

Rural Task Force Region Four Road Project Application

Section 1. Applicant Information

Agency Name	Village of Breedsville		
Contact Name	Linda Norton	Title	Clerk
Phone Number	269-427-9029	Email	breedsvilleclerk@gmail.com

Section 2. Project Information

Project Name/Road Name	Pine Street Rehabilitation		
Township/City/Village	Breedsville		
Project Limits (e.g. Napier Ave. to Britain Ave.)	W Main Street to north Village Limits, south Village Limits 600' North		
Project Length (nearest hundredth of a mile)	0.61	Proposed Year of Funding	2020
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"/> Transit <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	N Pine: 2700 LF of HMA crush and shape. Place 4" HMA, widen shoulders, pave driveways, install 4 ADA ramps, clean and reestablish 5400 LF of roadside ditches. S Pine: HMA cold milling and placing of 2" HMA.		

Section 3. Project Funding

Federal STBG Requested	\$ 368,000
State D	\$ 46,000
CTF	\$
Local Funds	\$ 46,000
Total	\$ 460,000
Match Percentage (match/total cost)	10%
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

PASER rating	1
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input 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 type="checkbox"/> 10-14 <input checked="" type="checkbox"/> 15-20 Use MDOT's Guidelines for Geometrics on Local Projects
What 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	2	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	New roadway surface
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Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	Placing ADA ramps at the intersections of Pine/Main and Pine/E Howard Ave
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: 2013 Source: SWMPC
National Functional Classification (NFC) for this roadway	Major Collector
Is the project on an All Season Road	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure

Section 8. Strategic Planning & Investment

Is the project identified in a Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
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 type="checkbox"/> Yes <input checked="" 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- https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf RTF cycle?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No What segment was the PREVIOUS project done on? E Main St

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.) 0	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3
	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
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 type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" 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			Permanent signage and new crosswalk striping			

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	March 2019
Project Application Submitted to MOT	September 2019
Grade Inspection Package Submitted to MDOT	October 2019
Grade Inspection Meeting Scheduled	November 2019
Final Plan and Estimate to MDOT	December 2019
Right of Way (ROW) certified*	
Rail Road Permits*	
Environmental Mitigation*	
Project Obligated	January 2019
Project Letting	March 2019
Construction Start <input type="checkbox"/>	June 2019
Project Completion	August 2019

*Enter NA if these items will not be required.

Proposed Improvement		% Reduction	Associated Crash Types
SEGMENT CRASH REDUCTION FACTORS			
Geometric Safety Enhancements			
<input type="checkbox"/>	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*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input checked="" type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
General Segment Enhancements			
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	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
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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

Rural Task Force Region Four Road Project Application

Section 1. Applicant Information

Agency Name	Village of Breedsville		
Contact Name	Linda Norton	Title	Clerk
Phone Number	269-427-9029	Email	breedsvilleclerk@gmail.com

Section 2. Project Information

Project Name/Road Name	West Main Street Rehabilitation		
Township/City/Village	Breedsville		
Project Limits (e.g. Napier Ave. to Britain Ave.)	West Village Limits to Pine Street		
Project Length (nearest hundredth of a mile)	0.50	Proposed Year of Funding	2021
Primary Work Type	<input type="checkbox"/> Reconstruct <input type="checkbox"/> Restore & Rehabilitate <input type="checkbox"/> Roadside Facility <input checked="" type="checkbox"/> Resurface <input type="checkbox"/> Traffic Operations/Safety <input type="checkbox"/> Transit <input type="checkbox"/> Other		
Project Description (Please provide major work items including sidewalks, utility work, ADA upgrades etc.)	2650 LF of HMA crush and shape. Place 4" HMA, widen shoulders, restoration of ditches, ADA ramp upgrades, permanent signage and pavement markings.		

Section 3. Project Funding

Federal STBG Requested	\$ 376,000
State D	\$ 47,000
CTF	\$
Local Funds	\$ 47,000
Total	\$ 470,000
Match Percentage (match/total cost)	10%
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

PASER rating	1
Current state of drainage	<input checked="" type="checkbox"/> Adequate <input 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 type="checkbox"/> 10-14 <input checked="" type="checkbox"/> 15-20 Use MDOT's Guidelines for Geometrics on Local Projects
What 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	1	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	New roadway surface
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Section 6. Non-motorized Improvements

Please explain any pedestrian and/or bicycle improvements are included	Placing ADA ramps at the intersections of Pine/Main and Pine/E Howard Ave
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: 2013 Source: SWMPC
National Functional Classification (NFC) for this roadway	Major Collector
Is the project on an All Season Road	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure

Section 8. Strategic Planning & Investment

Is the project identified in a Asset Management Plan, or Capital Improvement Plan	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please cite the plan and page number:
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 type="checkbox"/> Yes <input checked="" 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- https://www.swmpc.org/downloads/rtf_region4_20172020_project_list.pdf RTF cycle?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No What segment was the PREVIOUS project done on? E Main Street

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.) 0	<input checked="" type="checkbox"/> Paved <input type="checkbox"/> Unpaved		Width (ft.) 3
	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)	Placement <input type="checkbox"/> One Side <input type="checkbox"/> Both Sides <input type="checkbox"/> Intermittent <input checked="" type="checkbox"/> None		Width (ft.)
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 type="checkbox"/> Sharrows <input type="checkbox"/> Wide Shoulders <input checked="" 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	New permanent signage, re striping crosswalks.					

Section 10. Estimated Project Schedule

Activity	Estimated Date
Resolution of Support for <input type="checkbox"/> Local Match Submitted to SWMPC	March 2019
Project Application Submitted to MOT	September 2020
Grade Inspection Package Submitted to MDOT	October 2020
Grade Inspection Meeting Scheduled	November 2020
Final Plan and Estimate to MDOT	December 2020
Right of Way (ROW) certified*	
Rail Road Permits*	
Environmental Mitigation*	
Project Obligated	January 2021
Project Letting	March 2021
Construction Start <input type="checkbox"/>	June 2021
Project Completion	August 2021

*Enter NA if these items will not be required.

Proposed Improvement		% Reduction	Associated Crash Types
SEGMENT CRASH REDUCTION FACTORS			
Geometric Safety Enhancements			
<input type="checkbox"/>	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*
<input type="checkbox"/>	Right-Turn Lane - Construct	65%	Rear-End Right-Turn
		30%	Angle
		15%	Rear-End
		10%	Other*
<input type="checkbox"/>	Horizontal Curve Flattening	30%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 1' each side)	5%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 2' each side)	10%	Lane Departure***
<input checked="" type="checkbox"/>	Shoulders - Widen to Standard Width (add 3' each side)	15%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 4' each side)	20%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 5' each side)	25%	Lane Departure***
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 6' each side)	30%	Lane Departure***
<input type="checkbox"/>			
<input type="checkbox"/>	Shoulders - Widen to Standard Width (add 7' each side)	35%	Lane Departure***
<input type="checkbox"/>	Vertical Curve Modification	20%	All Applicable Crash Types +++
General Segment Enhancements			
<input type="checkbox"/>	Access Management - Improve	15%	Drive-way Related Applicable Crashes
<input type="checkbox"/>	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
<input type="checkbox"/>	High Friction Surface Treatment - Install	35%	Wet Crashes
		20%	All Other Applicable Crashes
<input type="checkbox"/>	Recessed Durable Pavement Markings	5%	All Applicable Crashes
<input type="checkbox"/>	Pedestrian Refuge - Install	50%	Pedestrian Crashes (Review NCHRP Report 841)
<input type="checkbox"/>	Road Diet (4-3 Lane Conversion) - Install	50%	Suburban - All Applicable Crashes
<input type="checkbox"/>	Shoulder Rumble Strips	20%	Run-Off the Road Right Crashes
<input type="checkbox"/>	Signing/Delineation on Horizontal Curves (Including Recessed Durable Pavement Markings) - Install	20%	Lane Departure***
<input type="checkbox"/>	Safety Edge Improvement	13%	All non-intersection crashes (CMF Clearing House ID 8658)

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

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