



City of Springfield, Illinois  
Office of Public Works  
Sewer Division

# Equipment Inventory & Replacement Program

09/23/2019

This document describes the equipment inventory maintained and the replacement program utilized by the Sewer Division for the City of Springfield, Office of Public Works.

The intent of the program is to maintain a vehicle fleet that meets the needs of the Sewer Division and keeps equipment up to date and ready to service the needs of the City while also providing a defined projected budget schedule for vehicle replacements.

The attached spreadsheet shows the fleet of vehicles, the replacement schedule and the estimate replacement costs projected out for the next five fiscal years, along with a total estimated expenditure amount per year.

In general, pickup trucks and tandem dump trucks are scheduled on a 7 year replacement cycle and if appropriate are repurposed within the Office of Public Works when replaced. Vactors, Backhoes and other heavy equipment is typically replaced on a 10 year schedule. This equipment is typically traded in during replacement. CCTV inspection vehicles are scheduled on an 8 year replacement cycle and typically undergo an equipment upgrade every 4 years. These vehicles are traded in when replaced.

Pickup trucks and tandem dump trucks are usually purchased off of the State bid. It is important to begin the vehicle purchase process as soon as possible within the City's fiscal year as often times there is a very short window between the beginning of the City's fiscal year and the end of the State purchase contract.

Heavy Equipment is typically purchased through the City's Bid purchasing process. Vactor units and CCTV equipment and vehicles have been determined to be a sole source purchase so that the fleet remains one brand of unit.

## S2

Vehicle S2 is utilized by the Sewer Engineer. This is a 4X4 SUV type vehicle which can be used to transport multiple personnel when needed. This vehicle is typically used by the Sewer Engineer during the normal course of work around the city, but can also be utilized for trips within driving distance for any members of the Sewer Division staff, such as out of town training events and conferences in which multiple employees attend. This vehicle can also be utilized for snow operations, which makes the 4X4 feature necessary.

This vehicle is scheduled for a 7 year replacement cycle. When a new vehicle is purchased, the existing vehicle is typically repurposed to the Office of Public Works Safety Officer.

## S3

Previously, this vehicle was used by the Sewer Division Supervisor but has been repurposed and is now utilized by the SL-RAT inspection crew. The current vehicle is an F250 Super Duty. This model vehicle was appropriate for the Supervisor, but if the vehicle continues to be

utilized by the SL-RAT inspection crew at the scheduled replacement time, a light duty vehicle would be more appropriate.

The SL-RAT inspection crew is currently a part time job with a planned 6 month per year time span. For this reason, the replacement cycle on this vehicle has been set at 10 years. If the part time status of this inspection crew changes, the replacement cycle should be adjusted as this is a relatively high mileage crew.

#### S4

Vehicle S4 is an F150 4x2 used by the Sewer Division inspector. This vehicle is used daily throughout the city to monitor current construction projects, sewer repair and sewer cave-in projects.

This vehicle is scheduled for a 7 year replacement cycle.

#### S5

Vehicle S5 is utilized by the Sewer Supervisor. The current vehicle is and F250 Super Duty 4X4. This vehicle is used by the Supervisor to support the operation of the Sewer Division Repair Crew, which requires a heavy duty vehicle. The Supervisor also has responsibilities during snow operations which require the four wheel drive.

This vehicle is scheduled for a 6 year replacement cycle as it is a higher mileage use vehicle.

#### S6

Vehicle S6 is used by the Sewer Division GIS Technician. This vehicle is an F150 4X4. This vehicle is used throughout the City to collect sewer division asset locations in support of the collection system mapping efforts. This vehicle is also utilized during snow operations, which makes the 4X4 feature necessary.

This vehicle is scheduled for a 7 year replacement cycle.

#### S7

Vehicle S7 is an F150 4x2 currently being utilized by the part-time SL-RAT inspection crew. This vehicle is also considered as a light duty support truck for general operations and contains a bulk gasoline fuel tank utilized mainly to support pumping operations when required.

This vehicle is scheduled for a 7 year replacement cycle.

#### S8

Vehicle S8 is utilized by the Sewer Repair Crew. This is an F350 4X2 which is typically using a trailer to haul equipment or materials to job sites throughout the City.

This vehicle is scheduled for a 7 year replacement cycle.

#### S9

Vehicle S9 is utilized by the Sewer Division Operations Coordinator. The current vehicle is an F150 4X4 and is also a propane fueled vehicle. This vehicle is used to support Sewer Division operations and is typically

used throughout the City inspecting both Sewer Division staff and contracted operations.

This vehicle is scheduled for a 7 year replacement cycle.

#### **S10**

Vehicle S10 is utilized by one of the two CCTV Inspection Crews. This is a box type van which contains the camera, computer and other hardware needed to perform television inspections of the inside of the City sewer mains. This vehicle contains a winch system to pull the camera through the sewer main if needed. This is an important feature to have available and one CCTV truck should always be equipped with this function. This is currently the older of the two CCTV inspection vehicles. When a new CCTV vehicle is purchased, the older vehicle is also upgraded so that the computer in both vehicles operates the same and supports the same software versions.

This vehicle is typically scheduled for an 8 year replacement cycle. This schedule has been extended due to lack of use when staffing levels did not support its operation.

#### **S11**

Vehicle S11 is utilized by the second of two CCTV Inspection Crews. This is a Sprinter type van which contains the camera, computer and other hardware needed to perform television inspections of the inside of the City sewer mains. This is the newer of the two CCTV inspection vehicles. This vehicle was purchased with an electrical inverter system instead of a generator like the older vehicle has. This appears to be working well and has the benefit of not needing to maintain a generator on the truck. This vehicle is also scheduled to be outfitted with a bumper mounted confined space entry system. This is to be evaluated and considered for purchase an installation on future CCTV inspection vehicles.

This vehicle is scheduled for an 8 year replacement cycle.

Both CCTV inspection vehicles are equipped with Cues brand inspection hardware and the associated Granite XP inspection software. The Sewer Division has determined that having one provider for both hardware and software is preferable so that there is a single point of contact for the system if issues arise.

#### **S13**

Vehicle S13 is the Safety Vehicle. This is an F150 4X2. This vehicle contains rescue and confined space entry equipment. This vehicle does not have a dedicated crew assigned to it, but remains available for all trained Sewer Division staff to utilize if needed for rescue or confined space entry.

As this is a low mileage use vehicle, it is scheduled for a 10 year replacement cycle.

**S14**

Vehicle S14 is used by the Utility Locator. This is an F150 4X2 and is utilized to perform J.U.L.I.E. locates on Sewer Division assets throughout the City on a daily basis. This is a high mileage use vehicle and is also a propane fueled vehicle.

Due to the high mileage use of this vehicle it is scheduled for a 5 year replacement cycle.

**S15**

Vehicle S15 is an F550 Super Duty Dump Truck utilized by the Sewer Division Repair Crew.

This vehicle is scheduled on a 7 year replacement cycle.

**S16**

Vehicle S16 is an F250 used by the Sewer Division inspector. This vehicle is used daily throughout the city to monitor current construction projects, sewer repair and sewer cave-in projects.

This vehicle is scheduled for a 7 year replacement cycle.

**S19**

Vehicle S19 is an International 7400 chassis with tool boxes and a lift used by the Sewer Division Repair Crew.

This vehicle is scheduled on a 7 year replacement cycle.

**S20**

S20 is a John Deere 410J Backhoe. This is the main backhoe utilized by the repair crew. This is the newer of two backhoes maintained by the Sewer Division. When replaced, this backhoe will be repurposed as S2 and become the backup and breaker backhoe.

This backhoe is scheduled on a 7 year replacement cycle.

**S21**

S2 is a John Deere 410E Backhoe. This backhoe is a backup machine and is normally outfitted with a concrete breaker bar attachment. This machine is replaced by S20 when a new S20 is purchased.

This backhoe is not scheduled for replacement as its replacement coincides with the replacement of S20.

**S23**

Vehicle S23 is an International 7400 Tandem Dump truck utilized by the Sewer Division Repair Crew. This vehicle is also outfitted with a snow plow and spreader and is used during snow operations.

This vehicle is scheduled on a 7 year replacement cycle.

**S24**

Vehicle S24 is an International 7400 Tandem Dump truck utilized by the Sewer Division Repair Crew. This vehicle is also outfitted with a snow plow and spreader and is used during snow operations.

This vehicle is scheduled on a 7 year replacement cycle.

**S31, S32, S33, S34, S35**

Vehicles S31, S32, S33, S34 and S35 are all combination vacuum and jetter trucks produced by Vactor.

S31 and S35 are both newer Vactor Plus models. Replacement vehicles, when purchased will also be Vactor Plus models, or equivalent.

S35 is equipped with a Vapor Rooter system for foaming sewer mains. At this time one Vactor equipped with this system is sufficient. S35 is also equipped with a Vactor Trac system which monitors and records truck location and work activity to a web portal. This system is being evaluated and may be implemented on other Vactor Plus models.

These vehicles are all scheduled for a 10 year replacement cycle.

Of all the vehicles maintained by the Sewer Division, the combination trucks are the most critical to the replacement schedule. Historically these are the most costly to operate and repair, and repair cost significantly increase as the trucks age. These trucks are also the highest purchase price and have the most impact on maintaining a consistent dollar amount year over year for vehicle replacement.

**E11**

Vehicle E11 is used by the Sewer Division GIS Technician. This vehicle is an F150 4X4. This vehicle is used throughout the City to collect sewer division asset locations in support of the collection system mapping efforts. This vehicle is also utilized during snow operations, which makes the 4X4 feature necessary.

This vehicle is scheduled for a 7 year replacement cycle.

