

Bridge Technical Report



Genesee County Bridge Technical Report

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Appendix A

Bridge Conditions by Local Unit of Government

Appendix B

Bridge Scoring Information

Genesee County Bridge Technical Report

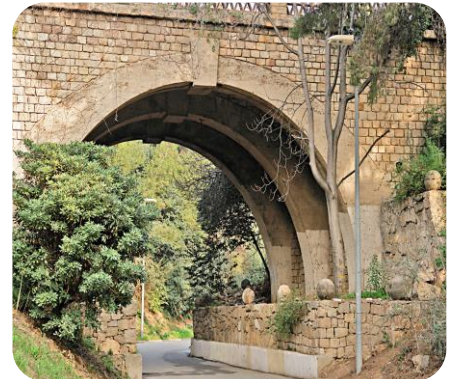
The Genesee County Bridge Technical Report is a supporting document and building block for Genesee County's 2040 Long Range Transportation Plan. Bridges are integral to the transportation system, and the stability of these structures is an important part of the transportation planning process.



Due to our crumbling infrastructure, the safety of bridges everywhere has come to the forefront of the transportation planning discussion. Staff has undergone an effort to produce quality data on the current condition of the bridges in Genesee County; and from this data, forecast the future condition of bridges into the year 2040. In partnership with the Michigan Department of Transportation, Genesee County bridge data was compiled and analyzed to produce the findings in this report.

Bridge Programming

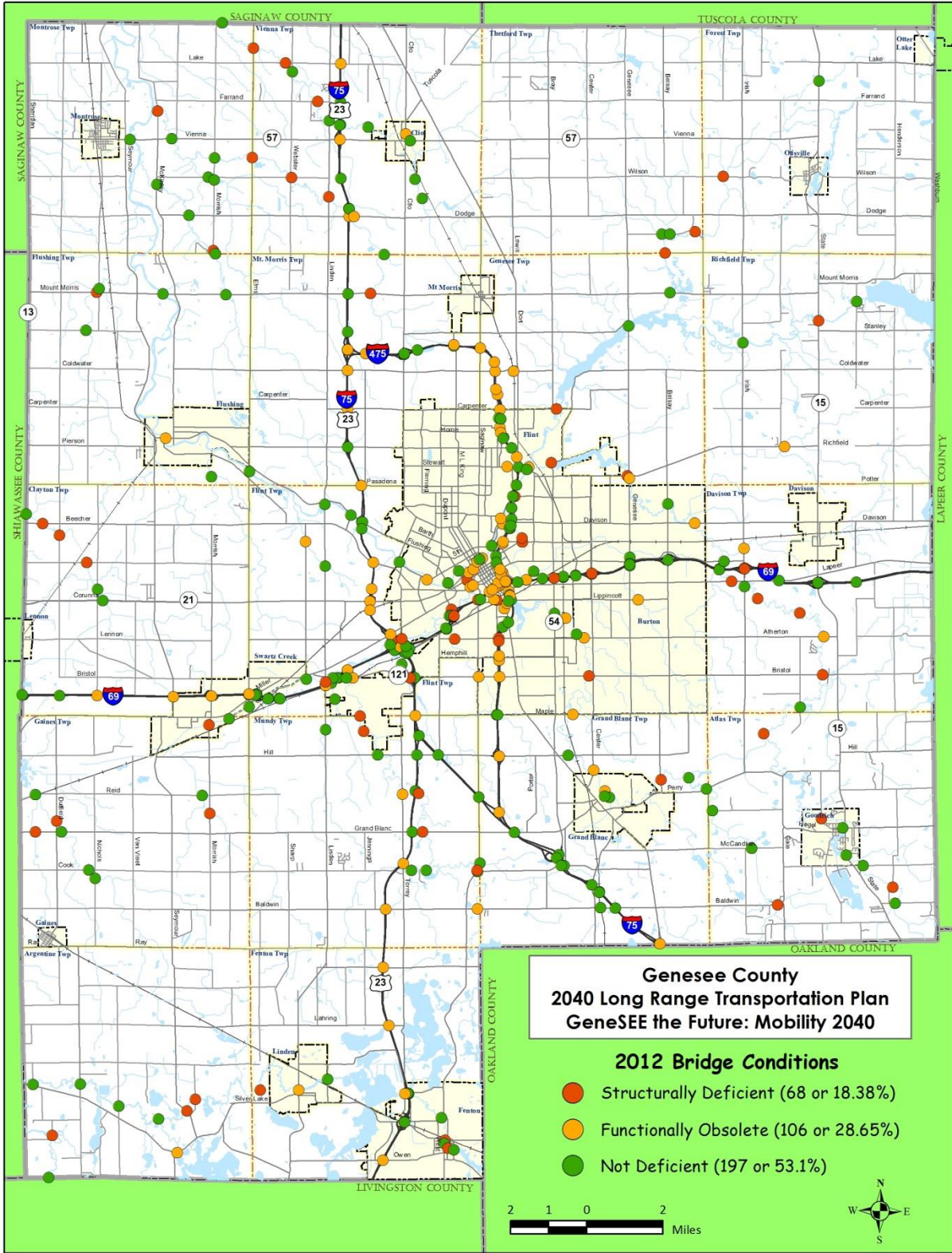
In the State of Michigan, funding for bridge improvements is dependent upon ownership. A table that indicates bridge ownership (labeled as Genesee County Bridge Deficiencies) is located on page 4 of this report. There are currently 190 (51%) bridges in Genesee County owned by the state, and these bridges are funded and maintained at the state level. The remaining 181 bridges are owned by the county and various cities and villages throughout the county. These bridges compete with the other bridges across the state for limited funding provided by the Michigan Local Bridge Program. This program receives about 300 applications requesting funding and approves between 70 and 90 projects per year. The program's annual budget is approximately \$45 million. A Regional Bridge Council (RBC), made up of representatives from local agencies, is responsible for determining which bridges receive funding. There are 7 RBCs across the state. Of the 181 locally owned bridges in Genesee County, 93 (51%) are deficient.

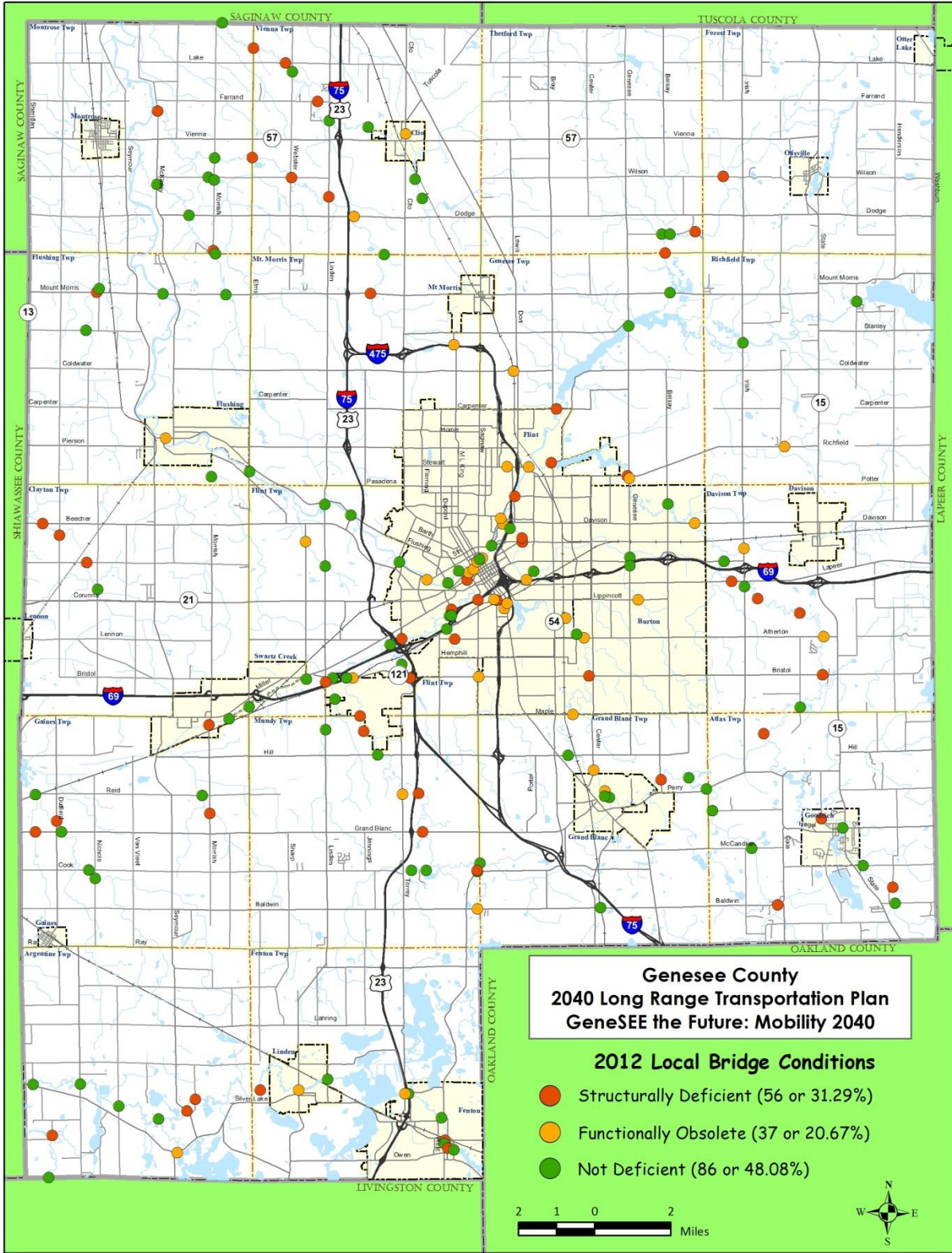


Bridge Deficiencies – Present and Future

For the purposes of this report, bridge deficiencies are characterized by two classifications: structurally deficient (SD) and functionally obsolete (FO).

Structurally deficient refers to the health of a bridge while functionally obsolete refers to the performance of a bridge. A bridge is considered deficient if it meets either of these criteria. The Michigan Highway Bridge Report, published by the Michigan Department of Transportation, adequately defines both terms:





Structurally Deficient (18.38%): a bridge is classified as structurally deficient if the deck, superstructure, substructure, or culvert is rated in 'poor' condition (0 to 4 on the National Bridge Inventory scale). A bridge can also be classified as structurally deficient if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods.

Functionally Obsolete (28.65%): bridges classified as functionally obsolete are NOT structurally deficient, but their design is outdated. They may have lower load carrying capacity, narrower shoulders, or less clearance underneath than bridges built to the current standard.

The Michigan Structure Inventory and Appraisal Coding Guide is available on-line by going to the following on-line link:

http://www.michigan.gov/documents/mdot_SIA_Manual-2_79072_7.pdf

This guide contains additional information on bridge coding. Appendix B in this document contains bridge scoring information.

Of the 371 bridges in Genesee County, 174 of them are currently deficient. Genesee County has a 46.9% bridge deficiency rating; a percentage much higher in comparison to other local, state, and national figures. In fact, the 46.9% bridge deficiency rating ranks the third worst in the entire State of Michigan, trailing only Wayne and Emmet Counties.

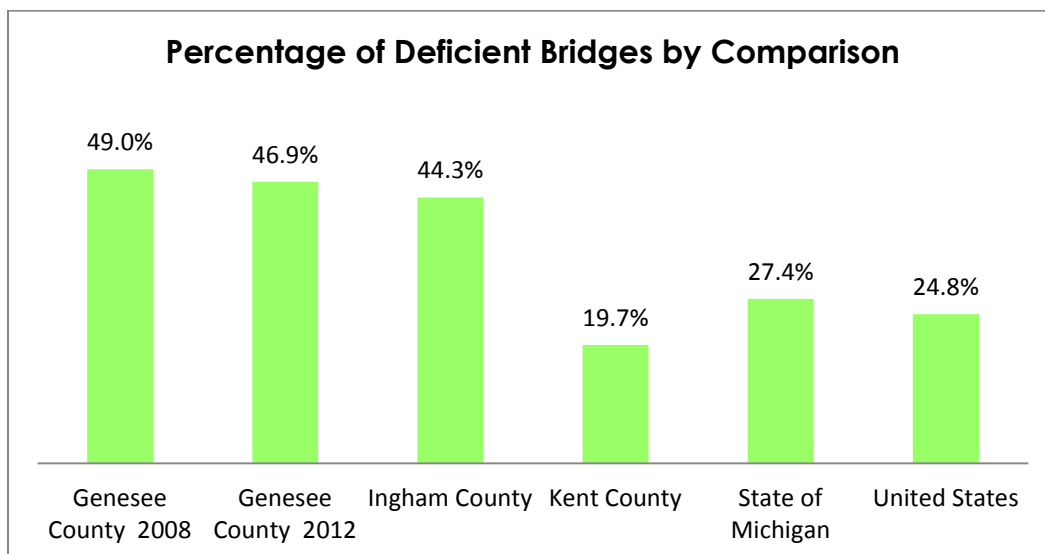
There are 63 bridges on I-69, and 50 bridges on I-75.

Genesee County Bridge Deficiencies				
Owner	SD	FO	% Deficient	Total Bridges
MDOT	12	69	42.6%	190
Genesee County Road Commission	42	14	46.7%	120
City of Burton	1	5	60.0%	10
City of Clio	0	1	100.0%	1
City of Fenton	2	0	33.3%	6
City of Flint	9	14	69.7%	33
City of Flushing	0	1	100.0%	1
City of Grand Blanc	0	1	25.0%	4
City of Linden	0	1	50.0%	2
City of Swartz Creek	1	0	50.0%	2
Village of Goodrich	1	0	50.0%	2
TOTAL	68	106	46.9%	371

SD = Structurally Deficient

FO = Functionally Obsolete

Genesee County Bridge Deficiencies--Townships Only				
Township	SD	FO	% Deficient	Total Bridges
Argentine Twp.	3	1	44%	9
Atlas Twp.	4	0	40%	10
Clayton Twp.	3	1	44%	9
Davison Twp.	6	2	47%	17
Fenton Twp.	1	3	80%	5
Flint Twp.	2	15	38%	45
Flushing Twp.	1	0	17%	6
Forest Twp.	1	0	50%	2
Gaines Twp.	3	0	33%	9
Genesee Twp.	1	8	82%	11
Grand Blanc Twp.	1	4	25%	20
Montrose Twp.	2	0	18%	11
Mt. Morris Twp.	1	6	44%	16
Mundy Twp.	5	4	45%	20
Richfield Twp.	1	1	50%	4
Theftord Twp.	2	0	50%	4
Vienna Twp.	6	4	48%	21
Genesee County Road Commission Total	43	49	44.0%	219



Source: MDOT and FHWA

Genesee County Bridge Improvements 2008-2012		
Agency	Project	Total Cost
Burton	E. Atherton Rd over Thread Creek	\$453,624
Burton	Maple Ave at Thread River	\$682,686
GCRC	Richfield Rd over Kearsley Creek	\$857,832
GCRC	Duffield Rd at Shiawassee River	\$510,000
GCRC	Lovejoy Rd at the South Branch of Shiawassee River	\$795,000
GCRC	Atherton Rd ridge over Kearsley Creek	\$620,384
GCRC	Irish Rd bridge over Flint River	\$1,318,674
GCRC	Wilson Rd bridge over Benjamin Run	\$513,299
MDOT	I-69 over M-54 & Center Rd	\$616,000
MDOT	I-69 over CSR RR & Averill Ave	\$554,000
MDOT	I-475 - Four bridges in Genesee County	\$2,218,655
MDOT	I-75 - Three structures in Genesee County	\$3,000
MDOT	M-15 over Flint River & I-75 ramp over Swartz Creek	\$464,119
MDOT	Belsay Rd over I-69	\$199,003
MDOT	I-75 - Three structures in Genesee County	\$14,000
MDOT	I-75 - Four bridges in Genesee County	\$80,000
MDOT	M-15 over Paddison Co Drain	\$66,514
MDOT	I-475 - Two bridges on I-475 in Flint	\$212,436
MDOT	I-69 under Lapeer Rd	\$471,704
MDOT	I-475 over Atherton Rd	\$11,595
MDOT	I-69 under M-13	\$709,270
MDOT	I-69 - Four bridges over I-69, City of Flint	\$2,962,741
MDOT	I-75 GTW RR over I-75	\$85,406
MDOT	I-75 - Maple Rd over I-75	\$8,128
MDOT	I-75 - Ramps A & C over Swartz Creek	\$7,000
MDOT	M-15 over Paddison Co Drain	\$3,600
MDOT	M-15 over the Flint River	\$7,000
MDOT	I-475 - six bridges along I-575	\$1,900,000
MDOT	I-475 - 3 bridges in Genesee County	\$620,000
MDOT	I-475 - 4 bridges in Genesee County	\$265,603
MDOT	I-475 - five bridges on I-475 in Genesee County	\$3,415,000
MDOT	I-475 under 14th Street	\$450,000
MDOT	I-475 - three bridges on I-475 in Flint	\$2,200,000
MDOT	I-475 under 2nd Street, Flint	\$325,000
MDOT	I-475 over CSX RR & NB Service Drive	\$12,000
MDOT	I-69 - I-69 EB & WB over Irish Rd	\$201,245
MDOT	I-75 - 3 bridges in Genesee County	\$1,237,400
MDOT	I-75 under Stanley Rd and under Mt. Morris Rd	\$1,642,600
MDOT	I-75 under Lake Rd, Wilson Rd, and Farrand Rd	\$1,296,623
MDOT	I-75 - Six bridges on I-75 in Genesee County	\$7,095,100
MDOT	I-75 - Two bridges on I-75 in Genesee County	\$1,568,500
MDOT	M-21 over Mistequay Creek	\$2,481,680
MDOT	I-475 from I-75 junction to I-69	\$26,400,000

Genesee County Bridge Improvements 2008-2012 (cont.)		
Agency	Project	Total Cost
MDOT	I-475 under Court Street	\$86,250
MDOT	I-75 under Dodge Rd, 2.1 miles south of M-57	\$162,149
MDOT	I-75 under Stanley Rd and under Mt. Morris Rd	\$176,336
MDOT	I-75 - 3 bridges in Genesee County	\$232,174
MDOT	M-13 over Mistequay Creek	\$252,436
MDOT	M-21 over Swartz Creek & CSX RR	\$585,183
MDOT	Bay Region - I-69 @ Hammerburg Rd	\$480,903
MDOT	I-69 (Dort Hwy)	\$72,472
MDOT	I-69 - Four bridges over I-69, Genesee County	\$28,511
MDOT	I-75 at M-21	\$7,500
MDOT	I-75 at Cook Rd & Fenton Rd	\$546,936
MDOT	I-75 - Miller Rd & Flushing Rd	\$136,013
MDOT	I-75 - Swartz Creek - Miller Rd & Flushing Rd	\$71,332
MDOT	I-75 Arlene Dr & Flushing Rd	\$253,857
MDOT	I-75 at M-21	\$8,543,385
MDOT	M-13 over Mistequay Creek	\$19,825
MDOT	I-475 - Terry, Cornel, and Russel	\$63,885
Swartz Creek	Rabinger Rd bridge	\$504,688
Total		\$77,780,256

Furthermore, Ingham and Kent Counties, housing the Cities of Lansing and Grand Rapids respectively, show less deficiency ratings than Genesee County while maintaining a comparable number of bridges.



In fact, Kent County, where only 19.7% of bridges are rated deficient, has 142 more total bridges than Genesee County. This trend in bridge deficiency shown between the surveyed counties may in part be explained through the average age of bridges in each county.



Kent County, with the lowest percentage of deficient bridges, also has the youngest average bridge age at 39.6 years. Ingham County is next with an average bridge age of 45.5 years, followed by Genesee County with the oldest bridges at an average age of 49.5 years. With an older stock of bridges in Genesee County, the number of those classified as deficient is expected to grow considerably by the year 2040. Assuming an average bridge service life of 50 years, 329 of the existing bridges in Genesee County will need to be

replaced by 2040, as they will have reached an age of 50 years or more. An estimated 90% of the bridges in the county will be deficient at that time. The reconstruction of one bridge in 2013 is estimated at an average cost of \$2.9 million, including engineering and design costs. To provide the necessary improvements through 2040, more than \$1.5 billion (with 5% compounded annually for anticipated cost increases) will be needed.

It should be understood that the severity of the bridge problem lies primarily with those that are classified as “structurally deficient.” These bridges are classified as deficient because their condition either is failing or has begun to fail. As these bridges pose the most vulnerability to the transportation system, future funding and improvement efforts should be concentrated at these locations throughout the county.

Appendix A in this document contains a chart of bridge conditions by Local Unit of Government. The locations of the bridges are also provided.

Future Plans

The future of the bridge program in Genesee County is dictated by available funding. In the past, Genesee County has performed well in attaining funding for bridge projects. This performance can not always be guaranteed, as the funding is competitive on both a regional and statewide level. From 2008 through 2012, Genesee County has received approximately \$15.6 million a year in local and state bridge funding. If this figure is projected out to 2040, it would equal roughly \$421 million in revenue for bridge projects in Genesee County. Unfortunately, even with this optimistic revenue estimate, the bridge funding projection falls severely short of the more than \$1.5 billion needed in improvement costs through 2040.

There is an obvious disconnect between the revenue needed to handle the future bridge dilemma in our county and the revenue our county is projected to receive. As the large majority of bridge funding comes from the Federal Government, through the Michigan Department of Transportation, a re-evaluation of how transportation dollars are allocated toward bridge improvements is needed. It should be reinforced that in relationship to other areas in Michigan, and in relationship to state and national averages, Genesee County demonstrates a more imminent need for increased funding due to the large proportion of bridges in disrepair.

On July 31, 2008, the Genesee County Metropolitan Planning Commission held a bridge listening session to generate understanding about the current state of bridges in the county and to explore potential improvements that can be made now and in the future. The meeting was attended by local officials, state and federal agency staff, and planning commission staff.

A number of questions, comments, concerns and suggestions were discussed at the Bridge Listening Session; however, one common theme came through: local jurisdictions need more money. Staff reviewed this information for the 2040 LRTP document, and found that it still reflected current conditions. The table below provides highlights from the 2008 bridge listening session.

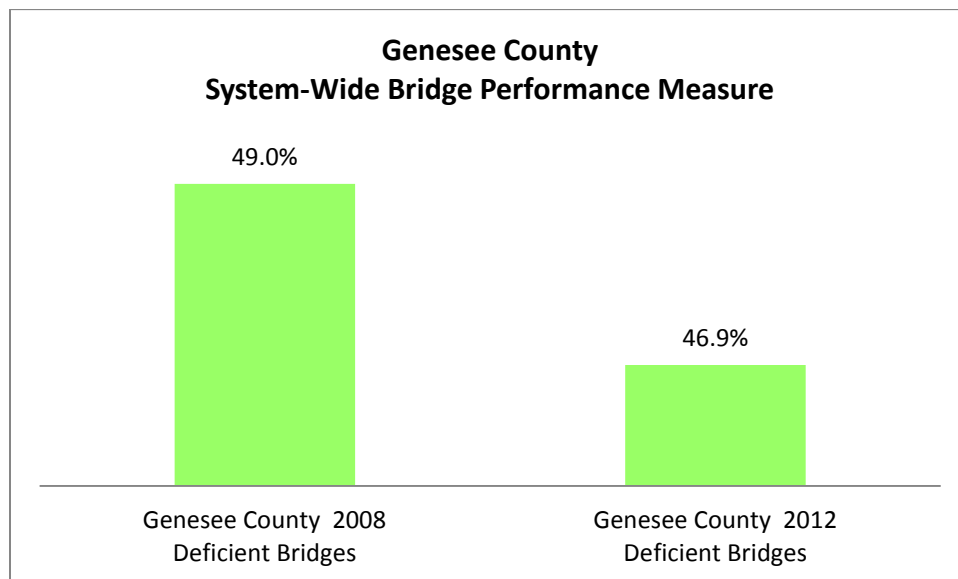
2008 Bridge Listening Session	
Factors Negatively Affecting Bridge System	Potential Solutions to Improve Bridge System
Inadequate funding for local agencies to repair/maintain bridges	First priority is to increase funding for local bridges
Serious lack of local preventive maintenance activities	Implement routine preventive maintenance program
Age of Genesee County bridge system	Implement innovative funding mechanisms--local tax millage, grant opportunities, etc.
Legal loads for freight vehicles--Michigan has highest legal loads of any state	Perform more of a "mix of fixes"--including reconstruction, rehabilitation, and routine/preventive maintenance
Michigan climate--freeze/thaw cycle	Better coordination of funding sources and the control of each
Low revenues but expensive construction	Educate citizens and local officials regarding bridge problems and the importance of taking action

MAP-21 Performance Measures

A key feature of MAP-21 is the establishment of a performance-and-outcome-based program. The objective of this performance-and-outcome-based program is for states and Metropolitan Planning Organizations (MPO) to invest resources in projects that collectively will make progress toward the achievement of the national goals. MAP-21 requires state Department of Transportation (DOT) agencies to establish performance measures within 18 months of enactment of MAP-21. Within 180 days of performance targets being set by states or providers of public transportation, MPOs are required to set performance targets in relation to the performance measures (where applicable). These targets are required to be included in the MPO's Long Range Transportation Plan.

At the time the Genesee County 2040 Long Range Transportation Plan was developed and approved, no official federal guidance on the performance measure requirements of MAP-21 had been released. Also, the State of Michigan did not have performance targets in place. The Genesee County Metropolitan

Alliance recognizes these MAP-21 requirements. Without official federal guidance in place, (and without targets set at the state level), the MPO through the Long Range Transportation Plan (LRTP) and the Transportation Improvement Program, has established funding goals that generally target the areas specified. These goals were established in the LRTP and implemented through the 2014-2017 TIP as closely as possible given the limitations on the availability and restrictions of local, state, and federal funding sources. Staff will also continue to gather data for the development of performance measures, such as the overall system-wide bridge condition for the county, in preparation for more specific guidance at the federal and state level of government.



Appendix A

Bridge Conditions by Local Unit of Government

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
1	Argentine Twp	LOBDELL LAKE DAM	E OF SOUTH LEG OF SEYMOUR	SILVER LAKE ROAD	FUNCT OBSOLETE
2	Argentine Twp	SHIAWASSEE RIVER	NORTH OF SILVER LAKE RD	DUFFIELD ROAD	NOT DEFICIENT
3	Argentine Twp	SHIAWASSEE RIVER	W OF INTER SEYMOUR & COLE	SEYMOUR ROAD	STRUCT DEF
4	Argentine Twp	SHIAWASSEE RIVER	200 FT N OF SILVER LAKE	MEIER ROAD	NOT DEFICIENT
5	Argentine Twp	SHIAWASSEE RIVER	BET SILVER LAKE & ROLSTON	MCCASLIN ROAD	NOT DEFICIENT
6	Argentine Twp	S BR SHIAWASSEE RIVER	2000 FT S OF HERRINGTON	LILLIE ROAD	STRUCT DEF
7	Argentine Twp	SHIAWASSEE RIVER	0.40 MI NE OF SEYMOUR RD	COLE ROAD	STRUCT DEF
8	Argentine Twp	SHIAWASSEE RIVER	BET SILVER LAKE & ROLSTON	BIRD ROAD	NOT DEFICIENT
9	Argentine Twp	S.BR.SHIAWASSEE RIVER	BET DUFFIELD & SHERIDAN	LOVEJOY ROAD	NOT DEFICIENT
1	Atlas Twp	KEARSLEY CREEK	300 FT.WEST OF STATE ROAD	HEGEL ROAD	NOT DEFICIENT
2	Atlas Twp	KEARSLEY CREEK	IN GOODRICH	DUTCH ROAD	STRUCT DEF
3	Atlas Twp	KEARSLEY CREEK	2.7 MI NE OF OAKLAND COL	M-15	NOT DEFICIENT
4	Atlas Twp	THREAD RIVER	400 FT WEST OF GALE ROAD	BALDWIN ROAD	STRUCT DEF
5	Atlas Twp	KEARSLEY CREEK	3000 FT SOUTH OF GREEN RD	HENDERSON ROAD	STRUCT DEF
6	Atlas Twp	THREADCREEK	500 FT EAST OF VASSAR RD	BURPEE ROAD	NOT DEFICIENT
7	Atlas Twp	KEARSLEY CREEK	BET HENDERSON & WASHBURN	KIPP ROAD	NOT DEFICIENT
8	Atlas Twp	KEARSLEY CREEK	1300 FT EAST OF STATE RD	GREEN ROAD	NOT DEFICIENT
9	Atlas Twp	KEARSLEY CREEK	2600 FT EAST OF IRISH RD	JORDAN ROAD	STRUCT DEF
10	Atlas Twp	THREAD RIVER	BET IRISH & GALE ROAD	MCCANDLISH ROAD	NOT DEFICIENT
1	Burton	GILKEY CREEK	BURTON TWP SEC 10 & 11	GENESEE ROAD	NOT DEFICIENT
2	Burton	KEARSLEY CREEK	BET DAVISON & RICHFIELD	BELSAY ROAD	NOT DEFICIENT
3	Burton	GILKEY CREEK	BURTON TWP SEC 14 & 15	GENESEE ROAD	NOT DEFICIENT
4	Burton	GILKEY CREEK	IN BURTON	LIPPINCOTT BLVD	FUNCT OBSOLETE
5	Burton	KEARSLEY CREEK	BET BELSAY & VASSAR ROAD	DAVISON ROAD	FUNCT OBSOLETE
6	Burton	THREAD RIVER	BETWEEN CENTER & DORT HWY	BRISTOL ROAD	STRUCT DEF
7	Burton	GIBSON DRAIN	INT.BRISTOL & FENTON RDS	BRISTOL RD	FUNCT OBSOLETE
8	Burton	THREAD RIVER	0.25 MILE W OF CENTER RD	ATHERTON ROAD	FUNCT OBSOLETE
9	Burton	THREAD RIVER	BET DORT & CENTER RD	MAPLE AVE	FUNCT OBSOLETE
10	Burton	THREAD CREEK	IN BURTON	TERM STREET	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
11	Burton	I-475	0.5 MI S OF FLINT	BRISTOL RD(OLD M121	FUNCT OBSOLETE
12	Burton	GENESEE RD	1.0 MI E OF FLINT	I-69 WB	NOT DEFICIENT
13	Burton	GENESEE RD	1.0 MI E OF FLINT	I-69 EB	NOT DEFICIENT
14	Burton	MAPLE RD	1.5 MI S OF FLINT	I-475 SB	NOT DEFICIENT
15	Burton	I-475	AT S LIMITS OF FLINT	LEFT TURN LANE NO1	FUNCT OBSOLETE
16	Burton	I-69	2.0 MI E OF FLINT	BELSAY RD	NOT DEFICIENT
17	Burton	MAPLE RD	1.5 MI S OF FLINT	I-475 NB	NOT DEFICIENT
18	Burton	CENTER RD	IN FLINT	I-69 EB	STRUCT DEF
19	Burton	CENTER RD	IN FLINT	I-69 WB	STRUCT DEF
1	Clayton Twp	I-69	2.0 MI E OF M-13	NICHOLS RD	FUNCT OBSOLETE
2	Clayton Twp	I-69	1.0 MI E OF M-13	DUFFIELD RD	NOT DEFICIENT
3	Clayton Twp	MISTEQUAY CREEK	2.3 MI N OF M-21	M-13	NOT DEFICIENT
4	Clayton Twp	I-69	@ SHIAWASSEE CO LINE	M-13	NOT DEFICIENT
5	Clayton Twp	MISTEQUAY CREEK	2.1 MI E OF SHIAWASSEE CO	M-21	NOT DEFICIENT
6	Clayton Twp	MISTEGUAY CREEK	BET DUFFIELD & M-13	BEECHER ROAD	STRUCT DEF
7	Clayton Twp	MISTEGUAY CREEK	BET CALKINS & BEECHER RD	DUFFIELD ROAD	STRUCT DEF
8	Clayton Twp	MISTEGUAY CREEK	BET DUFFIELD & NICHOLS RD	CALKINS ROAD	STRUCT DEF
9	Clayton Twp	MISTEGUAY CREEK	BET CORUNNA & CALKINS RD	NICHOLS ROAD	NOT DEFICIENT
1	Clio	PINE RUN CREEK	IN CLIO	MILL STREET	FUNCT OBSOLETE
2	Clio	PINE RUN CREEK	IN CLIO	M-57	NOT DEFICIENT
1	Davison Twp	KEARSLEY CR	2.6 MI W OF M-15	I-69 WB	NOT DEFICIENT
2	Davison Twp	I-69	3.2 MI E OF FLINT	LAPEER RD	NOT DEFICIENT
3	Davison Twp	IRISH RD	4.0 MI E OF FLINT	I-69 WB	STRUCT DEF
4	Davison Twp	KEARSLEY CR	2.6 MI W OF M-15	I-69 EB	NOT DEFICIENT
5	Davison Twp	I-69	2.0 MI W OF LAPEER CO	OAK RD	NOT DEFICIENT
6	Davison Twp	IRISH RD	4.0 MI E OF FLINT	I-69 EB	STRUCT DEF
7	Davison Twp	M-15	6.0 MI E OF FLINT	I-69 EB	NOT DEFICIENT
8	Davison Twp	M-15	6.0 MI E OF FLINT	I-69 WB	NOT DEFICIENT
9	Davison Twp	KEARSLEY CREEK	500 FT SOUTH OF LAPEER RD	IRISH ROAD	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
10	Davison Twp	KEARSLEY CREEK	BET ATLAS & STATE ROADS	BRISTOL ROAD	STRUCT DEF
11	Davison Twp	BLACK CREEK	BET COURT & DAVISON	IRISH ROAD	FUNCT OBSOLETE
12	Davison Twp	KEARSLEY CREEK	BET VASSAR & IRISH RD	LAPEER ROAD	STRUCT DEF
13	Davison Twp	KEARSLEY CREEK	BET ATLAS & STATE ROAD	ATHERTON ROAD	FUNCT OBSOLETE
14	Davison Twp	KEARSLEY CREEK	BET VASSAR & IRISH ROAD	EAST COURT STREET	NOT DEFICIENT
15	Davison Twp	KEARSLEY CREEK	BET IRISH & ATLAS ROAD	LIPPINCOTT BLVD	STRUCT DEF
16	Davison Twp	KEARSLEY CREEK	BET ATHERTON & LIPPINCOTT	ATLAS ROAD	STRUCT DEF
17	Davison Twp	KEARSLEY CREEK	BET MAPLE & NOBLET ROAD	ATLAS ROAD	NOT DEFICIENT
1	Fenton	SHIAWASSEE RIVER	BY FENTON MUNICIPAL BLD	LEROY STREET	STRUCT DEF
2	Fenton	SHIAWASSEE RIVER	IN FENTON	CAROLINE STREET	NOT DEFICIENT
3	Fenton	SHIAWASSEE RIVER	IN FENTON	NORTH ROAD	NOT DEFICIENT
4	Fenton	SHIAWASSEE RIVER	IN FENTON	TORREY ROAD	NOT DEFICIENT
5	Fenton	SHIAWASSEE RIVER	IN FENTON	SILVER LAKE ROAD	STRUCT DEF
6	Fenton	SHIAWASSEE RIVER	IN FENTON	EAST STREET	NOT DEFICIENT
7	Fenton	US-23 BR & GTW RR	IN FENTON	US-23 SB	NOT DEFICIENT
8	Fenton	SHIAWASSEE RIVER	IN FENTON	US-23 NB	NOT DEFICIENT
9	Fenton	SHIAWASSEE RIVER	IN FENTON	US-23 SB	NOT DEFICIENT
10	Fenton	US-23	OWEN RD (1 MI W / FENTON)	US-23 BR	FUNCT OBSOLETE
11	Fenton	US-23 BR & GTW RR	IN FENTON	US-23 NB	NOT DEFICIENT
1	Fenton Twp	SHIAWASSEE RIVER	IN LINDEN	RIPLEY ROAD	NOT DEFICIENT
2	Fenton Twp	US-23	1.6 MI N OF FENTON	LAHRING RD	FUNCT OBSOLETE
3	Fenton Twp	US-23	3.2 MI N OF FENTON	THOMPSON RD	FUNCT OBSOLETE
4	Fenton Twp	SHIAWASSEE RIVER	BET SILVER LAKE & ROLSTON	HOGAN ROAD	STRUCT DEF
5	Fenton Twp	SHIAWASSEE RIVER	NORTHOFUS-23RAMP	NORTH ROAD	FUNCT OBSOLETE
1	Flint	SWARTZ CREEK	IN CITY OF FLINT	W SECOND STREET	STRUCT DEF
2	Flint	FLINT RIVER	IN FLINT	HARRISON	FUNCT OBSOLETE
3	Flint	FLINT RIVER	IN CITY OF FLINT	ROBERT T LONGWAY	NOT DEFICIENT
4	Flint	FLINT RIVER	IN FLINT	SUNSET DRIVE - 3RD	FUNCT OBSOLETE
5	Flint	CARMAN CREEK	IN CITY OF FLINT	TORREY ROAD	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
6	Flint	C&O RAILROAD	IN FLINT	STEWART AVENUE	FUNCT OBSOLETE
7	Flint	GILKEY CREEK	IN CITY OF FLINT	EAST BOULEVARD	FUNCT OBSOLETE
8	Flint	GILKEY CREEK	IN CITY OF FLINT	ROBERT T LONGWAY	STRUCT DEF
9	Flint	SWARTZ CREEK	IN CITY OF FLINT	W KEARSLEY STREET	FUNCT OBSOLETE
10	Flint	THREAD CREEK	IN CITY OF FLINT	S GRAND TRAVERSE	STRUCT DEF
11	Flint	FLINT RIVER	IN FLINT	CHEVROLET AVE	NOT DEFICIENT
12	Flint	THREAD CREEK	IN CITY OF FLINT	FENTON ROAD	STRUCT DEF
13	Flint	W BOULEVARD; FLINT RIVER	IN FLINT	LEITH STREET	STRUCT DEF
14	Flint	SWARTZ CREEK	IN FLINT	HAMMERBERG	STRUCT DEF
15	Flint	CARMAN CREEK	IN CITY OF FLINT	ATHERTON ROAD	STRUCT DEF
16	Flint	FLINT RIVER	IN CITY OF FLINT	GRAND TRAVERSE	FUNCT OBSOLETE
17	Flint	GILKEY CREEK	IN CITY OF FLINT	KEARSLEY PARK BLVD	STRUCT DEF
18	Flint	GILKEY CREEK	IN FLINT	LEWIS NORTH BOUND	NOT DEFICIENT
19	Flint	FLINT RIVER	IN FLINT	STEVENSON	NOT DEFICIENT
20	Flint	FLINT RIVER	IN CITY OF FLINT	HAMILTON AVENUE	FUNCT OBSOLETE
21	Flint	FLINT RIVER	1.0 BLOCK W OF SAGINAW ST	BEACH GARLAND STS	FUNCT OBSOLETE
22	Flint	THREAD CREEK	IN CITY OF FLINT	W 12 TH STREET	FUNCT OBSOLETE
23	Flint	FLINT RIVER	IN FLINT	SAGINAW STREET	NOT DEFICIENT
24	Flint	SWARTZ CREEK	IN FLINT	CAMBRIDGE AVENUE	NOT DEFICIENT
25	Flint	GILKEY CREEK	IN FLINT	FRANKLIN AVENUE	NOT DEFICIENT
26	Flint	KEARSLEY CREEK	IN FLINT	EAST BOULEVARD	FUNCT OBSOLETE
27	Flint	SWARTZ CREEK	CITY OF FLINT	OLD CAMBRIDGE AVE	NOT DEFICIENT
28	Flint	THREAD CREEK	IN FLINT	BEACH STREET	FUNCT OBSOLETE
29	Flint	GILKEY CREEK	IN FLINT	SUNNYSIDE AVENUE	FUNCT OBSOLETE
30	Flint	THREAD CREEK	IN FLINT	BARTON ROAD	FUNCT OBSOLETE
31	Flint	THREAD CREEK	IN FLINT	CHAMBERS STREET	FUNCT OBSOLETE
32	Flint	KEARSLEY CREEK	IN CITY OF FLINT	WESTERN ROAD	STRUCT DEF
33	Flint	I-475	IN FLINT	12TH ST	FUNCT OBSOLETE
34	Flint	I-475 & I-475 RAMPS	IN FLINT LVL 2	I-69 EB	FUNCT OBSOLETE
35	Flint	I-475	IN FLINT	KEARSLEY ST	NOT DEFICIENT
36	Flint	I-475	IN FLINT	W BD LONGWAY BLVD	FUNCT OBSOLETE
37	Flint	I-475	IN FLINT	14TH ST	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
38	Flint	BRISTOL RD	2.4 MI E OF SWARTZ CREEK	I-69 EB	NOT DEFICIENT
39	Flint	I-69	IN FLINT	GRAND TRAVERSE ST	FUNCT OBSOLETE
40	Flint	THREAD CREEK	IN FLINT	I-475	NOT DEFICIENT
41	Flint	LINDEN RD	2.0 MI E OF SWARTZ CREEK	I-69 WB	FUNCT OBSOLETE
42	Flint	THREAD CREEK	IN FLINT (1.4MI S OF COUR	M-54	NOT DEFICIENT
43	Flint	CSX RR	IN FLINT	I-69	NOT DEFICIENT
44	Flint	HOWLAND & HEWITT DRAIN	0.2 MI E OF LINDEN RD	I-69 & RAMP	NOT DEFICIENT
45	Flint	LINDEN RD	2.0 MI SW OF FLINT	I-69 EB	FUNCT OBSOLETE
46	Flint	STEWART AVE	IN FLINT	I-475	NOT DEFICIENT
47	Flint	HORTON AVE	IN FLINT	I-475 RAMP	NOT DEFICIENT
48	Flint	BRISTOL RD	1.0 MI SW OF FLINT	I-75	NOT DEFICIENT
49	Flint	CSX RR & NB SERV RD(ABN)	IN FLINT	I-475	NOT DEFICIENT
50	Flint	CSX RR AND PIERSON RD	IN CITY OF FLINT	I-475	NOT DEFICIENT
51	Flint	I-475	@ S FLINT CITY LTS	HEMPHILL RD	NOT DEFICIENT
52	Flint	I-69 & I-475 RAMP A	IN FLINT	I-69 ON RMP&(9TH)	FUNCT OBSOLETE
53	Flint	I-475S ON RMP C	IN FLINT	I-69W TO I-475N RM	FUNCT OBSOLETE
54	Flint	I-475	IN FLINT	GTW RR SERV RD	FUNCT OBSOLETE
55	Flint	I-475 & I-69	IN FLINT	I-475 RAMP E	FUNCT OBSOLETE
56	Flint	I-475	IN FLINT	RUSSELL AVE	FUNCT OBSOLETE
57	Flint	THREAD CREEK	IN FLINT 2000 BLK S SAGIN	SAGINAW RD	NOT DEFICIENT
58	Flint	FLINT RIVER	IN FLINT (2.6 MI N OF COU	M-54	NOT DEFICIENT
59	Flint	I-69	IN FLINT	SAGINAW ST	FUNCT OBSOLETE
60	Flint	ATHERTON RD	IN FLINT	I-475	STRUCT DEF
61	Flint	RAMP C I-475	IN FLINT	I-475	FUNCT OBSOLETE
62	Flint	BALLENGER RD	WB I-69 RAMP TO I-75	I-69 WB RAMPS H&F	NOT DEFICIENT
63	Flint	I-69 & I-475	IN FLINT	I-475 RAMP F	FUNCT OBSOLETE
64	Flint	AVERILL AVE	IN FLINT	I-69 WB	NOT DEFICIENT
65	Flint	I-475RMPS E&F,I-69&475	IN FLINT	I-475 RAMPS G & H	FUNCT OBSOLETE
66	Flint	I-69	IN FLINT	BEACH ST (OLDM-56)	FUNCT OBSOLETE
67	Flint	SWARTZ CREEK	IN FLINT	M-21	FUNCT OBSOLETE
68	Flint	GILKEY CREEK	S OF STEVER RD	I-475	NOT DEFICIENT
69	Flint	CARMEN CREEK	0.4 MI W OF HAMMERBERG RD	I-69	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
70	Flint	AVERILL AVE	IN FLINT	I-69 EB	NOT DEFICIENT
71	Flint	I-475	AT S LIMITS OF FLINT	LEFT TURN LANE NO2	FUNCT OBSOLETE
72	Flint	LEFT TURN LANE NO 3	IN FLINT	I-475	STRUCT DEF
73	Flint	I-475	IN FLINT	I-475 RAMP B	FUNCT OBSOLETE
74	Flint	MASSACHUSETTS AVE.	IN FLINT	I-475	NOT DEFICIENT
75	Flint	STEVER - BROADWAY AVES	IN FLINT	I-475	NOT DEFICIENT
76	Flint	LEITH STREET	IN CITY OF FLINT	I-475	NOT DEFICIENT
77	Flint	I-475 & RAMPS C&D	IN FLINT	FIFTH ST, M-21	FUNCT OBSOLETE
78	Flint	I-475	IN FLINT	E BD LONGWAY BLVD	FUNCT OBSOLETE
79	Flint	SELBY TO I-475 SB ON RP	IN FLINT	I-475 OFF TO SELBY	NOT DEFICIENT
80	Flint	HAMMERBURG DRAIN	IN FLINT	I-69 EB	STRUCT DEF
81	Flint	CSX RR	IN FLINT	M-21	FUNCT OBSOLETE
82	Flint	CSX RR,FENTON,THREAD(ABN	IN FLINT	I-69	NOT DEFICIENT
83	Flint	I-475 RAMP D	IN FLINT	8TH ST SERVICE RD	FUNCT OBSOLETE
84	Flint	SB SERVICE ROAD	IN FLINT	I-475 AND RAMP B	NOT DEFICIENT
85	Flint	HORTON AVE	IN FLINT	I-475	NOT DEFICIENT
86	Flint	RAMP D I-69&I475 INTERCH	IN FLINT	S B SERVICE RD	FUNCT OBSOLETE
87	Flint	I-475 & I-475 RAMPS	IN FLINT LVL 2	I-69 WB	FUNCT OBSOLETE
88	Flint	I-475	IN FLINT	THIRD ST	FUNCT OBSOLETE
89	Flint	I-475	IN FLINT	SECOND ST	NOT DEFICIENT
90	Flint	RAMP F I-475	IN FLINT	RAMP E (I-475)	NOT DEFICIENT
91	Flint	BRISTOL RD	2.4 MI E OF SWARTZ CREEK	I-69 WB	NOT DEFICIENT
92	Flint	I-69	IN FLINT	CHURCH ST	FUNCT OBSOLETE
93	Flint	I-475	IN FLINT	COURT ST - WB	FUNCT OBSOLETE
94	Flint	CSX RR	IN FLINT	I-69 RAMP D WB	NOT DEFICIENT
95	Flint	I-69	IN FLINT	LAPEER RD	NOT DEFICIENT
96	Flint	HAMMERBURG DRAIN	IN FLINT	I-69 WB	STRUCT DEF
97	Flint	M-54 BR (SAGINAW ST)	IN FLINT	I-475	NOT DEFICIENT
98	Flint	GTW RR	IN FLINT	I-69	NOT DEFICIENT
99	Flint	FLINT R,W BLVD&R SIDE D	IN FLINT	I-475	NOT DEFICIENT
100	Flint	M-54 (DORT HWY)	IN FLINT	I-69	STRUCT DEF
101	Flint	SWARTZ CREEK	0.25 MILE SOUTH OF MILLER	BALLENGER HIGHWAY	STRUCT DEF

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
102	Flint	CALL DRAIN	W OF I-75/US-23	BRISTOL RD	STRUCT DEF
103	Flint	FLINT RIVER	BET BEECHER & FLUSHING RD	BALLENGER HIGHWAY	NOT DEFICIENT
104	Flint	CALL DRAIN	W OF I-75/US-23	BRISTOL RD	STRUCT DEF
105	Flint	FLINT RIVER	BET BRAY & BRANCH ROADS	CARPENTER ROAD	STRUCT DEF
106	Flint	W.BR.SWARTZCREEK	BET MAPLE & BRISTOL RD	LINDEN ROAD	STRUCT DEF
1	Flint Twp	SWARTZ CREEK	IN SWARTZ CREEK	ELMS ROAD	NOT DEFICIENT
2	Flint Twp	GTW RR	E OF MILLER RD & R06	I-69 WB	NOT DEFICIENT
3	Flint Twp	I-75	WB I-69 RAMP TO SB I-75	I-69 RAMP F	NOT DEFICIENT
4	Flint Twp	SWARTZ CREEK	NB I-75 RMP TO MILLER RD	I-75 RAMP L	NOT DEFICIENT
5	Flint Twp	FLUSHING RD	N OF FLINT RIVER	I-75 SB	NOT DEFICIENT
6	Flint Twp	GTW RR & SWARTZ CREEK	E OF MILLER @ SWARTZ CRK	I-69 WB	NOT DEFICIENT
7	Flint Twp	I-75	0.4 MI S OF FLINT	MAPLE RD	FUNCT OBSOLETE
8	Flint Twp	I-75	NEAR W LTS OF FLINT	M-21	FUNCT OBSOLETE
9	Flint Twp	I-69	SB I-75 RAMP TO EB I-69	I-75 RAMP C	NOT DEFICIENT
10	Flint Twp	SWARTZ CREEK	WB I-69 RMPTO NB I-75	I-75 RAMP H & M	NOT DEFICIENT
11	Flint Twp	I-69 RAMP L	WB I-69 RAMP TO NB I-75	I-75 RAMPS H & M	FUNCT OBSOLETE
12	Flint Twp	GTW RR	E OF MILLER RD & R04	I-69 EB	NOT DEFICIENT
13	Flint Twp	SWARTZ CREEK	E OF BRISTOL RD	I-69 EB	FUNCT OBSOLETE
14	Flint Twp	I-75	1 MI N OF M-21	BEECHER RD	FUNCT OBSOLETE
15	Flint Twp	I-75	SW LTS OF FLINT	I-69 EB	FUNCT OBSOLETE
16	Flint Twp	I-75	SB I-75 RAMP TO EB I-69	I-75 RAMP C	NOT DEFICIENT
17	Flint Twp	SWARTZ CREEK	N OF I-69 @ INTERCHG	I-75	STRUCT DEF
18	Flint Twp	GTW RR & SWARTZ CREEK	E OF MILLER @ SWARTZ CRK	I-69 EB	NOT DEFICIENT
19	Flint Twp	BALLENGER RD	E OF I-75 @ INTERCHG	I-69 WB	NOT DEFICIENT
20	Flint Twp	I-75	EB I-69 RAMP TO NB I-75	I-69 RAMP E	FUNCT OBSOLETE
21	Flint Twp	SWARTZ CREEK	SB I-75 RMP TO I-69	I-75 RAMP A & C	STRUCT DEF
22	Flint Twp	COURT ST	N OF M-21	I-75	FUNCT OBSOLETE
23	Flint Twp	BALLENGER RD	I-75 RAMP TO EB I-69	I-75 RAMPS C & D	NOT DEFICIENT
24	Flint Twp	SWARTZ CREEK	E OF BRISTOL RD	I-69 WB	FUNCT OBSOLETE
25	Flint Twp	I-69	NB I-75 RAMP TO WB I-69	I-75 RAMP B	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
26	Flint Twp	I-75	SW LTS OF FLINT	I-69 WB	FUNCT OBSOLETE
27	Flint Twp	GTW RR	NB I-75 RAMP TO EB I-69	I-75 RAMP D	NOT DEFICIENT
28	Flint Twp	GTW RR & I-75	NB I-75 RMP TO WB I-69	I-75 TO I-69 RMP B	NOT DEFICIENT
29	Flint Twp	BALLENGER RD	E OF I-75 @ INTERCHG	I-69 EB	NOT DEFICIENT
30	Flint Twp	I-75	W LTS OF FLINT	MILLER RD	FUNCT OBSOLETE
31	Flint Twp	I-75	S OF M-21	ARLENE DRIVE	FUNCT OBSOLETE
32	Flint Twp	FLUSHING RD	N OF FLINT RIVER	I-75 NB	NOT DEFICIENT
33	Flint Twp	FLINT RIVER	2.0 MI N OF M-21	I-75 US-23	NOT DEFICIENT
34	Flint Twp	I-75	3 MI N OF M-21	PASADENA AVE	FUNCT OBSOLETE
35	Flint Twp	GTW RR	E OF I-69	BRISTOL RD	FUNCT OBSOLETE
36	Flint Twp	W.BR.SWARTZCREEK	500' W OF I-69 (SL SEC28)	BRISTOL ROAD	NOT DEFICIENT
37	Flint Twp	FLINT RIVER	BET. BEECHER AND FLUSHING	MILL ROAD	NOT DEFICIENT
38	Flint Twp	CHAPMAN DRAIN	500 FT. S. OF CALKINS RD	LINDEN ROAD	NOT DEFICIENT
39	Flint Twp	FLINT RIVER	BET BEECHER AND FLUSHING	LINDEN RD	NOT DEFICIENT
40	Flint Twp	SWARTZ CR	E OF I-69	BRISTOL RD	NOT DEFICIENT
41	Flint Twp	HEWITT DRAIN	FLINT TWP SEC 33	LINDEN CRK PARKWAY	NOT DEFICIENT
42	Flint Twp	PIRNIE CREEK	BETWEEN CALKINS & BEECHER	DYE ROAD	FUNCT OBSOLETE
43	Flint Twp	SWARTZ CREEK	S W CORNER OF FLINT	CLAUDE AVE	NOT DEFICIENT
44	Flint Twp	W.BR.SWARTZCREEK	BET I-69 & MILLER ROAD	DYE ROAD	NOT DEFICIENT
45	Flint Twp	CALL CREEK	NORTH OF BRISTOL ROAD	TORREY ROAD	NOT DEFICIENT
1	Flushing	FLINT RIVER	IN FLUSHING	MAIN STREET	FUNCT OBSOLETE
1	Flushing Twp	FLINT RIVER	BET GILLETTE & MCKINLEY R	MT MORRIS ROAD	NOT DEFICIENT
2	Flushing Twp	ARMSTRONG CREEK	BET JOHNSON AND ELMS RDS	MT MORRIS RD	NOT DEFICIENT
3	Flushing Twp	BRENT CREEK	BET DUFFIELD & NICHOLS RD	MT MORRIS ROAD	STRUCT DEF
4	Flushing Twp	BRENT CREEK	BET MT MORRIS & FRANCES	NICHOLS ROAD	NOT DEFICIENT
5	Flushing Twp	MESSMORE AND CRONK DRAIN	1300 FT N OF POTTER RD	MORRISH ROAD	NOT DEFICIENT
6	Flushing Twp	FREEMAN DRAIN	1500 FT W. OF NICHOLS RD	STANLEY ROAD	NOT DEFICIENT
1	Forest Twp	BUTTERNUT CREEK	1.4 MI N OF M-57	M-15	NOT DEFICIENT
2	Forest Twp	BUTTERNUT CREEK	FOREST TWP SEC 19 & 30	WILSON ROAD	STRUCT DEF

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
1	Gaines Twp	JONES CREEK	BET DUFFIELD & NICHOLS RD	GRAND BLANC ROAD	NOT DEFICIENT
2	Gaines Twp	CARGILL CREEK	BET DUFFIELD & W CO LINE	GRAND BLANC ROAD	STRUCT DEF
3	Gaines Twp	ALGER CREEK	BET GRAND BLANC & REID RD	MORRISH ROAD	STRUCT DEF
4	Gaines Twp	JONES CREEK	BET GRAND BLANC & REID RD	DUFFIELD ROAD	STRUCT DEF
5	Gaines Twp	SWARTZ CREEK	IN SWARTZ CREEK	RAUBINGER ROAD	NOT DEFICIENT
6	Gaines Twp	ALGER CREEK	BET SEYMOUR & MORRISH RD	REID ROAD	NOT DEFICIENT
7	Gaines Twp	JONES CREEK	800 FT WEST OF NICHOLS	COOK ROAD	NOT DEFICIENT
8	Gaines Twp	JONES CREEK	BET W CO LINE & DUFFIELD	REID ROAD	NOT DEFICIENT
9	Gaines Twp	JONES CREEK	BET BALDWIN & COOK ROAD	NICHOLS ROAD	NOT DEFICIENT
1	Genesee Twp	I-475	AT N LIMITS OF FLINT	CARPENTER ROAD	FUNCT OBSOLETE
2	Genesee Twp	SAGINAW STREET	IN CITY OF FLINT (NORTH)	I-475	FUNCT OBSOLETE
3	Genesee Twp	I-475	NORTH OF CITY OF FLINT	SELBY STREET	FUNCT OBSOLETE
4	Genesee Twp	I-475	1 MI N OF FLINT CITY LTS	COLDWATER ROAD	FUNCT OBSOLETE
5	Genesee Twp	I-475	1.2 M N OF FLINT CITY LTS	TERRY STREET	FUNCT OBSOLETE
6	Genesee Twp	I-475	NORTH OF FLINT	CORNELL AVE	FUNCT OBSOLETE
7	Genesee Twp	FLINT RIVER	600 FT NORTH OF STANLEY	GENESEE ROAD	NOT DEFICIENT
8	Genesee Twp	KEARSLEY CREEK	BET COVERT & GENESEE ROAD	RICHFIELD ROAD	STRUCT DEF
9	Genesee Twp	C & O RAILROAD	BETWEEN SAGINAW & DORT HW	COLDWATER ROAD	FUNCT OBSOLETE
10	Genesee Twp	KEARSLEY CREEK	300 FT SOUTH OF RICHFIELD	GENESEE ROAD	FUNCT OBSOLETE
11	Genesee Twp	BUTTERNUT CREEK	BET GENESEE & VASSAR ROAD	MT MORRIS ROAD	NOT DEFICIENT
1	Grand Blanc	THREAD CREEK	IN GRAND BLANC	OLD BRIDGE ROAD	FUNCT OBSOLETE
2	Grand Blanc	THREAD CREEK	IN GRAND BLANC	BUSH AVENUE	NOT DEFICIENT
3	Grand Blanc	THREAD CREEK	IN GRAND BLANC	WOODBIDGE ROAD	NOT DEFICIENT
1	Grand Blanc Twp	I-75 NB	2.0 MI SW OF GRAND BLANC	M-54 (DORT HWY)	NOT DEFICIENT
2	Grand Blanc Twp	CSX RR	1.8 MI NW OF OAKLAND COL	I-75 NB	NOT DEFICIENT
3	Grand Blanc Twp	I-75	2.4 MI SE OF US-23	FENTON RD	NOT DEFICIENT
4	Grand Blanc Twp	CSX RR	1.8 MI NW OF OAKLAND COL	I-75 SB	NOT DEFICIENT
5	Grand Blanc Twp	I-75	3.0 MI SE OF US-23	GRAND BLANC RD	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
6	Grand Blanc Twp	I-475	2.5 MI S OF FLINT CITY LT	HILL RD	FUNCT OBSOLETE
7	Grand Blanc Twp	I-75	@ OAKLAND CO LINE	S SAGINAW(OLDM-54)	FUNCT OBSOLETE
8	Grand Blanc Twp	I-75 NB	4.5 MI S OF FLINT	I-475 SB	FUNCT OBSOLETE
9	Grand Blanc Twp	I-75 SB	2.0 MI SW OF GRAND BLANC	M-54 (DORT HWY)	NOT DEFICIENT
10	Grand Blanc Twp	I-75	1.2 MI NW OF OAKLAND COL	BALDWIN RD	NOT DEFICIENT
11	Grand Blanc Twp	I-75	2.2 MI NW OF OAKLAND COL	HOLLY RD	NOT DEFICIENT
12	Grand Blanc Twp	COOK RD	3.0 MI NW OF OAKLAND COL	I-75 NB	NOT DEFICIENT
13	Grand Blanc Twp	COOK RD	3.0 MI NW OF OAKLAND COL	I-75 SB	NOT DEFICIENT
14	Grand Blanc Twp	THREAD RIVER	INTERS OF PERRY & VASSAR	PERRY ROAD	NOT DEFICIENT
15	Grand Blanc Twp	THREAD RIVER	BET PERRY & HILL ROAD	BELSAY ROAD	STRUCT DEF
16	Grand Blanc Twp	THREAD RIVER	BET SAGINAW & CENTER RD	HILL ROAD	NOT DEFICIENT
17	Grand Blanc Twp	THREAD RIVER	BET HILL & SAGINAW ROAD	CENTER ROAD	FUNCT OBSOLETE
18	Grand Blanc Twp	SEAVER DRAIN	1000 FT N. OF COOK RD	FENTON RD	NOT DEFICIENT
19	Grand Blanc Twp	C & O RR (PERE MARQUETTE	600 FT EAST OF HOLLY ROAD	BALDWIN ROAD	NOT DEFICIENT
20	Grand Blanc Twp	THREAD CREEK	GRAND BLANC TWP SEC 12	MOONSTONE DRIVE	NOT DEFICIENT
1	Linden	SHIAWASSEE RIVER	IN LINDEN	MAIN STREET	FUNCT OBSOLETE
1	Montrose Twp	FLINT RIVER	1.0 MI E OF MONTROSE	M-57	NOT DEFICIENT
2	Montrose Twp	BRENT RUN CREEK	1.9 MI E OF MONTROSE	M-57	NOT DEFICIENT
3	Montrose Twp	ARMSTRONG CREEK	BET MCKINLEY & MORRISH	DODGE ROAD	NOT DEFICIENT
4	Montrose Twp	ARMSTRONG CREEK	BET DODGE & WILSON	MCKINLEY ROAD	NOT DEFICIENT
5	Montrose Twp	ARMSTRONG DRAIN	BET FRANCES & DODGE ROAD	MORRISH ROAD	STRUCT DEF
6	Montrose Twp	BRENT RUN	BET WILSON & VIENNA ROAD	MORRISH ROAD	NOT DEFICIENT
7	Montrose Twp	BRENT RUN	BET VIENNA & FARRAND ROAD	MCKINLEY ROAD	STRUCT DEF
8	Montrose Twp	ARMSTRONG DRAIN	BET MORRISH & ELMS ROAD	FRANCES ROAD	NOT DEFICIENT
9	Montrose Twp	CENTRAL DRAIN	BET MORRISH + MCKINLEY	WILSON ROAD	NOT DEFICIENT
10	Montrose Twp	CENTRAL DRAIN	BET WILSON + DODGE ROAD	MORRISH ROAD	NOT DEFICIENT
11	Montrose Twp	PINE RUN CREEK	BET MORRISH & ELMS ROAD	WILLARD ROAD	NOT DEFICIENT
1	Mt Morris Twp	DETROIT ST	3.0 MI E OF N JCT I-75	I-475	NOT DEFICIENT
2	Mt Morris Twp	I-75	5.1 MI S OF M-57	STANLEY RD	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
3	Mt Morris Twp	I-75	4.1 MI S OF M-57	MT MORRIS RD	NOT DEFICIENT
4	Mt Morris Twp	CLIO RD	1.5 MI E OF N JCT I-75	I-475 SB	NOT DEFICIENT
5	Mt Morris Twp	I-75	6.1 MI S OF M-57	COLDWATER RD	FUNCT OBSOLETE
6	Mt Morris Twp	I-75	N JCT I-75	I-475 RAMP B	FUNCT OBSOLETE
7	Mt Morris Twp	LAKE DRAIN	0.2 MI E OF CLIO RD	I-475	NOT DEFICIENT
8	Mt Morris Twp	I-75	4 MI N OF M-21	PIERSON RD	NOT DEFICIENT
9	Mt Morris Twp	CLIO RD	1.5 MI E OF N JCT I-75	I-475 NB	NOT DEFICIENT
10	Mt Morris Twp	I-75	5.4 MI N OF M-21	CARPENTER RD	FUNCT OBSOLETE
11	Mt Morris Twp	I-475	0.6 MI E OF N JCT I-75	JENNINGS RD	FUNCT OBSOLETE
12	Mt Morris Twp	I-475RAMP B & I-75	N JCT I-75	I-475 RMP TO I-75	FUNCT OBSOLETE
13	Mt Morris Twp	HUGHES DRAIN	MT. MORRIS TWP. SEC. 13	DETROIT STREET	FUNCT OBSOLETE
14	Mt Morris Twp	FLINT RIVER	BETWEEN RIVER & FLUSHING	ELMS ROAD	NOT DEFICIENT
15	Mt Morris Twp	BRENT RUN	BET JENNINGS & CLIO RD	MT MORRIS ROAD	STRUCT DEF
16	Mt Morris Twp	BRENT RUN	BET JENNINGS & CLIO ROAD	FRANCES ROAD	NOT DEFICIENT
1	Mundy Twp	US-23	2.0 MI S OF M-121	HILL RD	NOT DEFICIENT
2	Mundy Twp	US-23	6.3 MI N OF FENTON	TORREY RD	FUNCT OBSOLETE
3	Mundy Twp	US-23 NB	1.6 MI SE OF M-121	I-75 SB	NOT DEFICIENT
4	Mundy Twp	SWARTZ CREEK	2.5 MI S OF FLINT	US-23 NB	NOT DEFICIENT
5	Mundy Twp	US-23	5.0 MI N OF FENTON	BALDWIN RD	FUNCT OBSOLETE
6	Mundy Twp	I-75	1.2 MI SE OF US-23	HILL RD	NOT DEFICIENT
7	Mundy Twp	SWARTZ CREEK	2.5 MI S OF FLINT	US-23 SB	NOT DEFICIENT
8	Mundy Twp	US-23	7.3 MI N OF FENTON	GRAND BLANC RD	NOT DEFICIENT
9	Mundy Twp	SWARTZ CREEK	SOUTH OF COOK ROAD	FENTON ROAD	NOT DEFICIENT
10	Mundy Twp	SWARTZ CREEK	GRAND BLANC & US 23 X-WAY	GRAND BLANC ROAD	STRUCT DEF
11	Mundy Twp	SWARTZ CREEK	BET FENTON & GRAYTRAX RD	BALDWIN ROAD	FUNCT OBSOLETE
12	Mundy Twp	HOWLAND DRAIN	3600 FT. N. OF HILL ROAD	LINDEN ROAD	NOT DEFICIENT
13	Mundy Twp	SWARTZ CREEK	BET REID & HILL ROAD	TORREY ROAD	FUNCT OBSOLETE
14	Mundy Twp	SWARTZ CREEK	BET JENNINGS & TORREY RD	HILL ROAD	NOT DEFICIENT
15	Mundy Twp	INDIAN CREEK	0.6 MI. E. OF TORREY RD.	COOK ROAD	NOT DEFICIENT
16	Mundy Twp	SWARTZ CREEK	BET LINDEN & JENNINGS RD	MAPLE AVE	STRUCT DEF
17	Mundy Twp	SWARTZ CREEK	0.1 MI. WEST OF FENTON RD	COOK ROAD	STRUCT DEF

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
18	Mundy Twp	DAWE DRAIN	0.2 MI. E. OF TORREY RD.	COOK ROAD	NOT DEFICIENT
19	Mundy Twp	SWARTZ CREEK	BET US23 XWAY & BREWER RD	REID ROAD	STRUCT DEF
20	Mundy Twp	SWARTZ CREEK	BET HILL ROAD & MAPLE AVE	JENNINGS ROAD	STRUCT DEF
1	Richfield Twp	FLINT RIVER	1.2 MI N OF RICHFIELD CEN	M-15	STRUCT DEF
2	Richfield Twp	CULLEN-POWERS DRAIN	500 FT EAST OF GALE RD	RICHFIELD RD	FUNCT OBSOLETE
3	Richfield Twp	FLINT RIVER	BET COLDWATER & STANLEY	IRISH ROAD	NOT DEFICIENT
4	Richfield Twp	FLINT RIVER	1200 FT NORTH OF CARR RD	OAK ROAD	NOT DEFICIENT
1	Swartz Creek	SWARTZ CREEK	IN SWARTZ CREEK	MORRISH ROAD	STRUCT DEF
2	Swartz Creek	ELMS RD	1.2 MI NE OF SWARTZ CREEK	I-69 EB	NOT DEFICIENT
3	Swartz Creek	MILLER RD	IN SWARTZ CREEK	I-69 WB RAMP C	NOT DEFICIENT
4	Swartz Creek	MILLER RD	IN SWARTZ CREEK	I-69 WB	NOT DEFICIENT
5	Swartz Creek	MILLER RD	IN SWARTZ CREEK	I-69 EB	NOT DEFICIENT
6	Swartz Creek	I-69	0.5 MI N OF SWARTZ CREEK	MORRISH RD	FUNCT OBSOLETE
7	Swartz Creek	I-69	1.5 MI NW OF SWARTZ CREEK	SEYMOUR RD	FUNCT OBSOLETE
8	Swartz Creek	ELMS RD	1.2 MI NE OF SWARTZ CREEK	I-69 WB	FUNCT OBSOLETE
1	Thetford Twp	BUTTERNUT CREEK	BET GENESEE & VASSER ROAD	FRANCES ROAD	STRUCT DEF
2	Thetford Twp	BUTTERNUT CREEK	2000 FT SOUTH OF DODGE RD	VASSAR ROAD	STRUCT DEF
3	Thetford Twp	WILBUR DRAIN	4000 FT E. OF GENESEE RD	SCOTT ROAD	NOT DEFICIENT
4	Thetford Twp	DRUDGE AND BUELL DRAIN	6000 FT. E. OF GENESEE RD	SCOTT ROAD	NOT DEFICIENT
1	Vienna Twp	BRENT RUN CREEK	5.0 MI S OF SAGINAW COL	I-75 & US-23 SB	NOT DEFICIENT
2	Vienna Twp	PINE RUN CREEK	0.4 MI N OF M-57	I-75 SB & US-23 SB	NOT DEFICIENT
3	Vienna Twp	I-75	1.0 MI S OF M-57	WILSON RD	NOT DEFICIENT
4	Vienna Twp	I-75	1.0 MI N OF M-57	FARRAND RD	NOT DEFICIENT
5	Vienna Twp	I-75	2.0 MI N OF M-57	LAKE RD	FUNCT OBSOLETE
6	Vienna Twp	I-75	AT M-57	M-57 (VIENNA RD)	FUNCT OBSOLETE
7	Vienna Twp	I-75	2.1 MI S OF M-57	DODGE RD	FUNCT OBSOLETE
8	Vienna Twp	BRENT RUN CREEK	5.0 MI S OF SAGINAW COL	I-75 & US-23 NB	NOT DEFICIENT
9	Vienna Twp	PINE RUN CREEK	0.4 MI N OF M-57	I-75 NB & US-23 NB	NOT DEFICIENT

	Local Unit of Government	Feature	Location	Facility	Bridge Condition
10	Vienna Twp	BRENT RUN	1700 FT WEST OF JENNINGS	DODGE ROAD	FUNCT OBSOLETE
11	Vienna Twp	PINE RUN	BET LAKE & WILLARD ROAD	ELMS ROAD	STRUCT DEF
12	Vienna Twp	BRENT RUN	BET WILSON & VIENNA RD	ELMS ROAD	STRUCT DEF
13	Vienna Twp	PINE RUN	1000 FT WEST OF WEBSTER	LAKE ROAD	STRUCT DEF
14	Vienna Twp	PINE RUN	1100 FT. SOUTH OF LAKE RD	WEBSTER ROAD	NOT DEFICIENT
15	Vienna Twp	BRENT RUN	INT OF WILSON & WEBSTER	WILSON ROAD	STRUCT DEF
16	Vienna Twp	BRENT RUN	2500 FT SOUTH OF WILSON	LINDEN ROAD	STRUCT DEF
17	Vienna Twp	PINE RUN	INTER OF LINDEN & FIELD	LINDEN ROAD	NOT DEFICIENT
18	Vienna Twp	PINE RUN	1700 FT NORTH OF VIENNA	JENNINGS ROAD	NOT DEFICIENT
19	Vienna Twp	BENJAMIN RUN CREEK	2250 FT EAST OF CLIO ROAD	BINGHAM ROAD	NOT DEFICIENT
20	Vienna Twp	PINE RUN	1750 FT WEST OF LINDEN RD	FARRAND ROAD	STRUCT DEF
21	Vienna Twp	BENJAMIN RUN	1350 FT EAST OF CLIO RD	WILSON ROAD	NOT DEFICIENT

Appendix B
Bridge Scoring Information

Item 194 - Structurally Deficient & Functionally Obsolete Test

The terms structurally deficient and functionally obsolete are FHWA terms that are relevant only for structures carrying highway traffic. This item is calculated by the Edit/Update Program and cannot be coded by the bridge inspector.

ITEMS USED

Item 43 = Main structure type	Item 58 = Deck condition
Item 59 = Superstructure condition	Item 60 = Substructure condition
Item 62 = Culvert & retaining wall condition	Item 67 = Structural condition
Item 68 = Deck geometry	Item 69 = Under clearance
Item 71 = Waterway condition	Item 72 = Approach roadway alignment

STRUCTURAL TEST

A bridge is said to be structurally deficient if any one or more of the following statements are true:

- Item 58 < 5
- Item 59 < 5
- Item 60 < 5
- Item 62 < 5
- Item 67 < 3
- Item 71 < 3

FUNCTIONAL TEST

A bridge is said to be functionally obsolete if: (1) it is NOT structurally deficient AND (2) any one or more of the following statements are true:

- Item 67 = 3
- Item 68 < 4
- Item 69 < 4 and grade-crossing
- Item 71 = 3
- Item 72 < 4

Bridges cannot be both structurally deficient and functionally obsolete. Structural deficiency takes precedence over functional obsolescence, therefore if a bridge is classified as structurally deficient, it cannot be classified as functionally obsolete.

This item is generated by the computer and reported as follows:

<u>Description</u>	<u>Code</u>
Bridge is structurally deficient	1
Bridge is functionally obsolete	2
Bridge is not deficient	0