

2016 Year End Report

Street Department

February 16, 2017

PURPOSE: Mission Statement: “It is the mission of the City of Brookings Street Department to fund equipment, materials, and personnel in order to provide a safe network of streets, avenues, and alleys throughout the City. We intend to do this by responding promptly and courteously to citizen’s requests and concerns.”

PERSONNEL: The Street Department is comprised of 15 staff; Superintendent, Street Operations Supervisor, Shop Supervisor/Mechanic, two Heavy Equipment Operators, three Advanced Equipment Operators, one Office Manager, and six Street Maintenance Technicians.

Snow Removal:

Each winter storm has unique characteristics. Climatological factors such as storm intensity and duration, wind, temperature, and moisture content affect the total amount of snow and/or ice accumulation, and influence the methods used to combat the resulting snow and/or ice related conditions. Depth alone can be a deceptive yardstick. For instance, a small storm during a week day rush hour can cause havoc, while an equivalent storm on the weekend or late at night may go unnoticed. Snow and strong winds may cause continual drifting and low visibility conditions that slows down or stops snow removal operations or ties up equipment on certain routes where heavy drifting occurs. Heavy wet snow is hard to push and repeated passes are needed to clear a roadway curb to curb. Ice-packed or snow-packed roadways (caused by heavy traffic driving on wet snow) present a great challenge also. Removal of such is time-consuming and, at times, nearly impossible to achieve bare pavement. The downtown core area presents another challenge, not only to the Street Department, but to every motorist that has to drive through heavy snow. Snow from the downtown core area must be hauled out; therefore, the area cannot be cleaned until after parking is restricted (2:00 a.m. – 5:30 a.m.). Past experience has shown that snow removal is not the place to cut corners. We remain flexible and adapt to each storm. We do not economize during a snow storm. We expend every available piece of equipment and personnel. We endeavor to maintain adequate road conditions for vehicles properly equipped for winter driving. This does not mean dry pavement should be expected after each snowfall or ice storm, and it does not mean that streets will be free of ice and snow.



The City of Brookings Street Department maintains dead-end roads, 246.17 lane miles of paved concrete and asphalt streets, 9 miles of alleys, 81 cul-de-sacs, 33 eyebrows, 3 municipal parking lots, and the parking lots for 4 fire stations, the Library, Activity Center, and Public Safety building. We usually average 5 to 8 significant snow events per year.

Street Maintenance:

Area-specific maintenance operations such as seal coat and overlays are on a 7-year rotation basis to provide the motoring public with pothole-free, traffic-friendly roads. Street Department personnel repair all streets and avenues by means of dig-outs, milling and backfilling, leveling, and crack sealing in preparation for the seal coat.



Street Sweeping:

Regular street sweeping reflects greatly upon the cleanliness of the city. It also helps to remove pollutants from the streets in order to keep ground water pollution to a minimum. In 2016, 2,880 tons of sweepings were trucked to the Brookings Regional Landfill to be used as cover material. Street sweepers are in operation from April through November. The downtown was swept once weekly while arterials and school zones were swept 8 times. The residential areas were swept approximately 3 to 4 times. After the seal coat project, 960 tons of pea rock was recovered and was sold for surplus.

Dust Control:

Annual dust control treatments on high-traffic gravel roads help to preserve our air quality. The Street Department performed the grading, mixing, watering, and rolling while the contractor provided the material. The project used 14,762 gallons of calcium chloride solution in 2016. This year we decided to spray the calcium chloride solution in two passes in lieu of one. This allowed the material time to soak into the gravel without running off before absorption. Using this two pass technique provided a longer lasting, better quality surface all season long.

Traffic Control:

Ten percent (10%) of approximately 3,000 signs are replaced to assure an adequate level of legibility and reflectivity to safely guide motorists. All yellow curbs, stop bars, lane dividers, and parking stalls were also repainted using approximately 1,340 gallons of paint. This is also the year of innovation for the Traffic Control Department. We have coordinated with Banner Engineers in the creation of a sign management program. This will take us out of the paper world and into a new world of technology for our department. This program will drastically reduce our time spent on yearly inventory and ordering. Data collection will prove to be a monumental task, but should be completed by the end of 2017.

Gravel Roads and Gravel Alleys:

There are approximately twelve (12) miles to keep graded, maintained, and resurfaced.



Mosquito Control:

We have two (2) staff dedicated to this program full-time from March until freeze-up. Through cooperative efforts of personnel at the SDSU Plant Science, Biology and Microbiology Departments assisting with mosquito counts, trap placement, and special tracking of mosquito populations, our mosquito control program provides results that are long-term, cost-effective, and environmentally responsible. Larviciding operations were performed daily. Adulticiding operations, including barrier treatments, were performed as per threshold (mosquito counts in traps) before all community events and places of gatherings in the parks (Arts Festival, Community Band Concerts), Swiftel Center outdoor events, sports tournaments, recreational trails, etc. Weed control was performed on all city owned sidewalks, drainage ditches, and gutter lines.

A grant was received on July 16, 2016 from the State of South Dakota in the amount of \$5,216.00. This money was used to purchase chemicals for our mosquito control operation.

Storm Drainage:

The 831 water inlets were checked and cleaned after every major rain and snow melt event. Drainage silt and debris was also removed and disposed from various drainage field sites.

Departmental Assistance:

The Street Department assisted other city general departments with equipment and personnel on a variety of different projects such as dirt hauling, gravel hauling, grading, backfilling. We value being a key member of the overall success for the City of Brookings. Working as a team with other departments is an essential benefit for the citizens of Brookings.

Specific projects include:

- Fence removal for Engineering Department
- Hauled clay for Landfill
- Hauled golf sand for Edgebrook Golf Course
- Hauled surplus items to landfill for Police Department

Street Department Maintenance Facility:



We have moved into our new facility!! This has been a year of transition for the department. We are extremely excited to take advantage of the new building and equipment upgrades that will make maintenance and repairs quicker and cost effective.

Such amenities include:

- In floor heating
- Wash bay
- Portable Rotary truck lifts
- 5-ton overhead crane
- ERV heat exchanger unit
- 8 pull thru bays



Service Requests:

This year we received 118 service requests from the citizens of Brookings. These requests range from sign repairs to mosquito control. We value when service requests are called in as they allow us the ability to fix and repair quickly and correctly.

| 2016 Total | CODE | Type of Request |
|-------------------|-------------|------------------------|
| 16 | 1 | Sign Repairs |
| 44 | 2 | Street Clean |
| 19 | 3 | Street Patching |
| 2 | 4 | Gravel Blading |
| 24 | 5 | Snow Removal |
| 4 | 6 | Salt Sand |
| 0 | 7 | Intersection Snow |
| 6 | 8 | Mailbox Damaged |
| 3 | 9 | Mosquito Control |
| 118 | | |

Miscellaneous:

- Spring Cleanup cost for the Street Department was \$43,275.82 (April 11-19; 6 days).
- Held regular monthly department safety training to ensure that all tasks are performed within the proper safety requirements and on-the-job accidents are kept to a minimum.
- On-going in-house training was done to provide employees the opportunity to learn the operation of and become proficient on all our equipment. This training also assists with the process of succession planning.
- Assisted various public events by providing barricades and signage for Brookings Summer Arts Festival, Brookings Marathon, Hobo Day, Ride-Thru, Fire Department dance, etc.
- Provided equipment for display at the Library Big Wheels event.