TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Lincoln Ave. Agency: **BCRD**

Proposed Year: 2024 Total Points: **17**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	2
3R	2	
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	1
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	1
Number of crashes are within 20% of MPO median	1	1
Number of crashes is lower than 20% of the MPO median	0	
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	1
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	
ADT is 2,000 – 4,999	3	3
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	1
Project identified in other planning document	1	1
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	1
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**17**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Lincoln Avenue		
Project Limits (e.g. Napier Ave. to Britain Ave.)	M-63 to Maiden Lane		
Project Length (nearest hundredth of a mile)	1.46	Proposed Year of Funding	2024
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill with Drainage Strucutre adjustment.		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 1 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 300000
Minimum local match required - 18.15% of the Participating cost	$ 54450
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☒ Yes ☐ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: $ Explanation: No
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 4660 Year of count: 2017 Source: BCRD
National Functional Classification (NFC) for this roadway	Minor Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☐Yes ☒No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	4
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	29	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	8

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project	
Describe any other safety improvements this project will provide	na

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☒ Yes ☐ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	There is currently a 5 foot paved shoulder to accomadate pedestrain traffic that will be resurfaced with project.
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	Project currentl has existing elements to meet policy
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☒Yes ☐No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☐Yes ☒No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	☒Yes ☐No List utilities covered by the asset management plan: Sewer & Water
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☒ Yes ☐ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☒ Yes ☐ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒Yes ☐No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒Yes ☐No
Does the project cross-jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☒ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	Township will address utilities prior to project as best as possible with limited funding
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☐ Yes ☒ No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	na	☐ Yes ☒ No	2	na	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 5		☒ Paved ☐ Unpaved		Width (ft.) 5
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.)
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☒ Wide Shoulders ☐ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☒ Wide Shoulders ☐ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☐ Yes ☒ No If yes, how?					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☒ Local Match Submitted to SWMPC	09/01/2021
Project Application Submitted to MOT	01/01/2022
Grade Inspection Package Submitted to MDOT	02/01/2022
Grade Inspection Meeting Scheduled	02/01/2022
Final Plan and Estimate to MDOT	02/15/2022
Right of Way (ROW) certified*	01/01/2022
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	03/01/2022
Project Letting	05/01/2022
Construction Start	06/01/2022
Project Completion	09/01/2022

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☒	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☐	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☒	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☐	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☐	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☐	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☐	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes

TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Red Arrow- Bridgman to Cook Agency: **BCRD**

Proposed Year: NA Total Points: **27**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	3
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	1
Number of crashes is lower than 20% of the MPO median	0	
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		
Add facilities where none currently exist	3	3
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	2

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	1
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	1
Project identified in other planning document	1	1
Project connects to a road with a PASER of 7 or higher	1	1
Additional Local Match		
Agency will proved 40%+ Local Match	2	2
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**27**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Red Arrow Highway		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Bridgman City Limits to DC Cook		
Project Length (nearest hundredth of a mile)	2.02	Proposed Year of Funding	2025
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill, Road Deit, Drainage Reconstruct, Guardrail, non-motorized		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 2 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 2559566.24
Minimum local match required - 18.15% of the Participating cost	$ 1872308.30
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☐ Yes ☒ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: CMAQ Amount: $200000 Explanation: Due to Non Motorized trail feature, may qualify for CMAQ funding
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 9541 Year of count: 2020 Source: BCRD
National Functional Classification (NFC) for this roadway	Minor Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☐Yes ☒No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	3
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	41	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	10

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide	4 to 3 lane conversion to provide a natural traffi calming affect to provide safer travel conditions.

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☒ Yes ☐ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	None
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	The Road way will be reduced to 3 Lanes allowing for a 10 ft non-motorized facility to be place along the side of it.
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☒Yes ☐No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☒Yes ☐No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☒Yes ☐No If yes, please cite the plan and page number: Red Arrow Corridor Berrien County Linear Park Plan
Is there an approved asset management plan covering the utilities along the project's limits	☒Yes ☐No List utilities covered by the asset management plan: Sewer & Water
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☐ Yes ☒ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☒ Yes ☐ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒Yes ☐No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒Yes ☐No
Does the project cross-jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☒ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	Township will address utilities prior to project as best as possible with limited funding
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☒ Yes ☐ No List the adjacent segments that qualify: Red Arrow Highway

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	4	na	☐ Yes ☒ No	2	1	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 1		☒ Paved ☐ Unpaved		Width (ft.) 5
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☒ One Side ☐ Both Sides ☐ Intermittent ☐ None		Width (ft.) 10
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☒ Wide Shoulders ☐ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☒ Yes ☐ No If yes, how? COntiunes connecting the Red Arrow Non-motorized trail.					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for ☒ Local Match Submitted to SWMPC	09/01/2024
Project Application Submitted to MOT	12/31/2024
Grade Inspection Package Submitted to MDOT	02/01/2025
Grade Inspection Meeting Scheduled	02/01/2025
Final Plan and Estimate to MDOT	03/01/2025
Right of Way (ROW) certified*	12/31/2024
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	03/01/2025
Project Letting	05/01/2025
Construction Start	06/01/2025
Project Completion	11/01/2025

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☒	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☒	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☒	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☐	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☒	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☒	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☒	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☒	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☒	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes

TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Cleveland – Hilltop to Glenlord

Agency: **BCRD**

Proposed Year: 2026

Total Points: **19**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	2
3R	2	
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	2
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	1
Number of crashes is lower than 20% of the MPO median	0	
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	1
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	0

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	1
Project identified in other planning document	1	0
Project connects to a road with a PASER of 7 or higher	1	1
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	1
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**19**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Cleveland Avenue		
Project Limits (e.g. Napier Ave. to Britain Ave.)	HIlltop Ave to Glenlord Rd.		
Project Length (nearest hundredth of a mile)	2.57	Proposed Year of Funding	2026
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill, Drainage Reconstruct, Guardrail,		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 3 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 481510
Minimum local match required - 18.15% of the Participating cost	$ 87394
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☒ Yes ☐ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: $ Explanation: No
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 9100 Year of count: 2016 Source: BCRD
National Functional Classification (NFC) for this roadway	Minor Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☐Yes ☒No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	7
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	58	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	16

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide	

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☒ Yes ☐ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	5 foot paved shoulders
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☒Yes ☐No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☐Yes ☒No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	☒Yes ☐No List utilities covered by the asset management plan: Sewer & Water
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☒ Yes ☐ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☒ Yes ☐ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒Yes ☐No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒Yes ☐No
Does the project cross-jurisdictional boundaries?	☒ Yes ☐ No
If yes, will it be bid as a single project?	☒ Yes ☐ No ☐ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	Township will address utilities prior to project as best as possible with limited funding
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☒ Yes ☐ No List the adjacent segments that qualify: Hilltop Ave, Maiden Lane, Nelson Ave, Vineland Ave

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	na	☐ Yes ☒ No	2	1	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 5		☒ Paved ☐ Unpaved		Width (ft.) 5
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None		Width (ft.)
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☒ Wide Shoulders ☐ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☐ Yes ☒ No If yes, how?					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for ☒ Local Match Submitted to SWMPC	09/01/2025
Project Application Submitted to MOT	12/31/2025
Grade Inspection Package Submitted to MDOT	02/01/2026
Grade Inspection Meeting Scheduled	02/01/2026
Final Plan and Estimate to MDOT	03/01/2026
Right of Way (ROW) certified*	12/31/2025
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	03/01/2026
Project Letting	05/01/2026
Construction Start	06/01/2026
Project Completion	11/01/2026

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☐	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☐	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☐	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☐	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☒	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes

TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Red Arrow- Stevensville to Cook

Agency: **BCRD**

Proposed Year: NA

Total Points: **27**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	3
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	1
Number of crashes is lower than 20% of the MPO median	0	
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		
Add facilities where none currently exist	3	3
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	2

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	1
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	1
Project identified in other planning document	1	1
Project connects to a road with a PASER of 7 or higher	1	1
Additional Local Match		
Agency will proved 40%+ Local Match	2	2
Agency will proved 24-40% Local Match	1	
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**27**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Red Arrow Highway		
Project Limits (e.g. Napier Ave. to Britain Ave.)	DC Cook to Village of Stevensville		
Project Length (nearest hundredth of a mile)	1.88	Proposed Year of Funding	na
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill, Road Deit, Drainage Reconstruct, Guardrail, non-motorized		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 4 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 2310620
Minimum local match required - 18.15% of the Participating cost	$ 1710620
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☒ Yes ☐ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: CMAQ Amount: $200000 Explanation: Due to Non Motorized trail feature, may qualify for CMAQ funding
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 8084 Year of count: 2020 Source: BCRD
National Functional Classification (NFC) for this roadway	Minor Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☐Yes ☒No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	3
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	40	Pedestrian & Bicycle Crashes	0
Fatalities	1	Serious Injuries	7

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project

Describe any other safety improvements this project will provide	4 to 3 lane conversion to provide a natural traffic calming affect to provide safer travel conditions.

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☒ Yes ☐ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	None
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	The Road way will be reduced to 3 Lanes allowing for a 10 ft non-motorized facility to be place along the side of it.
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☒Yes ☐No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☒Yes ☐No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☒Yes ☐No If yes, please cite the plan and page number: Red Arrow Corridor Berrien County Linear Park Plan
Is there an approved asset management plan covering the utilities along the project's limits	☒Yes ☐No List utilities covered by the asset management plan: Sewer & Water
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☐ Yes ☒ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☒ Yes ☐ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒Yes ☐No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒Yes ☐No
Does the project cross-jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☒ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	Township will address utilities prior to project as best as possible with limited funding
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☒ Yes ☐ No List the adjacent segments that qualify: Red Arrow Highway

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	4	na	☐ Yes ☒ No	2	1	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 1		☒ Paved ☐ Unpaved		Width (ft.) 4
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☒ One Side ☐ Both Sides ☐ Intermittent ☐ None		Width (ft.) 10
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☒ Wide Shoulders ☐ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☒ Yes ☐ No If yes, how? Contiunes connecting the Red Arrow Non-motorized trail.					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for ☒ Local Match Submitted to SWMPC	NA
Project Application Submitted to MOT	NA
Grade Inspection Package Submitted to MDOT	NA
Grade Inspection Meeting Scheduled	NA
Final Plan and Estimate to MDOT	NA
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	NA
Project Letting	NA
Construction Start	NA
Project Completion	NA

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☒	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☒	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☒	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☒	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☐	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☒	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☒	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☒	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☒	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☒	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes

TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Sodus Parkway Agency: **BCRD**

Proposed Year: NA Total Points: **16**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	1
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	
ADT is 2,000 – 4,999	3	4
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	
Project identified in other planning document	1	1
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	1
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**16**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Sodus Parkway		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Pipestone Rd to Pipestone Creek Bridge		
Project Length (nearest hundredth of a mile)	1.58	Proposed Year of Funding	na
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill, Drainage Reconstruct,		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 5 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 555,047
Minimum local match required - 18.15% of the Participating cost	$ 100741
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☒ Yes ☐ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: $ Explanation: no
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 8734 Year of count: 2016 Source: BCRD
National Functional Classification (NFC) for this roadway	Minor Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☐Yes ☒No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	3
Current state of drainage	☒ Adequate ☐ Minor and tolerable drainage problems ☐ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	14	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	7

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project	
Describe any other safety improvements this project will provide	

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☐ Yes ☒ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	None
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	Undeveloped Urban Corridor
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	☐ Yes ☒ No List utilities covered by the asset management plan:
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☐ Yes ☒ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☐ Yes ☒ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒ Yes ☐ No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒ Yes ☐ No
Does the project cross-jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☒ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☒ Yes ☐ No List the adjacent segments that qualify: Pipestone Rd

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	5	1	☐ Yes ☒ No	5	1	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 1		☒ Paved ☐ Unpaved	Width (ft.) 1	
Sidewalk/ path information	**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)		**Placement** ☐ One Side ☐ Both Sides ☐ Intermittent ☒ None	Width (ft.)	
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☐ Yes ☒ No If yes, how?					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☒ Local Match Submitted to SWMPC	NA
Project Application Submitted to MOT	NA
Grade Inspection Package Submitted to MDOT	NA
Grade Inspection Meeting Scheduled	NA
Final Plan and Estimate to MDOT	NA
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	NA
Project Letting	NA
Construction Start	NA
Project Completion	NA

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☐	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☐	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☐	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☐	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☒	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes

TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Cleveland – Glenlord to John Beers

Agency: **BCRD**

Proposed Year: 2026

Total Points: **20**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	2
3R	2	
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	2
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	
Number of crashes are within 20% of MPO median	1	2
Number of crashes is lower than 20% of the MPO median	0	
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		0
Add facilities where none currently exist	3	
Improves upon existing facilities	2	
Currently has facilities but there are no improvements	1	1
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	0

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	1
Project identified in other planning document	1	0
Project connects to a road with a PASER of 7 or higher	1	1
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	1
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**20**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Cleveland Avenue		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Glenlord Rd. to John Beers Rd.		
Project Length (nearest hundredth of a mile)	2.01	Proposed Year of Funding	Illustrative
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill, Drainage Reconstruct, Guardrail,		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 6 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 466114
Minimum local match required - 18.15% of the Participating cost	$ 84599
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☒ Yes ☐ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: Amount: $ Explanation: No
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 7286 Year of count: 2018 Source: BCRD
National Functional Classification (NFC) for this roadway	Minor Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☐Yes ☒No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	2
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	82	Pedestrian & Bicycle Crashes	1
Fatalities	0	Serious Injuries	19

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project	
Describe any other safety improvements this project will provide	

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☒ Yes ☐ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	Existing Sidewalks
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	☒ Yes ☐ No List utilities covered by the asset management plan: Sewer & Water
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☒ Yes ☐ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☒ Yes ☐ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒ Yes ☐ No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒ Yes ☐ No
Does the project cross-jurisdictional boundaries?	☒ Yes ☐ No
If yes, will it be bid as a single project?	☒ Yes ☐ No ☐ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	Township will address utilities prior to project as best as possible with limited funding
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☒ Yes ☐ No List the adjacent segments that qualify: John beers Rd, Marquette Woods Rd.

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	1	☐ Yes ☒ No	2	1	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 1		☒ Paved ☐ Unpaved	Width (ft.) 1	
Sidewalk/ path information	**Placement** ☐ One Side ☒ Both Sides ☐ Intermittent ☐ None	Width (ft.) 6		**Placement** ☐ One Side ☒ Both Sides ☐ Intermittent ☐ None	Width (ft.) 6	
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☐ Yes ☒ No If yes, how?					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☒ Local Match Submitted to SWMPC	NA
Project Application Submitted to MOT	NA
Grade Inspection Package Submitted to MDOT	NA
Grade Inspection Meeting Scheduled	NA
Final Plan and Estimate to MDOT	NA
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	NA
Project Letting	NA
Construction Start	NA
Project Completion	NA

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☐	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☐	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☐	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☐	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☒	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes

TwinCATS 2024-2026 Road Project Prioritization System

Project Name: Pipestone Ave. Agency: **BCRD**

Proposed Year: NA Total Points: **26**

Criteria	Points	
System Preservation	**8 points max**	
Most recent PASER rating		
2-3 and Previously applied for	5	
2-3 and not previously applied for	3	
4	3	3
5-6	1	
MDOT Geometric Guidelines		
4 R	3	
3R	2	2
PM	1	
Safety	**5 points max**	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
Safety counter Measures	Up to 3	3
Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median	2	2
Number of crashes are within 20% of MPO median	1	
Number of crashes is lower than 20% of the MPO median	0	0
Non-motorized Transportation / Complete Streets	**5 points max**	
Pedestrian and Cycling Facilities		
Add facilities where none currently exist	3	
Improves upon existing facilities	2	2
Currently has facilities but there are no improvements	1	
Non-Motorized Connectivity		
Any added ped/bike facilities connect to other ped/bike facilities	2	2

Criteria	Points	
Regional Connectivity	**9 points max**	
Average daily traffic (ADT) based on most recent traffic count		
ADT is 10,000 or more	5	
ADT is 5,000 – 9,999	4	4
ADT is 2,000 – 4,999	3	
ADT is less than 2,000	0	
Functional Classification of the Road		
Principal Arterial	3	3
Minor Arterial	2	
Major Collector	1	
Minor Collector	0	
Fixed route transit uses the road	1	
Strategic Investment/ Project Planning	**11 points max**	
Identified In an Asset Management Plan	1	1
There is an asset management plan covering other utilities along the limits of the project	1	1
Agency staff have asset management training	1	1
Project identified in other planning document	1	
Project connects to a road with a PASER of 7 or higher	1	
Additional Local Match		
Agency will proved 40%+ Local Match	2	
Agency will proved 24-40% Local Match	1	1
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	no

Total Score (out of 34)	**26**

Twin Cities Area Transportation Study
2024-2026 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds Project Application

Click "Enable Editing" to begin filling out this form. You may save this form at any time.
If you need assistance, please contact Brandon Kovnat, SWMPC Associate Planner.
Email kovnatb@swmpc.org or call (269) 925-1137 x 1524

Section 1. Applicant Information

Agency Name	Berrien County Road Department		
Contact Name	Kevin Stack	Title	Engineering Supervisor
Phone Number	269-925-1196 ex 4421	Email	kstack@bcroad.org
Engineer/Consultant (If applicable)	N/A		
Phone Number		Email	

Section 2. Project Information

Project Name/Road Name	Pipestone Aveune		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Napier Ave to Benton Harbor City Limits		
Project Length (nearest hundredth of a mile)	.95	Proposed Year of Funding	NA
Primary Work Type	☐ Reconstruct ☐ Restore & Rehabilitate ☐ Roadside Facility ☒ Resurface ☐ Traffic Operations/Safety ☐ Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	HMA Mill & Fill with Drainage Strucutre adjustment, and sidewalk.		
Was this project applied for during the 2020-2023 Call for Projects but not selected	☐ Yes ☒ No		
Was this project awarded funding for the 2020-2023 TIP, but was either canceled or failed to be obligated	☐ Yes ☒ No If yes, please explain:		
If you are submitting multiple applications, please rank your applications by priority.	Project Rank: 7 of 7		

Section 3. Project Funding

Estimated Total Participating Cost of the Project	$ 550000
Minimum local match required - 18.15% of the Participating cost	$ 99825
Can your agency supply additional match beyond the minimum required 18.15%. If so how much?	☒ Yes ☐ No Amount $50000
Are there elements of the project that could be eligible for other federal fund sources such as CMAQ, TAP, Bridge etc.	Source: CMAQ Amount: $100000 Explanation: Installation of sidewalks to complete corridor
Will the project have nonparticipating work, such as water, or sewer work?	amount: $ Explain: No
Does your agency have the financial capacity to Advance Construct (AC) all or part of this project if necessary? If yes, what is the maximum dollar amount your agency is willing to Advance Construct (AC)?	☐ Yes ☒ No Maximum Dollar Amount you can AC? $

Section 4. Regional Connectivity

What is the most current daily traffic count for the limits of this project?	AADT: 9562 Year of count: 2018 Source: BCRD
National Functional Classification (NFC) for this roadway	Principal Arterial
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	☒Yes ☐No

Section 5. System Preservation

2021 PASER rating (Available 8-10-21)	3
Current state of drainage	☐ Adequate ☐ Minor and tolerable drainage problems ☒ Occasional drainage problems with some maintenance required ☐ Inadequate, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	20 Use MDOT's *Guidelines for Geometrics on Local Projects*
What MDOT guidelines does the project conform to?	☐ Reconstruction (4R) ☒ Resurfacing, restoration, and Rehabilitation (3R) ☐Preventative Maintenance (PM)

Section 6. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2016-2020) (see Michigan Crash Facts for crash data)			
Total Crashes	66	Pedestrian & Bicycle Crashes	2
Fatalities	0	Serious Injuries	19

Using the attached Crash Reduction Factors sheet, please check each safety counter measure that will be included in the project	
Describe any other safety improvements this project will provide	na

Section 7. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy, approved in 2014?	☒ Yes ☐ No
Please explain what pedestrian and/or bicycle facilities if any currently exist	There is currently and existing side walk on boths sides for a portion of the road way segment
Please explain any additional pedestrian and/or bicycle improvements included in the project. *If you answered No, please state the reason why this project should be exempt from the TwinCATS Complete Streets Policy.*	Sidewalk will be extend to meet the Napier and Pipestone intersection
Does this project connect to an existing pedestrian/bicycle facility or one that is planned to be completed before 2027	☐ Yes ☒ No If yes, please provide a map of the connecting facilities

Section 8. Strategic Planning & Investment	
Is the project identified in an approved Asset Management Plan, or Capital Improvement Plan	☐ Yes ☒ No If yes, please attach the plan.
Is the project identified in another approved planning document such as a master plan or parks and recreation plan	☐ Yes ☒ No If yes, please cite the plan and page number:
Is there an approved asset management plan covering the utilities along the project's limits	☒ Yes ☐ No List utilities covered by the asset management plan: Sewer & Water
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)?	☐ Yes ☒ No If yes, please indicate the project type and construction year:
How many water main breaks have you had at this location in the past five years?	0
Is there a completed utilities assessment that includes televising the sewers in the project area?	☒ Yes ☐ No
Do you have a maintenance strategy or Asset Management Plan covering non-motorized facilities?	☒ Yes ☐ No
Has staff received Asset Management training through the Michigan Transportation Asset Management Council? https://www.michigan.gov/tamc/0,7308,7-356-82158---,00.html	☒ Yes ☐ No
Has your agency completed the Asset Management Readiness Scale from the Michigan Infrastructure Council (MIC)? https://fcm.ca/en/resources/mamp/tool-asset-management-readiness-scale	☒ Yes ☐ No
Does the project cross-jurisdictional boundaries?	☐ Yes ☒ No
If yes, will it be bid as a single project?	☐ Yes ☐ No ☒ NA
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	☐ Yes ☒ No ☐ Not Sure If yes, which items are required:
If any of the above items are required please explain how they will be addressed	Township will address utilities prior to project as best as possible with limited funding
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment that currently has a PASER of 7 or higher	☐ Yes ☒ No List the adjacent segments that qualify:

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Include the number of vehicle lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	4	na	☐ Yes ☒ No	4	na	☐ Yes ☒ No
Shoulder Surface	☒ Paved ☐ Unpaved	Width (ft.) 1		☒ Paved ☐ Unpaved		Width (ft.) 1
Sidewalk/ path information	**Placement** ☐ One Side ☒ Both Sides ☐ Intermittent ☒ None	Width (ft.) 5		**Placement** ☒ One Side ☐ Both Sides ☐ Intermittent ☐ None		Width (ft.) 5
On road bicycle facilities	☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None			☐ Bike Lane ☐ Other (specify) ☐ Sharrows ☐ Wide Shoulders ☒ None		
Utilities, Sewer and Water	☐ Utilities Upgrades Needed ☐ Sewer and water work needed			☐ Replace Utilities ☐ Relocate Utilities ☐ Sewer and Water Line Work		
Please describe any improvements being made as part of this project to crosswalks, signage or signals, or streetscape elements not discussed in project description	NA					
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?	☐ Yes ☒ No If yes, how?					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for☒ Local Match Submitted to SWMPC	NA
Project Application Submitted to MOT	NA
Grade Inspection Package Submitted to MDOT	NA
Grade Inspection Meeting Scheduled	NA
Final Plan and Estimate to MDOT	NA
Right of Way (ROW) certified*	NA
Rail Road Permits*	NA
Environmental Mitigation*	NA
Project Obligated	NA
Project Letting	NA
Construction Start	NA
Project Completion	NA

*Enter NA if these items will not be required.

	Proposed Improvement	% Reduction	Associated Crash Types
	SEGMENT CRASH REDUCTION FACTORS		
	Geometric Safety Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Sideswipe*
		15%	Non Left-Turn Rear-End, Other*
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
☐	**Horizontal Curve Flattening**	30%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **1'** each side)*	5%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **2'** each side)*	10%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **3'** each side)*	15%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **4'** each side)*	20%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **5'** each side)*	25%	Lane Departure***
☐	**Shoulders -** *Widen to Standard Width (add **6'** each side)*	30%	Lane Departure***
☐			
☐	**Shoulders -** *Widen to Standard Width (add **7'** each side)*	35%	Lane Departure***
☐	**Vertical Curve Modification**	20%	All Applicable Crash Types +++
	General Segment Enhancements		
☐	**Access Management -** *Improve*	15%	Drive-way Related Applicable Crashes
☐	**Centerline Rumble Strips -** *Install*	44%	K and A injury Applicable Crashes
		46%	Single Vehicle Run off Road Left Crashes
		43%	Sideswipe Same Crashes
		55%	Sideswipe Opposite Crashes
☐	**High Friction Surface Treatment -** *Install*	35%	Wet Crashes
		20%	All Other Applicable Crashes
☐	**Recessed Durable Pavement Markings**	5%	All Applicable Crashes
☐	**Pedestrian Refuge -** *Install*	50%	Pedestrian Crashes (Review NCHRP Report 841)
☐	**Road Diet (4-3 Lane Conversion)** - *Install*	50%	Suburban - All Applicable Crashes
☐	**Shoulder Rumble Strips**	20%	Run-Off the Road Right Crashes
☐	**Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) -** *Install*	20%	Lane Departure***
☐	**Safety Edge Improvement**	13%	All non-intersection crashes (CMF Clearing House ID 8658)

	Roadside Enhancements		
☐	**Bicycle Lanes -** Install per standards	50%	Bicycle Crashes
☐	**Shared Use Path -** *Install*	33%	Bicycle and Pedestrian Related Crashes
☐	**Fixed Objects From Clear zone (Trees, Culverts, Etc.) -** *Removal*	75%	Fixed-Object Applicable Crashes
☐	**Guardrail -** *Install*	55%	Lane Departure ***Fatalities and "A" Injury Applicable Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Slope Flattening**	15%	Fixed-Object, Overturn Applicable Crashes
☐	**Living Snow Fence**	20%	Crashes due to wintry surface conditions
☐	**Lighting -** *install on segment*	20%	Dark Unlighted Crashes
	INTERSECTION CRASH REDUCTION FACTORS		
	Pedestrian / Bicycle Enhancements		
☐	**Bump Out / Curb Extension -** *Remove Parking / Install*	30%	All Crashes
☐	**Bicycle Lanes -** Install per standards	25%	Bicycle Crashes
☐	**Sidewalk for Pedestrians -** *Construct*	85%	Pedestrian Crashes
☐	**Intersection Lighting** - *install*	75%	Pedestrian Fatal - Dark Unlighted Crashes
		40%	Pedestrian A-Injury - Dark Unlighted Crashes
		30%	All Applicable Dark Unlighted Crashes
☐	**Rectangular Rapid Flashing Beacons**	47%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Install new Pedestrian signal*	30%	Pedestrian Crashes
☐	**Ped. Countdown Signals -** *Upgrade from existing Pedestrian signal*	25%	Pedestrian Crashes
	Signal Timing / Hardware Enhancements		
☐	**Multiple Low-Cost Improvements**	3%	Rear-End
		12%	Right-Angle
		3%	Nighttime
☐	**Install Reflectorized Backplates**	15%	All Applicable Crashes
☐	**Add All-Red Clearance Interval -** *Add per ITE*	20%	Head-On Left-Turn, Angle
☐	**Yellow-Change Interval** - *Increase*	10%	All Crash Types
☐	**Box Span Signal -** *Upgrade from Stop Control*	65%	Angle
		-25%	Rear-End (Increases Crashes)
		20%	All Other Non Rear-End Crashes
☐	**Box Span Signal -** *Upgrade from Diagonal Span*	10%	All Applicable Crashes+
☐	**Protected Left-Turn Signal Phase -** *Add*	30%	Left-Turn
☐	**Signal Head Size -** *Increase to 12 "*	10%	All Applicable Crashes +
☐	**Signal Optimization & Timing Updates**	10%	All Applicable Crashes +
☐	**Removing Night Flash from Signal Timing**	50%	Nighttime Flash mode Related Crashes

	Intersection Geometric Enhancements		
☐	**Center Left-Turn Lane -** *Construct*	80%	Rear-End Left-Turn
		50%	Head-On Left-Turn
		20%	Head-On, Angle, Other
		15%	Non Left-Turn Rear-End
☐	**Intersection Improvements (Realignment, Sight-Distance Improvements, Radii Improvements, Etc.)**	30%	Angle
		15%	Rear-End
		10%	Head-On, Sideswipe, Pedestrian, Bicycle, Left-Turn Related
☐	**Offset Left-Turn Lane -** *Construct*	65%	Angle-Turn, Head-On Left-Turn
		20%	Rear-End Left-Turn
☐	**Offset Right-Turn Lane -** *Construct*	65%	Angle-Turn
		50%	Other Applicable Crashes
		20%	Rear-End Right Turn
☐	**Right-Turn Lane -** *Construct*	65%	Rear-End Right-Turn
		20%	Applicable Rear-End Crashes, Sideswipe Same Direction
☐	**Roundabout**	78%	Fatal and A-Injury Reduction
		57%	Minor Crash Reduction
☐	**Lighting**	-	See MDOT Interchange Warranted Lighting Guidance and overall MDOT Lighting Guidance
	General Intersection Enhancements (Non-Signalized Intersections)		
☐	**All-Way Stop Control -** *New Installation*	60%	All Applicable Crashes
☐	**Ground Mounted Flashing Beacons (Red)-** *Install ***	30%	All Crashes On Install Approach
☐	**Ground Mounted Flashing Beacons(Amber) -** *Install ***	20%	All Crashes On Install Approach
☒	**Signing -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Pavement Markings -** *Improve/Upgrade*	30%	Angle, Rear-End Crashes
☒	**Reflective Sheeting on Sign Posts** *(lollipops)*	15%	All Applicable Crashes