



City of Grand Forks
Staff Report
Committee of the Whole – March 9, 2020
City Council – March 16, 2020

Agenda Item: Cost Participation and Maintenance Agreement with the NDDOT for City Project No. 7957 - Turn Lane Improvements and Traffic Signal Upgrades on 32nd Avenue S from I-29 to S 20th Street

Submitted by: Engineering Department, Mark S. Walker, PE (Assistant City Engineer)
Mike Yavarow, PE (Civil Engineer Principal)

Staff Recommended Action: Approve Cost Participation and Maintenance Agreement with the NDDOT and any necessary budget amendment for City Project No. 7957 - Turn Lane Improvements and Traffic Signal Upgrades on 32nd Avenue S from I-29 to S 20th Street

Committee Recommended Action ~~SHHWNLOZWWHRPPQDURQDSSURYH~~

Council Action:

BACKGROUND:

The Agreement under consideration is a standard agreement with the North Dakota Department of Transportation (NDDOT) and provides for use of approximately \$3.9m of federal funds on this project. The Agreement identifies the responsibilities for payment of the project costs and maintenance responsibilities for the project once completed. The project is proposed to be funded with 90% Federal funding, 5% State funding, and 5% City funding for eligible project costs. Maintenance responsibilities will remain unchanged from the previous Agreement.

The NDDOT is proposing 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 \$3.9m 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. Right turn lanes at 20th Street were requested to be included in the project; however, the NDDOT has stated that they would not be permitted to be installed even with 100% City funding unless they were justified. Currently, the traffic volumes at 20th Street would not justify adding right turn lanes on 32nd Avenue S.

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.
- February 10, 2020 – a project update was provided to the Committee of the Whole.

ANALYSIS AND FINDINGS OF FACT:

- According to the proposed Agreement, the project funding split for eligible project expenses is 90% Federal, 5% State, and 5% Local.
- The current estimated total project costs are as follows:

\$4,337,142	Total Cost
\$3,903,428	Less Federal Share
<u>\$ 216,857</u>	Less State Share
\$ 216,857	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 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:
 - Spring/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.
- Construction is planned to take place during the 2021 construction season and be completed by the end of the 2021 construction season.
- 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 34th, 31st, 20th, 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 radiuses 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.
- Traffic signals near I-29 will be set up so that if excess traffic on the northbound I-29 off ramp is detected, the signals will give priority to ramp traffic to minimize exiting interstate traffic from backing up onto the interstate.
- Improvements to curbs, drainage and sidewalks/trails will be included only as required for the turn lane improvements.

SUPPORT MATERIALS:

- Pertinent pages of Cost Participation and Maintenance Agreement (5 pages)

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

**North Dakota Department of Transportation
COST PARTICIPATION AND MAINTENANCE AGREEMENT**

Federal Award Information – to be provided by NDDOT

CFDA No: 20.205	CFDA Title: Highway Planning & Construction
Award Name: Federal Aid Highway Program	Awarding Fed. Agency: Federal Highway Admin
NDDOT Program Mgr: Striefel, Ardin L.	Telephone: 328-2559

Notice to Subrecipients: Federal awards may have specific compliance requirements. If you are not aware of the specific requirements for your award, please contact your NDDOT Program Manager.

Project No. HEU-6-081(094)940

Location: GRAND FORKS 32ND AVE (I-29-20TH ST)

Type of Improvement: Traffic Signal Modifications and Turn Lanes

Point of Beginning: RP 939.875

Point of Ending: RP 941.587

In consideration of the mutual benefits to be derived therefrom, it is agreed between the state of North Dakota, acting by and through its Director of Transportation, hereinafter referred to as NDDOT, whose address is 608 East Boulevard Avenue, Bismarck, North Dakota 58505-0700, and the Local Public Agency (LPA) of Grand Forks, North Dakota, hereinafter referred to as the LPA, the project will be constructed in accordance with the current edition of NDDOT's *Standard Specifications for Road and Bridge Construction* and with the plans incorporated into this agreement by reference.

The LPA

- a. Will pay 5 percent of the cost of rights of way and easements acquired for the project; and
- b. Will pay 5 percent of the total cost of all items which are determined eligible for funding participation. This total cost will include the actual construction cost plus 5 percent for the preliminary and construction engineering; and
- c. Will pay 100 percent of the construction costs plus 5 percent for the preliminary and construction engineering of all items as requested by the LPA for items determined to be non-participating or ineligible for federal aid.

PART I

LPA Obligation:

1. The LPA will pay to NDDOT as the work progresses or when completed its share of the total cost of the project as defined above.
2. It is specifically agreed that if at any time the LPA fails to pay the amount billed to NDDOT within 60 days after billings, this document shall constitute an assignment of funds derived from the State Highway Tax Distribution Fund now or hereafter coming into the hands of the State Treasurer to the credit of the LPA, and the State Treasurer is hereby directed to deliver and pay over to NDDOT all funds credited to the LPA until the total thereof equals the sum billed pursuant to this agreement.



The preliminary cost estimate of the project is \$4,337,142, with the LPA's estimated share being \$216,857.

3. All existing LPA right of way within the project limits will be provided by the LPA with clear title and available for use in the project.

PART II

Post Construction

After the project is completed the LPA agrees to:

1. The LPA will control the length and location of curb openings for future entrances and will not permit the length of curb openings for entrances to exceed the length shown on the plans or as shown on a sketch of typical entrances for similar entrances; and will prohibit the construction or use of any entrances along the project within the LPA other than those shown on the plans, without prior approval of NDDOT.
2. The LPA will not change any speed limit signs as shown on the plans without prior approval of NDDOT.
3. The LPA will prohibit double and diagonal parking and will control all parallel parking where allowed within the limits of the project in a manner satisfactory to NDDOT and to the Federal Highway Administration (FHWA), or both.
4. All signs, signals, markings, and other protective structures erected on or in connection with the project, including those installed at the sole cost and expense of the LPA or by others, shall be approved by NDDOT. All traffic control devices will be in conformance with the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways.
5. All right of way for the project will be maintained free of all encroachments except utilities and others in accordance with the current edition of NDDOT's "A Policy for Accommodation of Utilities on State Highway Right-of-Way". All obstructions to, interference with, or hazards to traffic flow will be removed by the LPA at the request of NDDOT. The LPA will be responsible for any consideration, avoidance, and minimization of impacts upon real property related to this project, such as changes in the grades of the streets, inconveniences to property or business, and any loss of light, air, view, access, egress, drainage, support, or nuisance.

PART III

Maintenance

The LPA will, at its own expense, maintain or cause to be maintained, all portions of the project unless otherwise noted. The maintenance will be in a manner satisfactory to NDDOT and FHWA. Exact limits of the project are shown on the attached map.

1. The LPA is responsible for all maintenance activities except those identified as NDDOT responsibilities. The LPA is also responsible for restoring to original condition any cuts in surface initiated by the LPA for utilities, etc. The LPA is responsible for all maintenance on service roads to include maintenance seals, signing, striping, snow plowing, and snow removal. Limits of the LPA's responsibilities are shown on the attached map.



2. The LPA will maintain the striping for parking and any striping located on side streets.
3. The LPA will be responsible to provide a local match for the cost of the initial seal following this project, and any future seals. The local match percentage will be the same as identified in this agreement.
4. The City will, at its own expense, maintain or cause to be maintained, all portions of the project including the interstate ramp signals. The City will operate and maintain the interstate ramp signals along 32nd Avenue South. The primary routes are the ramps and the signal timing must prevent the ramp queues from backing onto the interstate. Any changes to signal timings must be approved by the NDDOT. The maintenance will be in a manner satisfactory to NDDOT and FHWA. Exact limits of the project are shown on the attached map.
5. NDDOT will furnish route-marker signs.

PART IV

General:

1. Appendices A and E of the Title VI Assurances, attached, are hereby incorporated into and made a part of this agreement.
2. The Risk Management Appendix, attached, is hereby incorporated and made a part of this agreement.
3. Entities that receive federal funds through NDDOT may be required to obtain an audit in accordance with 2 C.F.R. Part 200, Subpart F. A copy of such audit shall be submitted to NDDOT. Entities that spend less than \$750,000 of federal funds from all sources may be subject to reviews by NDDOT at its discretion. Additionally, all entities receiving federal funds through NDDOT shall certify whether a Single Audit has been completed as part of the annual Federal award process. These requirements are applicable to counties, cities, state agencies, Indian tribes, colleges, hospitals, and non profit businesses.
4. The LPA is advised that its signature on this contract or agreement certifies that any person associated therewith is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency within the past three years; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction on any matter involving fraud or official misconduct within the past three years.
5. NDDOT is not responsible for any Property Taxes or Special Assessments on property which has been acquired as part of the roadway reconstruction project. The LPA is responsible to make arrangements for deferral or payment of such Taxes and/or Special Assessments.



Executed by the LPA of _____, at _____,
North Dakota, the last date below signed.

APPROVED:

LPA of _____

LPA ATTORNEY (TYPE OR PRINT)

NAME (TYPE OR PRINT)

SIGNATURE

SIGNATURE

DATE

*

TITLE

DATE

ATTEST:

AUDITOR (TYPE OR PRINT)

SIGNATURE

DATE

Executed for the North Dakota Department of Transportation by the Director at Bismarck, North Dakota,
the last date below signed.

APPROVED as to substance by:

NORTH DAKOTA DEPARTMENT OF
TRANSPORTATION

DIVISION DIRECTOR(TYPE OR PRINT)

DIRECTOR (TYPE OR PRINT)

SIGNATURE

SIGNATURE

DATE

DATE

*Mayor or President of Commission

CLA 17058 (Div. 38)
L.D. Approved 10-17, Rev. 08-18; D.K. 12/30/2019; C.M. 02/24/2020



CERTIFICATION OF LOCAL MATCH

It is hereby certified that the LPA of _____ will provide non-federal funds, whose source is identified below, as match for the amount the LPA is obligated to pay under the terms of the attached agreement with the North Dakota Department of Transportation. The certified amount does not duplicate any federal claims for reimbursement, nor are the funds used to match other federal funds, unless expressly allowed by federal regulation.

Non-Federal Match Funds provided by LPA. Please designate the source(s) of funds in the LPA budget that will be used to match the federal funds obligated for this project through the North Dakota Department of Transportation.

Source:

Executed at _____, North Dakota, the last date below signed.

ATTEST:

APPROVED:

AUDITOR (TYPE OR PRINT)

LPA of _____

SIGNATURE

NAME (TYPE OR PRINT)

DATE

SIGNATURE

*

TITLE

DATE

*Mayor or President of Commission

CLA 17058 (Div. 38)
L.D. Approved 02-18; Rev. 08-18; D.K. 12/30/2019; C.M. 02/24/2020





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