### **Overview of Public Works CIP**

The Public Works CIP includes two separate sections: Roads and Bridges.

Approximately \$88.3M is included in the FY 19 – 24 CIP to maintain roads throughout the County. Approximately thirty-five percent of the County's road network is considered mainline or arterial roads. These roads carry a higher traffic volume. Sixty-five percent are lower volume roadways, including neighborhood roads. Typical repair strategies include patching, overlay, mill and overlay, full-depth reclamation, and reconstruction.

Funding is provided to design and construct a roundabout at the intersection of Lucabaugh Mill, Sullivan, and Lemmon Roads.

Included in FY 19 - 24 is \$0.6M to support State road projects. Contributing to State projects may expedite the planning process for State roads in Carroll County.

Market Street Extended, a new road construction project, will create a more direct connection to MD 140 from Old Westminster Pike.

Funding is included in the FY 19 - 24 CIP for rehabilitation and video inspection of storm drains. Video inspections will assess the condition of the storm drain system and rehabilitation funding is included for pipe lining and replacements.

Funding is included for the replacement or rehabilitation of five bridge structures.

For additional information on these or other Public Works projects, please refer to the individual project pages.

#### COMMUNITY INVESTMENT PLAN FOR FISCAL YEARS 2019 TO 2024

	2010	2020	2021	2022	2022	2024	Prior	Balance To	Total
ROADS:	2019	2020	2021	2022	2023	2024	Allocation	Complete	Project Cost
KONDO.									
Highway Safety Improvements	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$0	\$0	\$180,000
Lucabaugh Mill/Sullivan/Lemmon Roads Roundabout	150,000	600,000	0	0	0	0	0	0	750,000
Market Street Extended	720,000	0	0	0	0	0	1,271,005	0	1,991,005
Pavement Management Program	12,210,000	12,660,000	13,120,000	13,770,000	14,375,000	15,125,000	0	0	81,260,000
Pavement Preservation	1,082,000	1,114,000	1,147,000	1,181,000	1,216,000	1,275,000	0	0	7,015,000
Ramp and Sidewalk Upgrades	75,000	78,000	81,000	85,000	88,000	92,000	0	0	499,000
Small Drainage Structures	165,000	173,000	182,000	191,000	201,000	211,000	0	0	1,123,000
Storm Drain Rehabilitation	1.077.900	215,000	265,000	315,000	365,000	415,000	0	0	2,652,900
Storm Drain Video Inspection	439,300	135,000	135,000	135,000	135,000	135,000	0	0	1,114,300
Transportation/State Projects	0	200,000	200,000	200,000	0	0	800,000	0	1,400,000
1							,		
ROADS TOTAL	\$15,949,200	\$15,205,000	\$15,160,000	\$15,907,000	\$16,410,000	\$17,283,000	\$2,071,005	\$0	\$97,985,205
SOURCES OF FUNDING:									
Transfer from General Fund	\$322,426	\$1,199,000	\$1,232,000	\$1,266,000	\$1,101,000	\$1,160,000	\$800,000	\$0	\$7,080,426
Reallocated GF Transfer	622,735	0	0	0	0	0	0	0	622,735
Local Income Tax	0	0	0	0	0	0	758,005	0	758,005
Reallocated Property Tax	21,840	0	0	0	0	0	0	0	21,840
Bonds	6,854,030	12,671,100	12,672,000	13,385,000	14,053,000	14,867,000	513,000	0	75,015,130
Reallocated Bonds	5,578,539	0	0	0	0	0	0	0	5,578,539
State Highway Administration	176,000	176,000	176,000	176,000	176,000	176,000	0	0	1,056,000
Highway User Revenue	2,373,630	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	0	0	7,773,630
Reallocated Developer Contribution	0	78,900	0	0	0	0	0	0	78,900
ROADS TOTAL	\$15,949,200	\$15,205,000	\$15,160,000	\$15,907,000	\$16,410,000	\$17,283,000	\$2,071,005	\$0	\$97,985,205

# Highway Safety Improvements Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

9674

This project provides ongoing funding to address roadway segments and road intersections with a history of frequent or severe accidents, and those with a significant potential for accidents. Among the possible improvements are minor changes in intersection geometry, turn lanes, signing additions or upgrades, traffic calming measures, and pavement marking upgrades.

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design									0
Land Acquisition									0
Site Work									0
Construction	30,000	30,000	30,000	30,000	30,000	30,000			180,000
Equipment/Furnishings									0
Other									0
EXPENDITURES									
-									
TOTAL	30,000	30,000	30,000	30,000	30,000	30,000	0	0	180,000
	30,000	30,000	30,000	30,000	30,000	30,000	0	0	180,000
SOURCES OF FUNDS	30,000	30,000	30,000	30,000	30,000	30,000	0	0	180,000
TOTAL  SOURCES OF FUNDS  Transfer from General Fund  Reallocated GF Transfer	30,000	30,000	30,000	30,000	30,000	30,000	0	0	
SOURCES OF FUNDS Transfer from General Fund	30,000	30,000	30,000	30,000	30,000	30,000	0	0	0
SOURCES OF FUNDS  Transfer from General Fund  Reallocated GF Transfer	30,000	30,000	30,000	30,000	30,000	30,000	0	0	0

Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

8766

This project provides funding for the design and construction of a roundabout at the intersection of Lucabaugh Mill, Sullivan, and Lemmon Roads to address safety concerns.

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
								•	
Engineering/Design	150,000								150,000
Land Acquisition									0
Site Work									0
Construction		600,000							600,000
Equipment/Furnishings									0
Other									0
EXPENDITURES	•	•			•		•		
TOTAL	150,000	600,000	0	0	0	0	0	0	750,000
SOURCES OF FUNDS									
Transfer from General Fund									0
Reallocated GF Transfer									0
Bonds	150,000	521,100							671,100
Reallocated Developer Contribution		78,900							78,900
	•	•					•		
PROJECTED OPERATING	0	0	0	0	0	0			

#### Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

Functional Classification: Collector Average Daily Traffic: TBD Length: Approximately 1,400 feet Limits: MD 140 to Old Westminster Pike

This project provides funding for the construction of a more direct connection to MD 140 from Old Westminster Pike. This connector will reduce traffic on Old Baltimore Road and the local streets that extend from Old Westminster Pike to Old Baltimore Road, and will provide redundancy in the road network. The connection to MD 140 will be located at the existing traffic signal at Market Street/Old Baltimore Road.

The prior allocation of \$1.3 million was for land acquisition.

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design									0
Land Acquisition							1,271,005		1,271,005
Site Work	51,000								51,000
Construction	516,000								516,000
Equipment/Furnishings									0
Other	153,000								153,000
EXPENDITURES									
TOTAL	720,000	0	0	0	0	0	1,271,005	0	1,991,005
TOTAL SOURCES OF FUNDS	720,000	0	0	0	0	0	1,271,005	0	1,991,005
SOURCES OF FUNDS	720,000	0	0	0	0	0	1,271,005	0	1,991,005
	720,000	0	0	0	0	0	1,271,005	0	, ,
SOURCES OF FUNDS Transfer from General Fund	720,000	0	0	0	0	0	1,271,005 758,005	0	0
SOURCES OF FUNDS  Transfer from General Fund  Reallocated GF Transfer	720,000	0	0	0	0	0		0	0

## **Pavement Management Program**

Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

8767

This project provides ongoing funding for the maintenance, repair, or rehabilitation of the County's 900 miles of paved roads. A pavement management software program is used to collect road condition information and to recommend the most cost-effective repair. Repair strategies include: patching, overlay, mill and overlay, full depth reclamation, and reconstruction. Drainage structures and traffic barriers will be repaired, replaced, or added where necessary and sidewalk accessibility will also be evaluated and included if upgrades are due.

Maintaining a road network condition of satisfactory condition is one of the Department's goals. While addressing roads that are near failure is important, maintaining roads in fair and satisfactory condition is important as well. It is cost effective to address roads while the amount of repair work is minimal and this balanced approach keeps the network in satisfactory condition.

,	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design	110,000	115,000	120,000	125,000	125,000	125,000			720,000
Land Acquisition									0
Site Work									0
Construction	11,550,000	11,970,000	12,400,000	13,020,000	13,600,000	14,300,000			76,840,000
Equipment/Furnishings									0
Other	550,000	575,000	600,000	625,000	650,000	700,000			3,700,000
EXPENDITURES									
-									
TOTAL	12,210,000	12,660,000	13,120,000	13,770,000	14,375,000	15,125,000	0	0	81,260,000
	İ								
SOURCES OF FUNDS						,		T	,
Transfer from General Fund	155,426	800,000	800,000	800,000	800,000	800,000			4,155,426
Reallocated GF Transfer	622,735								622,735
Reallocated Property Tax	21,840								21,840
Bonds	5,655,460	11,684,000	12,144,000	12,794,000	13,399,000	14,149,000			69,825,460
Reallocated Bonds	5,578,539								5,578,539
State Highway Administration	176,000	176,000	176,000	176,000	176,000	176,000			1,056,000
PROJECTED OPERATING IMPACTS	0	0	0	0	0	0			

# **Pavement Preservation**

### Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

8768

This project provides ongoing funding to place a maintenance seal coat, such as microsurface, on paved roads. Pavement preservation is applied to roads still in good condition and before the onset of serious damage. Annual funding addresses approximately 30-40 miles.

Upcoming project list will be generated in the spring in preparation for the summer construction season.

-	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design									0
Land Acquisition									0
Site Work									0
Construction	1,082,000	1,114,000	1,147,000	1,181,000	1,216,000	1,275,000			7,015,000
Equipment/Furnishings									0
Other									0
EXPENDITURES									
TOTAL	1,082,000	1,114,000	1,147,000	1,181,000	1,216,000	1,275,000	0	0	7,015,000
SOURCES OF FUNDS									
Transfer from General Fund	32,000	64,000	97,000	131,000	166,000	225,000			715,000
Reallocated GF Transfer									0
Local Income Tax									0
Highway User Revenue	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000			6,300,000
PROJECTED OPERATING									

## Ramp and Sidewalk Upgrades

Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

8626

This project provides ongoing funding to upgrade or replace non-compliant ramps and sidewalks for ADA accessibility. Non-compliant ramps and sidewalks are also addressed through the Pavement Management Program. This project allows for the acceleration of the replacement and upgrade process. As part of this process, a Self-Evaluation of Pedestrian Facilities within County rights-of-way has been completed and is being used to develop a prioritized plan to address deficiencies. Funding in this project will address non-compliant curb ramps at various intersections and identified sidewalk network deficiencies.

<u>-</u>	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design									0
Land Acquisition									0
Site Work	7,500	8,000	8,000	8,000	8,000	8,000			47,500
Construction	60,000	63,000	66,000	69,000	72,000	76,000			406,000
Equipment/Furnishings									0
Other	7,500	7,000	7,000	8,000	8,000	8,000			45,500
EXPENDITURES									
TOTAL	75,000	78,000	81,000	85,000	88,000	92,000	0	0	499,000
_		-	-	-	-	-			
SOURCES OF FUNDS					ı		,		T
Transfer from General Fund									0
Reallocated GF Transfer									0
Local Income Tax									0
Bonds	75,000	78,000	81,000	85,000	88,000	92,000	·		499,000
PROJECTED OPERATING IMPACTS	0	0	0	0	0	0			

# **Small Drainage Structures**

#### Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

9847

This project provides ongoing funding to repair or replace deteriorated drainage structures including culvert headwalls and ancillary drainage features. Recently completed project sites include Carroll Warehime Road culvert rehabilitation and Lineboro Road and Dr. Stitely Road pipe culvert replacements.

The Department of Public Works continues to incorporate all pipe culverts and drainage structures into the Geographic Information Systems (GIS). Once the locations are identified and mapped, field condition assessments can be made to help determine the most cost-effective approach to replacing and repairing these drainage structures.

-	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design									0
Land Acquisition									0
Site Work									0
Construction	165,000	173,000	182,000	191,000	201,000	211,000			1,123,000
Equipment/Furnishings									0
Other									0
EXPENDITURES									
TOTAL	165,000	173,000	182,000	191,000	201,000	211,000	0	0	1,123,000
GOVERGES OF WANTS									
SOURCES OF FUNDS									
Transfer from General Fund									0
Reallocated GF Transfer									0
Local Income Tax									0
Bonds	165,000	173,000	182,000	191,000	201,000	211,000			1,123,000
PROJECTED OPERATING									

This project provides ongoing funding to maintain the storm drainage system through rehabilitation and replacement. The County maintains about 180 miles (or 950,000 feet) of storm drain infrastructure, primarily located in neighborhoods where curbing, inlet, and manholes exist. Many of these storm drainage systems were constructed in the late 1960s and 1970s with corrugated metal pipe. It is likely that many of these systems are nearing the end of their expected service life.



Photograph of deteriorated metal pipe

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design									0
Land Acquisition									0
Site Work									0
Construction	1,077,900	215,000	265,000	315000	365,000	415,000			2,652,900
Equipment/Furnishings									0
Other									0
EXPENDITURES									
-									
TOTAL	1,077,900	215,000	265,000	315,000	365,000	415,000	0	0	2,652,900
	1								
SOURCES OF FUNDS				1					1
Transfer from General Fund									0
Reallocated GF Transfer									0
Bonds	88,570	215,000	265,000	315,000	365,000	415,000			1,663,570
Highway User Revenue	989,330								989,330

8769

This project provides ongoing funding to gather video inspection data of existing storm drain pipes. Video inspections will assess condition to determine if repairs or replacements are needed and funding is provided for infrastructure rehabilitation in the Storm Drain Rehabilitation project.

<u>-</u>	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
Engineering/Design	439,300	135,000	135,000	135,000	135,000	135,000			1,114,300
Land Acquisition									0
Site Work									0
Construction									0
Equipment/Furnishings									0
Other									0
EXPENDITURES									
TOTAL	439,300	135,000	135,000	135,000	135,000	135,000	0	0	1,114,300
SOURCES OF FUNDS									
Transfer from General Fund	135,000	135,000	135,000	135,000	135,000	135,000			810,000
Reallocated GF Transfer									0
Local Income Tax									0
Highway User Revenue	304,300								304,300
PROJECTED OPERATING IMPACTS	0	0	0	0	0	0			

Lynn Karr, Senior Management and Budget Analyst (410) 386-2082

8629

This project provides planned funding to support State road projects in Carroll County. Contributing County funding to State projects may encourage the planning process and the construction of State roads in Carroll County.

	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	Prior Allocation	Balance to Complete	Total Project Cost
								<u>-</u>	
Engineering/Design		200,000	200,000	200,000			800,000		1,400,000
Land Acquisition									0
Site Work									0
Construction									0
Equipment/Furnishings									0
Other									0
EXPENDITURES									
TOTAL	0	200,000	200,000	200,000	0	0	800,000	0	1,400,000
_									
SOURCES OF FUNDS									
Transfer from General Fund		200,000	200,000	200,000			800,000		1,400,000
Reallocated GF Transfer									0
Local Income Tax									0
Reallocated Local Income Tax									0
		-							
PROJECTED OPERATING IMPACTS	0	0	0	0	0	0			