

Department of Public Works – Engineering Division

MEMO

TO: Utilities Committee

FROM: Paula Vandehey, Director of Public Works
Sue Olson, Staff Engineer
Pete Neuberger, Staff Engineer

DATE: December 7, 2016

RE: Amend the 2016C contract for Leona Pond Final Design and Permitting contract to Brown & Caldwell in an amount not to exceed \$27,410.

The Department of Public Works is requesting an amendment to the Leona Pond Final Design and Permitting contract with Brown & Caldwell in an amount not to exceed \$27,410. If this amendment is approved, the contract amount will increase from \$180,145 to \$207,555. After this contract \$167,170 will remain in the 2016 stormwater consulting services budget.

Attached are drawings of five alternatives for this project. Alternative 1 was the concept selected at the end of Preliminary Engineering in 2014 and was based on a wetland delineation by RA Smith National of just this general area. After meeting with one of the property owners, the pond was rotated to the location shown on Alternative 2. In January 2016, the City contracted with Brown and Caldwell for final design and permitting based on Alternative 2.

The original wetland delineation performed for Alternative 1 did not include the south half of Alternative 2. In June 2016, RA Smith National completed the delineation and two locations of wetlands within the proposed pond area were found. In discussing the project with the Wisconsin Department of Natural Resources, they stated that Alternative 2 could not be permitted due to the wetlands.

Then Brown and Caldwell (under the current contract) and RA Smith National (under the 2016 Wetlands contract) evaluated Alternative 3, which appears to have no wetland impacts, but does not have a complete official delineation. This cannot be completed until spring 2017. Alternative 3 requires additional land (approximately twice that of Alternatives 1 and 2) and the area north of the ditch becomes an unusable remnant for future development. One of the property owners expressed concern about the loss of the additional acreage.

To address those concerns, Brown and Caldwell evaluated Alternative 4, located at the southwest corner of the property along Wisconsin Avenue using the approximate same acreage as Alternatives 1 and 2. Since this evaluation was done after the growing season, the wetlands shown on this drawing are estimated. Although a pond in this location is not impacting wetlands and has similar flood control, it is not as efficient as those on the north side of the property, providing less Total Suspended Solids removal. It also requires installing the outlet pipe in STH 96, which is new concrete pavement, obtaining approval to use sanitary sewer from Grand Chute for future enhanced phosphorus removal technology, and using a more valuable part of the property with frontage on Wisconsin Avenue.

To address the concerns of the property owner regarding the amount of land needed for Alternative 3, staff is proposing Alternative 5. This alternative would be a two pond system, maximizing the unusable

land between the ditch and the railroad and reducing the total amount of land needed from Alternative 3.

The evaluation of alternatives 3 and 4 has used a portion of the 2016 contract intended for Final Design and Permitting. Therefore, the Department of Public Works is requesting this contract amendment for the following scope of work:

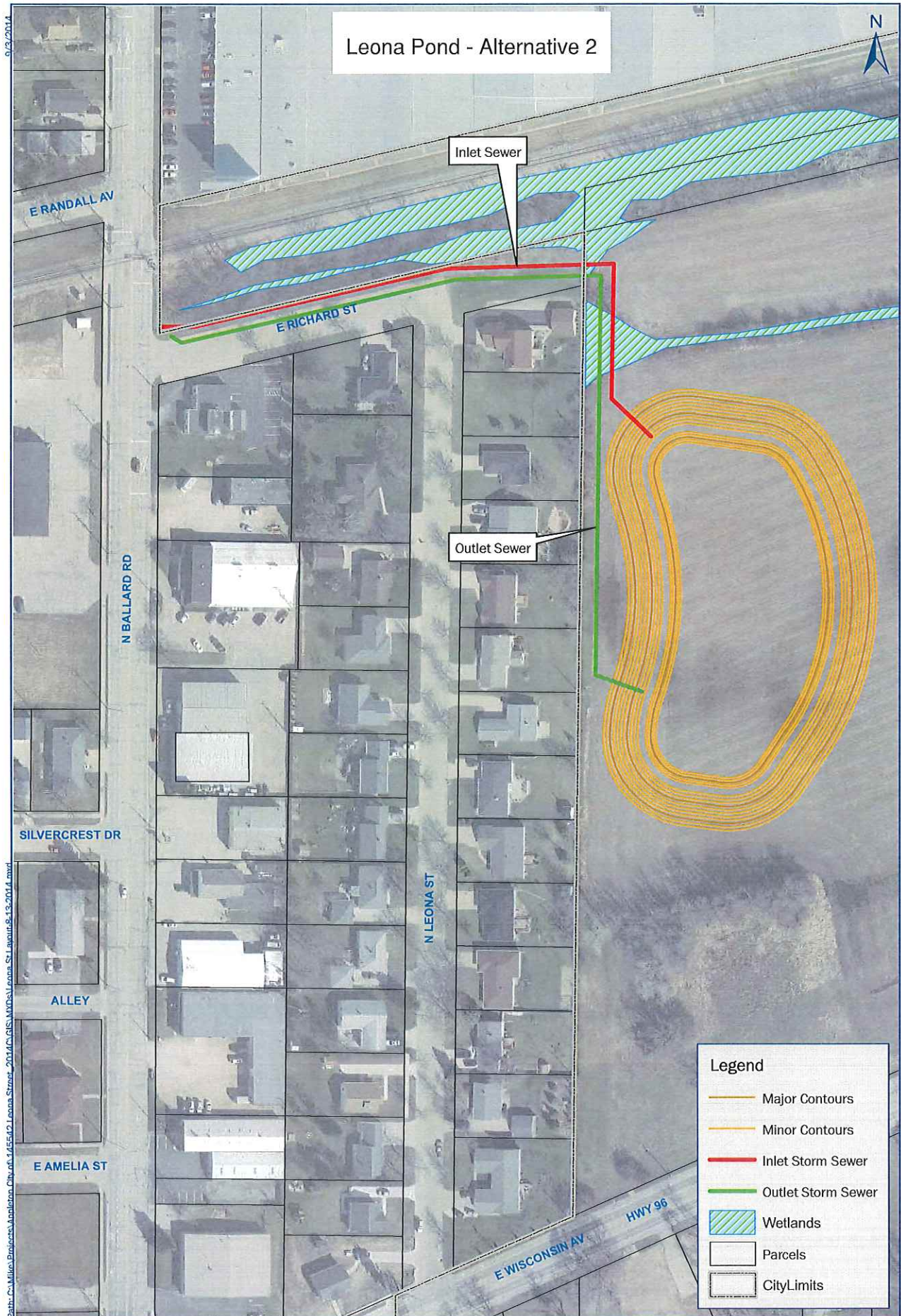
- Evaluate Alternative 5, which uses a two pond system to reduce the amount of land needed. This requires additional modeling for water quality and flood control performance, storm sewer and outlet structure sizing, and water surface elevations.
- If the two pond alternative is selected, prepare the additional construction drawings resulting from this configuration. The two pond system will require two plan views, two cross sections, additional structure details, additional pipe plans between the ponds, etc.
- Attend one additional meeting.
- Perform conceptual design of Coagulant Treatment System for Enhanced Phosphorus Treatment with the two pond system to be potentially installed in the future.
- Assist with discussions with the Railroad for necessary permits.
- Assist City staff with a second Agricultural Impact Statement required for property acquisition based on the selected alternative.

Although the Leona Pond is currently programmed for construction in 2019, there is significant lead time needed for wetland determinations, permitting, land acquisitions and grant applications. Therefore, the Department of Public Works is requesting an amendment to the Leona Pond Final Design and Permitting contract with Brown & Caldwell in an amount not to exceed \$27,410.



9/3/2014

Leona Pond - Alternative 2



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Leona Pond - Alternative 3

East-West Pond Layout Figure
Leona Street Pond Design
City of Appleton, WI

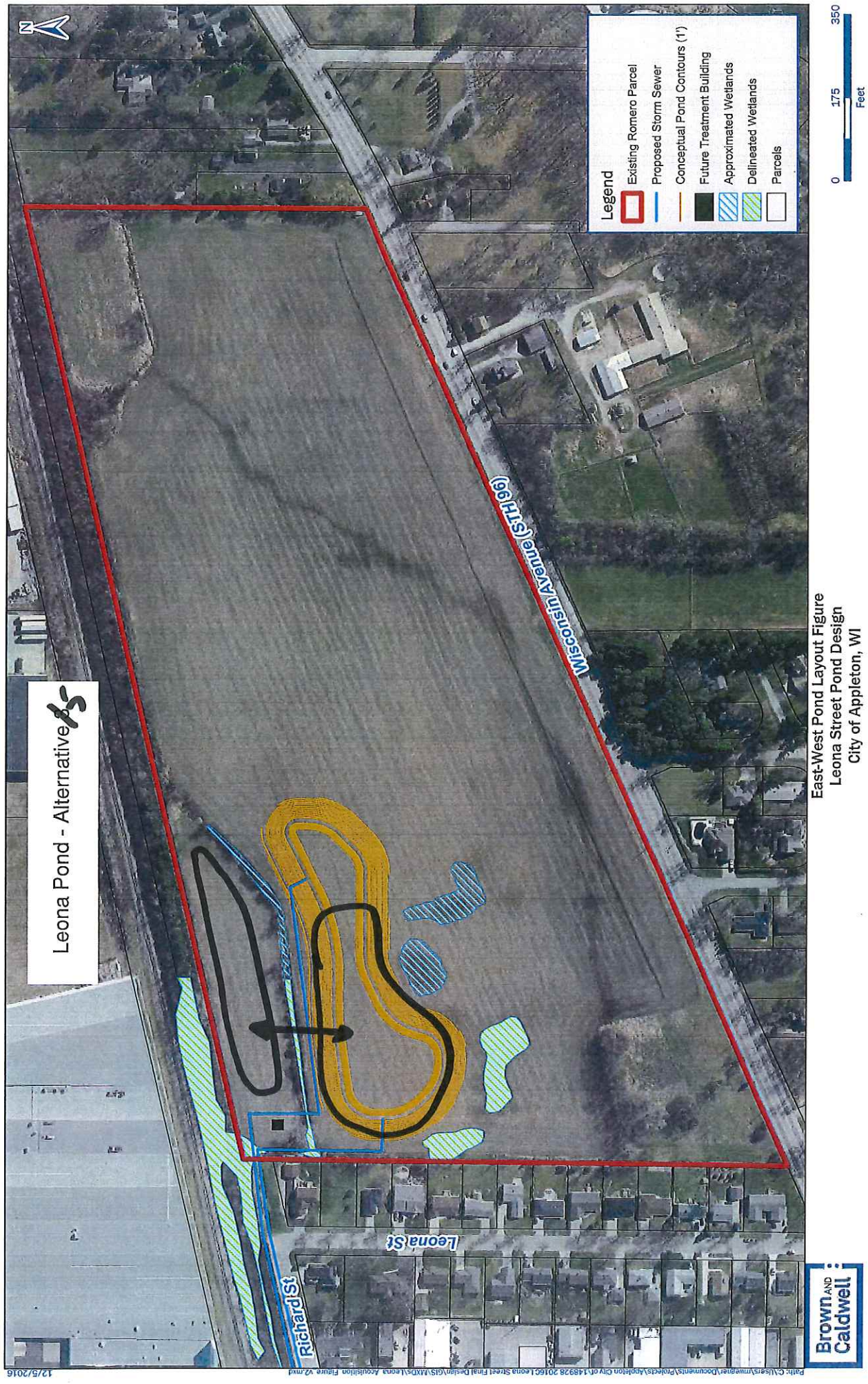




Leona Pond - Alternative 4

Southwest Pond Layout
Leona Street Pond Design
City of Appleton, WI





Leona Pond - Alternative 1S

East-West Pond Layout Figure
 Leona Street Pond Design
 City of Appleton, WI