

Rapid City Area  
Metropolitan Planning Organization

# 2021 TRAFFIC VOLUME COUNTS REPORT



*In cooperation with:*

City of Rapid City  
Engineering Services Division  
Public Works Department

May 2022

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## **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 2018 – 2021.

## **DATA & METHODOLOGY**

The Traffic Volume Counts Report presents the most recent four 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 four 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 2 or 3 day 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 count 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 the most recent and previous year counts. Extreme caution should be exercised when interpreting annual changes in volumes for the following reasons:

- Traffic volumes were potentially impacted by the Covid-19 pandemic.
- 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 2-3 day volume provides a “snapshot” of traffic that traveled on that roadway on those specific days. Trend analyses should most accurately be limited to using permanent count station data.

## ***PERMANENT COUNT STATIONS***

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

- 5th Street, north of St. Cloud Street
- Anamosa Street, east of Haines Avenue
- I-90, east of I-190

ROAD	LIMITS	2018 SEASONALLY ADJUSTED COUNT	2019 SEASONALLY ADJUSTED COUNT	2020 SEASONALLY ADJUSTED COUNT	2021 SEASONALLY ADJUSTED COUNT	% CHANGE 2020/2021
1ST ST	OMAHA TO MAIN	783	645	951	544	-43%
2ND ST	MAIN TO OMAHA	781	1,125	1,303	1,089	-16%
3RD ST	MAIN TO OMAHA	2,127	2,092	1,897	2,081	10%
5TH ST	CATRON TO PARKIEW	10,804	11,539	12,215	11,715	-4%
5TH ST	PARKVIEW TO MINNESOTA	9,937	12,366	12,575	12,113	-4%
5TH ST	MINNESOTA TO TEXAS	13,991	15,098	14,908	14,018	-6%
5TH ST	TEXAS TO 3RD	15,774	17,531	17,044	16,146	-5%
5TH ST	3RD TO FAIRMONT	18,929	18,020	17,959	18,010	0%
5TH ST	FAIRMONT TO ST PATRICK	18,953	18,065	16,887	16,757	-1%
5TH ST	ST. PATRICK TO ST. CLOUD	22,198	20,141	20,268	19,315	-5%
5TH ST	ST. CLOUD TO COLUMBUS	20,783	17,766	16,088	17,584	9%
5TH ST	COLUMBUS TO ST. JOSEPH	22,906	20,822	19,682	20,840	6%
5TH ST	ST JOSEPH TO MAIN	21,394	19,955	16,557	18,573	12%
5TH ST	MAIN TO OMAHA	19,907	18,927	16,054	17,725	10%
5TH ST	OMAHA TO NEW YORK	23,269	20,430	21,344	18,381	-14%
5TH ST	NEW YORK TO NORTH	22,288	18,632	19,070	17,863	-6%
32ND ST	JACKSON TO CANYON LAKE	3,209	3,259	2,930	2,823	-4%
44TH ST	RAIDER TO MAIN	3,410	3,853	2,005	2,282	14%
225TH ST	N ELLSWORTH TO BRIGGS	3,476	3,459	2,985	3,227	8%
ANAMOSA ST	WEST BLVD N. TO HAINES	2,970	2,820	3,052	2,889	-5%
ANAMOSA ST	HAINES TO MAPLE	7,777	7,538	9,377	9,430	1%
ANAMOSA (E) ST	MAPLE TO LACROSSE	9,669	9,591	10,372	12,101	17%
ANAMOSA (E) ST	LACROSSE TO E. NORTH	5,688	5,928	6,013	6,237	4%
CAMBELL ST	CATRON TO MINNESOTA	18,120	18,826	19,311	18,798	-3%
CAMBELL ST	MINNESOTA TO FAIRMONT	20,654	21,308	21,840	21,355	-2%
CAMBELL ST	FAIRMONT TO ST PATRICK	19,036	20,157	21,231	19,572	-8%
CAMBELL ST	ST PATRICK TO OMAHA	25,508	24,249	21,310	23,317	9%
CAMBELL (E) ST	OMAHA TO E. NORTH ST	29,165	27,883	30,350	26,588	-12%
CANYON LAKE DR	JACKSON TO CLIFTON	5,941	5,726	5,890	5,731	-3%
CANYON LAKE DR	CLIFTON TO SOO SAN	7,894	9,125	8,030	7,982	-1%
CANYON LAKE DR	SOO SAN TO SHERIDAN LAKE	11,092	10,775	9,564	9,183	-4%
CANYON LAKE DR	SHERIDAN LAKE TO MTVIEW	10,770	11,086	10,110	10,200	1%
CATHEDRAL DR	MT RUSHMORE TO TOWER	13,186	13,296	13,559	12,783	-6%
CATHEDRAL DR	TOWER TO 5TH	14,195	14,074	14,645	13,400	-9%
CATRON BLVD	SHERIDAN LAKE TO US-16	CONSTRUCTION	14,080	13,421	16,463	23%
CATRON BLVD	US-16 TO 5TH	16,721	17,351	18,293	20,200	10%
CATRON (E) BLVD	5TH TO SD-79	19,762	20,506	21,511	21,159	-2%
COUNTRY RD	HAINES TO W NIKE	1,651	1,402	1,512	1,467	-3%
CREEK (N) DR	ANAMOSA TO EGLIN ST	3,709	3,861	4,327	3,316	-23%
DEADWOOD AVE	OMAHA TO CEMENT PLANT	18,490	17,481	CONSTRUCTION	CONSTRUCTION	N/A
DEADWOOD AVE	CEMENT PLANT TO LIEN	18,228	16,944	14,871	11,894	-20%
DEADWOOD AVE	LIEN TO N PLAZA	14,612	13,520	11,825	10,689	-10%
DEADWOOD AVE	N PLAZA TO I-90	16,780	16,188	14,018	13,772	-2%
DEADWOOD AVE	I-90 TO CITY LIMIT	2,728	2,235	2,161	1,710	-21%
DISK DR	HAINES TO MAPLE	6,571	4,664	3,591	7,746	116%

ROAD	LIMITS	2018 SEASONALLY ADJUSTED COUNT	2019 SEASONALLY ADJUSTED COUNT	2020 SEASONALLY ADJUSTED COUNT	2021 SEASONALLY ADJUSTED COUNT	% CHANGE 2020/2021
DISK (E) DR	MAPLE TO LACROSSE	8,249	5,771	4,957	7,448	50%
DYESS AVE	MALL TO SEGER	3,418	3,805	4,177	3,847	-8%
E NORTH ST	MILWAUKEE TO LACROSSE	16,621	11,585	9,874	13,694	39%
E NORTH ST	LACROSSE TO CAMBELL	16,932	15,050	12,999	15,231	17%
E NORTH ST	CAMBELL TO ANAMOSA	27,653	24,904	23,585	24,370	3%
E NORTH ST	ANAMOSA TO I-90	22,928	21,891	20,573	23,340	13%
EAST BLVD	KANSAS CITY TO ST JOSEPH	4,414	4,605	CONSTRUCTION	3,626	N/A
EAST BLVD	ST JOSEPH TO MAIN	8,730	7,906	CONSTRUCTION	6,837	N/A
EAST BLVD	MAIN TO OMAHA	10,983	10,474	CONSTRUCTION	8,948	N/A
EAST BLVD	OMAHA TO E NORTH	14,025	CONSTRUCTION	CONSTRUCTION	12,382	N/A
EGLIN ST	LACROSSE TO LUNA	6,799	8,029	7,867	8,513	8%
EGLIN ST	LUNA TO E. NORTH	8,916	10,708	11,648	13,421	15%
EGLIN ST	E.NORTH TO DYESS	6,593	6,660	7,268	7,287	0%
EGLIN ST	DYESS TO ELK VALE	5,655	5,671	5,513	6,409	16%
ELK VALE RD	SD-79 TO SD-44	19,781	18,781	21,377	22,087	3%
ELK VALE RD	SD-44 TO I-90	20,453	22,331	19,939	21,648	9%
ELK VALE RD	I-90 TO SEGER	3,548	3,418	4,508	4,695	4%
FAIRMONT BLVD	5TH TO WISCONSIN	9,461	10,125	12,872	8,477	-34%
FAIRMONT (E) BLVD	WISCONSIN TO ELM	8,888	8,470	9,455	8,425	-11%
FAIRMONT(E) BLVD	ELM TO CAMBELL	7,760	7,649	8,302	7,273	-12%
HAINES AVE	NORTH TO ANAMOSA	21,769	19,083	21,170	18,625	-12%
HAINES AVE	ANAMOSA TO I-90	20,444	17,921	17,245	21,099	22%
HAINES AVE	I-90 TO DISK	23,898	CONSTRUCTION	20,561	27,038	32%
HAINES AVE	DISK TO MALL	17,125	CONSTRUCTION	18,666	19,098	2%
HAINES AVE	MALL TO COUNTRY	12,748	10,359	13,768	13,706	0%
HAINES AVE	COUNTRY TO COBALT	6,009	5,911	5,843	6,499	11%
HAINES AVE	COBALT TO CITY LIMIT	2,422	2,534	2,417	2,602	8%
HILLSVIEW DR	AUDUBON TO RAIDER	3,514	3,645	1,824	1,922	5%
I-190	OMAHA TO SILVER	23,060	25,696	22,815	28,005	23%
I-190	SILVER TO I-90	20,657	24,488	21,836	26,218	20%
I-90	I-190 TO HAINES	32,445	38,835	32,124	39,187	22%
I-90	ELK VALE TO EAST CITY LIMIT	26,201	30,002	26,643	31,000	16%
JACKSON BLVD	CITY LIMIT TO CHAPEL LN	5,500	6,317	6,135	6,120	0%
JACKSON BLVD	CHAPEL LN TO CANYON LAKE	9,004	10,171	9,365	10,618	13%
JACKSON BLVD	CANYON LAKE TO 32ND	12,813	13,854	12,728	13,140	3%
JACKSON BLVD	32ND TO SHERIDAN LAKE	16,993	17,439	15,653	16,266	4%
JACKSON BLVD	SHERIDAN LK TO MT VIEW (S)	23,215	22,626	21,099	21,901	4%
JACKSON BLVD	MT VIEW (N) TO MAIN (W)	18,440	17,975	16,539	17,226	4%
LACROSSE (N) ST	OMAHA TO E NORTH	10,778	11,913	13,243	11,312	-15%
LACROSSE (N) ST	E NORTH TO ANAMOSA	19,434	19,686	16,586	19,919	20%
LACROSSE (N) ST	ANAMOSA TO I-90	17,178	17,020	16,787	18,475	10%
LACROSSE (N) ST	I-90 TO DISK	13,604	12,624	10,852	15,369	42%
LACROSSE (N) ST	DISK TO MALL	6,743	7,422	6,637	8,761	32%
LIBERTY BLVD	N ELLSWORTH TO I-90	7,084	8,018	7,427	8,409	13%
MAIN (W) ST	BERRY PINE TO 44TH	1,320	1,320	1,185	1,257	6%

ROAD	LIMITS	2018 SEASONALLY ADJUSTED COUNT	2019 SEASONALLY ADJUSTED COUNT	2020 SEASONALLY ADJUSTED COUNT	2021 SEASONALLY ADJUSTED COUNT	% CHANGE 2020/2021
MAIN (W) ST	44TH TO SOO SAN	7,588	6,820	4,461	5,107	14%
MAIN (W) ST	SOO SAN TO STURGIS	10,382	10,863	8,498	9,907	17%
MAIN (W) ST	STURGIS TO SHERIDAN LAKE	17,926	18,987	15,575	18,550	19%
MAIN (W) ST	SHERIDAN LAKE TO MTVIEW	20,724	21,753	21,765	20,754	-5%
MAIN (W) ST	MT VIEW TO JACKSON	21,792	21,091	19,654	20,610	5%
MAIN (W) ST	JACKSON TO CROSS	39,104	40,654	35,372	35,940	2%
MAIN (W) ST	CROSS TO WEST STREET	34,788	33,717	33,021	36,213	10%
MAIN ST	WEST BLVD TO MT RUSHMORE	14,087	11,409	13,330	14,559	9%
MAIN ST	MT RUSHMORE TO 5TH	11,291	CONSTRUCTION	9,154	11,401	25%
MAIN ST	5TH TO EAST BLVD	9,916	7,109	7,835	9,864	26%
MAIN ST	EAST BLVD TO STEELE	8,070	7,587	5,550	6,385	15%
MALL DR	HAINES TO MAPLE	6,907	5,658	5,363	8,103	51%
MALL DR	MAPLE TO LACROSSE	6,111	4,889	4,749	7,622	60%
MALL DR	LACROSSE TO E. NORTH	4,736	4,231	4,057	6,538	61%
MALL (E) DR	E NORTH TO DYESS	7,309	7,769	8,289	8,921	8%
MALL (E) DR	DYESS TO ELK VALE	6,058	6,379	6,914	8,180	18%
MAPLE (N) AVE	DISK (W) TO DISK (E)	4,245	2,463	2,231	4,245	90%
MINNESOTA (E) ST	5TH TO ELM	6,520	5,821	6,552	6,159	-6%
MINNESOTA (E) ST	ELM TO CABELL	5,311	5,075	5,947	5,256	-12%
MOUNTAINVIEW RD	JACKSON TO CANYON LAKE	9,781	9,157	8,265	9,033	9%
MOUNTAINVIEW RD	CANYON LAKE TO MAIN	17,279	16,371	15,156	15,827	4%
MOUNTAINVIEW RD	MAIN TO OMAHA	18,609	18,645	15,982	15,604	-2%
MT RUSHMORE RD	CATHEDRAL TO ST PATRICK	21,429	24,235	23,478	24,974	6%
MT RUSHMORE RD	ST PATRICK TO ST JOSEPH	21,569	24,349	23,576	25,914	10%
MT RUSHMORE RD	ST JOSEPH TO MAIN	18,252	18,981	18,225	23,005	26%
MT RUSHMORE RD	MAIN TO OMAHA	14,056	14,446	14,044	15,367	9%
MT RUSHMORE RD	OMAHA TO NORTH	5,016	4,410	3,908	3,259	-17%
N ELLSWORTH RD	US-14/16 TO LIBERTY	7,455	8,172	6,482	6,747	4%
NEMO RD	WESTBERRY TRAIL TO BERRY PINE	3,935	3,789	4,130	3,896	-6%
OMAHA (W) ST	DEADWOOD TO MTVIEW	22,555	24,318	19,262	CONSTRUCTION	N/A
OMAHA (W) ST	MTVIEW TO WEST BLVD	24,074	26,843	CONSTRUCTION	24,262	N/A
OMAHA ST	WEST BLVD TO MT RUSHMORE	31,872	30,146	24,406	27,400	12%
OMAHA ST	MT RUSHMORE TO 5TH	29,865	28,629	23,877	26,760	12%
OMAHA ST	5TH TO EAST BLVD	27,537	26,743	19,938	25,139	26%
OMAHA ST	EAST BLVD TO LACROSSE	21,687	24,185	18,226	20,568	13%
OMAHA (E) ST	LACROSSE TO CABELL	20,151	19,604	15,822	19,051	20%
RADAR HILL RD	MULE DEER TO US-14/16	5,027	5,122	4,922	5,127	4%
SD-44 (E)	CABELL TO ST PATRICK	16,076	15,154	14,778	16,642	13%
SD-44 (E)	ST PATRICK TO TWILIGHT	25,277	27,480	23,248	24,404	5%
SD-44 (E)	TWILIGHT TO JOLLY	19,998	22,058	18,937	20,371	8%
SD-44 (E)	JOLLY TO RESERVOIR	16,649	18,442	15,487	16,594	7%
SD-44 (E)	RESERVOIR TO AIRPORT	7,440	7,639	6,505	7,297	12%
SD-79	CITY LIMIT TO ELK VALE	14,302	13,443	16,214	15,083	-7%
SEGER DR	LACROSSE TO DYESS	2,260	2,238	2,738	2,307	-16%

ROAD	LIMITS	2018 SEASONALLY ADJUSTED COUNT	2019 SEASONALLY ADJUSTED COUNT	2020 SEASONALLY ADJUSTED COUNT	2021 SEASONALLY ADJUSTED COUNT	% CHANGE 2020/2021
SHERIDAN LAKE RD	DUNSMORE TO S WILDWOOD	7,951	8,299	7,266	8,266	14%
SHERIDAN LAKE RD	S WILDWOOD TO CATRON	8,435	8,838	7,480	8,539	14%
SHERIDAN LAKE RD	CATRON TO CORRAL	15,770	16,051	14,482	17,216	19%
SHERIDAN LAKE RD	CORRAL TO FLORMANN	15,094	16,343	14,087	15,352	9%
SHERIDAN LAKE RD	FLORMANN TO JACKSON	16,028	16,947	14,080	15,894	13%
SHERIDAN LAKE RD	JACKSON TO CANYON LAKE	10,145	9,956	8,581	9,629	12%
SHERIDAN LAKE RD	CANYON LAKE TO W MAIN	11,129	9,248	8,265	9,390	14%
SOO SAN DR	CANYON LAKE TO RANGE	4,700	5,733	4,281	4,726	10%
SOUTH CANYON RD	BERRY PINE TO 44TH	6,229	6,262	3,342	6,268	88%
SOUTH CANYON RD	W MAIN TO 44TH	2,075	1,250	789	1,009	28%
ST JOSEPH (W) ST	WEST ST TO WEST BLVD	18,727	17,929	16,242	CONSTRUCTION	N/A
ST JOSEPH ST	WEST BLVD TO MT RUSHMORE	13,431	14,088	13,184	13,149	0%
ST JOSEPH ST	MT RUSHMORE TO 5TH	11,411	11,202	10,118	9,748	-4%
ST JOSEPH ST	5TH TO EAST BLVD	CONSTRUCTION	9,425	8,043	8,713	8%
ST JOSEPH ST	EAST BLVD TO STEELE	8,251	8,092	6,592	7,227	10%
ST JOSEPH (E ) ST	STEELE TO ST PATRICK	12,382	13,636	11,029	11,999	9%
ST JOSEPH (E) ST	ST PATRICK TO CAMBELL	6,674	6,668	5,811	5,397	-7%
ST PATRICK ST	WEST BLVD TO MT RUSHMORE	3,191	2,983	3,233	2,913	-10%
ST PATRICK ST	MT RUSHMORE TO 5TH	6,165	6,474	6,374	6,494	2%
ST PATRICK ST	5TH TO ELM	10,368	9,422	11,441	10,327	-10%
ST PATRICK (E) ST	ELM TO ST JOSEPH	11,141	12,444	12,402	9,772	-21%
ST PATRICK (E) ST	ST JOSEPH TO CAMBELL	14,281	13,914	15,924	15,121	-5%
ST PATRICK (E) ST	CAMBELL TO CREEK	14,751	16,100	14,526	15,570	7%
ST PATRICK (E) ST	CREEK TO SD-44	12,313	11,127	11,147	8,240	-26%
STURGIS RD	MAIN TO W CHICAGO	CONSTRUCTION	11,190	10,466	12,357	18%
STURGIS RD	W CHICAGO TO ST MARTINS	8,086	9,048	7,920	10,547	33%
TWILIGHT DR	SD-44 TO JOLLY LN	8,508	8,275	7,569	8,317	10%
TWILIGHT DR	JOLLY LN TO RESERVOIR	4,158	4,058	3,635	3,978	9%
US-14/16	I-90 TO WESTGATE	14,941	14,748	14,090	14,265	1%
US-14/16	S ELLSWORTH TO OAK	2,102	2,542	2,313	2,168	-6%
US-16	CITY LIMIT TO CATRON	16,699	17,423	15,239	19,046	25%
US-16	CATRON TO CATHEDRAL	13,393	15,450	14,348	16,446	15%
W CHICAGO ST	44TH TO STURGIS	9,050	11,227	9,208	10,479	14%
W CHICAGO ST	STURGIS TO DEADWOOD	CONSTRUCTION	13,420	10,683	9,755	-9%
WEST BLVD	FLORMANN TO ST PATRICK	1,922	1,935	1,428	1,761	23%
WEST BLVD	ST PATRICK TO ST CLOUD	5,162	4,876	4,816	3,923	-19%
WEST BLVD	ST CLOUD TO ST JOSEPH	6,079	6,240	4,743	4,934	4%
WEST BLVD	ST. JOSEPH TO MAIN	12,827	14,555	14,389	16,252	13%
WEST BLVD	MAIN ST TO OMAHA ST	14,408	16,239	17,318	16,820	-3%
WEST GATE RD	US-14/16 TO BLUEBIRD	3,797	3,715	3,584	3,677	3%

