

Rapid City Area  
Metropolitan Planning Organization

# 2013 TRAFFIC VOLUME COUNTS REPORT



*In cooperation with:*

City of Rapid City  
Engineering Services Division  
Public Works Department

**January 2014**

**TABLE OF CONTENTS**

INTRODUCTION/PURPOSE..... 1

DATA & METHODOLOGY..... 1

COMPARISON OF ANNUAL VOLUMES..... 2

PERMANENT COUNT STATIONS..... 2

TRAFFIC VOLUMES..... 3 - 6

## **INTRODUCTION/PURPOSE**

Traffic volume studies are conducted to obtain accurate information about the number and movement of vehicles within or through an area or at selected points within an area. Current and historical volume counts provide vital information that is used in operational evaluations, traffic modeling and in the selection and design of road network improvements. The general public and the business community also use this report to make more informed decisions. The Traffic Volume Counts Report is designated in the Rapid City Area Metropolitan Planning Organization's (MPO) Operations Plan as one of the transportation products to be presented to the MPO's three transportation process committees. This report is an informational document and as such does not require any formal approval process. Traffic volume information is presented for the years 2011 – 2013.

## **DATA & METHODOLOGY**

The Traffic Volume Counts Report presents the most recent three years of data collected by the City's Engineering Services Division - Public Works Department and the South Dakota Department of Transportation (SDDOT). Note that the identification of regular counting sites is a dynamic process and not every location may have associated with it three years of history. Volume information is also provided for all counts that were conducted in conjunction with other engineering studies.

- All volumes presented in this document are counts conducted over a 24 hour period that have been adjusted to account for seasonal variations. Seasonal adjustment factors for each year are developed using data from the South Dakota Department of Transportation's permanent count stations.
- Data provided by the City's Engineering Services Division - Public Works Department has been collected using portable traffic counters while the data provided by the SDDOT has been collected at permanent counting stations. The permanent stations count traffic volumes daily and provide a basis for determining the variation of traffic volumes throughout the year.
- In accordance with accepted traffic engineering protocol, volume counts were only conducted on Tuesdays, Wednesdays, or Thursdays. Mondays and Fridays do not generally represent typical weekdays due to the influence of higher numbers of people being absent from the workplace and a higher percentage of recreational travel.
- Volumes have not been factored to account for vehicles with more than two axles, i.e. trucks, certain recreational vehicles, vehicle/trailer combinations, etc. The actual vehicular volumes are generally lower than the published counts and can be determined if the percentage of vehicles with more than two axles is known. The correction factor is given by the formula  **$1.0 - 0.5 * \text{percentage of truck traffic}$** .

## ***COMPARISON OF ANNUAL VOLUMES***

The count summary includes the percent change between successive year's counts. A weighted average percent change is also calculated taking into consideration all of the counts. Extreme caution should be exercised when interpreting annual changes in volumes for the following reasons:

- Traffic volumes will vary on a particular section of roadway depending on the month the count was conducted or the day of the week of the count. Additionally, there is an inherent variability in traffic volumes due to factors that are not easily explained or quantified.
- Construction projects, on or adjacent to a section of road, can significantly alter traffic volumes.
- Traffic count reliability is directly related to the amount of data collected. The more counts taken at a particular location, the higher the accuracy of conclusions drawn from the data. A single volume provides a "snapshot" of traffic that traveled that roadway on that specific day. Trend analyses should most accurately be limited to using permanent count station data.

## ***PERMANENT COUNT STATIONS***

Data from the following five SDDOT permanent count stations are included in this report:

- 5th Street, north of St. Cloud Street
- Anamosa Street, east of Haines Avenue
- West Main Street, east of Jackson Boulevard
- I-90, east of the Elk Vale Road interchange
- I-90, east of I-190

ROAD	LIMITS	2011 SEASONALLY ADJUSTED COUNT	2012 SEASONALLY ADJUSTED COUNT	% Change 2011/2012	2013 SEASONALLY ADJUSTED COUNT	% Change 2012/2013
1ST ST	OMAHA TO MAIN	No Count	1,019		713	-30%
2ND ST	MAIN TO OMAHA	No Count	888		968	9%
3RD ST	MAIN TO OMAHA	No Count	2,970		2,109	-29%
5TH ST	PARKVIEW TO MINNESOTA	5,733	7,196	26%	7,732	7%
5TH ST	CATRON TO PARKIEW	4,586	6,472	41%	9,173	42%
5TH ST	MINNESOTA TO TEXAS	11,842	11,514	-3%	12,692	10%
5TH ST	TEXAS TO 3RD	12,054	15,620	30%	19,636	26%
5TH ST	3RD TO FAIRMONT	16,842	17,365	3%	19,548	13%
5TH ST	FAIRMONT TO ST PATRICK	17,415	19,065	9%	18,209	-4%
5TH ST	ST. PATRICK TO ST. CLOUD	18,123	19,448	7%	17,264	-11%
5TH ST	ST. CLOUD TO COLUMBUS	18,244	18,928	4%	17,074	-10%
5TH ST	COLUMBUS TO ST. JOSEPH	18,449	21,193	15%	20,762	-2%
5TH ST	ST JOSEPH TO MAIN	17,768	19,609	10%	16,598	-15%
5TH ST	MAIN TO OMAHA	17,259	19,558	13%	17,085	-13%
5TH ST	OMAHA TO NEW YORK	18,179	20,195	11%	17,905	-11%
5TH ST	NEW YORK TO NORTH	18,544	19,694	6%	17,014	-14%
32ND ST	JACKSON TO CANYON LAKE	5,252	5,644	7%	6,196	10%
44TH ST	RAIDER TO MAIN	3,638	4,583	26%	4,168	-9%
225TH ST	N ELLSWORTH TO BRIGGS	1,568	1,564	0%	1,684	8%
ANAMOSA ST	WEST BLVD N TO HAINES	5,585	5,378	-4%	5,424	1%
ANAMOSA ST	HAINES TO MAPLE	8,096	7,384	-9%	7,488	1%
ANAMOSA (E) ST	MAPLE TO LACROSSE	9,894	10,360	5%	10,047	-3%
ANAMOSA (E) ST	LACROSSE TO E. NORTH	No Count	2,472		4,096	66%
CAMBELL ST	CATRON TO MINNESOTA	12,987	14,549	12%	12,447	-14%
CAMBELL ST	MINNESOTA TO FAIRMONT	15,608	18,572	19%	17,372	-6%
CAMBELL ST	FAIRMONT TO ST PATRICK	21,064	23,386	11%	17,190	-26%
CAMBELL ST	ST PATRICK TO OMAHA	20,906	22,157	6%	20,576	-7%
CAMBELL (E) ST	OMAHA TO E NORTH	21,138	22,717	7%	22,411	-1%
CANYON LAKE DR	JACKSON TO CLIFTON	CONSTRUCTION	6,099		8,511	40%
CANYON LAKE DR	CLIFTON TO SOO SAN	CONSTRUCTION	7,671		8,633	13%
CANYON LAKE DR	SOO SAN TO SHERIDAN LAKE	11,350	10,187	-10%	14,977	47%
CANYON LAKE DR	SHERIDAN LAKE TO MTVIEW	11,718	10,949	-7%	16,368	49%
CATHEDRAL DR	MT RUSHMORE TO TOWER	13,773	14,566	6%	14,171	-3%
CATHEDRAL DR	TOWER TO 5TH	14,373	15,872	10%	15,650	-1%
CATRON BLVD	SHERIDAN LAKE TO US-16	8,896	11,019	24%	11,904	8%
CATRON BLVD	US-16 TO 5TH	CONSTRUCTION	10,590		14,343	35%
CATRON (E) BLVD	5TH TO SD-79	CONSTRUCTION	10,481		15,614	49%
COUNTRY RD	HAINES TO W NIKE	1,349	1,537	14%	1,508	-2%
CREEK (N) DR	ANAMOSA TO EGLIN ST	4,098	4,398	7%	4,180	-5%
DEADWOOD AVE	OMAHA TO LIEN	17,804	No Count		17,474	
DEADWOOD AVE	CEMENT PLANT TO LIEN	16,397	17,168	5%	16,783	-2%
DEADWOOD AVE	LIEN TO N PLAZA	12,531	13,023	4%	12,705	-2%
DEADWOOD AVE	N PLAZA TO I-90	14,419	15,084	5%	15,317	2%
DEADWOOD AVE	I-90 TO CITY LIMIT	3,369	3,658	9%	3,092	-15%
DISK DR	HAINES TO MAPLE	6,403	6,662	4%	6,453	-3%
DISK (E) DR	MAPLE TO LACROSSE	6,812	6,489	-5%	7,193	11%
DYESS AVE	MALL TO SEGER	3,449	3,865	12%	3,414	-12%
E NORTH ST	MILWAUKEE TO LACROSSE	16,562	11,794	-29%	13,838	17%
E NORTH ST	LACROSSE TO CAMBELL	17,640	13,072	-26%	14,537	11%
E NORTH ST	CAMBELL TO ANAMOSA	19,277	17,993	-7%	20,011	11%
E NORTH ST	ANAMOSA TO I-90	14,055	16,820	20%	16,183	-4%
EAST BLVD	KANSAS CITY TO ST JOSEPH	No Count	4,604		3,550	-23%
EAST BLVD	ST JOSEPH TO MAIN	8,096	8,847	9%	7,332	-17%
EAST BLVD	MAIN TO OMAHA	10,919	11,161	2%	9,800	-12%
EAST BLVD	OMAHA TO E NORTH	10,066	13,805	37%	13,124	-5%
EGLIN ST	LACROSSE TO LUNA	7,567	9,639	27%	7,772	-19%
EGLIN ST	LUNA TO E. NORTH	8,481	11,355	34%	11,801	4%
EGLIN ST	ANAMOSA TO BEALE	3,353	4,413	32%	5,716	30%
EGLIN ST	DYESS TO ELK VALE	2,945	4,298	46%	4,345	1%
ELK VALE RD	SD-79 TO SD-44	11,908	12,978	9%	15,758	21%
ELK VALE RD	SD-44 TO I-90	19,019	14,366	-24%	17,465	22%
ELK VALE RD	I-90 TO SEGER	2,471	2,551	3%	5,557	118%
FAIRMONT BLVD	5TH TO WISCONSIN	11,593	12,647	9%	12,734	1%
FAIRMONT (E) BLVD	WISCONSIN TO ELM	9,181	9,883	8%	9,732	-2%

ROAD	LIMITS	2011 SEASONALLY ADJUSTED COUNT	2012 SEASONALLY ADJUSTED COUNT	% Change 2011/2012	2013 SEASONALLY ADJUSTED COUNT	% Change 2012/2013
FAIRMONT(E) BLVD	ELM TO CAMBELL	8,333	8,340	0%	7,978	-4%
HAINES AVE	NORTH TO ANAMOSA	19,442	21,207	9%	19,140	-10%
HAINES AVE	ANAMOSA TO I-90	18,721	19,541	4%	18,981	-3%
HAINES AVE	I-90 TO DISK	24,746	26,792	8%	22,767	-15%
HAINES AVE	DISK TO MALL	16,005	18,126	13%	17,159	-5%
HAINES AVE	MALL TO COUNTRY	10,348	12,309	19%	13,285	8%
HAINES AVE	COUNTRY TO COBALT	6,022	5,448	-10%	5,745	5%
HAINES AVE	COBALT TO CITY LIMIT	1,902	2,184	15%	2,548	17%
HILLSVIEW DR	ST PATRICK TO RAIDER	3,025	3,896	29%	3,685	-5%
I-190	OMAHA TO SILVER	22,358	24,075	8%	24,075	0%
I-190	SILVER TO I-90	22,420	21,347	-5%	20,693	-3%
I-90	I-190 TO HAINES	33,353	35,880	8%	32,256	-10%
I-90	ELK VALE TO EAST CITY LIMIT	22,989	24,648	7%	22,782	-8%
JACKSON BLVD	CITY LIMIT TO CHAPEL LN	3,624	5,140	42%	4,829	-6%
JACKSON BLVD	CHAPEL LN TO CANYON LAKE	9,848	8,538	-13%	8,289	-3%
JACKSON BLVD	CANYON LAKE TO 32ND	12,165	13,296	9%	8,741	-34%
JACKSON BLVD	32ND TO SHERIDAN LAKE	15,932	15,226	-4%	CONSTRUCTION	
JACKSON BLVD	SHERIDAN LK TO MT VIEW (N)	23,830	26,629	12%	CONSTRUCTION	
JACKSON BLVD	MT VIEW (N) TO MAIN (W)	19,283	18,755	-3%	CONSTRUCTION	
LACROSSE (N) ST	OMAHA TO E NORTH	10,154	13,179	30%	10,112	-23%
LACROSSE (N) ST	E NORTH TO ANAMOSA	21,513	22,298	4%	18,994	-15%
LACROSSE (N) ST	ANAMOSA TO I-90	20,603	20,477	-1%	19,507	-5%
LACROSSE (N) ST	I-90 TO DISK	11,362	10,825	-5%	11,869	10%
LACROSSE (N) ST	DISK TO MALL	5,528	5,065	-8%	6,145	21%
LIBERTY BLVD	N ELLSWORTH TO I-90	2,940	2,760	-6%	2,867	4%
MAIN (W) ST	BERRY PINE TO 44TH	2,247	2,377	6%	2,422	2%
MAIN (W) ST	44TH TO SOO SAN	5,124	5,629	10%	5,157	-8%
MAIN (W) ST	SOO SAN TO STURGIS	10,874	12,085	11%	12,036	0%
MAIN (W) ST	STURGIS TO SHERIDAN LAKE	17,515	16,551	-6%	16,690	1%
MAIN (W) ST	SHERIDAN LAKE TO MTVIEW	21,091	21,837	4%	22,995	5%
MAIN (W) ST	MTVIEW TO JACKSON	23,796	21,534	-10%	24,464	14%
MAIN (W) ST	JACKSON TO CROSS	37,034	35,908	-3%	33,306	-7%
MAIN (W) ST	WEST TO CROSS	17,980	36,457	103%	32,584	-11%
MAIN ST	WEST BLVD TO MT RUSHMORE	14,114	16,121	14%	14,279	-11%
MAIN ST	MT RUSHMORE TO 5TH	11,867	12,370	4%	11,272	-9%
MAIN ST	5TH TO EAST BLVD	9,469	10,171	7%	8,738	-14%
MAIN ST	EAST BLVD TO STEELE	8,911	9,798	10%	8,050	-18%
MALL DR	HAINES TO MAPLE	3,734	1,812	-51%	3,438	90%
MALL DR	MAPLE TO LACROSSE	3,055	3,259	7%	3,571	10%
MALL DR	LACROSSE TO E. NORTH	2,290	1,847	-19%	3,038	65%
MALL (E) DR	E NORTH TO DYESS	4,615	5,671	23%	6,222	10%
MALL (E) DR	DYESS TO ELK VALE	2,571	4,067	58%	4,956	22%
MAPLE (N) AVE	DISK (W) TO DISK (E)	2,378	2,185	-8%	2,695	23%
MINNESOTA (E) ST	5TH TO ELM	5,148	5,293	3%	5,405	2%
MINNESOTA (E) ST	ELM TO CAMBELL	5,462	5,198	-5%	6,255	20%
MOUNTAINVIEW RD	JACKSON TO CANYON LAKE	8,964	10,476	17%	7,293	-30%
MOUNTAINVIEW RD	CANYON LAKE TO MAIN	19,267	18,054	-6%	16,668	-8%
MOUNTAINVIEW RD	MAIN TO OMAHA	21,095	20,372	-3%	19,389	-5%
MT RUSHMORE RD	CATHEDRAL TO ST PATRICK	24,963	23,740	-5%	22,913	-3%
MT RUSHMORE RD	ST PATRICK TO ST JOSEPH	25,308	24,568	-3%	23,505	-4%
MT RUSHMORE RD	ST JOSEPH TO MAIN	17,983	18,580	3%	17,790	-4%
MT RUSHMORE RD	MAIN TO OMAHA	15,747	15,463	-2%	13,629	-12%
MT RUSHMORE RD	OMAHA TO NORTH	8,294	9,381	13%	6,885	-27%
N ELLSWORTH RD	US-14/16 TO LIBERTY	6,700	6,716	0%	6,866	2%
NEMO RD	WESTBERRY TRAILS TO BERRY PINE	3,644	4,113	13%	4,046	-2%
OMAHA (W) ST	DEADWOOD TO MTVIEW	23,607	23,317	-1%	23,494	1%
OMAHA (W) ST	MTVIEW TO WEST BLVD	32,284	32,643	1%	29,340	-10%
OMAHA ST	WEST BLVD TO MT RUSHMORE	31,432	29,024	-8%	30,524	5%
OMAHA ST	MT RUSHMORE TO 5TH	31,198	29,681	-5%	31,146	5%
OMAHA ST	5TH TO EAST BLVD	28,022	26,746	-5%	27,444	3%
OMAHA ST	EAST BLVD TO LACROSSE	21,535	22,521	5%	22,765	1%
OMAHA (E) ST	LACROSSE TO CAMBELL	22,159	22,382	1%	20,580	-8%
RADAR HILL RD	MULE DEER TO US-14/16	3,537	3,496	-1%	3,686	5%
SD-44 (E)	CAMBELL TO ST PATRICK	19,865	17,803	-10%	15,961	-10%

ROAD	LIMITS	2011 SEASONALLY ADJUSTED COUNT	2012 SEASONALLY ADJUSTED COUNT	% Change 2011/2012	2013 SEASONALLY ADJUSTED COUNT	% Change 2012/2013
SD-44 (E)	ST PATRICK TO TWILIGHT	25,086	24,232	-3%	23,006	-5%
SD-44 (E)	TWILIGHT TO JOLLY	18,441	16,711	-9%	17,337	4%
SD-44 (E)	JOLLY TO RESERVOIR	17,184	15,005	-13%	14,961	0%
SD-44 (E)	RESERVOIR TO AIRPORT	6,868	6,300	-8%	6,986	11%
SD-79	CITY LIMIT TO ELK VALE	10,925	12,793	17%	11,438	-11%
SEGER DR	LACROSSE TO DYESS	2,539	2,676	5%	2,545	-5%
SHERIDAN LAKE RD	DUNSMORE TO S WILDWOOD	8,176	7,896	-3%	8,632	9%
SHERIDAN LAKE RD	S WILDWOOD TO CATRON	8,483	8,003	-6%	8,581	7%
SHERIDAN LAKE RD	CATRON TO CORRAL	10,663	13,650	28%	15,105	11%
SHERIDAN LAKE RD	CORRAL TO FLORMANN	14,172	13,267	-6%	13,894	5%
SHERIDAN LAKE RD	FLORMANN TO JACKSON	14,973	17,493	17%	15,663	-10%
SHERIDAN LAKE RD	JACKSON TO CANYON LAKE	9,099	10,120	11%	11,574	14%
SHERIDAN LAKE RD	CANYON LAKE TO W MAIN	9,194	9,472	3%	11,763	24%
SOO SAN DR	CANYON LAKE TO RANGE	6,793	7,096	4%	6,312	-11%
SOUTH CANYON RD	BERRY PINE TO 44TH	6,248	6,997	12%	7,049	1%
SOUTH CANYON RD	W MAIN TO 44TH	1,059	1,329	25%	1,300	-2%
ST JOSEPH (W) ST	WEST BLVD TO WEST ST	19,390	17,890	-8%	16,427	-8%
ST JOSEPH ST	WEST BLVD TO MT RUSHMORE	14,961	16,556	11%	12,962	-22%
ST JOSEPH ST	MT RUSHMORE TO 5TH	12,903	12,485	-3%	10,226	-18%
ST JOSEPH ST	5TH TO EAST BLVD	10,895	11,328	4%	9,129	-19%
ST JOSEPH ST	EAST BLVD TO STEELE	9,417	9,924	5%	6,982	-30%
ST JOSEPH (E) ST	STEELE TO ST PATRICK	14,589	15,138	4%	11,257	-26%
ST JOSEPH (E) ST	ST PATRICK TO CAMBELL	7,192	8,113	13%	6,295	-22%
ST PATRICK ST	WEST BLVD TO MT RUSHMORE	3,571	3,818	7%	1,799	-53%
ST PATRICK ST	MT RUSHMORE TO 5TH	7,773	8,402	8%	7,468	-11%
ST PATRICK ST	5TH TO ELM	12,347	13,472	9%	11,526	-14%
ST PATRICK (E) ST	ELM TO ST JOSEPH	14,671	15,874	8%	13,892	-12%
ST PATRICK (E) ST	ST JOSEPH TO CAMBELL	15,413	16,134	5%	14,780	-8%
ST PATRICK (E) ST	CAMBELL TO CREEK	16,075	15,704	-2%	15,559	-1%
ST PATRICK (E) ST	CREEK TO SD-44	10,358	13,295	28%	9,566	-28%
STURGIS RD	MAIN TO W CHICAGO	11,120	11,482	3%	11,646	1%
STURGIS RD	W CHICAGO TO ST MARTINS	8,508	11,136	31%	10,746	-4%
TWILIGHT DR	SD-44 TO JOLLY LN	6,645	7,919	19%	7,918	0%
TWILIGHT DR	JOLLY LN TO RESERVOIR	8,404	8,591	2%	7,619	-11%
US-14/16	I-90 TO WESTGATE	14,450	14,536	1%	14,524	0%
US-14/16	S ELLSWORTH TO OAK	1,931	1,840	-5%	2,139	16%
US-16	CITY LIMIT TO CATRON	8,755	14,669	68%	14,879	1%
US-16	CATRON TO CATHEDRAL	11,481	12,919	13%	12,352	-4%
W CHICAGO ST	44TH TO STURGIS	10,771	11,345	5%	11,247	-1%
W CHICAGO ST	STURGIS TO DEADWOOD	16,679	16,741	0%	16,404	-2%
WEST BLVD	FLORMANN TO ST PATRICK	1,442	1,485	3%	1,554	5%
WEST BLVD	ST PATRICK TO ST CLOUD	5,892	5,986	2%	5,971	0%
WEST BLVD	ST CLOUD TO ST JOSEPH	8,760	9,511	9%	9,090	-4%
WEST BLVD	ST. JOSEPH TO MAIN	13,889	14,036	1%	12,004	-14%
WEST BLVD	MAIN ST TO OMAHA ST	15,108	15,471	2%	13,762	-11%
WEST GATE RD	US-14/16 TO BLUEBIRD	3,443	3,404	-1%	3,508	3%