


COUNCIL COMMUNICATION

	Number:	24-002	Meeting:	January 8, 2024
	Agenda Item:	38	Roll Call:	24-0071
	Submitted by:	Steven L. Naber, P.E., City Engineer		

AGENDA HEADING:

Hearing on Intelligent Transportation Systems Upgrade - Phase 4: Resolution approving plans, specifications, form of contract documents, engineer's estimate, receive and file bids, and designating lowest responsible bidder as Iowa Signal, Inc., Wayne Lesley, President, \$991,856.24.

SYNOPSIS:

This is a public hearing to allow for public input on the Intelligent Transportation Systems Upgrade - Phase 4 and take the necessary actions as required by Iowa Code to authorize a contract for construction of the proposed project. The project includes upgrading the communications infrastructure, communications network, traffic signal cabinet/controller and Intelligent Transportation Systems (ITS) equipment of the traffic signal system along major corridors. The existing traffic signal controllers have outdated technology and will be replaced with 2070 ATC controllers, which are the new modern standard controller.

FISCAL IMPACT:

Amount: \$991,856.24 Construction Contract (\$1,224,000 City Engineer's Estimate)

Funding Source: 2023-24 CIP, Page 178, Traffic System Operation Improvements, TR097, Being: \$500,000 (maximum) Surface Transportation Block Grant (STBG) program Federal-aid funds up to 80% of eligible construction costs under STP-U-1945(872)--70-77, and the remaining \$491,856.24 in G.O. Bonds

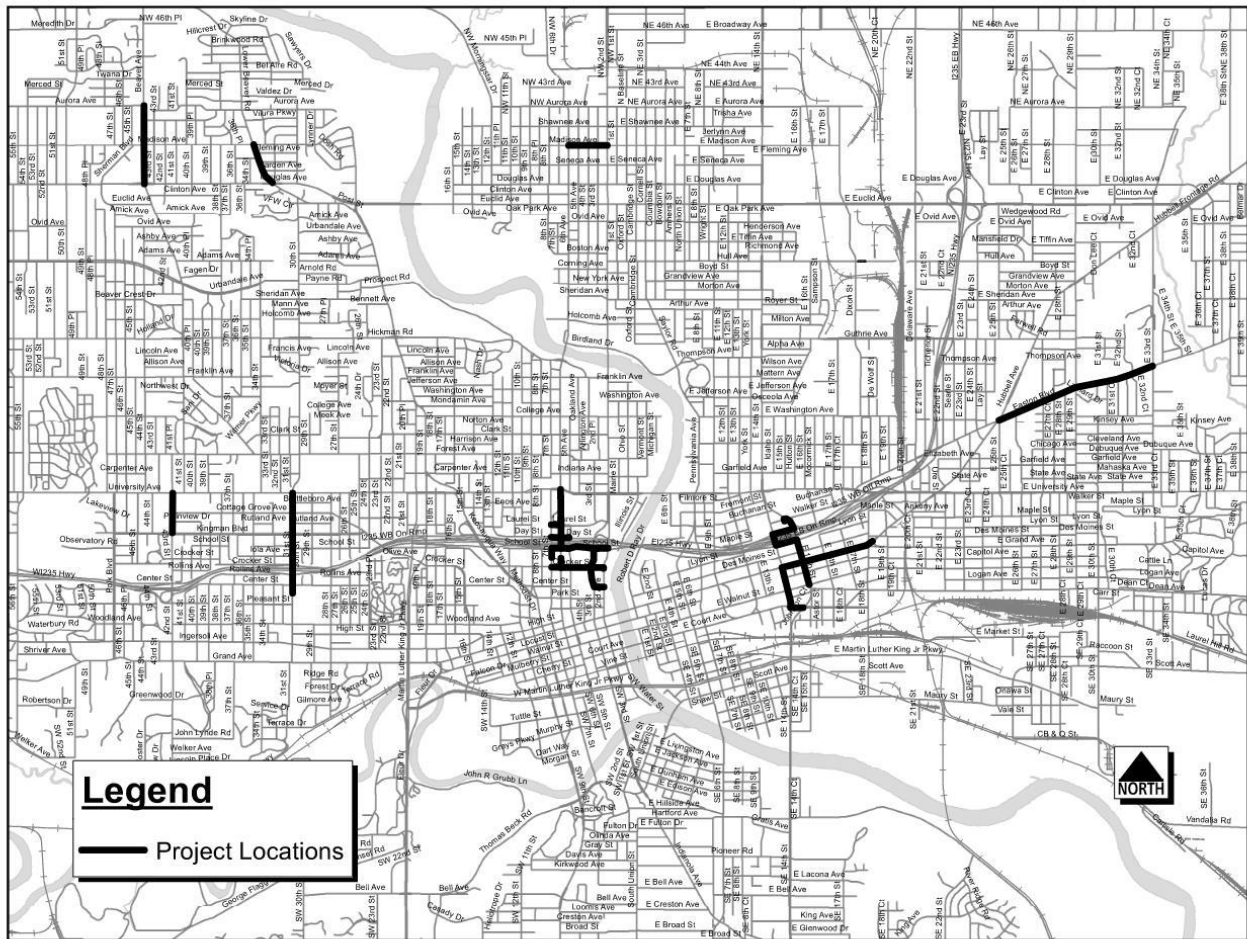
ADDITIONAL INFORMATION:

- On December 4, 2023, under Roll Call No. 23-1677, the City Council received and filed plans, specifications, form of contract documents, and City Engineer's estimate for the construction of the Intelligent Transportation Systems Upgrade - Phase 4. Before the City Council can enter into a contract, it must hold a public hearing and approve the proposed plans, specifications, and form of contract documents and engineer's estimate for the construction of the Intelligent Transportation Systems Upgrade - Phase 4, Activity ID 04-2023-017. The improvements include upgrading the communications infrastructure, communications network, traffic signal cabinet/controller and Intelligent Transportation Systems (ITS) equipment of the traffic signal system, removal of sidewalk and driveways, Portland Cement Concrete (PCC) sidewalks, PCC driveways, and surface restoration, all in accordance with the contract documents, including Plan File No. 657- 001/100 at the following locations:

- Beaver Avenue from Douglas Avenue to Aurora Avenue
 - Lower Beaver Road from Euclid Avenue to Madison Avenue
 - 42nd Street from Kingman Boulevard to University Avenue
 - 31st Street from Pleasant Street to University Avenue
 - Madison Avenue from 6th Avenue to 2nd Avenue
 - Easton Boulevard from Hubbell Avenue to E 33rd Street
 - 7th Street from Crocker Street to School Street
 - 6th Avenue from Crocker Street to University Avenue
 - 3rd Street from Center Street to School Street
 - Laurel Street from 7th Street to 6th Avenue
 - Day Street from 6th Avenue to 5th Avenue
 - School Street from 7th Street to 2nd Avenue
 - Crocker Street from 7th Street to 2nd Avenue
 - Center Street from 3rd Street to 2nd Avenue
 - East 14th Street from East Court Avenue to East Grand Avenue
 - East Court Avenue from East 14th Street to Johnson Court
 - East 15th Street from East Walnut Avenue to East Grand Avenue
 - East Grand Avenue from East 14th Street to Des Moines Street
 - Lyon Street from East 14th Street to East 15th Street
 - Maple Street from East 14th Street to East 15th Street
 - Johnson Court from Maple Street to Walker Street
- Sealed bids for said improvement were submitted by the following bidders:
 - Iowa Signal, Inc., Grimes, IA, - Low Bid
 - The bids, in accordance with a previously approved Iowa DOT Agreement, were received and opened by the Iowa DOT on December 19, 2023.
 - The City Engineer has determined that the lowest responsive, responsible bid for the construction of said improvement was submitted by Iowa Signal, Inc., Wayne Lesley, President, 3711 S.E. Capitol Circle, Grimes, IA, 50111 in the amount of \$991,856.24, and said bid should be accepted. The Finance Director has determined that funds are available for said improvement as stated above.
 - The ITS Master Plan was adopted as a framework for the City of Des Moines future traffic management and communication system infrastructure at the November 19, 2018 Council Meeting.
 - The ITS Master Plan addresses major components: signal system hardware and software, work order system, fiber communications infrastructure, video observation cameras, and dynamic message signs.
 - The current ITS infrastructure for the City of Des Moines primarily consists of antiquated technologies, including traffic signal controllers using 1970's technology and video observation cameras that are often not operable.
 - The ITS Master Plan is broken into eight (8) phases with an estimated total cost of \$12.5 million. These eight (8) phases are prioritized on vehicle volumes, roadway capacity,

annual crashes, truck/transit route needs, existing operational issues, and conditions of existing communications.

- Phase 1 and Phase 2 construction is complete and Phase 3 construction is anticipated to be completed by spring 2024.
- Phase 4 includes upgrading 39 traffic signal locations across the north and central portions of the city as illustrated in the map below. At each intersection, Phase 4 improvements will include the following activities:
 - Communication infrastructure upgrades.
 - Communication network upgrades.
 - Traffic Signal Cabinet/Controller/ITS Device Upgrades.
- Phase 4 work includes upgrading 39 traffic signal controller systems, 9 (nine) uninterruptible power supply system installations, 39 ethernet switch installations, 8 (eight) Pan-Tilt-Zoom Camera Traffic Monitoring System installations, 115 feet of new conduit installation, 10 handhole installations, and replacing or installing nearly 50,955 feet of fiber optic cable.
- Construction of Phase 4 is anticipated to be completed by spring 2025.



PREVIOUS COUNCIL ACTION(S):

Date: December 4, 2023

Roll Call Number: [23-1677](#)

Action: Ordering construction of the following:

- (A) [Intelligent](#) Transportation Systems Upgrade – Phase 4: Receiving of bids, (12-19-23) and Setting date of hearing, (1-8-24), Engineer’s estimate, \$1,224,000. ([Council Communication No. 23-529](#)) Moved by Gatto to adopt. Second by Voss. Motion Carried 7-0.

Date: August 7, 2023

Roll Call Number: [23-1066](#)

Action: [Approving](#) and authorizing the execution of the Iowa Department of Transportation (IDOT) Agreement for the Intelligent Transportation Systems Upgrade – Phase 4. ([Council Communication No. 23-367](#)) Moved by Gatto to adopt. Second by Boesen. Motion Carried 6-1. Absent: Sheumaker.

BOARD/COMMISSION ACTION(S): NONE

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

Partial payments to the contractor and final acceptance of work.

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