

Flat Branch Watershed Relief Sewers

*Project #3: - Elm Street, Providence Road to Hitt Street
Sixth Street, Elm Street to North of Cherry*

Project History

The Flat Branch Watershed (FBW) contains approximately 2,450-acres and is located in the central portion of Columbia. The Central Business District (CBD, also referred to as the Downtown Area), a large portion of the University of Missouri Campus, and some of the oldest residential areas in the city are located in the FBW. The sanitary sewers in the FBW are some of the oldest sewers in Columbia, with the majority of the system built prior to 1950. Some of these areas are subject to wet weather flow issues due to infiltration/inflow (I/I) and capacity constraints.

Over the past few years, the CBD has seen a sharp increase in residential developments. The recently completed residential developments have absorbed the vast majority of the available FBW sewer system capacity. Several additional large-scale residential developments have been proposed in the downtown area, but the area lacks adequate sewer capacity.

There have been ongoing efforts for the past several years to evaluate sewer condition and capacity in the watershed, and a number of projects are planned or underway to reduce I/I and the frequency of basement backups and surcharged manholes in the system. There has also been an increase of development, especially for urban residences, in the CBD, causing concerns about the capacity of the sanitary sewer system to handle ultimate flows should the trend continue.

Project Specifics

There are four projects identified as part of the *FBW Relief Sewers Project*. Projects #1 & #3 are underway as part of the same engineering design agreement and are described below:

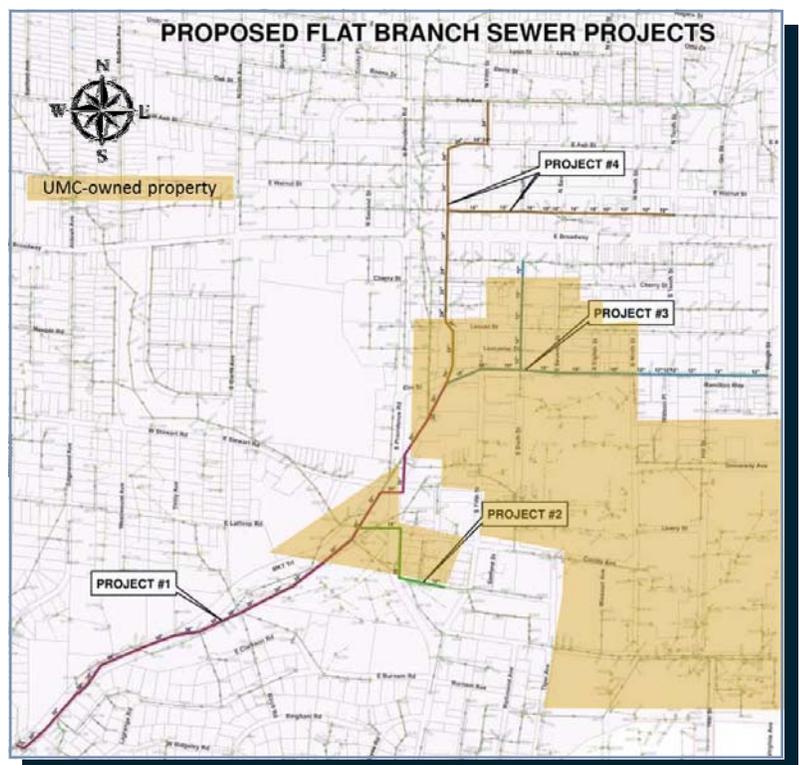
Project #1: Currently, sewer flows are carried by small-diameter collector sewers to three interceptor sewers (15-inch to 21-inch diameter). These sewers run roughly parallel to the MKT Trail to a point just south of the Quarry Heights Lake, where a dual 30-inch diameter sewer then continues downstream towards the Hinkson Creek Interceptor. The proposed Project #1 sewer will relieve these three older, smaller diameter pipelines.

Project #3: There are also older, undersized sewer lines running east of Providence Road beneath Elm Street, and another running north beneath Sixth Street, from Elm Street to just short of East Broadway. Project #3 proposes an upgrade to the existing sewers. Early conceptual planning indicates the existing sewers will be upsized by open cut, pull and replace or as an alternative, trenchless construction will be considered to reduce impacts to the general public.

Funding for Projects #1 & #3 will be provided by the City of Columbia's Sanitary Sewer Utility. The City has estimated construction cost of \$5.4 million for both projects.

Project #2 is also currently under design through a separate engineering services contract. It is a smaller project, funded by development fees, and there is active coordination between Projects #1 and #2 .

Project #4 is proposed for the future, but will not proceed into the design phase until funding is identified.



Challenges & Opportunities

Below is a list of items that have been identified as challenges associated with the proposed *FBW Relief Sewers Project #3*, as well as opportunities to minimize impacts of the project.

Known Concerns

- ◆ Construction disruptions to traffic (vehicular and pedestrian)
- ◆ Construction impacts to downtown businesses and residents
- ◆ Impacts to trees west of Fifth Street
- ◆ Historic brick streets
- ◆ Balancing impacts and costs of alternative construction techniques

Known Opportunities

- ◆ Coordinate with Project #1 and #2 for Providence Road Crossing
- ◆ Construction during summer when student population is reduced
- ◆ Coordinate with:
 - Businesses/Property owners along corridor
 - Downtown CID
 - University
 - Transit/Multi-modal
- ◆ Optional Alignments & Construction
- ◆ Storm Water Quality Enhancements

Project Process

The *FBW Relief Sewers Project #3* is following a process as shown in the diagram (right). The City of Columbia and their design team are currently seeking input to assist in evaluating different construction techniques that will reduce impacts caused by the project, and the related cost of construction. We are seeking comments from persons interested in this project, and look forward to hearing from those that own property or reside nearby, as well as the general public.

For More Information:

Contact Mr. Pat Fitzgerald, P.E., at (573) 874-7250 or via email at PubW@GoColumbiaMo.com.

If contacting by email, please reference "FBW Relief Sewers – Project #3" in the subject line.

Information from this Interested Parties Meeting, as well as ongoing project status and information, will be posted at:

www.gocolumbiamo.com/PublicWorks/Sewer/

