



City of Norman, OK

Municipal Building
Council Chambers
201 West Gray
Norman, OK 73069

Master

File Number: K-1920-34

File ID: K-1920-34

Type: Contract

Status: Consent Item

Version: 1

Reference: Item 21

In Control: City Council

Department: Public Works
Department

Cost:

File Created: 08/12/2019

File Name: Maintenance Agreement with ODOT for the 12th
Avenue NE Traffic Signal Interconnect Upgrade Project

Final Action:

Title: CONTRACT K-1920-34: A MAINTENANCE AGREEMENT BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA, AND THE OKLAHOMA DEPARTMENT OF TRANSPORTATION (ODOT) FOR FEDERAL-AID PROJECT NHPPG-214N(098)AG, STATE JOB 32533(04) FOR THE 12TH AVENUE N.E. TRAFFIC SIGNAL INTERCONNECT UPGRADE PROJECT BETWEEN ALAMEDA STREET AND ROBINSON STREET AND ADOPTION OF RESOLUTION R-1920-26.

Notes: ACTION NEEDED: Motion to approve or reject Contract K-1920-34 with ODOT; and, if approved, adopt Resolution R-1920-26 and authorize the execution of the contract and resolution.

ACTION TAKEN: _____

Agenda Date: 09/10/2019

Agenda Number: 21

Attachments: K-1920-34 & R-1920-26, Location map

Project Manager: Angelo Lombardo, Transportation Engineer

Entered by: michelle.rudder@NormanOK.gov

Effective Date:

History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
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Text of Legislative File K-1920-34

Body

BACKGROUND: The 2015 - Fixing America's Surface Transportation (FAST) federal transportation funding bill allocates approximately \$21 million in Federal funds per year for the implementation of eligible transportation improvements in the Oklahoma City metropolitan area. Ten percent of this appropriation is used to fund safety projects at 100% of their construction cost. Installation and upgrades of traffic signal interconnect systems are eligible for this level of

funding.

The City of Norman began interconnecting its traffic signals in the late 1980's using copper wire in underground conduit and telephone modems for communications. Today, the City has signal interconnect systems along most of its arterial roadways (thirteen systems in total). These systems facilitate the continuous movement of traffic along heavily traveled roadways, minimize overall delay and reduce traffic collision rates (approximately 30% reduction nationally).

While some traffic signals fall into multiple corridors, the thirteen interconnect systems in Norman include traffic signals along the following corridors:

- Boyd Street (Eight Signals)
- Alameda Street (Eight Signals)
- State Highway 9 (Ten Signals)
- Lindsey Street (SH 74A) (Sixteen Signals)
- Main Street (Sixteen Signals)
- Gray Street (Six Signals)
- Robinson Street (Thirteen Signals)
- 12th Avenue East (SH 77H) (Eight Signals)
- 24th Avenue West (Eight Signals)
- Tecumseh Road (Five Signals)
- 36th Avenue West (Five Signals)
- Jenkins Avenue (Eight Signals)
- Classen Boulevard (Five Signals)

In 2009, the Traffic Control Division began the process of upgrading interconnect cables from copper wire to fiber optics and implemented a new advanced traffic management system called *Centracs*. The system provides an integrated platform for traffic signal control; Intelligent Transportation System (ITS) field device monitoring and control; information management; graphical data display; advanced traffic algorithms; and much more. *Centracs* is also flexible, user friendly and cost-effective, and has enabled the City to realize significant mobility benefits. The flexible and scalable *Centracs* design has also provided the City with feature-rich options that best meet our evolving transportation needs. Several projects have been completed to date, which has allowed 78 of the City's 147 traffic signals to be operated and managed using the *Centracs* traffic management system using the required fiber optic connectivity.

The City's Information Technology Systems Division has also benefited from the upgrade. The new fiber optic cable along with the extensive underground conduit system installed for the interconnection of traffic signals is also being used to enable high-speed communications and connectivity between satellite locations such as fire stations and related public safety facilities and the City's central computer network and mobile data systems. This collaboration continues and has allowed the City to provide network communication connections between many of its remote sites at significant savings.

On November 10, 2015, City Council approved Resolution R-1516-47, which was forwarded to

both the Association of Central Oklahoma Governments (ACOG) and the Oklahoma Department of Transportation (ODOT), requesting federal funds to pay for 100% of the construction cost of a project to upgrade the 12th Avenue NE interconnect system, between Alameda Street and Robinson Street. The proposed project replaces the existing copper wire with new fiber optic cabling, and upgrades several pull boxes along the corridor, which will allow the City to add three traffic signals to the *Centracs* system (12th Avenue NE intersections at Morren Drive; Norman Public Schools Bus Barn; and Main Street), as detailed in Attachment 1. In the Resolution, the City agreed to the terms and conditions of a federally funded project by stating its willingness to assume the responsibility for the preparation of engineering plans, the purchase of any additional required right-of-way, the relocation of public utilities and funding of the local share of the construction cost, which normally is 20% but for this safety project will be 0%. The project was submitted for consideration and is currently included in the Association of Central Oklahoma Governments' (ACOG) 2020 Regional Transportation Improvement Plan (TIP).

Traffic Control Division engineering staff has worked on the development of construction plans. Final plans have been completed and were submitted to ODOT with a request to include the project in their October 17, 2019 bid opening. Construction is anticipated to begin in February of 2020 and be completed in May of 2020.

The estimated construction cost of \$254,455, including construction inspection and administration, will be funded with 100% federal funds as a safety improvement project.

DISCUSSION: The Oklahoma Department of Transportation requires the City to execute a project agreement and to adopt it by resolution before letting the project to contract. The agreement addresses the responsibilities of the City and the Department during and after the construction of the project. The execution of three original documents is required. Both the resolution and agreement have been reviewed by staff and approved by the Interim City Attorney.

RECOMMENDATION: Staff recommends approval of Contract K-1920-34 and Resolution R-1920-26 with ODOT for the 12th Avenue NE Traffic Signal Interconnect Upgrade project, between Alameda Street and Robinson Street.