

**FLOOD SALES TAX COMMITTEE AGNEDA
FOR NOVEMBER 20, 2023—1:00 PM**
Commission Room, Cass County Courthouse

1:00 PM Meeting called to order
Approve minutes of previous meeting—April 3, 2023

1. Flood sales tax fund update
2. Status of previously approved projects
 - a. 2017 Sheldon Addition Ring Levee Project
 - b. 2020 Davenport Levee update
 - c. Updated funding request for 2022 Elm River Dam
 - d. Updated funding request for 2022 Elm River Dam Number 3 Improvements
3. Review projects and consider funding
 - a. Rochester and Page Township Slope Erosion Repair Project
 - b. City of Mapleton 2nd Street Storm Water Lift Station Replacement
 - c. City of Mapleton Flood Protection Study
 - d. City of Casselton Industrial Park Flood Improvements
 - e. City of Kindred Storm Water Detention Pond Project
4. Other business
5. Adjournment

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY
PROJECTS

ADOPTED DATE: DECEMBER 4, 2017

PAGE 1 OF 4

PURPOSE

The purpose of this policy is to provide guidance for the administration and funding of projects with Cass County Flood Control Sales Tax funds.

GENERAL PROVISIONS

As passed during the 2010 election and extended in the 2016 election, the voters approved the following: The Cass County Home Rule Charter be amended to extend the existing flood protection-related sales, use, and gross receipts tax of one-half of one percent (1/2%) to be used solely for the engineering, land purchase, construction, and maintenance of flood control measures including the Metro Flood Diversion Project including associated special assessments and indebtedness, through December 31, 2084, and shall be rescinded when all of the costs, obligations, and debt for said project have been paid in full and satisfied, whichever event occurs first as provide in Resolution #2016-20.

Cass County Commission Policy 38.23 outlines Ordinance #2010-2 Amended (Flood Control Sales Tax) which serves as the ordinance for the establishment and regulation of the Cass County Flood Control Sales Tax.

This policy governs expenditures of funds from a one half percent County sales tax that started in 2011 and will end in 2084 to fund flood risk reduction projects. The primary purpose of the sales tax measure is to fund local costs associated with a planned Fargo Moorhead Area Flood Diversion project in either Minnesota or North Dakota. The planned diversion project will not address all flood damage risks in Cass County. Additional measures are necessary to reduce risk to areas within and outside of the diversion perimeter. Sales tax proceeds may also be expended for the Diversion and other flood risk reduction or recovery projects subject to funding availability and approval by the County Commission. The County sales tax proceeds should be used to leverage other sources of funding when possible.

County sales tax funds expended within incorporated cities: The County Commission through the Flood Sales Tax Committee may consider requests for flood risk reduction and recovery funding from cities within Cass County. The city will be responsible for planning and engineering costs associated with the project. Plans and specifications should be prepared by a professional engineer registered within the State of North Dakota. Projects won't be considered if they are strictly for new city development, especially cases where a developer would be shifting their cost to the County Flood Sales Tax. The city should also be able to demonstrate that other revenue sources for the project have been actively sought out. The preferred funding split is that City funds match the County sales tax proceeds on a 1:1 basis. Other funding splits may be considered by the Commission on a case by case basis to allow consideration to be given to unique circumstances and the ability of the City to pay 50% of the local cost share.

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY
PROJECTS

ADOPTED DATE: DECEMBER 4, 2017

PAGE 2 OF 4

County sales tax funds expended outside of incorporated cities: The County Commission, through the Flood Sales Tax Committee, may also consider flood risk reduction and recovery projects recommended by the County Engineer or requested by townships, neighborhood groups, or individuals for areas within and outside of the diversion protected area. Projects won't be considered if they are strictly for new rural development, especially cases where a developer would be shifting their cost to the County Flood Sales Tax. Special assessments may be considered as a local match to County sales tax funds. Funds may be expended for projects that provide benefit to Cass County residents but are physically constructed outside of the County boundaries such as retention projects. Funds may also be spent to assist property owners downstream from the diversion channel in offsetting diversion project impacts.

ADMINISTRATION

The Cass County Commission will organize and appoint members to a Flood Sales Tax Committee. This will be a six-member committee made up of the following members:

1. Two members of the Cass County Commission
2. Cass County Auditor
3. Cass County Administrator
4. Cass County Engineer
5. One member from either the Southeast Cass, Maple River, Rush River, or North Cass Water Resource District.

The Flood Sales Tax Committee will solicit project requests on a bi-annual basis. Meetings to review project requests will generally be held with one meeting in the fall (October-November) and one meeting in the spring (March-April). Requests received from political subdivisions and county staff for cost effective projects will be prioritized and considered for funding by the County Commission as funds available allow.

FUNDING ELIGIBILITY

Entities eligible for funding: Funding should generally be for flood protection for communities or individuals that live outside of the Diversion protected area or those within the Diversion protected area that do not receive a significant benefit from the Diversion. This includes:

1. Cities
2. Townships
3. Water Resource Districts
4. Farmsteads and Homesteads

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY
PROJECTS

ADOPTED DATE: DECEMBER 4, 2017

PAGE 3 OF 4

Types of projects eligible for funding:

1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
2. Flood control projects.
3. Water retention or detention projects.
4. Dam construction or maintenance.
5. Lift Stations for removing storm water from within a levee protected area.
6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share" at http://www.swc.state.nd.us/project_development/cost_share.html. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards. However, individual rural farmsteads cannot be "certified" by FEMA or the US Army Corps of Engineers as they not maintained by either a city or township that is a member of the National Flood Insurance Program.
7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
10. Home buyouts for flooding and bank slumping.
11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cass County Sales Tax Cost Share:

1. Generally the cost share will be 50% of the "local" share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County cost share would be \$25,000.
2. Policy for Retention Projects: Cost share is 75% of the "local" share if they are approved by the Red River Joint Water Resource District.
3. Home buyouts for flooding and bank slumping: Cost share is 90% of the "local" cost with the homeowner paying 10% of the "local" cost.

SUBJECT: COUNTY SALES TAX FOR FLOOD RISK REDUCTION AND RECOVERY

ADOPTED DATE: DECEMBER 4, 2017

PAGE 4 OF 4

4. If significant funds are available compared to the project requests, the County may authorize a cost share above 50% for non-retention projects and above 75% for Retention Projects.

PROJECT PRIORITIES

Priority of projects will be based on the following:

1. Population benefited by the project
2. Distribution of funds by location
3. Disbursement percentage determined by the number of people benefited
4. Cost effectiveness of the project
5. Permanency of the project
6. Effect of the diversion on the project
7. Does the project have long-term merit (benefits extend beyond 10 years)
8. Other sources of funding from local, state, or federal cost share programs.

Evaluation Criteria: The County Commission and/or Flood Sales Tax Committee may use some or all of the following criteria in determining funding priorities:

1. Benefit cost ratio
2. Land area benefited
3. Population benefited
4. Downstream flood reduction
5. Total acre-feet of retention storage

HISTORICAL REFERENCE: AUGUST 2, 2010

FLOOD SALES TAX COMMITTEE
APRIL 3, 2023—2:00 PM

1. MEETING CALLED TO ORDER

Commissioner Mary Scherling called a meeting of the Flood Sales Tax Committee to order on Monday, April 3, 2023, at 2:04 PM in the Commission Room, Cass County Courthouse. The following members were present: Commissioner Duane Breitling; Commissioner Mary Scherling; Water Resource District Representative, Rodger Olson; County Administrator, Robert Wilson; and County Finance Director, Brandy Madrigga. Jason Benson was absent, Assistant County Engineer, Tom Soucy served in his place. Also present was Commissioner Jim Kapitan, and Assistant County Administrator, Tracy Peters.

2. FLOOD SALES TAX FUND UPDATE

Ms. Madrigga said the Flood Sales Tax Fund has \$11.21 million in approved projects with \$5.43 million left to pay and an unencumbered balance of \$5.78 million.

Mrs. Scherling asked what the total amount of funds received in 2022 that the Committee may allocate towards projects. Ms. Madrigga said the Flood Sales Tax Fund received \$21.2 million from collected sales tax dollars in 2022 of which, \$19.9 million is allocated for the Metro Flood Diversion Project, leaving \$1.3 million for the Flood Sales Tax Committee to allocate for local projects.

3. STATUS OF PREVIOUSLY APPROVED PROJECTS

2015 Upper Maple River Detention Study Phase II & 2015 Rush River Detention Study Phase II

Kurt Lysne of Moore Engineering was present and said these two studies created projects, one for Maple River that was discussed at the last Flood Sales Tax Committee meeting and the other near the Rush River in Amenia that will be discussed later in the meeting. He said the studies are completed and he will follow up with the Water Resource Districts to have them closed out.

2017 Sheldon Addition Ring Levee Project

Mr. Lysne said this project was recently submitted to the State for a construction permit. He said the project was started in 2017 and went to a vote of the public in 2019. He said the P3 portion of the Metro Flood Diversion will provide clay material by September of 2023 to save the ring levee project significant funds. He said the levee will likely be constructed this fall or the spring of 2024.

2018 City of Hunter Dam Projects

Mr. Lysne said City of Hunter staff are working on the project, and he is not aware of any updates.

2019 T-180 Dam Safety Improvements

Mr. Lysne said this project is complete and he will work with the Water Resource District to be sure the financials have been submitted.

2020 Davenport Levee

Mr. Lysne said this project is in the design phase and is being submitted to FEMA for a conditional letter of map provision to remove the city from the flood plain. He said the Western Cass Flood Study is still being considered by FEMA. He said the land acquisitions for the project have begun and an application for construction will be submitted to the State. He said construction will likely begin in 2024.

Mrs. Scherling asked if locals in western Cass study are obligated to pay flood insurance yet. Mr. Lysne said residents in western Cass are not yet obligated to pay flood insurance under the western Cass study. He said after FEMA issues the map, they will put an effective date 6 months after the

maps are released. Mr. Lysne said during the 6 month time, cities and townships must update their flood plane ordinance and adopt the maps. Mrs. Scherling asked if Davenport Residents will have to get flood insurance or if the levee project will be completed by the time FEMA releases the maps. Mr. Lysne said the project will not likely be completed by the time the maps are released. He said the project will take two construction years and once complete, the drawings have to be sent and certified by FEMA. He said the hope is to have the project FEMA certified by 2025.

Mr. Lysne said the levee project was approved for funding in 2020 and since the cost estimated have been updated and are higher than was approved. He said Davenport may need to come back with an updated request of approximately 1.7 million.

2022 Elm River Dam and 2022 Elm River Dam Number 3 Improvements

Mr. Lysne said both projects are ready to be bid out and constructed.

2022 Casselton Lagoon Slide Repair

Mr. Lysne said the project has been completed and the City of Casselton needs to submit financials.

2022 Upper Maple River Detention Study Phase II Part 2

Mr. Lysne said this study has been completed and a construction project will be completed from funding.

2020 Hofer Property

Mr. Soucy said the property has been acquired and the North Dakota Department of Emergency Services has provided additional funding and will reimburse the Flood Sales Tax Fund.

2021 Gill Township Road

Mr. Soucy said this project has been completed and the Township will be submitting financials for reimbursement.

2021 Maple River Township Road

Mr. Soucy said this project has not been completed as the Township is working through an agreement with a local landowner and is hoping to complete the project this summer.

2022 Normanna Township Bank Stabilization

Mr. Soucy said this project has not been completed and is being evaluated for a benefit-cost analysis. He said the construction will likely take place in 2024 after funding is established.

2022 Lilleberg Buyout

Mr. Soucy said the County has been working with the Lilleberg's to discuss the soil analysis of the property as the owners would like to build on another home on the property. He said more information is to come on the buyout.

2022 Gill Township Slide Repair

Mr. Soucy said this project has been completed and the Township will be submitting financials for reimbursement.

2022 Durbin Township Slide Repair

Mr. Soucy said this project has been completed and came in \$6 under budget.

2022 Everest Township Slide Repair

Mr. Soucy said he believes this project was completed and he will check with the Township to make sure they have submitted all of their reimbursement.

2022 Maple River Township Slide Repair

Mr. Soucy said this project has not yet been completed, the Township is working with a local landowner.

2022 Highway 81 Slide Repair

Mr. Soucy said this project has been completed and was successful. He said he will work to get the financials submitted.

2022 Reed Township Sheyenne Riverbank Stabilization

Mr. Soucy said this project is in the design phase and working to determine the best solution.

2022 Cass 15 Bridge

Mr. Soucy said on April 18, 2022, the Flood Sales Tax Committee approved funding for the Cass 15 Bridge project at a 50% cost share in the amount of \$928,984.85 with the understanding that the Highway Department reimburse the Flood Sales Tax Fund using COVID related funds. Mr. Soucy said since then, the Highway Department has not received any COVID funding. Mr. Soucy said the actual project cost was higher than the engineers' estimate. He said the total project cost was bid at \$1,948,040 and the request today is for the Flood Sales Tax fund to cover 50% of the cost which amounts to \$974,040. He said the Water Resource District would cover 60% or \$298,843, and the County Highway Department would be responsible for the remaining 10% or \$675,177. Mr. Soucy said if the Flood Sales Tax Committee does not approve funding from the flood sales tax fund, the Water Resource District and Highway Department cost will more than double.

Mr. Wilson said he recalls the discussion when this project was first presented to the Flood Sales Tax Committee for funding, it was when the County believed ARPA funds were required to be spent on infrastructure such as roads, however the final ARAP rules did not require funds be spent on infrastructure. He said since then the County Commission has allocated ARPA funds towards other projects rather than this road project. Mr. Soucy said he recalls this to be correct, and the Flood Sales Tax fund policy allows funding for projects to aid in flooding issues.

Mrs. Scherling asked why the Flood Sales Tax funding is being taken off the total project cost. She said typically when projects come to the Flood Sales Tax Committee for funding, the project has gone to other funding sources, such as the Water Resource District first, and then the Flood Sales Tax Funds are applied. Mr. Soucy said the figures were presented this way when the original project was submitted. Mr. Olson said this project was already approved by the Flood Sales Tax Committee and is showing as an encumbered balance on the fund's financial statement. He said he believes the request is for additional funding for the actual bids of the project. Mr. Olson said the use of County COVID funds should be reviewed to complete this project. Mr. Wilson said the use of COVID funds is a County Commission level decision and the Commission has utilized COVID funds for COVID related needs such as a Courtroom remodel, expanded Jail Intake area, and new Jail pod.

Mr. Breitling said the Committee has already approved 50% funding, and now the request is for the actual bid amount, an increase of about \$53,000.

MOTION, passed

Mr. Olson moved and Mr. Breitling seconded to approve the Cass 15 Bridge project at a 50% cost share in the amount of \$974,020. On a roll call vote, the motion carried unanimously.

4. PROJECT REQUESTS

Rush River-City of Amenia Flood Control Project

Mr. Lysne said this request is from the Cass County Joint Water Resource District and is a flood control project for the City of Amenia. He said the original planning effort started seven years ago after the Western Cass Flood Insurance study came out and determined the City of Amenia would need flood insurance and Amenia would flood in the 1% flood chance. Mr. Lysne said a ring dyke is the preferred project to protect Amenia from flooding. He said the total cost for the design and plan is \$675,000 and the CCJWRD has secured \$480,000 in funding from the NRCS and is requesting the Flood Sales Tax approve a 90% cost share in the amount of \$87,750. He said this project would complete the final design of the project.

Mrs. Scherling asked if the CCJWRD will be coming back to the Committee to request funding for the construction of the project and what the cost of the construction is estimated at. Mr. Lysne said yes, additional funding request for construction will be coming. Josh Hassell of Moore Engineering was present and said the cost estimates are old and may need to be adjusted for inflation. He said based on the estimate, the project will likely be requesting a 60% cost share in the amount of \$420,000.

Mrs. Scherling said the request today is to fund 90% of the final design costs in the amount of \$87,750. She said the Flood Sales Tax Committee approved a similar request for the City of Davenport for a cost share of 50%. Ms. Madrigga asked if funding is available from the Red River Joint Water Resource District. Mr. Lysne said this would not be eligible as it not a qualifying type of project and does not span over multiple counties.

Tony Roth, Mayor of Amenia was present and said flood protection is needed for the City of Amenia and Amenia is a small city that does not have needed funding. He said Amenia has many water issues currently being worked through. Cody Cashman, City of Amenia Council Member was present and said Amenia is in need of funding and completion of this flood protection project.

Ms. Madrigga asked if this is a retention or non-retention project, as the policy clearly states the funding amounts for each type of project. Mrs. Scherling said this is a non-retention project, it is a levee. Ms. Madrigga said the policy states a cost share of 50% for non-retention and the Committee can go above 50% if significant funds are available.

MOTION, passed

Mrs. Madrigga moved and Mr. Breitling seconded to approve the Rush River-Amenia Flood Control final design project at a cost share of 75%. On a roll call vote, the motion carried unanimously.

5. ADJOURNMENT

MOTION, passed

On motion by Mr. Breitling, seconded by Mr. Olson and all in favor, the meeting was adjourned at 3:16 PM.

Cass County Sales Tax Activity (420)			
Cash Basis - 2023			
11/9/2023			
Date	Description	Amount	Balance
	Balance Forward		10,308,892.80
2023	Sales Tax	18,592,633.45	28,901,526.25
2023	Interest	411,657.24	29,313,183.49
1/25/2023	Diversion Board of Authority	(1,778,638.12)	27,534,545.37
2/3/2023	Misc Revenue	372,341.89	27,906,887.26
2/6/2023	Misc Revenue	49,645.59	27,956,532.85
2/27/2023	County Projects	(388,002.28)	27,568,530.57
2/23/2023	Diversion Board of Authority	(2,191,222.35)	25,377,308.22
3/22/2023	Diversion Board of Authority	(1,482,483.17)	23,894,825.05
4/25/2023	Diversion Board of Authority	(1,367,886.30)	22,526,938.75
5/22/2023	Diversion Board of Authority	(1,436,322.49)	21,090,616.26
5/31/2023	County Projects	(974,019.83)	20,116,596.43
6/22/2023	Misc Revenue	12,388.03	20,128,984.46
6/23/2023	Diversion Board of Authority	(1,951,725.83)	18,177,258.63
7/19/2023	County Projects	(7,861.44)	18,169,397.19
7/25/2023	Diversion Board of Authority	(1,760,746.06)	16,408,651.13
8/21/2023	County Projects	(6,575.80)	16,402,075.33
8/21/2023	County Projects	(10,343.57)	16,391,731.76
8/22/2023	Diversion Board of Authority	(2,197,482.17)	14,194,249.59
9/21/2023	Diversion Board of Authority	(1,891,403.80)	12,302,845.79
10/23/2023	Diversion Board of Authority	(1,419,165.16)	10,883,680.63
			10,883,680.63
			10,883,680.63

Reserved for County Projects - Cash	10,883,680.63	
Reserved for Diversion Project	-	10,883,680.63

Summary

Receipts

Transfer	-
Sales Tax Revenue	18,592,633.45
Interest Revenue	411,657.24
Misc Revenue	434,375.51
Total Receipts	<u>19,438,666.20</u>

Expenditures

Diversion Board of Authority	(17,477,075.45)
City of Fargo - Cash Flow Other Sources	-
County Projects	(1,386,802.92)
Land Purchase	-
Total Expenditures	<u>(18,863,878.37)</u>

Receipts over Expenditures 574,787.83

Balance from Prior Year 10,308,892.80

Balance Current Year 10,883,680.63

Current County Projects			
11/9/2023			
Project	Total Approved	Paid	Left to Pay
Closed Projects	\$ 5,811,577.87	\$ 5,811,577.87	\$ -
2015 Upper Maple River Detention Study Phase II	\$ 45,500.00	\$ 37,068.77	\$ 8,431.23
2015 Rush River Detention Study Phase II	\$ 45,500.00	\$ 34,422.58	\$ 11,077.42
2017 Sheldon Addition Ring Levee Project	\$ 462,750.00	\$ -	\$ 462,750.00
2018 City of Hunter Dam Projects	\$ 23,582.80	\$ 11,527.09	\$ 12,055.71
2019 T-180 Dam Safety Improvements	\$ 24,765.89	\$ -	\$ 24,765.89
2020 Hofer Property	\$ 512,281.80	\$ 496,455.85	\$ 15,825.95
2020 Davenport Levee	\$ 1,425,000.00	\$ -	\$ 1,425,000.00
2021 Gill Township Road	\$ 14,250.00	\$ -	\$ 14,250.00
2021 Maple River Township Road	\$ 64,970.00	\$ -	\$ 64,970.00
2022 Normanna Township Bank Stabilization 90%	\$ 187,137.87	\$ -	\$ 187,137.87
2022 Lilleberg Buyout 90%	\$ 114,273.90	\$ -	\$ 114,273.90
2022 Elm River Dam 2/3-of cost	\$ 95,267.00	\$ 6,575.80	\$ 88,691.20
2022 Fill Township Slide Repair 75%	\$ 27,063.00	\$ -	\$ 27,063.00
2022 Everest Township Slide Repair 75%	\$ 21,000.00	\$ 13,689.17	\$ 7,310.83
2022 Maple River Twonship Slide Repair 75%	\$ 45,000.00	\$ -	\$ 45,000.00
2022 Mapleton Flap Gate - Storm Sewer Outfalls 75%	\$ 60,000.00	\$ -	\$ 60,000.00
2022 Highway 81 Slide Repair 75%	\$ 950,287.00	\$ -	\$ 950,287.00
2022 Reed Township Sheyenne Riverbank Stabilization 50%	\$ 8,650.00	\$ 7,861.44	\$ 788.56
2022 Elm River Dam Number 3 Improvements 90%	\$ 16,830.00	\$ 12,257.10	\$ 4,572.90
2022 Casselton Lagoon Slide Repair 75%	\$ 525,000.00	\$ 388,002.28	\$ 136,997.72
2022 Upper Maple river Detention Study Phase II Part 2 90%	\$ 27,720.00	\$ -	\$ 27,720.00
2023 Rush River Amenia Flood Control Project 75%	\$ 73,125.00	\$ -	\$ 73,125.00
Total	\$ 10,581,532.13	\$ 6,819,437.95	\$ 3,762,094.18

Reserve for County Projects 2023 Activity

Balance of Cash Carried forward from 2022	\$ 10,308,892.80
2023 Reserves	1,961,590.75
Total	<u>12,270,483.55</u>
Paid in 2023	1,386,802.92
Encumbrances	3,762,094.18
Un-encumbered Balance	<u>\$ 7,121,586.45</u>

**Sheldon Subdivision Ring Levee
Cass County Water Resource District
Cass County, North Dakota**

Non-Certified Levee

Engineer's Opinion of Probable Cost - Material from off-site source

	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	FUNDING SOURCES			
						NDSWC - 60%	Cass County - 75%	LOCAL	
1.	012000	Mobilization	LS	1	\$15,000.00	\$15,000.00	\$9,000.00	\$4,500.00	\$1,500.00
2.	014000	Material Testing	Allowance		\$10,000.00	\$10,000.00	\$6,000.00	\$3,000.00	\$1,000.00
3.	024200	Remove Asphalt Pavement	SF	1,025	\$10.00	\$10,250.00	\$6,150.00	\$3,075.00	\$1,025.00
4.	024200	Remove - Culvert (All Types and Sizes)	LF	129	\$15.00	\$1,935.00	\$1,161.00	\$580.50	\$193.50
5.	024200	Remove FES - 30"	EA	4	\$1,000.00	\$4,000.00	\$2,400.00	\$1,200.00	\$400.00
6.	024200	Aggregate - Salvage and Reinstall	SY	2,160	\$15.00	\$32,400.00	\$19,440.00	\$9,720.00	\$3,240.00
7.	311100	Site Clearing	LS	1	\$1,000.00	\$1,000.00	\$600.00	\$300.00	\$100.00
8.	312213	Topsoil Stripping	CY	12,665	\$4.00	\$50,660.00	\$30,396.00	\$15,198.00	\$5,066.00
9.	312213	Topsoil Spreading	CY	12,665	\$3.00	\$37,995.00	\$22,797.00	\$11,398.50	\$3,799.50
10.	312316	Excavation	CY	460	\$5.00	\$2,300.00	\$1,380.00	\$690.00	\$230.00
11.	312316	Excavation - Inspection Trench	LF	2,975	\$6.00	\$17,850.00	\$10,710.00	\$5,355.00	\$1,785.00
12.	312213	Embankment	CY	11,165	\$4.00	\$44,660.00	\$26,796.00	\$13,398.00	\$4,466.00
13.	312213	Dewatering	LS	1	\$1,500.00	\$1,500.00	\$900.00	\$450.00	\$150.00
14.	312500	Stormwater Management	LS	1.0	\$2,500.00	\$2,500.00	\$1,500.00	\$750.00	\$250.00
15.	312500	Sedimentation Control Wattle - 9"	LF	200	\$3.00	\$600.00	\$360.00	\$180.00	\$60.00
16.	312500	Silt Fence	LF	3215	\$2.50	\$8,037.50	\$4,822.50	\$2,411.25	\$803.75
17.	312500	Stabilized Construction Entrance	EA	2	\$2,600.00	\$5,200.00	\$3,120.00	\$1,560.00	\$520.00
18.	321123	Geotextile Fabric	SY	2160	\$4.00	\$8,640.00	\$5,184.00	\$2,592.00	\$864.00
19.	321123	Road Surface Aggregate	CY	120	\$55.00	\$6,600.00	\$3,960.00	\$1,980.00	\$660.00
20.	321216	Asphalt Paving - 6"	SY	115	\$200.00	\$23,000.00	\$13,800.00	\$6,900.00	\$2,300.00
21.	329219	Seeding - Type III	Acre	8	\$1,250.00	\$10,000.00	\$6,000.00	\$3,000.00	\$1,000.00
22.	334213.13	Storm Sewer - 24" RCP	LF	192	\$130.00	\$24,960.00	\$14,976.00	\$7,488.00	\$2,496.00
23.	334213.13	Storm Sewer - 30" CSP	LF	24	\$100.00	\$2,400.00	\$1,440.00	\$720.00	\$240.00
24.	334213.13	Flared End Section - 24" RCP	EA	4	\$1,500.00	\$6,000.00	\$3,600.00	\$1,800.00	\$600.00
25.	334213.13	Slide Gate - 24"	EA	4	\$15,000.00	\$60,000.00	\$36,000.00	\$18,000.00	\$6,000.00
26.	334213.13	Slide Gate - 30"	EA	4	\$20,000.00	\$80,000.00	\$48,000.00	\$24,000.00	\$8,000.00
27.	Detail	Sign Post	EA	2	\$250.00	\$500.00	\$300.00	\$150.00	\$50.00
28.	Detail	Signing - Standard	SF	3	\$26.00	\$78.00	\$46.80	\$23.40	\$7.80
					Total Construction	\$468,065.50	\$280,839.30	\$140,419.65	\$46,806.55
					Project Development	\$30,482.00	\$0.00	\$22,861.50	\$7,620.50
					Engineering (Design, Permitting, Right of Way)	\$100,000.00	\$0.00	\$75,000.00	\$25,000.00
					Engineering - Construction	\$50,000.00	\$30,000.00	\$15,000.00	\$5,000.00
					Contingencies (10%)	\$46,806.55	\$28,083.93	\$14,041.97	\$4,680.66
					Legal Fees	\$10,000.00	\$0.00	\$7,500.00	\$2,500.00
					Administration Fees	\$2,500.00	\$1,500.00	\$750.00	\$250.00
					Right-of-Way Land Acquisition	\$36,000.00	\$21,600.00	\$10,800.00	\$3,600.00
					Utility Company Relocations	\$20,000.00	\$12,000.00	\$6,000.00	\$2,000.00
					Utility Relocation Administration	\$2,000.00	\$1,200.00	\$600.00	\$200.00
					Fiscal	\$1,000.00	\$600.00	\$300.00	\$100.00
					TOTAL PROJECT COST	\$766,854.05	\$375,823.23	\$293,273.12	\$97,757.71
					Max approved	\$370,200.00	\$462,750.00	\$61,700.00	
					Difference		(\$5,623.23)	\$169,476.89	(\$36,057.71)

Davenport Flood Risk Reduction

City of Davenport, ND

Maple River Water Resource District

11/10/2023

Engineer's Preliminary Opinion of Probable Cost

	ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL	POTENTIAL FUNDING SOURCES		
						ND SWC	FLOOD SALES TAX	LOCAL
Levee								
1.	Topsoil Stripping	CY	29,500	\$5.00	\$147,500.00	\$88,500.00	\$44,250.00	\$14,750.00
2.	Topsoil Spreading	CY	20,000	\$5.00	\$100,000.00	\$60,000.00	\$30,000.00	\$10,000.00
3.	Inspection Trench	CY	19,500	\$5.00	\$97,500.00	\$58,500.00	\$29,250.00	\$9,750.00
4.	Excavation	CY	71,000	\$5.00	\$355,000.00	\$213,000.00	\$106,500.00	\$35,500.00
5.	Embankment	CY	68,500	\$12.00	\$822,000.00	\$493,200.00	\$246,600.00	\$82,200.00
6.	Embankment - Import	CY	11,000	\$18.00	\$198,000.00	\$118,800.00	\$59,400.00	\$19,800.00
7.	Gatewell Structure	EA	1	\$150,000.00	\$150,000.00	\$90,000.00	\$45,000.00	\$15,000.00
8.	Lift Station - 1	LS	1	\$500,000.00	\$500,000.00	\$300,000.00	\$150,000.00	\$50,000.00
Pavement								
9.	Remove Pavement All Thickness Asphalt	SY	300	\$25.00	\$7,500.00	\$4,500.00	\$2,250.00	\$750.00
10.	Gravel - Stripping and Spreading	CY	30	\$30.00	\$900.00	\$540.00	\$270.00	\$90.00
11.	Curb and Gutter - Highback	LF	175	\$50.00	\$8,750.00	\$5,250.00	\$2,625.00	\$875.00
12.	Concrete Pavement - 6" Reinforced	SY	200	\$100.00	\$20,000.00	\$12,000.00	\$6,000.00	\$2,000.00
13.	Concrete Pavement - 8" Reinforced	SY	250	\$125.00	\$31,250.00	\$18,750.00	\$9,375.00	\$3,125.00
14.	Geotextile Fabric	SY	300	\$3.00	\$900.00	\$540.00	\$270.00	\$90.00
15.	Sleeper Slab	LS	3	\$40,000.00	\$120,000.00	\$72,000.00	\$36,000.00	\$12,000.00
Highway Crossing								
16.	Culvert - Remove (All types & sizes)	LF	65	\$30.00	\$1,950.00	\$1,170.00	\$585.00	\$195.00
17.	8'x4' RCB	LF	132	\$1,200.00	\$158,400.00	\$95,040.00	\$47,520.00	\$15,840.00
18.	8'x4' RCB End Section	EA	2	\$12,500.00	\$25,000.00	\$15,000.00	\$7,500.00	\$2,500.00
19.	Riprap - Class IV	CY	65	\$90.00	\$5,850.00	\$3,510.00	\$1,755.00	\$585.00
20.	Riprap Filter Blanket	SY	135	\$4.00	\$540.00	\$324.00	\$162.00	\$54.00
21.	Asphalt Patch - 7"	SY	152	\$100.00	\$15,200.00	\$9,120.00	\$4,560.00	\$1,520.00
Sanitary Sewer								
22.	Remove Pipe (All Types and Sizes)	LF	90	\$30.00	\$2,700.00	\$1,620.00	\$810.00	\$270.00
23.	Sanitary Sewer - Connect to Existing	EA	2	\$2,500.00	\$5,000.00	\$3,000.00	\$1,500.00	\$500.00
24.	Sanitary Sewer Gate Valve & Box - 6"	EA	2	\$3,500.00	\$7,000.00	\$4,200.00	\$2,100.00	\$700.00
25.	Sanitary Sewer - 6" PVC DR 18	LF	90	\$110.00	\$9,900.00	\$5,940.00	\$2,970.00	\$990.00
Storm Sewer								
26.	Storm Sewer - CSP 24"	LF	410	\$70.00	\$28,700.00	\$17,220.00	\$8,610.00	\$2,870.00
27.	Storm Sewer - CSP 66"	LF	240	\$170.00	\$40,800.00	\$24,480.00	\$12,240.00	\$4,080.00
28.	Storm Sewer - 24" RCP	LF	20	\$80.00	\$1,600.00	\$960.00	\$480.00	\$160.00
29.	Storm Sewer - 30" RCP	LF	110	\$120.00	\$13,200.00	\$7,920.00	\$3,960.00	\$1,320.00
30.	Storm Sewer - 36" RCP	LF	210	\$160.00	\$33,600.00	\$20,160.00	\$10,080.00	\$3,360.00
31.	Storm Sewer - 51"x31" RCPA	LF	60	\$500.00	\$30,000.00	\$18,000.00	\$9,000.00	\$3,000.00
32.	Flared End Section - 24" RCP	EA	2	\$1,500.00	\$3,000.00	\$1,800.00	\$900.00	\$300.00
33.	Flared End Section - 30" RCP	EA	2	\$2,000.00	\$4,000.00	\$2,400.00	\$1,200.00	\$400.00
34.	Flared End Section - 36" RCP	EA	2	\$2,500.00	\$5,000.00	\$3,000.00	\$1,500.00	\$500.00
35.	Flared End Section - 51"x31" RCPA	EA	2	\$6,000.00	\$12,000.00	\$7,200.00	\$3,600.00	\$1,200.00
General Items								
36.	Mobilization	LS	1	\$50,000.00	\$50,000.00	\$30,000.00	\$15,000.00	\$5,000.00
37.	Riprap - Class III	CY	150	\$100.00	\$15,000.00	\$9,000.00	\$4,500.00	\$1,500.00
38.	Riprap Filter Blanket	SY	300	\$5.00	\$1,500.00	\$900.00	\$450.00	\$150.00
39.	Sedimentation Control Wattle - 9"	LF	240	\$5.00	\$1,200.00	\$720.00	\$360.00	\$120.00
40.	Stabilized Construction Entrance	EA	3	\$2,500.00	\$7,500.00	\$4,500.00	\$2,250.00	\$750.00
41.	Seeding - Type III	AC	30	\$1,100.00	\$33,000.00	\$19,800.00	\$9,900.00	\$3,300.00
42.	Silt Fence - Standard	LF	3,200	\$3.00	\$9,600.00	\$5,760.00	\$2,880.00	\$960.00
43.	Storm Water Management	LS	1	\$10,000.00	\$10,000.00	\$6,000.00	\$3,000.00	\$1,000.00
44.	Traffic Control	LS	1	\$25,000.00	\$25,000.00	\$15,000.00	\$7,500.00	\$2,500.00
45.	Material Testing	Invoice	Allowance	\$50,000.00	\$25,000.00	\$15,000.00	\$7,500.00	\$2,500.00
Total Construction					\$3,140,540.00	\$1,884,324.00	\$942,162.00	\$314,054.00
Contingencies (10%)					\$314,960.00	\$188,432.40	\$94,895.70	\$31,631.90
Feasibility Study					\$100,000.00	\$35,000.00	\$48,750.00	\$16,250.00
Project Development/Funding					\$50,000.00	\$0.00	\$37,500.00	\$12,500.00
Engineering - Civil Design					\$360,000.00	\$126,000.00	\$175,500.00	\$58,500.00
Geotechnical Engineering					\$75,000.00	\$26,250.00	\$36,562.50	\$12,187.50
Structural Engineering					\$15,000.00	\$5,250.00	\$7,312.50	\$2,437.50
Electrical Engineering					\$6,000.00	\$2,100.00	\$2,925.00	\$975.00
Construction Engineering					\$300,000.00	\$180,000.00	\$90,000.00	\$30,000.00
Land Surveying					\$70,000.00	\$24,500.00	\$34,125.00	\$11,375.00
CLOMR/LOMR					\$225,000.00	\$78,750.00	\$109,687.50	\$36,562.50
Right-of-Way Acquisition					\$350,000.00	\$210,000.00	\$105,000.00	\$35,000.00
Legal & Adm. Fees					\$100,000.00	\$0.00	\$75,000.00	\$25,000.00
Utility Relocation					\$50,000.00	\$30,000.00	\$15,000.00	\$5,000.00
Right-of-Way Negotiations					\$65,000.00	\$39,000.00	\$19,500.00	\$6,500.00
Permitting					\$20,000.00	\$7,000.00	\$9,750.00	\$3,250.00
Wetlands					\$50,000.00	\$30,000.00	\$15,000.00	\$5,000.00
Fiscal					\$50,000.00	\$0.00	\$37,500.00	\$12,500.00
TOTAL PROJECT COST					\$5,341,500.00	\$2,867,000.00	\$1,856,500.00	\$618,000.00
Max approved						\$2,118,600.00	\$1,425,000.00	\$460,351.84
Difference						(\$748,400.00)	(\$431,500.00)	(\$157,648.16)

Elm River Joint Water Resource District
PO Box 10
Hillsboro, ND 58045

November 13, 2023

Chad Peterson, Chairman
Cass County Commission
P.O. Box 2806
Fargo, ND 58108-2806

Dear Chairman Peterson:

Re: Elm River Dam No. 1, No. 2 and No. 3 Improvements
Cass, Steele & Traill County, ND

The Elm River Joint Water Resource District (WRD) has two projects that have been previously approved for cost-share by the Cass County Flood Sales Tax Committee. Below is a summary of the projects. As a reminder, the WRD owns and maintains three dams in Cass, Steele and Traill Counties, and the existing federal project maintenance district for all three dams only provides a maximum of \$41,880 each year for operation and maintenance costs.

It's anticipated that a single construction contract for all three dams will be awarded in February 2024 after both the State Water Commission (SWC) and the Red River Joint Water Resource District (RRJWRD) approve amended cost-share agreements at their February and January 2024 meetings, respectively. All cost-share agreements and approvals are needed so that the WRD can go to the bond market for financing of the construction contract, and closing on the bond is anticipated to occur in March 2024. So, an amended approval from the Cass County Flood Sales Tax Committee is needed on November 20 since the next Cass County Flood Sales Tax Committee meeting would likely not be until April 2024, unless a special meeting is held sometime between these two meeting dates.

- Elm River Dam No. 1 and No. 2 Improvement Project
 - These two dams are located in Steele and Traill County but shared assessment district for all three Elm River Dams extend into Cass, Steele and Traill Counties
 - Flood Sales Tax cost-share amount of \$95,267 was approved at the April 18, 2022 Flood Sales Tax Committee meeting at 2/3 of local share:
 - State Water Commission cost-share – \$1,671,000
 - Red River Joint Water Resource District cost-share – \$1,286,100
 - Local cost-share – \$142,900
 - Existing Cass County Flood Sales Tax cost-share – \$95,267
 - State construction permit approvals took eleven months resulting in delay in construction bidding
 - Construction is planned for 2024
 - Total project cost-estimate increased from \$3,100,000 to \$5,300,000 due to significant material and labor cost increases and a construction delay from 2023 to 2024. Updated cost-share split at 2/3 of local share:
 - Updated State Water Commission cost-share – \$3,114,000

- Updated Red River Joint Water Resource District cost-share – \$1,967,400
 - Updated Local cost-share – \$218,600
 - Updated Cass County Flood Sales Tax cost-share – \$145,733
- Elm River Dam No. 3 Improvement Project
 - Cass County Dam just upstream of Cass Highway 26
 - Flood Sales Tax cost-share amount of \$16,830 was approved at the August 15, 2022 Flood Sales Tax Committee meeting at 90% of local share:
 - State Water Commission cost-share – \$213,000
 - Red River Joint Water Resource District cost-share – \$168,300
 - Local cost-share – \$18,700
 - Existing Cass County Flood Sales Tax cost-share – \$16,830
 - Phase 1 construction completed in 2022 that removed damaged pipe
 - Phase 2 (remaining improvements) construction in 2023 did not occur due to no construction bids being received
 - Phase 2 state construction permit approval took six months resulting in delay in construction bidding
 - Phase 2 construction is planned for 2024
 - Total project cost-estimate increased from \$400,000 to \$1,000,000 due to splitting the construction into two phases resulting from lack of pipe availability in Fall of 2022, addition of a concrete energy dissipation structure at the downstream side of the dam, significant material and labor cost increases, and a Phase 2 construction delay from 2023 to 2024. Updated cost-share split at 90% of local share:
 - Updated State Water Commission cost-share – \$576,000
 - Updated Red River Joint Water Resource District cost-share – \$381,600
 - Updated Local cost-share – \$42,400
 - Updated Cass County Flood Sales Tax cost-share – \$38,160
- Bidding and construction schedule
 - Advertise Wednesday, November 15
 - Bid opening Tuesday, December 12
 - Contract Award Tuesday, February 13, 2024 (anticipated)
 - Bond closing – March 2024 (anticipated)
 - Substantial Completion – November 30, 2024
 - Final Completion – June 30, 2025

The WRD requests that the Cass County Flood Sales Tax Committee amend the cost-share for the Elm River Dam No. 1 and No. 2 Improvement Project up to a maximum of \$145,733 at the previously approved two-thirds (2/3) share of the local cost.

The WRD requests that the Cass County Flood Sales Tax Committee amend the cost-share for the Elm River Dam No. 3 Improvement Project up to a maximum of \$38,160 at the previously approved 90% share of the local cost.

If you have any questions, please feel free to contact me or our Project Engineer, Lyndon Pease, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

ELM RIVER JOINT WATER RESOURCE DISTRICT

A handwritten signature in blue ink, appearing to read "J. Spaeth", with a stylized flourish at the end.

Jessica Spaeth
Secretary-Treasurer



Highway Department

Telephone: 701-298-2370

Fax: 701-298-2395

SMB-HWY@casscountynd.gov

MEMORANDUM

TO: Flood Sales Tax Committee

FROM: Jason Benson, County Engineer *FOR: Tom Soucy*

DATE: October 16, 2023

SUBJECT: Rochester & Page Townships - Slope Erosion Repair Project

Attached are the Flood Sales Tax application documents for Rochester & Page Townships - Slope Erosion Repair Project.

Tom Soucy met with township officials this spring to discuss repair options. This closed basin continues to cause issues for the township when the water is high. Wind creates waves thus eroding the slopes. The solution is to widen the road top, flatten and armor the inslopes, with rock and install a culvert to equalize the water on both sides of the road, along to adding additional gravel stabilize the road surface.

Below are the townships' comments discussing the issue in more detail.

This is a shared township road between the townships of Page and Rochester. It is located 1.25 miles north of the intersection of State Highway 38 and 138th Ave SE, or 1.25 miles north of the Page Cemetery. It is a low basin with no easy way to drain the water. Depending on rainfall and snow melt, it grows to the depth of about four feet + and has overtaken the road at various times. The road has been raised at least twice since 1992. The wet years we have experienced since 1992 has caused the water to rise. The road in this area is very narrow. The wind and wildlife has caused the water to erode the edges of the road. In the spring of 2023, the road shoulders have given away enough we had to raise it again with clay and gravel. What we did helped to make the road passable, but the problem persists. When it was raised in 2023 the road became narrower and more dangerous. Two cars cannot meet on that stretch of the road. Wide farm equipment is at risk of sliding into the ditch. What needs to happen is the roadsides need to be stabilized by widening it by about three feet on each side with rock, clay and gravel. There also needs to be a culvert placed there to equalize the water level on each side of the road.

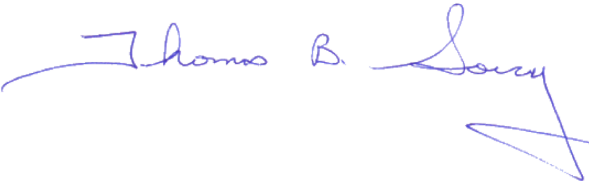
SUGGESTED MOTION:

MOVE TO APPROVE THE ROCHESTER & PAGE TWPS \$70,000 FLOOD SALES PROJECT AT THE 75% LEVEL FOR \$52,500.

J:\Admin-Eng\FLOOD\Flood Sales Tax Funding\Rochester Page Twp\Flood Sales Tax Memo Rochester Page Twp 101523.docx



Application for Funding from the Cass County Flood Sales Tax Committee

Project Name:					
Date:					
Funding Requested:		Cost Share %	50%	75%	90%
Location (Provide a brief discription):					
Name of Owner(s)/Applicant			Engineer Name		
Owner(s)/Applicants Address			Engineer Firm Name		
Owner(s)/Applicants Email			Engineer Email		
Owner(s) Phone Number			Engineer Phone Number		
Owner/Applicant's Signature				Date:	
Representative's Signature				Date:	11/06/2023

Application

Breakdown of Project Funding		\$ Dollar Amount
Total Project Cost		\$
Additional Funding Source #1 (Name)		\$
Additional Funding Source #2 (Name)		\$
Additional Funding Source #3 (Name)		\$
Additional Funding Source #4 (Name)		\$
Local Project Cost (Total Cost – Additional Funding)		\$
Flood Sales Tax Requested Amount		
Applicant/Requesting Entity Cost		

Application and Funding Eligibility

(see criteria in the Cass County Policy 13.72 Amended County Sales Tax For Flood Risk Reduction and Recovery Projects Adopted December 4, 2017 at www.casscountynod.gov/floodsalestaxcommittee)

Describe why you are an Eligible Entity: (County, City, Township, Water Resource District, or Home/Landowner)

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Project Eligibility: (Outline what provision of the Policy provides eligibility to fund this project based on the criteria listed below)

	1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
	2. Flood control projects.
	3. Water retention or detention projects.
	4. Dam construction or maintenance.
	5. Lift Stations for removing storm water from within a levee protected area.
	6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share"
	7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
	8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
	9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
	10. Home buyouts for flooding and bank slumping.
	11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cost Share Eligibility: (What % of cost share and provision of the Policy provides cost share % eligible for this project)

This project meets the funding cost share eligibility of _____% based which of the following criteria (select all that apply):

	1. Generally the cost share will be 50% of the “local” share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County
	2. Policy for Retention Projects: Cost share is 75% of the “local” share if they are approved by the Red River Joint Water Resource District.
	3. Home buyouts for flooding and bank slumping: Cost share is 90% of the “local” cost with the homeowner paying 10% of the “local” cost.

Project Priority: (Explain any provisions of the Policy that provides a higher priority for this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

	1. Population benefited by the project
	2. Distribution of funds by location
	3. Disbursement percentage determined by the number of people benefited
	4. Cost effectiveness of the project
	5. Permanency of the project
	6. Effect of the diversion on the project
	7. Does the project have long-term merit (benefits extend beyond 10 years)
	8. Other sources of funding from local, state, or federal cost share programs.

--

Evaluation Criteria: (Describe any specific Evaluation Criteria used to prioritize funding of this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

	1. Benefit cost ratio
	2. Land area benefited
	3. Population benefited
	4. Downstream flood reduction
	5. Total acre-feet of retention storage

Attachments

	1. Funding Request Memo from the Project Owner With Suggested Motion
	2. Location Map

Rochester/Page Township Road – Slope Repair





City of Mapleton

PO Box 9 - 651 2nd Street, Mapleton, ND 58059
p-(701) 282-6992 f-(701) 282-0080
auditor@mapletonnd.com
www.mapletonnd.com



October 31, 2023

Chad Peterson, Chairman
Cass County Commission
P.O. Box 2806
Fargo, ND 58108-2806

Dear Chairman Peterson:

Re: 2nd Street Flood Control Storm Water Lift Station Replacement
Mapleton, ND

The City of Mapleton is proposing replacement of an existing flood control lift station at 2nd Street and County Road 11 that is a component of the City's levee system ("the Project"). The City currently owns and maintains a FEMA-accredited levee system that includes 4 lift stations that are responsible for both evacuating interior stormwater runoff during flood events and preventing high river water from backing up into the levee's protected area.

The City is proceeding with the replacement alternative to address the deficiencies of the existing lift station which will provide enough capacity to handle the peak discharge of its contributing drainage basin. The City originally appeared before the Flood Sales Tax Committee in December of 2022 to request cost share for the project, so we are now returning to request County cost-share for the project. At that time, the Committee was in support of the project. The Committee requested that the project apply for State Water Commission funding and then return to the Flood Sales Tax Committee. It was determined that the project was not eligible for SWC cost share. This project falls under the 50% cost share category, however past projects have been funded at 75% cost share as funds have been available.

The estimated total Project cost is \$1,161,087. Here is a summary of the projected cost-share:

- Cass County Flood Risk Reduction (75%) - \$870,815
- Local cost-share (25%) - \$290,272

The City respectfully requests the Cass County Flood Sales Tax Committee approve cost-share in the amount of \$870,815 for replacement of the existing flood control lift station, which is 75% of the total project cost.



If you have any questions, please feel free to contact me or our City Engineer, Brandon Oye, Moore Engineering, Inc., at 701-282-4692.

Sincerely,

City of Mapleton



Application for Funding from the Cass County Flood Sales Tax Committee

Project Name:	Flood Control Storm Sewer Improvement District No. 2023-2				
Date:	10/12/2023				
Funding Requested:	\$870,815	Cost Share %	<input type="radio"/> 50%	<input checked="" type="radio"/> 75%	<input type="radio"/> 90%
Location (Provide a brief discription):	Approximately 20' west of the intersection of 2nd Street and County Road 11				
Name of Owner(s)/Applicant	City of Mapleton	Engineer Name	Dylan Ensrude		
Owner(s)/Applicants Address	651 2nd St, Mapleton, ND 58059	Engineer Firm Name	Moore Engineering, Inc.		
Owner(s)/Applicants Email	auditor@mapletonnd.com	Engineer Email	dylan.ensrude@mooreengineeringinc.com		
Owner(s) Phone Number	701.282.6992	Engineer Phone Number	701.551.1027		
Owner/Applicant's Signature			Date:	10/12/2023	
Representative's Signature			Date:	10/12/2023	

Proposal: Brief Narrative Description of Reason(s) for Application

The 2nd Street Stormwater Lift Station is a flood protection lift station installed in 1998 that services the Original Townsite and Maplewood neighborhoods within Mapleton. The lift station is a simplex configuration with a 500gpm pump that discharges through an 8" PVC force main into a gated control structure. During normal operation, collected stormwater flows through the lift station directly to the Maple River. When the Maple River is high, the sluice gate is closed and stormwater is pumped through the force main to the wet side of the control structure. The lift station was analyzed during a comprehensive study of the Original Townsite and Maplewood neighborhoods, and it was found to be operating at approximately 1/2 of its original design capacity of 500gpm. The current capacity of the lift station (~250gpm) is less than 10% of the peak flow of the storm sewer connected to it (3600gpm). Additionally, the sluice gate in the existing lift station experienced a failure this spring, which allowed high river water to back up into the Original Townsite and Maplewood neighborhoods. The lift station is significantly undersized, lacks redundancy for reliable operation, and therefore is in need of replacement.

Breakdown of Project Funding		\$ Dollar Amount
Total Project Cost		\$ 1,161,087
Additional Funding Source #1 (Name)		\$
Additional Funding Source #2 (Name)		\$
Additional Funding Source #3 (Name)		\$
Additional Funding Source #4 (Name)		\$
Local Project Cost (Total Cost – Additional Funding)		\$ 290,272
Flood Sales Tax Requested Amount		\$870,815
Applicant/Requesting Entity Cost		\$290,272

Application and Funding Eligibility

(see criteria in the Cass County Policy 13.72 Amended County Sales Tax For Flood Risk Reduction and Recovery Projects Adopted December 4, 2017 at www.casscountynd.gov/floodsaletaxcommittee)

Describe why you are an Eligible Entity: (County, City, Township, Water Resource District, or Home/Landowner)

City

Project Eligibility: (Outline what provision of the Policy provides eligibility to fund this project based on the criteria listed below)

<input type="checkbox"/>	1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
<input checked="" type="checkbox"/>	2. Flood control projects.
<input type="checkbox"/>	3. Water retention or detention projects.
<input type="checkbox"/>	4. Dam construction or maintenance.
<input checked="" type="checkbox"/>	5. Lift Stations for removing storm water from within a levee protected area.
<input type="checkbox"/>	6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share"
<input type="checkbox"/>	7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
<input type="checkbox"/>	8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
<input type="checkbox"/>	9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
<input type="checkbox"/>	10. Home buyouts for flooding and bank slumping.
<input type="checkbox"/>	11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cost Share Eligibility: (What % of cost share and provision of the Policy provides cost share % eligible for this project)

This project meets the funding cost share eligibility of 75 % based which of the following criteria (select all that apply):

<input type="checkbox"/>	1. Generally the cost share will be 50% of the "local" share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County
<input type="checkbox"/>	2. Policy for Retention Projects: Cost share is 75% of the "local" share if they are approved by the Red River Joint Water Resource District.
<input type="checkbox"/>	3. Home buyouts for flooding and bank slumping: Cost share is 90% of the "local" cost with the homeowner paying 10% of the "local" cost.
<input checked="" type="checkbox"/>	4. If significant funds are available compared to the project requests, the County may authorize a cost share above 50% for non-retention projects and above 75% for Retention Projects.

Project Priority: (Explain any provisions of the Policy that provides a higher priority for this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

<input checked="" type="checkbox"/>	1. Population benefited by the project: The lift station is part of an overall levee system serving ~1350 people.
<input type="checkbox"/>	2. Distribution of funds by location N/A
<input type="checkbox"/>	3. Disbursement percentage determined by the number of people benefited N/A
<input type="checkbox"/>	4. Cost effectiveness of the project N/A
<input checked="" type="checkbox"/>	5. Permanency of the project The new lift station will provide both flood protection and interior drainage for many decades.
<input type="checkbox"/>	6. Effect of the diversion on the project N/A
<input checked="" type="checkbox"/>	7. Does the project have long-term merit (benefits extend beyond 10 years)
<input type="checkbox"/>	8. Other sources of funding from local, state, or federal cost share programs. N/A

7. The new lift station will provide both flood protection and interior drainage for many decades.

Evaluation Criteria: (Describe any specific Evaluation Criteria used to prioritize funding of this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

<input checked="" type="checkbox"/>	1. Benefit cost ratio : A benefit/cost analysis has not been completed for the project.
<input checked="" type="checkbox"/>	2. Land area benefited : The lift station serves approximately a 12 acre drainage basin.
<input checked="" type="checkbox"/>	3. Population benefited The benefiting population is approximately 175 people directly.
<input type="checkbox"/>	4. Downstream flood reduction N/A
<input type="checkbox"/>	5. Total acre-feet of retention storage N/A

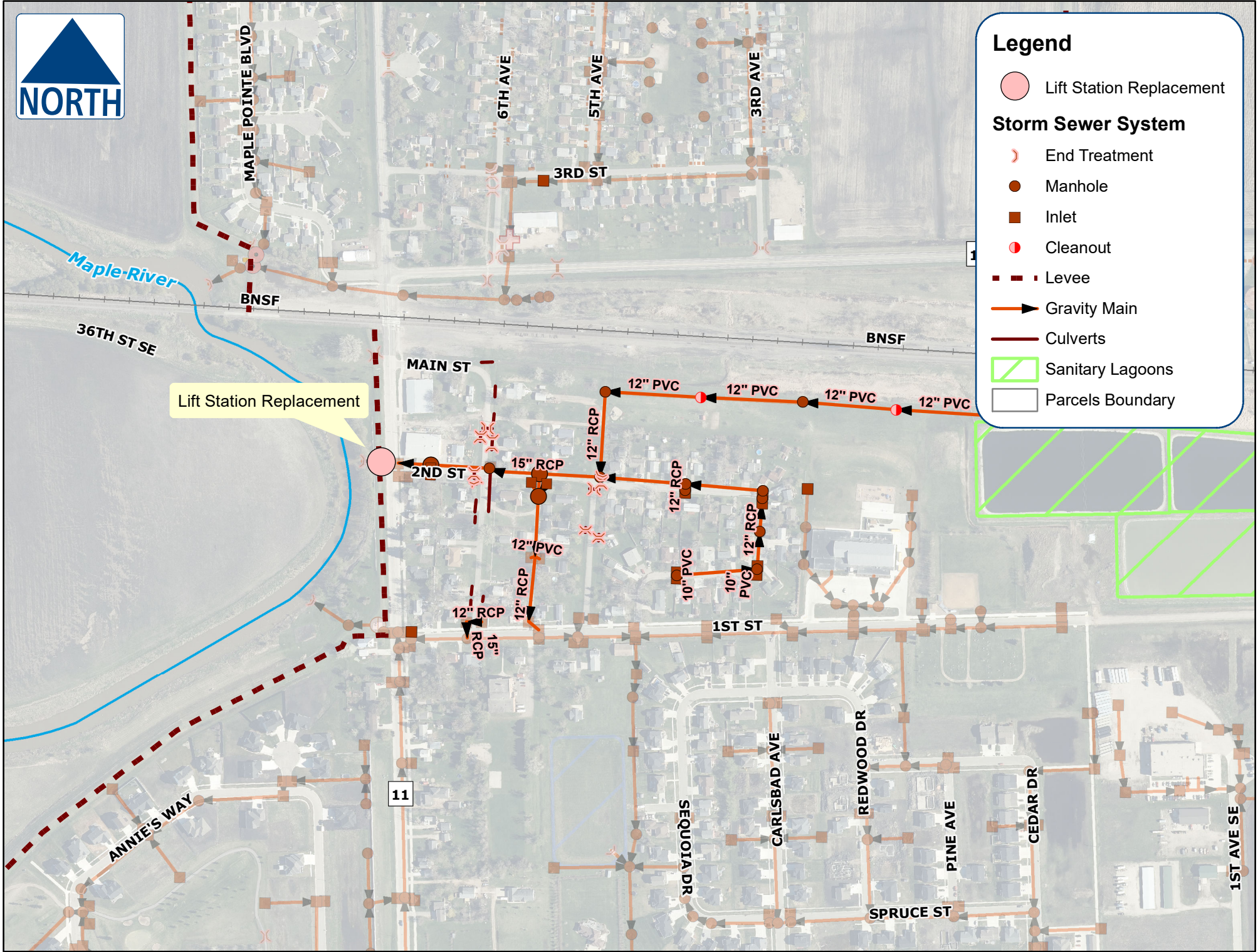
Attachments

<input checked="" type="checkbox"/>	1. Funding Request Memo from the Project Owner
<input checked="" type="checkbox"/>	2. Location Map



Legend

- Lift Station Replacement
- Storm Sewer System**
 - End Treatment
 - Manhole
 - Inlet
 - Cleanout
 - Levee
 - Gravity Main
 - Culverts
 - Sanitary Lagoons
 - Parcels Boundary





City of Mapleton

PO Box 9 - 651 2nd Street, Mapleton, ND 58059
p-(701) 282-6992 f-(701) 282-0080
auditor@mapletonnd.com
www.mapletonnd.com



November 13, 2023

Chad Peterson, Chairman
Cass County Commission
P.O. Box 2806
Fargo, ND 58108-2806

Re: Mapleton Flood Protection Study
Mapleton, ND

Dear Chairman Peterson:

We are respectfully requesting flood risk reduction funding assistance for a Flood Protection Study for our community. This study will identify alternatives for the City to continue its growth into the future. As noted in further detail in the application, this study is critical for the future of our community.

As requested in the application, the City respectfully requests a motion from the Cass County Flood Sales Tax Committee to approve cost-share in the amount of \$63,450.00 for the study, which is 90% of the remaining local share after applying the State Water Commission cost-share. We appreciate your time and consideration in this request.

If you have any questions, please feel free to contact me or our City Engineer, Brandon Oye, at 701-282-4692 or brandon.oye@mooreengineeringinc.com.

Sincerely,

City of Mapleton

A handwritten signature in blue ink, appearing to read "A. Draeger", written over a horizontal line.


Andrew Draeger
Mayor

Enclosures:

- Application for Funding
- Study Location Map



Application for Funding from the Cass County Flood Sales Tax Committee

Project Name:						
Date:						
Funding Requested:			Cost Share %	50%	75%	90%
Location (Provide a brief discription):						
Name of Owner(s)/Applicant			Engineer Name			
Owner(s)/Applicants Address			Engineer Firm Name			
Owner(s)/Applicants Email			Engineer Email			
Owner(s) Phone Number			Engineer Phone Number			
Owner/Applicant's Signature				Date:		
Representative's Signature				Date:		

Proposal: Brief Narrative Description of Reason(s) for Application

Breakdown of Project Funding		\$ Dollar Amount
Total Project Cost		\$
Additional Funding Source #1 (Name)		\$
Additional Funding Source #2 (Name)		\$
Additional Funding Source #3 (Name)		\$
Additional Funding Source #4 (Name)		\$
Local Project Cost (Total Cost – Additional Funding)		\$
Flood Sales Tax Requested Amount		
Applicant/Requesting Entity Cost		

Application and Funding Eligibility

(see criteria in the Cass County Policy 13.72 Amended County Sales Tax For Flood Risk Reduction and Recovery Projects Adopted December 4, 2017 at www.casscountynd.gov/floodsalestaxcommittee)

Describe why you are an Eligible Entity: (County, City, Township, Water Resource District, or Home/Landowner)

Project Eligibility: (Outline what provision of the Policy provides eligibility to fund this project based on the criteria listed below)

X	1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
X	2. Flood control projects.
	3. Water retention or detention projects.
	4. Dam construction or maintenance.
	5. Lift Stations for removing storm water from within a levee protected area.
	6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share"
	7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
	8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
	9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
	10. Home buyouts for flooding and bank slumping.
	11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cost Share Eligibility: (What % of cost share and provision of the Policy provides cost share % eligible for this project)

This project meets the funding cost share eligibility of _____% based which of the following criteria (select all that apply):

	1. Generally the cost share will be 50% of the “local” share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County
	2. Policy for Retention Projects: Cost share is 75% of the “local” share if they are approved by the Red River Joint Water Resource District.
	3. Home buyouts for flooding and bank slumping: Cost share is 90% of the “local” cost with the homeowner paying 10% of the “local” cost.

Project Priority: (Explain any provisions of the Policy that provides a higher priority for this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

	1. Population benefited by the project
	2. Distribution of funds by location
	3. Disbursement percentage determined by the number of people benefited
	4. Cost effectiveness of the project
	5. Permanency of the project
	6. Effect of the diversion on the project
	7. Does the project have long-term merit (benefits extend beyond 10 years)
	8. Other sources of funding from local, state, or federal cost share programs.

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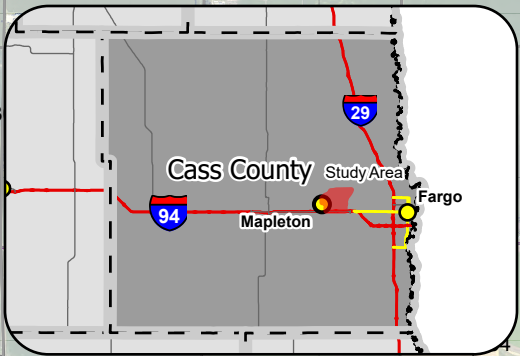
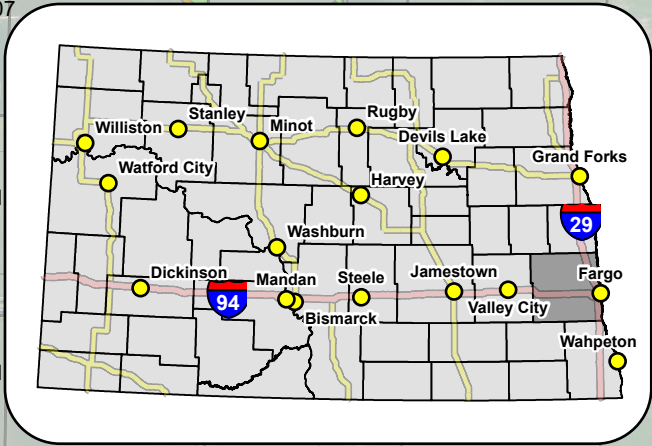
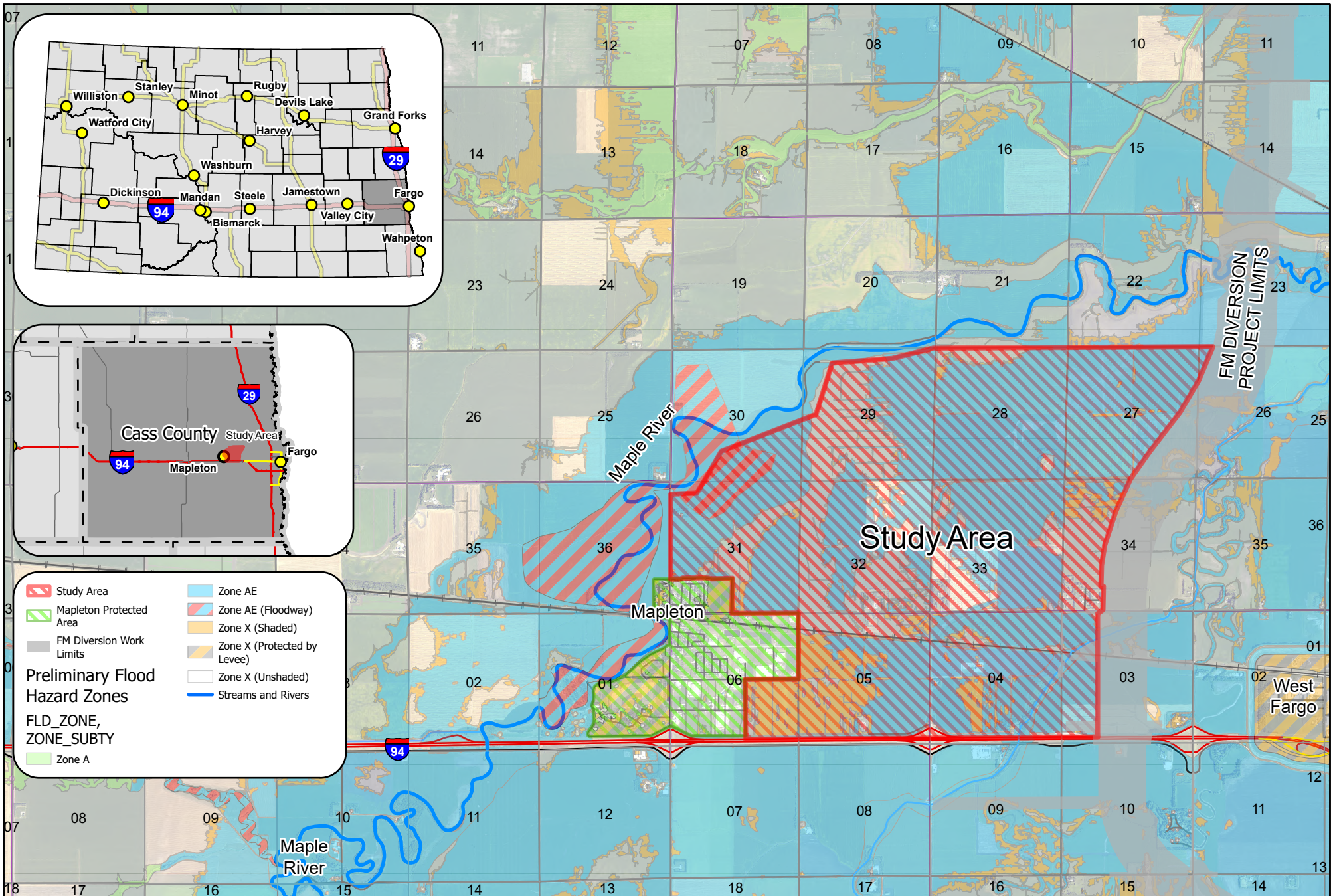
Evaluation Criteria: (Describe any specific Evaluation Criteria used to prioritize funding of this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

	1. Benefit cost ratio
	2. Land area benefited
	3. Population benefited
	4. Downstream flood reduction
	5. Total acre-feet of retention storage

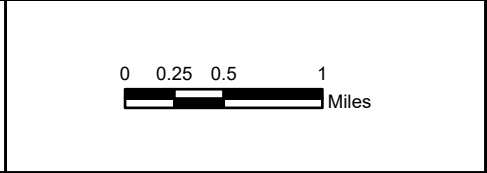
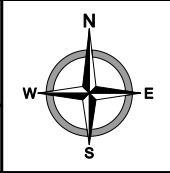
Attachments

	1. Funding Request Memo from the Project Owner With Suggested Motion
	2. Location Map



	Study Area		Zone AE
	Mapleton Protected Area		Zone AE (Floodway)
	FM Diversion Work Limits		Zone X (Shaded)
Preliminary Flood Hazard Zones			Zone X (Protected by Levee)
FLD_ZONE, ZONE_SUBTY			Zone X (Unshaded)
	Zone A		Streams and Rivers

**23718 - MAPLETON, ND - FLOOD PROTECTION STUDY
 COST SHARE REQUEST
 CASS COUNTY, NORTH DAKOTA**



Created By: ZAC Date Created: 11/10/2023 Date Saved: 11/13/23 Date Plotted: N/A Date Exported: 11/13/23
 Plotted By: Parcel Date: XX/XX/20 Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
 Horizontal Datum: N/A Vertical Datum: NAVD1988
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Application for Funding from the Cass County Flood Sales Tax Committee

Project Name:	Casselton Industrial Park Flood Improvements				
Date:	9/1/23				
Funding Requested:	Stormwater Detention	Cost Share %	<input type="radio"/> 50%	<input checked="" type="radio"/> 75%	<input type="radio"/> 90%
Location (Provide a brief discription):	See attached Project Location Map				
Name of Owner(s)/Applicant	Casselton, ND	Engineer Name	Brandon Oye		
Owner(s)/Applicants Address	702 1st St N, Casselton ND 58012	Engineer Firm Name	Moore Engineering, Inc.		
Owner(s)/Applicants Email	cassaudit@casselton.org	Engineer Email	brandon.oye@mooreengineeringinc.com		
Owner(s) Phone Number	(701) 347-4861	Engineer Phone Number	701-282-4692		
Owner/Applicant's Signature			Date:	Sept 8 2023	
Representative's Signature			Date:	9-12-2023	

Proposal: Brief Narrative Description of Reason(s) for Application

The City of Casselton has experienced flooding within our Industrial Park during large rain events or significant snow melts in the spring, as shown in the enclosed pictures. The current detention pond and pumping station are significantly undersized. The outlet where storm water is pumped is restricted by the drainage conveyance along the north side of I-94 east of Casselton, and causes the property adjacent to the ditch to be flooding and unfarmable. The infrastructure was constructed in 1995 and financed by Southeast Rural Vision Enterprises, Inc (SERVE, a subsidiary company of Cass County Electric Cooperative). It would have been unfeasible in 1995 to construct infrastructure to support the storm water events we plan for today for a full build-out of the industrial park land.

We completed a Utility Master Plan for the industrial park in 2021 that identified different alternatives to address the internal flooding issues. The recommended alternative identified in the Utility Master Plan is to provide additional storm water detention and convey storm water to the Swan Creek Diversion, eliminating the need for the current storm lift station and outlet location to I-94. The City coordinated the Prairie Skies First Addition infrastructure north of the industrial park to incorporate a storm sewer outlet through the new development, which can be connected to for conveying storm water to the Swan Creek Diversion, rather than pumped and drained through the I-94 ditch system. Eliminating the lift station will provide a more efficient way to convey storm water out of the industrial park, eliminating future pumping operation costs.

We have attempted in the past to complete improvements to reduce the internal flooding issues in the Industrial Park, but the appropriate alternative would have been a significant financial burden to the businesses, which are critical to our local and regional economy. The City of Casselton has been very proactive in addressing our flooding issues in the past, spending millions of dollars reconstructing the Swan Creek Diversion through town and constructing flood protection levees around the residential areas of town. We also reduced flooding issues around our school with a new detention pond and pump station, which we gratefully received Flood Sales Tax cost-share to help fund it, further reducing the financial impact on our community. We are now turning our focus to addressing the flooding issues within our Industrial Park and would greatly appreciate the financial assistance made available through the Flood Risk Reduction Sales Tax. We are respectfully requesting 75% cost-share due to the benefit and financial impact to many of the business in our community.

Breakdown of Project Funding		\$ Dollar Amount
Total Project Cost		\$ 4,050,000
Additional Funding Source #1 (Name)		\$
Additional Funding Source #2 (Name)		\$
Additional Funding Source #3 (Name)		\$
Additional Funding Source #4 (Name)		\$
Local Project Cost (Total Cost – Additional Funding)		\$
Flood Sales Tax Requested Amount		\$3,037,500
Applicant/Requesting Entity Cost		\$1,012,500

Application and Funding Eligibility

(see criteria in the Cass County Policy 13.72 Amended County Sales Tax For Flood Risk Reduction and Recovery Projects Adopted December 4, 2017 at www.casscountynod.gov/floodsalestaxcommittee)

Describe why you are an Eligible Entity: (County, City, Township, Water Resource District, or Home/Landowner)

City

Project Eligibility: (Outline what provision of the Policy provides eligibility to fund this project based on the criteria listed below)

<input type="checkbox"/>	1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
<input checked="" type="checkbox"/>	2. Flood control projects.
<input checked="" type="checkbox"/>	3. Water retention or detention projects.
<input type="checkbox"/>	4. Dam construction or maintenance.
<input type="checkbox"/>	5. Lift Stations for removing storm water from within a levee protected area.
<input type="checkbox"/>	6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share"
<input type="checkbox"/>	7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
<input type="checkbox"/>	8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
<input type="checkbox"/>	9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
<input type="checkbox"/>	10. Home buyouts for flooding and bank slumping.
<input type="checkbox"/>	11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cost Share Eligibility: (What % of cost share and provision of the Policy provides cost share % eligible for this project)

This project meets the funding cost share eligibility of _____% based which of the following criteria (select all that apply):

<input checked="" type="checkbox"/>	1. Generally the cost share will be 50% of the "local" share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County
<input type="checkbox"/>	2. Policy for Retention Projects: Cost share is 75% of the "local" share if they are approved by the Red River Joint Water Resource District.
<input type="checkbox"/>	3. Home buyouts for flooding and bank slumping: Cost share is 90% of the "local" cost with the homeowner paying 10% of the "local" cost.

Project Priority: (Explain any provisions of the Policy that provides a higher priority for this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

<input type="checkbox"/>	1. Population benefited by the project
<input type="checkbox"/>	2. Distribution of funds by location
<input type="checkbox"/>	3. Disbursement percentage determined by the number of people benefited
<input type="checkbox"/>	4. Cost effectiveness of the project
<input checked="" type="checkbox"/>	5. Permanency of the project
<input type="checkbox"/>	6. Effect of the diversion on the project
<input checked="" type="checkbox"/>	7. Does the project have long-term merit (benefits extend beyond 10 years)
<input type="checkbox"/>	8. Other sources of funding from local, state, or federal cost share programs.

--

Evaluation Criteria: (Describe any specific Evaluation Criteria used to prioritize funding of this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

<input type="checkbox"/>	1. Benefit cost ratio
<input checked="" type="checkbox"/>	2. Land area benefited
<input type="checkbox"/>	3. Population benefited
<input checked="" type="checkbox"/>	4. Downstream flood reduction
<input type="checkbox"/>	5. Total acre-feet of retention storage

Attachments

<input checked="" type="checkbox"/>	1. Funding Request Memo from the Project Owner With Suggested Motion
<input checked="" type="checkbox"/>	2. Location Map

Flood and Storm Improvement District No. 2024-3
Industrial Park Flood and Storm Improvements
Flooding Photos



South of Industrial Boulevard, west of Days Inn Hotel during rain event (looking west)



South of Industrial Boulevard, west of Days Inn Hotel during rain event (looking northwest)



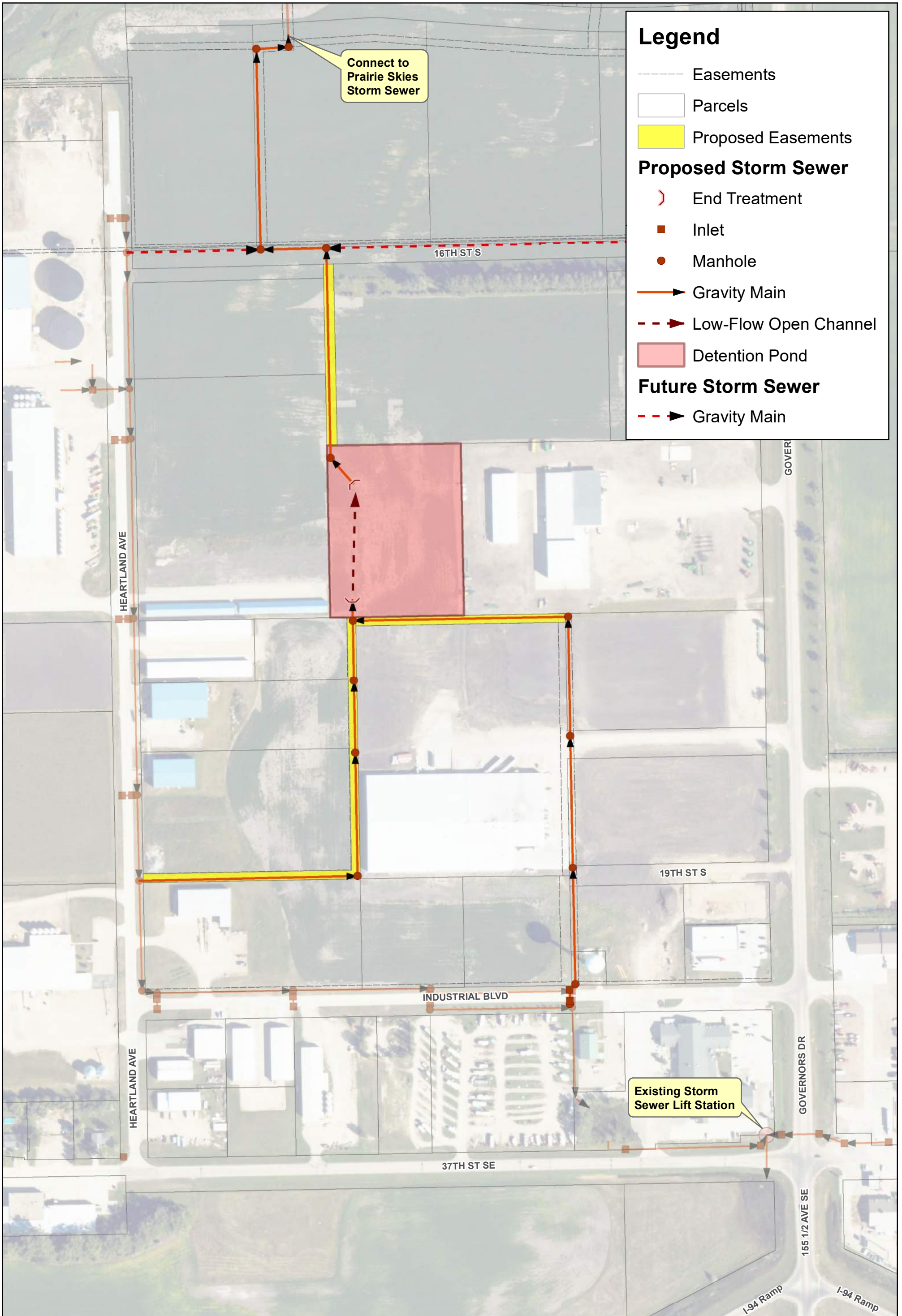
Industrial Boulevard during rain event (looking east)



Storm sewer lift station discharge pipe



Just north of I-94 in southbound lane of ND Highway 18 (looking northwest)



Legend

- Easements
- ▭ Parcels
- ▭ Proposed Easements

Proposed Storm Sewer

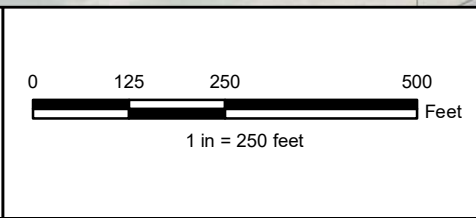
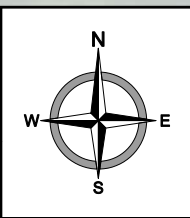
- ⤵ End Treatment
- Inlet
- Manhole
- Gravity Main
- - -> Low-Flow Open Channel
- ▭ Detention Pond

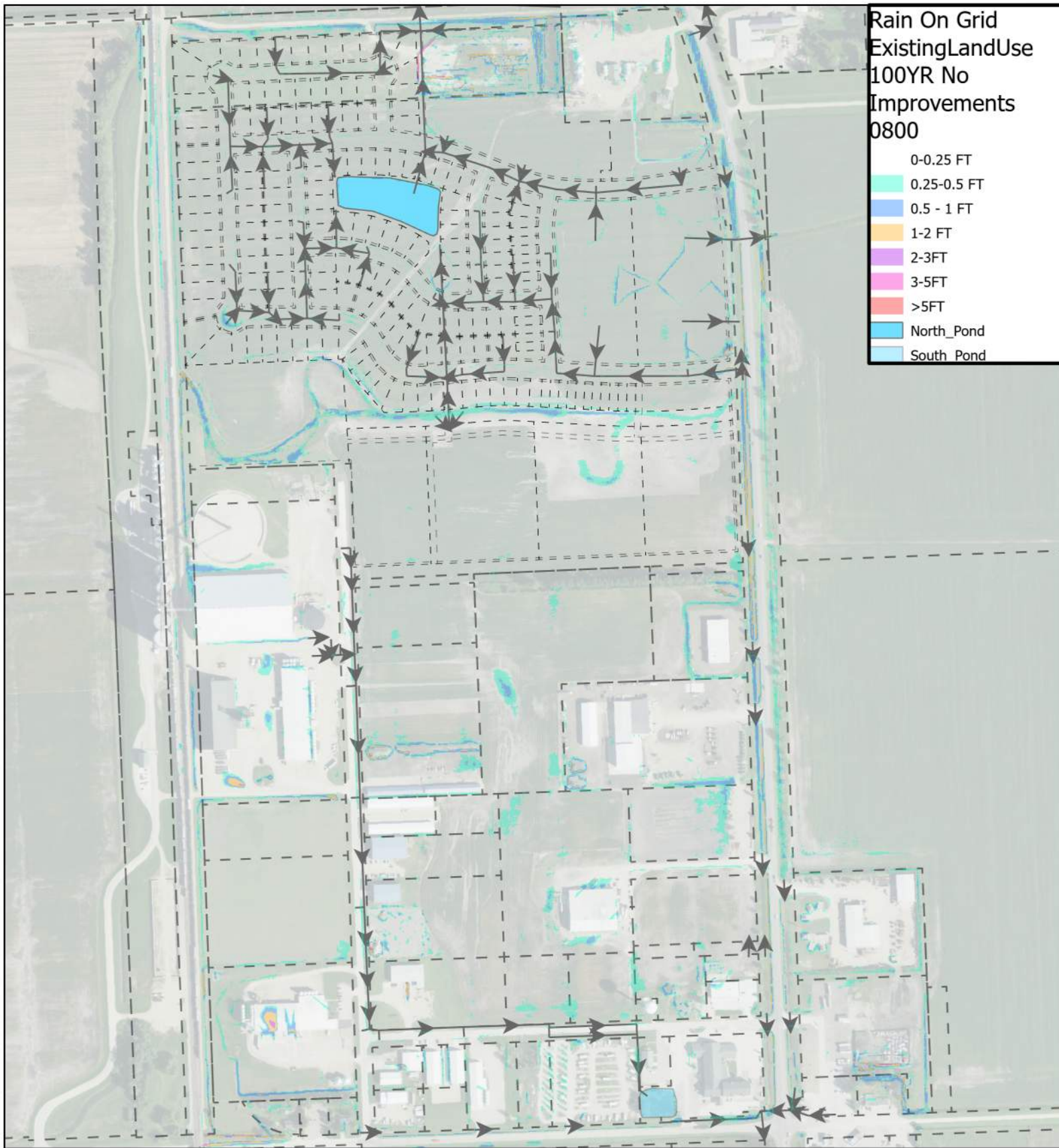
Future Storm Sewer

- - -> Gravity Main

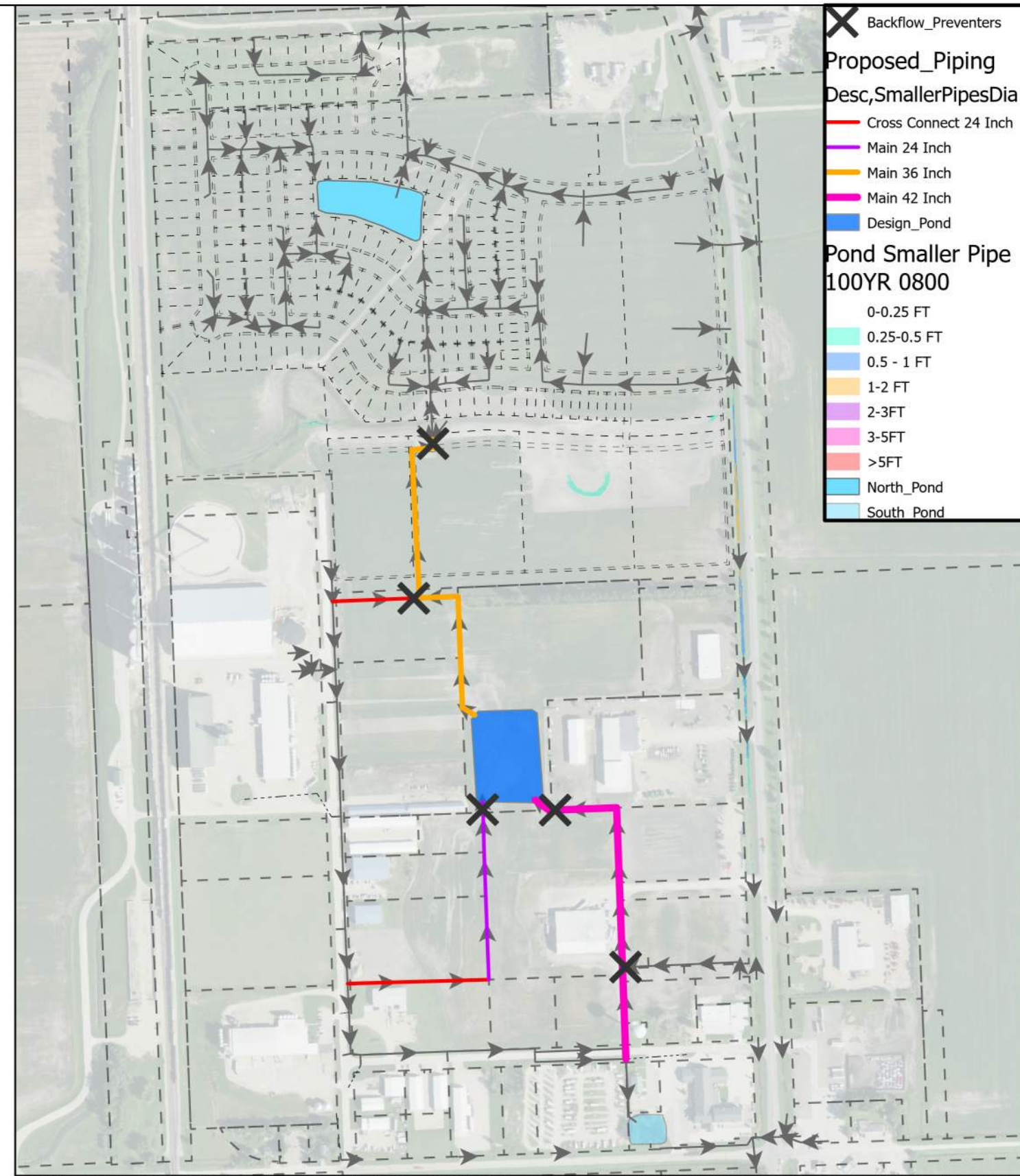
PROPOSED IMPROVEMENTS MAP
FLOOD AND STORM IMPROVEMENT DISTRICT NO. 2024-3
INDUSTRIAL PARK FLOOD AND STORM IMPROVEMENTS
CASSELTON, NORTH DAKOTA

Created By: TJS Date Created: 08/29/23 Date Saved: 08/29/23 Date Plotted: NEVER Date Exported: 08/29/23
 Plotted By: Tanner Schmidt Parcel Date: 08/16/23 Aerial Image: 2022 County NAIP SIDS Elevation Data: Lidar
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DO NOTHING (BASED ON RAIN ON GRID MODEL)



PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

Do Nothing vs Preferred Alternate 100yr Heartland Area Casselton, North Dakota



PRELIMINARY

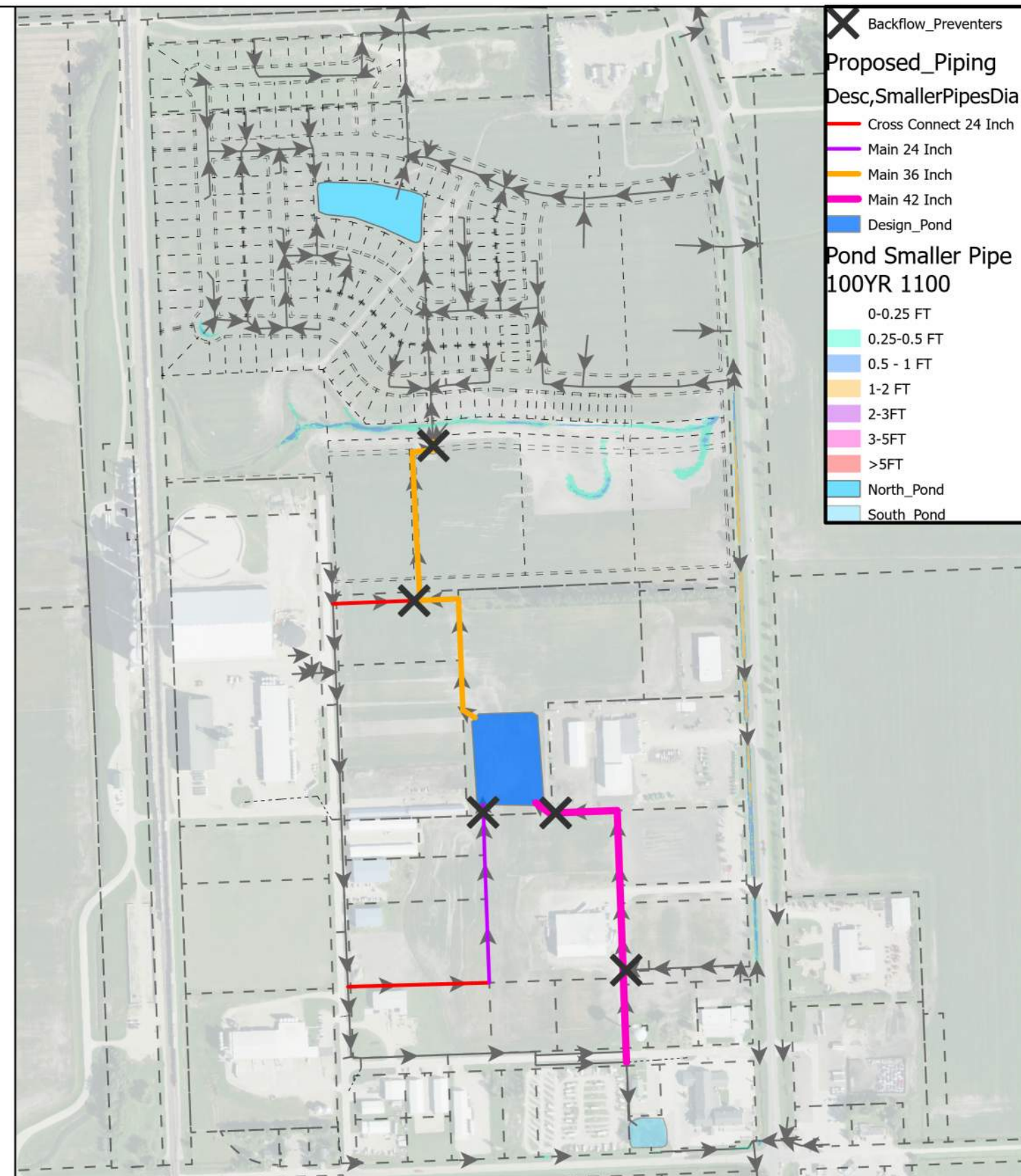
8 HOURS AFTER START OF 100YR 24 HOUR STORM 0.25 INCH AND GREATER INUNDATION





Rain On Grid
Existing Land Use
100YR No
Improvements
1100

- 0-0.25 FT
- 0.25-0.5 FT
- 0.5 - 1 FT
- 1-2 FT
- 2-3 FT
- 3-5 FT
- >5 FT
- North_Pond
- South_Pond



Backflow_Preventers

Proposed_Piping
Desc,SmallerPipesDia

- Cross Connect 24 Inch
- Main 24 Inch
- Main 36 Inch
- Main 42 Inch
- Design_Pond

Pond Smaller Pipe
100YR 1100

- 0-0.25 FT
- 0.25-0.5 FT
- 0.5 - 1 FT
- 1-2 FT
- 2-3 FT
- 3-5 FT
- >5 FT
- North_Pond
- South_Pond

DO NOTHING (BASED ON RAIN ON GRID MODEL)

PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

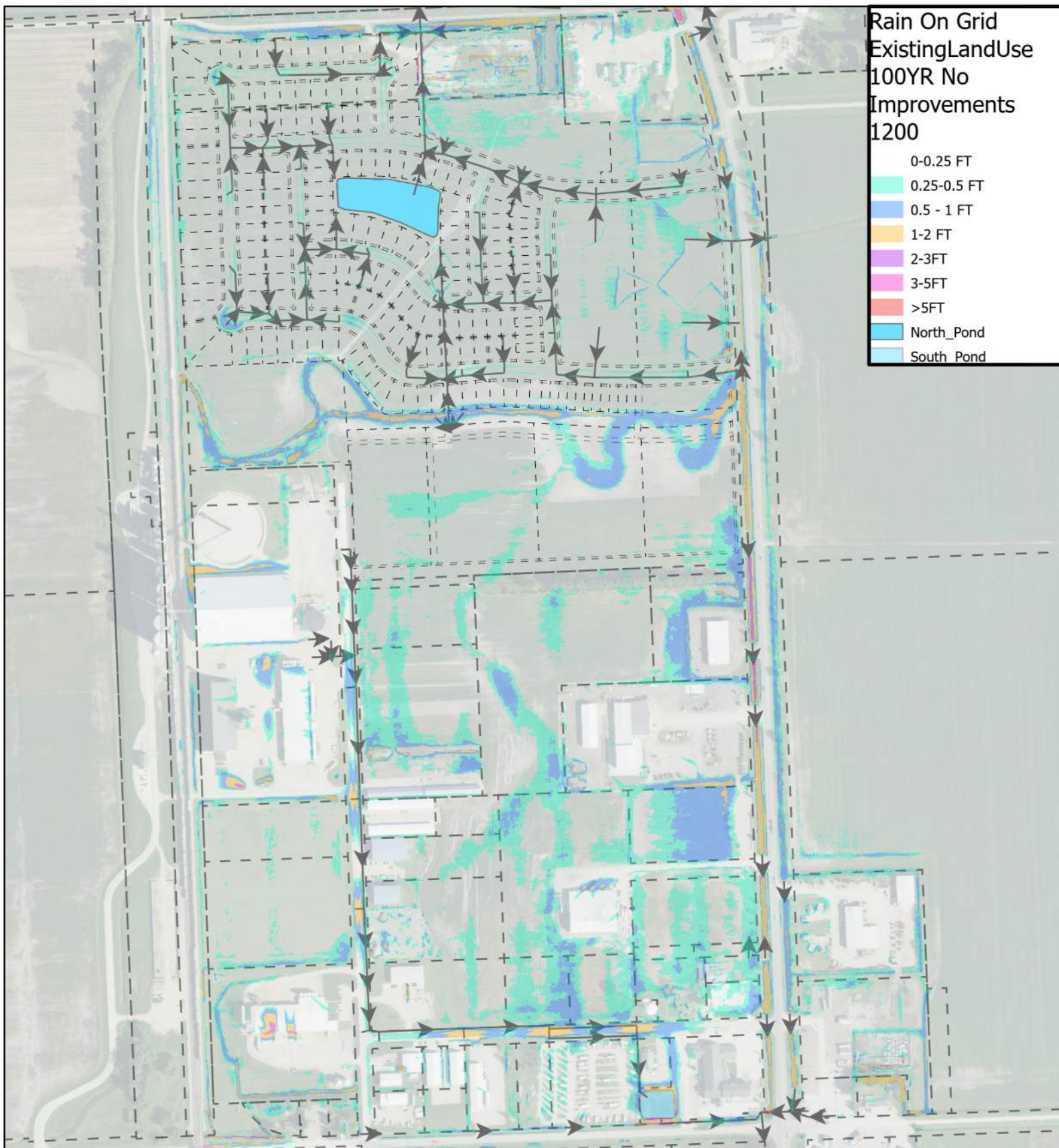
Do Nothing vs Preferred Alternate 100yr
Heartland Area
Casselton, North Dakota



PRELIMINARY

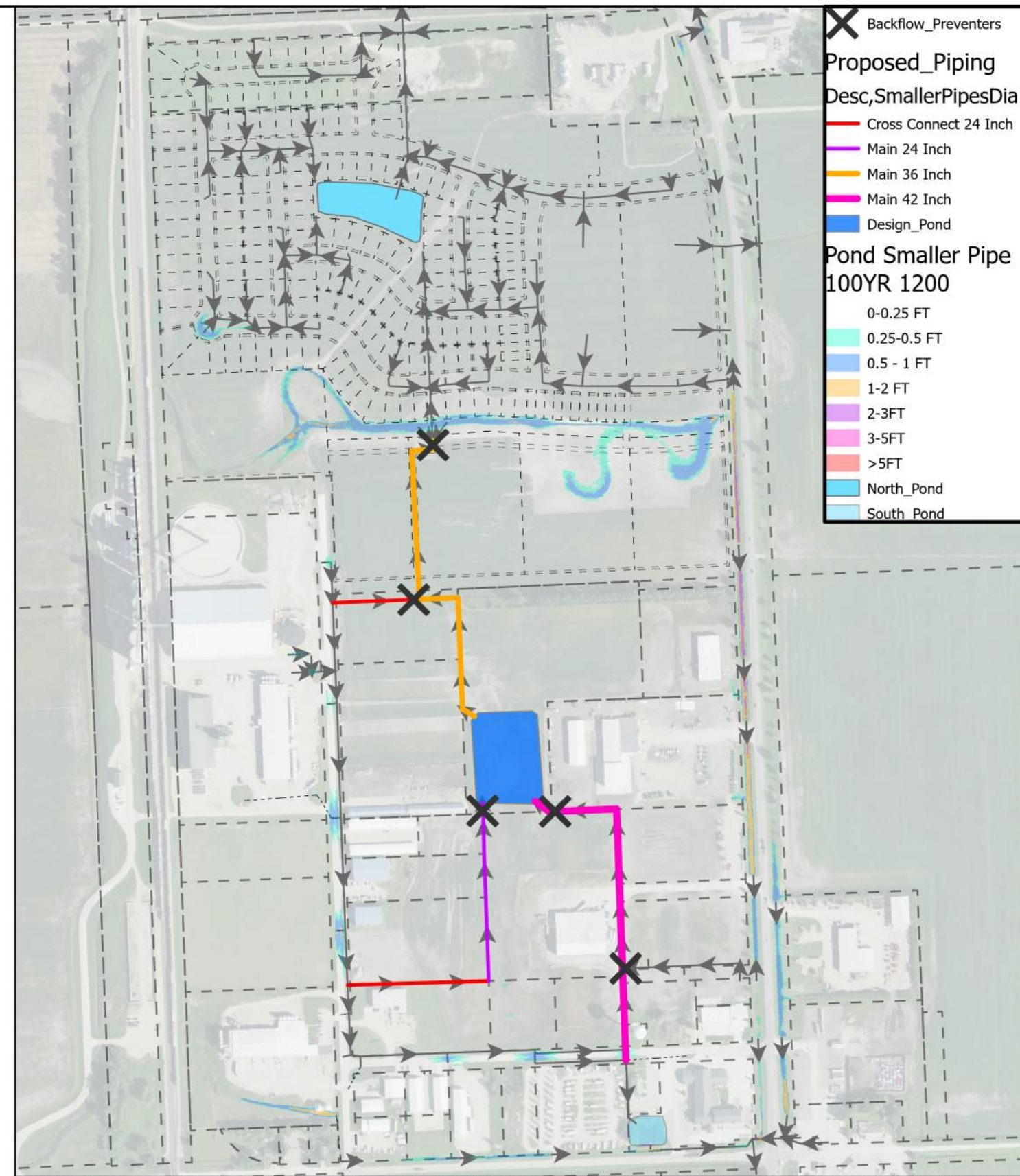
11 HOURS AFTER START OF 100YR 24 HOUR STORM
0.25 INCH AND GREATER INUNDATION





Rain On Grid
Existing Land Use
100YR No
Improvements
1200

- 0-0.25 FT
- 0.25-0.5 FT
- 0.5 - 1 FT
- 1-2 FT
- 2-3 FT
- 3-5 FT
- >5 FT
- North_Pond
- South_Pond



Backflow_Preventers

Proposed_Piping
Desc,SmallerPipesDia

- Cross Connect 24 Inch
- Main 24 Inch
- Main 36 Inch
- Main 42 Inch
- Design_Pond

Pond Smaller Pipe
100YR 1200

- 0-0.25 FT
- 0.25-0.5 FT
- 0.5 - 1 FT
- 1-2 FT
- 2-3 FT
- 3-5 FT
- >5 FT
- North_Pond
- South_Pond

DO NOTHING (BASED ON RAIN ON GRID MODEL)

PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

Do Nothing vs Preferred Alternate 100yr
Heartland Area
Casselton, North Dakota



PRELIMINARY

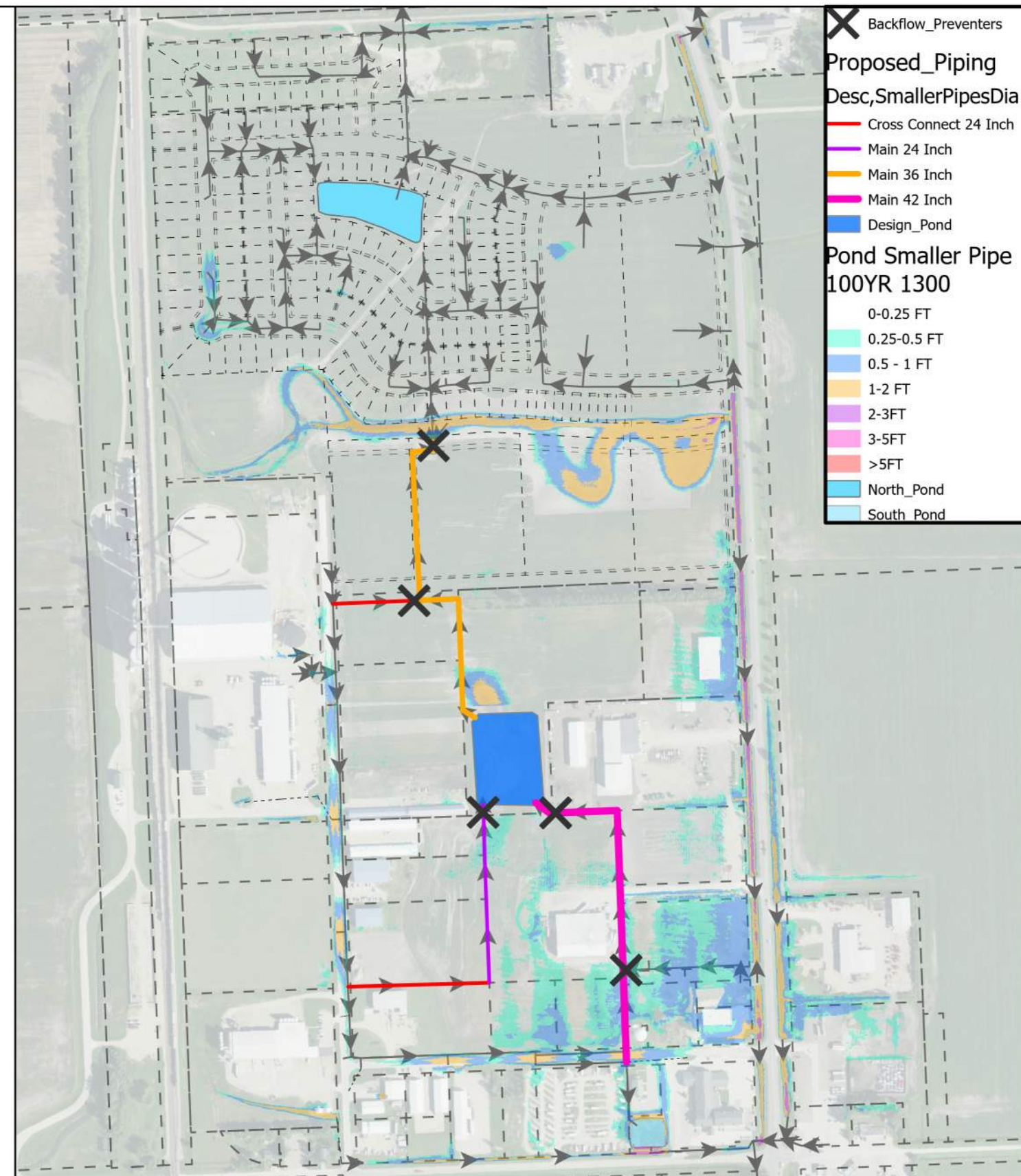
12 HOURS AFTER START OF 100YR 24 HOUR STORM
0.25 INCH AND GREATER INUNDATION





Rain On Grid
Existing Land Use
100YR No
Improvements
1300

- 0-0.25 FT
- 0.25-0.5 FT
- 0.5 - 1 FT
- 1-2 FT
- 2-3 FT
- 3-5 FT
- >5 FT
- North_Pond
- South_Pond



Backflow_Preventers

Proposed_Piping
Desc,SmallerPipesDia

- Cross Connect 24 Inch
- Main 24 Inch
- Main 36 Inch
- Main 42 Inch
- Design_Pond

Pond Smaller Pipe
100YR 1300

- 0-0.25 FT
- 0.25-0.5 FT
- 0.5 - 1 FT
- 1-2 FT
- 2-3 FT
- 3-5 FT
- >5 FT
- North_Pond
- South_Pond

DO NOTHING (BASED ON RAIN ON GRID MODEL)

PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

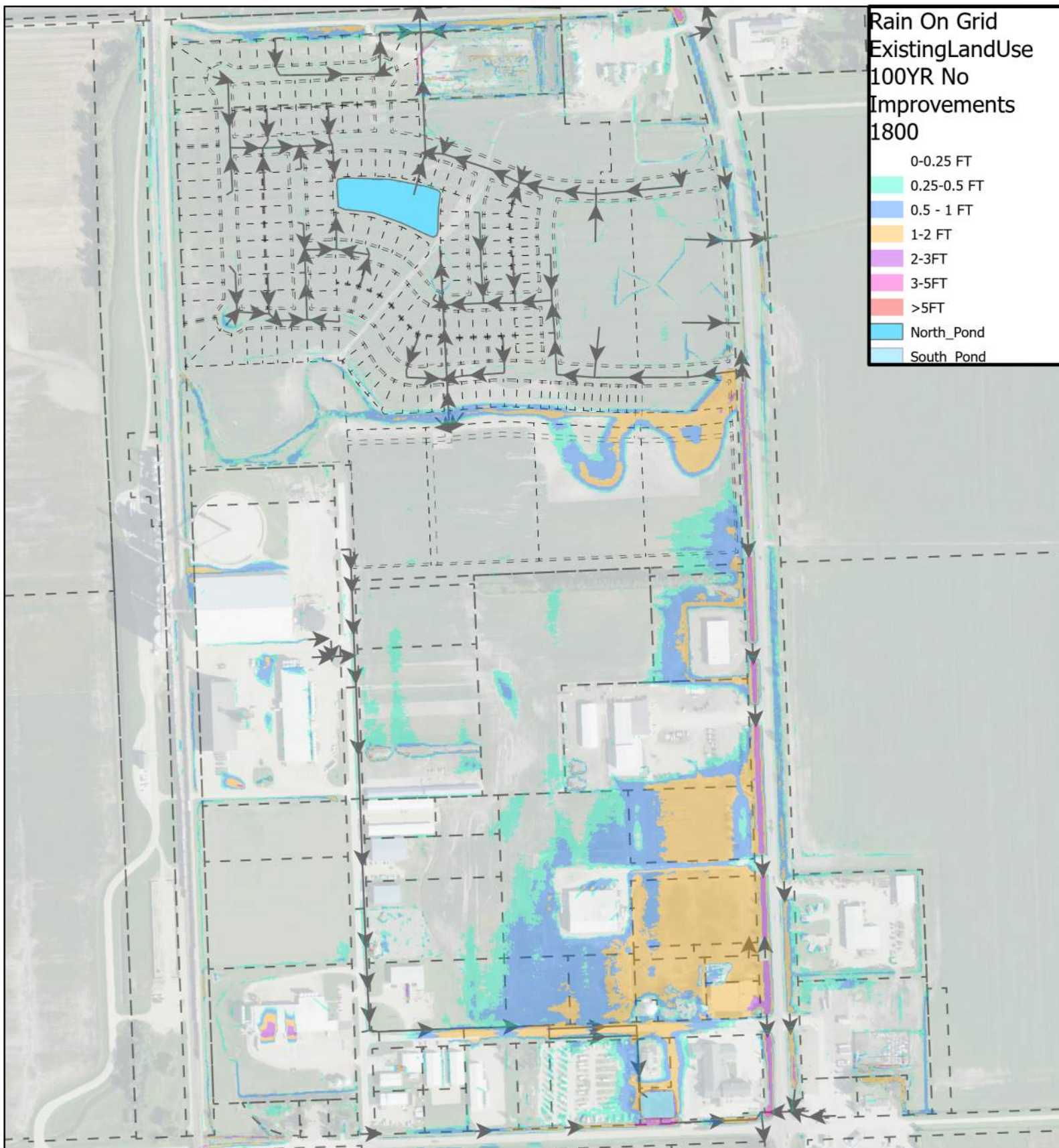
Do Nothing vs Preferred Alternate 100yr
Heartland Area
Casselton, North Dakota



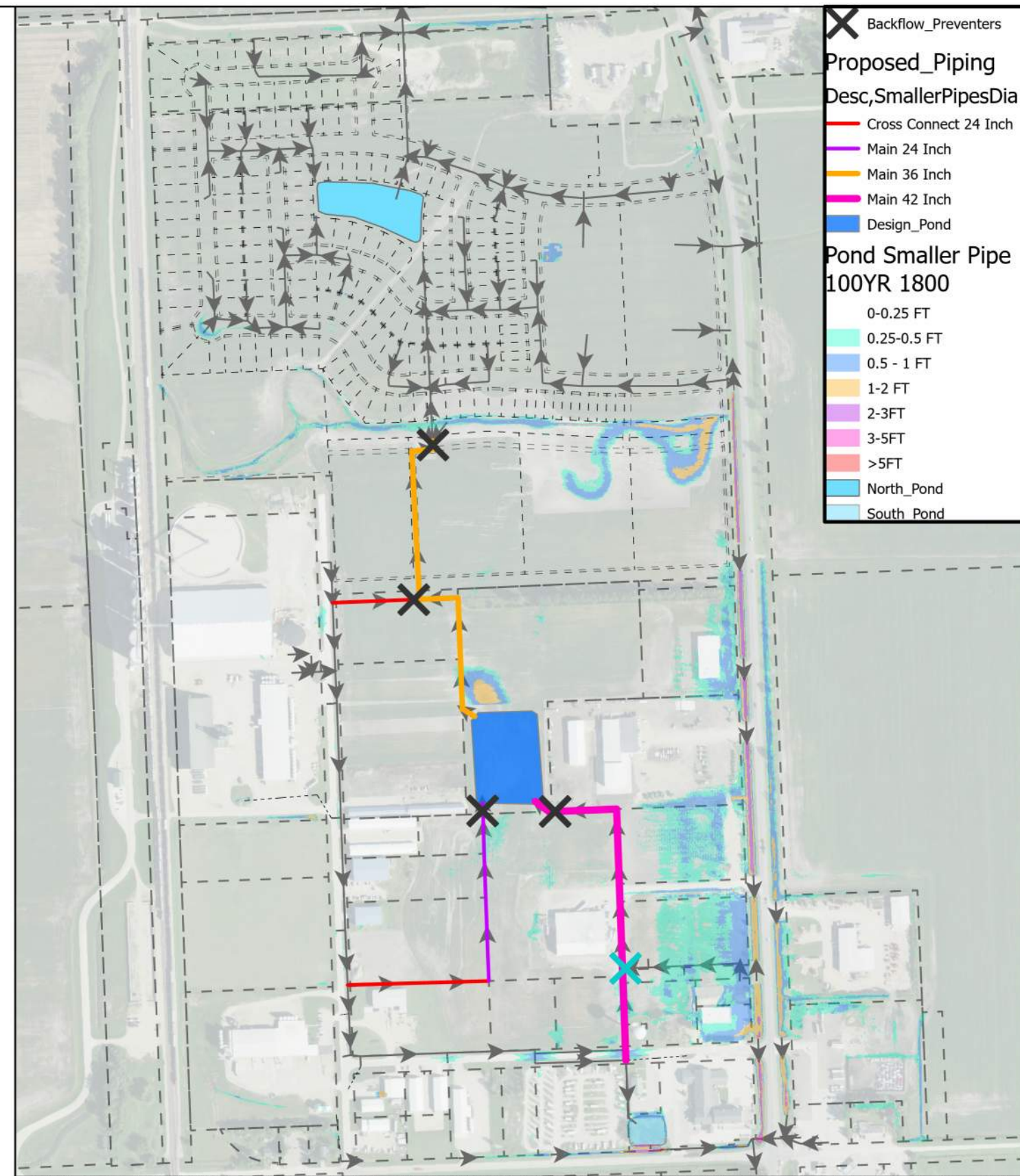
PRELIMINARY

13 HOURS AFTER START OF 100YR 24 HOUR STORM
0.25 INCH AND GREATER INUNDATION



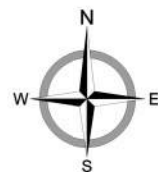


DO NOTHING (BASED ON RAIN ON GRID MODEL)



PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

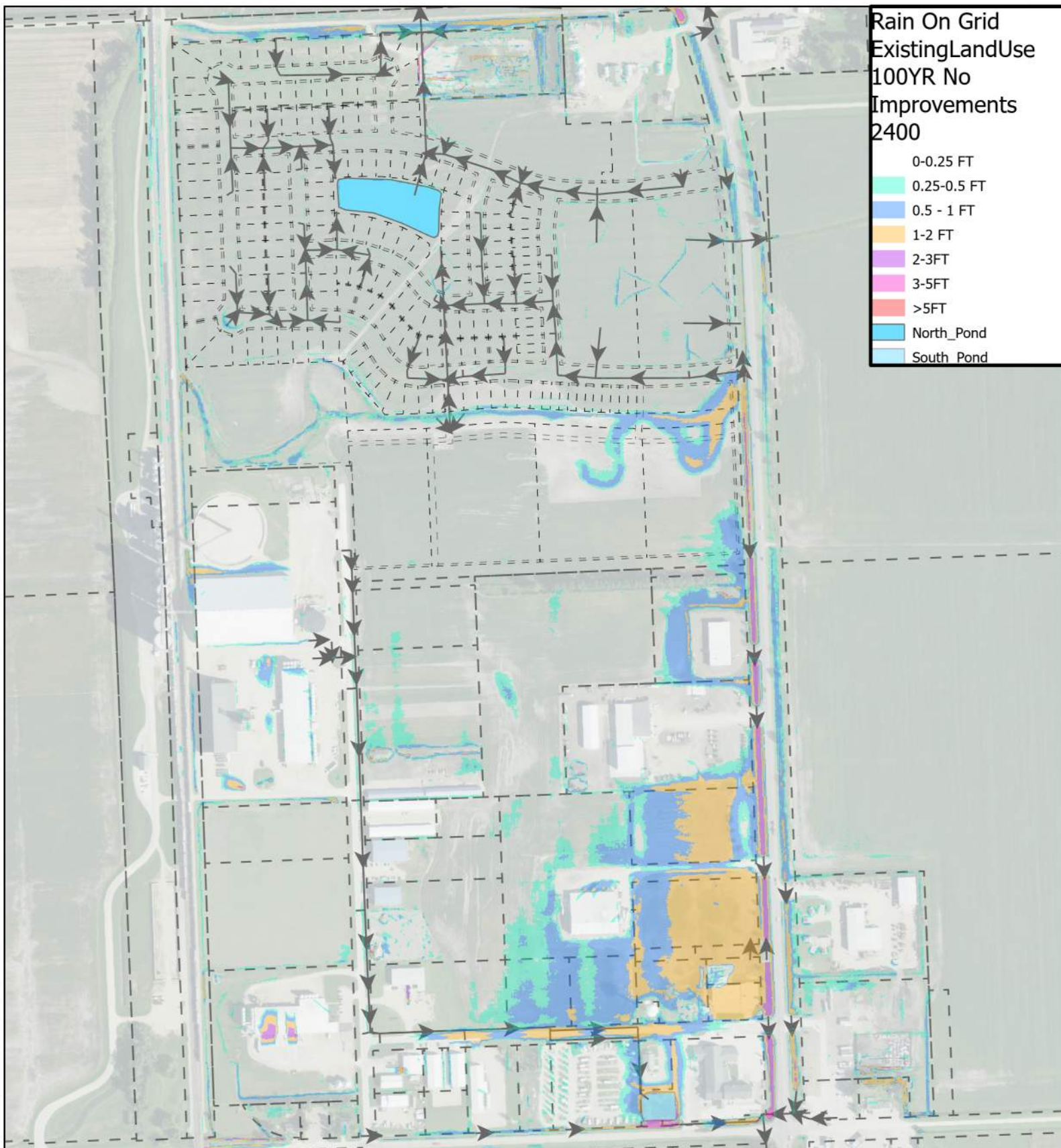
**Do Nothing vs Preferred Alternate 100yr
Heartland Area
Casselton, North Dakota**



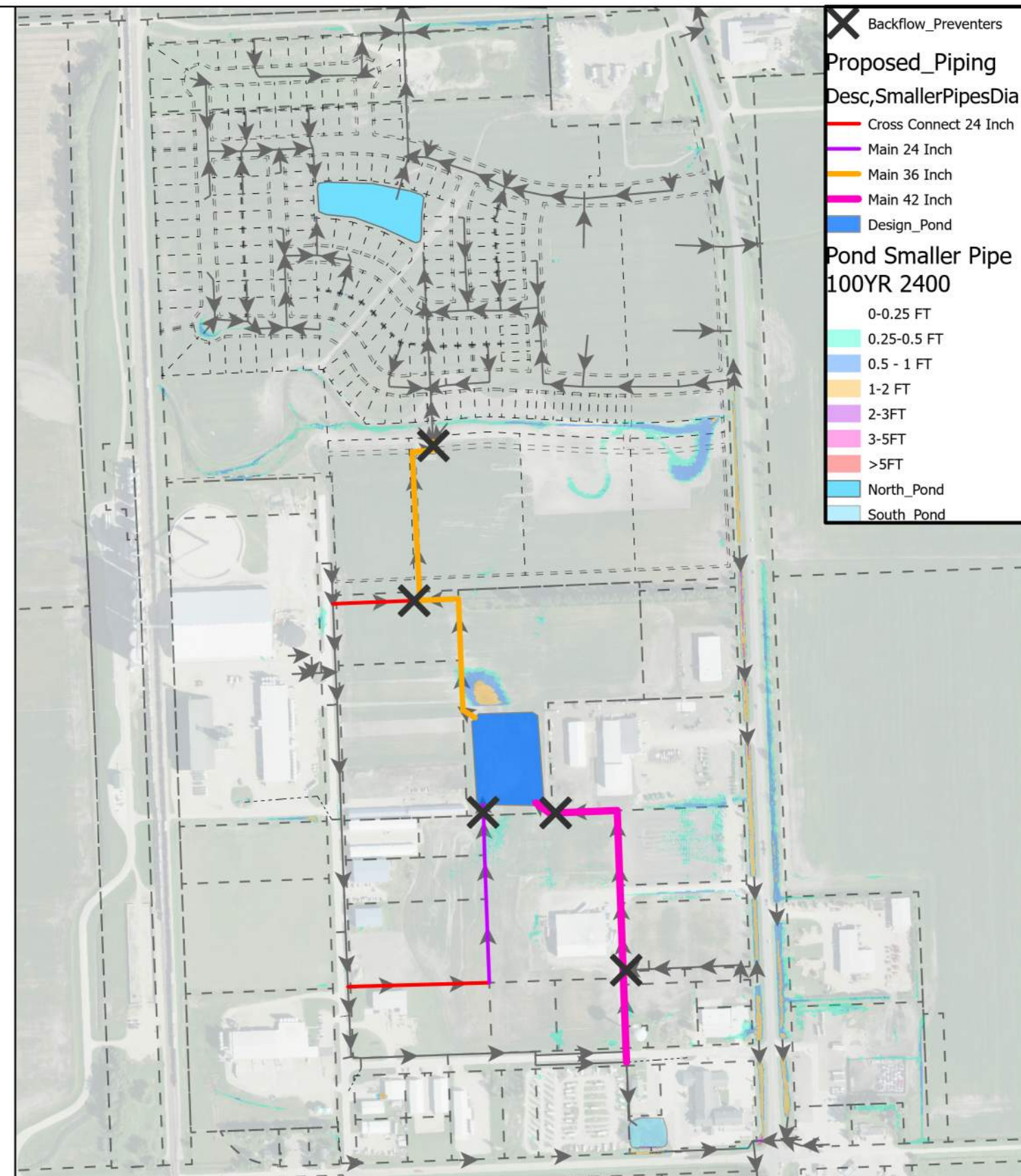
PRELIMINARY

**18 HOURS AFTER START OF 100YR 24 HOUR STORM
0.25 INCH AND GREATER INUNDATION**





DO NOTHING (BASED ON RAIN ON GRID MODEL)



PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

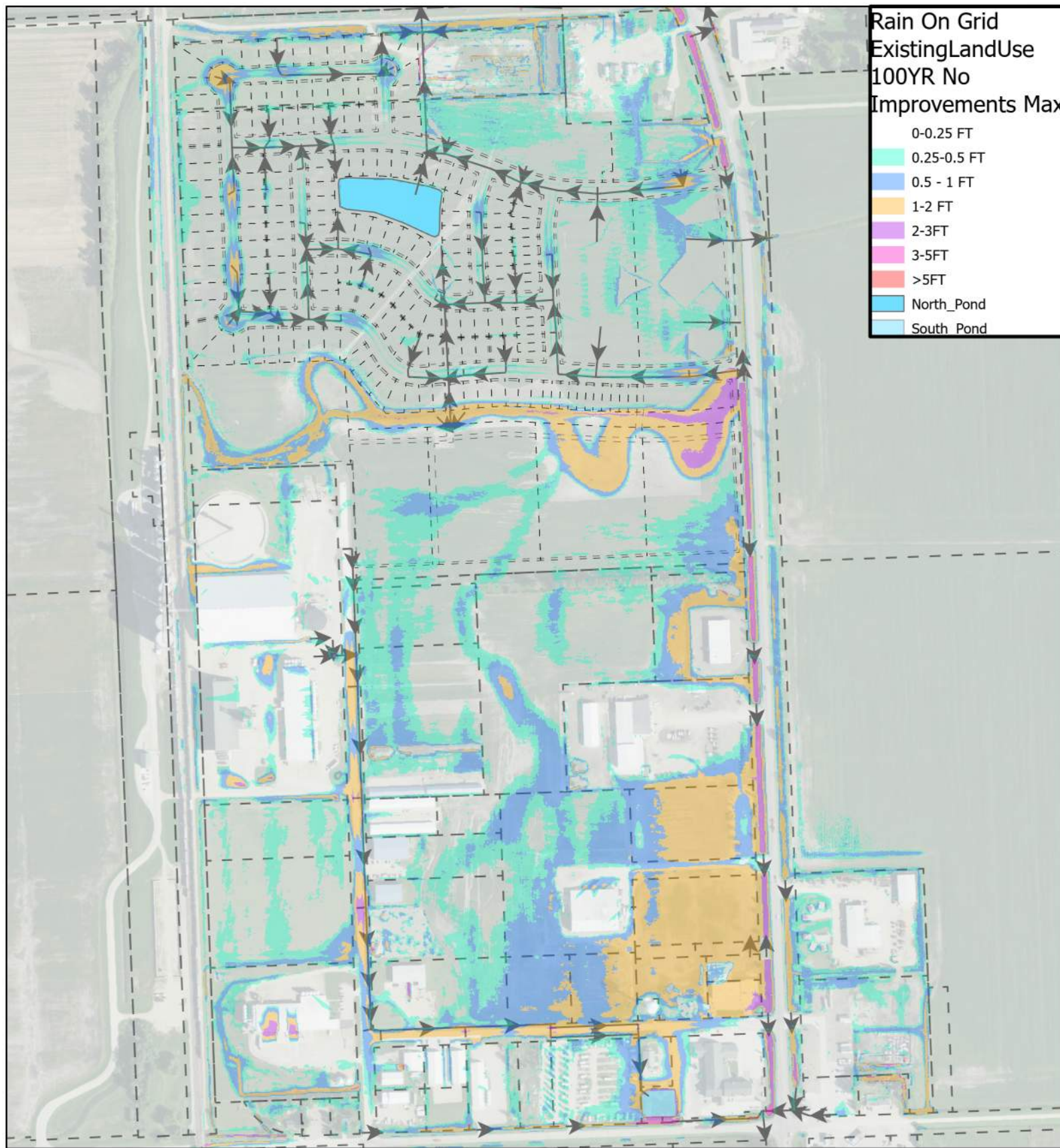
Do Nothing vs Preferred Alternate 100yr Heartland Area Casselton, North Dakota



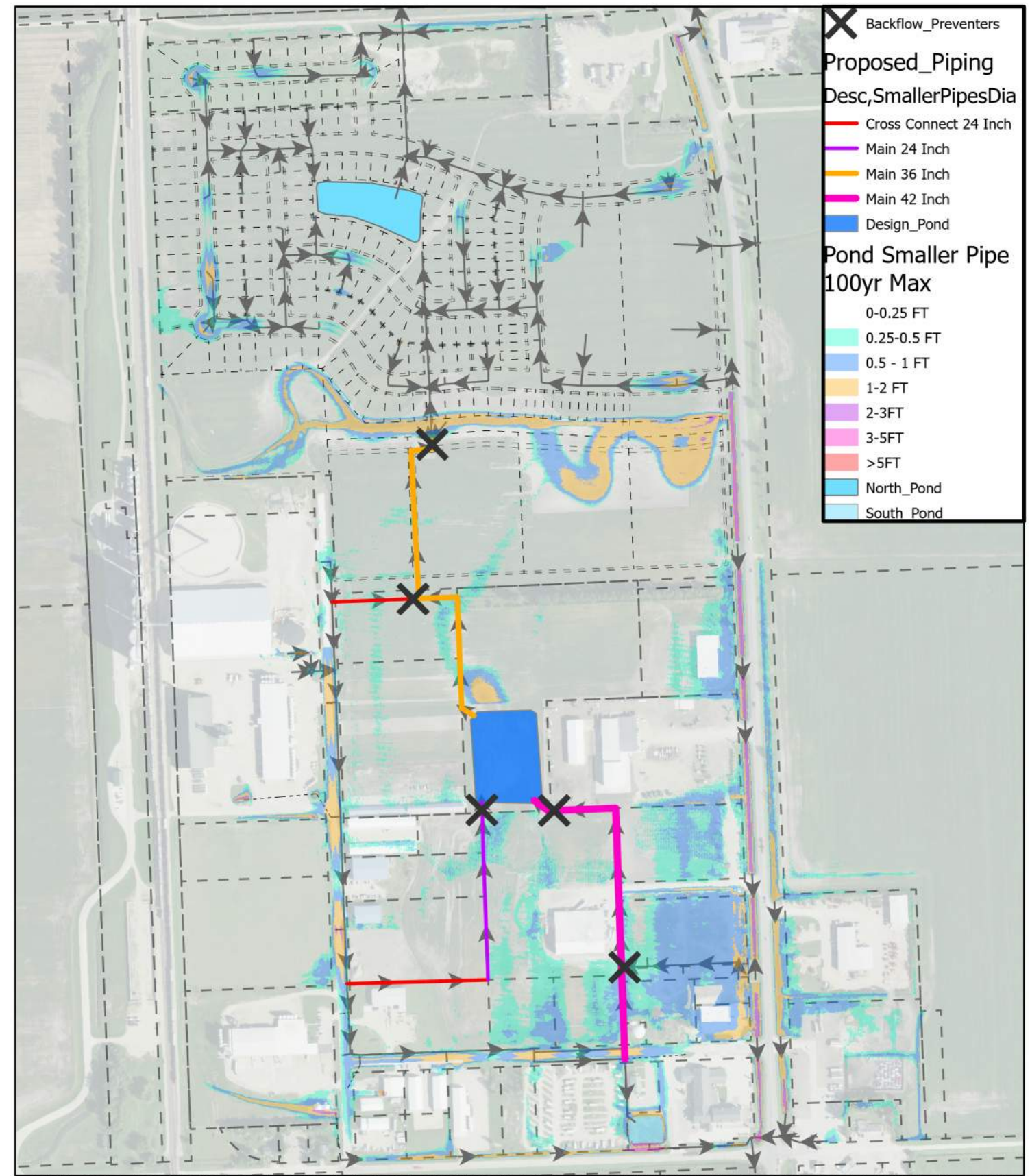
PRELIMINARY

24 HOURS AFTER START OF 100YR 24 HOUR STORM 0.25 INCH AND GREATER INUNDATION





DO NOTHING (BASED ON RAIN ON GRID MODEL)



PREFERRED PIPING OPTION (MODEL ASSUME DEVELOPMENT WILL CONNET TO PIPE - FLOW INPUT AT NODES)

Do Nothing vs Preferred Alternate 100yr Heartland Area Casselton, North Dakota

Created By: GIS Date Created: XX/XX/20 Date Saved: 09/06/23 Date Plotted: N/A Date Exported: 09/06/23
 Plotted By: Parcel Date: XX/XX/20 Aerial Image: 2019 County NAIP SIDS Elevation Data: Lidar
 Horizontal Datum: N/A Vertical Datum: NAVD1988
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PRELIMINARY

MAX INUNDATION ANY TIME 100 YR 24 HOUR STORM 0.25 INCH AND GREATER INUNDATION



**FLOOD AND STORM IMPROVEMENT DISTRICT NO. 2024-3
INDUSTRIAL PARK FLOOD AND STORM IMPROVEMENTS
CASSELTON, ND**

Project #23028
Date: 9/1/23

ALTERNATIVE 6: DETENTION POND WITH STORM SEWER

Engineer's Preliminary Opinion of Probable Cost

<i>BID ITEM NO. & DESCRIPTION</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT PRICE</i>	<i>TOTAL</i>
<u>Base Bid</u>				
Segment 1 - Pond & Outlet				
1. Mobilization	L SUM	1	\$60,000.00	\$60,000.00
2. Traffic Control	L SUM	1	\$1,500.00	\$1,500.00
3. Testing Allowance	ALLOW	1	\$2,500.00	\$2,500.00
4. Storm Water Management	L SUM	1	\$2,500.00	\$2,500.00
5. Storm Sewer - Connect to Existing	EA	1	\$2,500.00	\$2,500.00
6. Storm Sewer - 36"	LF	1,564	\$210.00	\$328,440.00
7. Storm Sewer Manhole - 60"	EA	1	\$9,500.00	\$9,500.00
8. Storm Sewer Manhole - 84"	EA	4	\$18,500.00	\$74,000.00
9. Flared End Section - 36" w/ Grate	EA	1	\$3,500.00	\$3,500.00
10. Inline Check Valve- 36"	EA	1	\$20,000.00	\$20,000.00
11. Televising	LF	1,564	\$2.00	\$3,128.00
12. Common Excavation - Pond	CY	52,000	\$5.00	\$260,000.00
13. Topsoil	CY	4,480	\$28.00	\$125,440.00
14. Seeding Class III	SY	21,700	\$0.50	\$10,850.00
15. Hydraulic Mulch	SY	21,700	\$1.00	\$21,700.00
16. Water	TG	370	\$45.00	\$16,650.00
17. Herbicide Weed Control	SF	195,300	\$0.04	\$7,812.00
18. Mowing	EA	2	\$500.00	\$1,000.00
			Construction Subtotal	\$951,020.00
Segment 3 - Trunk Line				
1. Mobilization	L SUM	1	\$40,000.00	\$40,000.00
2. Traffic Control	L SUM	1	\$1,500.00	\$1,500.00
3. Testing Allowance	ALLOW	1	\$2,000.00	\$2,000.00
4. Storm Water Management	L SUM	1	\$2,000.00	\$2,000.00
5. Adjust Water Main (12 IN and Under)	EA	1	\$6,500.00	\$6,500.00
6. Fence - Chainlink - Remove & Reset	LF	110	\$80.00	\$8,800.00
7. Utility Crossing Chamber	EA	1	\$15,000.00	\$15,000.00
8. Storm Sewer - Connect to Existing	EA	1	\$2,500.00	\$2,500.00
9. Storm Sewer - 24"	LF	50	\$105.00	\$5,250.00
10. Storm Sewer - 42"	LF	1,480	\$280.00	\$414,400.00
11. Storm Sewer Manhole - 48"	EA	1	\$5,500.00	\$5,500.00
12. Storm Sewer Manhole - 72"	EA	4	\$14,000.00	\$56,000.00
13. Storm Sewer Manhole - 96"	EA	1	\$30,000.00	\$30,000.00
14. Flared End Section - 24" w/ Grate	EA	1	\$3,000.00	\$3,000.00
15. Flared End Section - 42" w/ Grate	EA	1	\$4,500.00	\$4,500.00
16. Inline Check Valve- 42"	EA	1	\$26,500.00	\$26,500.00
17. Televising	LF	1,530	\$2.00	\$3,060.00
18. Topsoil	CY	850	\$28.00	\$23,800.00
19. Seeding Class III	SY	5,100	\$2.00	\$10,200.00
20. Hydraulic Mulch	SY	5,100	\$2.50	\$12,750.00
21. Water	TG	90	\$45.00	\$4,050.00
22. Herbicide Weed Control	SF	45,900	\$0.10	\$4,590.00
23. Mowing	EA	2	\$500.00	\$1,000.00
			Construction Subtotal	\$682,900.00

**FLOOD AND STORM IMPROVEMENT DISTRICT NO. 2024-3
INDUSTRIAL PARK FLOOD AND STORM IMPROVEMENTS
CASSELTON, ND**

Project #23028
Date: 9/1/23

ALTERNATIVE 6: DETENTION POND WITH STORM SEWER

Engineer's Preliminary Opinion of Probable Cost

<i>BID ITEM NO. & DESCRIPTION</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT PRICE</i>	<i>TOTAL</i>
Segment 4 - Pipe Replacement (Industrial Blvd)				
1. Mobilization	L SUM	1	\$7,500.00	\$7,500.00
2. Traffic Control	L SUM	1	\$3,000.00	\$3,000.00
3. Testing Allowance	ALLOW	1	\$2,000.00	\$2,000.00
4. Storm Water Management	L SUM	1	\$2,000.00	\$2,000.00
5. Removal of Concrete Pavement	SY	120	\$25.00	\$3,000.00
6. Removal of Curb & Gutter	LF	80	\$15.00	\$1,200.00
7. Removal of Manholes	EA	2	\$1,200.00	\$2,400.00
8. Removal of Inlets	EA	2	\$1,000.00	\$2,000.00
9. Removal of Pipe All Types and Sizes	LF	50	\$25.00	\$1,250.00
10. Storm Sewer - Connect to Existing	EA	3	\$2,500.00	\$7,500.00
11. Storm Sewer - 42"	LF	48	\$280.00	\$13,440.00
12. Storm Sewer Manhole - 72"	EA	2	\$14,000.00	\$28,000.00
13. Storm Sewer Manhole - 96"	EA	1	\$30,000.00	\$30,000.00
14. Televising	LF	48	\$2.00	\$96.00
15. Common Excavation - Roadway	CY	40	\$20.00	\$800.00
16. Common Excavation - Subcut (P)	CY	40	\$20.00	\$800.00
17. Subgrade Preparation-Type A-12In	SY	120	\$6.00	\$720.00
18. Geotextile Fabric Type R1	SY	120	\$6.00	\$720.00
19. Salvaged Base Course (Crushed Concrete)	CY	40	\$60.00	\$2,400.00
20. 8In Non-Reinf Concrete Pvmt Cl Ae-Doweled	SY	120	\$100.00	\$12,000.00
21. Aggregate Surface Course Cl 5	TON	40	\$35.00	\$1,400.00
22. Edgedrain Non Permeable Base	LF	80	\$8.00	\$640.00
23. Curb & Gutter - Mountable	LF	80	\$45.00	\$3,600.00
			Construction Subtotal	\$126,466.00
Segment 5 - Collector				
1. Mobilization	L SUM	1	\$10,000.00	\$10,000.00
2. Traffic Control	L SUM	1	\$1,000.00	\$1,000.00
3. Testing Allowance	ALLOW	1	\$1,500.00	\$1,500.00
4. Storm Water Management	L SUM	1	\$1,500.00	\$1,500.00
5. Storm Sewer - 24"	LF	762	\$105.00	\$80,010.00
6. Storm Sewer Manhole - 48"	EA	2	\$5,500.00	\$11,000.00
7. Storm Sewer Manhole - 60"	EA	1	\$9,500.00	\$9,500.00
8. Inline Check Valve- 24"	EA	1	\$13,500.00	\$13,500.00
9. Televising	LF	762	\$2.00	\$1,524.00
10. Topsoil	CY	430	\$28.00	\$12,040.00
11. Seeding Class III	SY	2,600	\$3.00	\$7,800.00
12. Hydraulic Mulch	SY	2,600	\$3.00	\$7,800.00
13. Water	TG	50	\$100.00	\$5,000.00
14. Herbicide Weed Control	SF	23,400	\$0.10	\$2,340.00
15. Mowing	EA	2	\$500.00	\$1,000.00
			Construction Subtotal	\$165,514.00

**FLOOD AND STORM IMPROVEMENT DISTRICT NO. 2024-3
INDUSTRIAL PARK FLOOD AND STORM IMPROVEMENTS
CASSELTON, ND**

Project #23028
Date: 9/1/23

ALTERNATIVE 6: DETENTION POND WITH STORM SEWER

Engineer's Preliminary Opinion of Probable Cost

<i>BID ITEM NO. & DESCRIPTION</i>	<i>UNIT</i>	<i>QUANTITY</i>	<i>UNIT PRICE</i>	<i>TOTAL</i>
Segment 6 - South Cross Connect				
1. Mobilization	L SUM	1	\$7,000.00	\$7,000.00
2. Traffic Control	L SUM	1	\$1,000.00	\$1,000.00
3. Testing Allowance	ALLOW	1	\$1,500.00	\$1,500.00
4. Storm Water Management	L SUM	1	\$1,500.00	\$1,500.00
5. Storm Sewer - Connect to Existing	EA	2	\$2,500.00	\$5,000.00
6. Storm Sewer - 24"	LF	642	\$105.00	\$67,410.00
7. Storm Sewer Manhole - 48"	EA	1	\$5,500.00	\$5,500.00
8. Storm Sewer Manhole - 72"	EA	1	\$14,000.00	\$14,000.00
9. Televising	LF	642	\$2.00	\$1,284.00
10. Topsoil	CY	360	\$28.00	\$10,080.00
11. Seeding Class III	SY	2,200	\$3.00	\$6,600.00
12. Hydraulic Mulch	SY	2,200	\$3.00	\$6,600.00
13. Water	TG	40	\$100.00	\$4,000.00
14. Herbicide Weed Control	SF	19,800	\$0.10	\$1,980.00
15. Mowing	EA	2	\$500.00	\$1,000.00
			Construction Subtotal	\$134,454.00
			Base Bid Construction Subtotal	\$2,060,354.00
			Non-Construction Costs	\$721,123.90
			Contingencies	\$1,030,177.00
			Easement Acquisition - Pipe (1.90 acre)	\$9,480.00
			Land Acquisition - Pond (4.50 acre)	\$223,830.00
			TOTAL PROJECT COST	\$4,044,964.90
			TOTAL PROJECT COST (ROUNDED)	\$4,050,000.00

City of Kindred



November 13, 2023

Chad Peterson, Chairman
Cass County Commission
P.O. Box 2806
Fargo, ND 58108-2806

Re: Newport Ridge Detention Pond
Kindred, ND

Dear Chairman Peterson:

We are respectfully requesting flood risk reduction funding assistance for a city-owned storm water detention pond for the existing Newport Ridge residential development, which will reduce the risk of flooding impacts both downstream from the development into Legal Drain No. 60 and internally within the development.

As requested in the application, the City respectfully requests a motion from the Cass County Flood Sales Tax Committee to approve cost-share up to 75% of the project cost in the amount of \$370,177.50. We appreciate your time and consideration in this request.

If you have any questions, please feel free to contact me or our City Engineer, Brandon Oye, at 701-282-4692 or brandon.oye@mooreengineeringinc.com.

Sincerely,

City of Kindred

A handwritten signature in blue ink that reads "Darrell Kersting". The signature is written in a cursive style and is positioned above the printed name of the Mayor.



Darrell Kersting
Mayor

Enclosures:

- Application for Funding
- Project Location Map



**Application for Funding from the Cass County Flood Sales Tax
Committee**

Project Name:	Sewer, Water, and Street Improvement District No. 2024-1				
Date:					
Funding Requested:	Stormwater Detention	Cost Share %	<input type="radio"/> 50%	<input checked="" type="radio"/> 75%	<input type="radio"/> 90%
Location (Provide a brief discription):	See attached Project Location Map				
Name of Owner(s)/Applicant	Kindred, ND	Engineer Name	Brandon Oye		
Owner(s)/Applicants Address	31 N 5th Ave PO Box 158 Kindred ND 58051	Engineer Firm Name	Moore Engineering, Inc.		
Owner(s)/Applicants Email	cityofkindred@msn.com	Engineer Email	brandon.oye@mooreengineeringinc.com		
Owner(s) Phone Number	(701) 428-3115	Engineer Phone Number	701-282-4692		
Owner/Applicant's Signature			Date:	11/9/2023	
Representative's Signature	 Brandon Smith Moore Engineering, Inc.		Date:	11/9/2023	

Proposal: Brief Narrative Description of Reason(s) for Application

The proposed project will add a city-owned storm water detention pond for an existing residential neighborhood that was originally constructed in 2006 and has had several phases added over the years. The detention pond will intend to provide storm water storage to allow post-developed runoff conditions to match pre-developed runoff conditions for the 2-year, 10-year and 100-year storm events, reducing the risk of flooding impacts both downstream from the development into Legal Drain No. 60 and internally within the development. As Kindred continues to grow, we intend to manage our storm water appropriately to reduce risk of flooding that is commonly seen in more populated areas without storm water detention facilities.

Receiving the flood risk reduction cost-share will help make the improvements financially feasible for the existing residents.

We respectfully request up to 75% cost-share if additional funds are available to cost-share beyond the 50% amount, as noted in the cost-share policy.

Breakdown of Project Funding		\$ Dollar Amount
Total Project Cost		\$ 493,570.00
Additional Funding Source #1 (Name)		\$ 0
Additional Funding Source #2 (Name)		\$ 0
Additional Funding Source #3 (Name)		\$ 0
Additional Funding Source #4 (Name)		\$ 0
Local Project Cost (Total Cost – Additional Funding)		\$ 493,570.00
Flood Sales Tax Requested Amount		370,177.50
Applicant/Requesting Entity Cost		123,392.50

Application and Funding Eligibility

(see criteria in the Cass County Policy 13.72 Amended County Sales Tax For Flood Risk Reduction and Recovery Projects Adopted December 4, 2017 at www.casscountynd.gov/floodsaletaxcommittee)

Describe why you are an Eligible Entity: (County, City, Township, Water Resource District, or Home/Landowner)

City

Project Eligibility: (Outline what provision of the Policy provides eligibility to fund this project based on the criteria listed below)

<input type="checkbox"/>	1. Levee construction or recertification for cities or rural subdivisions. Generally levee projects should be constructed to FEMA and/or US Army Corps of Engineer standards and be able to bring the benefited area out of the 1% chance (100 year) floodplain. These levees would also need to be maintained at that standard by either the city or township that is a member of the National Flood Insurance Program. Rural subdivisions seeking this funding would need to complete an agreement with the township and form an assessment district for the long term maintenance of the levee.
<input checked="" type="checkbox"/>	2. Flood control projects.
<input type="checkbox"/>	3. Water retention or detention projects.
<input type="checkbox"/>	4. Dam construction or maintenance.
<input type="checkbox"/>	5. Lift Stations for removing storm water from within a levee protected area.
<input type="checkbox"/>	6. Rural Farmstead Ring Levees (in conjunction with the ND State Water Commission 50% cost share) as outlined on the ND State Water Commission website under "Cost Share"
<input type="checkbox"/>	7. Road Projects that provide infrastructure protection to prevent significant future flood damage. These requests may be standalone projects or in conjunction with post-flood damage repair with or without FEMA cost share.
<input type="checkbox"/>	8. Road access (road raises or other infrastructure improvements that will allow access to a city, subdivision, or rural residence/farmstead).
<input type="checkbox"/>	9. Embankment slumping along the Red River, Wild Rice River, Sheyenne River, Maple River, Rush and Lower Rush Rivers, and Legal Drains. River slumping projects may include road and infrastructure repair, home buyouts, and repair to legal drains.
<input type="checkbox"/>	10. Home buyouts for flooding and bank slumping.
<input type="checkbox"/>	11. Flood Recovery projects to include: Levee repair, road repair, bridge repair, and other infrastructure related repair projects. None infrastructure flood recovery such as debris removal and sandbag cleanup will not be eligible.

Cost Share Eligibility: (What % of cost share and provision of the Policy provides cost share % eligible for this project)

This project meets the funding cost share eligibility of _____% based which of the following criteria (select all that apply):

<input type="checkbox"/>	1. Generally the cost share will be 50% of the "local" share of the non-retention projects, i.e. if a \$100,000 project had a 50% state cost share, the local share would be \$50,000 and the County
<input checked="" type="checkbox"/>	2. Policy for Retention Projects: Cost share is 75% of the "local" share if they are approved by the Red River Joint Water Resource District.
<input type="checkbox"/>	3. Home buyouts for flooding and bank slumping: Cost share is 90% of the "local" cost with the homeowner paying 10% of the "local" cost.

Project Priority: (Explain any provisions of the Policy that provides a higher priority for this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

<input type="checkbox"/>	1. Population benefited by the project
<input type="checkbox"/>	2. Distribution of funds by location
<input type="checkbox"/>	3. Disbursement percentage determined by the number of people benefited
<input type="checkbox"/>	4. Cost effectiveness of the project
<input checked="" type="checkbox"/>	5. Permanency of the project
<input type="checkbox"/>	6. Effect of the diversion on the project
<input checked="" type="checkbox"/>	7. Does the project have long-term merit (benefits extend beyond 10 years)
<input type="checkbox"/>	8. Other sources of funding from local, state, or federal cost share programs.

--

Evaluation Criteria: (Describe any specific Evaluation Criteria used to prioritize funding of this project)

This project should be a higher priority based on the following criteria (select all that apply and provide a narrative on why the criteria applies):

<input type="checkbox"/>	1. Benefit cost ratio
<input type="checkbox"/>	2. Land area benefited
<input type="checkbox"/>	3. Population benefited
<input checked="" type="checkbox"/>	4. Downstream flood reduction
<input type="checkbox"/>	5. Total acre-feet of retention storage

Attachments

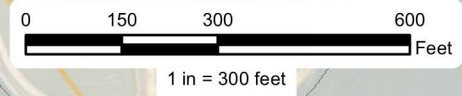
<input checked="" type="checkbox"/>	1. Funding Request Memo from the Project Owner With Suggested Motion
<input checked="" type="checkbox"/>	2. Location Map



Legend

- | | | | | |
|-------|---------------------|-----------------------------|----------------------|---------------|
| ----- | Proposed Lots | Proposed Roadway | ----- | Curb |
| □ | Parcels | ■ | Pavement | |
| ● | Manhole | Proposed Storm Sewer | ⌋ | End Treatment |
| ⌋ | End Treatment | ● | Inlet | |
| ■ | Inlet | → | Gravity Main | |
| → | Gravity Main | → | Low Flow Channel | |
| → | Low Flow Channel | → | Detention Pond/Park | |
| → | Detention Pond/Park | → | Existing Storm Sewer | |
| | | ⌋ | End Treatment | |
| | | ● | Manhole | |
| | | ■ | Inlet | |
| | | → | Gravity Main | |
| | | → | Force Main | |
| | | → | Culvert | |
| | | ○ | Lift Station | |

Storm sewer not included as part of this application.



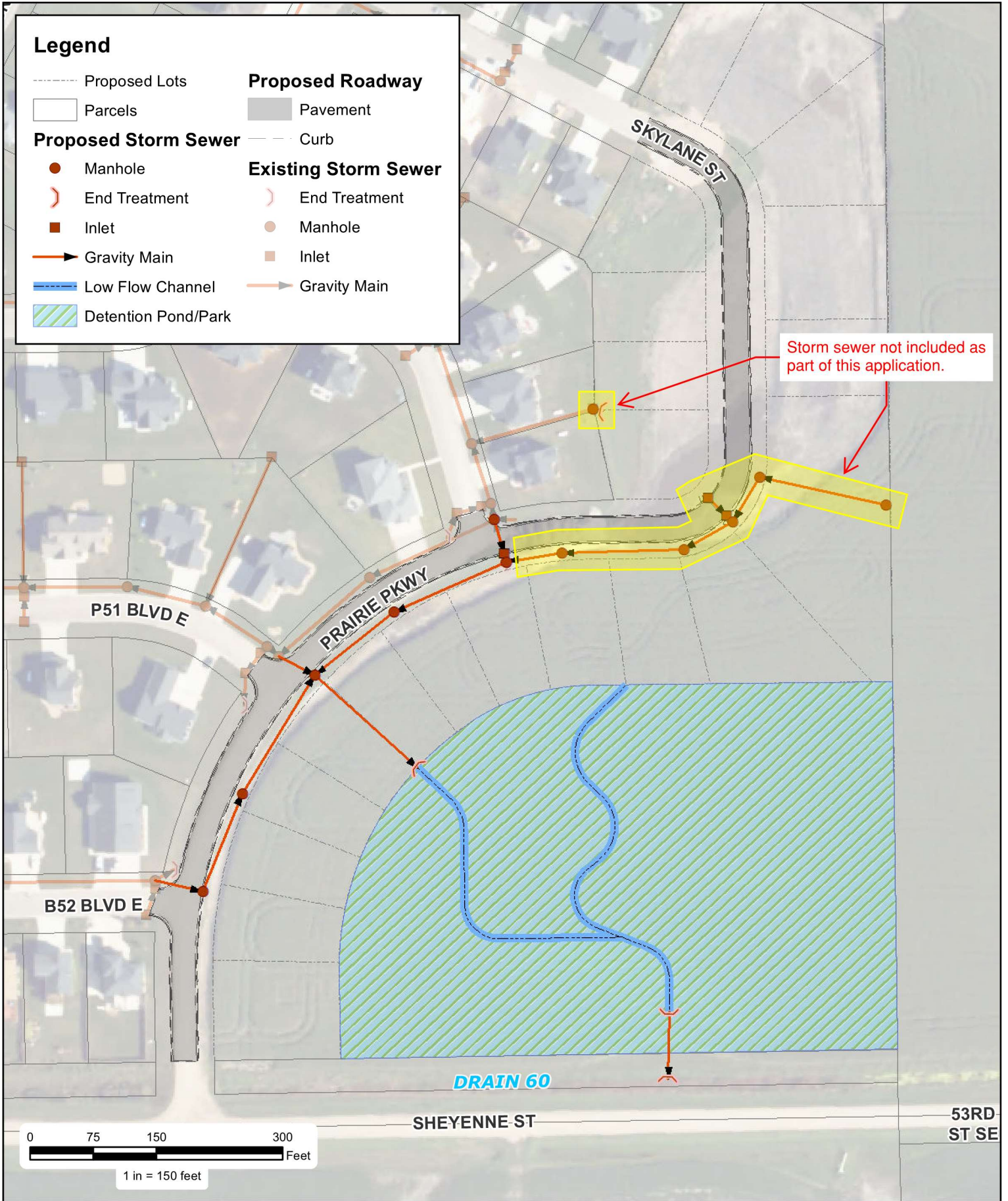
Sewer, Water, and Street Improvement District No. 2024-1
Newport Ridge - Phase 5
Proposed Storm Water Improvements
Kindred, ND



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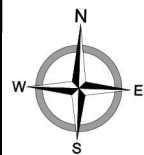
Legend

- | | |
|-----------------------------|-----------------------------|
| ----- Proposed Lots | Proposed Roadway |
| ▭ Parcels | ▭ Pavement |
| Proposed Storm Sewer | --- Curb |
| ● Manhole | Existing Storm Sewer |
|) End Treatment |) End Treatment |
| ■ Inlet | ● Manhole |
| → Gravity Main | ■ Inlet |
| ▬ Low Flow Channel | → Gravity Main |
| ▨ Detention Pond/Park | |



**Sewer, Water, and Street Improvement District No. 2024-1
Newport Ridge - Phase 5
Proposed Storm Water Improvements
Kindred, ND**

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moore
engineering, inc.



SEWER, WATER AND STREET IMPROVEMENT DISTRICT NO. 2024-1
Newport Ridge - Phase 5 and Sheyenne Street Paving
Newport Ridge - Phase 1 Street Improvements
Kindred, North Dakota

Engineer's Opinion of Probable Cost - Engineer's Report - 9/6/2023
Moore Project No. 22400A

	ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL	
<u>NPR - Phase 5 Direct Benefit</u>						
<i>Sanitary Sewer Items</i>						
1.	330130.11	Televise - Sanitary Sewer Mainline	LF	931	\$3.50	\$3,258.50
2.	330130.11	Televise - Service Lateral Launch	EA	23	\$175.00	\$4,025.00
3.	330561	Sanitary Sewer Manhole - 48"	EA	4	\$6,000.00	\$24,000.00
4.	333111	Sanitary Sewer - 8" PVC SDR 35	LF	931	\$70.00	\$65,170.00
5.	333111	Sanitary Sewer Service - 4" PVC SDR 26	LF	1,406	\$25.00	\$35,150.00
6.	333111	Sanitary Sewer Service Connection	EA	23	\$1,000.00	\$23,000.00
<i>Water Main Items</i>						
7.	331413	Water Main - 6" PVC C900	LF	44	\$60.00	\$2,640.00
8.	331413	Water Main - 8" PVC C900	LF	903	\$60.00	\$54,180.00
9.	331417	Water Service Connection	EA	23	\$1,000.00	\$23,000.00
10.	331417	Water Service Line - 1"	LF	1,022	\$20.00	\$20,440.00
11.	331419	Gate Valve & Box - 6"	EA	2	\$3,000.00	\$6,000.00
12.	331419	Gate Valve & Box - 8"	EA	2	\$3,500.00	\$7,000.00
13.	331419	Hydrant - 6"	EA	3	\$6,500.00	\$19,500.00
<i>Storm Sewer Items</i>						
14.	202.0174	Removal of Pipe All Types and Sizes	LF	55	\$25.00	\$1,375.00
15.	714.021	Pipe Conc Reinf 15In CI III-Storm Drain	LF	31	\$75.00	\$2,325.00
16.		Pipe Conduit 15In-Storm Drain	LF	275	\$65.00	\$17,875.00
17.		Pipe Conduit 18In-Storm Drain	LF	280	\$75.00	\$21,000.00
18.	714.0315	Pipe Conc Reinf 18In CI III-Storm Drain	LF	68	\$90.00	\$6,120.00
19.	714.3011	End Sect-Conc Reinf 18In CI III-Storm Drain	EA	1	\$2,000.00	\$2,000.00
20.	714.4092	Pipe Conduit 12In-Storm Drain	LF	13	\$100.00	\$1,300.00
21.	714.5800	End Sect Corr Steel .064In 12In	EA	1	\$500.00	\$500.00
22.		End Sect Corr Steel .064In 18In	EA	1	\$1,000.00	\$1,000.00
23.	714.9696	Edgedrain Non Permeable Base	LF	1,075	\$12.00	\$20,760.00
24.	722.0100	Manhole 48In	EA	6	\$5,000.00	\$30,000.00
24.	722.3510	Inlet-Type 2	EA	3	\$4,500.00	\$13,500.00
25.	722.4000	Inlet Catch Basin-Type A	EA	1	\$3,500.00	\$3,500.00
25.	256.0100	Riprap Grade I	CY	6	\$200.00	\$1,200.00
<i>Roadway Items</i>						
26.	203.0101	Common Excavation-Type A	CY	2,700	\$10.00	\$27,000.00
27.		Borrow Excavation	CY	25,000	\$7.00	\$175,000.00
28.	230.00001	Subgrade Preparation-Type A-12In	SY	2,200	\$4.00	\$8,800.00
29.	302.0121	Aggregate Base Course CI 5	CY	550	\$55.00	\$30,250.00
30.	302.0101	Salvage Base Course	CY	225	\$18.00	\$4,050.00
31.	430.0043	Superpave FAA 43	TON	396	\$120.00	\$47,520.00
32.	709.0151	Geosynthetic Material Type R1	SY	2,200	\$4.00	\$13,600.00
33.	748.0140	Curb & Gutter-Type I	LF	1,020	\$30.00	\$30,600.00
34.	748.00001	Valley Gutter Special	SY	12	\$250.00	\$3,000.00
35.	754.0110	Flat Sheet For Signs-Type XI Refl Sheeting	SF	20	\$30.00	\$600.00
36.	754.0206	Steel Galv Posts-Telescoping Perforated Tube	LF	12	\$50.00	\$600.00
<i>General Items</i>						
37.	12000	Mobilization	LSUM	1	\$100,000.00	\$100,000.00
38.	12000	Testing Allowance	ALLOW	1	\$10,000.00	\$10,000.00
39.	12000	Traffic Control	LSUM	1	\$10,000.00	\$10,000.00
40.	15000	Storm Water Management	LSUM	1	\$5,000.00	\$5,000.00
41.	203.0109	Topsoil	CY	6,140	\$5.00	\$30,700.00
42.	251.0300	Seeding Class III	ACRE	10	\$1,800.00	\$17,280.00
43.	253.0101	Straw Mulch	ACRE	9	\$450.00	\$3,870.00
44.	253.0201	Hydraulic Mulch	ACRE	5	\$2,250.00	\$11,250.00
45.	708.1540	Inlet Protection - Special	EA	9	\$200.00	\$1,800.00
46.	261.0112	Fiber Rolls 12In	LF	1,255	\$4.00	\$5,020.00



SEWER, WATER AND STREET IMPROVEMENT DISTRICT NO. 2024-1
Newport Ridge - Phase 5 and Sheyenne Street Paving
Newport Ridge - Phase 1 Street Improvements
Kindred, North Dakota

Engineer's Opinion of Probable Cost - Engineer's Report - 9/6/2023
 Moore Project No. 22400A

	ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL	
47.	260.0200	Silt Fence Unsupported	LF	1,405	\$2.50	\$3,512.50
48.	752.0600	Fence Chain Link	LF	234	\$20.00	\$4,680.00
49.	255.0102	ECB Type 2	SY	1,050	\$5.00	\$5,250.00
50.	265.0100	Stabilized Construction Access	EA	1	\$1,000.00	\$1,000.00
51.	704.1100	Traffic Control	LSUM	1	\$2,500.00	\$2,500.00
52.	970.0095	Herbicide Weed Control	ACRE	15	\$200.00	\$3,040.00
<i>Electrical Items</i>						
53.		Conductor - #6 USE/Cu.	LF	2,550	\$2.50	\$6,375.00
54.		Innerduct - 1.5" PVC	LF	850	\$5.50	\$4,675.00
55.		Concrete Base - 5'	EA	3	\$700.00	\$2,100.00
56.		Light Standard - Single LED and 14' Post	EA	3	\$6,300.00	\$18,900.00

Regional Storm Sewer and Detention Pond
Costs. Total Construction = \$328,475

Underground Utilities Subtotal \$519,209.71
 Streets Subtotal \$478,581.29
 NPR - Phase 5 Direct Benefit - Construction Subtotal \$997,791.00

NPR - Phase 5 Regional Benefit

1.	12000	Mobilization	LSUM	1	\$60,000.00	\$60,000.00
2.	12000	Testing Allowance	ALLOW	1	\$10,000.00	\$10,000.00
3.	12000	Traffic Control	LSUM	1	\$5,000.00	\$5,000.00
4.	15000	Storm Water Management	LSUM	1	\$5,000.00	\$5,000.00
5.		Pipe Conc Reinf 18In CI III-Storm Drain	LF	110	\$90.00	\$9,900.00
6.		Pipe Conduit 18In-Storm Drain	LF	560	\$75.00	\$42,000.00
7.		Pipe Conduit 24In-Storm Drain	LF	385	\$125.00	\$48,125.00
8.		Pipe Conduit 36In-Storm Drain	LF	60	\$150.00	\$9,000.00
9.	255.0102	ECB Type 2	SY	3,800.00	\$5.00	\$19,000.00
10.	722.0100	Manhole 48In	EA	5	\$5,000.00	\$25,000.00
11.		Storm Manhole Connection	EA	2	\$1,000.00	\$2,000.00
12.		End Sect Corr Steel .064In 24In	EA	3	\$1,500.00	\$4,500.00
13.		End Sect Corr Steel .064In 36In	EA	2	\$2,000.00	\$4,000.00
14.	203.0101	Borrow Excavation	CY	18,350	\$7.00	\$128,450.00
15.	230.00001	Subgrade Preparation-Type A-12In	SY	4,800	\$4.00	\$19,200.00
16.	302.0121	Aggregate Base Course CI 5	CY	925	\$55.00	\$50,875.00
17.	302.0101	Salvage Base Course	CY	275	\$18.00	\$4,950.00
18.	709.0151	Geosynthetic Material Type R1	SY	4,800	\$4.00	\$19,200.00
19.	714.9696	Edgedrain Non Permeable Base	LF	2,760	\$12.00	\$33,120.00
20.	430.0043	Superpave FAA 43	TON	700	\$120.00	\$84,000.00
21.	748.0140	Curb & Gutter-Type I	LF	2,105	\$30.00	\$63,150.00
22.	203.0109	Topsoil	CY	2,500	\$5.00	\$12,500.00
23.	251.0300	Seeding Class III	ACRE	4	\$1,800.00	\$7,200.00
24.	253.0101	Straw Mulch	ACRE	4	\$450.00	\$1,800.00
25.		Conductor - #6 USE/Cu.	LF	2,550	\$2.50	\$6,375.00
26.		Innerduct - 1.5" PVC	LF	850	\$5.50	\$4,675.00
27.		Concrete Base - 5'	EA	3	\$700.00	\$2,100.00
28.		Light Standard - Single LED and 14' Post	EA	3	\$6,300.00	\$18,900.00
29.		Sanitary Sewer Lift Station Upgrades	L SUM	1	\$80,000.00	\$80,000.00
28.		Utility Relocation	L SUM	1	\$10,000.00	\$10,000.00

Underground Utilities Subtotal \$422,818.58
 Streets Subtotal \$367,201.42
 NPR - Phase 5 Regional Benefit - Construction Subtotal \$790,020.00



SEWER, WATER AND STREET IMPROVEMENT DISTRICT NO. 2024-1
Newport Ridge - Phase 5 and Sheyenne Street Paving
Newport Ridge - Phase 1 Street Improvements
Kindred, North Dakota

Engineer's Opinion of Probable Cost - Engineer's Report - 9/6/2023
Moore Project No. 22400A

	ITEM	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL	
<u>Sheyenne Street Paving Regional Benefit</u>						
1.	230	Base Preparation	SY	2,750	\$3.00	\$8,250.00
2.	302.012	Aggregate Base Course CI 5	TON	50	\$60.00	\$3,000.00
3.	430.0043	Superpave FAA 43	TON	1,050	\$120.00	\$126,000.00

Sheyenne Street Paving Regional Benefit - Construction Subtotal **\$137,250.00**

NPR - Phase 1 Street Improvements Direct Benefit

1.	12000	Mobilization	LSUM	1	\$45,000.00	\$45,000.00
2.	12000	Testing Allowance	ALLOW	1	\$5,000.00	\$5,000.00
3.	15000	Storm Water Management	LSUM	1	\$5,000.00	\$5,000.00
4.	12000	Traffic Control	LSUM	1	\$5,000.00	\$5,000.00
5.	202.0114	Removal of Concrete Pavement	SY	75	\$30.00	\$2,250.00
6.	202.013	Removal Of Curb & Gutter	LF	500	\$35.00	\$17,500.00
7.	202.0132	Removal of Bituminous Surfacing	SY	120	\$20.00	\$2,400.00
8.	230.00001	Subgrade Preparation-Type A-12In	SY	380	\$8.00	\$3,040.00
9.	709.0701	Geotextile Fabric-Type R1	SY	380	\$8.00	\$3,040.00
10.	302.012	Aggregate Base Course CI 5	TON	120	\$60.00	\$7,200.00
11.	411.0114	Milling Pavement Surface - Uniform - 2In	SY	11,000	\$2.50	\$27,500.00
12.	430.0043	Superpave FAA 43 - Patching	TON	100	\$175.00	\$17,500.00
13.	430.0043	Superpave FAA 43	TON	1,225	\$120.00	\$147,000.00
14.	330130.86	Gate Valve Box - Adjust Cover	EA	6	\$500.00	\$3,000.00
15.	330130.86	Manhole Casting - Adjust Cover	EA	12	\$900.00	\$10,800.00
16.	722.0000	Storm Inlet Casting - Remove & Reset	EA	15	\$3,500.00	\$52,500.00
17.	748.014	Curb & Gutter-Type I	LF	500	\$60.00	\$30,000.00
18.	203.0109	Topsoil	CY	45	\$30.00	\$1,350.00
19.	251.0300	Seeding Class III	SY	250	\$10.00	\$2,500.00

NPR - Phase 1 Street Improvements Direct Benefit - Construction Subtotal **\$387,580.00**

Total Construction = \$2,312,641	Total Construction	\$2,312,641.00
	Engineering	\$665,000.00
	Legal & Bond Counsel	\$25,000.00
	Administration & Publication	\$3,000.00
	BND Loan	\$6,500.00
	Contingencies (~20%)	\$462,859.00
	Total Cost	\$3,475,000.00

Total Soft Costs = \$1,162,359

Construction + Total Soft Costs x (Construction / Total Construction) =
\$328,475 + \$1,162,359 x (\$328,475 / \$2,312,641) = \$493,570.18