A photograph of a red and white lighthouse situated on a wooden pier that extends into the ocean. The sky is filled with dramatic, colorful clouds from a sunset or sunrise, with shades of orange, pink, and purple. The lighthouse has a red upper section and a white lower section, with a black top section containing navigation lights. The pier is made of wooden planks and has several dark posts along its length. The ocean is choppy with white-capped waves.

CITY OF SHEBOYGAN  
**PUBLIC WORKS**

ANNUAL REPORT

2019



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## MESSAGE FROM

# The Director

On behalf of the Department of Public Works, it is my pleasure to present the 2019 Annual Report highlighting the past year's successes, challenges and accomplishments. The Department is proud to provide the daily critical services necessary for the City of Sheboygan and its residents, providing the highest quality of life while being fiscally responsible. The Department of Public Works is unique in that it has a daily direct impact on every resident through the services and infrastructure provided and maintained. The Department's Mission is in close alignment with the City of Sheboygan's Mission and this Annual Report will demonstrate the commitment and dedication to successfully fulfilling this goal.

The year 2019 was significant with the grand reopening of the reconstructed City Hall. After many years of discussion and relocating City offices during the construction, City Hall was reopened with much excitement and received great reviews. North Avenue was reconstructed from Calumet Drive to North 15<sup>th</sup> Street along with the Pennsylvania Avenue Bridge resulting in two major road improvement projects. Our Parks and Forestry Division continue the monumental tasks of managing the devastating impacts from the Emerald Ash Borer and our urban forest. Nevertheless, the Department was able to plant over 500 trees in 2019 and continues our State of Wisconsin leadership with the "Tree City" designation 41 years.

These are just a few highlights of many contained within this year's annual report. The annual report demonstrates the Department of Public Works commitment to improving the quality of life within the City of Sheboygan. It details the amount of services provided and the levels of effort required to meet the increasing demands facing the Department. Furthermore, it displays the competing requests for services within the Department and how the Department effectively manages and adjusts resources to meet, and in some cases exceed, resident expectations. All of this activity is executed with the guidance of the City Mission, goals and objectives, as well as budget set forth by the Common Council.

Again, this year's annual report showcases the Department's greatest asset, its employees. Included within the report is recognition of the department employees and their service to the community. The Department has embraced many employee engagement activities and volunteer service to the community as showcased



within the report. Without the support and commitment of the employees many of the positive results achieved this past year would not be possible. I am proud of the employees of the Department of Public Works and their quality work they provide to the community, every single day, and want to congratulate them on another successful year.

With that recognition, the Department of Public Works is again pleased to present this 2019 Annual Report to the Common Council. It is our goal to provide accurate and transparent information to help the Common Council answer questions from residents about public works issues. The Department of Public Works is committed to the betterment of the City of Sheboygan by providing quality infrastructure, community services and natural environments for not only today's generation but future generations as well.

David H. Biebel  
Director of Public Works

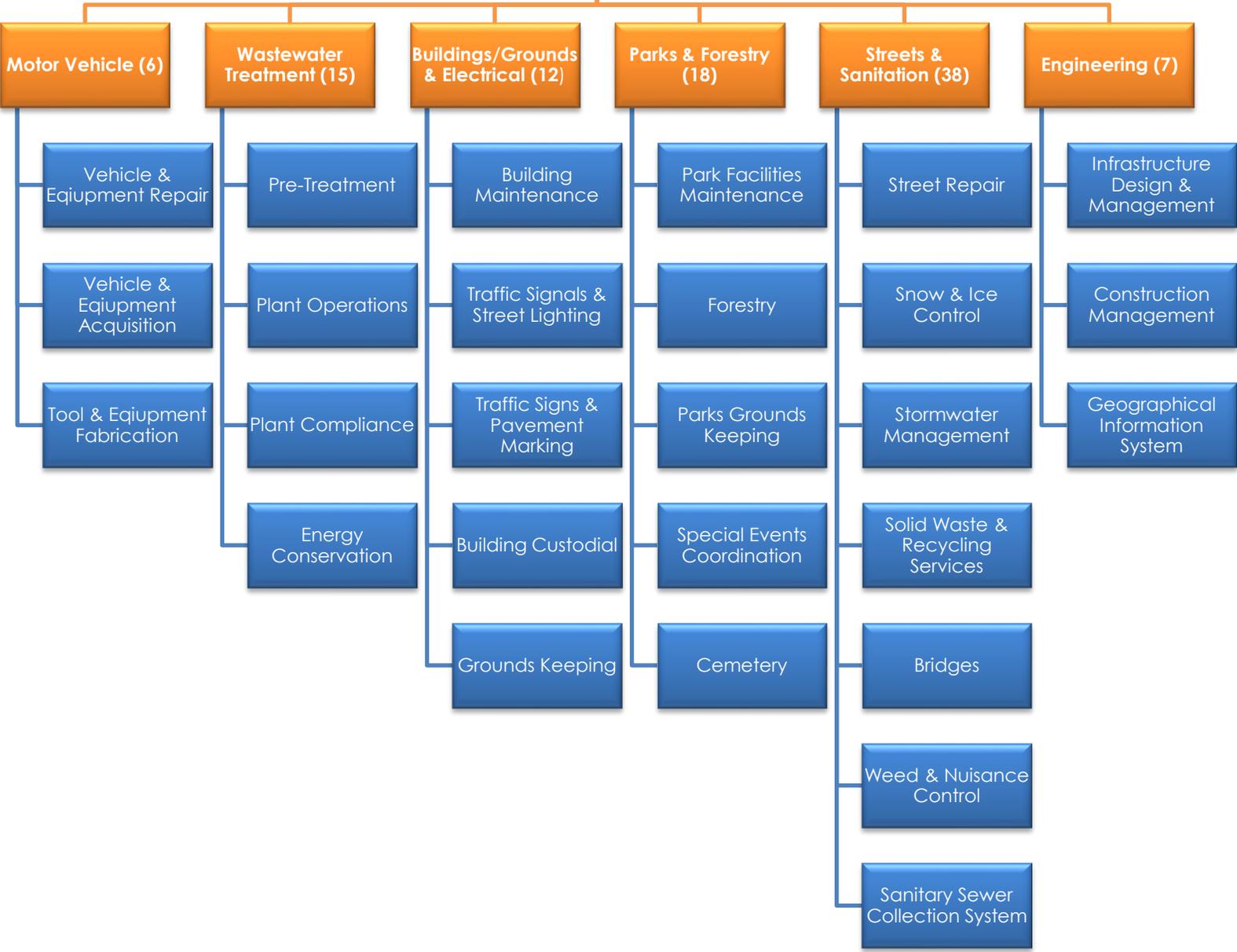
# Dedication

enthusiasm Professionalism

Integrity **RESPECT**

# Department of Public Works

## Administration (4)



# 2019 COMMON COUNCIL

**Mayor, Mike Vandersteen**

**City Administrator, Darrell Hofland**

**City Clerk, Meredith DeBruin**

**City Attorney, Chuck Adams**

**President, Todd Wolf**

**Vice-President, Mary Lynne Donohue**

Aldersperson District 1 .....	Barb Felde
Aldersperson District 2 .....	Todd Wolf
Aldersperson District 3 .....	Mary Lynne Donohue
Aldersperson District 4.....	Betty Ackley
Aldersperson District 5 .....	Markus Savaglio
Aldersperson District 6 .....	Dean Dekker
Aldersperson District 7 .....	Rose Phillips
Aldersperson District 8 .....	Ryan Sorenson
Aldersperson District 9 .....	Trey Mitchell
Aldersperson District 10 .....	Jim Bohren

# 2019 PUBLIC WORKS COMMITTEE

Chairman, Todd Wolf



Vice-Chairman, Ryan Sorenson



Member, Betty Ackley

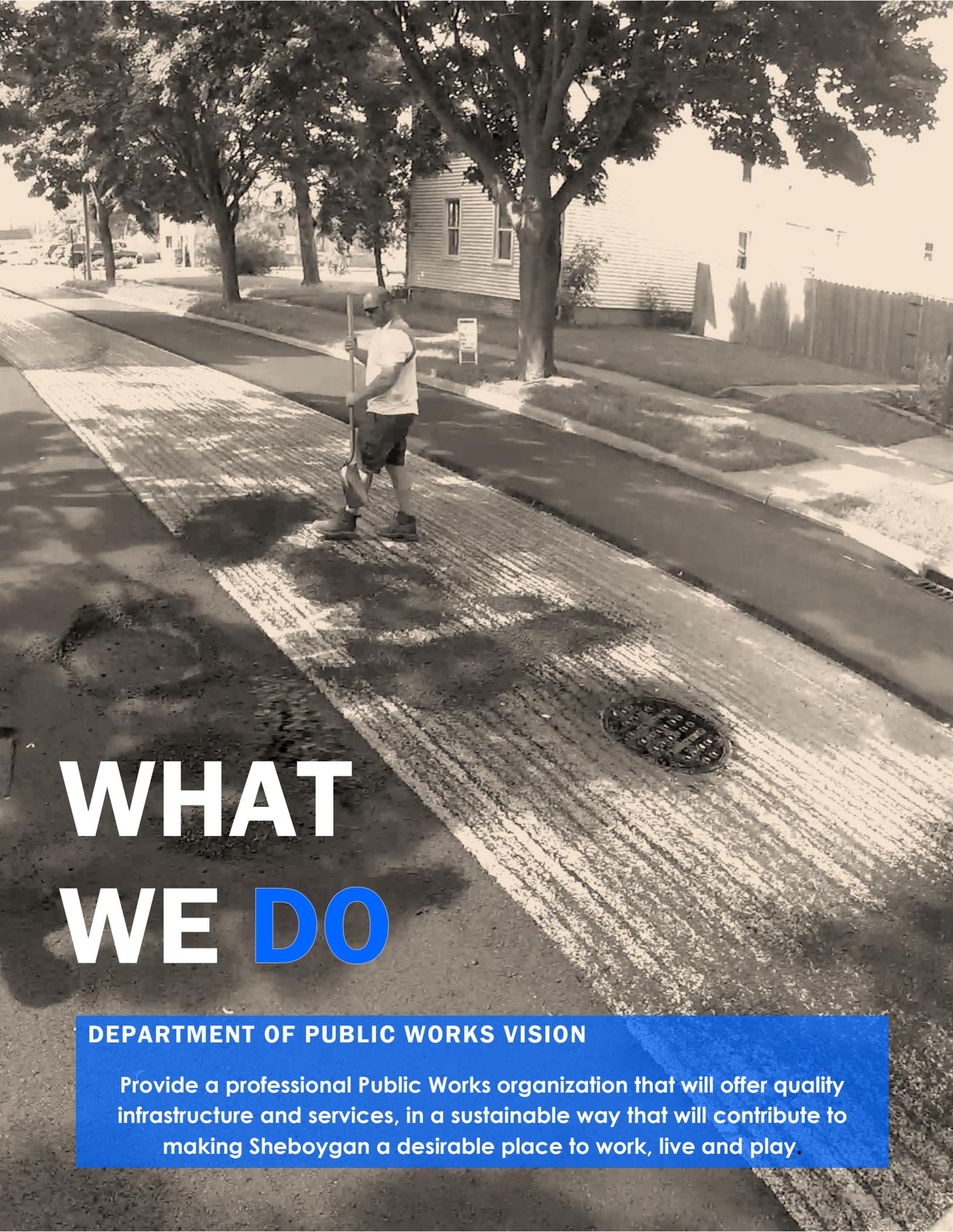


Member, Dean Dekker



Member, Rose Philips





# WHAT WE DO

## DEPARTMENT OF PUBLIC WORKS VISION

Provide a professional Public Works organization that will offer quality infrastructure and services, in a sustainable way that will contribute to making Sheboygan a desirable place to work, live and play.

## CORE FUNCTIONS

The Department of Public Works is comprised of seven divisions: Administration, Engineering, Parks, Forestry and Cemetery, Streets and Sanitation, Facilities and Traffic, Motor Vehicle, and Wastewater. The DPW handles some of the most frequently reported community issues such as traffic signals, potholes, household garbage pick-up, and street trees. Public Works also provides engineering services to the City.

### COMMUNITY OUTREACH

Public Works week occurs annually in May, watch for an open house event hosted at the Municipal Service Building



## GOALS & OBJECTIVES

The Department of Public Works seeks to provide quality infrastructure that conveys safe, efficient delivery of essential goods and services, provide clean and beautiful public spaces that maximize the natural environment to enhance the overall quality of life, and deliver professional quality public service with a friendly and welcoming atmosphere.

To meet each aspect of the goal, the Department has several objectives.

### 1 To provide quality infrastructure that conveys safe, efficient delivery of essential goods and services:

- Construct, repair and maintain City streets, sewers and other critical infrastructure to ensure public safety
- Maximize agency relationships with other entities to coordinate expansion, maintenance and reconstruction of infrastructure in an equitable manner
- Develop public right of ways with designs that encourage accessibility and efficient movements
- Meet with key stakeholders early in the planning stage to gain understanding and informed consent
- Provide complete streets and use best practices to create clean and beautiful public spaces
- Continue to maintain environmental compliance below regulatory requirements
- Continue to operate the wastewater/storm water collection and treatment system in a fiscally sound manner for the benefit of our customers

- Evaluate all infrastructure for areas of insufficiency and develop an action plan to correct areas of concern
- Develop a five-year capital improvements program identifying and prioritizing the major infrastructure projects needed to meet the community's needs

## **2** To provide clean and beautiful public spaces that maximize the natural environment to enhance the overall quality of life:

- Collect and properly dispose, garbage, litter, debris, graffiti from public spaces creating a clean, livable community
- Lead sustainability practices preserving natural resources and reducing energy consumption
- Preserve and maintain all facilities in a manner that provides a safe environment for the facilities' functions and occupants
- Maintain an adequate amount of active and passive recreational lands to meet current and future recreation needs
- Ensure that open space, recreation facilities and programs are designed to meet the special needs of all residents, especially senior citizens and the handicapped
- Coordinate subdivision review with all Divisions responsible for providing or maintaining adequate park facilities
- Continue to replace old and deteriorating recreation equipment at all City parks
- Continue to monitor and maintain existing park equipment to ensure its longevity and safety

## **3**

### To deliver professional quality public service with a friendly and welcoming atmosphere:

- Retain, develop, and recruit individuals with self-motivation and personal responsibility while embracing diversity and overall understanding of our mission
- Provide training and acquire skills to allow individuals to succeed and grow
- Provide a safe, healthy, and supportive work environment valuing employee contributions to the community
- Improve the effectiveness, efficiency, and quality of DPW service delivery through employee development, technology, and equipment
- Leverage the use of volunteers and public/private contractors to supplement the core levels of service needed
- Establish quality customer service mentality (treat others as you would want to be treated)
- Develop time management principals, scheduling – prioritization of activities through communication within the organization

# DPW VITAL STATISTICS



**19 BRIDGES**

**12.87**

MILLION GALLONS  
OF SEWAGE TREATED

**DAILY**



**36 PARKS**

**30,000**

**SIGNS**



**40**

SIGNALIZED  
INTERSECTIONS

**OVER**

**168,000**

SQUARE FEET OF  
BRIDGE DECKS

**20,000**

**TREES**

**171 MILES**

OF SANITARY  
SEWER

**102.5 MILES**

OF STORM SEWERS



**15.799**

SQUARE MILES  
IN AREA

**199.7**

MILES OF  
STREETS

**4,571**

**LIGHTS**

# ADMINISTRATION

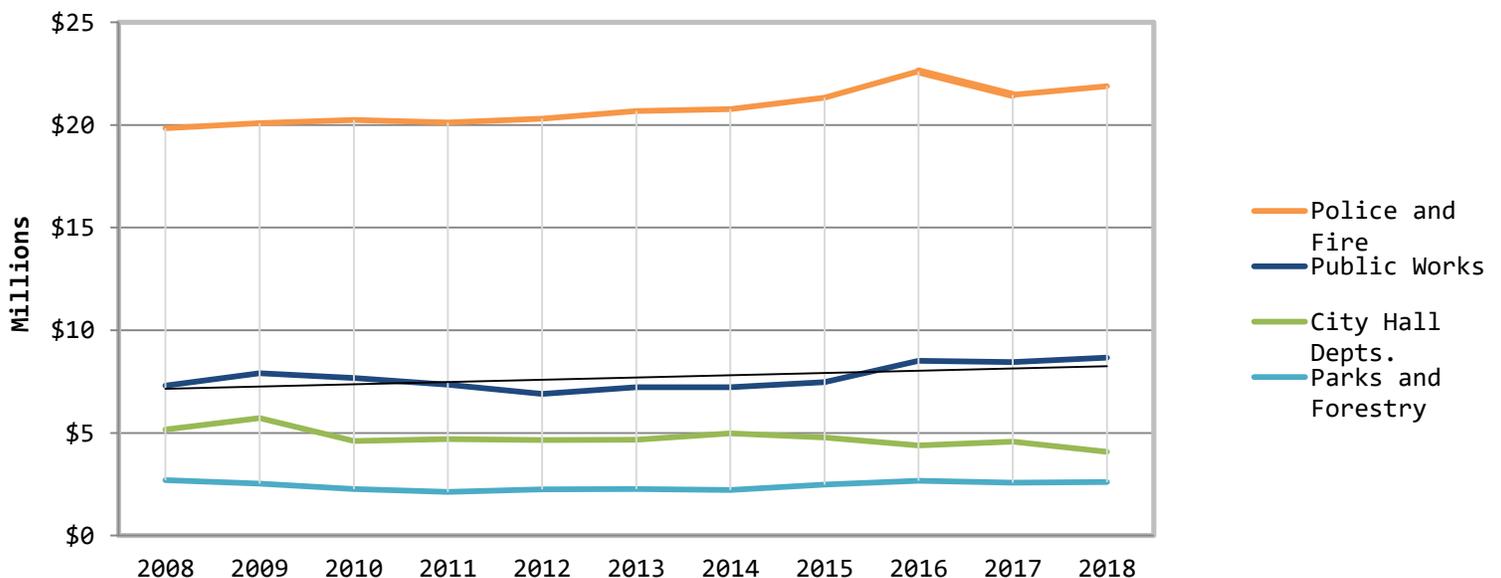
The City of Sheboygan's Department of Public Works main purpose is to improve the quality of life by effectively developing, maintaining and improving the infrastructure, natural resources, and community services. The administration is charged with the responsibility of developing strategy and ensuring the effectiveness of the Department's activities in meeting the needs of the citizens of Sheboygan. This is accomplished through the effective planning, organizing, leading and controlling of all available resources within the Department.

One of the most important functions of administration is preparing and controlling the Department's budget. Public Works continues to innovate, adjust, and lead with regard to maximizing results with limited resources. Public Works is unique when compared with other departments in the City, in that the Department has both internal and external customers. This environment often creates competing demands for services, which the Department consistently balances with good satisfaction ratings. Overall, the Public Works and Parks and Forestry budget has remained flat over the long term and well under the growth rates of other City departments as is shown in the chart below:

<b>David H. Biebel</b>	Director of Public Works
<b>Dawn Sokolowski</b>	Business Manager
<b>Heather Burke</b>	Administrative Clerk
<b>Melissa French</b>	Administrative Clerk



## City Budgets

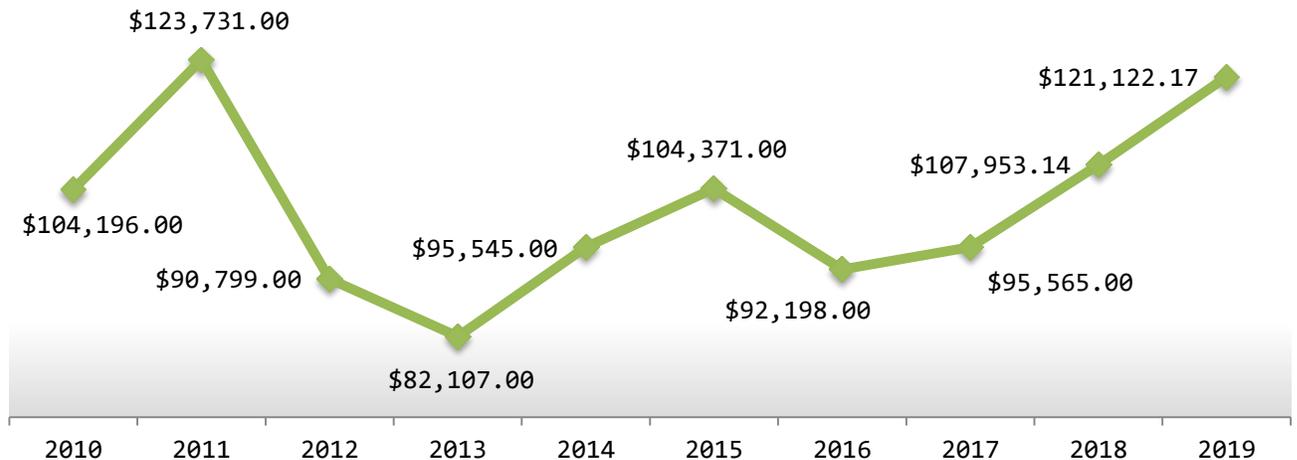


While the Department's budget has remained relatively flat, the Department's workload and demand for services is ever increasing. The operations of the Department are not comparable to a commercial setting in which economic demands determine the amount of labor and material needed. In addition, the Department has competing demands for the same limited resources further adding to the challenges.

### Annual Park Reservations

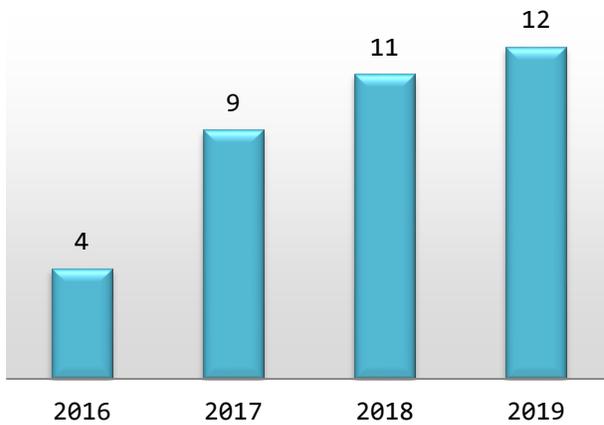


### Annual Park Reservation Revenue



City parks are one of the great assets of the community as shown on the annual parks reservation and annual park reservation revenue graphs. Notable figures for 2019 are the increase in permits and revenue over previous years. This is most likely due to rentals for buildings accounting for 66 percent of our rentals and the first increase in fees in many years. Building rentals require more attention from park staff versus outdoor open shelters. Most importantly, a visitor's first impressions typically are the quality and cleanliness of streets and parks. The administration office staff manages all park reservations and special event applications.

## Driveway Installation Permits



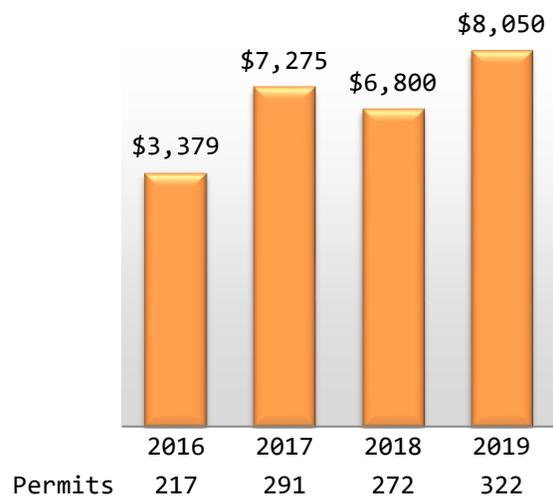
The Administration provides support services to all the Divisions within the Department by managing the budget, personnel transactions, customer requests, and public information. The objectives of the Administration are to support the necessary Divisions in order for their personnel to effectively concentrate on accomplishing their objectives. In addition, the Administration manages required reports for State and Federal agencies, grants, and the majority of permits and requests for service. Examples include: park permits, permits to excavate the right-of-way, permits to occupy the right-of-way (dumpster permits), boat ramp permits, and river boat slip leases.

The Public Works office also handles all of the Municipal Driveway permits. Any resident wishing to cut an existing curb to install or expand a driveway must secure a permit through our offices. The purpose of this permit is to ensure proper placement of driveways so as not to cause problems. There is a small fee (\$25.00) for residential driveway permits. Also, a filing fee is charged for commercial driveways for recording at the Register of Deeds.

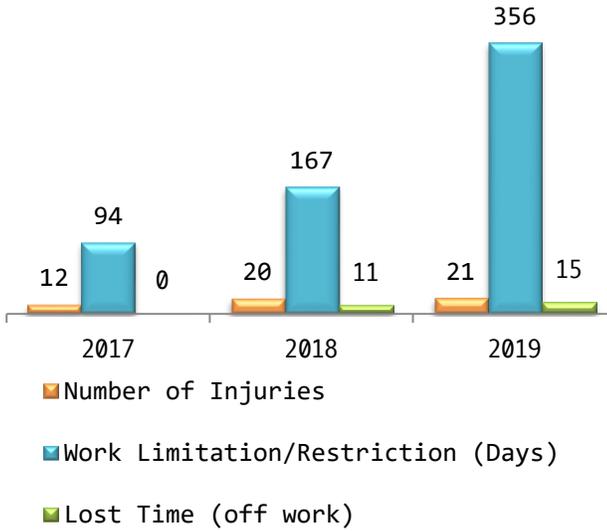
In years past, the Department had seen a decrease in the number of driveway permits issued. There was an increase shortly after the adoption of the new winter parking rules which have been in effect for over a decade and may be the cause of the upturn in permits issued once again, due to the increased discussion of snow emergency rules. The Department encourages residents to develop and provide off-street parking. The permits issued by the Department allow for the proper placement of driveways to prevent issues. Off-street parking significantly helps the Department in street sweeping, snow removal, garbage collection, tree trimming, and other operations.

This is the same philosophy behind permits to occupy street right-of-way (ROW) or dumpster permits. This permit allows residents, businesses, or contractors to occupy the street ROW, typically the parking lane, with equipment for extended periods of time. A fee is collected for this activity and is based on the length of time someone is occupying the street ROW.

## Permits to Occupy Right-of-Way



# OSHA RECORDABLE INJURIES



Worker compensation claims can be a costly part of any business, especially in Public Works, where the nature of work is hazardous and physical. As a result, the Administration is serious about protecting employees from injuries.

In late 2015, the Department hired a Superintendent of Streets and Sanitation who has a strong safety background and has made several safety improvements. The Department also takes advantage of Cities and Villages Mutual Insurance Company (CVMIC), the City's insurance company that provides assistance as part of our membership.

This year in an effort to engage employees, they were asked to participate in discussions pertaining to safety and other topics to create a more

rewarding work environment. The Department continues to strive for improving and providing a safe and enjoyable work environment for all employees as well as the public at our work zones.

Overall, the Administration is opening the lines of communication with the citizens of Sheboygan. In 2016, the Department enhanced its use of social media (Nextdoor, Facebook, Instagram, Twitter, and the DPW website) by providing real-time updates on road closings, construction detours, snow removal operations, garbage collection schedule changes, and other critical information. In addition, the administration gives public presentations to community groups and organizations on public works projects and programs.



City of Sheboygan  
 Department of Public Works  
 2026 New Jersey Ave.  
 Sheboygan, WI 53081  
 920.459.3440

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<https://sheboygandpw.com/>

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**HOURS:**  
 Monday – Friday  
 7:30 a.m. – 4:00 p.m.

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**After Hours Emergency:**  
 920.459.3333

## STAY IN TOUCH



Facebook



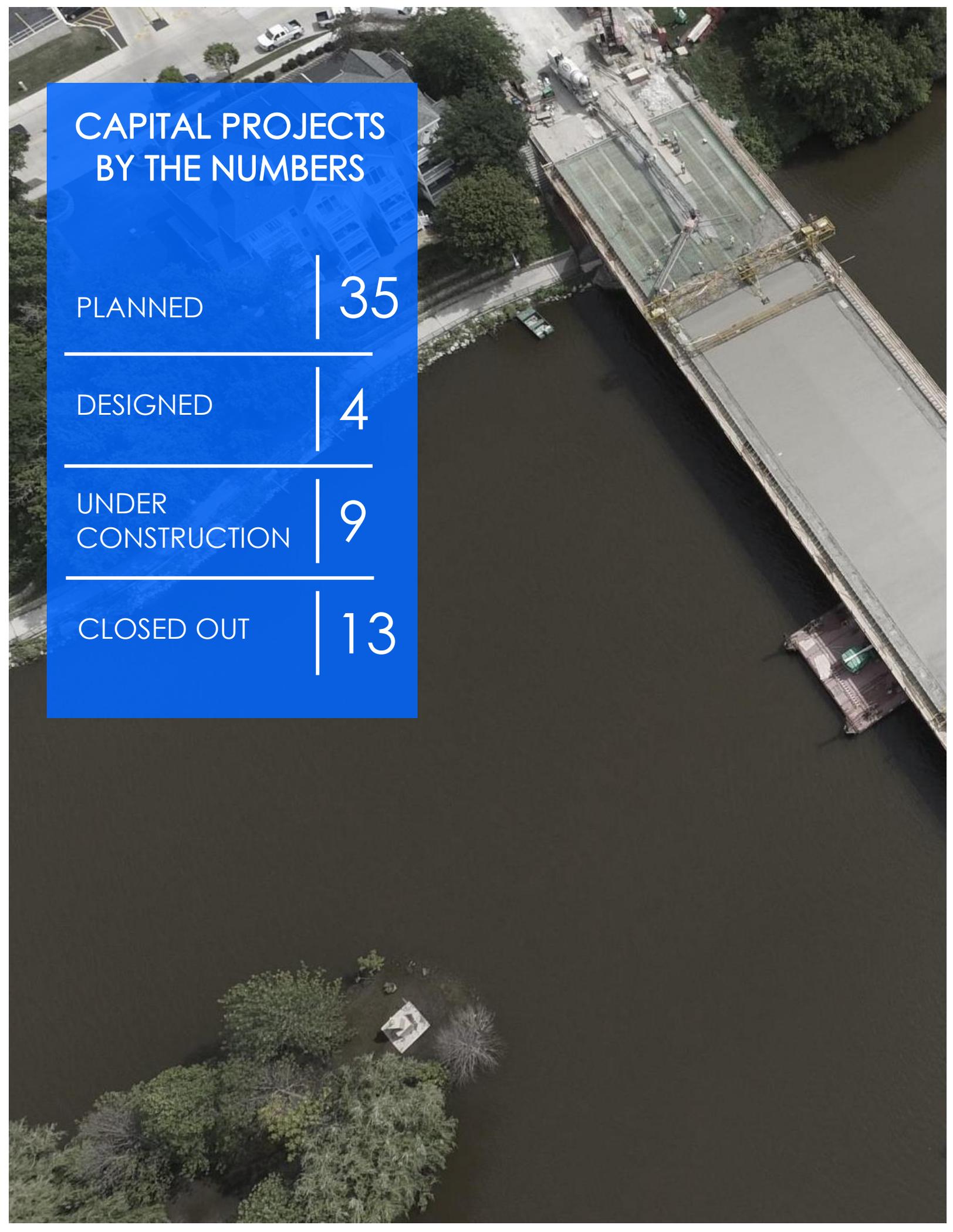
Twitter



Nextdoor



Instagram

An aerial photograph of a bridge under construction over a wide river. The bridge deck is partially completed, with construction equipment and materials visible. A large barge is positioned in the water below the bridge. The surrounding area includes trees and some buildings on the riverbank.

# CAPITAL PROJECTS BY THE NUMBERS

PLANNED

35

DESIGNED

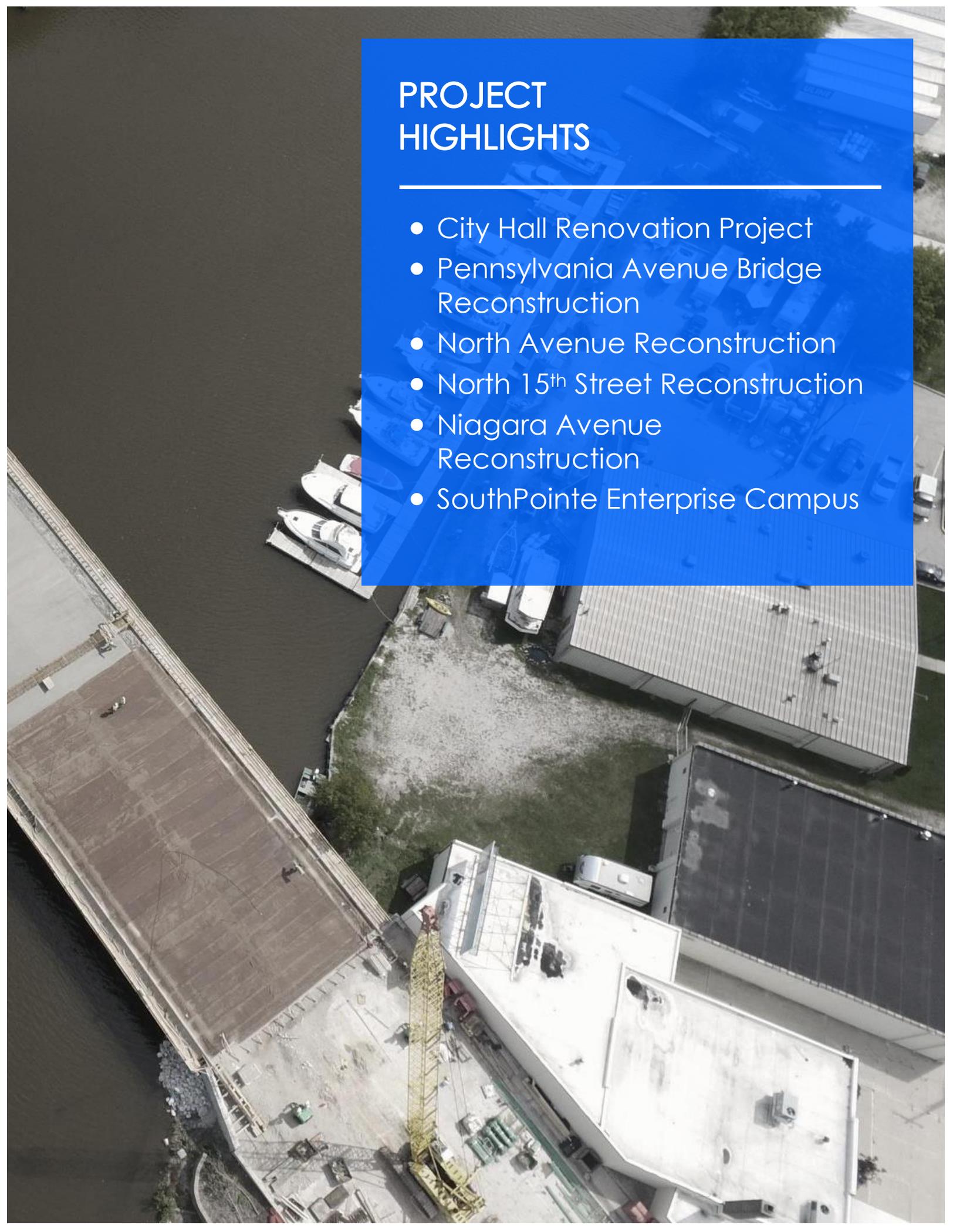
4

UNDER  
CONSTRUCTION

9

CLOSED OUT

13

An aerial photograph of a construction site. A large yellow crane is positioned in the center, surrounded by various construction materials and equipment. To the left, a large concrete structure, possibly a bridge or pier, extends into a body of water. Several boats are docked nearby. To the right, there are several large industrial or commercial buildings with flat roofs. The overall scene depicts an active construction project in an urban or waterfront area.

# PROJECT HIGHLIGHTS

---

- City Hall Renovation Project
- Pennsylvania Avenue Bridge Reconstruction
- North Avenue Reconstruction
- North 15<sup>th</sup> Street Reconstruction
- Niagara Avenue Reconstruction
- SouthPointe Enterprise Campus

Capital improvement projects are a big part of Public Works' role in building the future. The Capital Improvement Program (CIP) establishes a five year plan for improvements to the community's infrastructure.



### City Hall Renovation and Grand Opening

**Completion:** September 2019

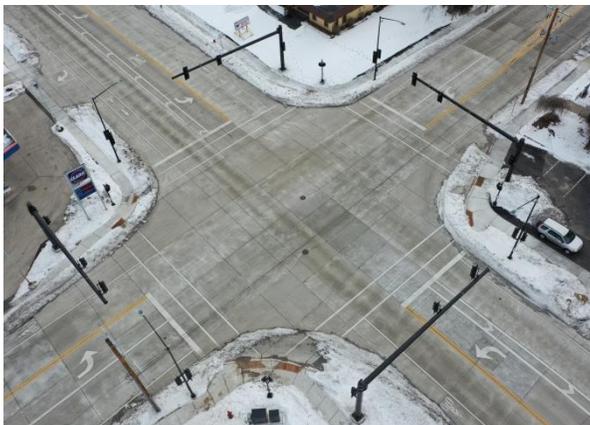
**Project Description:** This project created a safe, functional space for citizens and employees of the City of Sheboygan. There was a desire to preserve the historical nature of City Hall, however significant modifications needed to be made to make it a functional space for many years. In September 2019, a grand opening was held to welcome employees and citizens back to the renovated City Hall.



### Pennsylvania Avenue Bridge Reconstruction

**Expected Completion:** Spring 2020

**Project Description:** The Pennsylvania Avenue Bridge was built in 1973 and the bridge deck was in need of replacement. This project replaced the bridge deck, while also improving the street lighting and navigation lighting. Improvements to the sanitary sewer were also completed.



### North Avenue Reconstruction

**Expected Completion:** Summer 2020

**Project Description:** This project reconstructed portions of North Avenue continuing where the previous improvements at Calumet Drive stopped. These projects combine to provide a new and efficient roadway between North 15<sup>th</sup> Street and Calumet Drive. Work included a new railroad crossing, updated street lighting, and new traffic signals at the intersection with North 15<sup>th</sup> Street.

# ENGINEERING

The Engineering Division of the Department of Public Works has five main areas of concentration:

- **Planning and design**
- **Asset management**
- **Surveys, maps, and records**
- **Construction management**
- **Consultant oversight**

Through its programs and services, the Engineering Division seeks to improve the quality of life within the City by overseeing maintenance of the existing infrastructure and design and oversight of improvement projects. The Engineering Division has a total of eight full time employees with several of the staff being with the Division many decades providing key historical references and information.

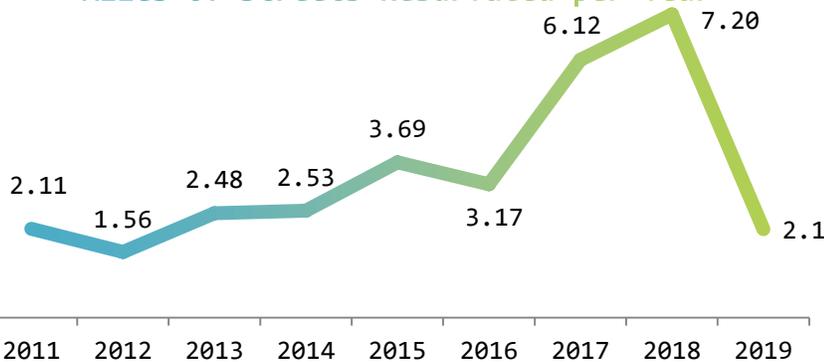
The Engineering Division manages the major infrastructure improvement

projects (capital improvements program) within the City. Since 1995, the City of Sheboygan has invested approximately \$68.7 million in infrastructure improvements. The annual street resurfacing program provides the majority of street improvements. However, State and Federal funding for connecting highways provides for the major reconstruction projects. In 2019, the City of Sheboygan had two federally funded reconstruction projects. The projects were North Avenue (Calumet Drive to North 15th Street) and the Pennsylvania Avenue Bridge. These two projects had a combined construction cost of \$7.7 million. North 15th Street, from Wisconsin

<b>Ryan Sazama, P.E.</b>	City Engineer
<b>Kevin Jump, P.E.</b>	Civil Engineer/Project Manager
<b>Scott Isaacs, P.E.</b>	Environmental Engineer
<b>Michael Born, P.L.S.</b>	City Surveyor/Engineering Technician
<b>Vic Gatawakas</b>	Senior Engineering Technician
<b>Jordan Sucha</b>	Civil Engineering Technician
<b>Tyler Hill</b>	Engineering Technician
<b>Andrew Bartell</b>	Geographic Information Systems Specialist



**Miles of Streets Resurfaced per Year**



Avenue to Niagara Avenue and Niagara Avenue from North 15th Street to North 14th Street was also reconstructed in 2019.

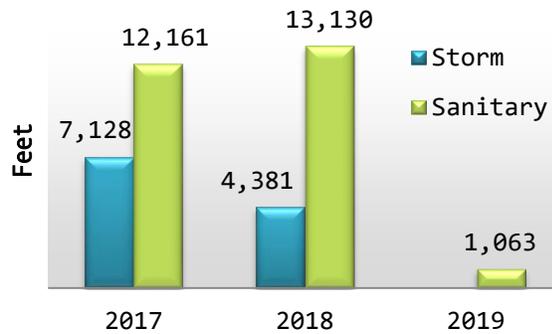
Furthermore, new subdivision development requires the expansion of streets and sewer systems.

Since 2012, the Division has relined CIPP (cure-in-place-pipe) over 7.60 miles of sanitary sewer and approximately 2.55 miles of storm sewer.



Liner Being Inserted Into Sewer Pipe

### Sewer Lining Program



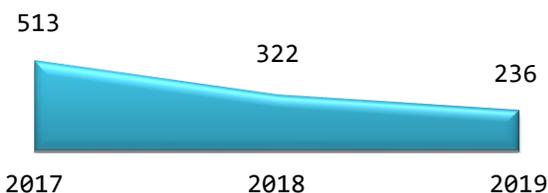
The City of Sheboygan's Pavement Management Program is a strategy that identifies cost-effective methods for preserving the City street network and prioritizes the levels of maintenance along with funding levels in order to improve the quality and extend the life on our existing street network. Pavement Management Systems take complex, large networks and data, and summarize this information into usable data for decision making. Streets are ranked biennially by many factors such as pavement condition, average daily traffic, pavement type, utility condition, width, age, and many other factors. The goal of the Pavement Management is to make cost effective decisions with limited funding while improving and extending the life of the street.

**2019 Average Pavement Rating**

**6.25 / 10**

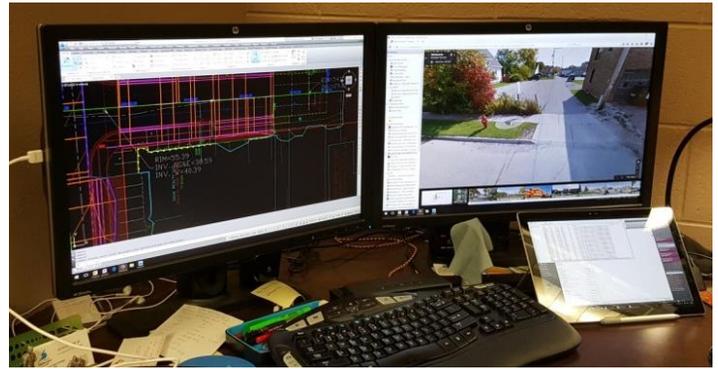
The Pavement Management System provides the Department of Public Works with a comprehensive overview of our street network and display the overall health or condition of this network, all based on condition assessments and maintenance strategies matrixes and funding analysis. As a result, the Department has increased its efforts to improve this critical infrastructure to our community as is evident in the increased miles of streets resurfaced/reconstructed in recent years.

### Permits to Excavate in the Right-of-Way



The Engineering Division also manages the utility cuts or excavations within the street right-of-way. This is an important program that ensures proper pavement restoration is performed. Poorly restored excavations in the street right-of-way lead to accelerated pavement deterioration.

The Engineering Division also maintains all the mapping and data regarding the City's infrastructure. The City's base map is now digitally produced. In 2018, the Engineering Division invested in a new mapping and data collection software called ESRI. This software is the standard used throughout the industry. This software will allow the Division to transfer and share data more efficiently with other departments in the City of Sheboygan as well other governmental and private industry entities. It will be the foundation for all of the infrastructure and data to be captured geographically. The



Computer Aided Design Station

majority of City services, even those outside of Public Works, are geographic in location.

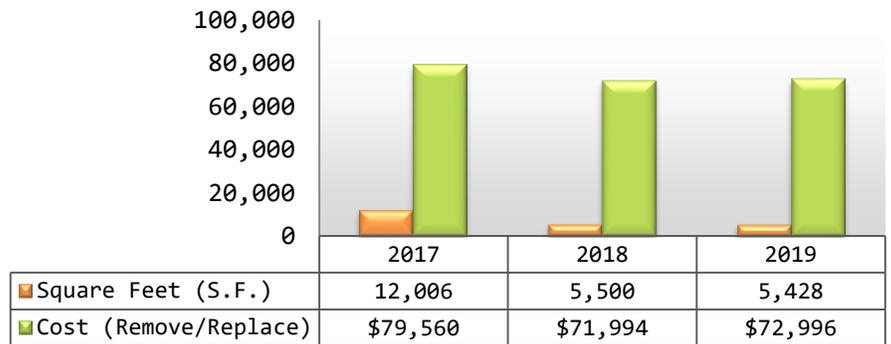
Surveying data is also captured digitally and downloaded into the mapping and design software (CAD) greatly enhancing the accuracy as well as speed to alter designs and review alternative layouts.



Computer Surveying/GPS Equipment

The Engineering Division manages the City Sidewalk Program, which inspects defective sidewalk and orders their replacement. It is the City's responsibility to maintain a safe pedestrian walkway, and failure to do so may result in future liability. Once notified of a defective sidewalk, the property owner has the option to do the work, hire their own contractor, or contract with the City's contractor for the sidewalk replacement. With approximately 350 miles of sidewalk, this program is ongoing.

### Sidewalk Repair/Replacement Program



Before (left) and After (right) Sidewalk Replacement

### Mini-Storm Sewer Installed



The Engineering Division has designed and installed over \$227,681 of mini-storm sewers in the City since the project's initiation. Since the flood of 1998, the Division has taken an aggressive approach to solving clear water problems. This program continues to grow; however, the Engineering Division now requires storm sewer laterals in any new construction to ensure sump pumps are not discharged into the sanitary sewers. The mini-storm sewer program is ongoing.



Mini-Storm Sewer Installation - Backyard



Incorrect Sump Pump Discharge

## GOAL

Provide quality infrastructure that conveys safe, efficient delivery of essential goods and services

# PARKS, FORESTRY and CEMETERY

The Parks, Forestry and Cemetery Division of the Department of Public Works main purpose through its facilities, programs, services, and personnel, seeks to enhance the quality of life and environment; to acquire, conserve and protect natural resources; and to provide leisure opportunities for the benefit of its present and future citizens.

Parks, Forestry and Cemetery Division goals include:

- Provide appropriate financial support for park, recreation, and open space needs
- Develop an attractive diversified park system comprising of imaginatively designed indoor and outdoor areas and facilities to meet the varied interests of the residents
- Maintain the park system, in accordance with high standards, so as to contribute to the beauty, charm, and quality of life of the City of Sheboygan
- Cooperate with and support the Sheboygan Area School District in the joint planning, design, development, and operation of areas and community, recreation and education programs
- Utilize land and water resources in cooperation with both public and private agencies for the maximum development of recreation programs and services
- Maintain high standards in leadership, facilities, and equipment consistent with the Department of Public Works and the City of Sheboygan's mission
- Provide for the planting, maintenance and preservation of all trees and flora on City owned properties

<b>Joe Kerlin</b>	Superintendent
<b>Tim Bull</b>	City Forester
<b>Scott Plehn</b>	Parks Leadman
<b>Ken Meinnert</b>	Forestry Leadman
<b>Brian Meulbroek</b>	Construction & Maintenance Craftsman
<b>Dan Billmann</b>	Construction & Maintenance Craftsman
<b>Jim Lavey</b>	Cemetery Caretaker
<b>Tom Perl</b>	Tree Trimmer
<b>Mark Kiser</b>	Tree Trimmer
<b>Jim Stromski</b>	Tree Trimmer
<b>Jason Harrison</b>	Utility Driver
<b>Chad Prisinger</b>	Park Caretaker
<b>Ryan Cyr</b>	Park Caretaker
<b>Mike Johnson</b>	Park Caretaker
<b>James Gilliam</b>	Truck Driver
<b>Rich Beseler</b>	Truck Driver
<b>Chad Kuehn</b>	Truck Driver





**36 Parks**  
**705 Acres**

**explore**  
**enjoy**  
**water**  
**relax**  
**outdoors**





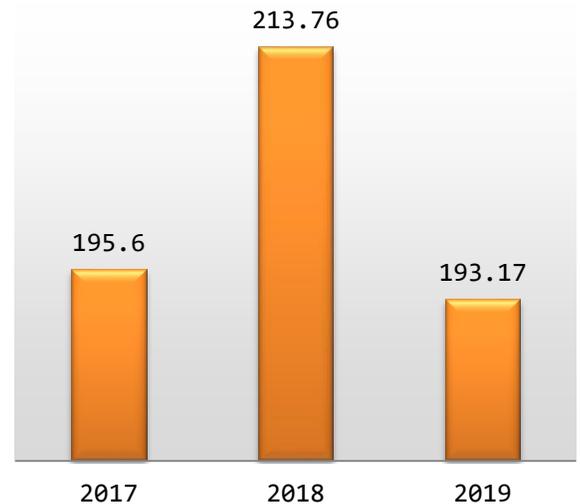
The Division is responsible for maintaining and improving the City park system, which consists of 36 parks, 705 acres, six rentable pavilions, 10 rentable picnic shelters, a bandshell, 24 restrooms, 25 playgrounds, three splash pads, two fish cleaning stations, 10 tennis courts, six baseball/softball fields, Wildwood Softball Complex, Wildwood Baseball Complex, two miles of public beaches, concrete skate park and an archery range. The Division also assists with the many Sheboygan celebrations held throughout the summer season.

Park garbage is collected twice a week by two park staff using the park garbage truck. The Division also collects garbage from the 8th Street receptacles, City offices, and the Police and Fire Departments.

Grass cutting and park maintenance dominate the summer season. The grass cutting crews are comprised of seasonal and full-time employees. These crews are responsible mowing and trimming of all parks, street boulevards, and water retention areas.

In addition to routine maintenance items, the Division is responsible for delivering park equipment to the major festivals and smaller gatherings within the park system. Department charges these organizations for the use and delivery of the equipment. Other than equipment and park rental fees, the majority of the parks are available at no charge to the public.

## Park Garbage in Tons



Park Equipment Used											
	4' Bench	Straight Tables	Straight Benches	Combo Tables	Stages	Grills	Snow Fence	Garbage Barrels	Chair Trailer	Dance Floor	Bleachers
<b>2016</b>	333	455	264	600	14	43	195	410	6	6	9
<b>2017</b>	71	340	174	526	13	17	137	334	4	4	9
<b>2018</b>	95	308	192	556	17	37	97	381	8	9	9
<b>2019</b>	77	243	172	636	13	36	95	496	8	4	8

For 2019, the Department scheduled 10 major events in the parks:

- Greek Fest
- Freedom Fest Independence Day Celebration
- Hmong Summer Festival
- Rotary Lobster Boil
- Jaycee's Bratwurst Days
- Gus Macker Basketball Tournament
- Night Market
- Taste Sheboygan
- Maywood Earth Ride
- Riverfest

These celebrations are open to the entire community and enrich quality of life of the citizens of the City of Sheboygan. The Division is committed to supporting these events and providing quality services which is consistent with enhancing the quality of life for the citizens of Sheboygan.

Winters for the park crew consist of adding a tree trimming crew, snow removal of 26.2 miles of sidewalks and trails, cleaning 11 parking lots and maintenance of park signs, picnic tables, garbage corrals, and grills. The Parks, Forestry, and Cemetery Division also assists the Streets Division on an as-needed basis for snow removal.

Capital Improvements for the year consisted of the in-house construction of a 56' x 32' park garage building in Deland Park, construction of two tennis courts and three pickleball courts in Vollrath Park, sidewalk construction to meet ADA accessibility in Cleveland Park and Optimist Park, and a Kiwanis Park Master Plan Design.



Deland Park Garage



New Sheboygan A's Party Deck and Field Improvements at Wildwood Softball Complex

The addition of a new park garage at Deland Park addresses the growing need for a place to store equipment in a central location for the lakefront crew.

The addition of a new park garage at Deland Park addresses the growing need for a place to store equipment in a central location for the lakefront crew.

## *Enhancing the Quality of Life*

The Parks Division also worked with Lakeshore Natural Resource Partnership (LNRP), and several other partners to hire Wisconsin Conservation Corps (WisCorps) to remove and chemically treat a variety of invasive species. Stantec, an environmental engineering consultant, was instrumental in working with WisCorps along the North Point Bluff. WisCorps is already set to continue working along the bluff in 2020. Part of the Bluff Restoration Project will be the continued invasive removals and planting of a variety of native trees and shrubs for erosion control



Bluff Restoration Project



Jaycee Quarryview Park is 38.29 acre park that provides a year round 18-hole disc golf course, mountain bike trails along Pigeon River and a beautiful spring fed quarry that is home to the Quarry Beach and Adventure Park. The adventure park first opened in 2013, leased by the City to a private company. In 2017, a local company, EOS Surf, took over management and lease of the Quarry. The park provides water park inflatables, or wibits, for ages 6 and up, kayaks, stand up paddleboard rentals and lessons, a beautiful sand beach and party room rental. The park is a big part of Sheboygan's history, and the adventure park has brought new life to the whole park.



Stand Up Paddleboard Rentals and Wibits at Quarry Beach and Adventure Park

Another popular City park destination is the Ellwood H. May Environmental Park, or more commonly referred to as, "Maywood." This park is unique in that it remains in a natural state. Its primary focus is environmental education and stewardship. Maywood has six diverse ecosystems, an arboretum, a butterfly and humming bird garden and a fantastic Ecology Center. Programs offer educational and outdoor experiences designed to connect people of all ages to the natural world. In 2018, Maywood worked with the Sheboygan Area School District and Camp Y-Koda to start a pre-school program. The program offers a hands on nature based learning experience.

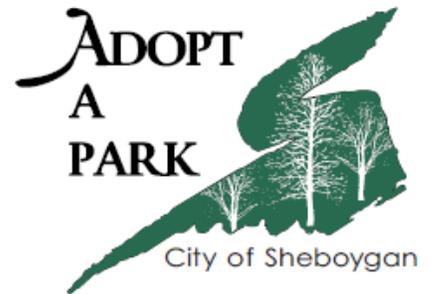


In 2019, the Parks Division partnered with a private company for the creation of an authentic German Biergarten. City staff first started talking about a beer garden in one of Sheboygan's parks in 2017. The city advertised for proposals in 2018 and in September entered into an operating agreement with Power Pubs, LLC to open 'The Sheboygan Biergarten' in 2019. The Biergarten is located in Area 8 of Kiwanis Park and its seasonal operations are based on authentic German Biergarten offering concessions, including several authentic German beers, a few domestic beers, wine, soft drinks and water. They offered German large pretzels and cheese curds for snacks, but patrons were encouraged to bring in their own food. The Biergarten was set up to be very family friendly. The city even changed current ordinances to allow dogs on a leash in the Biergarten area during open hours.



### Cole Park Adopt-A-Park Kick-off

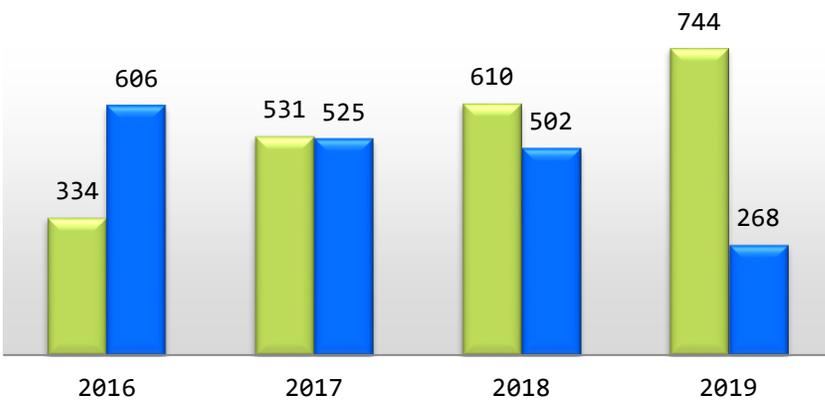
In 2018, the Department of Public Works piloted an Adopt-A-Park and Adopt-A-Trail program for local businesses and community groups. The program has been successful so far, with inquiries for more adoptions coming in regularly. In 2019, RCS adopted a section of trail along the Shoreland 400, the Friends of North Point adopted the North Point Overlook Park and the Vollrath/North Point Neighborhood Association adopted Cole Park. This brings the total adoptions since the programs' initiation to six. The Department works closely with leaders from the businesses and neighborhood associations to plan kick-off events to announce their adoptions, organize and provide support for clean-ups, and provide guidance for future park upgrades.





## Tree and Stump Removals

■ Street ROW   ■ Number of Stump Grindings



GOAL

Recognize that the public lands owned and managed by the City present an opportunity for the City to practice good environmental management and demonstrate sustainable land management practices.

Tim Bull, the City Forester, giving a demonstration of how the Forestry Subdivision treats for the Emerald Ash Borer.

# Forestry

The Division has five full-time forestry employees that care for 23,000 street trees and all park trees. During the winter months, an additional three person crew is formed by other Public Works Department workers and aid in the trimming of the street trees.

In 2016, the Common Council accepted its first Urban Forestry Management and Emerald Ash Borer (EAB) Plan. It also developed a planting plan, inventorying over 3,700 possible street planting sites. Tree planting and ash tree management became a priority for the Division in 2017 and will be for years to come. The urban forest of Sheboygan provides aesthetic, economical, and environmental benefits to citizens, businesses, and visitors. Beyond shade and beauty, trees have practical benefits and real monetary value. The purpose of having an urban forest management plan is to ensure that the citizens of City of Sheboygan will enjoy the benefits of

trees through proper arboricultural techniques and management practices. The plan breaks down into two main goals:



**1 Eliminating high risk situations such as high-risk trees, branches, and the removal and management of EAB infected trees.**

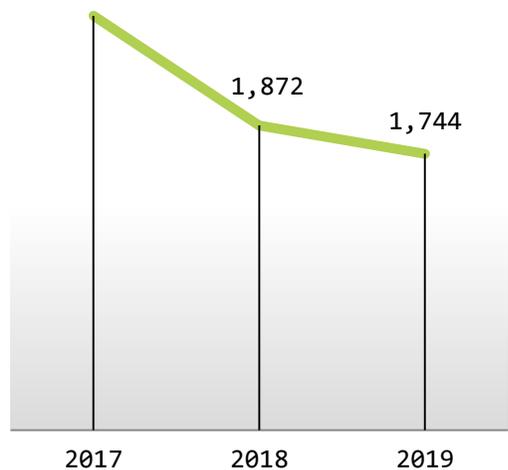
**2 Establish a routine, comprehensive Urban Forestry Program for a healthy forest.**

In 2019, the Division contracted for the planting of 535 trees. Financing for the tree planting was a combination of city funds, community block grant funds, a grant from 100 Friends of Wisconsin and USDA Forest Service, and donations from the local Rotary Clubs. The Division also treated 799 ash trees, removed 374 ash trees, removed 370 other dead, dying or hazardous trees, trimmed 1,744 trees, and ground out 268 stumps.



**Number of Trees Trimmed**

2,365





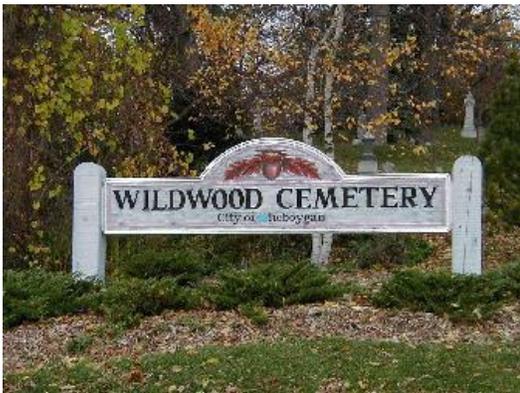
# 41 YEARS

of

## Tree City USA

This year the City received its 40th Tree City USA award during its Arbor Day Program in Deland Park. Sheboygan is the longest Tree City USA recipient in the State of Wisconsin. The Wisconsin DNR and the Sheboygan Area Rotary Clubs joined the City in the celebration. The Sheboygan Area Rotary Clubs donated \$14,500 to the City to aid in the replanting of City trees.

## Wildwood Cemetery



The City of Sheboygan Department of Public Works has owned and operated the Wildwood Cemetery since the 1850's. The cemetery is 62 acres and has over 25,000 graves with perpetual care, with approximately 20,000 burial lots remaining. Of the 62 acres, 40 acres are intensively maintained, and the remaining 22 acres are reserved for future use. The cemetery has a dedicated full-time caretaker and office support staff that provides quality death-care services to families in their time of need. The cemetery is supported by the parks and forestry crews and several seasonal employees. Tree care, mowing and trimming account for a tremendous amount of staff time keeping the cemetery looking nice for visiting families.



### Wildwood Cemetery Burials

■ Full Burials ■ Cremains ■ Baby



# STREETS and SANITATION

The Streets and Sanitation Division has 37 full-time employees, which makes it the largest Division within the Department of Public Works. The Division places a high priority on improving the quality of life by effectively developing, maintaining and improving the infrastructure, and community services.

Daily street maintenance for the Division includes

- Street excavation and repairs
- Tarring or crack filling
- Pothole repair
- Asphaltting and concrete work
- Street sweeping
- Snow and ice removal
- Barricading for City celebrations/events

Daily sanitation maintenance for the Division includes

- Garbage and recycling program
- Residential Recycling Center
- Sewer maintenance and construction



<b>Jason Blasiola</b>	Superintendent
<b>David Groves</b>	Supervisor of Operations
<b>Scotty Buboltz</b>	Leadman
<b>Brandon Munnik</b>	Leadman
<b>Bruce Matzdorf</b>	Leadman
<b>Nick Binsfeld</b>	Maintenance Worker IV
<b>Ben Mohar</b>	Maintenance Worker IV
<b>Kevin Prisinger</b>	Maintenance Worker IV
<b>Mark Wilhelm</b>	Maintenance Worker IV
<b>Chris Anderson</b>	Maintenance Worker III
<b>Mark Kuhfuss</b>	Maintenance Worker III
<b>John Burkard</b>	Maintenance Worker III
<b>Adam Gilson</b>	Maintenance Worker III
<b>Travis Hill</b>	Maintenance Worker II
<b>Gene Kunstman</b>	Maintenance Worker III
<b>James McKenzie</b>	Maintenance Worker III
<b>Mark Polich</b>	Maintenance Worker III
<b>Thomas Ross</b>	Maintenance Worker II
<b>Bill DeAmico</b>	Maintenance Worker III
<b>Tim Allee</b>	Maintenance Worker II
<b>John Bridges</b>	Maintenance Worker II
<b>Jason Brill</b>	Maintenance Worker III
<b>Chad Jones</b>	Maintenance Worker II
<b>Travis Larson</b>	Maintenance Worker II
<b>Robert McNiff</b>	Maintenance Worker II
<b>Matt Yancey</b>	Maintenance Worker II
<b>Nate Schanno</b>	Maintenance Worker II
<b>Brian Schmitt</b>	Maintenance Worker II
<b>Shawn Soucheck</b>	Maintenance Worker I
<b>Ryan Schneider</b>	Maintenance Worker II
<b>Joel Brunnbauer</b>	Maintenance Worker II
<b>Kyle Thomas</b>	Maintenance Worker I

<b>Chris Dekker</b>	Maintenance Worker III
<b>Adam Fryman</b>	Maintenance Worker II
<b>Mike Yank</b>	Maintenance Worker I
<b>James Michalesko</b>	Maintenance Worker I

# Teamwork

Accountability **innovation**

*Service* **Fiscal Responsibility**

**RESPECT**



Demonstrating the Sewer Camera Truck on Public Works Day



# Street Maintenance

Street maintenance is one of the major functions within the Division and the most costly.

In 2019 the budget was \$1.7 million. The Division performs street repairs as well as repairs from contractor's utility excavations within the street right-of-way.

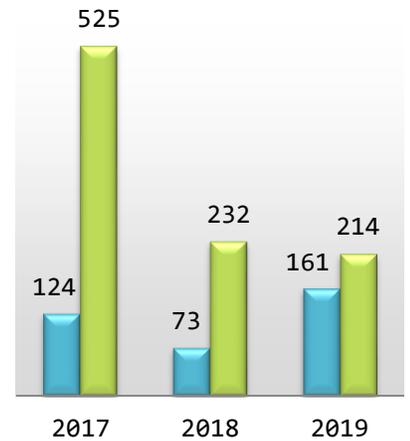
The Streets Division has made a concentrated effort to fill pot holes using hot mix asphalt during the 2019 construction season. Using hot mix makes a better, longer lasting repair. As shown in the graph, the DPW placed 214 tons of hot mix asphalt in 2019. The DPW's goal is to respond to pothole requests within two business days. During 2019, the Department's response rate averaged 1.8 days.

During the winter months when hot mix is unavailable, cold mix asphalt is the only alternative. Cold mix asphalt does not adhere to the road surface and will eventually come loose. The Division makes every effort to revisit these areas and install hot mix during the summer months.

The Division is using more asphalt with an asphalt paver. The Water Utility and Wisconsin Public Service (gas) are performing their own street repairs as a result of their work. This work is inspected by the Division to ensure quality and to prevent premature failures. Overall, the Division is pleased with this arrangement because it allows our crews to concentrate on more important repairs and maximize the effectiveness of street repairs.

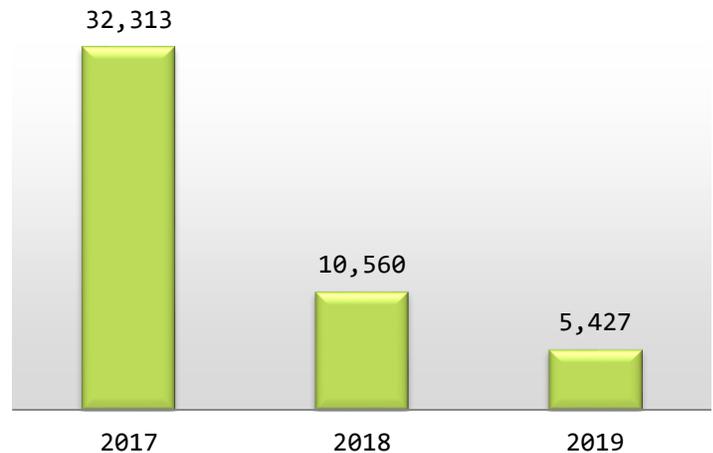
## Potholes Filled

- Potholes - cold mix tons
- Potholes - hot mix tons



Pot Hole Wagon

## Lineal Feet of Asphalt Placed by City DPW Crews



Asphalt is placed on streets with blacktop overlays. Furthermore, streets are resurfaced with asphalt when the pavement becomes deteriorated. In 2017, the DPW took delivery of a new asphalt paver. As a result, the Division has had a large increase in the amount of tons used. The Streets and Sanitation Division has started working with the Engineering Division to complete Capital Projects. This year the DPW did not pave as many streets as in 2018 due to state projects

and emergency repairs. The Division did complete paving sections of Pershing Avenue, Taylor Drive, and North 8<sup>th</sup> Street. The DPW placed a total of 5,012 tons of asphalt with the paver, overlaying 5,427 linear feet of asphalt in 2019.

The DPW purchases the majority of the asphalt from Sheboygan County Highway Department. The end result lowered the overall cost per ton.

2019 Cost of  
Asphalt per ton:  
**\$35.04**



Concrete Crew

### Yards of Concrete Installed



The DPW concrete crews have been placing more yards of concrete the last three years due to the installation of American's with Disabilities Act accessible ramps. DPW crews have been working with the Engineering Division to learn how to use laser levels and set the proper grade for the accessible ramps. Crew members have also attended seminars to learn about the specific grades and requirements of ADA Act. Sppecially in 2019, DPW personnel installed the ADA compliant ramps in the neighborhood surrounding the Shaw Family Playground and the formal Social Security Administration Building.



ADA Accessible Ramps near Shaw Family Playground



ADA Accessible Ramp outside of former Social Security Administration Building



Street Excavation Patch

Street Right-of-Way (ROW) excavations occur when contractors need to dig within the street ROW to repair, replace or install utilities. It is important for the Department to regulate this activity to ensure protection of the street and underground utilities. In efforts to maintain the integrity of the street network and prevent disruption of traffic and public services, careful coordination is required by the DPW.

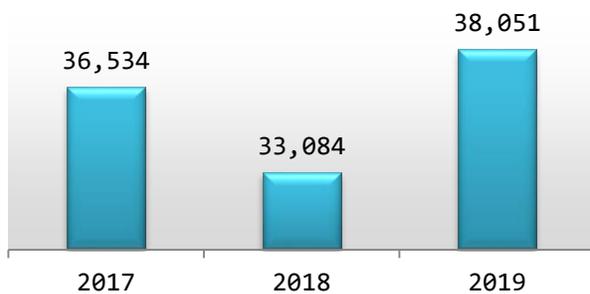
In previous years, the Streets Division would perform all the repairs to the ROW. This activity would take a considerable amount of time and resources away from other Division projects. In efforts to work more efficiently, the Division has shifted this work back to the contractor's or utilities performing street ROW

excavations. The Division ensures the quality of the repair through the permit process and frequent inspections.

The Division has witnessed an increase in the amount of utility service holes in City streets. Telecommunications deregulation has opened the competition, and the result is more companies installing new communication wires. In addition, the gas utility has systematically upgraded their infrastructure.

Crack filling is performed on a two-year, five-year and ten-year cycle, in that streets with asphalt overlays or new streets have cracks filled during these time periods. It is imperative to fill cracks to prevent water from penetrating into the pavement, which will cause further deterioration. This program started in 1985 and has been very successful. In 2019, DPW cracked filled 38,051 linear feet. As the Division starts to overlay more streets, the City will continue to see increases in the amount linear feet cracked filled yearly.

### Crack and joint filling footages (LF)

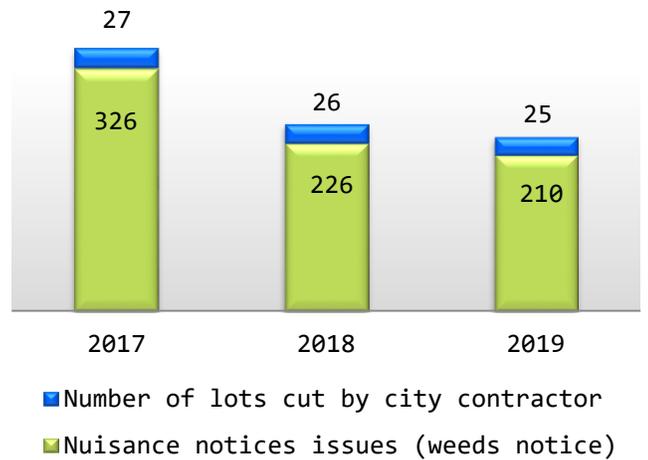


Crack Filling

The Streets Division is responsible for the response and control of noxious weeds and tall grass complaints. The Division takes calls on a complaint basis and will respond to verify if there is a problem. The supervisor notifies the property owner when a violation is discovered and gives 48 hours' notice to cut the weeds or grass.

A follow-up inspection is then necessary to see if the problem has been rectified. If not, the supervisor will then notify the City's contractor to proceed with cutting the weeds or grass. As one can imagine, this process is time consuming. However, it is a necessary program that helps maintain the high quality of life within our community.

### Weed and Tall Grass Complaints



### Bridge Openings



Bridge maintenance is another major function under the Street and Sanitation Division. Maintenance includes seal coating the bridges biannually. The City has 19 bridges with over 185,000 square feet of bridge decking. The 8th Street Bridge over the Sheboygan River is the most expensive bridge in terms of maintenance and operation. The bridge has a lift span that must be opened for maritime traffic. From May 1 through October 31, the bridge is staffed with tenders that open and close the bridge for boaters.

State and Federal regulations require bridges are inspected biannually by a certified bridge inspector, whom the Division has contracted with the County.

### Bridge Maintenance



8th Street Bridge controls



8th Street Bridge being inspected

## Snow and Ice Control

Snow and ice control is one of the most important and visible activities the Streets Division performs. The Division takes a proactive approach through advance planning, work crew training, equipment readiness, deicing agents, monitoring weather forecasts, dispatching crews and public notification.

The Department of Public Works has started to use brine to treat the roadways. The direct application of brine, also known as anti-icing, can be applied to road surfaces up to three days prior to a snow event. Anti-icing is often the most cost effective and environmentally safe practice in certain winter road maintenance situations.



Applying the brine to the roadways will prevent the snow and ice from forming a bond with the road surface. By preventing the bond, it becomes easier to remove the snow from the roadway.

Anti-icing requires about a fourth of material at one tenth the overall cost. One ton of salt makes around 800 gallons of brine. The DPW can treat 26 miles of road with 800 gallons of brine. Comparatively, one ton of salt applied directly on to the road at 300 lbs. per lane mile is able to treat up to 6.6 miles.

In addition to anti-icing, DPW salt and plow trucks have the capability to apply brine to the salt as it is applied to the road surfaces. Applying brine to

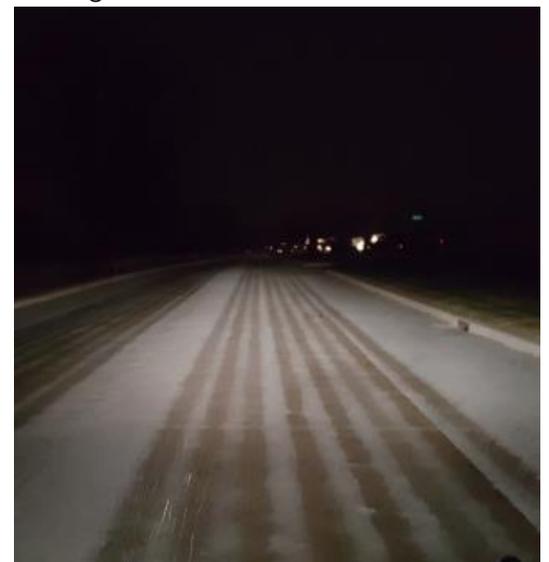
road salt is called pre-wetting. According to recent studies, pre-wetting salt can reduce salt usage by 30 percent. By pre-wetting the salt with brine prior to being applied to street, it is activated and starts working when it comes in contact with road. Whereas dry salt needs to come into contact with precipitation before it will to start work. When dry salt is applied to roadways researchers, have found

that up to 30% of the salt bounces and scatters into the curb lines. Pre-wetted salt does not bounce as much and stays in the roadways.

Over the past four winter seasons, the City of Sheboygan has experienced an average of 20 snow events a year that required the DPW to respond. In 2018 / 2019 season, the City of Sheboygan saw 20 snow events for a total 69 inches of snow. The DPW used 3,212 tons of salt.

### 20 SNOW EVENTS

The City saw 20 snow events for a total of **69** inches of snow. The DPW used **3,212** tons of salt in 2018/2019.



Salt Brine Treated Road

## Winter Snow Operations

Year	EVENT #	EVENT DURATION (HRS)	EVENT PRECIPITATION (INCHES)	TOTAL MAN HOURS	LABOR COST	SALT (TONS)	SALT COST (TONS)
2012-2013	24	319.25	61.50	4,004	\$126,126	5,012	\$297,574
2013-2014	32	248.00	69.25	4,680	\$147,428	4,667	\$283,777
2014-2015	19	124.50	29.00	1,960	\$ 61,740	2,302	\$162,055
2015-2016	22	332.25	39.70	3,115	\$ 98,107	4,552	\$320,433
2016-2017	22	447.50	65.00	4,988	\$157,122	4,557	\$314,314
2017-2018	15	253.50	47.50	3,424	\$117,710	2,925	\$195,785
2018-2019	20	231.00	69.00	2,937	\$102,795	3,212	\$245,300

In 2019, the Streets & Sanitation Division crews worked ahead and performed the majority of underground repairs prior to the paving crew overlaying the streets.

During the 2019 construction season, the DPW replaced 29 sanitary manholes.

The Division uses precast concrete manholes as replacements. Often times, they are replacing cream city brick manholes that were built by hand in the late 1800's. Using precast structures makes for faster and easier repairs, limiting the amount of time that our employees are working



Preparing to install a new sanitary manhole

in an excavation. Precast structures also limit the amount of infiltration from ground and surface water.

Along with replacing sanitary manholes, crews also replaced catch basins and storm water manholes. Replacing the entire manhole with a precast concrete one is more effective over the long term because they allow little opportunity for groundwater infiltration.

### *Sanitary and Storm Sewer Construction*

Although this process is more time consuming, older manholes constructed with block, brick or a combination thereof are easily infiltrated by groundwater.



Precast Manhole with Rubber Boot

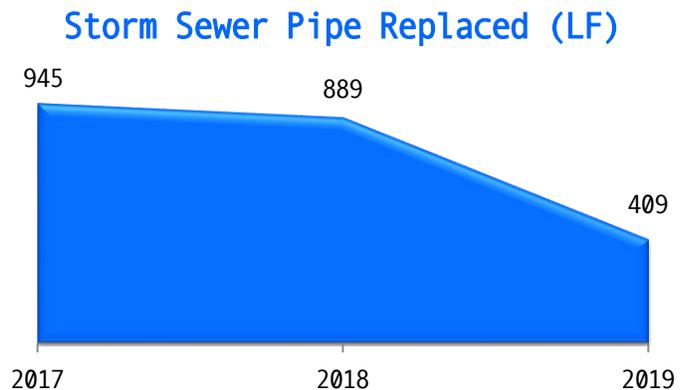
## Sanitary and Storm Sewer Replacements



Whenever possible, crews try to increase the size of the pipe when replacing catch basin leads. Unfortunately, this is not always possible due to the fact that other buried utilities may be in conflict with the storm sewer pipe. In 2019, the DPW replaced 30 catch basins, 14 storm manholes and over 409 linear feet of storm sewer pipe.



Storm Drain (Catch Basin) Installation

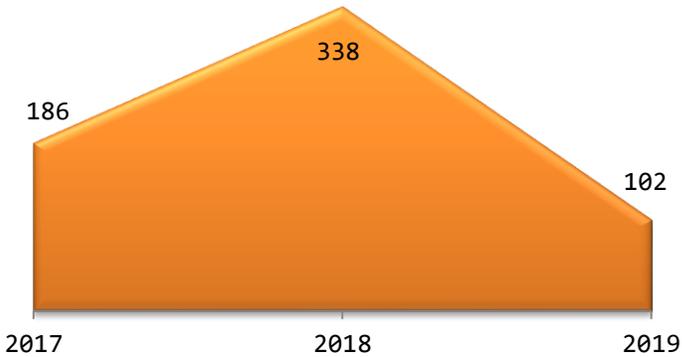


Due to water quality concerns, the State of Wisconsin now requires the City to permit its storm sewer system through the Wisconsin Department of Natural Resources (WDNR). The permit requires “best management practices” (BMP) to ensure water quality. Two major BMP are street sweeping and catch basin cleaning. In 2000, the Streets Division started to systematically clean catch basins. Prior to this period, the Division cleaned basins only on a complaint basis. The first year experienced a large amount of tonnage collected due to the infrequent cleaning in the past. In 2019, the DPW removed over 102 tons of debris from the catch basins.



Sewer Whirlwind Catch Basin Cleaning Truck

### Catch Basin Debris Removed (Tons)



Catch Basin Cleaning, Before (Left) and After (Right)

## Street Sweeping

Beginning in 2000, the Division restructured some of the street sweeping routes to comply with the WDNR's storm water permit requirements. Overall, the amount of tonnages collected as part of the street-sweeping program has been fairly consistent with a slight downward trend. One change that has significantly affected the program was the requirement to dispose of the street sweeping debris in a landfill. Previously, the Division used material in backfill or compost.

The DPW has three sweepers that are regenerative air/vacuum sweepers and one mechanical sweeper. During early spring, the DPW will dispatch



all four sweepers for heavy sweeping. After, the City has been completely swept one time; two sweepers are kept on through the rest of the year as weather permits. In 2019, the Department swept over 4,916 miles of curb line and removed 813 tons of debris from the City streets.

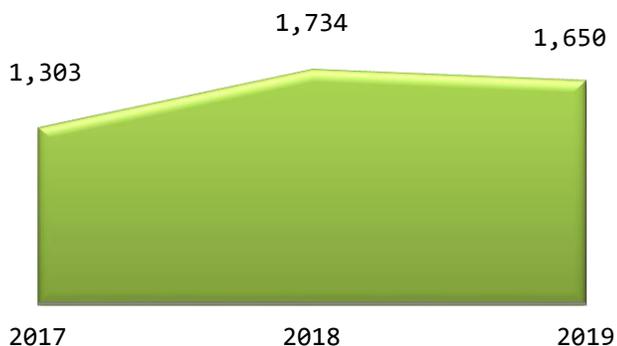
### STREET CLEANING

In 2019, the street sweepers removed **813 tons of debris** and swept **4,916 curb miles**.

## Leaf Collection

The Street Division manages the fall leaf collection program. Every fall, between the months of October and November the City allows residents to rake leaves into the parking lane of the street to facilitate efficient collection of leaves. Since the Division is already performing street sweeping it is most effective to allow the residents to rake additional leaves from their property into this designated area.

### Leaf Collection Tons



Leaf Collection Special Vacuum Trailer

## *Our employees are our most valuable asset*



### *Garbage and Recycling*

The Sanitation Division provides curbside pick-up of garbage and recyclables for residential units of four or less. Every week the eight sanitation operators make approximately 18,000 stops or pick-ups. In 2019, the DPW collected 12,281 tons of garbage and 3,302 tons or recyclables. The Division uses split rear packers for the collection of both garbage and recyclables without commingling the material. This allows the Division to collect both materials with one vehicle.

The City of Sheboygan is scheduled to convert to an Automated Garbage and Recycling Program in May of 2020. The execution plan included an extensive project plan that will ensure the project's success.

Key milestones for 2019 included:

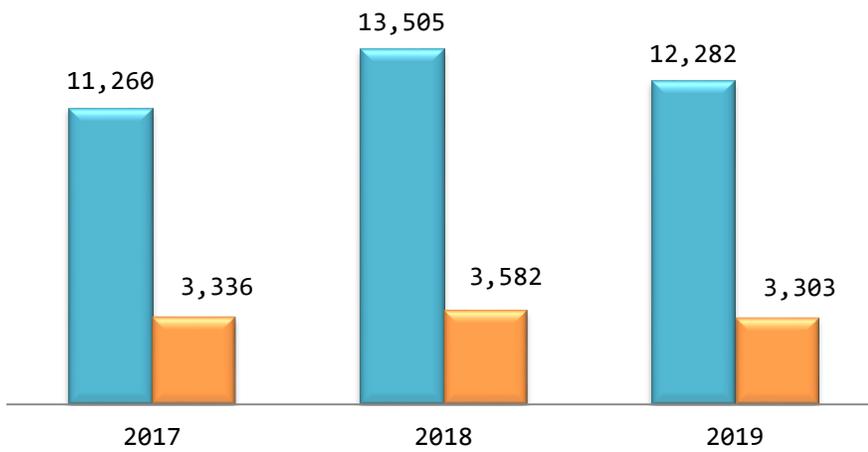
- Roll out implementation plan for the project
- Purchase of seven automated side loader trucks totaling \$2,002,498
- Working with GIS systems to identify households that will participate in program
- Council approval on ordinance changes to establish clear program guidelines
- Communications to residence on incorporating \$12 quarterly recycling fee in January 2020
- Contracting with Sun Graphics on creation of Public Works website, new department logo, social media management, marketing support, educational collateral, design services and video production
- Awarded Recycling Partnership Grant of \$296,000
- Engaged sanitation staff to assist with reviewing routes and provide input on solutions for identifying areas that may require route changes in efforts to provide residents with a smooth transition for automated garbage and recycling pickup

Public Works will continue to work in early 2020 on purchasing the carts, and 'roll out' an extensive public education outreach to establish comprehensive community engagement, which is critical for the success of the project.



### Refuse/Recycling Curbside Collection

■ Garbage collected (tons) ■ Recycling collected (tons)



**MATERIAL  
DIVERSION RATE**

**21.2%**



The Residential Recycling Center is a drop-off site that provides residents with a place to dispose scrap metal, yard waste, waste oil, and many other items not picked-up with curbside collection or banned from landfills. Currently, there is no charge for this service. The following page is a summary of the utilization of the drop-off site. The increase in scrap metal collected is due to the market prices falling; as a result, citizens are not cashing in their scrap metals and conveniently using the drop-off site. The trend in yard waste has steadily grown due to the increased awareness of the Residential Recycling Center's accessibility.

# CITY OF SHEBOYGAN PUBLIC WORKS

**Residential Recycling Center  
is available to City of Sheboygan residents**

**Monday – Friday from 8 a.m. to 6 p.m.  
and Saturdays from 8 a.m. to 4 p.m.**



# DPW RECYCLING CENTER STATISTICS



**OIL COLLECTION TANKS**

## USED MOTOR OIL COLLECTED



## SCRAP METAL TONS

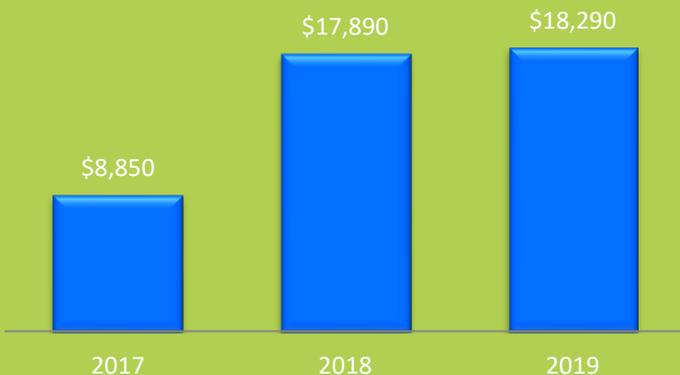


**2,769 TONS**  
OF YARD WASTE  
MANAGED  
IN 2019



**\$18,290**

DOLLARS SPENT ON  
BRANCH GRINDING



## USED TIRES COLLECTED



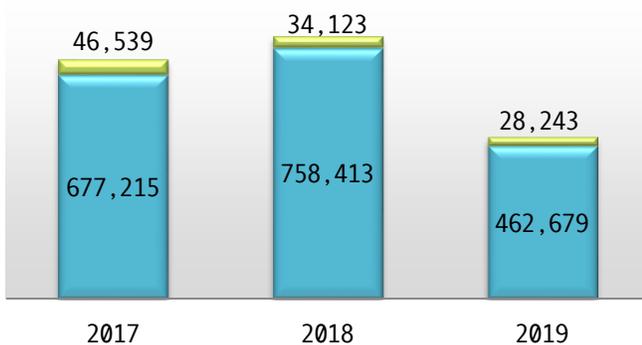
This Division performs sanitary sewer repairs through an interdepartmental budget from the Wastewater Treatment Plant. These expenses are charged against the sewer rates. The repairs are prioritized with any street resurfacing or reconstruction.

Sewer “jetting” is performed with a high-pressure water hose and is jetted through the sewer pipe to clean the inside of the pipe. Sewers become restricted with debris build-up such as leaves, twigs, sand, and gravel in storm sewers whereas; sanitary sewers have mineral deposits, grease, and roots. Sewer “jetting” alone is not sufficient to remove roots. The City hires a contractor to apply chemical-laden, thick foam to kill roots which then decay and slough away. When debris causes the sewer to become restricted or smaller, the sewer is not capable of handling the normal flow. As a result, backwaters may occur. Sanitary sewers are the Division’s main concern due to the health concerns of the potential of raw sewage backing up. This explains the large disparity between the numbers of feet of sanitary sewer jetted versus storm sewer.

The Public Works Department owns and operates a sewer camera truck. This equipment allows the Division to inspect the integrity of sewer pipe to determine its performance. As a rule, prior to any street resurfacing or reconstruction the sewers are inspected to determine whether or not they should be replaced, lined or remain. This practice has significantly reduced the need to excavate in newly paved streets, which is never popular or good for public relations. In addition, to maintain high standards, new sewers are inspected to verify appropriate construction practices.

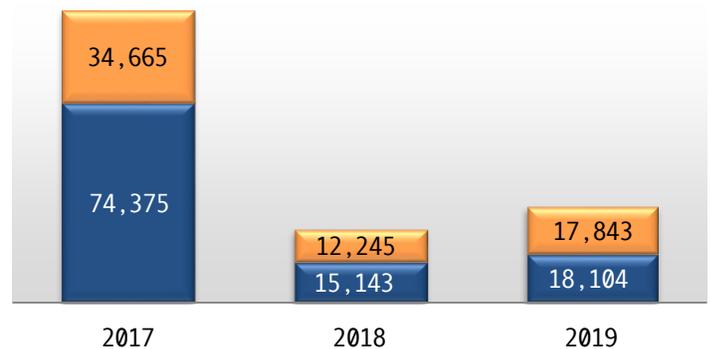
### Sanitary Sewer Cleaning

- Sanitary sewer televising footages (LF)
- Sanitary sewer jetting footages (LF)



### Storm Sewer Cleaning

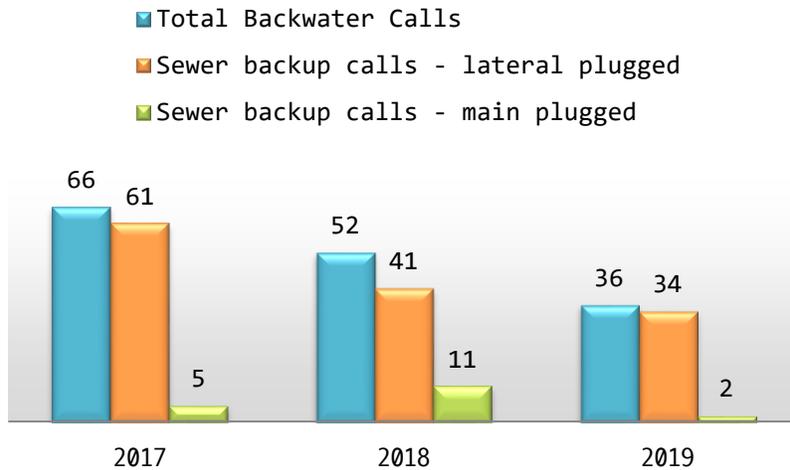
- Storm sewer televising footages (LF)
- Storm sewer jetting footages (LF)



Backwaters occur when sewage backs-up into a residence or business. There are numerous reasons why a backwater may occur. Unfortunately, the majority of backwaters are result of the property owner flushing or dumping inappropriate materials into the drains. The end result is a

clogged sewer lateral, which is the property owner's responsibility. At times the sewer main is clogged and must be opened and cleared for the sewage to flow again.

### Sanitary Sewer Backup Response



In 2019, two backwaters were discovered in sewer mains. Potential problems are removed before they can cause a backwater. In 2019, 426,679 linear feet of sewer pipe was jetted, and 28,243 linear feet were televised. The reduction from 2018 to 2019 in sanitary jetting and televising was due to an increase in storm sewer jetting and televising.

In an effort to educate the public, the Division has developed an informational handout for the public on "Coping with Sewer Back-ups." It is available on the Department's web site and is personally delivered on backwater calls.

Manhole entries are performed during inspections, cleaning operations, installing monitoring equipment and installing the camera for TV inspections. Every entry must have a permit that documents confined space entry. Furthermore, two persons must be on-site during the entry for safety.

Manhole entries are very dangerous due to the potential of lethal gases and engulfment from flows. Annual training is mandatory for employees required to enter confined space. The City of Sheboygan has 4,852 sanitary sewer manholes and approximately 3,202 storm sewer manholes.



Debris in a Sanitary Sewer

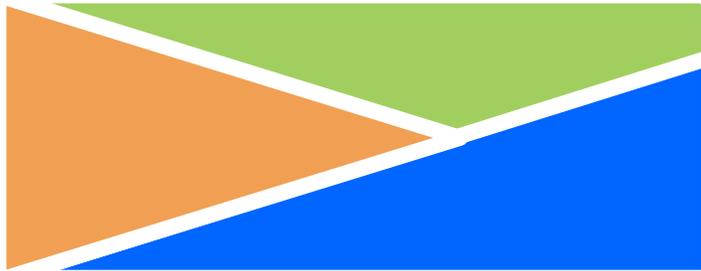


Sewer TV Crew

# FACILITIES and TRAFFIC

The Facilities and Traffic Division consists of 12 full time employees, which are responsible for maintaining the City's building infrastructure system including the Emergency Alert System also known as the Civil Defense Warning System. The staff is responsible for the overall preventative maintenance and repair of the heating, and ventilating systems, plumbing system, electrical equipment, and also provides custodial services for City Hall and the Municipal Service Building. This staff is also instrumental in reducing City costs by performing numerous services for all City departments to including City Hall, Municipal Service Building, Transit, Police Department, Senior Activity Center, and five Fire Stations.

<b>Michael Willmas</b>	Superintendent
<b>Scott Tetschlag</b>	Leadman
<b>Robert Hayon</b>	Maintenance Worker V
<b>Allen Fleisner</b>	Maintenance Worker V
<b>Christopher Peterson</b>	Maintenance Worker III
<b>Allen Keitel</b>	Maintenance Worker III
<b>David Smith</b>	Maintenance Worker III
<b>James Herschleb</b>	Maintenance Worker III
<b>Juan Garcia</b>	Maintenance Worker II
<b>Tyson Pitsch</b>	Maintenance Worker II
<b>Travis Fintelmann</b>	Maintenance Worker II
<b>Steven Kuchinski</b>	Maintenance Worker II



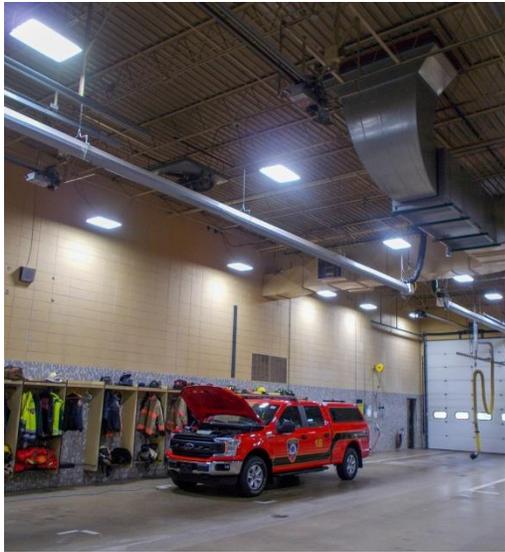
In 2019, one of the Facilities and Traffic Division's most notable accomplishments was moving all City Hall employees, their departmental files, and belongings back to the newly renovated City Hall. This task entailed careful planning and layout. This Division worked long hours to minimize the shutdown of services that City Hall provides on a daily basis to the residents of Sheboygan.



Enjoying a Newly Renovated City Hall



RFB System near Shaw Family Playground



Fire Station 3 Ambulance and Truck Bay after LED Conversion

The Division was also responsible for converting 53 light poles to energy efficient LED's in the City owned parking lots; this resulted in an annual energy savings of \$5,158. Other LED conversions included: Transit's bus wash bay, Fire Station 3 ambulance and truck bays, and updating the marina's store.

Other notable projects include the installation of a rapid flashing LED beacon (RFB) crosswalk warning system to the intersection of North 25th Street and Calumet Drive and the addition of a flashing LED enhanced radar speed driver feedback sign. This project was introduced to provide an enhanced warning system to vehicular traffic for the safety of pedestrians crossing Calumet Drive to utilize the Shaw Family Playground. These systems have been determined to be highly effective in prompting drivers to

yield to pedestrians by the Federal Highway Administration. The RFB systems are less expensive to install and maintain because they do not require any in-pavement wiring or light modules like the in-road flasher systems.

Updates to the Municipal Service Building are ongoing and include adding a women's bathroom, locker room, and shower area. This is significant because when the building was constructed in 1966, there were no provisions for a female workforce. In efforts to accommodate a more diversified workforce the additions are a necessity for the

Department of Public Works. This project was started in 2019 and will be completed in early 2020.



Progress for Women's Shower Stalls and Lavatory Areas



## FACILITIES & MAINTENANCE CREW

### GOAL

Preserve and maintain City buildings and/or facilities in a manner that provides a safe environment for the facilities' functions and occupants. Strive to reduce facility depreciation, equipment and structural failures through preventative maintenance programs.



## SIGN CREW

# Traffic

The Division is responsible for the design, maintenance, and repair of all City-owned traffic control systems, signs, markings, and devices. This Division is divided into two: Signs and Paint and Electrical both working in conjunction with each other to keep our roadways safe to travel.

This Division is also responsible for installing, removing, and maintaining all festive decorations throughout the City of Sheboygan.

# Signs and Paint

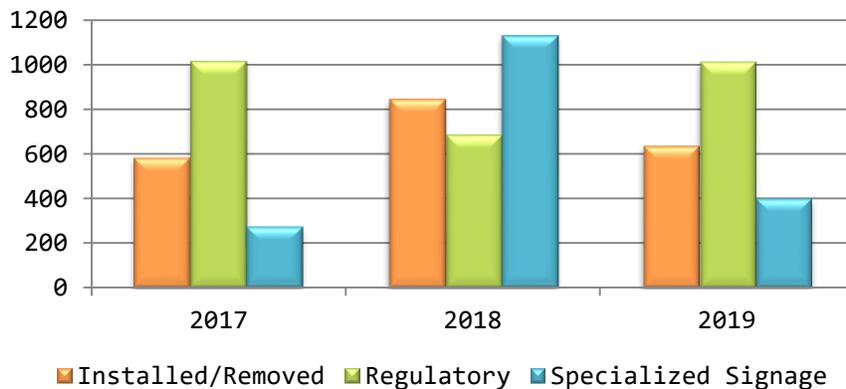
The Signs and Paint Subdivision, which consists of four full time employees, is responsible for all City street signs and painted traffic markings; such as, center lines, stop bars, crosswalks, and turn arrows.

The City of Sheboygan has approximately 30,000 signs, ranging from stop signs, street name signs, speed limit signs, no parking signs, and custom signs. All City of Sheboygan signs are designed, fabricated, and installed in house using a computerized plotter and multi-color heat transfer printing system which can create custom indoor/outdoor signage. The Signs and Paint Subdivision fabricates signs for many departments city-wide including the Mayor's Office, Fire and Police, Maywood, Parks, Wastewater Treatment Plant, Motor Vehicle Division, and other outside agencies. The Subdivision also works closely with Shoreline Metro in supplying them with custom signage along with installing and replacing parking meters.



Sign design and fabrication

## Signs





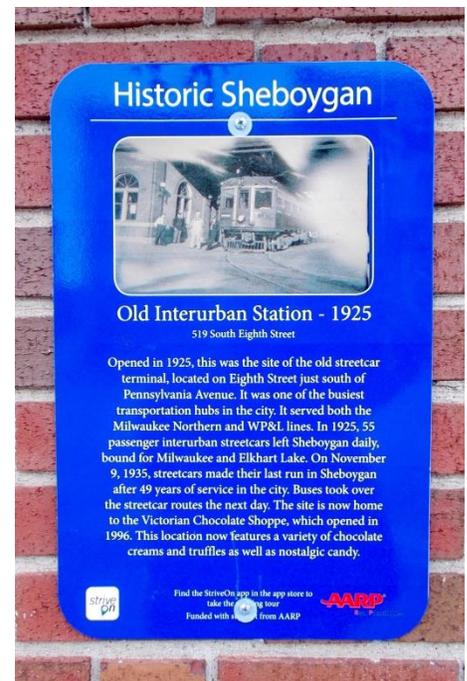
Street Markings

The Signs and Paint Subdivision maintains crosswalks at 405 different locations throughout the City and 195 traffic arrows at 72 different locations. The centerline painting is contracted with the Sheboygan County Highway Department which has the specialized equipment for this procedure. With the help of City employees, this process takes approximately two weeks to complete. In 2019, the Subdivision line stripped a total of 87 miles of white and yellow paint which equates to 1,650 gallons of paint in the process. To get the reflectivity of the centerlines 11,550 pounds of glass beads were added in the painting procedure.

Notable projects for 2019 include working with multiple departments and the Friends of North Point to design, fabricate, and install parking restriction signage to restrict parking along North Point Drive. Another project was updating all signage that pertains to winter parking rules to reflect an extension of the winter season. The Division also worked closely with Planning and Development Department in fabricating and installing historic signs throughout the city. The Division also completed fabricating and installing all roadway signage for SouthPointe Enterprise Campus.

### SNOW ROUTE SIGN UPDATE

In 2019, almost **200** signs were updated to reflect the change in no parking dates



Historic Sign installed in the City

The Electrical Subdivision consists of two full time Journeyman Electricians. The electricians are responsible for the design, installation, maintenance, and repair of all City-owned electrical systems to include: City owned buildings, installation of data cabling, traffic signaling and coordination, street lighting, pathway lighting, parking lot lighting, and our park system which also includes ball diamond lighting.

## Electrical

This Subdivision installs, repairs, and maintains 39 signalized intersections, seven red flashing signals, and two yellow flashing signals. In addition to the traffic signals, the City owns and maintains over 2,700 street lights, 505 pathway lights, parking lot lights, and 1,380 lights in our park system. The Subdivision is also tasked with the design and layout of newly installed lighting throughout the City.

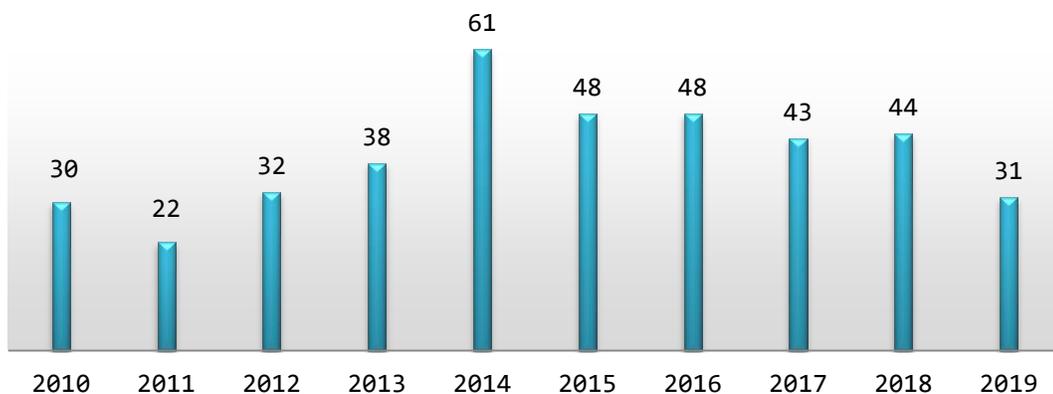
The year 2016 saw the most comprehensive preventive maintenance done in over 10 years on the 39 signalized intersections we are responsible for. Over \$30,000 in materials went into completing this job. For example, the Electricians replaced 379 12" LED traffic lamps which costed approximately \$13,265; the majority of the new LED's are replacing incandescent lamps which consume nearly 10 times more power than the energy efficient LED's.

Annually, the Subdivision tests all the traffic controllers, which contains the program for that individual intersection, and conflict monitors, which monitors for any faults in the system, to ensure they are operating correctly.



Electricians also respond to knockdown situations both day and night. The severity and complexity of each incident varies from one incident to another. Damage from these incidents to City owned property has varied from \$1,000 to over \$50,000 per incident. Almost 100% of the repairs are completed by the Department of Public Works.

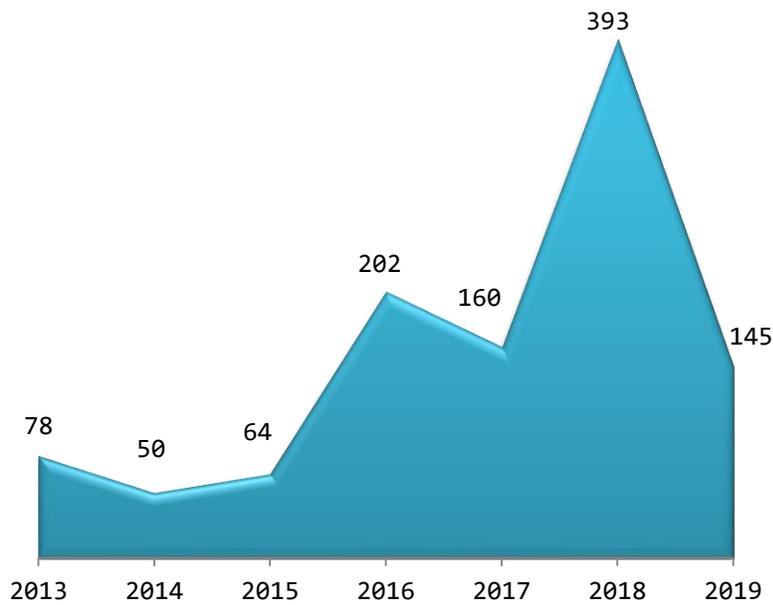
### Traffic Signal and Street Light Knockdowns



As a part of a five-year Capital Improvement Project, the Division updated or installed 42 new LED Lumec light poles on 8<sup>th</sup> Street in 2019. Once completed, the project will replace 264 Sternberg light poles to energy efficient Lumec light poles with an annual energy savings of \$7,195.

The Division also retro-fit 50 Phillips-Gardco street light fixtures to energy efficient LED's which will result in an annual energy savings will be \$2,654.

## LED Street Lighting Conversion



Adding Energy Efficient LED Lighting



# MOTOR VEHICLE

The Motor Vehicle Division is responsible for maintaining the Department's fleet of equipment. This Division is established as an enterprise account within the City budget. The Motor Vehicle fund is used to account for the central automotive equipment operations, which includes the purchasing, dispatching, repair, and maintenance of vehicles and motorized equipment used by the Department.

In 2018, the Motor Vehicle Division implemented a 5-S methodology. The goal of the methodology is to create a workplace that is clean, uncluttered, safe and well organized. The Division embraced the goals and was able to make a significant impact on their work environment. They eliminated any garbage and clutter and discussed what items were being used infrequently and could be eliminated. They also relocated several workstations and equipment to create a better work flow. Now, each member of the team is responsible to maintain the workplace on a daily basis; for example, each piece of equipment has a specific location to be returned to, and the work place is wiped clean.

<b>Rick Ney</b>	Supervisor of Operations
<b>Dennis Klumb</b>	Master Certified Mechanic
<b>Max Zschetsche</b>	Certified Mechanic
<b>Bill Leissring</b>	Certified Mechanic
<b>Shane Piel</b>	Certified Mechanic
<b>Scott Hinz</b>	Service Mechanic



Before (left) and After (right) 5S Initiative



## Motor Vehicle Yearly Comparison

Year	2015	2016	2017	2018	2019
Total Pieces of Equipment	406	366	387	396	402
Gallons Diesel Fuel	94,500	92,500	78,496	85,210	86,193
Gallons Gasoline	23,859	25,348	25,734	26,203	27,501
Gallons Motor Oil	924	1,035	814	856	781
Gallons Hydraulic Oil	351	1,189	515	528	549
Snow Plow Trucks	25	27	27	27	27
Snow Plow Blades	54	58	58	58	58
Repair Orders Processed	1,448	1,384	1,271	1,099	1,226

# WASTEWATER TREATMENT

The Sheboygan Regional Wastewater Treatment Plant (WWTP) is owned and operated by the City of Sheboygan. It provides wastewater treatment for the City of Sheboygan, City of Sheboygan Falls, Village of Kohler, Town of Sheboygan and Town of Wilson.

**Mission: To protect public health and the environment by providing reliable and cost efficient wastewater collection and treatment services.**

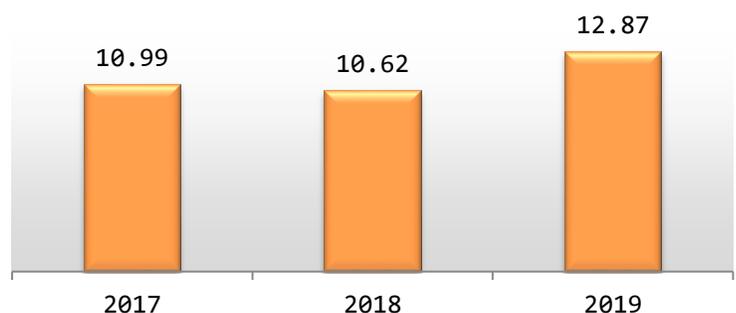
Goals:

- Meet all compliance and reporting obligations for wastewater, air emissions, and biosolids reuse
- Maintain the infrastructure of the wastewater system in a sustainable and fiscally responsible manner
- Empower the employees to develop and implement practices which will optimize the process and continuously improve equipment reliability
- Update and implement the long term facility plan, through effective planning and project execution
- Work with industrial customers to effectively meet all compliance obligations in a cost effective manner
- Use new technologies to improve the process and reduce operating costs

<b>Steve Jossart</b>	Superintendent
<b>Mark Wittstock</b>	Pretreatment Supervisor
<b>Robert Butcher</b>	Maintenance Supervisor
<b>Wendy Gorges</b>	Administrative Assistant
<b>Steve Meifert</b>	Process Systems & Operations Coordinator
<b>Brendan O'Connor</b>	Operator
<b>William Voss</b>	Operator
<b>Brian Willadsen</b>	Operator
<b>Tyler Hoffman</b>	Operator
<b>Josh Lampe</b>	Master Electrician
<b>Tony Gottschalk</b>	Maintenance Technician
<b>Jeffery Sargent</b>	Maintenance Technician
<b>Mark Oldenburg</b>	Maintenance Technician
<b>Dana LePage</b>	Lab Technician



**Average Flow Million Gallons/Day**





The WWTP is a conventional activated sludge wastewater treatment facility which utilizes enhanced biological nutrient removal to reduce total phosphorous and total nitrogen levels in the final effluent. The plant process includes primary treatment, secondary treatment (activated sludge) followed by effluent disinfection prior to discharging to Lake Michigan. Sludge generated by the facility is stabilized using anaerobic digestion, after which the material is dried to less than 10 percent moisture at a temperature above 180 F to

produce a Class A biosolids material. This material is then sold to a customer who uses it to enhance the nutrient and organic value of their top soil. Gases produced from the digestion of sludge are used for process heat as well as to generate electricity utilizing the on-site gas turbines.

There were many significant accomplishments in 2019. The following is a list of the most important items completed during the year:

- Plant Staff automated the Turblex aeration blower controls to eliminate the need to manually bring these units on line.
- A phosphorous optimization plan was completed and submitted to WDNR in December discussing our trials and results toward meeting the proposed 0.60 mg/l limit.
- Plant staff installed a second scum pump for the final clarifiers and automated the system to maintain final scum levels automatically. The new pump replaced an older progressive cavity style pump which was at the end of life and was not the proper pump for the scum application.
- Digester #8 was taken out of service, pumped out, cleaned and inspected.
- Coupling guards for all of the facilities centrifugal pumps were updated to meet OSHA specifications by plant personnel.
- Plant staff fabricated and installed platforms around the biosolids dryer to provide safe access to maintain the equipment.
- Plant staff installed automated seal water control for the raw wastewater pumping system.
- The drive on Primary Clarifier #2 was replaced, the clarifier was inspected, the rake arm coating was repaired, all concrete control joints in the tank were re-sealed and a new skimmer and scum beach was installed to restore skimming on this unit.



Primary Clarifier #2

- Plant staff rebuilt the existing scum pump for Primary Clarifier #2 and installed permanent discharge piping to the tailings removal system.
- The installation of the new electrical switchgear system was completed. The installation included the replacement of the existing switch gear, feeder breakers and cables to the four substations. As part of the project scope, all remaining electrical gear was cleaned, inspected and set to meet current Arc Flash requirements.
- A permanent explosion proof heater was installed by plant staff in the fine screen building to replace the temporary heating system that had been previously used.
- Implemented new rate calculating tool to set rates for the facilities customers.
- Updated security system software and server.
- Plant staff installed an in-line spare ferric chloride feed pump.



Operator Cleaning Clarifier #2



New Skimming Mechanism and Beach on Clarifier #2



New Scum Pump for Final Clarifiers #1 and #3

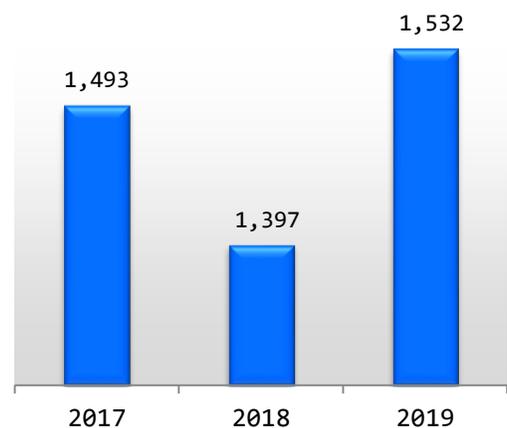
## Annual Biosolids Production

The staff invested a great deal of time to improve the operation of the sludge drying system during 2019.

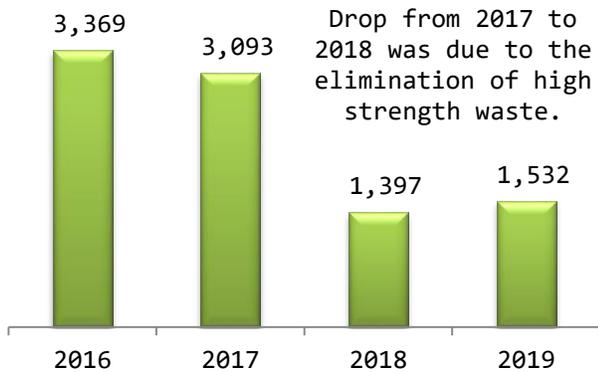
Accomplishments include:

- Improved screw press cake solids from an average of 18.3 percent to an average of 20.6 percent moisture.
- Resolved issue with scale in the spray condenser, minimizing downtime to clean and the cost for replacement media.
- Installed experimental mixer to improve polymer mixing.
- Installed automatic sludge dilution to improve feed solids consistency and press run ability.

### Dried Biosolids Annual Production Tons



## Total Biosolids Production Tons/Year



Challenges for 2020 include optimizing polymer consumption to reduce chemical costs while maintaining cake solids and possibly eliminating sludge thickening prior to the screw press dewatering system.

Biosolids generation has been reduced by approximately 55 percent since suspending the acceptance of high strength waste. With this reduction in Biosolids generation, the facility has proven it has the capacity to dry all the Biosolids generated now and into the foreseeable future, and should no longer have a need to land apply liquid Biosolids.



Primary Clarifier #2

Each of the 15 permitted Significant Industrial Users (SIU) complete wastewater sampling and laboratory analysis for a specific list of parameters set by the Environmental Protection Agency (EPA) and the Sheboygan Regional WWTP semi-annually. Each Industry must meet their individual permit limits. In 2019, two industries received letters of Notice of Non-Compliance (NON). No industries were determined to be in Significant Non-Compliance (SNC).

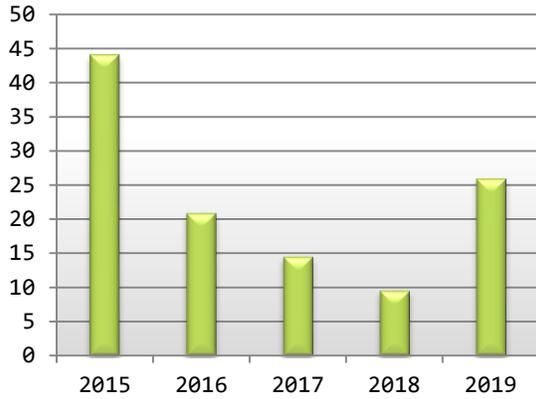
Each permitted industry received an Annual Site Inspection (ASI) during 2019. There were six industries which were reissued Industrial Wastewater Permits in 2019.

### Industrial Pre-Treatment Program

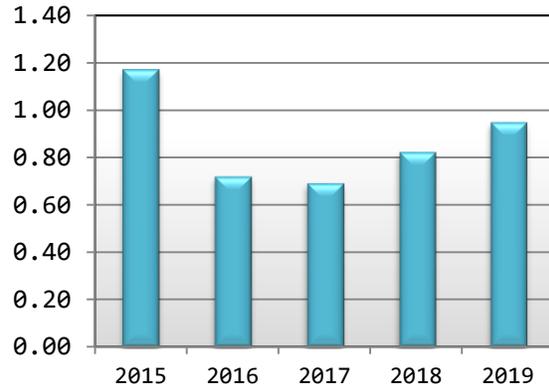
### Laboratory

The on-site laboratory is responsible for the analysis of all conventional pollutants including Total Suspended Solids (TSS), Carbonaceous Biochemical Oxygen Demand (CBOD5), Total Phosphorous, Ammonia, Total Chlorine, pH and Temperature. There is one primary analyst and two operators who are trained to perform the analysis when the primary analyst is off. Of the conventional pollutants analyzed, only a small number of samples were completed by a contract laboratory. The laboratory was nominated for laboratory of the year by WDNR Lab certification after the successful completion of the laboratory audit.

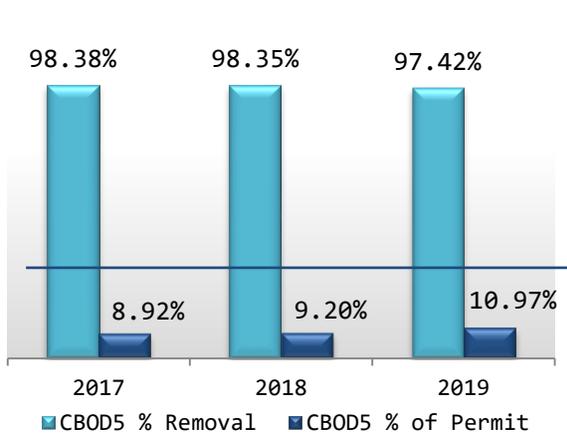
**Annual Influent Average Mercury Concentration**



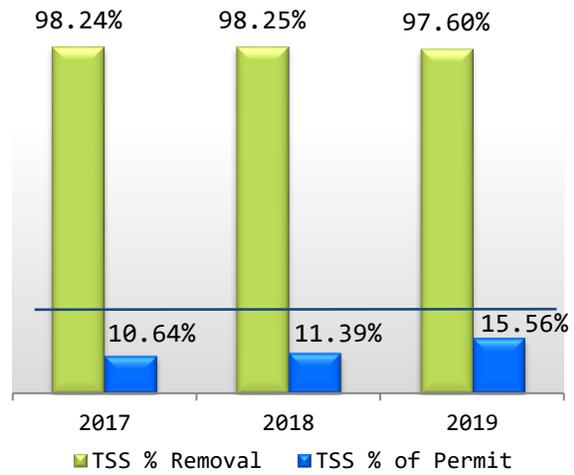
**Annual Effluent Average Mercury Concentration**



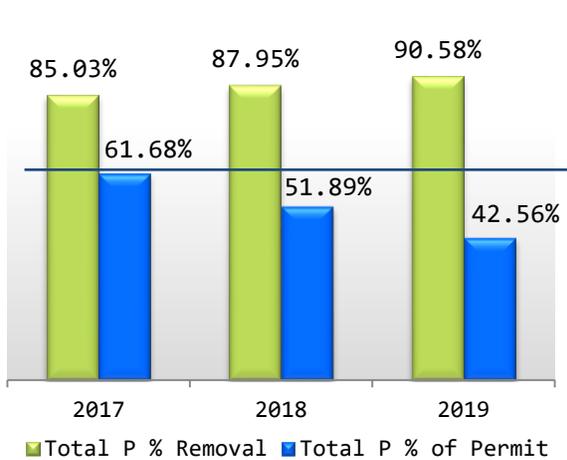
**Carbonaceous Biochemical Oxygen Demand**



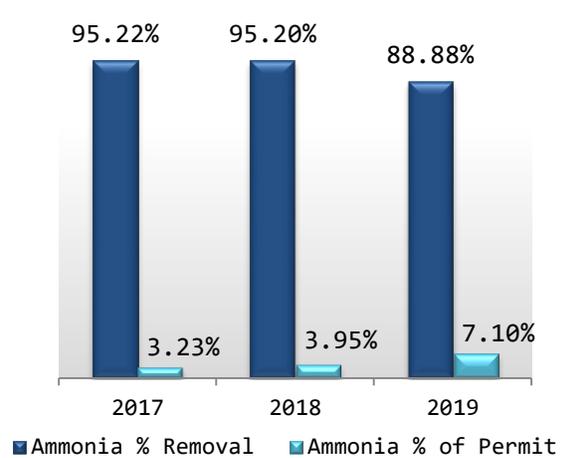
**Total Suspended Solids**



**Total Phosphorous**



**Effluent Ammonia**



There are a number of significant projects planned for 2020 in addition to continuous improvements to reduce effluent Total Phosphorous and continued optimization of the drying process.

Major projects scheduled for 2020 include:

1. Replacement of the roof on the east digester complex.
2. Rebuilding of Digester #6 cover.
3. Painting Indiana Street lift station.
4. Replacing the heat exchangers for the anaerobic digesters.
5. Replacing the North entrance gate at the WWTP.

## Engagement

The Department of Public Works had several engagement activities for 2019. Annually, the year starts with Director, David H. Biebel presenting the Annual Report of Operations to the department. Mayor Vandersteen and the City

Administrator Darrell Hofland are in attendance for the presentation. The meeting is conducted in a 'town hall' format. Employee recognition includes breakfast and raffles for door prizes throughout the presentation.

In May, the Department celebrates the American Public Works Association's Public Works Week, which includes an open house in which we invite the public to interact with employees on a one on one basis. Educational information is presented, as well as interactive activities to demonstrate the issues the Department has to address with on a regular basis. Each division comes up with a focus idea for their area. Most importantly there are fun, family friendly activities. For 2019, there was a sand box, disc golf baskets, face painting, raffles, a brat fry and an opportunity for people to decorate manhole covers that were placed in front of Pigeon River School.



After a long, busy summer for the employees, the department gathers for a picnic in August. There is a wide range of activities held after hours for employees and their families to gather for a bit of fun to cap off the summer. One highlight for the kids is the large piñata that is full of candy and other small toys and the adults are excited for the cornhole tournament.



Department of Public Works Annual Picnic



## *Holiday Parade Highlights*

This year, the Department of Public Works participated in two holiday parades – the Jaycees Annual Holiday Parade in the City of Sheboygan and the Main Street Memories Holiday Parade in the City of Sheboygan Falls. The float and all the 'elves' that helped put it together and participated in the parade were rewarded with 1<sup>st</sup> Place Non-Profit in the Jaycees Holiday Parade and 2<sup>nd</sup> Place for the Main Street Memories Holiday Parade.

Adding to the fun, the alderpersons that serve on the Public Works Committee were invited to participate in the parades. Staff was very pleased with the result and they are looking forward to making the parades an annual part of engagement.



# CITY OF SHEBOYGAN **PUBLIC WORKS**

