Executive Summary

Best methods and technologies to address defective sewer laterals now accessible in a searchable database

Web-Based Decision Support Tools for Selection of Condition Assessment and Rehabilitation Methods for Laterals (INFR2SG09)

The Central Issue
Since laterals are the connection between the home or business and the sewer main, there are usually dual responsibilities for their management. Wastewater agencies typically are responsible for maintaining the portion of the sewer lateral located in the public right-of-way, and property owners are responsible for the portion of the lateral located on their property. Major issues with laterals involve decisions on replacing or rehabilitating deteriorated laterals, both of which are expensive to all parties.

Deferment of needed rehabilitation translates to an increase in the wastewater agency annual operation and maintenance budget and an increased risk to the property owner. Sewer lateral deterioration leads to pipe collapse and costly sewer backup. Increase in transmission and treatment costs due to inflow and infiltration (I/I) into the public sewer system are inevitably borne by the ratepayer.

A new web portal has been developed to provide wastewater agencies and property owners with up-to-date information on sewer lateral solutions.

Context and Background
This research builds on WERF’s previously completed work that studied the cost-effective rehabilitation of sewer laterals. The study was of great interest to cities and municipalities across the country. However, decision-support tools that would guide a designer through the process of making choices about the nature of a lateral rehabilitation project, the condition assessment tools to use, the available rehabilitation techniques, and the engineering design of the rehabilitation method chosen were scattered among various sites and there was no centralized repository for this information.

Findings and Conclusions
This research compiled case studies of successful methods and applications, as well as new technologies. The new information was aggregated and placed in a searchable database to provide a concise and informative reference on issues related to defective private sewer laterals. The database includes:

- Brief descriptions of available inspection technologies and construction techniques for rehabilitation of sewer laterals.
- Extensive case studies illustrating where and how the techniques for inspection and rehabilitation have been applied.
- A method selection tool for identifying suitable methods to rehabilitate private sewer laterals in real site conditions.
- Concise reference on how legal and financing issues regarding sewer laterals can be addressed.
- An electronic pegboard to facilitate interaction on this topic among practitioners.
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Management and Policy Implications
This study advanced the capability of decision makers to have relevant information easily available. This web portal should aid directors of public works agencies, city engineers, general managers, planners, financial managers, and homeowners in having higher confidence in the interventions selected for lateral condition assessment and renewal in their community.

<table>
<thead>
<tr>
<th>Related WERF Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Title</strong></td>
</tr>
<tr>
<td>Methods for Cost-Effective Rehabilitation of Private Lateral Sewers (02CTS5)</td>
</tr>
<tr>
<td>Case Studies: Methods for Cost-Effective Rehabilitation of Private Lateral Sewers (02CTS5a)</td>
</tr>
<tr>
<td>Sewer Lateral Electro-Scan Field Verification Plant (INFR4R12)</td>
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</tbody>
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