



## MEMORANDUM

**TO:** Mayor Laurel L. Prussing and Members of the City Council  
**FROM:** William R. Gray, Public Works Director  
Gale L. Jamison, Assistant City Engineer  
Bradley M. Bennett, Civil Engineer  
**DATE:** January 24, 2013  
**RE:** Sanitary Sewer Lateral Reimbursement Program Discussion

### Introduction

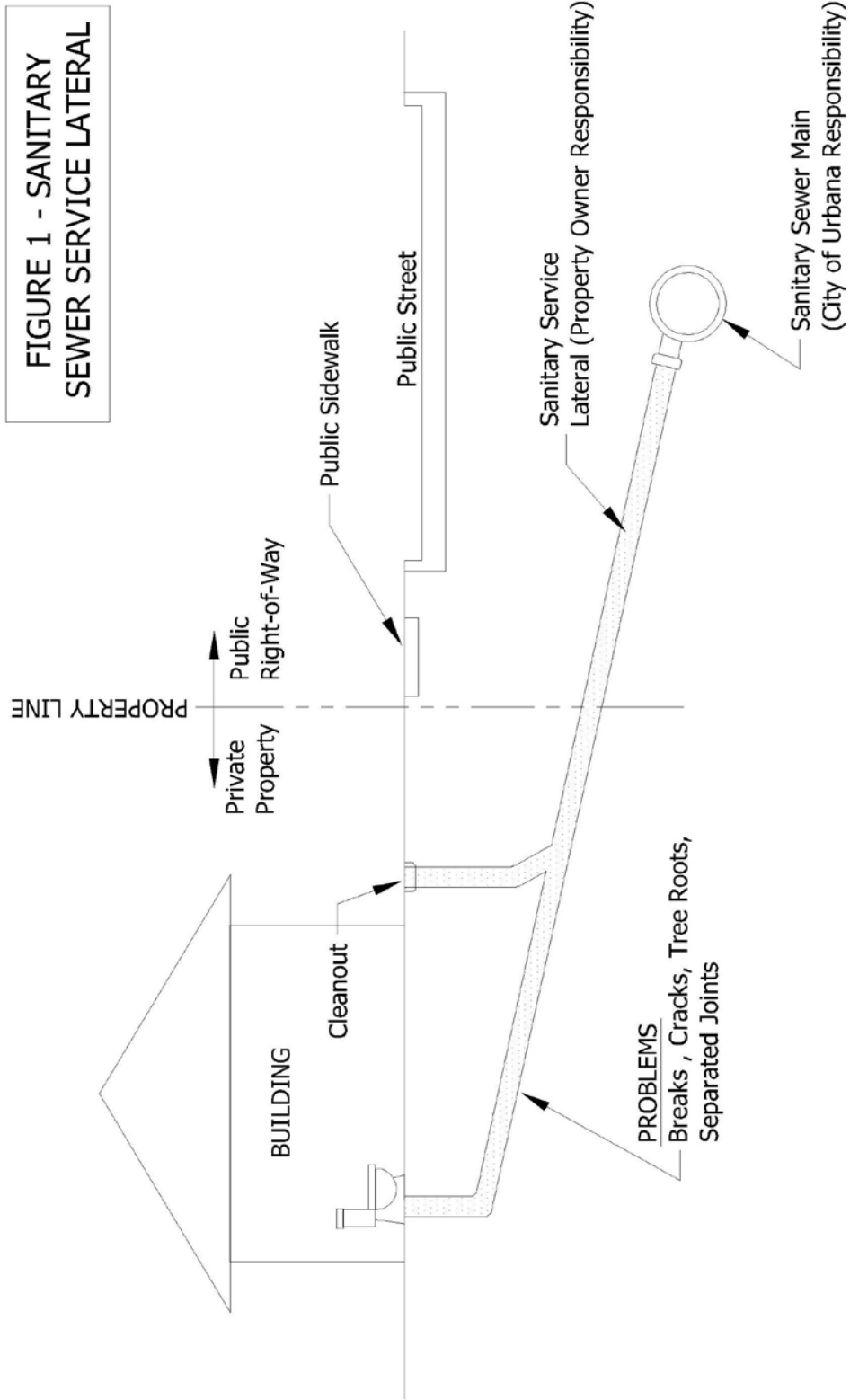
The City of Urbana's Sanitary Sewer Lateral Reimbursement Program was approved on December 17, 2007 (Ordinance 2007-12-138) to establish a reimbursement program for property owners to assist with the cost of sewer lateral repairs located under City streets and sidewalks. The reimbursement program was intended to ease the financial burden for property owners who have to remove and replace a portion of City street, alley and/ or sidewalk to repair their sewer service laterals. The City reimbursement is fifty percent (50%) of the cost for public street, alley, or sidewalk removal and replacement as part of the sewer lateral repair up to a maximum reimbursement amount of \$3,000.

### Background and Facts

A sanitary sewer service lateral is the pipe that connects private plumbing systems to the City's sanitary sewer system as illustrated in Figure 1. All homes or businesses in the vicinity of a sanitary sewer are joined to a sanitary sewer service lateral connection.

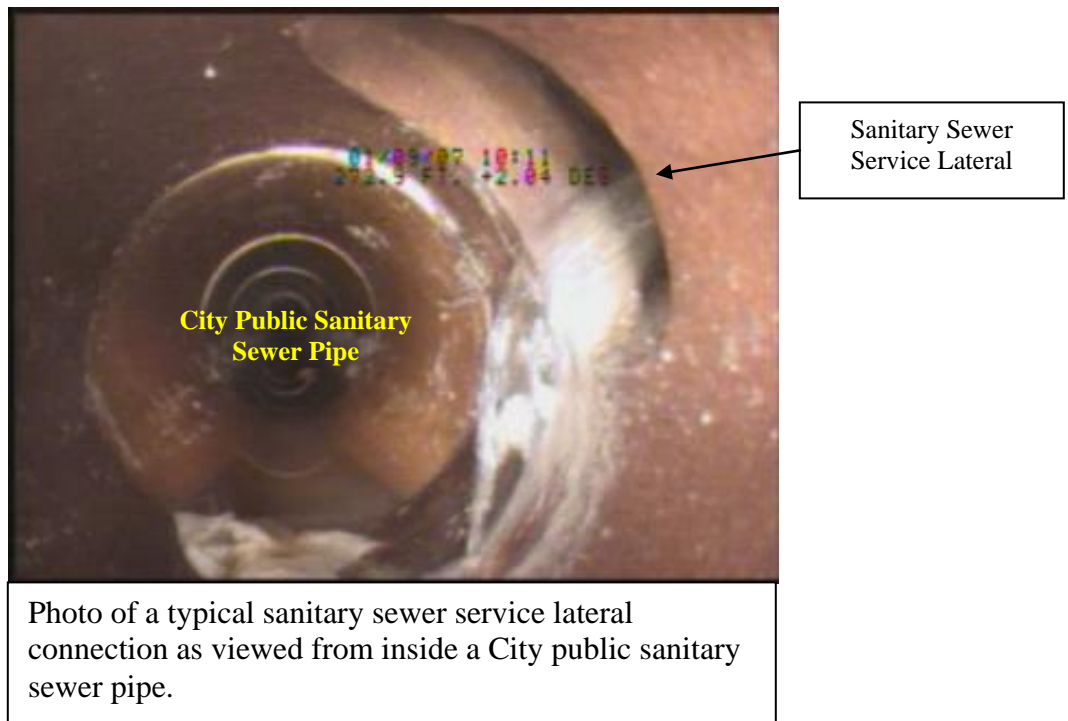
The City sanitary main can be located on private property (side yard, front yard or backyard in an easement) or in City right-of-way (R.O.W.) (within the parkway or under the street).

Many homes in the City were built before 1950 and often have not replaced their original sewer service laterals. Over time, these pipes, generally made of clay, can crack, break, collapse, become disjointed, experience displacement, and/or be subject to intrusion by roots, all of which can cause blockage or pipe failure. Homeowner's insurance programs do not typically cover the cost of repairing/replacing laterals since the cost is considered a normal part of home maintenance.



**FIGURE 1 - SANITARY  
SEWER SERVICE LATERAL**

In Urbana, the maintenance of the sanitary service lateral up to the connection to the City's sewer main is the responsibility of the property owner. Section 24-38 Paragraph (c) of the City Code for the City's policy on sewer service laterals states that "all costs and expenses incident to the installation, connection, repair, and maintenance of the building sewer shall be borne by the owner, and for such purposes, the owner is granted permission to excavate in the public right of way subject to the regulations of the director of public works." The connection to the main is typically a tee or wye which is considered part of the public sanitary sewer and thus the City's responsibility to maintain.



The City of Champaign, Village of Savoy, City of Danville, Village of Rantoul, City of Charleston, City of Mattoon, City of Decatur, City of Bloomington, and City of Normal all require property owners to maintain the sanitary sewer service lateral to the point of connection to the city or village sewer main.

The City of Champaign presently reimburses the property owner 50% of the cost of pavement replacement and backfill up to \$1,500 for the repair of a sanitary sewer service lateral or up to \$2,500 if the repair occurs under a brick street. Champaign's policy only covers sanitary sewer service laterals. The reimbursement only covers the cost of the pavement removal, replacement and backfill for the repair of the service lateral under the pavement in a City street.

Normal maintenance of service laterals includes the removal of materials that are flushed or dropped/inserted down the service line (including leaves, dirt, toys, baby diapers, etc.) or tree roots that enter through joints or cracks in the pipe. Debris and materials are generally removed by rodding or jetting the sewer lateral. Rodding involves applying a torque to a steel rod that is passed through the lateral, rotating the cleaning device attached to the lead end of the rod. Jetting is a hydraulic method of cleaning laterals that directs high-velocity streams of water against the pipe walls at various angles.

A hydraulic root cutter is typically used to remove root obstructions in service laterals. This method uses the high-pressure water from the sewer jet truck to operate a hydraulic root cutter. The high-pressure water turns a hydraulic motor, which has a rotating root cutting blade attached to the motor shaft. As with the jet cleaning nozzles, there are rear-facing jets on the root cutter assembly, which propels the cutter up and down the sewer pipe. Mild herbicides may also be applied to sanitary sewer laterals to slow the growth of roots in the pipe without harming the tree. These herbicides cannot be used in storm sewer laterals. There are several sewer cleaning contractors in Urbana-Champaign area that maintain sewer service laterals.

If rodding, jetting, or a root cutting cannot remove the obstruction from the lateral, the lateral will have to be repaired or replaced. It may be possible for the sewer cleaning contractor to televise the sewer lateral using a small inspection camera to determine the exact location where the repair or replacement is required. Once the repair/replacement location is identified a sewer construction contractor will then excavate down to the pipe, remove the broken or obstructed section of pipe, install a new section of pipe, backfill the excavation, and restore the surface back to its original condition. The cost of a sewer lateral repair is dependant on the laterals depth, length, and surface type that the lateral is located under (asphalt street pavement, concrete sidewalk or driveway, grassed yard, etc.) Sewer lateral repairs located under street pavements are typically the most expensive with costs that can exceed \$5,000 to \$6,000. There are several sewer construction contractors in Urbana-Champaign area that repair sewer service laterals.

Cured-in-place pipe lining and pipe bursting can also be used to replace or repair sewer laterals if the lateral pipe has not collapsed, become too deformed, too broken, or too packed with roots to allow the equipment access through the pipe. Two sewer excavation contractors in the Champaign-Urbana area offer pipe bursting; and one contractor offers cured-in-place lining of sewer laterals.

The cost of the cured-in-place sewer lateral rehabilitation typically runs \$35 to \$45 per lineal foot. Pipe bursting laterals typical runs \$50 to \$55 per lineal foot, excluding pavement removal and replacement. Open cut replacement of sanitary sewer would typically run \$150 to \$250 per lineal foot, including pavement removal and replacement.

### **Existing Sewer Lateral Reimbursement Program**

As mentioned earlier, the existing sewer lateral reimbursement program was approved in 2007. It became effective on July 1, 2008. The property owner is responsible for the initial payment of all costs for the repair of a sanitary or storm sewer service connection. If construction is required in City right-of-way, the City, upon submission of reasonable supporting information, reimburses to the property owner for fifty percent (50%) of the reasonable costs of materials and labor involved in the removal and repairs to alley or street pavement, curb, and sidewalk and necessary backfill to effectuate such removal and replacement up to \$3,000.

Twenty-four properties have participated in the sewer lateral reimbursement program since 2008 with a total of almost \$ 45,000 paid to reimburse property owners for sewer lateral repairs. Program

participation numbers by year are provided in Table 1 below and map of participating properties is provided in Attachment A.

**Table 1 Sewer Lateral Reimbursement Program Participation**

<b>Year</b>	<b>Number of Participants</b>	<b>Reimbursement Funds Distributed</b>
2008	3	\$7,353.11
2009	1	\$1,767.80
2010	6	\$10,218.10
2011	5	\$10,792.96
2012	9	\$14,812.01
<b>Totals</b>	<b>24</b>	<b>\$44,943.98</b>

### **Fiscal Impact**

To cover any increase in the percentage of reimbursements would require increasing the Sewer Benefit Tax. For example, the Sewer Benefit Tax would need to be increased by an average of \$2.10 a year for a property owner that uses 7,000 gallons of water per month to cover the expense of a 100% reimbursement program for sanitary sewer lateral repairs. It is estimated that the expense on average for removal and replacement of street pavement is \$6,000. It is estimated that there would be fourteen sanitary service lateral repairs annually. The budget impact is estimated to be \$42,000 per year to increase the 50% reimbursement to 100% for a total program cost of \$84,000 annually.

### **Requested Action**

The Public Works Department requests guidance from the City Council on whether or not the existing sanitary sewer lateral reimbursement program should be modified.