



**TO:** Michael C. Van Milligen, City Manager  
**FROM:** Gus Psihoyos, City Engineer   
**DATE:** December 29, 2014  
**SUBJECT:** Upper Bee Branch Creek Construction Schedule  
(CIP#7201654 & #3401654)

### **INTRODUCTION**

The purpose of this memorandum is to provide an update regarding the proposed construction schedule for the Upper Bee Branch Creek Restoration Project.

### **DISCUSSION**

It is standard practice to construct conveyance improvements such as the Bee Branch Creek Restoration Project from downstream to upstream, from lower to upper. Construction of the downstream Lower Bee Branch Creek Restoration Project was completed in the fall of 2011. It stopped just south of the property owned and operated by Canadian Pacific Railway (CPR). Construction of the Upper Bee Branch Creek Restoration Project was to follow with construction of the first part through the railroad property up to a point just south of Rhomberg Avenue (Part 1) followed by the second part from Rhomberg Avenue to 24th Street (Part 2). Therefore, the City has been working diligently to reach an agreement with CPR regarding the design of Part 1 through CPR property in order to proceed with construction of the Upper Bee Branch Creek Restoration Project.

On October 31, 2014 CPR responded to the City's September 10, 2014 design submittal. CPR did request changes to the proposed construction specifications. However, they stipulated that "if the modifications and responses (identified by CPR) are incorporated, CPR will accept the construction documents." The City's design engineers characterized the response from CPR as a conditional acceptance of the documents. The requested changes have been incorporated and resubmitted to CPR in Early December 2014. Once CPR accepts the design through their property, a Construction & Maintenance Agreement can be finalized and the City could initiate bidding. At best it will take several weeks to a few months to reach that point which will be too late to construct Part 1 of the Upper Bee Branch Creek Restoration Project through CPR property in 2015 and too late for the entire Bee Branch Creek Restoration Project to be substantially complete and functional by the end of 2016.

Anticipating this possibility, the design engineers looked into the feasibility of constructing the upstream portion of the Upper Bee Branch Creek Restoration Project

before the downstream portion through CPR property. Again, in general it is best to construct conveyance improvements from downstream to upstream. This is because building the upstream conveyance first can:

- Create a bottleneck, minimizing the benefit of the upstream conveyance until the downstream conveyance is complete;
- Create downstream flooding when more runoff is conveyed to an undersized, downstream facility;
- Make it more difficult for a contractor to manage stormwater during construction of the project; and
- Add cost to the project.

The City's engineering design team was able to develop an approach that would enable the City to move forward with the construction of the Upper Bee Branch Creek Restoration Project upstream of the CPR property. It involves construction of a temporary connection to the existing Bee Branch storm sewer just upstream of CPR property. From this temporary connection, a box culvert will be extended to the north through Garfield Avenue. Construction of the Upper Bee Branch Creek Restoration Project would then proceed in the desired fashion from downstream to upstream, from Garfield Avenue to 24<sup>th</sup> Street. The temporary connection would:

- Result in some flood prevention benefits due to the upstream conveyance improvements;
- Prevent the upstream improvements from flooding downstream property; and
- Provide the construction contractor the means to adequately manage stormwater through the construction site.

While the actual cost of the temporary connection is estimated to be between \$250,000 and \$300,000, it would be offset entirely by the simple cost of inflation that would occur if the Upper Bee Branch Creek Restoration Project is delayed for yet another year. The temporary connection could also ease the construction of the full-scale transition structure to be built just upstream of CPR property and potentially lead to some cost savings associated with construction of the improvements through the railroad property.

The other financial implications associated with the schedule have to do with the schedules and timelines set forth in various funding/grant agreements. The City could risk the loss of \$3 million in grant funding if the substantial completion date is delayed beyond 2016.

Construction plans are currently being developed for the Upper Bee Branch Creek Restoration Project which will now entail all improvements north of the CPR property. The work associated with the Upper Bee Branch Creek Restoration Project will be done under three contracts:

1. Grading, Utilities (water main, sanitary sewer, and storm sewer relocation), and Streets;

2. Structures (bridges, box culverts, etc.); and
3. Hike/Bike Trails

The proposed schedule at this time is to ready the first two contracts in order to initiate bidding in March of 2015. Due to the funding, the third contract will follow as an IDOT letting later in the fall.

The City will work towards finalizing an agreement with CPR as soon as possible following their acceptance of the design of the improvements through CPR property. Ideally, this can be accomplished in the next few months so that bidding of the Upper Bee Branch Creek Railroad Crossing Project can proceed in the fall of 2015 in time for construction to start in early 2016.

Over the next few months the City plans to host multiple public meetings where City staff will provide a project overview, explain the Upper Bee Branch Creek Restoration design, and share the tentative construction schedule. The meetings also provide an opportunity for citizens to ask questions and share information.

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