

City of Ottumwa

Sewer System

Existing Public Sewer System

SANITARY SEWER SYSTEM

- 787,329 L.F. (149.1 miles) of known Gravity Sanitary Sewer
- 2,893 known Sanitary Sewer Manholes
- 50,119 L.F. (9.5 miles) of known Force Main Sanitary Sewer
- 21 Sanitary Pump Stations
- Wastewater Treatment Plant

STORM SEWER SYSTEM

- 397,948 L.F. (75.4 miles) of known Storm Sewer
- 742 known Storm Sewer Manholes
- 3,634 known Intakes

Current Requirements

- Clean 25% of the Storm Sewer Each Year (MS-4 requirement)
- Clean entire sanitary sewer system every 7 years (approx 112,000 L.F. annually).

Sewer Mapping

- GIS Sewer Mapping began in 2000. Initial mapping was “roughed in” by drawing the line work in from existing paper maps. These paper maps are old, fragile, and have questionable information on them. This initial mapping process gave a map to begin working with, however it was very inaccurate.
- Our mapping is ever-evolving. City crews continue to discover unknown sewer features. New features, corrected or additional feature information, entity ownership, corrected feature location, etc., are made to the map on a near daily basis.

Private Sewer mapping is particularly difficult. After the initial “rough” mapping, our mapping is largely based on information provided by the City sewer crews who conduct the sewer cleaning and televising operations. Private Sewers are not cleaned or televised.

- Three Engineering Firms were solicited to estimate the cost of mapping private sewer information. Firms were to review all subdivision plats and sewer construction documents. Each firm was willing to work on an hourly basis, but would not provide an estimated cost. Discussions were to see how far \$200,000 would get. (25%? 50%).

Sewer Rates & Uses

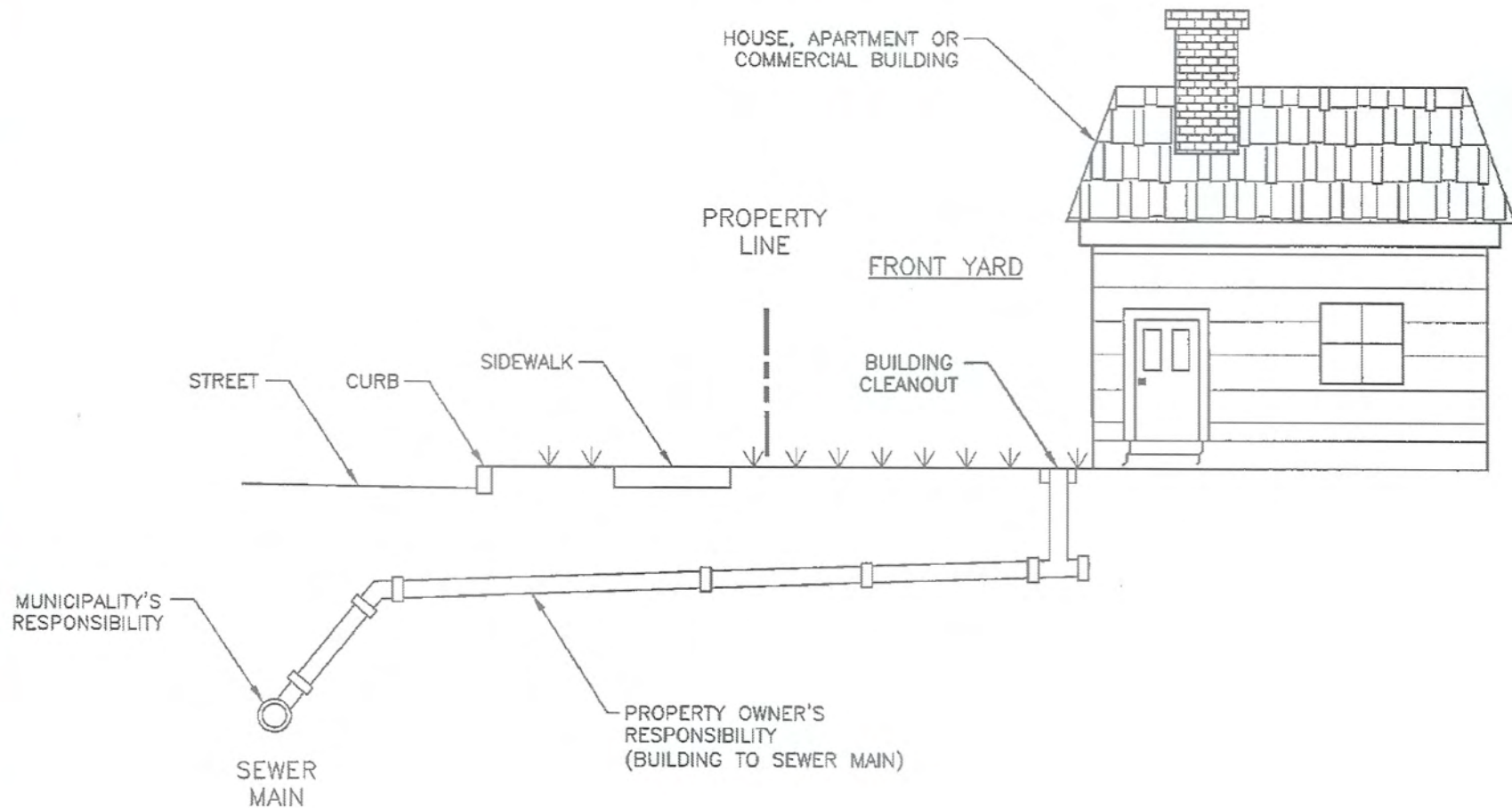
Base \$14.50	\$4.75/Unit x 5 units =	\$38.25 Monthly bill
Approx. 9600 residential users x \$38.25 =		\$4,406,400
Commercial and Residential =		\$5,487,800
High Strength (flow)=		\$416,940

Major Expenditures

- Sewer Treatment Plant (O&M) =	\$2,439,646
- Sewer Maintenance =	\$601,925
- SRF Debt =	\$1,381,504
- Capital Projects (See Budget) =	

Public vs. Private

-Private Laterals, Private Collection Systems and Private Force Mains with Pumps exist within the City of Ottumwa.



Private Lateral



Private Sewer Lateral (55 L.F. long)



Private Sewer Lateral (545 L.F. long)

Private Collection System



Small Private Collections System



Extensive Private Collections System

Private Force Main and Private Pumps



Examples of COMMERCIAL Private Sewers within the City of Ottumwa

- Ottumwa Regional Health Center
- Pennsylvania Place
- Indian Hills Community College
- K Mart Plaza
- Good Samaritan
- Brick Plant
- Dr. Pepper Snapple Pre-Treatment Plant
- JBS Pre-Treatment Plant

Examples of RESIDENTIAL Private Sewers within the City of Ottumwa

- Mary Street
- Locust and Elm
- Wildwood and Greenwood Dr.
- Osceola Street
- All Mobile Home Parks (Leisure Living, Golden Arrow, etc.)

Commercial

Ottumwa Regional Health Center

- 2,625 L.F. of KNOWN private sanitary sewer.
- The known sewer system is comprised of 8” to 12” sewers
- Private Storm Sewers
- Private Water Main
- Private Streets



Commercial

Quincy Place Mall & K Mart Plaza

- 4,199 L.F. of KNOWN private sanitary sewer.

-The known sewer system is comprised of 6" to 12" sanitary gravity sewers, a private pump station and a 6" force main.

-Private Storm Sewers

-Private Streets

-Private Water Main



Residential

McCarrolls Subdivision

-Approximately 2,374 L.F. of Private Sewer.

-Sewer lines are of unknown material type and condition





Residential

LEISURE LIVING

- Approximately 9,008 L.F. of Private Sewer.
- Sewer lines are located beneath homes.
- Condition of existing sewer is unknown

McCarrolls 2nd, 3rd and 4th Subdivision

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Clearview St

Kenwood St



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View St.

Clearview St.

McCarroll Dr.

McCarroll Dr.

Kenwood St.

Kenwo



System Evaluation

- I.) Review Access for Routine Maintenance
- II.) Review existing easement
- III.) Clean and Televisive for condition evaluation
- IV.) Requirements to bring system up to public sewer standards
- V.) Physically Access and evaluate the private side to determine I&I requirements
- VI.) Develop an Opinion of cost
- VII.) Review possible funding streams
- VIII.) Determine funding program

POSSIBLE OPTION

Home Owners create Homeowners Association.

- Association contracts directly with an Engineering Firm
- City Approves Plans & Specifications for sewer construction
- City oversees sewer construction
- Upon completion of the work, City accepts the sewer

- It has been reviewed and verified, that public money can not be spent on private sewer infrastructure