

# **Application for Bipartisan Infrastructure Law Surface Transportation Block Grant Program Funding**

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**for the Iowa City Urbanized Area**



Metropolitan Planning Organization of Johnson County

Metropolitan Planning Organization of Johnson County  
February 01, 2023

The following information must be provided for all Surface Transportation Block Grant project proposals and will be provided to the MPOJC Transportation Technical Advisory Committee (TTAC) and Urbanized Area Policy Board for evaluation. MPOJC staff may contact you if additional information is required. You will have the opportunity to explain the project at a meeting of the MPOJC TTAC. MPOJC staff will score the projects; the TTAC may modify scores.

**General Information**

MPO: Metropolitan Planning Organization of Johnson County e-mail: emily-bothell@iowa-city.org

Eligible Sponsor/Applicant Agency: City of North Liberty

Contact Person (Name & Title): Ryan Rusnak, AICP, Planning Director

Complete Mailing Address: PO Box 77, 3 Quail Creek Court

Street Address and/or Box No.

<u>North Liberty</u>	<u>Iowa</u>	<u>52317</u>	<u>319-626-5747</u>
City	State	Zip	Daytime Phone

If more than one agency or organization is involved in this project, please state the name, contact person, mailing address, and telephone number of the second agency. *(Attach an additional page if more than two agencies are involved.)*

Applicant Agency: \_\_\_\_\_ e-mail: \_\_\_\_\_

Contact Person (Name & Title): \_\_\_\_\_

Complete Mailing Address: \_\_\_\_\_

Street Address and/or Box No.

_____	_____	_____	_____
City	State	Zip	Daytime Phone

**Project Information**

Project Title: South Dubuque Street Reconstruction (Phase 2)

Project Description (i.e. number of proposed through lanes, turn lanes, and other critical features):

The project would reconstruct/rehabilitate South Dubuque Street within the City of North Liberty from just south of the East Zeller Street intersection to the roundabout at North Liberty Road. Existing conditions include a two-lane asphalt roadway in varying condition, with minimal gravel shoulders and open ditches. The reconstructed/rehabilitated section would include two vehicle travel lanes, one roundabout at a busy intersection and a five foot wide sidewalk along the urban section (just south of East Zeller Street to just south of Juniper Street). The existing multi-use trail would remain.

If this project includes land acquisition, how many acres? (approximate) Approximately 7,100 S.F. (.16 acres)

**Project Category** Check all boxes that apply to indicate the categories that best describe your project.

**Trails and Bicycles**

- Facilities for pedestrians and bicycles including safe routes for non-drivers
- Conversion and use of abandoned railway corridors

**Scenic and Historic**

- Construction of turnouts, overlooks and viewing areas
- Inventory, control, or removal of outdoor advertising
- Historic preservation and rehabilitation of historic transportation facilities
- Archaeological activities relating to impacts from another eligible activity

**Roadways and Bridges**

- Construction, rehabilitation, preservation, or operational improvements of street facilities
- Bridge improvements including construction, rehabilitation, or preservation

**Environmental**

- Vegetation management practices in transportation rights-of-way
- Highway related stormwater management
- Reduction of vehicle-caused wildlife mortality or restoration of habitat connectivity
- Other \_\_\_\_\_

**Estimated Project Costs**

Land Cost	\$	185,000
Utility Relocation	\$	190,000
Design & Construction Engineering	\$	750,000
Construction Cost	\$	3,355,000
Indirect Cost (if applicable)	\$	
Other (please specify)	\$	
<b>Total Cost</b>	\$	<b>4,480,000</b>
STBG Fund Request	\$	2,240,000
Applicant Local Match (20% Minimum)	\$	2,240,000

	Applicant Local Match Source (20% Minimum)	Amount	Assured or Anticipated (Date Anticipated)
1.	GO bonds	\$2,240,000	As Needed
2.			
3.			

Are any state funds involved in this project?  Yes  No

If yes, please explain the source and conditions Not Applicable.

Are any other federal funds involved in this project?  Yes  No

If yes, please explain the source and conditions

Not Applicable.

Does the project comply with the adopted MPO *Complete Streets Policy*?  Yes  No

Which of the following facilities are included in the proposal?

- Turn lanes
- ITS/signalization improvements
- Geometric improvements
- Separated trail or wide sidewalk (8' or wider)  Existing trail would remain as part of this project.
- Facilities to reduce modal conflict (e.g. pedestrian hybrid beacons, bulb-outs, grade separation, bus pull-offs, etc.)
- Marked on-street bike facility

Is a focus of the project to address a safety concern at an intersection or midblock, or improve safety at a location with a collision history involving bicyclists or pedestrians? (refer to pages 18-21)  Yes  No

Will this project be open to the public?  Yes  No

Do you intend to charge a fee to users?  Yes  No

If yes, how much? \$ Not applicable.

What will it be used for? Not applicable.

**Estimated Project Development Schedule**

Design	Start Date	January Calendar Year 2025	Completion Date	September Calendar Year 2026
Land Acquisition	Start Date	November Calendar Year 2025	Completion Date	July Calendar Year 2026
Construction	Start Date	February Calendar Year 2027	Completion Date	November Calendar Year 2027

Has any part of this project been started?  Yes  No

If yes, explain: Not applicable.

**Documentation and Narrative Information**

The following documents and narratives must be attached to this application. In the upper right-hand corner of each document or narrative provide the corresponding letter shown below.

- A. A **NARRATIVE** assessing existing conditions, outlining the concept of the proposed project, and providing adequate project justification. Assess your project in regard to the transportation system relative to its functional relationship, proximity, or impact to an existing or planned transportation facility. If a regional project, assess the value of this project from a regional perspective and how it will be a functional addition to the transportation system and the region as a whole if no additional development funds are received. If a statewide or multi-regional project, assess the value of this project from a statewide or multi-regional perspective.
- B. A **DETAILED MAP** identifying the location of the project and any known environmentally sensitive areas/features.
- C. A **SKETCH-PLAN** of the project; including a typical cross-section of transportation facilities.
- D. An **ITEMIZED BREAKDOWN** of the total project costs. This documentation does not need to be a detailed, line-item type of estimate. However, it must accomplish two objectives: first, it must show the method by which the cost estimate was prepared; and second, it must enable a reviewer to determine if the cost estimate is reasonable. The manner in which these objectives are achieved may vary widely depending on the type, scope and complexity of the project. Absent a fully itemized list of costs, some general guidelines for possible methods of estimating each type of project cost are provided in Attachment A (page 9).
- E. An anticipated **TIME SCHEDULE** for the total project development. Funding for projects which fail to make satisfactory progress may be rescheduled or removed from the program by the Iowa Department of Transportation.
- F. An **OFFICIAL ENDORSEMENT** of the project from the authority to be responsible for its maintenance and operation. The authority must provide written assurance that it will adequately maintain the completed project for its intended public use for a minimum of 20 years following project completion.
- G. If applicable, a **LETTER OF SUPPORT** for the project from the scenic or historic byway board. The board's letter should also address the project's relationship to the byway's intrinsic qualities, how the project will have a statewide or multi-regional impact, and whether the project is included in the byway's current corridor management plan.
- H. A **NARRATIVE** discussing the public input process that was followed and the extent to which adjacent property owners and others have been informed of the proposed project and an assessment of their acceptance.
- I. A **MINORITY IMPACT STATEMENT** for the project.

The award of STBG funds and/or any subsequent funding or letting of contracts for design, construction, reconstruction, improvement, or maintenance; or the furnishing of materials shall not involve direct or indirect interest, prohibited by Iowa Code Sections 314.2, 362.5, or 331.342, of any state, county, or city official, elective or appointive. Any award of funding or any letting of a contract in violation of the foregoing provisions shall invalidate the award of funding and authorize a complete recovery of any funds previously disbursed.

**Certification**

To the best of my knowledge and belief, all information included in this application is true and accurate, including the commitment of all physical and financial resources. This application has been duly authorized by the participating local authority. I understand the attached OFFICIAL ENDORSEMENT(S) binds the participating authority to assume responsibility for adequate maintenance of any new or improved facilities.

I understand that, although this information is sufficient to secure a commitment of funds, an executed contract between the applicant and the Iowa Department of Transportation is required prior to the authorization of funds.

Representing the City of North Liberty



Digitally signed by Ryan Heiar  
DN: l=North Liberty, st=IA, c=US, o=City of North Liberty - Iowa,  
cn=Ryan Heiar  
Date: 2023.02.22 16:07:34 -06'00'

2/22/2023

Signature

Date

Ryan Heiar, City Administrator

2/22/2023

Typed Name and Title

Date

South Dubuque Street is a minor arterial roadway within the City of North Liberty, which ultimately extends south into Iowa City. 2018 DOT traffic counts indicate 5,800 daily vehicle trips on Dubuque Street north of East Zeller Street. Dubuque Street is the more heavily travelled of two major roadways on the east side of North Liberty and the South Dubuque Street/Juniper Street intersection becomes problematic during peak times.

This project will reconstruct/rehabilitate South Dubuque Street from just south of the East Zeller Street intersection to the roundabout at North Liberty Road. The section of roadway is approximately 5,650 feet (1.07 mile) in length. Existing conditions include a two-lane asphalt roadway in varying condition, with minimal gravel shoulders and open ditches. There is an existing sidewalk along the west side adjacent all the developed residential properties which begins near Juniper Street. There is no sidewalk on the west side further south adjacent to the agricultural land. There is an existing multi-use trail on the east side along the full length of the project (8-foot wide adjacent to the agricultural land; 10-foot wide adjacent to the developed properties just south of Juniper Street).

Phase 2A of the project will provide a curb and gutter roadway with two vehicle travel lanes from the section south of East Zeller Street to south of Juniper Street. Improvements include reconstructing existing roadway pavement, a new roundabout at the Juniper Street intersection, a storm sewer system, and relocating overhead utilities underground. The project will also reconstruct the existing 4-foot wide sidewalk along the west of side of South Dubuque Street to 5-foot width. The South Dubuque Street/Juniper Intersection will have ADA compliant curb ramps and improved access to the existing multi-use trail along the east side of South Dubuque Street.

Phase 2B of the project will include a rural section roadway with two vehicle travel lanes from the section south of Juniper Street to the existing roundabout at North Liberty Road. Improvements include mill and overlay of existing roadway pavement, adding full-depth 4-foot-wide paved shoulders, and relocating overhead utilities underground.

The entire project will take place within existing right-of-way except for small acquisitions and easements, temporary and permanent, as needed for the roundabout, roadway grading, storm water accommodations, and placement of overhead utilities underground.

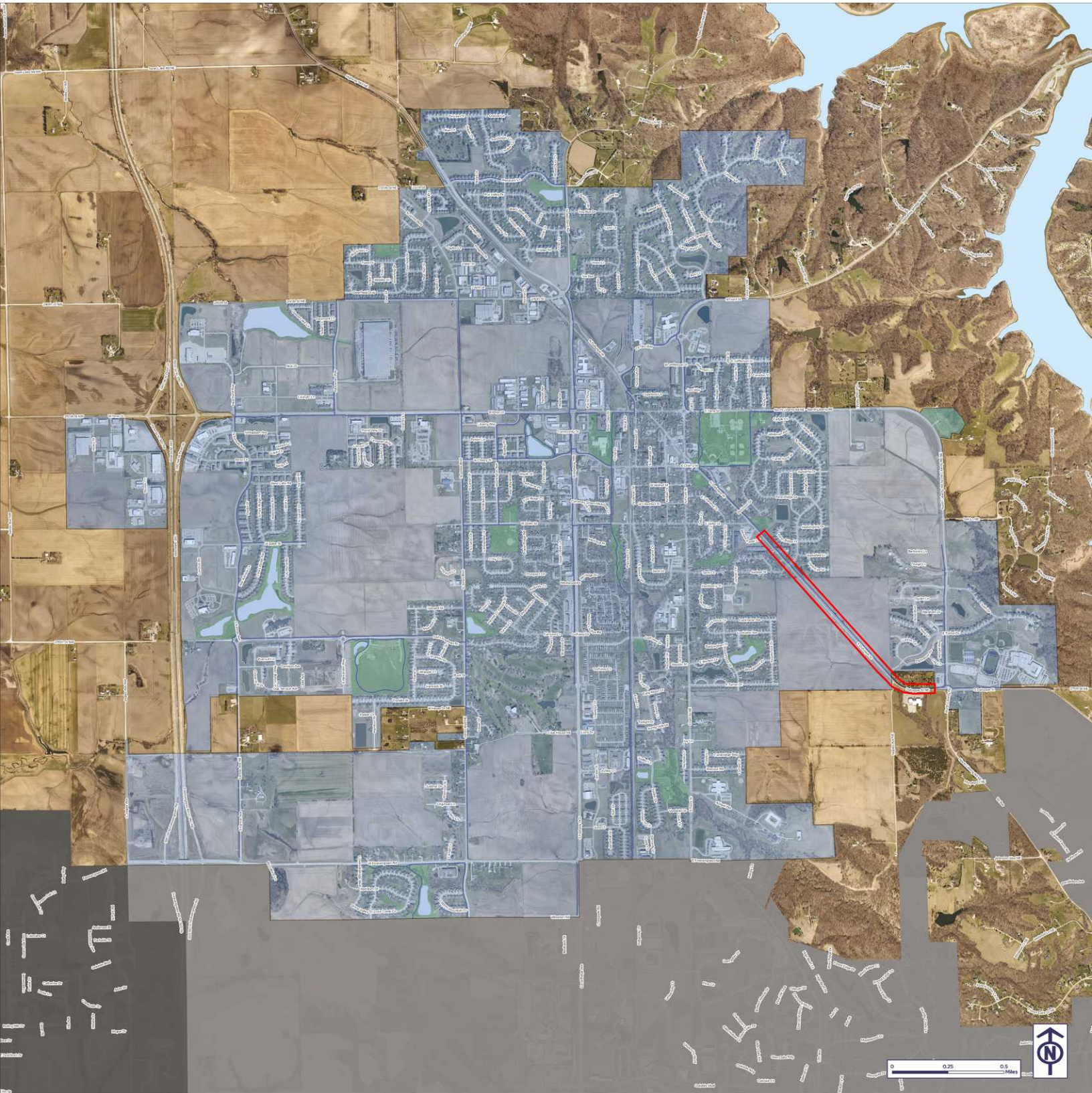
Features of the project:

- Utilize a combination of roadway reconstruction, rehabilitation, and intersection improvements to improve this key corridor and extend longevity of the infrastructure.
- Provide improved access to a significant regional roadway across a planned growth area which also provides direct access to Liberty High School and is a direct link to Coralville and Iowa City. The roadway is a key commuter link for jobs, retail, and education access.

- Improves level of service by increasing capacity in the corridor.
- Enhances air quality by reducing congestion and vehicle idling.
- Local match is 50%.

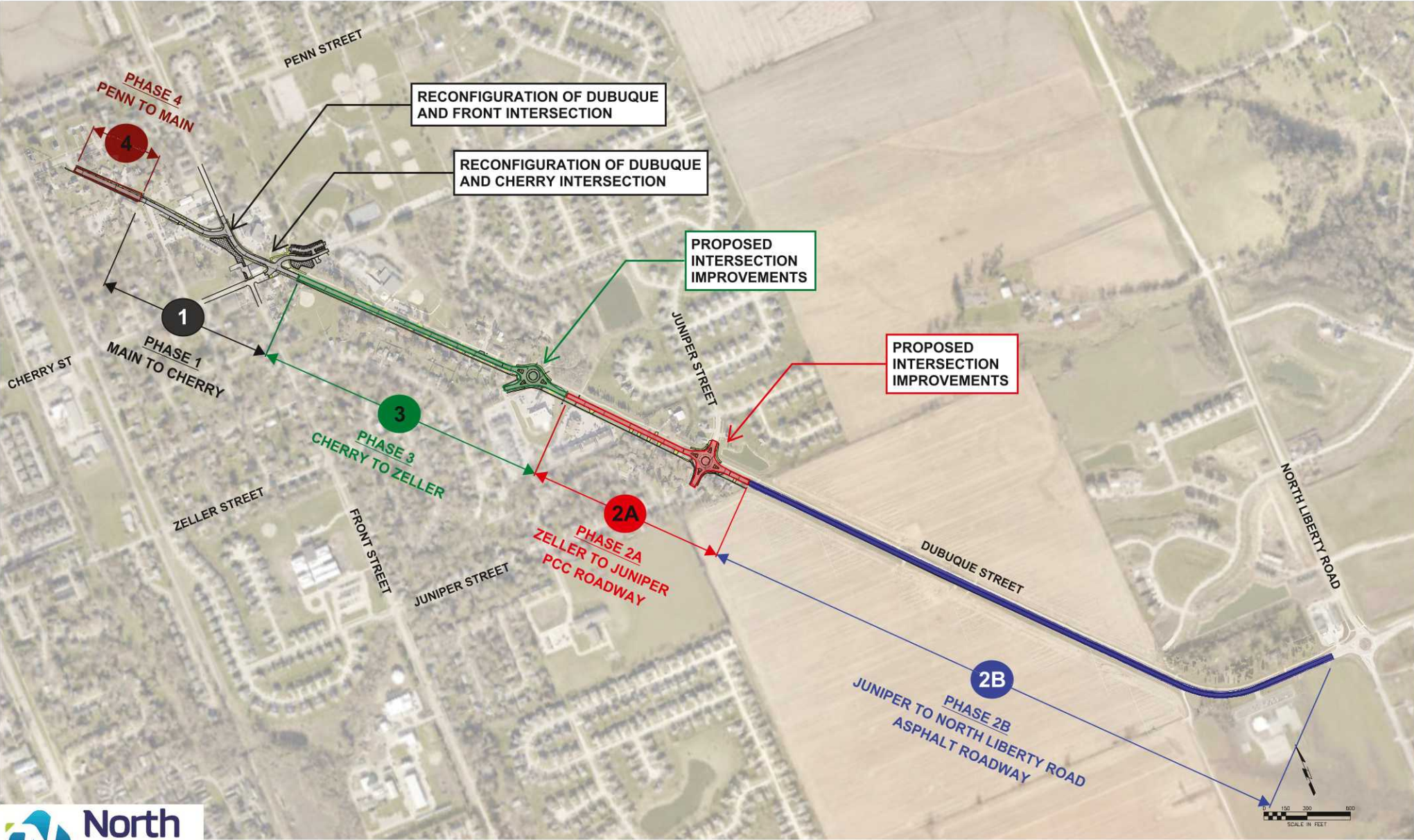
The City recently completed Dubuque Street Phase 1. The 3.5 million dollar project reconstructed and realigned North Dubuque Street/Front Street intersection and created two new parklets at the intersection of North Dubuque Street and West Cherry Street intersection. Notably, the realigned intersection created additional space for the new City Hall, which is currently under construction. The approved contract includes a significant urban open space adjacent to North Dubuque Street.

There are no known significant environmentally sensitive or culturally significant areas within this project corridor. Construction of the proposed improvements will take place mainly within the road right-of-way, and existing drainage patterns will be maintained.

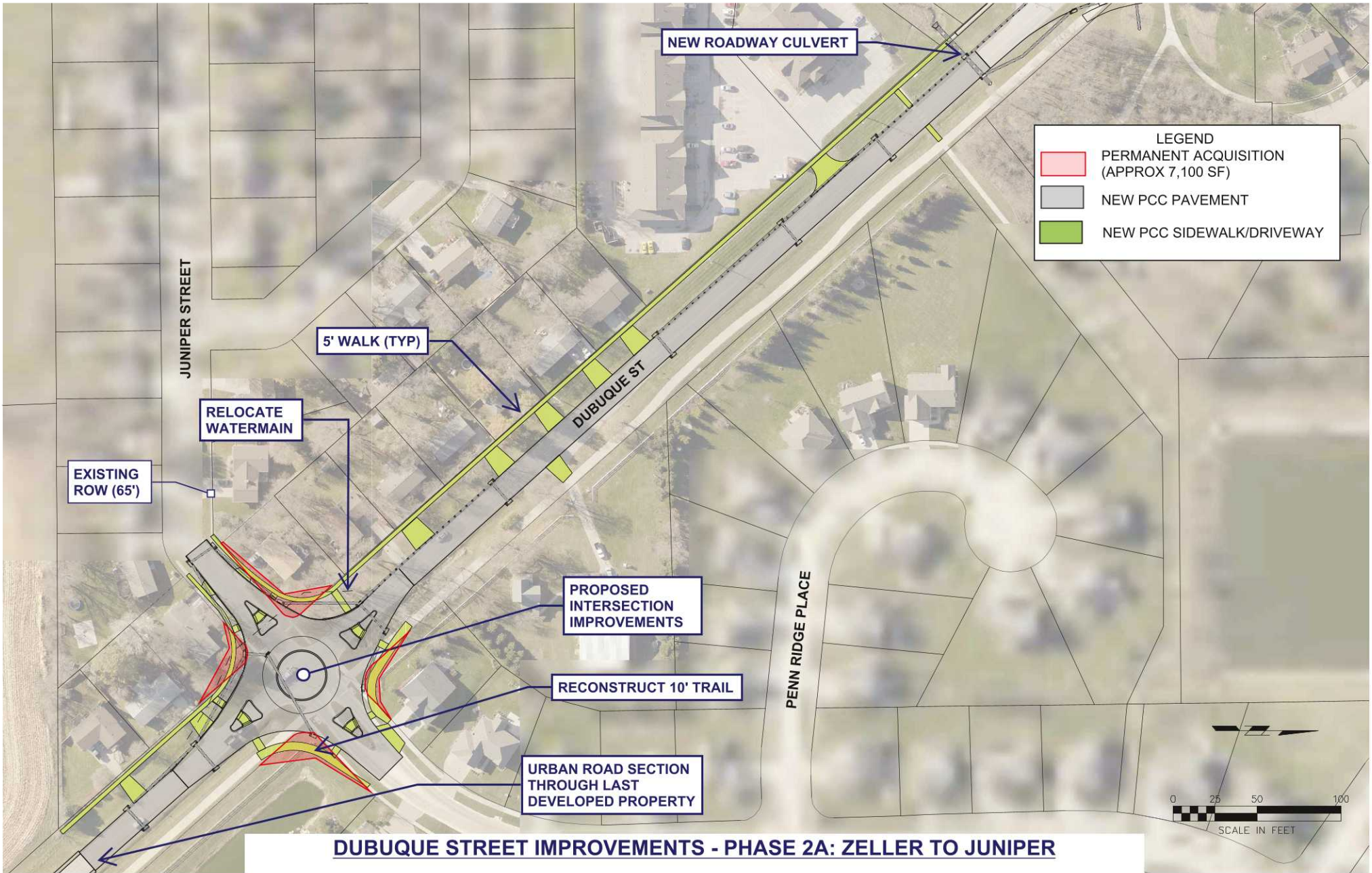


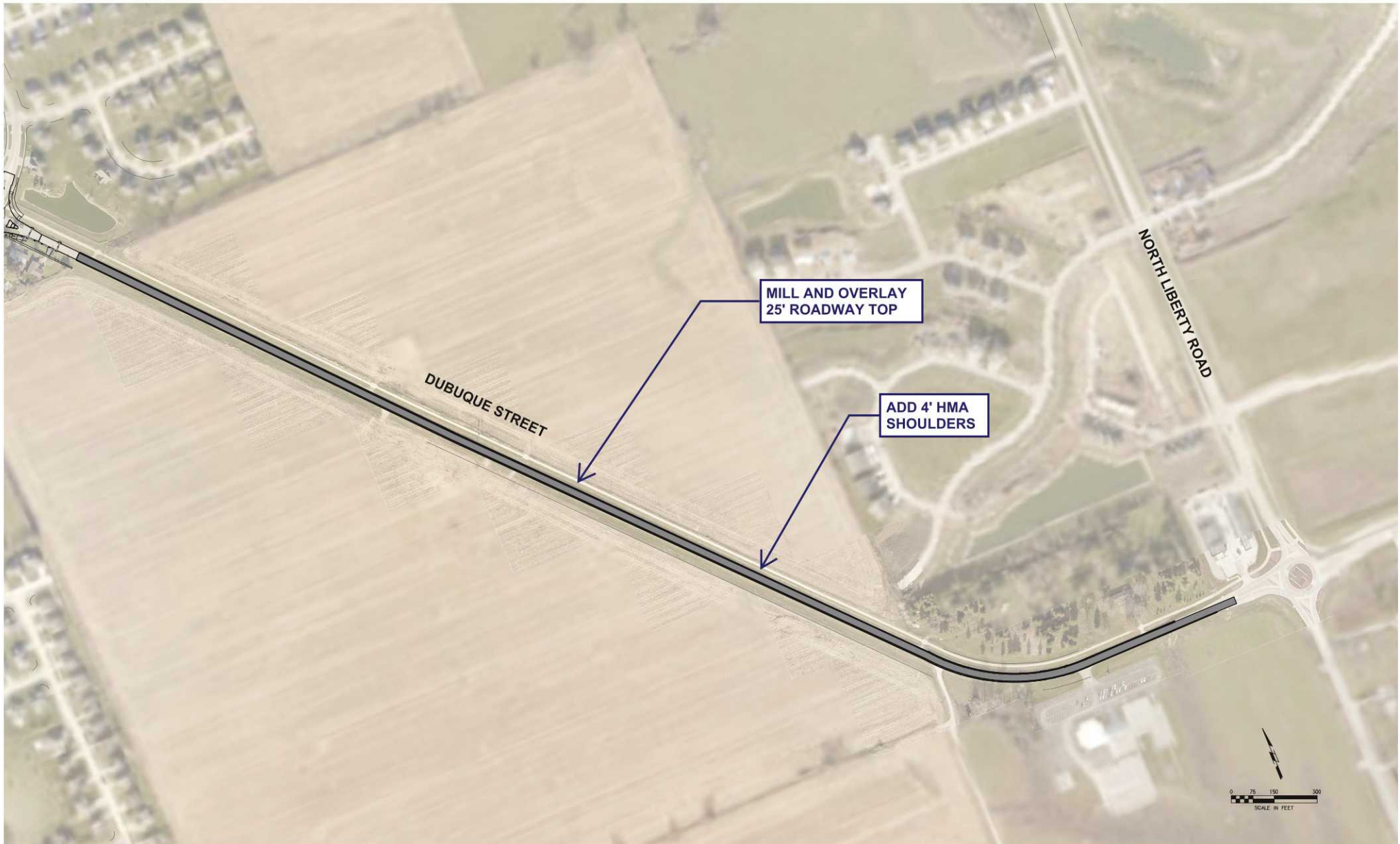
 **Project Limits**



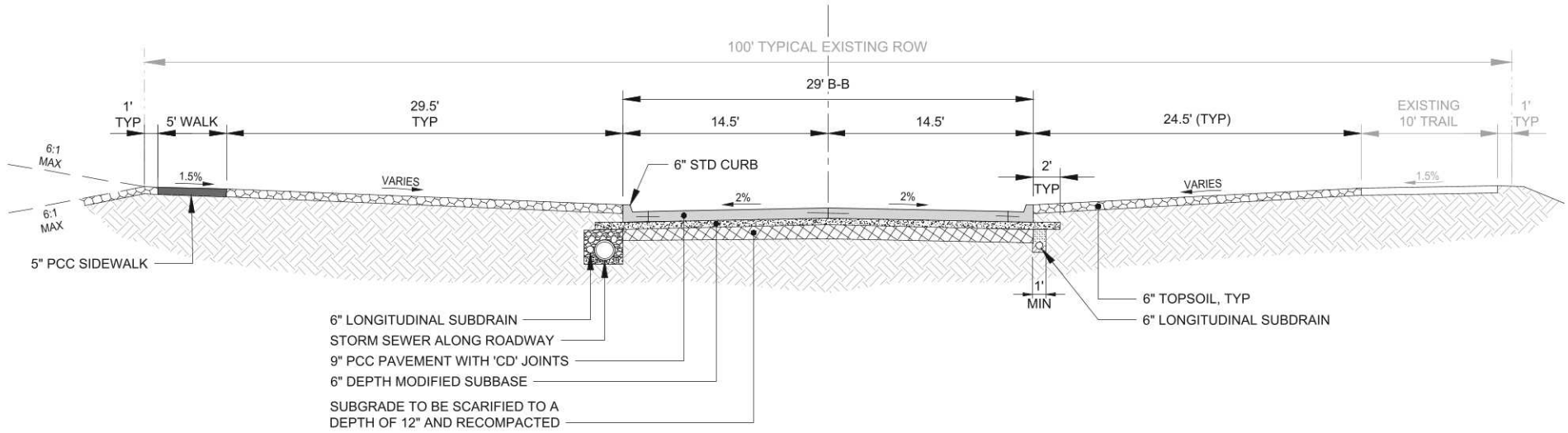


**NORTH LIBERTY - DUBUQUE STREET IMPROVEMENTS**

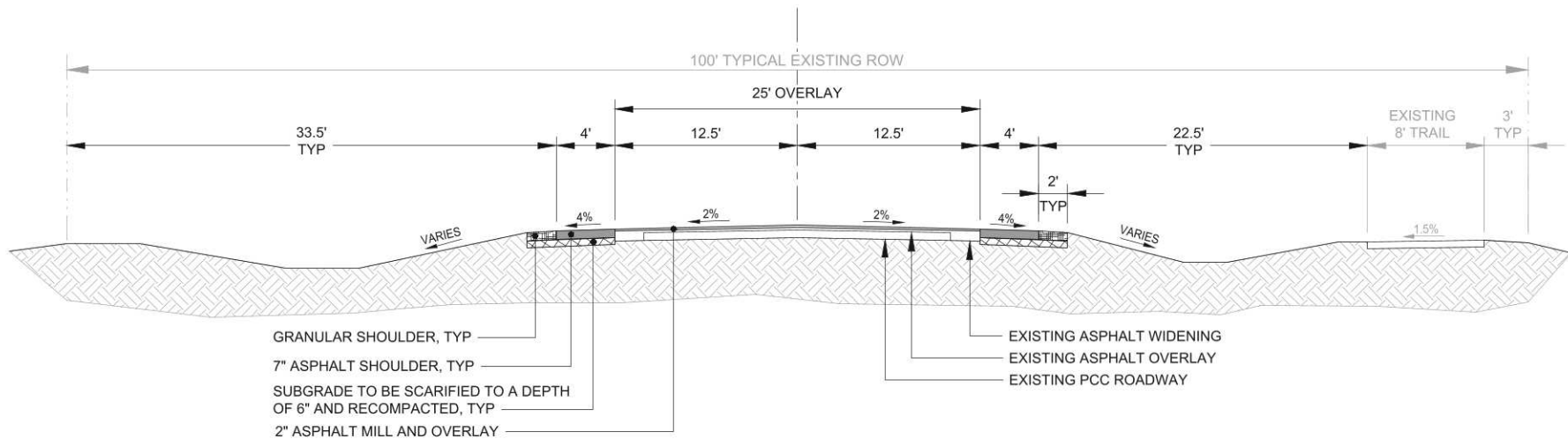




**DUBUQUE STREET IMPROVEMENTS - PHASE 2B: JUNIPER TO NORTH LIBERTY ROAD**



**DUBUQUE STREET IMPROVEMENTS - PHASE 2A: ZELLER TO JUNIPER**



**DUBUQUE STREET IMPROVEMENTS - PHASE 2B: JUNIPER TO NORTH LIBERTY ROAD**

**PHASE 2A: Replace existing 2-lane asphalt rural section roadway with 29-foot wide urban section PCC Roadway from Zeller to Juniper (approx. 1,400 linear feet), including Juniper intersection improvements (roundabout) and new 5-foot wide walk on west side of road**

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	EXTENDED COST
1	CLEARING AND GRUBBING	UNIT	300	\$ 28	\$ 8,400
2	EXCAVATION, CL 10, ROADWAY AND BORROW	CY	3,000	\$ 35	\$ 105,000
3	TOPSOIL, IMPORT	CY	2,500	\$ 20	\$ 50,000
4	MODIFIED SUBBASE	CY	1,410	\$ 55	\$ 77,550
5	STD/S-F PCC PAVEMENT, CLASS C, CLASS 3, 9 INCH	SY	7,300	\$ 75	\$ 547,500
6	MAILBOX RELOCATIONS	EACH	12	\$ 220	\$ 2,640
7	INTAKE, SW-509	EACH	20	\$ 6,500	\$ 130,000
8	INTAKE, SW-505	EACH	1	\$ 7,300	\$ 7,300
9	SUBDRAIN, LONGITUDINAL, 6-INCH	LF	3,100	\$ 15	\$ 46,500
10	SUBDRAIN OUTLETS	EACH	40	\$ 220	\$ 8,800
11	STORM SEWER, RCP, 2000D (CIII) (SMALL)	LF	180	\$ 100	\$ 18,000
12	STORM SEWER, RCP, 2000D (CIII) (LARGE)	LF	1,520	\$ 100	\$ 152,000
13	REMOVAL OF CONCRETE	SY	7,100	\$ 10	\$ 71,000
14	SIDEWALK, P.C. CONCRETE, 5-INCH (5-FOOT WIDE)	SY	1,300	\$ 75	\$ 97,500
15	DETECTABLE WARNINGS	SF	280	\$ 95	\$ 26,600
16	DRIVEWAY, P.C. CONCRETE, 6-INCH	SY	700	\$ 75	\$ 52,500
17	WATER MAIN, C900, 6-INCH, REPLACE	LF	600	\$ 65	\$ 39,000
18	FIRE HYDRANT ASSEMBLY	EACH	4	\$ 7,300	\$ 29,200
19	GATE VALVE AND BOX, MJ, 6-INCH	EACH	4	\$ 3,600	\$ 14,400
20	REMOVAL OF PIPE - STORM, SANITARY, WATER MAIN	LF	1,100	\$ 25	\$ 27,500
21	SIGNAGE	LS	1	\$ 7,300	\$ 7,300
22	PAINTED PAVEMENT MARKINGS, DURABLE	STA	120	\$ 145	\$ 17,400
23	TRAFFIC CONTROL	LS	1	\$ 25,000	\$ 25,000
24	TEMP GRANULAR DRIVES	TON	700	\$ 40	\$ 28,000
25	UTILITY ADJUSTMENTS	LS	1	\$ 25,000	\$ 25,000
26	TEMP PAVEMENT	SY	1,500	\$ 50	\$ 75,000
27	LIGHTING - RBT	EACH	1	\$ 110,000	\$ 110,000
28	LANDSCAPING - RBT	EACH	1	\$ 110,000	\$ 110,000
29	MOBILIZATION	LS	1	\$ 110,000	\$ 110,000
30	EROSION CONTROL AND SEEDING	ACRE	4	\$ 13,000	\$ 52,000

**OPINION OF CONSTRUCTION COST - PHASE 2A \$ 2,075,000**

**PHASE 2B: Mill and overlay and add 4-foot wide paved shoulders from Juniper Street to NL Road (approximately 4,500 linear feet)**

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	EXTENDED COST
1	PAVEMENT SCARIFICATION	SY	12,000	\$ 8	\$ 96,000
2	HMA COURSE, 0.5-INCH THICK, LEVELING	TON	450	\$ 124	\$ 55,800
3	HMA COURSE, 1.5-INCH THICK, SURFACE	TON	1,350	\$ 117	\$ 157,950
4	MANHOLE / UTILITY ADJUSTMENTS	LS	1	\$ 10,500	\$ 10,500
5	EXCAVATION, CL 13	CY	3,000	\$ 41	\$ 123,000
6	4-FOOT WIDE HMA SHOULDER WIDENING, 7-INCH THICK	TON	1,530	\$ 115	\$ 175,950
7	GRANULAR SHOULDER, TYPE B	TON	350	\$ 41	\$ 14,350
8	PAINTED PAVEMENT MARKINGS, DURABLE (EDGE LINES AND CENTER)	STA	125	\$ 138	\$ 17,250
9	FLAGGERS	DAY	25	\$ 700	\$ 17,500
10	TRAFFIC CONTROL	LS	1	\$ 11,000	\$ 11,000
11	MOBILIZATION	LS	1	\$ 38,000	\$ 38,000

**OPINION OF CONSTRUCTION COST - PHASE 2B \$ 720,000**

**\* OPINION OF CONSTRUCTION COST - SUBTOTAL \$ 2,795,000**  
CONTINGENCY (20%) \$ 560,000

**\* OPINION OF CONSTRUCTION COST - TOTAL \$ 3,355,000**

Property Acquisitions and Easements \$ 185,000  
Private Utility Relocations \$ 25,000  
Bury Existing Overhead Utility Lines (Phase 2A: 900 LF | Phase 2B: 1,700 LF) \$ 165,000

**\* OPINION OF PROJECT COSTS - SUBTOTAL \$ 3,730,000**  
**ENGINEERING (DESIGN | BID | CONSTRUCTION) (20%) \$ 750,000**

**\* OPINION OF PROJECT COSTS - TOTAL \$ 4,480,000**

\* Costs based on conceptual design - traffic study should be performed to determine and confirm concept



**NL Dubuque Street Improvements - Phase 2**  
Project Schedule (February 2023)

<u>Milestones</u>	<u>Date</u>
Approve Engineering Contract	2025 – January
Design / Owner – Kickoff Meetings	2025 – February
Survey / Base Map Completed	2025 – April
Complete Traffic Study	2025 – April
25% Design Submittal	2025 – May
Initial Utility Coordination Meeting	2025 – May
<b>DOT Concept Statement</b>	<b>2025 – June</b>
50% Design (Easement and Acquisitions Defined)	2025 – July
Prepare Easement and Acquisition Plats to Schedule Appraisals	2025 – July
Preliminary Drawings to Utilities; Schedule Utility Review Meetings	2025 – August
<b>DOT Preliminary Plans (75% + Costs)</b>	<b>2025 – September</b>
City Receives Appraisals	2025 – September
Utilize Iowa DOT Roundabout Peer Review Program	2025 – October
Utility Work Plans Request from Utilities (Relocation Plans)	2025 – October
Secure and Approve Easements / Acquisitions (Utility Relocations)	2025 – November
Identify Condemnations / Set Hearing Date (if needed)	2025 – November
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Condemnation Hearings (if needed)	2026 – January
Private Utility Relocation Work - Begins	2026 – March
<b>DOT Check Plans (100% + Costs + Specs)</b>	<b>2026 – July</b>
Private Utility Relocation Work – Ends	2026 – September
Approve Remaining Acquisitions / Easements (if needed)	2026 – July
<b>DOT Final Plans and PDC</b>	<b>2026 – September</b>
Public Hearing (City Council Meeting)	2026 – November
<b>DOT Letting</b>	<b>2026 – December</b>
<hr/>	
Award Construction Contract (City Council Meeting)	2027 – February
Begin Construction	2027 – March
Substantial Completion	2027 – October
Final Completion	2027 – November





# North Liberty

IOWA

February 22, 2023

Emily Bothell, AICP  
Senior Associate Transportation Planner  
Metropolitan Planning Organization of Johnson County  
410 E. Washington St. Iowa City. IA 52240

Dear Ms. Bothell:

This letter is to confirm that the City of North Liberty is prepared to fund the local match portion of the South Dubuque Street (Phase 2) project that is the subject of a Surface Transportation Block Grant application, as well as to maintain the infrastructure in perpetuity once completed. Intended funding source will be General Obligation Bonds. Please do not hesitate to contact me with any question you may have.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan Heiar', is written over a light blue horizontal line.

Ryan Heiar, City Administrator  
City of North Liberty  
PO Box 77 3 Quail Creek Circle 52317  
319-626-5747  
[rheiar@northlibertyiowa.org](mailto:rheiar@northlibertyiowa.org)

South Dubuque Street from just south of East Zeller Street to the North Liberty Road roundabout is included in the City's five-year Capital Improvements Plan as part of the Fiscal Year 24 (July 1, 2023 – June 30 2024) budget, which is anticipated to be adopted in April 2023. The aforementioned South Dubuque Street is currently identified in Fiscal Year 28 (July 1, 2027 – June 30, 2028). Adjustments to schedule can be made as necessary.





### Minority Impact Statement

Pursuant to 2008 Iowa Acts, HF 2393, Iowa Code 8.11, all grant applications submitted to the State of Iowa that are due beginning Jan. 1, 2009, shall include a Minority Impact Statement. This is the state's mechanism for requiring grant applications to consider the potential impact of the grant project's proposed programs or policies on minority groups.

**Please choose the statement(s) that pertains to this grant application. Complete all the information requested for the chosen statement(s). Submit additional pages as necessary.**

- The proposed grant project programs or policies could have a disproportionate or unique **positive** impact on minority persons.

Describe the positive impact expected from this project.

Not Applicable.

Indicate which groups are impacted.

- Women     Persons with a disability     Blacks     Latinos     Asians
- Pacific Islanders     American Indians     Alaskan Native Americans     Other \_\_\_\_\_

- The proposed grant project programs or policies could have a disproportionate or unique **negative** impact on minority persons.

Describe the negative impact expected from this project.

Not Applicable.

Present the rationale for the existence of the proposed program or policy.

Not Applicable.

Provide evidence of consultation with representatives of the minority groups impacted.

Not Applicable.

Indicate which groups are impacted.

- Women   
 Persons with a disability   
 Blacks   
 Latinos   
 Asians  
 Pacific Islanders   
 American Indians   
 Alaskan Native Americans   
 Other \_\_\_\_\_

The proposed grant project programs or policies are **not expected to have** a disproportionate or unique impact on minority persons.

Present the rationale for determining no impact.

The project consists of reconstructing/rehabilitating South Dubuque Street within the City of North Liberty from just south of East Zeller Street to the North Liberty Road roundabout. The project will be entirely within the roadway right-of-way and granted temporary construction easements. The reconstructed roadway section will include ADA compliant sidewalks. Therefore, it is expected that this construction project will have a positive impact on persons with a disability.

I hereby certify that the information on this form is complete and accurate, to the best of my knowledge.

Name Ryan Rusnak

Title Planning Director

**Definitions**

"Minority Persons," as defined in Iowa Code 8.11, means individuals who are women, persons with a disability, Blacks, Latinos, Asians or Pacific Islanders, American Indians, and Alaskan Native Americans.

"Disability," as defined in Iowa Code 15.102, subsection 7, paragraph "b," subparagraph (1):

b. As used in this subsection:

- (1) "Disability" means, with respect to an individual, a physical or mental impairment that substantially limits one or more of the major life activities of the individual, a record of physical or mental impairment that substantially limits one or more of the major life activities of the individual, or being regarded as an individual with a physical or mental impairment that substantially limits one or more of the major life activities of the individual.

"Disability" does not include any of the following:

- (a) Homosexuality or bisexuality.
- (b) Transvestism, transsexualism, pedophilia, exhibitionism, voyeurism, gender identity disorders not resulting from physical impairments or other sexual behavior disorders.
- (c) Compulsive gambling, kleptomania, or pyromania.
- (d) Psychoactive substance abuse disorders resulting from current illegal use of drugs.

"State Agency," as defined in Iowa Code 8.11, means a department, board, bureau, commission, or other agency or authority of the State of Iowa.

## **Attachment A: Itemized breakdown of total project costs guidelines.**

### **Construction costs**

These may be based on historical averages for entire projects of similar size and scope. Examples include:

- Typical cost per mile of trail (e.g. \$XXX,XXX per mile for moderate terrain and limited number of structures).
- Typical cost per square foot of bridge deck.
- Typical cost per square foot of new or renovated building space.
- Typical cost per lineal foot of sidewalk.

### **Design/Inspection costs**

These may be estimated based on the following typical percentages of construction costs, such as:

- 8 to 10 percent for preliminary up through final design and letting activities.
- 12 to 15 percent for construction inspection activities.

### **Right of way acquisition costs**

These may be estimated based on:

- Impact and description of impact.
- Typical cost per square foot for permanent right of way.
- Typical cost per square foot for temporary easements.

### **Utility and railroad costs**

These may be estimated based on:

- Impact and description of impact.
- Typical cost per linear foot of relocated or reconstructed facility (e.g. track, pipe, electrical lines).
- Typical cost per installation (e.g. railroad switches, utility poles, transformers, control boxes).

### **Indirect costs**

If indirect costs are involved (e.g. wages):

- Estimated hours.
- Estimated hourly rate, salary.
- Estimated fringe, direct.
- Other direct cost estimate.
- Other indirect cost estimate.

