

2.7

TwinCATS 2020-2023 Road Project Prioritization System

Project Name: Empire Ave.Agency: City of Benton HarborProposed Year: 2021Total Points: 32

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	10	
5-6	8	
1-2	<u>5</u>	<u>5</u>
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	<u>8</u>	<u>8</u>
Extends RSL by 10-14 years (3R Project)	6	
Extends RSL by 5-9 years (Preventative Maintenance)	4	
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
50% or greater	5	
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	1	
Less than 10%	<u>0</u>	<u>0</u>
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	
Number of crashes are within 20% of MPO median (2-3)	<u>1</u>	<u>1</u>
Number of crashes is lower than 20% of the MPO median (0-1)	0	
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	<u>4</u>	<u>4</u>
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	<u>2</u>	<u>2</u>

Criteria	Points	
Regional Connectivity	10 points max	
a. 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	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	2
Major Collector	1	
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	2
Strategic Investment/ Project Planning	11 points max	
a. Project is identified in an Asset Management or Capital Improvement Plan	3	3
b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan	1	
c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project.	1	
d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding.	2	
e. Additional Local Match		
Agency will provide 40% or more local match	4	
Agency will provide 30% to 39.9% local match	2	2
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	
Total Score (out of 52)		32

2.1

Twin Cities Area Transportation Study
2020-2023 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.

Section 1. Applicant Information

Agency Name	City of Benton Harbor		
Contact Name	Darwin Watson	Title	City Manager
Phone Number	(269)927-8400	Email	dwatson@cityofbentonharbormi.gov

Section 2. Project Information

Project Name/Road Name	Empire Avenue		
Project Limits (e.g. Napier Ave. to Britain Ave.)	Pipestone Road to East City Limits		
Project Length (nearest hundredth of a mile)	0.20 Mile	Proposed Year of Funding	2021
Primary Work Type	<input checked="" type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	The proposed work includes reconstruction of roadway with storm replacement, and sidewalk and ramp replacement		
Was this project awarded funding for the 2017-2020 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		

Section 3. Project Funding

Federal Funding Requested	\$ 393,400.00
Local Match (18.15% minimum)	\$ 168,600.00
Total	\$ 562,000.00
Local Match Percentage (local match/total cost)	30%
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$ 7

Section 4. System Preservation

2018 PASER rating (available as an excel file)	2
Current state of drainage	<input type="checkbox"/> Adequate <input type="checkbox"/> Minor and tolerable drainage problems <input checked="" type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	<input type="checkbox"/> 0-3 years <input type="checkbox"/> 4-6 <input type="checkbox"/> 7-9 <input type="checkbox"/> 10-14 <input checked="" type="checkbox"/> 15-20 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input checked="" type="checkbox"/> Reconstruction (4R) <input type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input type="checkbox"/> Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	3	Pedestrian & Bicycle Crashes	1
Fatalities	0	Serious Injuries	0
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 6. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy , approved in 2014?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, Please explain what pedestrian and/or bicycle improvements are included	Sidewalks will be replaced and pavement markings including cross walks and sharrows will be updated for pedestrians and bicyclists
If 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 from 2020-2023?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities
Section 7. Regional Connectivity	
What is the most current daily traffic count for the limits of this project?	<input type="checkbox"/> Less than 2000 <input checked="" type="checkbox"/> 2000-5000 <input type="checkbox"/> 5000-10,000 <input type="checkbox"/> Above 10,000 Year of count: 2014 Source: MDOT
National Functional Classification (NFC) for this roadway (Berrien County NFC Map)	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).	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, please cite the plan and page number: Streets Asset Management Plan
Is the project identified in another planning documents such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 a utilities assessment that included televising the sewers in the project area?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2'-curb&gutter	<input type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2'-curb&gutter
Sidewalk/ path information	Placement <input checked="" type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input type="checkbox"/> None		Width (ft.) 4.5'	Placement <input checked="" type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input type="checkbox"/> None		Width (ft.) 5'
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) <input checked="" type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input type="checkbox"/> None		
Utilities, Sewer and Water	<input checked="" type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input checked="" type="checkbox"/> Replaced Utilities <input type="checkbox"/> Relocating Utilities <input type="checkbox"/> 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			Replacement of permanent signage and updating of pavement markings			
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	August 2020
Project Application Submitted to MOT	August 2020
Grade Inspection Package Submitted to MDOT	September 2020
Grade Inspection Meeting Scheduled	October 2020
Final Plan and Estimate to MDOT	November 2020
Right of Way (ROW) certified*	November 2020
Rail Road Permits*	N/A
Environmental Mitigation*	N/A
Project Obligated	December 2020
Project Letting	February 2021
Construction Start <input type="checkbox"/>	April 2021
Project Completion	July 2021

Project Name: Benton Harbor TIP - Empire Ave
 Project Number:
 Prepared By: UMK
 Date: Friday, November 30, 2018
 Description: Preliminary Engineer's Estimate - Pipestone Rd to East City limits

Miscellaneous Quantities

Item	Quantity	Unit	Unit Cost	Item Cost
Mobilization	1	LS	\$ 45,000.00	\$ 45,000.00
Subtotal:				\$ 45,000.00

Removals

Item	Quantity	Unit	Unit Cost	Item Cost
Sidewalk, Rem	175	Syd	\$ 6.00	\$ 1,050.00
Pavt, Rem	3750	Syd	\$ 8.00	\$ 30,000.00
Curb and Gutter, Rem	150	Ft	\$ 9.00	\$ 1,350.00
Dr Structure, Rem	13	Ea	\$ 350.00	\$ 4,550.00
Sewer, Rem, Less than 24 inch	1155	Ft	\$ 15.00	\$ 17,325.00
Subtotal:				\$ 54,275.00

Roadway-Pipestone Road

Item	Quantity	Unit	Unit Cost	Item Cost
Machine Grading	10	Sta	\$ 2,740.00	\$ 27,400.00
Subbase, CIP	1250	Cyd	\$ 15.00	\$ 18,750.00
Aggregate Base, 8 inch	3810	Syd	\$ 10.00	\$ 38,100.00
Curb and Gutter, Conc, Det C4	105	Ft	\$ 15.00	\$ 1,575.00
HMA, 4E1	330	Tons	\$ 85.00	\$ 28,050.00
HMA, 5E1	330	Tons	\$ 90.00	\$ 29,700.00
Driveway, Conc, Nonreinf, 6 inch	180	Syd	\$ 45.00	\$ 8,100.00
Sidewalk, Conc, 4 inch	1575	Sft	\$ 5.00	\$ 7,875.00
Sidewalk Ramp	190	Sft	\$ 8.00	\$ 1,520.00
Detectable Warning Surface, Cast Iron	20	Ft	\$ 85.00	\$ 1,700.00
Dr Structure, Temp Lowering	14	Ea	\$ 400.00	\$ 5,600.00
Dr Structure Cover, Adj, Case 1	14	Ea	\$ 550.00	\$ 7,700.00
Dr Structure Cover, Type B	5	Ea	\$ 725.00	\$ 3,625.00
Dr Structure Cover, Type Q	1	Ea	\$ 750.00	\$ 750.00
Dr Structure Cover, Type K	8	Ea	\$ 765.00	\$ 6,120.00
Dr Structure, 48 inch	13	Ea	\$ 2,500.00	\$ 32,500.00
Sewer, CI IV, 12 inch, Tr Det B	1200	Ft	\$ 70.00	\$ 84,000.00
Subtotal:				\$ 303,065.00

General

Item	Quantity	Unit	Unit Cost	Item Cost
Pavement Marking	1	LS	\$ 10,000.00	\$ 10,000.00
Permanent Signage	1	LS	\$ 3,000.00	\$ 3,000.00
Bridge Repairs	1	LS	\$ 50,000.00	\$ 50,000.00
Traffic Control	1	LS	\$ 11,000.00	\$ 11,000.00
Soil Erosion and Sedimentation Control	1	LS	\$ 6,000.00	\$ 6,000.00
Slope Restoration	1	LS	\$ 5,000.00	\$ 5,000.00
Subtotal:				\$ 85,000.00

Construction		\$	488,000.00
Construction Contingency	15%	\$	74,000.00
Construction Subtotal		\$	562,000.00
Engineering	15%	\$	85,000.00
Project Total		\$	647,000.00

Estimate Summary:

1. Length - 1000'; Width - 22'
2. Removing existing pavement - 12" subbase, 8" aggregate base, 1.5" HMA Base Course, 1.5" HMA Top Course
3. Replacement of existing storm
4. Sidewalk and ramp replacement with ADA compliance
5. Sharrows included in Pavement Markings

City of Benton Harbor

Empire Ave - Pipestone Rd to City Limits

- Unit 1
- Unit 2
- Bicycle

Legend

139

Valley Dr

S Fair Ave

Pipestone St

Baird St

E Empire Ave

Bishop Ave

Union Ave

1/26/2016
Other

1/23/2014
Angle

9/10/2017
Single Motor Vehicle

2/7/2014
Rear End

Google Earth

© 2018 Google



800 ft

Project Name: Benton Harbor TIP
Prepared By: Uma Kota, EIT
Checked By: Timothy R Drews, PE, PTOE
Date: Thursday, November 29, 2018
Description: Crash Summary

Roadway Segment - Empire Avenue											
Year	Primary Road	Intersecting Road	Distance	Crash Type	Unit 1 Injury	Unit 2 Injury	Unit 3 Injury	Weather	Light	Road Surface Condition	Crash Description
1/23/2014	Empire Ave	Pipestone	AT	Angle	O	O	-	Clear	Daylight	Icy	Unit 2 ran a red light and struck Unit 1
2/7/2014	Empire Ave	Pipestone	10' W	Rear End	O	O	-	Cloudy	Daylight	Icy	Unit 1 slid on ice and rear-ended Unit 2
1/26/2016	Empire Ave	Pipestone	5' W	Other/Unknown	B	C	C	Clear	Dark-Lighted	Snow	Unit 1 was fleeing the police, ran a red light and struck Unit 2 and Unit 3
9/10/2017	Empire Ave	Pipestone	1' N	Single Motor Vehicle	O	A	-	Clear	Daylight	Dry	Unit 2 is a bicycle that ran a red light and was struck by Unit 1, a car

Crash Type	Count	Percentage
Single Motor Vehicle	1	25%
Rear End	1	25%
Angle	1	25%
Other/Unknown	1	25%

Intersecting Road	Count	Percentage
Pipestone	4	100%

The crash analysis indicates that none of the crashes meet the requirements for safety counter measures and Crash Reduction Factors per the HSIP

2.4

TwinCATS 2020-2023 Road Project Prioritization System

Project Name: Broadway Harbor Agency: City of Benton Harbor
 Proposed Year: 2022 Total Points: 29

Criteria	Points	
System Preservation	18 points max	
a. Most recent PASER rating		
3-4	<u>10</u>	<u>10</u>
5-6	8	
1-2	5	
b. Extension of Remaining Service Life (RSL) based on MDOT Geometric Guidelines		
Extends RSL by 15 years or more (4R project)	8	
Extends RSL by 10-14 years (3R Project)	<u>6</u>	<u>6</u>
Extends RSL by 5-9 years (Preventative Maintenance)	4	
Extends RSL by 2-4 years (Preventative Maintenance)	2	
Safety	7 points max	
a. Expected Crash Reduction - Based on MDOT approved Crash Reduction Factors		
50% or greater	5	
40%-49.9%	4	
30% - 39.9%	3	
20% - 29.9%	2	
10% - 19.9%	1	
Less than 10%	<u>0</u>	<u>0</u>
b. Addressing High Crash Locations.		
Number of crashes is 20% higher than MPO median (4 or more)	2	
Number of crashes are within 20% of MPO median (2-3)	<u>1</u>	<u>1</u>
Number of crashes is lower than 20% of the MPO median (0-1)	0	
Non-motorized Transportation / Complete Streets	6 points max	
a. Follows the Complete Streets Policy	<u>4</u>	<u>4</u>
b. Pedestrian and bicycle elements of the project connect to existing bicycle and pedestrian facilities or those that can reasonably expect to be completed between 2019 and 2023.	2	

Criteria	Points	
Regional Connectivity	10 points max	
a. 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	
ADT is less than 2,000	0	
b. Functional Classification of the Road		
Principal Arterial	3	
Minor Arterial	2	
Major Collector	1	1
Minor Collector	0	
c. Fixed route transit (TCATA Red or Blue line) uses the road	2	2
Strategic Investment/ Project Planning	11 points max	
a. Project is identified in an Asset Management or Capital Improvement Plan	3	3
b. Project is identified as a priority in another planning document such as a master plan or parks and recreation plan	1	
c. Project crosses jurisdictional boundaries (i.e. city to township) and is arranged in such a way to be bid as a single project.	1	
d. Project continues resurfacing, reconstruction, or preventative maintenance on a segment of roadway adjacent to a project completed during the 2017-2020 TIP cycle or through Rural Task Force funding.	2	
e. Additional Local Match		
Agency will provide 40% or more local match	4	
Agency will provide 30% to 39.9% local match	2	2
Note: An 18.15% local match is the minimum required		
Project Readiness (no points)	Yes	
Coordination with sewer or other infrastructure (no points)	Yes	
Total Score (out of 52)		29

Twin Cities Area Transportation Study
2020-2023 Transportation Improvement Program (TIP)
Federal Surface Transportation Block Grant Funds
Project Application

2.4

Click "Enable Editing" to begin filling out this form. You may save this form at any time.

Section 1. Applicant Information

Agency Name	City of Benton Harbor		
Contact Name	Darwin Watson	Title	City Manager
Phone Number	(269)927-8400	Email	dwatson@cityofbentonharbormi.gov

Section 2. Project Information

Project Name/Road Name	Broadway		
Project Limits (e.g. Napier Ave. to Britain Ave.)	City Limits to May Street		
Project Length (nearest hundredth of a mile)	0.25 Mile	Proposed Year of Funding	2022
Primary Work Type	<input type="checkbox"/> Reconstruct <input checked="" type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	The proposed work includes milling and resurfacing of the roadway with sidewalk and ramp replacement		
Was this project awarded funding for the 2017-2020 TIP, but was either canceled or failed to be obligated	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please explain:		

Section 3. Project Funding

Federal Funding Requested	\$ 180,600.00
Local Match (18.15% minimum)	\$ 77,400.00
Total	\$ 258,000.00
Local Match Percentage (local match/total cost)	30%
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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Maximum Dollar Amount you can AC? \$

Section 4. System Preservation

2018 PASER rating (available as an excel file)	3
Current state of drainage	<input type="checkbox"/> Adequate <input checked="" type="checkbox"/> Minor and tolerable drainage problems <input type="checkbox"/> Occasional drainage problems with some maintenance required <input type="checkbox"/> Inadequate drainage, frequent flooding, excessive maintenance required
Expected increase in Remaining Service life (RSL)	<input type="checkbox"/> 0-3 years <input type="checkbox"/> 4-6 <input type="checkbox"/> 7-9 <input checked="" type="checkbox"/> 10-14 <input type="checkbox"/> 15-20 Use MDOT's Guidelines for Geometrics on Local Projects
What MDOT guidelines does the project conform to?	<input type="checkbox"/> Reconstruction (4R) <input checked="" type="checkbox"/> Resurfacing, restoration, and Rehabilitation (3R) <input type="checkbox"/> Preventative Maintenance (PM)

Section 5. Safety

Please list the number and severity of crashes within the proposed project limits over the last 5 yrs. (2013-2017) (see [Michigan Crash Facts](#) for crash data)

Total Crashes	4	Pedestrian & Bicycle Crashes	0
Fatalities	0	Serious Injuries	0
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 6. Complete Streets

Does this project meet the TwinCATS Complete Streets Policy , approved in 2014?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
If yes, Please explain what pedestrian and/or bicycle improvements are included	Project includes replacement of sidewalks and ramps to be ADA compliant. Pavement markings includes placement of sharrows and replacement crosswalk markings to accommodate pedestrians and bicyclists.
If 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 from 2020-2023?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please provide a map of the connecting facilities
Section 7. Regional Connectivity	
What is the most current daily traffic count for the limits of this project?	<input checked="" type="checkbox"/> Less than 2000 <input type="checkbox"/> 2000-5000 <input type="checkbox"/> 5000-10,000 <input type="checkbox"/> Above 10,000 Year of count: 2014 Source: MDOT
National Functional Classification (NFC) for this roadway (Berrien County NFC Map)	Major Collector
Does one of TCATA fixed route transit lines use the road? (Only indicate yes if it carries a current route, not a planned route).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Section 8. Strategic Planning & Investment	
Is the project identified in a Asset Management Plan, or Capital Improvement Plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, please cite the plan and page number: Streets Asset Management Plan
Is the project identified in another planning documents such as a master plan or parks and recreation plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
Does the project cross jurisdictional boundaries?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes, will it be bid as a single project?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Will this project coordinate with other infrastructure projects (i.e. utility, water, sewer, etc.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 a utilities assessment that included televising the sewers in the project area?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Will this project require environmental mitigation, purchase of Right of Way (ROW), or railroad permits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure If yes, which items are required:
Does this project perform Resurfacing, Reconstruction, or Preventative Maintenance on a segment adjacent to a segment where a federally-funded project was done during the 2017-2020 TwinCATS TIP cycle or RTF cycle?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No What segment was the PREVIOUS project done on?

Section 9. Existing and Proposed Roadway Design

	Existing			Proposed		
Number of Vehicle Lanes	Through Traffic Lanes	Center Turn Lane	On Street Parking	Through Traffic Lanes	Center Turn Lane	On Street Parking
	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Shoulder Surface	<input type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2'-curb&gutter	<input type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 2'-curb&gutter
Sidewalk/ path information	Placement <input type="checkbox"/> One Side <input checked="" type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input type="checkbox"/> None		Width (ft.) 4'	Placement <input type="checkbox"/> One Side <input checked="" type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input type="checkbox"/> None		Width (ft.) 5'
On road bicycle facilities	<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) _____ <input type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" type="checkbox"/> None			<input type="checkbox"/> Bike Lane <input type="checkbox"/> Other (specify) _____ <input checked="" type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input type="checkbox"/> None		
Utilities, Sewer and Water	<input type="checkbox"/> Utilities Upgrades Needed <input type="checkbox"/> Sewer and water work needed			<input type="checkbox"/> Replaced Utilities <input type="checkbox"/> Relocating Utilities <input type="checkbox"/> 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			Replacement of permanent signage and updating of pavement markings			
Does this project enhance connectivity of pedestrian or bicyclists to fixed route or Dial-A-Ride transit?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how?			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	August 2021
Project Application Submitted to MOT	August 2021
Grade Inspection Package Submitted to MDOT	September 2021
Grade Inspection Meeting Scheduled	October 2021
Final Plan and Estimate to MDOT	November 2021
Right of Way (ROW) certified*	November 2021
Rail Road Permits*	N/A
Environmental Mitigation*	N/A
Project Obligated	December 2021
Project Letting	February 2022
Construction Start <input type="checkbox"/>	April 2022
Project Completion	June 2022



95 West Main Street
P.O. Box 1088
Benton Harbor, MI 49023
T 269.927.2295
F 269.927.1017
www.abonmarche.com

Project Name: Benton Harbor TIP - Broadway
Project Number:
Prepared By: UMK
Date: Friday, November 30, 2018
Description: Preliminary Engineer's Estimate - Emery St to May St

Miscellaneous Quantities

Item	Quantity	Unit	Unit Cost	Item Cost
Mobilization	1	LS	\$ 20,000.00	\$ 20,000.00
Subtotal:				\$ 20,000.00

Removals

Item	Quantity	Unit	Unit Cost	Item Cost
Sidewalk, Rem	590	Syd	\$ 6.00	\$ 3,540.00
Curb and Gutter, Rem	125	Ft	\$ 10.00	\$ 1,250.00
Cold Milling HMA Surface	4160	Syd	\$ 3.00	\$ 12,480.00
Subtotal:				\$ 17,270.00

Roadway-Broadway

Item	Quantity	Unit	Unit Cost	Item Cost
HMA, 4E1	350	Tons	\$ 85.00	\$ 29,750.00
HMA, 5E1	350	Tons	\$ 90.00	\$ 31,500.00
HMA Approach	125	Tons	\$ 125.00	\$ 15,625.00
Curb and Gutter, Conc, Det C4	370	Ft	\$ 20.00	\$ 7,400.00
Sidewalk, Conc, 4 inch	5250	Sft	\$ 5.00	\$ 26,250.00
Sidewalk Ramp	1660	Sft	\$ 10.00	\$ 16,600.00
Detectable Warning Surface, Cast Iron	120	Ft	\$ 85.00	\$ 10,200.00
Dr Structure, Temp Lowering	10	Ea	\$ 400.00	\$ 4,000.00
Dr Structure Cover, Adj, Case 1	10	Ea	\$ 600.00	\$ 6,000.00
Dr Structure Cover, Type B	5	Ea	\$ 750.00	\$ 3,750.00
Dr Structure Cover, Type Q	5	Ea	\$ 750.00	\$ 3,750.00
Pavt, Cleaning	1	LSUM	\$ 3,000.00	\$ 3,000.00
Subtotal:				\$ 157,825.00

General

Item	Quantity	Unit	Unit Cost	Item Cost
Pavement Marking	1	LS	\$ 6,000.00	\$ 6,000.00
Permanent Signage	1	LS	\$ 2,500.00	\$ 2,500.00
Traffic Control	1	LS	\$ 15,000.00	\$ 15,000.00
Soil Erosion and Sedimentation Control	1	LS	\$ 2,000.00	\$ 2,000.00
Slope Restoration	1	LS	\$ 2,500.00	\$ 2,500.00
Subtotal:				\$ 28,000.00

Construction		\$ 224,000.00
Construction Contingency	15%	\$ 34,000.00
Construction Subtotal		\$ 258,000.00
Engineering	15%	\$ 39,000.00
Project Total		\$ 297,000.00

Estimate Summary:

1. Length - 1400'; Width - 22' pavement
2. 3" cold milling - 1.5" HMA Top course; 1.5" HMA Base Course
3. Sidewalk and ramp replacement
4. Sharrows included in Pavement Markings

City of Benton Harbor

Broadway - City Limits to May St

- Unit 1
- Unit 2

Legend

- Fair Plain

3/14/2015
Angle

1/24/2014
Angle

6/28/2015
Angle

8/1/2015
Single Motor Vehicle



600 ft

Google Earth

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Project Name: Benton Harbor TIP
Prepared By: Uma Kota, EIT
Checked By: Timothy R Drews, PE, PTOE
Date: Thursday, November 29, 2018
Description: Crash Summary

Roadway Segment - Broadway										
Year	Primary Road	Intersecting Road	Distance	Crash Type	Unit 1 Injury	Unit 2 Injury	Weather	Light	Road Surface Condition	Crash Description
1/24/2014	Broadway	May	AT	Angle	O	O	Snow	Daylight	Icy	Unit failed to stop on the icy road and struck Unit 2
6/28/2015	Broadway	May	1' N	Angle	O	O	Clear	Daylight	Dry	Unit 2 hit Unit 1 assuming Unit 1 was far enough through the intersection
8/1/2015	Broadway	Emery	50' N	Single Motor Vehicle	C	-	Clear	Dark-Lighted	Dry	Unit 1 drove recklessly and off the road hitting the living room window of 1294 Broadway
3/14/2015	Broadway	May	4' W	Angle	O	-	Clear	Daylight	Dry	Unit 2 drove through the stop sign and strikes Unit 1

Crash Type	Count	Percentage
Single Motor Vehicle	1	25%
Angle	3	75%

Intersecting Road	Count	Percentage
May	3	75%
Emery	1	25%

The crash analysis indicates that none of the crashes meet the requirements for safety counter measures and Crash Reduction Factors per the HSIP

