


TO: Mike Van Milligen, City Manager

FROM: Gus Psihoyos, City Engineer 

SUBJECT: Upper Bee Branch Creek Project
Grass Seeding and Irrigation System Modifications

DATE: June 29, 2016

INTRODUCTION

The purpose of this memorandum is to seek authorization to revise the landscape grass seed type and irrigation design to be installed as part of the Upper Bee Branch Creek Project.

BACKGROUND

The Upper Bee Branch Creek Project (Project) Phase 7 of the Bee Branch Watershed Flood Mitigation Project, involves the day-lighting and restoration of approximately a half of a mile of the buried Bee Branch Creek. The Project will allow stormwater from flash floods to safely move through Dubuque's North End and Washington Street Neighborhoods. The restored creek and floodplain will also result in the creation of a linear park where residents can gather at the water's edge, exercise along the trails, or simply sit on a bench overlooking the creek.

Construction of the Upper Bee Branch Creek Restoration Project is being accomplished through four contracts, two bid locally and two bid through the State due to funding. The first contract, the Upper Bee Branch Creek – Channel, Streets, & Utilities Project was awarded by the City Council to Portzen Construction (Portzen) in May of 2015 in the amount of \$27,819,266. The second contract, the Upper Bee Branch Creek – Structures Project was awarded to Tricon Construction (Tricon) in the amount of \$5,714,860. The third contract, the Bee Branch Creek Mississippi River Trail Project was awarded to Portzen in the amount of \$1,823,521. The fourth contract, the Bee Branch Creek Basin Overlook & 22nd Street Parking Lot Contract was awarded to Portzen in the amount \$1,420,509.

DISCUSSION

During the design phase of the project, the many components of the project's landscaping design were discussed and reviewed with all of the project stakeholders. In

terms of turf management, a three tiered approach was developed. High traffic areas such as those immediately adjacent to the hike/bike trail and the amphitheater were proposed to be seeded with traditional blue grass and mowed on a weekly basis. Less traveled areas along the corridor were proposed to be planted as a low mow fescue. Finally, the natural areas along the west bank of the channel between Garfield and Rhomberg Avenue were proposed to consist of native prairie grasses and wildflowers. Prairie and fescue grasses were proposed due to their lower maintenance costs. The use of bluegrass was limited because of their higher maintenance costs. Typical bluegrass requires mowing about once a week during the summer and it requires irrigation as it does not tolerate drought conditions well. Conversely, fescue and prairie grasses require less watering, minimal mowing [once per month for fescue and once per year for prairie], and little to no fertilization.

The fact that the improvements are designed to collect and convey flood waters underscores the challenges associated with establishing vegetation. In addition to when landscaping can be planted, the overall project schedule must coordinate the work of multiple prime contractors and subcontractors. Therefore, once awarded the construction contract Portzen started discussions with the Leisure Services Department, the Engineering Department, and Ken Saiki Design (the landscape architects of record) related to the coordination for planting the grass, trees, and shrubs along the project corridor and how it would fit into a workable schedule.

The bid contract documents call for an irrigation system to cover limited bluegrass areas and the planter beds located mainly along the walking paths. In order to facilitate the establishment of the landscaping, Portzen has proposed an expansion of the irrigation system so that it can water the seeded areas, trees, and other plantings along the entire project corridor (see attachments). Portzen's main reason for suggesting the expanded system is that it will allow Portzen and the City additional flexibility when it comes to ensuring the establishment and long term health of trees, lawn, and plantings along the corridor.

An expanded irrigation system also provides an opportunity to use other types of turf instead of exclusively using drought tolerant fescue grass which has low regeneration rates and does not hold up well in high foot traffic areas. Based on discussions with city staff and its consultants and considering the project goals regarding landscape design, Portzen has proposed using My Holiday Lawn® bluegrass seeding in lieu of the fescue sod grass for the fescue sod & seeding. Similar to fescue, My Holiday Lawn® is a hybrid bluegrass with a benefit of needing only infrequent mowing. An additional benefit of the expanded irrigation system will be less labor intensive City maintenance over the long term.

BUDGET IMPACT

The substitution of My Holiday Lawn® bluegrass seeding for the fescue sod & seeding and the expansion of the irrigation system to be able to water the seeded areas, trees, and shrubs along the entire Upper Bee Branch Creek project corridor will result in a net savings of \$44,742.25 in construction costs.

ACTION REQUESTED

I respectfully request approval to modify the landscape design to allow for the substitution of My Holiday Lawn® bluegrass seeding in place of fescue sod & seeding and expanding the irrigation system to be able to water the seeded areas, trees, and plantings along the entire Upper Bee Branch Creek project corridor.

Prepared by SSB
Attachements

cc: Marie Ware, Leisure Services Manager
Steve Brown, Project Manager
Deron Muehring, Civil Engineer