVE MASON CITY	12186	11450	11754	11469	10842	10768	10542	10542	10238	NONE	NONE
813	US 6	E OF PINE ST DAVENPORT	21312	21935	21137	22050	20189	19925	NONE	20323	NONE	18872	NONE
815	IA 922	BTWN WILEY BLVD & WESTDALE CDR RPDS	10812	10940	10658	NONE	NONE	NONE	10989	11355	11637	11684	11485
816	US 34	W OF US 61 WEST BURLINGTON	13168	13671	13076	13173	12909	NONE	NONE	NONE	NONE	14325	14745
819	IA 9	EAST OF 14TH ST OSAGE	5237	5262	NONE	5207	5200	5244	5080	4946	NONE	4965	4803
820	IA 17	N OF NW 11TH ST EAGLE GROVE	2722	2832	2898	2810	2891	NONE	NONE	2870	2901	NONE	2830
821	IA 4	S OF EDGEWOOD AVE E JEFFERSON	4154	4138	3995	NONE	3832	3923	4093	4170	4139	4212	4055
823	US 6	BETWEEN SYCAMORE & 1ST AVE IOWA CITY	20652	20543	20148	NONE	NONE	NONE	19998	20069	20967	21289	21318
824	US 69	BETWEEN 15TH AND 16TH ST AMES	17318	18148	17567	NONE	17619	17298	17323	NONE	17099	17307	16806
826	US 65	1.5 MI NE OF I-80 BONDURANT	12272	12608	12446	NONE	12817	12625	NONE	14483	14796	14868	15106
827	US 61/151	W OF MISSISSIPPI R DUBUQUE	20744	21554	21609	21611	21381	21990	22069	22344	22726	22881	22104
828	IA 150	S OF 12TH ST OELWEIN	6461	6550	6490	6354	6305	6196	6198	6167	6195	6206	6090
829	US 59	S OF 5TH AVE SHENANDOAH	8694	8819					SITE REMOVED JUNE 2011				
830	IA 23	S OF IA 92 OSKALOOSA	2871	2866	2808	2794	2742	NONE	2789	NONE	2656	2584	2578
831	IA 5	W OF FLUER DRIVE DES MOINES		NONE	23086	22771	22572	23262	NONE	NONE	29065	28024	28579
250	US 65	2.1 MI N OF IA 163 PLEASANT HILL	24223	24789	24953	25083	25034	25599	27101	28598	29994	30739	31061
278	IA 141	0.5 MI N OF IA 44 GRIMES	20594	20395	20906	21762	21702	21922	23410	NONE	25970	27110	28395

2019 EXPANSION FACTORS

MUNICIPAL PRIMARY

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.162	1.106	1.038	0.968	0.919	0.911	0.932	0.946	0.967	0.976	1.027	1.058
Sunday	1.404	1.446	1.354	1.381	1.281	1.308	1.294	1.342	1.341	1.350	1.405	1.395
Monday	1.029	0.974	0.990	0.972	1.056	0.988	0.956	0.990	1.042	0.979	0.958	0.996
Tuesday	0.985	0.962	0.963	0.960	0.979	0.965	0.965	0.966	0.956	0.968	0.923	0.967
Wednesday	0.935	0.930	0.933	0.968	0.960	0.959	0.963	0.948	0.944	0.947	0.912	0.947
Thursday	0.907	0.919	0.923	0.920	0.924	0.937	0.951	0.929	0.918	0.928	0.988	0.908
Friday	0.825	0.864	0.858	0.863	0.858	0.876	0.878	0.866	0.846	0.857	0.879	0.848
Saturday	1.111	1.099	1.139	1.096	1.058	1.092	1.113	1.109	1.109	1.122	1.109	1.117

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019

SECONDARY

PAVED

STATION	ROUTE	LOCATION
300	CO P14	2.7 MI N OF CO E33 CHURDAN
301	CO S14	0.8 MI S OF CO E29 NEVADA
302	CO M55	0.2 MI N OF IA 141 MANILLA
303	CO K45	2.3 MI S OF IA 175 ONAWA
304	CO V45	3.5 MI N OF IA 92 SIGOURNEY
306	CO E53	1.8 MI E OF IA 25 SCRANTON
307	CO R38	2.2 MI N OF CO C54 CLARION
308	CO N32	1.6 MI N OF IA 9 ESTHERVILLE
309	CO K52	1.5 MI S OF US 18 HULL
310	CO Y52	1.5 MI S OF US 30 GRAND MOUND
311	CO W12	3.5 MI S OF US 30 WATKINS
312	CO E26	2.7 MI W OF CO RD R38 BOONE
313	CO D42	0.2 MI E OF IA 13 MANCHESTER
314	CO 105	1.3 MI E OF CO S56 NORTHWOOD
315	CO RD	5.5 MI E OF US 63 DRAKESVILLE
316	CO D36	2.8 MI E OF CO N57 ROCKWELL CITY

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
247	239	234	268	237	241	238	247	NONE	258	253
973	958	988	988	965	967	969	992	1009	989	960
736	739	777	798	787	793	804	818	NONE	763	778
1152	NONE	NONE	NONE	1162	1155	NONE	1120	1105	1051	1100
636	665	652	NONE	646	631	636	643	663	671	670
544	NONE	NONE	524	497	507	530	539	NONE	526	518
1240	1278	NONE	1339	1379	NONE	NONE	1421	1398	1376	1332
357	NONE	344	NONE	323	NONE	340	NONE	NONE	348	329
1063	NONE	1149	1178	1228	1249	NONE	1379	NONE	1415	1423
501	NONE	502	498	NONE	NONE	NONE	507	509	505	509
825	NONE	804	799	773	744	756	799	799	818	831
1269	1395	NONE	1525	NONE	1481	1525	1630	NONE	1714	1717
691	702	630	612	623	679	699	756	783	769	770
778	800	767	744	737	731	772	754	NONE	708	683
676	675	665	682	666	665	679	691	NONE	768	678
3155	3292	1201	1157	1014	974	949	NONE	NONE	929	947

Note: Station 316 was previously station 211.

Co Rd D36 was US 20 until Dec. 2010 when the US 20 4-lane was extended from Moorland to IA 4.

GRAVEL

STATION	ROUTE	LOCATION
400	CO B30	0.5 MI E OF CO L48 PRIMGHAR
401	LOC RD	1.8 MI N OF CO E36 CLUTIER
402	LOC RD	0.8 MI E OF CO V18 CLUTIER
403	CO H47	5.0 MI SE OF US 34 ALBIA
405	LOC RD	2.5 MI N OF US 18 NEW HAMPTON
406	LOC RD	2.0 MI E OF US 169 LORIMOR
407	CO H23	2.0 MI E OF US 169 LORIMOR

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
23	21	23	18	22	22	22	NONE	20	21	22
30	36	36	39	34	35	NONE	NONE	30	29	27
47	51	55	54	47	48	46	NONE	NONE	37	42
98	89	92	104	100	NONE	100	99	102	93	89
48	46	48	51	49	57	NONE	65	NONE	66	59
63	62	57	NONE	70	68	69	59	59	56	55
70	75	66	76	77	75	72	67	70	65	64

2019 EXPANSION FACTORS

SECONDARY

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.265	1.251	1.143	0.979	0.897	0.915	0.958	0.982	0.948	0.895	0.955	1.083
Sunday	1.412	1.427	1.387	1.354	1.306	1.349	1.344	1.369	1.317	1.331	1.385	1.394
Monday	1.044	0.979	0.986	0.944	1.021	0.951	0.925	0.978	1.042	0.990	0.964	0.980
Tuesday	0.989	0.950	0.952	0.956	0.960	0.951	0.940	0.943	0.958	0.960	0.925	0.973
Wednesday	0.924	0.939	0.912	0.975	0.963	0.959	0.939	0.940	0.963	0.921	0.932	0.940
Thursday	0.915	0.919	0.922	0.919	0.937	0.928	0.946	0.929	0.913	0.935	0.977	0.920
Friday	0.827	0.891	0.876	0.914	0.901	0.909	0.922	0.895	0.865	0.917	0.902	0.865
Saturday	1.100	1.100	1.159	1.106	1.071	1.113	1.145	1.126	1.108	1.101	1.082	1.125

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019 MUNICIPAL STREETS

STATION	ROUTE	LOCATION	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
900	LAKE ST	N OF 3RD ST in STORM LAKE	2848	2811	NONE	2610	2587	2556	2616	2662	2570	2454	2437
901	2ND AVE N	E OF 15TH ST in FORT DODGE	6665	6728	6620	6444	6024	NONE	NONE	NONE	NONE	6243	6152
902	LOCUST ST	E OF SPRING ST in DAVENPORT	20726	20521	NONE	NONE	20336	19630	20177	19332	19515	18481	17935
903	JEFFERSON	NE OF E 5TH ST in OTTUMWA	6006	5694	NONE	5699	5628	NONE	5329	NONE	NONE	4367	NONE
904	JOHNSON	W OF JANICE DR in CEDAR RAPIDS	9818	9613	9391	9258	9057	8931	NONE	NONE	NONE	NONE	NONE
905	N'WESTERN	N OF 20TH ST in AMES	2264	NONE	2193	NONE	2211	2178	NONE	NONE	2131	2118	2117
906	DUBUQUE	S OF DAVENPORT ST in IOWA CITY	14411	14245	13859	13518	NONE	12861	13339	NONE	NONE	NONE	12357
907	COLLEGE	S OF 23RD ST in CEDAR FALLS	NONE	NONE	7974	NONE	NONE	7410	7323	7177	7341	7195	7163
908	LIND'WOOD	S OF 35TH ST in SIOUX CITY	977	954	976	960	NONE	NONE	NONE	904	874	784	8810
909	HAMILTON	N OF CLIFTON AVE in SIOUX CITY	14159	14586	14388	14584	NONE	13719	14701	15289	15446	15197	14956
910	GRANDVIEW	SE OF PLYMOUTH CT in DUBUQUE	8871	8946	8917	8833	8411	7983	8465	NONE	8541	8453	8583
911	HUMBOLDT	S OF 4TH ST in BODE	770	767	739	NONE	684	695	665	660	673	696	675
912	ELM ST	N OF LUCAS ST in CRESTON	3807	3782	3802	3735	3550	NONE	3364	3440	3310	3212	3080
913	WASHINGTON	E OF HARRISON ST in MOUNT PLEASANT	10161	SITE REMOVED SEPTEMBER 2010									
* 914	16TH ST	S OF AVE N in COUNCIL BLUFFS	9057	8718	NONE	6004	5949	6208	9535	10236	10880	10876	10829

Note: Station 914 was previously station 811
16th Street was IA 192 until 2016 when it was transferred to the city of Council Bluffs.

2019 EXPANSION FACTORS MUNICIPAL STREETS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.130	1.065	1.020	0.966	0.947	0.981	1.009	0.971	0.956	0.940	1.020	1.064
Sunday	1.382	1.419	1.368	1.356	1.321	1.311	1.304	1.301	1.320	1.328	1.360	1.353
Monday	1.016	0.976	0.961	0.957	1.047	0.983	0.954	0.971	1.032	0.978	0.941	0.987
Tuesday	0.975	0.929	0.953	0.947	0.957	0.950	0.939	0.953	0.938	0.952	0.918	0.956
Wednesday	0.935	0.920	0.916	0.965	0.938	0.958	0.957	0.944	0.932	0.931	0.916	0.948
Thursday	0.900	0.933	0.927	0.924	0.913	0.937	0.952	0.936	0.925	0.931	0.984	0.920
Friday	0.847	0.881	0.876	0.882	0.871	0.886	0.898	0.890	0.865	0.887	0.904	0.867
Saturday	1.137	1.142	1.193	1.125	1.099	1.112	1.120	1.139	1.141	1.132	1.138	1.131

ANNUAL AVERAGE DAILY TRAFFIC BY STATIONS FOR THE YEARS 2009 TO 2019

RECREATIONAL

PRIMARY

STATION	ROUTE	LOCATION
500	US 71	0.1 MI S OF CO RD B14 FOSTORIA
501	IA 5	3.8 MI S OF US 34 MORAVIA
503	IA 415	0.5 MI W OF NW POLK CITY RD POLK CITY

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
8067	8213	8250	NONE	NONE	8284	8724	8741	8908	8867	8859
3922	3910	3801	3772	3711	3582	4041	4106	4112	4112	4122
6076	NONE	6130	6445	6697	NONE	7530	8418	8872	9185	9377

SECONDARY

STATION	ROUTE	LOCATION
600	CO F25	0.1 MI W OF CO P18 SPRINGBROOK
602	ENTRANCE	GEORGE WYTH S. P. WATERLOO
603	ENTRANCE	3.3 MI N OF IA 25 GREEN VALLEY S. P.

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
216	207	199	188	181	176	178	182	173	159	151
731	766	759	850	NONE	748	748	789	806	725	595
175	NONE	NONE	262	283	279	NONE	324	321	298	277

2019 EXPANSION FACTORS RECREATIONAL

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SEASONAL	1.676	1.570	1.398	1.024	0.803	0.725	0.722	0.810	0.877	1.119	1.532	1.595
Sunday	1.216	1.224	1.143	1.148	0.995	0.996	0.993	1.054	1.001	1.150	1.241	1.278
Monday	1.091	1.032	1.019	1.041	1.065	1.124	1.114	1.171	1.052	1.030	0.999	1.016
Tuesday	1.074	1.001	1.041	1.066	1.204	1.126	1.095	1.108	1.169	1.090	0.965	0.961
Wednesday	1.015	0.991	0.982	1.125	1.153	1.135	1.089	1.077	1.163	1.032	0.965	0.956
Thursday	0.986	1.033	0.976	1.034	1.043	1.039	1.033	1.033	1.076	0.990	1.006	0.959
Friday	0.881	0.925	0.929	0.904	0.884	0.897	0.912	0.877	0.898	0.885	0.913	0.911
Saturday	0.927	0.963	1.036	0.919	0.881	0.890	0.908	0.897	0.886	0.998	1.037	1.057

AUTOMATIC TRAFFIC RECORDER LOCATIONS

JANUARY 1, 2020

