



Legislation Text

File #: 18-098, Version: 1

CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Adopt a resolution approving the intergovernmental agreement between the City of Naperville and the County of DuPage for the central signal system expansion 1 and 2 installation and future maintenance responsibilities at various locations.

DEPARTMENT: Transportation, Engineering and Development

SUBMITTED BY: Andy Hynes, Deputy City Engineer

BOARD/COMMISSION REVIEW:

N/A

BACKGROUND:

County-wide Traffic Signal/Intelligent Transportation System Management Strategy

Recognizing the higher levels of congestion on the regional street network as well as the practical limits of infrastructure expansion, a strategic framework for the development of Intelligent Transportation Systems was completed in 2007 to enhance the efficiency and safety of the highway system. This effort was led by DuPage County in cooperation with various stakeholders (including the City of Naperville) and is captured in a document titled the "Transportation Coordination Initiative" (TCI - available online on DuPage County's website). The deployment of an integrated traffic signal management system was identified as a priority project in the TCI. The improvements proposed through CIP Project TC217 are consistent with this countywide goal.

Phase I - Washington Street Corridor

In 2017, implementation of the initial phase of the Centralized Traffic Management System project (CIP Project TC217) was completed. This work modernized much of the communication system, equipment, and management software associated with the 32 traffic signals located along the Washington Street Corridor. These enhancements have improved the operation of the signal system through additional data collection capabilities, reduced response times to equipment failures, and implementation of adaptive control.

Future Integration of Additional Traffic Signal Systems

Naperville has fiber optic cable along various arterial corridors that connect nearly all of the 95 Naperville-maintained traffic signals into one of twelve separate systems. Eliminating several relatively small gaps between these signal corridors combined with the centralized traffic management software, will let the City realize the full potential of its previous investment in the existing traffic signal system. Connecting these systems is anticipated to occur in several phases over many years and will be dependent on the availability of federal funding.

DISCUSSION:

In 2016, DuPage County, in partnership with the City of Naperville, submitted two applications for Federal Congestion Mitigation and Air Quality (CMAQ) funds to expand both agency's combined traffic signal systems (City Council approved this joint application on February 7, 2017 - Agenda Item I6). The first grant application included the traffic signals along the 75th Street corridor as well as Rickert Drive and Naper Boulevard. The second application included traffic signals along the north Naper Boulevard, Diehl Road, and Warrenville Road corridors. Together, the two projects would add a total of 96 traffic signals to the centralized traffic management system. Ten of these signalized intersections are City of Naperville maintained and operated. Consistent with the goals outlined in the Transportation Coordination Initiative to create an integrated network, this project would provide multiple direct connections between Naperville and County signal systems. The project would also modernize older signal equipment, provide enhanced traffic data collection, and allow operational improvements at these locations. A map depicting the traffic signal corridors included in the proposed signal system expansion is attached.

In late 2017, DuPage County and Naperville were notified that both grant applications had been approved for CMAQ funding. The estimated combined total cost of the project for construction and construction engineering is \$4,443,000 with the federal CMAQ funds covering 80% of this cost. The remaining 20% of the cost will be shared proportionately by DuPage County and Naperville. With the approval of both grant applications, the County decided to combine expansions 1 and 2 into a single construction project to save design time and costs as well as seek lower construction unit prices.

The attached intergovernmental agreement identifies the County's and Naperville's construction, maintenance, and cost responsibilities associated with the expansion project. DuPage County will serve as the lead agency for the project as the majority of the improvement is located along County highways. Naperville will assist with the project implementation and reimburse DuPage County for its proportional share of the local match for the City maintained traffic signals included in the project. The total estimated Naperville share of the project is \$183,500. Naperville's final share may be slightly more or less than this amount depending on the final design and as-bid costs.

FISCAL IMPACT:

CIP Project Number: TC217 - Centralized Traffic Management System

The City's share of the engineering and construction cost for the combined project is \$183,500 as written in the intergovernmental agreement with DuPage County.

These account number provided below is inclusive of TED projects funded through bond funds and the capital projects fund. The total project budget for TC217 for CY2018 is \$125,000. The additional funds required (\$58,500) will be budgeted in CY2019 Capital Improvement Program. This funding arrangement is compatible with the terms of the intergovernmental agreement and anticipated construction schedule.

| Account Number | Fund Description | Total Budget Amount |
|---|-----------------------|---------------------|
| CIP account numbers for CY18 are currently unavailable while the conversion to the Munis budget system is in progress | Capital Projects Fund | \$125,000 |

