

COUNCIL ACTION FORM

SUBJECT: SANITARY SEWER SYSTEM CAPACITY UPDATE

BACKGROUND:

During recent months the City Council has considered Land Use Policy Plan amendments, zoning changes, and subdivision/site plan approvals for several areas in the west part of Ames. These projects include a Major Site Development Plan for Aspen Heights, a Preliminary Plat for Dotson Drive, a Minor Site Development Plan for 122 Hayward, a rezoning of the Crane Farm, as well as a proposed development on TOMCO property between Sheldon Avenue and Hyland Avenue, and a future subdivision of the “middle parcel” along State Street owned by the City. As part of these considerations, staff indicated that evaluation of sanitary sewer capacity should be taken into account before granting final approval for these projects. Staff has now received capacity results that take into account the proposed developments in west Ames.

Attachment 1 includes a Sanitary Sewer System Basin map which outlines areas of the system. The various basins are interconnected through pipe networks which ultimately lead to a trunk sewer main leading to the Water Pollution Control Plant. Attachment 2 shows the areas of development that have been considered in the sewer model update as well as an estimated timing of those building occupancies. All of the proposed developments in the previous paragraph would be built in sewer basins 5 or 6.

The updated sanitary sewer model, including the above developments, indicates that there is a capacity issue in an existing 10-inch main between Hayward Avenue and Sheldon Avenue (see Attachment 3). This pipe was built in 1968 at a very flat slope. Initial indications are that this pipe needs to be upsized and at a steeper slope. Based upon a conceptual design, the cost to replace this main will be \$400,000.

The sanitary sewer model indicates that this segment of the sewer is at capacity under existing conditions and continued development consistent with the LUPP projects a deficiency that needs to be corrected as part of the system improvements. Therefore, it is not attributed to any of the specific developments now being considered. Should Council approve, this improvement could be made as an existing system deficiency using State Revolving Funds already approved as part of the 2016/17 Sanitary Sewer Rehabilitation Program in the Capital Improvements Plan.

Through direction by City Council for staff to proceed with design of this improvement, it would be possible for construction to commence this fall with completion by the end of December 2016 (Alternative #1). **Construction during this timeframe would be**

during fall semester and could have traffic impacts during home football games. Alternative #2 would be to hold a winter bid letting with construction to occur during summer of 2017. Under this option, construction would commence during the spring semester and continue through the summer. **Potential weather impacts during this timeframe could adversely impact completion by August 1, 2017, which is the date by which several of the developments are hoping to open.**

ALTERNATIVES:

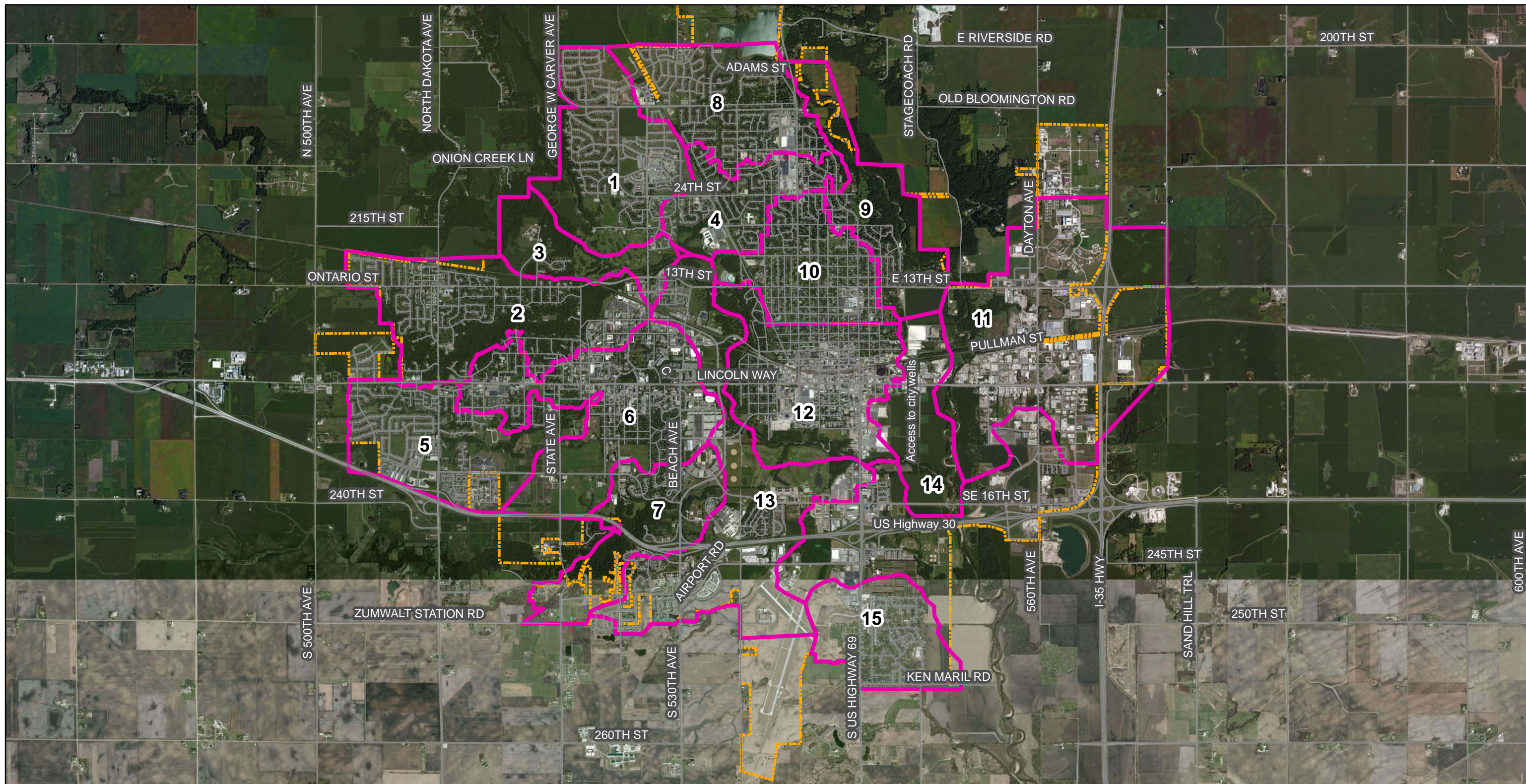
1. Direct staff to proceed with the sanitary sewer system improvement between Hayward Avenue and Sheldon Avenue using 2016/17 Sanitary Sewer Rehabilitation funding, with construction to be completed in the 2016 construction season.
2. Direct staff to proceed with the sanitary sewer system improvement between Hayward Avenue and Sheldon Avenue using 2016/17 Sanitary Sewer Rehabilitation funding, with construction to be completed during the 2017 construction season.
3. Direct staff to proceed with the sanitary sewer system improvements and assign project costs to the developments.
4. Do not proceed with the project at this time and do not approve any of the proposed developments.

MANAGER'S RECOMMENDED ACTION:

The sanitary sewer model indicates that this is a deficiency in the existing system, and is not attributable to any of the specific developments now being considered. The project can be accomplished within existing funding from the 2016/17 Sanitary Sewer Rehabilitation Program. The City's consultant has indicated that construction can be accomplished during fall 2016.

In order to allow more time to complete this project, staff is recommending that the work commence as soon as possible during this 2016 construction season. However, it must be emphasized that action under this alternative will impact traffic along Lincoln Way during the fall semester and busy football season.

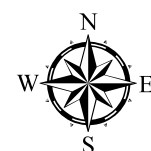
Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1 as described above.



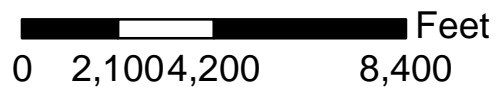
 City Limits

 Roads

 Sanitary Study Basins



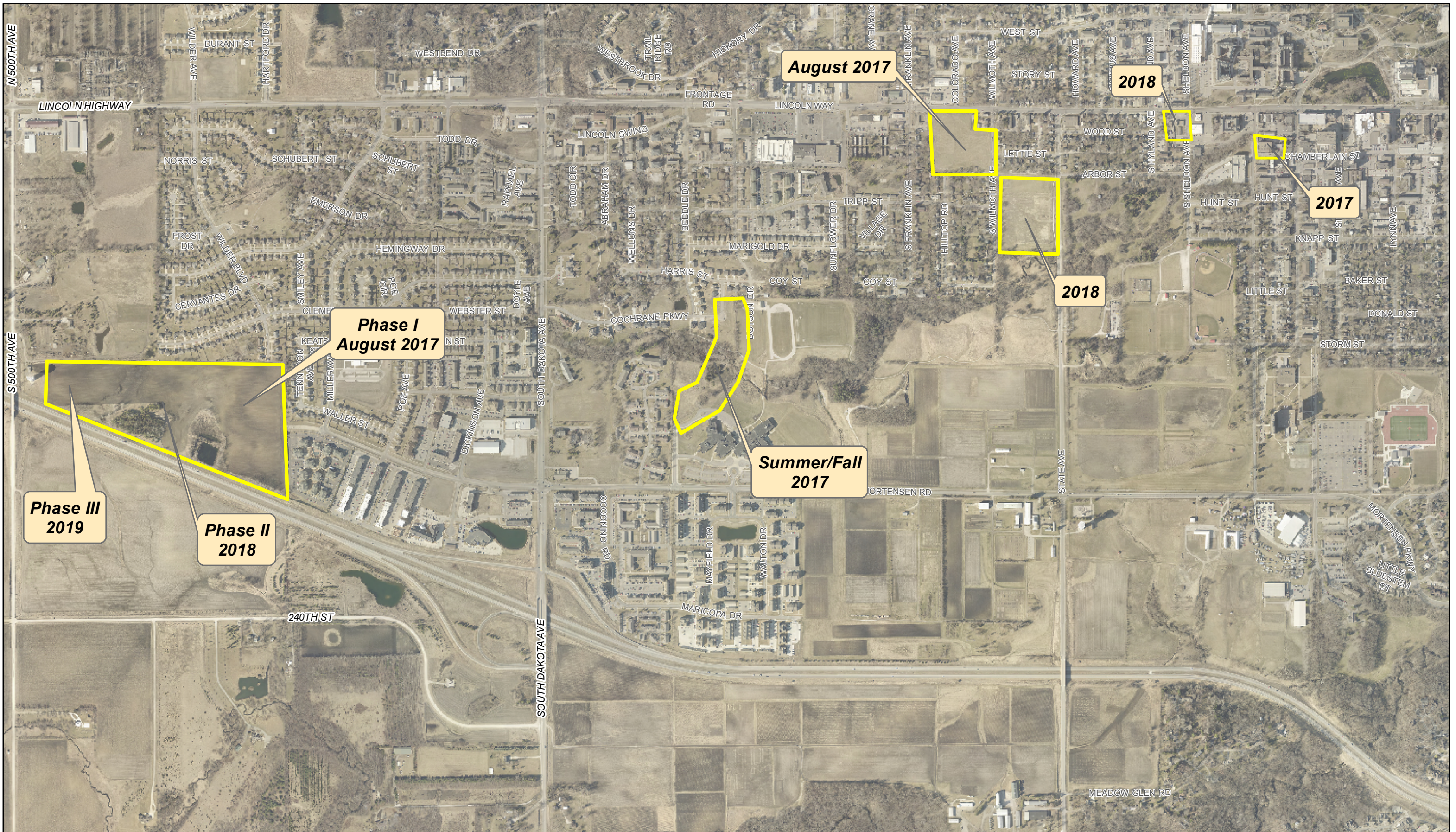
1 inch = 4,200 feet



**City of Ames
Sanitary Sewer System Evaluation**

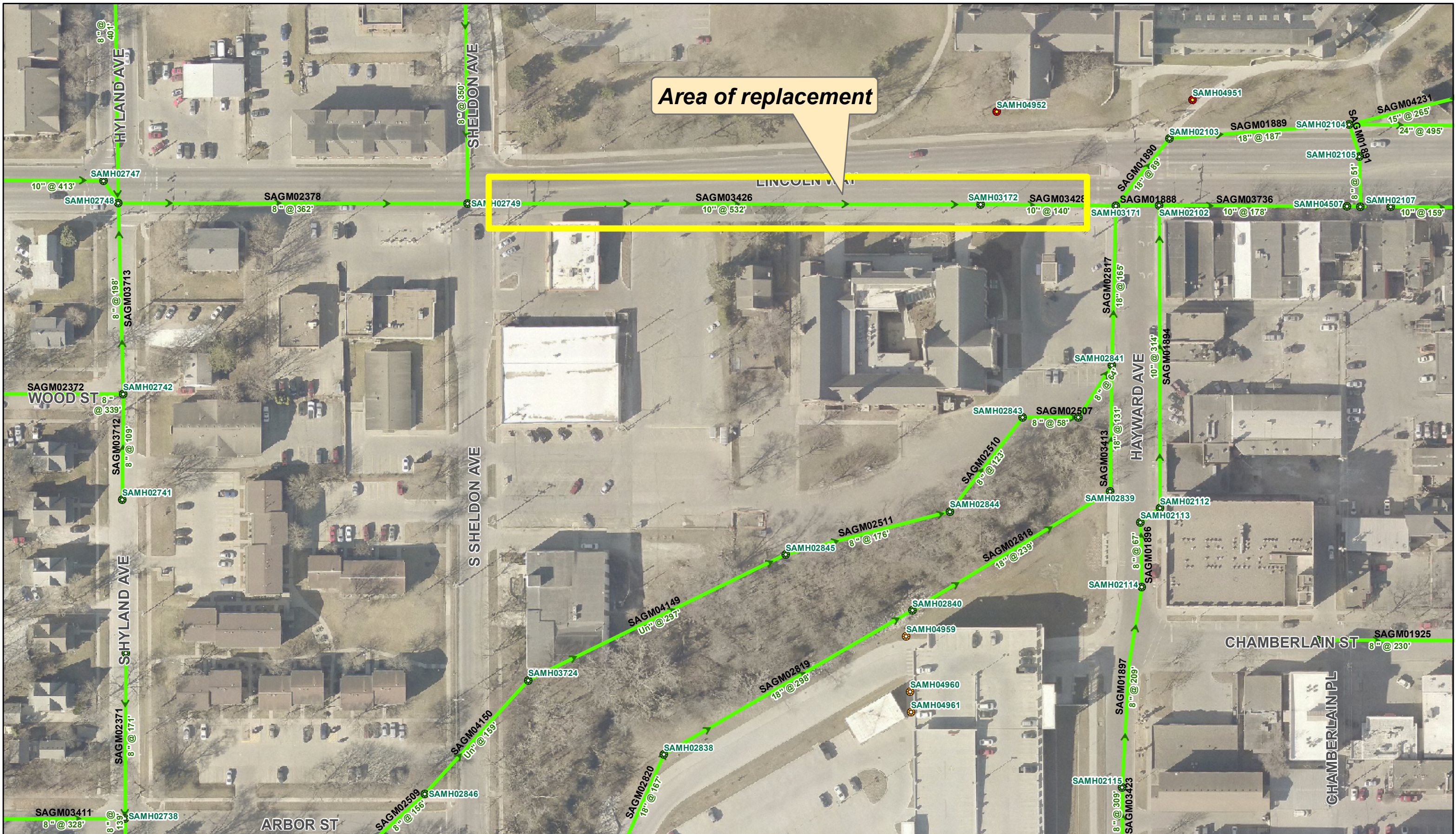
Attachment 1: Study Basins





Anticipated Areas of Development Attachment 2





Lincoln Way Sewer Replacement Sheldon Ave to Hayward Ave Attachment 3

