

Safer Roads in Hartland

A Citizen Task Force Recommendation to Address Road Conditions in Hartland Township

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The Safer Roads in Hartland Task Force was convened in response to residents' concerns regarding the condition of roads within Hartland Township. Roads within the Township are owned and maintained by either the State of Michigan, Livingston County or, in the case of private roads, residents. Regardless, as a result of a citizen survey in addition to countless conversations with residents, the Township was called upon to explore ways in which it might step in to solve some of the more pressing road and pathway issues.

The Township solicited residents to participate in the Safer Roads in Hartland Task Force and, in November 2013, the first meeting was held. During the course of multiple Task Force meetings, members were asked to consider several factors, including:

- The Livingston County Road Commission does not have the budget necessary to adequately address Hartland Township Roads, particularly those that are in serious disrepair.
- The nationally recognized Pavement Surface Evaluation and Rating System (PASER) scale used by the road industry ranks 60 percent of paved Hartland roads as "poor." Gravel roads, though not officially ranked, are in similar condition.
- The Township lacks the pathways connectivity for which residents have expressed interest.

After reviewing road rankings, traffic counts and numerous other factors, the Task Force created an initial plan calling for a ten-year 1.5 mill November ballot question to address roads and pathways in Hartland Township. This would equate, for the average Hartland Township homeowner, to \$150 per year. Before this plan is finalized by the Board of Trustees, public discussions will be held to garner input from residents.

The plan calls for addressing eight portions of paved road and intervention for five gravel roads. The plan also calls for increasing chloride applications on gravel roads from twice annually to four times annually. These applications are critical for maintenance of gravel roads and, as an added benefit, help to control dust. The Safer Roads in Hartland Task Force has also identified other maintenance needs that are included in the plan, including maintenance of the repaired roads over the ten-year period of the millage to ensure that the investment is protected long term and a fund available to address maintenance needs as they arise.

The following plan represents untold hours of debate and document review by the Safer Roads in Hartland Task Force.

Convening the Citizen Task Force

Well-maintained roads are a central component of community in which individuals and families wish to live, work and play.

Residents consistently reach out to Township officials to express their dissatisfaction with the unacceptable condition of Hartland Township roads. Residents' desire for the Township to address these issues was validated in the recent resident survey that ranked roads among the top priorities.

The Township responded by convening a citizen task force to study these issues and propose solutions.

The Safer Roads in Hartland Plan is the result of the effort of many dedicated residents who worked long hours to formulate the strategy contained in this document. To the Task Force members, the Township extends a sincere THANK YOU.

To provide quality services, to exceed expectations, to steward the resources entrusted to us, and to promote and protect our environment and the health, safety and welfare of all who live, work, or visit Hartland Township.

Hartland Township Mission Statement

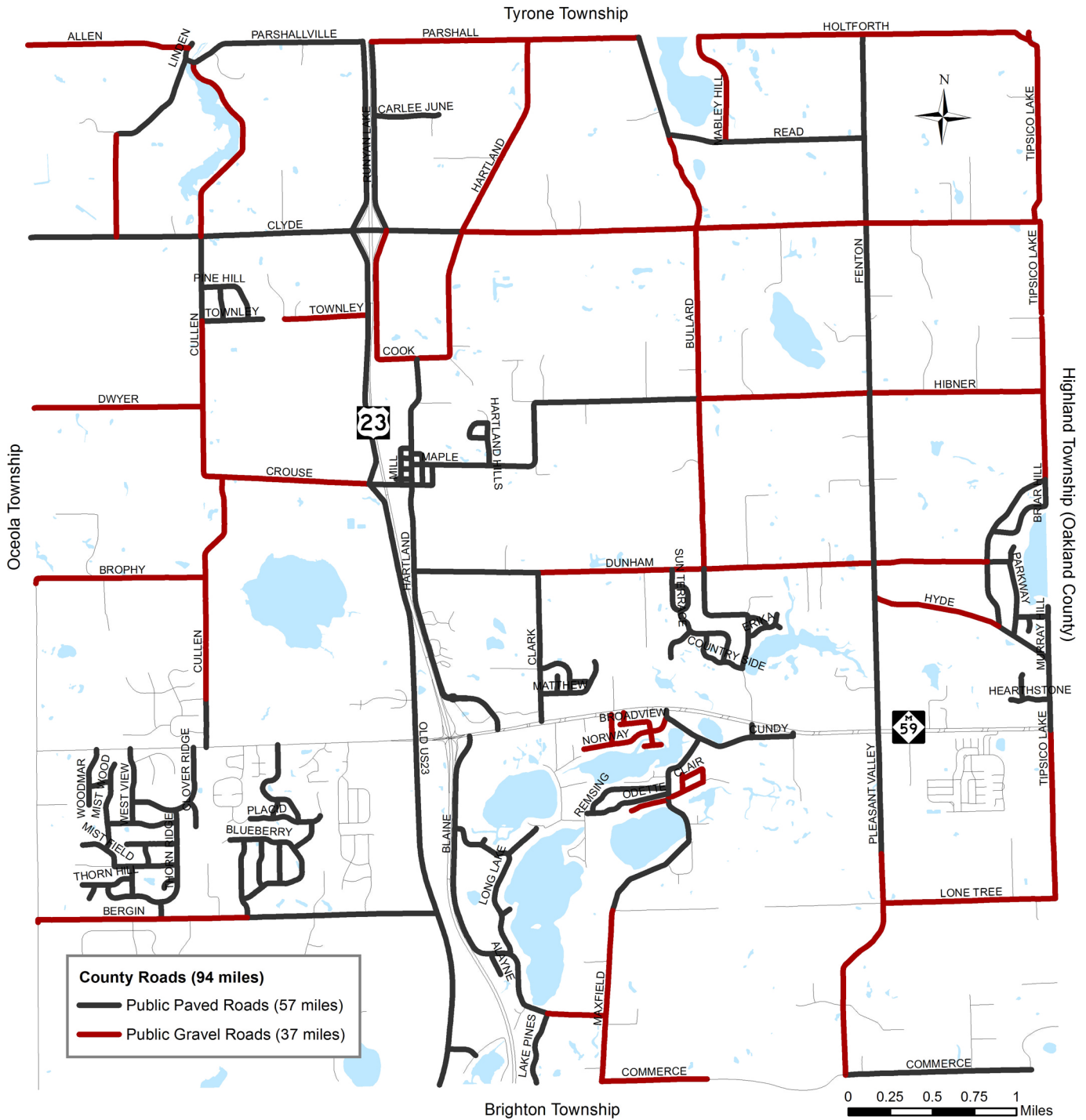
The Citizen Task Force

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Public Paved Roads and Public Gravel Roads in Hartland Township



Road Responsibilities: Working Together to Maintain Public Roads

There are approximately 106 miles of public roads in Hartland Township, and virtually all residents use the public roads to varying degrees. This total includes M-59 and US 23, both of which are State highways and under the jurisdiction of the Michigan Department of Transportation (MDOT). Ninety-four miles of public roads belong to the County and are under the jurisdiction of the Livingston County Road Commission. More than 44 miles of roads within the Township are privately owned and maintained by individual property owners as well as homeowner and condominium associations. There are no Township-owned public roads.

The Livingston County Road Commission is responsible for road improvements. However, there is not enough funding available to address these needs within the current funding model and there are no plans to place a county-wide millage proposal on the ballot. If Hartland residents want improvements, other funding alternatives must be considered. Townships throughout Michigan already contribute to the cost of maintaining the roads within their borders, mainly through general fund allocations and dedicated road millages.

In terms of general fund expenditures, Hartland Township contributes to gravel road maintenance and funds streetlights. The Township proposed a road improvement millage in 2010 to generate funding for major road projects; however, the proposal was defeated. Over the past four years, the roads have continued to deteriorate.

Safe Roads: A Priority in Hartland Township

Hartland Township has experienced a high level of growth and development over the past two decades. The Township is viewed as a desirable community in which to live due to its environmental characteristics as well as an exceptional school system.

In an effort to seek input from its citizens on how to best manage growth, while at the same time preserving those characteristics that make it desirable, the Township conducted a survey to discern priorities and concerns. The survey, undertaken in 2012, asked for input on a variety of community issues aimed at identifying where the Township should focus critical resources over the next decade. Roads were the highest among these priorities.

The Township took this as a direct mandate and convened the Safer Roads in Hartland Task Force, made up of citizen volunteers. The Task Force plan — which highlights the need for road improvements, the associated costs, the funding sources available, and a strategy to achieve the desired results — is detailed in this report.

Funding Realities: County Road Maintenance Dollars are Highly Limited

Most road funding in Michigan comes from two primary sources; the State gas tax (45 percent), and vehicle registration fees (45 percent). The remaining percentage is accrued from various sources, including the diesel carrier tax and licenses. The portion of Michigan's 38.7 cents per gallon gas tax devoted to roads is 19.88 cents, and though it was raised from 15 cents in 1997, it is still well below the national average of 23.52 cents per gallon. There are proposals in Lansing to increase this rate, though it would do little to impact our local roads.

This revenue, known as the Michigan Transportation Fund, is allocated state-wide according to a formula in which less than 39 percent goes to County Road Commissions, which have jurisdiction over 75 percent of Michigan roads. Livingston County receives approximately \$13 million annually from the Michigan Transportation Fund, which equates to only \$73 per capita.

Of the 83 counties in the State of Michigan, Livingston County ranks LAST in terms of per capita dollars received for road maintenance.

-Citizens Research Council of Michigan

The reality is that the money received by the Livingston County Road Commission is simply insufficient to adequately maintain the 94 miles of County roads in Hartland Township. When regular maintenance is not undertaken, the road surfaces deteriorate, potholes and cracking occur, and shoulders break down. This results in adverse driving conditions that ultimately place people and property at risk, and reduce both residential and commercial property values.

Efforts at the State level to increase road funding dollars have, to date, been focused on state roads. Similarly, Livingston County has no plans to place a road millage on the ballot. It is up to the residents of Hartland Township to decide the fate of local roads within the Township.

Road Improvements: Greater Safety and Mobility for Every Resident

The quality of our roads is critical to the overall quality of life in a community and to the investment that citizens make in their properties and businesses. Every resident relies heavily on the road system to provide for safe travel to and from homes, schools, workplaces, and commercial centers. As such, road quality directly impacts the economy, energy consumption rates, public safety, land development, and visual character of the Township.

With the adoption of a road improvement program, the outcomes that residents can anticipate include:

- Improved road safety with fewer accidents
- Protected residential and commercial property values
- Reduced vehicle damage from poor road conditions
- Shorter commute and travel times
- Cohesive community perception with greater “sense of place”
- Improved economic development potential

Investing in Hartland’s transportation infrastructure ensures that our paved and gravel roads will continue to perform well and serve residents into the future. This investment in our infrastructure at this point is essential since the cost to replace, as opposed to maintain, this network is tremendously high. The Township is at the threshold and although improvement costs are high, they will only increase if there is a failure to take action.



*Safer Roads
Task Force Meeting*

Road Quality: Paved Roads are Failing

Of the 94 miles of County roads in Hartland Township, approximately 57 miles are paved. The Pavement Surface Evaluation and Rating system (PASER) is the standard method nationally of evaluating pavement conditions for paved roads throughout the state. Visual inspection is used to rate a road segment on a scale of 1-10, with a 1 meaning a failed road segment, and 10 meaning an excellent road segment. The Livingston County Road Commission (LCRC) commits to proactively maintaining roads that rank from 7-10.

The PASER ratings provide a uniform basis for comparing the quality of roadway segments. The advantage to this method is that roads may be assessed quickly, often using a “windshield survey” method. The rate at which pavement deteriorates depends on a variety of factors including the amount of traffic, environmental considerations, initial construction quality and quality of other maintenance activities, all of which are taken into account when formulating maintenance and improvement plans.

The PASER rating scale can be translated into general maintenance categories, and is helpful in linking the rating to the anticipated maintenance required and to associated costs. Although additional evaluation is necessary, the table below provides a basic overview of the rating/maintenance cost relationship on a per mile basis (source: LCRC):

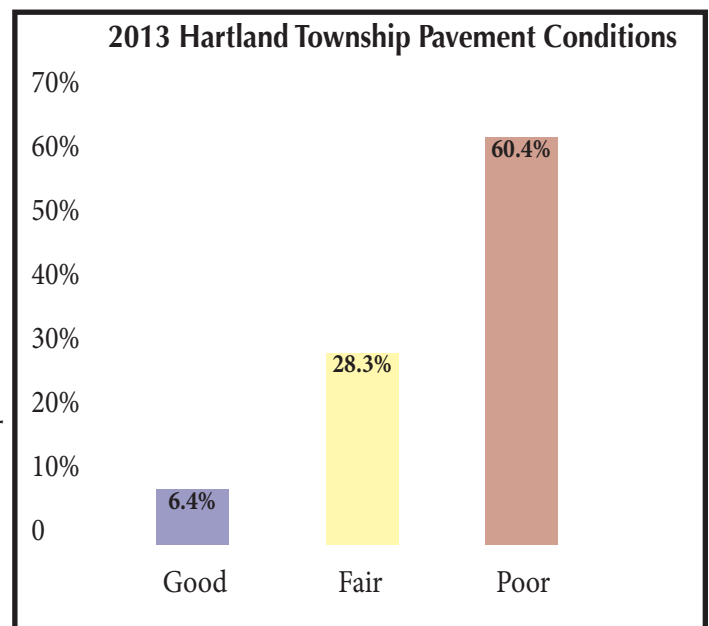
Quality	Rating	Treatment (Asphalt)	Estimated Cost Per Mile
Excellent	9-10	No maintenance required	(none)
Good	7-8	Preventative maintenance	\$5,000 to \$50,000
Fair	5-6	Preservation treatments	\$50,000 to \$200,000
Poor-Fair	3-4	Rehabilitation	\$200,000 to \$510,000
Failed	1-2	Reconstruction	\$1,000,000 to \$1,500,000

Road Quality: More Than 60 Percent of Hartland’s Paved Roads are Rated as “POOR”

The LCRC inventories the PASER ratings for Hartland Township since all paved, public roads in the Township (except for M-59 and US 23) are County roads. The results of the most recent ratings are depicted by the graph to the right.

As indicated, more than 60 percent of the paved roads in Hartland are in “Poor” condition (PASER rating 1 through 4), and without increased expenditures on maintenance, these roads will deteriorate further and require even higher repair costs.

Of the remainder, 28 percent are considered “Fair”, with only 6 percent of the paved roads in “Good” condition. Private, paved roads are not included in this evaluation.



Road Quality: Gravel Roads are Degrading

The Township's road problems are not limited to paved roads — the 37 miles of gravel roads are failing too. The results of windshield surveys indicate severe problems on key, connecting segments. Gravel roads deteriorate differently than paved, and are particularly impacted by poor construction, unmaintained drainage, high traffic levels, high speeds, weather and excessive vehicle weights.

Standard maintenance on gravel roads consists of re-grading the surface, followed by an application of chloride. Applying chloride to a well-constructed limestone gravel road serves to harden the roadbed, creating a smooth, durable surface that often lasts for 5-7 years. If the road is in poor condition, or lacks a strong limestone base, applying chloride will simply reduce dust, but will not serve to solidify the road surface. The majority of gravel roads in Hartland are not limestone, and would require installation of this base in order to benefit from future chloride applications.

In the past, the Township has budgeted for two chloride applications per year; however, four are needed. The Livingston County Road Commission partners with the Township in this effort by contributing the road grading to redistribute displaced gravel before the chloride is applied.



Plan Development: Determined by Township Residents

The plan priorities and recommendations contained in this document were determined by Township residents through the Safer Roads Task Force. Since the Township's residents requested improved roads, it seemed imperative that the residents also make the recommendations on what roads should be addressed, and how the requisite improvements should be funded.

As a first step in the process to facilitate this effort, the Township went out to residents to generally request input on road problems. Maps were provided at community functions and residents were asked to identify problem areas. Information was also made available through the Township's newsletter and on the website. A Township-wide solicitation then took place, and a twenty-one member committee was appointed and tasked with the responsibility of identifying priorities and formulating a strategy. This Safer Roads Task Force consisted of representatives from throughout the Township, all offering different perspectives and opinions on this road issue at large.

The Task Force held a series of meetings over many months during which, in conjunction with staff: 1) road conditions were evaluated, ranked, and prioritized 2) pathway connections were considered 3) cost structures were studied 4) funding options were reviewed 5) a recommended strategy was formulated for public consideration, and 6) a plan document was developed.

A draft plan was taken out to the community via numerous public meetings and online engagement. The Task Force then reconfigured the plan to reflect public feedback.

FUNDING ALLOCATIONS TO PRIORITY PROJECTS

Following the identification of the various road, pathway, and infrastructure project priorities, the Task Force then debated the issue of funding allocations. If funding became available, what would be the best use of the resources and how should funding be allocated among the priorities? A number of factors were evaluated, with one of the highest considerations of the Task Force being the number of residents potentially impacted by a proposed improvement, with the location of the proposed projects a close second. The Task Force believes it is important that funds be broadly allocated to help ensure that all residents were impacted by the improvements at some level.

PAVED ROADS CONSIDERED

The Task Force evaluated the PASER ratings for eleven high-priority paved road segments, as well as the average daily traffic counts (ADT – High and Low), and ranked them in terms of failure severity, estimated traffic level, and cost vs. benefit of investment.

Road Segment	Length (in miles)	Rating	Daily Traffic Counts
Hartland Road, Crouse Road to Cook Road	0.75	2-7	H-7,579 L- 906
Fenton Road, M-59 to Hibner Road	2.0	3-4	H-4,076 L-3,211
Bullard Road, 1790' north of M-59 to Dunham	0.82	1-3	H-1,520 L- 480
Bergin Road, Rolling Hills to Old 23	1.12	2	H-2,072 L-1,285
Fenton Road, Hibner Road to Holtforth Road	2.13	2-3	H-3,018 L-1,809
Clyde Road, Cullen Road to Hartland Road	1.55	3-6	H-6,708 L-1,422
Hibner Road, Hartland Road to Bullard Road	2.09	3	H-3,406 L- 951
Read Road, Bullard Road to Fenton Road	1.17	2	H- 765 L- 593
Parshallville Road, Old 23 to end of pavement	1.15	2	H- 886 L- 723
Bullard Road, Parshall Road to Read Road	0.61	3-4	H- 533 L- 422
Cullen Road, Clyde Road to Townley Road	0.50	2	H- 519 L- 332

GRAVEL ROADS CONSIDERED

The Task Force evaluated twelve public gravel road segments and ranked them in terms of maintenance needs. The Township undertakes two annual chloride applications in conjunction with road grading to improve the stability of the gravel roads. Major improvements are needed on many of the gravel roads though, in order to create a more solid base and thereby improve the effectiveness of the chloride applications. Average daily traffic counts are indicated on the right (High and Low).

Road Segment	Length (in miles)	Daily Traffic Counts
Pleasant Valley, Lone Tree to Commerce Road	1.26	H-1,649 L-1,295
Hacker Road, M-59 to Golf Club	2.0	H-2,101 L-1,311
Dunham Road, Clark to Fenton Road	2.0	H-1,087 L- 262
Clyde Road, Hartland to Fenton Road	2.4	H-1,514 L- 703
Bergin Road, Hacker to Rolling Hills Road	1.24	H-1,004 L- 806
Crouse Road, Cullen Road to Old 23	0.87	H- 901 L- 571
Cook Road, Hartland to Runyan Lake Road	0.19	H- 460 L- 272
Hibner Road, Bullard to Fenton Road	1.01	H- 358 L- 239
Hacker Road, M-59 to N. St. John's Driveway	0.14	H- 553 L- 299
Cullen Road, Townley to Crouse Road	0.91	H- 360 L- 184
Parshallville Road, Settlement to Clyde Road	0.60	H- 343 L-163
Dunham Road (east of Clark Road) Bridge Improvements		

CONCURRENT MAINTENANCE AND INFRASTRUCTURE PROJECTS CONSIDERED

Through the process of determining maintenance needs for roads and pathways, the Task Force recognized that other, related physical issues should be concurrently addressed. Many of these relate directly to physical projects, others are recommended as proactive measures that will help alleviate the need for significant investment in the future. **The Task Force recommends that a minimal amount of millage dollars be allocated to achieving these objectives. The Task Force recommends that the Township investigate ways to accomplish these objectives by other means or through alternative funding sources, perhaps in conjunction with road improvement projects.**

Township-Wide Trash Collection (recommendation, but not included in the millage proposal)

Repair Village Underground Storm Drain

M-59 Sign and Signal Improvements

Intersection Vegetation Clearing

Traffic Count Program

Motor Carrier Weight Limit Enforcement

Improvements to Fenton Road North of Hibner

Improvements to Clark Road North of Lorraine Lane

Curb and Gutter through Hartland Village

3-Way Stop at Clark and Dunham Roads

Traffic Calming at Avon/Hartland and Crouse Roads

Streetlight Program

Additional Weight Limit Restrictions

Citizen Task Force Recommendations

The Safer Roads Task Force recommends that the Hartland Township Board of Trustees place a ballot measure before the voters, requesting a 1.5 mill increase for a period of ten years, to accomplish the road improvement projects listed below. If approved, this would result in approximately \$9 million (\$900,000 annually for ten years), to be applied to road improvements. The Task Force recommends that the referenced projects be bonded, and undertaken in priority, over a 1-2 year period in order to prevent any further deterioration. Contingencies are included in these estimates as well as Livingston County Road Commission (LCRC) engineering. Should engineering needs exceed LCRC capacity, the Task Force has included a line item to account for potential outside engineering costs.

PAVED ROADS

Hartland Road, Crouse to Cook Road	\$ 437,500
Fenton Road, M-59 to Hibner Road	\$ 650,000
Bullard Road, 1790' N. of M-59 to Dunham Road	\$ 437,500
Bergin Road, Rolling Hills to Old 23	\$ 481,250
Fenton Road, Hibner to Holtforth Road	\$ 962,500
Clyde Road, Cullen to Hartland Road	\$ 125,000
Hibner Road, Hartland to Bullard Road	\$ 337,500
Read Road, Bullard to Fenton Road	\$ 512,500
ESTIMATED TOTAL PAVED ROAD IMPROVEMENT COSTS:	\$3,943,750

GRAVEL ROADS

Pleasant Valley, Lone Tree to Commerce Road	\$ 456,480
Dunham Road, Clark to Fenton Road	\$ 657,920
Clyde Road, Hartland to Fenton Road	\$ 805,600
Dunham Road bridge improvements	\$ 85,000
Blaine Road, Maxfield Road to end of pavement	\$ 146,250
ESTIMATED TOTAL GRAVEL ROAD IMPROVEMENT COSTS:	\$2,151,250

NEW PAVED ROAD

Hacker Road, M-59 to Golf Club

Hartland Township's projected portion of the project when done in partnership with Oceola Township.

ESTIMATED TOTAL NEW PAVED ROAD COST:	\$1,500,000
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PREVENTATIVE MAINTENANCE AS NEEDED

Filling potholes, crack sealing, etc.	\$ 495,000
Fourth chloride application to roads for ten years	\$ 210,000
Road grading and drainage improvements	\$ 200,000
ESTIMATED TOTAL PREVENTATIVE MAINTENANCE COSTS:	\$ 905,000

PROJECT DESIGN AND ENGINEERING	\$ 500,000
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TOTAL ESTIMATED COST:	\$9,000,000
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A 1.5 mill/ten-year tax increase would raise the funds necessary to make the improvements listed above. This would cost the average homeowner \$150 per year.

FUNDING OPTIONS

Road Improvement Millage – Voter authorization of a millage increase must occur at an election, following the passage of a formal resolution by the Township Board of Trustees. A 1.5 mill increase is the equivalent of \$1.50 on every thousand dollars of taxable value. The taxable value (state equalized value) of a property is roughly one-half of the market value. The average home price in Hartland Township is approximately \$200,000, with a taxable value of \$100,000. For the average home in Hartland Township, the cost of the proposed plan would therefore be \$150 per year for the duration of the proposed increase. If adopted, Hartland would be the eighth township in Livingston County with such a millage.

General Fund Allocations – The Task Force is recommending that the Township General Fund pay for recommended sidewalk connectivity (see addendum 1). The General Fund would be able to dedicate \$100,000 per year to sidewalks if the millage is approved and those dollars are not directed to minor road improvements. The Township will also explore alternative funding, including state grants and special assessment districts. The \$100,000 commitment would do very little to impact road conditions, but could make a significant impact in walkability and bikeability along M-59, Hartland Road and the Village area. The Task Force is recommending that these sidewalk improvements be completed within the first few years of the millage.

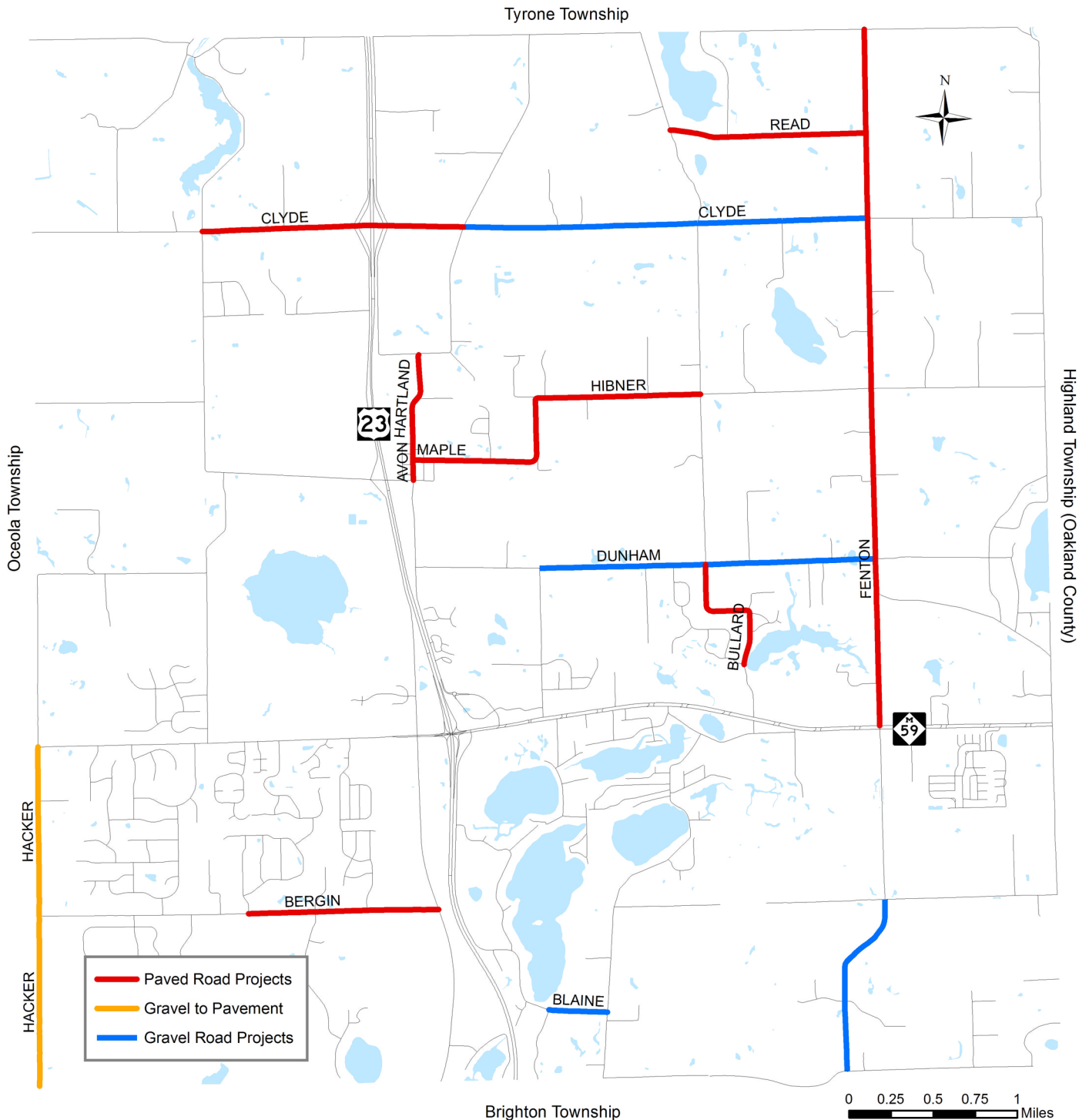
Special Assessment Districts – SADs provide the opportunity for residents to “partner” with the Township on specific road improvements that functionally serve a limited number of properties. The costs of the improvements are usually shared, with assessments levied proportionately against the properties that benefit from the improvements. The County Road Commission administers such projects with the Township bonding for the improvements.

Cost Sharing – Sharing in road improvement costs can take different forms, with most occurring between abutting jurisdictions, or between a local jurisdiction and the County Road Commission. It is recommended that cost sharing among Hartland Township, Oceola Township, and Livingston County be pursued for the paving of Hacker Road from Golf Club Road to M-59.

Grant Funding – Competitive matching grants are available for certain types of road projects. Because the vast majority of grants available require that the recipient match the funds, the millage would allow Hartland Township to become competitive for these grants.

PROPOSED PROJECT MAP

A map illustrating the location of the proposed projects is found below. Implementation of the projects will occur in coordination with the Livingston County Road Commission and other entities contracted to perform the improvements.



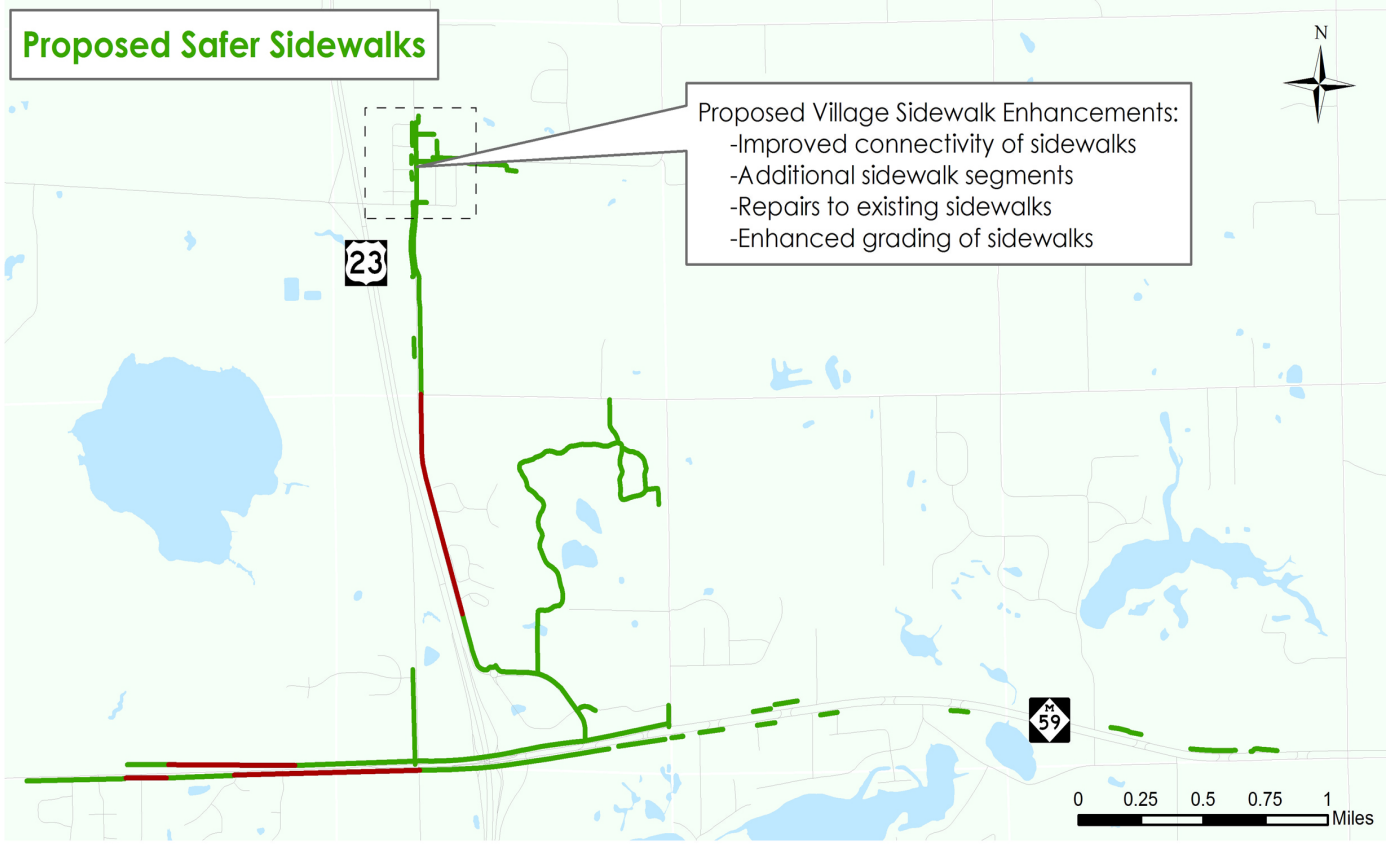
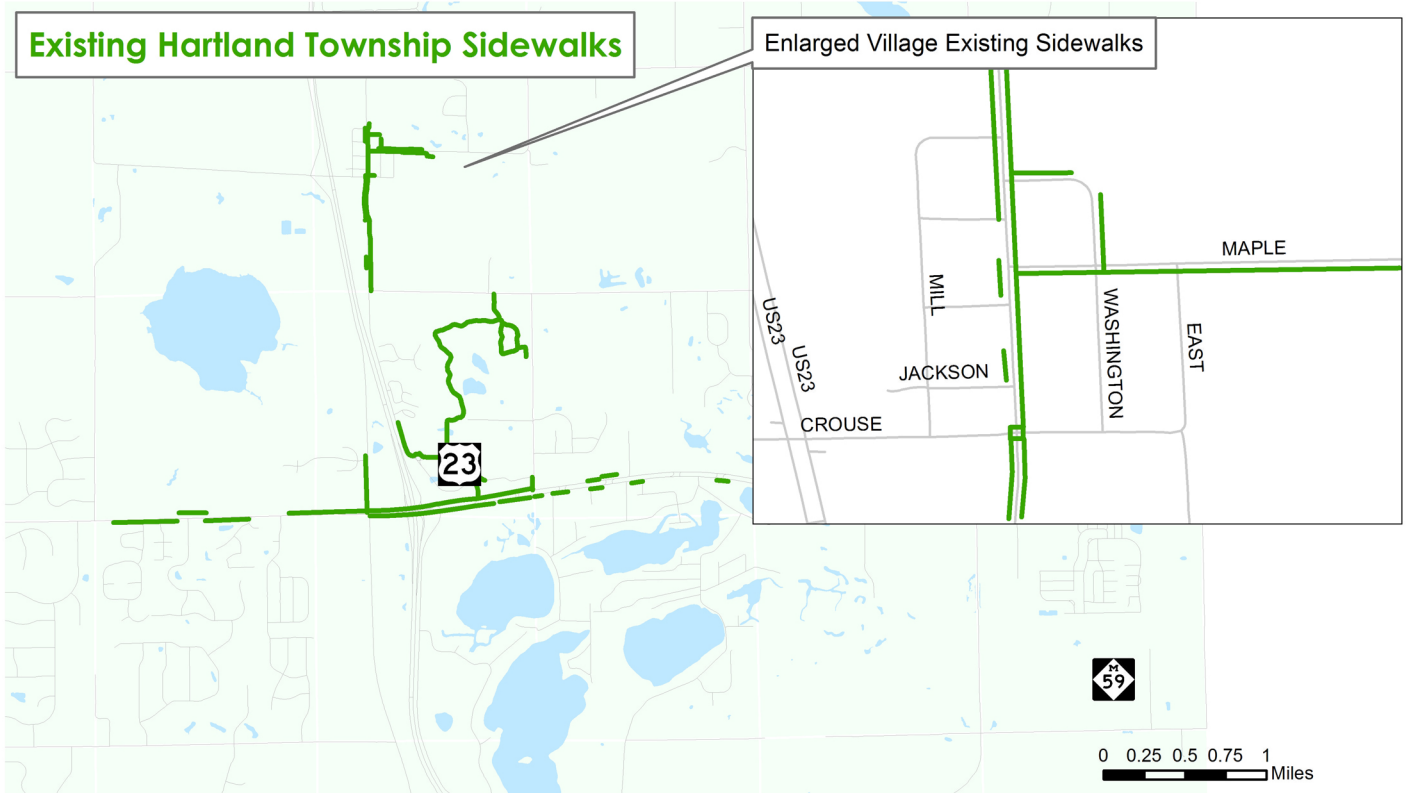
In the initial plan, the Task Force recommended that sidewalk connectivity be included in the millage. Following public feedback, both at numerous public meeting and online, residents were clear that roads are the priority.

The Task Force then reconfigured the plan to reflect this feedback. Two additional roads as well as a as-needed maintenance line item were included and sidewalks were removed from the plan.

Township leadership, however, indicated that the General Fund could contribute \$100,000 per year to sidewalks if the millage is approved and those dollars are not directed to minor road improvements. The Township will also explore alternative funding, including state grants and special assessment districts.

The \$100,000 commitment would do very little to impact road conditions, but could make a significant impact in walkability and bikeability along M-59, Hartland Road and the Village area.

Existing and Proposed Sidewalks



— Existing Sidewalks

— Proposed Sidewalks