



City of Grand Forks
Staff Report
Committee of the Whole – February 10, 2020

Agenda Item: Project Update for City Project No. 7957 - Turn Lane Improvements and Traffic Signal Upgrades on 32nd Avenue S from I-29 to S 20th Street

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For Information Only

BACKGROUND:

The North Dakota Department of Transportation (NDDOT) is continuing design work on a street improvement project on 32nd Avenue S from I-29 to S 20th Street. Proposed improvements include realigning the left turn lanes so they are no longer negatively offset, adding dual left turn lanes at Columbia Road, increasing radius along the corridor to accommodate turning movements of larger truck traffic, adding ADA compliant sidewalk curb ramps, and other miscellaneous improvements. There are 8 signalized intersections along this corridor. Because the proposed improvements conflict with the location of some of the existing traffic signal poles or the existing signal mast arms are not long enough to accommodate the realigned left turn lanes, new traffic signals will be required at 5 of the signalized intersections. The existing signals at the remaining 3 intersections will be upgraded. The project will be funded with approximately \$4.2m of Federal Highway Safety Improvement Program (HSIP) funding which is targeted to address safety improvements. Improvements that do not improve safety such as adding right turn lanes were not eligible to be funded as part of this HSIP funded project.

It was originally intended to bid this project late in 2019 for construction in 2020. However, due to a number of complications, it was decided to postpone the project so that it could be bid this fall and constructed in 2021. The biggest reason for delaying the project is due to the significant amount of time that it takes to manufacture traffic signals which can take up to 10 months. If pursued for construction this year, temporary signals on wooden poles and cables spanning the roadway would have to be designed and installed at the beginning of construction and remain in place until after the new permanent signals were fabricated, delivered, and installed. Likely, the temporary signals will need to remain in place through most of next winter. Because of the additional cost to design, install, and remove the temporary traffic signal systems, as well as the additional disruption to the traveling public to install and remove the temporary signals, a preferable option is to bid the project well in advance of the construction season so that the new signals may be installed prior to beginning roadway widening work. Another reason for delaying the project is due to right of way acquisition needs at a few locations to accommodate the larger intersection radius. As of this date, all necessary right of way has not been obtained

and postponing the bid opening to the fall will allow more time to acquire it. Finally, if this project is to be constructed in 2020, the soonest it could be bid is April. We expect that a project this large bid so close to the beginning of the construction season would result in higher prices than we would expect if bid well in advance of the construction season. For these reasons, the NDDOT and City staff has recommended that the project be bid this fall and construction be postponed until 2021.

The majority of this roadway was originally constructed in 1977. The section from 38th to 48th Street was constructed in 1994. New signals and turn lanes at 34th and 38th Street were installed in 2001. The roadway section from 31st to 24th Street was reconstructed in 2003. The majority of the roadway was rehabilitated with an asphalt overlay/grinding/panel replacement project in 2013. In addition, miscellaneous improvements have been completed throughout the corridor throughout the years.

This project has been considered at a number of previous Council/Committee/Public meetings, some of which are as follows:

- This project has been programmed for several years and has been included on the NDDOT's listing for projects eligible for Federal Highway Funding
- December 5, 2016 – Council approved a Federal Transportation Funding Request for improvements on 32nd Avenue S using HSIP funds
- September 4, 2018 – Council approved a Preliminary Engineering Reimbursement Agreement with the NDDOT where the NDDOT agreed to proceed with the preliminary design of the project and the City agreed to reimburse the NDDOT for all Preliminary Engineering expenses incurred if the City terminated or materially reduced the project scope

ANALYSIS AND FINDINGS OF FACT:

- The NDDOT has hired the firm SRF to perform the Design Engineering on this project.
- The section of roadway along this corridor with the highest volume of traffic is near Columbia Road with an average daily traffic count of 22,605 vehicles as of 2015 and forecasted to be 27,840 vehicles in 2035.
- NDDOT documents an Urban High Crash Locations List identifying the 50 highest crash rate intersections and in recent years the intersections at 20th, 31st, 34th, and Columbia have been included on the list with many of the accidents caused by the left turn lanes being negatively offset and left turning vehicles not able to see oncoming traffic.
- Left turn lanes are proposed to be realigned to eliminate the negative offset at 38th, 34th, 31st, and 20th Street.
- New traffic signals are proposed to be installed at Columbia Road, 38th, 34th, 31st, and 20th Street.
- Existing traffic signals are proposed to be upgraded at the west and east I-29 ramps and 24th Street.
- To accommodate larger vehicles turning off of 32nd Avenue, larger radius are proposed to be installed on the east-west right turn lanes at Columbia Road, 38th, 34th, 31st, 24th, and 20th Street.
- The new and upgraded traffic signals are to include new controllers, flashing yellow arrows, and red light enforcement lights.
- Dual left turn lanes are proposed to be added at Columbia Road (westbound to southbound and northbound to westbound) so that dual left turn lanes will exist at all 4 quadrants of the intersection.

- Improvements to curbs, drainage and sidewalks/trails will be included only as required for the turn lane improvements.
- Funding for this project will be from a combination of approximately 90% federal funds, 5% state funds, and 5% local funds.
- The current estimated total project costs are as follows:

\$4,660,000	Total Cost
\$4,194,000	Less Federal Share
<u>\$ 233,000</u>	Less State Share
\$ 233,000	Local Share
- Funding for the local share will be from the Street/Infrastructure Fund 4815.
- Because this project was anticipated to be bid in late 2019, the project was included in the 2019 budget and not included in the 2020 budget. The funds budgeted in 2019 were not spent and are proposed to be transferred to the 2020 budget by a future budget amendment.
- It is expected that this project will again be placed on upcoming Committee of the Whole agendas, some of which are as follows:
 - Summer 2020 – Cost Participation and Maintenance Agreement and Budget Amendment approval
 - Summer 2020 – Plans and Specifications approval
 - Fall 2020 – Concurrence of award of bids
- The project is scheduled to be bid on October 16, 2020 at the NDDOT bid letting.

SUPPORT MATERIALS:

- Project Location Map (1 page)
- Page 320 of the 2019 City Budget (1 page)



Street & Infrastructure

Budget Year 2019

G/L Account	Account Description	2016 Amended Budget	2016 Actual Amount	2017 Amended Budget	2017 Actual Amount	2018 Adopted Budget	2019 Adopted Budget
Fund 4815 - Street/Infrastructure Fund							
	Adopted Budget					1.0000	300,000.00
	Minor Street Repair						300,000.00
	Adopted Budget					1.0000	2,385,000.00
	Street Mtce Program (3% Increase per Year)						2,385,000.00
	Adopted Budget					1.0000	80,000.00
	Intelligent Transportation System						80,000.00
	Adopted Budget					1.0000	60,000.00
	LED Street Light Replacement Program						60,000.00
	Adopted Budget					1.0000	20,000.00
	Diamond Grade Reflectivity of Signs						20,000.00
	Adopted Budget					1.0000	200,000.00
	N Washington CPR & Grind (8th Ave N to Gateway Dr)						200,000.00
	Adopted Budget					1.0000	11,000.00
	Advanced Ped Walk 42nd St. and Columbia Rd Corridors						11,000.00
	Adopted Budget					1.0000	50,000.00
	US Hwy 2 & N 55th St Traffic Signal						50,000.00
	Adopted Budget					1.0000	255.00
	Red Light Confirmation Indicators on Gateway						255.00
	Adopted Budget					1.0000	744,000.00
	N 62nd (10th to Gateway) (SIG Econ Devel)						744,000.00
	Adopted Budget					1.0000	100,000.00
	ADA/MPO/Other Consulting Services						100,000.00
	Adopted Budget					1.0000	369,000.00
	32nd Ave S Turn Lanes (Corridor Improvements)						369,000.00
	Adopted Budget					1.0000	20,000.00
	Washington Street Underpass Evaluation						20,000.00
	Adopted Budget					1.0000	47,600.00
	Washington St (Hammerling to 8th Ave N) ADA Ramps						47,600.00
	Adopted Budget					1.0000	150,000.00
	Point Bridge Rehabilitation (Portion from Bridge Reserve)						150,000.00
	Adopted Budget					1.0000	381,600.00
	S 42nd St (34th to 40th Ave S; Rural Section)						381,600.00
	Adopted Budget					1.0000	616,000.00
	Cherry St (60th to 62nd Ave S)						616,000.00
	Adopted Budget					1.0000	111,000.00
	N 5th St (Gateway to Demers-Mill & Overlay)						111,000.00
	Adopted Budget					1.0000	715,001.00
	Business US 2 Reconstruction (Demers to Red River)						715,001.00
	Adopted Budget					1.0000	60,000.00
	Demers Ave Traffic Signal						60,000.00
	Adopted Budget					1.0000	100,000.00
	Large Project Update/Continuation						100,000.00
	Adopted Budget					1.0000	80,000.00
	Bikepath Maintenance						80,000.00
	Adopted Budget					1.0000	232,408.00
	Bikepath Development (New)						232,408.00
	Adopted Budget					1.0000	50,000.00
	Quiet Zone Redundancy						50,000.00
	Adopted Budget					1.0000	100,000.00
	Maintenance of Street Lights						100,000.00
	Adopted Budget					1.0000	100,000.00
	Minor Intersection Improvement						100,000.00
	Adopted Budget					1.0000	80,000.00
	Transportation Studies						80,000.00
	Adopted Budget					1.0000	60,000.00
	Pavement Management						60,000.00
	Adopted Budget					1.0000	445,600.00
	S 34th St (45th to 47th Ave S)						445,600.00
	Adopted Budget					1.0000	50,000.00
	Consulting Assistance for Specifications Revisions						50,000.00
	Adopted Budget					1.0000	728,800.00
	N 36th St (20th to 24th Ave N) (SIG Econ Devel)						728,800.00