



# Pavement Data Collection and Pavement Management System Implementation for the City of Marengo, Illinois

## Final Report

**Prepared For:**

The City of Marengo

**In Association With**

Chicago Metropolitan Agency for Planning



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**LIST OF ACRONYMS**

<b><u>Acronym</u></b>	<b><u>Explanation</u></b>
AC	Asphalt Concrete
APTech	Applied Pavement Technology, Inc.
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
CIP	Capital Improvement Plan
CMAP	Chicago Metropolitan Agency for Planning
EDGE	Enhanced Data Gathering Equipment
GIS	Geographic Information System
GPS	Global Positioning Sensor
HMA	Hot-Mix Asphalt
IRI	International Roughness Index
LCMS	Laser Crack Measurement System
M&R	Maintenance and Rehabilitation
NCPP	National Center for Pavement Preservation
PCC	Portland Cement Concrete
PCI	Pavement Condition Index
PMS	Pavement Management System
ROW	Right-of-Way

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## EXECUTIVE SUMMARY

The Chicago Metropolitan Agency for Planning (CMAP) has partnered with agencies throughout the Northeastern Illinois region to promote and support asset management at the local level through its pavement management program. Pavement management is a form of asset management which seeks to optimize life-cycle costs of achieving and sustaining a desired target condition instead of prioritizing the repair of assets in worst condition first. Prioritized investment guides CMAP's approach to addressing the region's infrastructure investments as a core focus of ON TO 2050, the region's comprehensive plan. To assist local agencies implement asset management, CMAP engaged contractors to work with communities to develop a customized pavement management system tailored to the municipality. Applied Pavement Technology (APTech) assisted four local agencies, including the City of Marengo (City). APTech worked closely with the City to define the road network in the Pavement Management System (PMS), collect pavement condition data, configure the PAVER PMS with treatment strategies and performance models, and perform budget scenario and work planning analyses. This report summarizes the work completed and results of the efforts.

Pavement management is the process of planning the maintenance and repair of a network of roads or other paved facilities to optimize pavement conditions over the entire network. The process of pavement management includes creating a network inventory, measuring the condition of each roadway, defining treatment strategies, establishing models to predict performance over time, and performing analyses to predict budget needs and create a work plan that will make the most efficient use of resources to achieve agency goals. Pavement management supports accountable, performance-based, goal-oriented decision making, and presentation of information to stakeholders clearly and effectively. Pavement management allows an agency to move from worst-first, reactive planning to proactive, performance-based planning to make the most effective use of available funds over time.

The City road network includes about 40 centerline-miles (over 5.5 million ft<sup>2</sup>) of roads, divided into 434 pavement management sections. The network is surfaced primarily with Asphalt Concrete (99.55 percent), although there are very small sections of Gravel and Portland Cement Concrete (PCC) roads. Local roads make up 94 percent of the network, and the remaining 6 percent are classified as minor arterials and collectors.

APTech collected pavement condition data in the City in Spring 2021. Pavement distress was summarized to calculate Pavement Condition Index (PCI) values for each street in accordance with ASTM Specification D6433, *Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys*. Overall, the area-weighted average PCI of the City-maintained roadway network is 41. This puts the area-weighted average PCI for the City in the Poor condition category. A map of the City showing PCI for each road segment is shown in Figure ES-1. A summary of 2021 PCI results for each pavement section is provided in Appendix A.

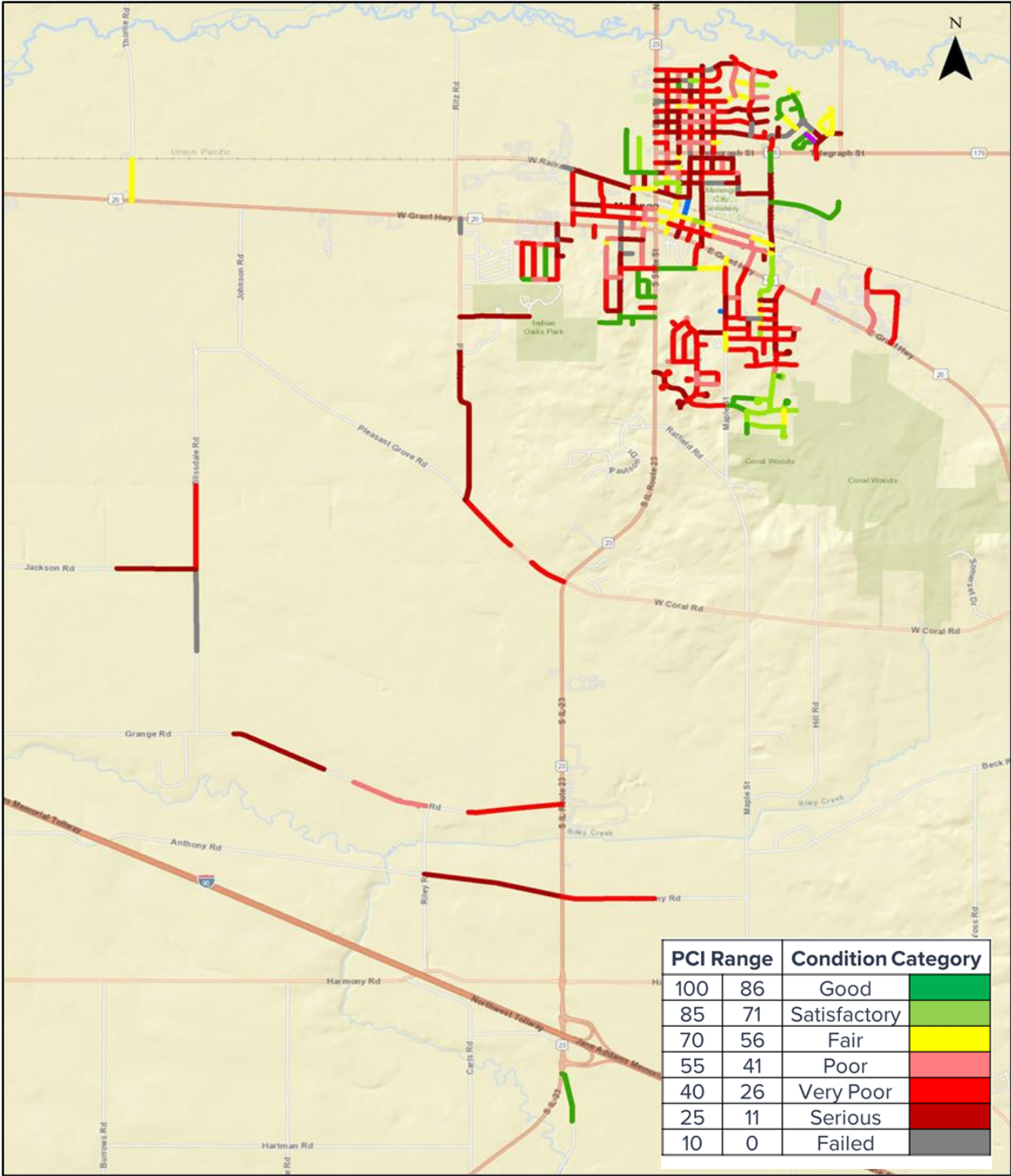


Figure ES-1. City of Marengo map showing color-coded PCI.

APTech used the PAVER PMS software to perform several analyses comparing the impact of different budget levels on network condition over a 10-year period. Table ES-1 presents a summary of the findings. The City’s current annual roadway maintenance and repair budget is about \$150,000, which results in a decline from the current PCI value of 41 to a PCI value of 26 over the analysis period. An annual funding level of \$460,000 is required to maintain the current area-weighted average network condition of 41. Anything below an annual funding level of

\$460,000 will result in a decline in PCI over time. An annual budget of \$2.5 Million is required to eliminate the work backlog over the analysis period.

Table ES-1. Comparison of budget scenario results.

Funding Scenario	Total 10-Year Funded Costs	Remaining M&R Backlog in 2031	Total Funded + Backlog	Forecasted PCI in 2031
\$2.5 Million per Year - Eliminate Backlog	\$25,116,886	\$0	\$25,116,886	80
\$460,000 per Year - Maintain Current Condition (PCI = 41)	\$4,601,888	\$52,898,226	\$57,500,114	40
\$250,000 per Year - Further Increased Funding	\$2,476,458	\$57,108,981	\$59,585,439	30
\$200,000 per Year - Increased Funding	\$1,987,434	\$57,802,188	\$59,789,622	28
\$150,000 per Year - Current Funding	\$1,482,471	\$58,392,914	\$59,875,385	26
\$0 per Year - Do Nothing	\$0	\$62,359,050	\$62,359,050	18

As part of the budget scenario analyses the PMS also provides a summary of work needs by year for each budget level. For the City’s current funding annual funding level of \$150,000 PAVER projects an ability to repair about 5 miles of roads over the 10-year analysis period. This is shown in figure ES-2.

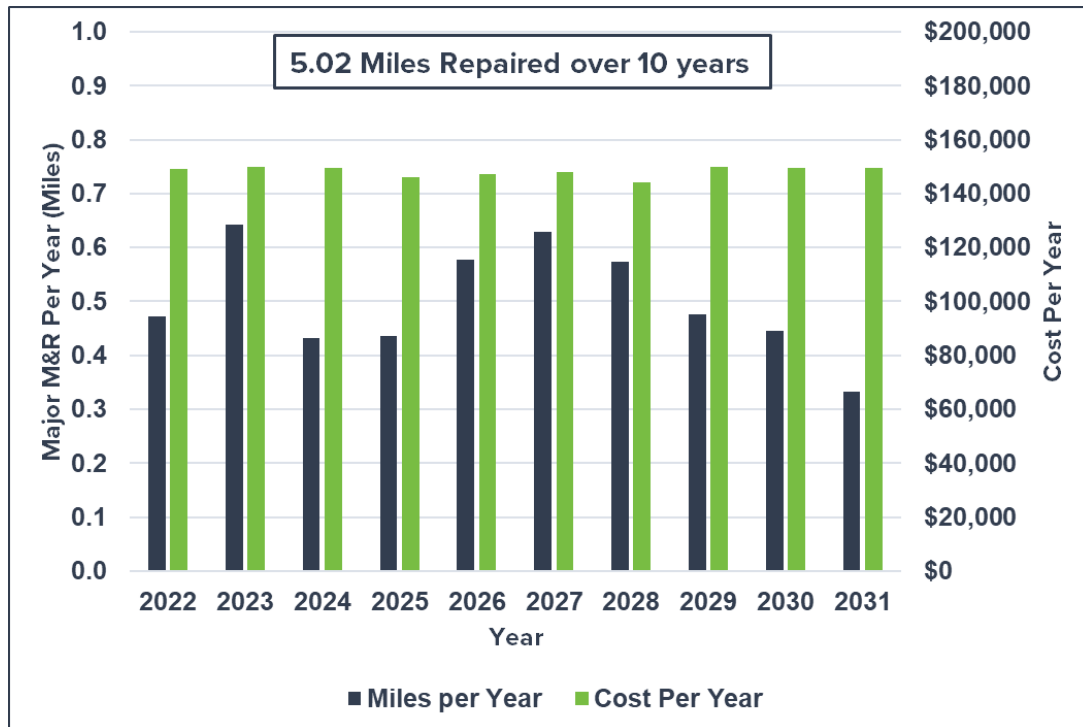


Figure ES-2. Summary of work completion by year for the current City funding level.



One way the City can help itself is to consider using maintenance and preservation treatments to keep the roads that are in good condition from deteriorating while seeking to address the rehabilitation and reconstruction needs. Preservation treatments, including crack sealing, patching, and surface treatments are very cost-effective ways to slow the deterioration of roads, and should be considered by the City.

## PROJECT BACKGROUND

The Chicago Metropolitan Agency for Planning (CMAP) is the region's official comprehensive planning organization. The agency and its partners developed a comprehensive regional plan to help the seven counties and 284 communities of northeastern Illinois implement strategies that address transportation, housing, economic development, open space, the environment, and other quality of life issues. As part of this effort, the CMAP engaged contractors to assist with pavement condition data collection and pilot local pavement management system (PMS) implementations in communities in northeastern Illinois. The project consists of two primary tasks: (1) collect pavement condition data for municipal-maintained roads in the CMAP region, and (2) complete pavement management plans for selected local agencies.

In 2020, CMAP hired Applied Pavement Technology (APTech) to collect condition data and implement the PAVER PMS for four local agencies. One of those agencies is the City of Marengo (City). APTech worked closely with the City to define the road network in the PMS, collect condition data, configure the PMS with treatment strategies and performance models, and perform budget scenario and work planning analyses. This report summarizes the work completed and results of the efforts.

### Scope of Work

The scope of work consisted of the following tasks:

#### Task 1 – Database Preparation

APTech scheduled a group kickoff meeting on Wednesday, March 17, 2021, wherein initial discussions provided introductory information including the primary objectives of the effort and expectations of the City. APTech identified information needs so that the City could start gathering and delivering it. Information included a roadway network shape file, available construction and work history records, repair policies, and budget numbers.

APTech established a PAVER database for the City incorporating the information provided. Segmentation into management units was on a per block basis. APTech worked with the City to confirm the road network definition prior to data collection.

#### Task 2 – Data Collection and Processing

In April 2021 APTech mobilized its Enhanced Data Gathering Equipment (EDGE - shown in figure 1) van for automated data collection. Collection included Laser Crack Measurement System (LCMS) downward images, road surface profile data, and four Right-of-Way (ROW) views (forward, forward-left, forward-right, rearward). All collected information was geo-referenced using an on-board GPS antenna.

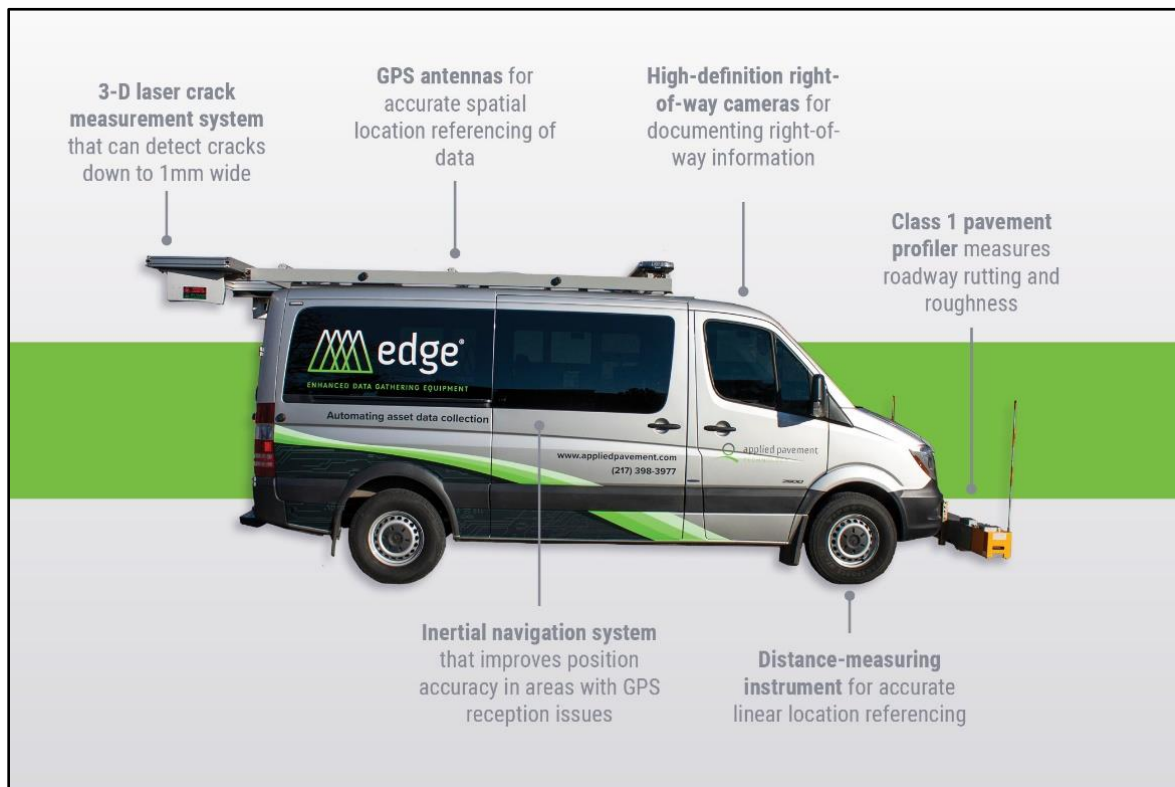


Figure 1. APTECH's EDGE data collection vehicle.

Data collection was conducted in one pass for two-lane roads, and two passes for roads with three or more lanes. With each pass information described above was collected for one lane.

Information processing included conversion of LCMS data into images, automated identification of distresses, calculation of IRI, calculation of rutting, and measurement of faulting (for jointed concrete pavements). Once the processing was complete, trained staff reviewed the results of automated distress identification to complete the summary of distress data. Summarized distress and rutting data were entered into PAVER for calculation of PCI by road segment. Summarized IRI and faulting measurements (where appropriate) were tabulated for delivery to the City.

Once PCI values were available for all roadway segments, APTECH held a PCI review meeting with the City. In this meeting the City confirmed that results seemed reasonable allowing analyses to proceed.

### Task 3 – Analysis and Reporting

APTECH obtained work history, unit costs, repair policies, and budgets from the City and updated its PAVER database prior to performing analyses. Analyses included ten-year budget scenarios and statements of PAVER-produced work needs by year. Projected pavement conditions under six budget scenarios were completed, including:

- Unlimited budget
- No funding
- Budget required to maintain current condition
- Projected network condition given current City funding (\$150,000/year)
- Projected network condition for two increased budget amounts (\$200,000 and \$250,000/year)

Results were presented graphically and in tabulated form. Work needs were provided by year by roadway segment.

#### **Task 4 – Reporting**

A draft report was submitted to CMAP and the City for review. Comments from CMAP and the City were incorporated to produce and deliver a final report in both printed and electronic formats.

Final deliverables also include electronic delivery of downward and ROW images and a viewer to both CMAP and the City.

#### **Meetings**

As part of the planned work APTEch proposed five meetings with each municipality. These included:

- A virtual group kickoff meeting.
- A virtual PCI review meeting with each municipality.
- A virtual draft report/CIP review meeting.
- An on-site board meeting presentation for each municipality.
- A group 2-day PAVER software training session.

The project deliverables include the PAVER pavement management database, a network definition map, a pavement condition map, all images collected with a viewer, and this report. Optional deliverables available for the City include the PAVER software and licenses, and PAVER training, should the City desire to continue using this pavement management tool in the future.

To assist in the understanding of the information provided, the report begins with a brief introduction to pavement management. This section covers the history of pavement management, provides definitions of common pavement management-related terms, and discusses the different components of a modern-day PMS in more detail.

## INTRODUCTION TO PAVEMENT MANAGEMENT

Agencies with a road network such as the City of Marengo have long been responsible for maintaining their pavement infrastructure. Careful management of the pavements has become increasingly important as competition for scarce resources and expectations for agency accountability have increased. Faced with this daunting task agencies often find themselves asking many different questions like:

- What pavements should we address first?
- On what pavements is our money best spent?
- What annual budget do we need to keep our pavement network at its current condition over the next few years?
- How are our pavements really performing over time?
- Are we better off spending our money on pavements in very poor condition, or letting those bad pavements deteriorate while we concentrate on keeping good roads in good condition?

To answer these questions, and many more, pavement management practitioners developed the first pavement management systems (PMS) in the 1970s. In simple terms, a PMS is a systematic process that: 1) assesses the current pavement condition, 2) predicts future pavement condition, 3) determines maintenance and rehabilitation needs, and 4) prioritizes these needs to make the best use of anticipated funding levels (i.e., maximizing benefit while minimizing costs). The remainder of this section introduces some of the history of pavement management, provides definitions for common pavement management-related terms, and discusses the different components of a modern-day PMS in more detail.

### Historical Perspective of Pavement Management

The concept of pavement management has evolved significantly since its inception in the 1970s. As standardized condition survey techniques came into place, more information regarding the cause of pavement deterioration became available. This information was then used to readily assess available repair alternatives and select the better repair strategy. This approach greatly improved the effectiveness of selected rehabilitation treatments since they were now being chosen both to correct existing deficiencies and to prevent their recurrence.

As computerized pavement management systems became available, an even more sophisticated level of analysis became possible. With today's systems, the results of the pavement condition surveys are used to assess current pavement conditions, and to identify pavement deterioration trends. This capability provides an agency with the ability to forecast future pavement conditions. As a result, agencies can assess the long-term impacts of decisions made today on future network conditions and identify the optimal time for repair so that funding can be scheduled in advance of the forecasted need.

The importance of identifying not only the best repair alternative but also the optimal time of repair was documented in U.S. Army Corps of Engineers, Construction Engineering Laboratory (USACERL) Technical Report M-90/05 and is summarized in figure 2 (Shahin and Walther 1990). This figure shows that over the first 75 percent of the pavement life, approximately 40

percent of the pavement condition deterioration takes place. After this point, the pavement deteriorates much faster, with the next 40 percent drop in pavement condition occurring over the next 12 percent of the pavement life. The financial impact of delaying repairs until the second drop in pavement condition can mean repair expenses four to five times higher than repairs triggered over the first 75 percent of the pavement life.

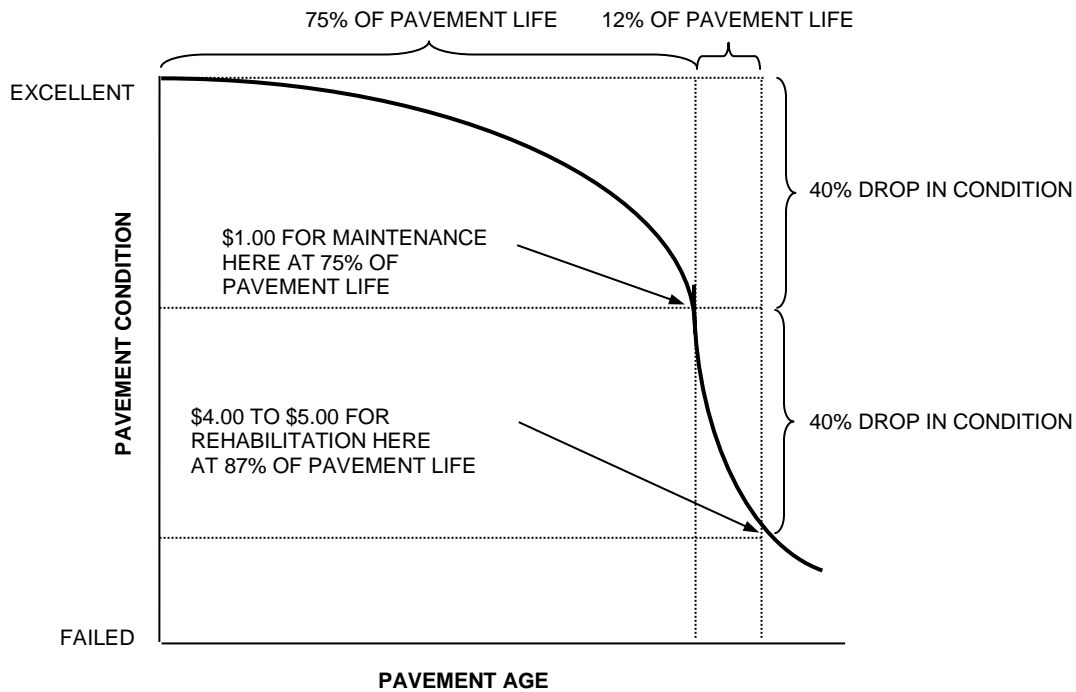


Figure 2. Typical pavement condition life cycle (Shahin and Walther 1990)<sup>1</sup>.

### General PMS Components

A PMS is comprised of six basic components, as shown in figure 3. To illustrate the general concepts of the PMS approach, each of these different components are discussed in more detail below.

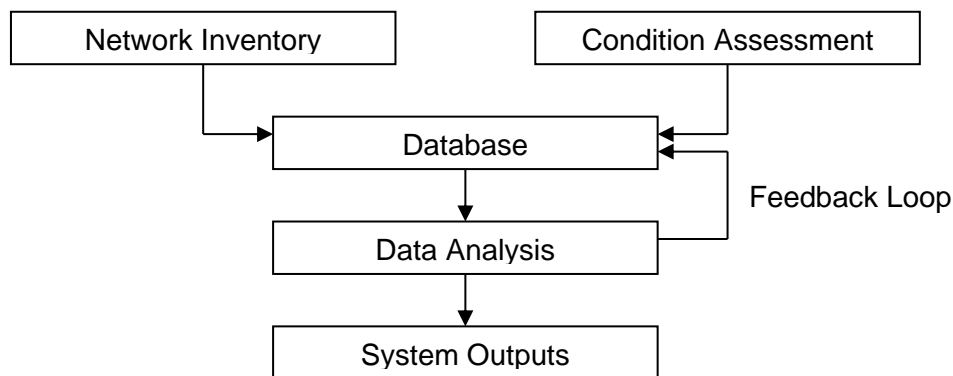


Figure 3. Basic components of a PMS.

<sup>1</sup> Shahin, M.Y. and J.A. Walther. 1990. Pavement Maintenance Management for Roads and Streets Using the MicroPAVER System. Technical Report M-90/05. Army Corps of Engineers Construction Engineering Laboratory (USACERL), Champaign, IL.

## Network Inventory

Network inventory is used to define the physical characteristics of the pavements being managed. Typically, the collected inventory information includes location information, pavement characteristics (such as length, width, and type), construction and maintenance histories, and traffic data. The network inventory is the foundation for the PMS.

The first decision that an agency should make with respect to network inventory is which pavement areas to include in the PMS. While it is probable that major pavement areas—such as driving lanes, parking lanes and lots, and intersections—will be included in the database, the actual selection of the pavement facilities to be included in the PMS is up to the agency.

Once a decision has been made about which pavements to include in the database, information about these pavements must be collected. It is important to keep three guidelines in mind when determining the extent of historical information to include in the inventory. First, the data should be accessible so that large quantities of time are not invested in a records search. Second, the collected information should serve a purpose. Third, the information must be chosen to ensure that the PMS can meet the analysis needs of the agency.

Although there is flexibility in the amount of information that must be collected and the manner that is it stored in a PMS database, there are some types of information that are mandatory. The following list outlines the types of information that must be collected for the system to operate correctly:

- *Pavement location* – Physical locations of the pavements need to be identified.
- *Pavement dimensions* – Length, width, and/or area of the pavement sections.
- *Surface type* – Describes the pavement surface/structure; Examples include:
  - AC: Asphalt concrete pavement.
  - AAC: AC pavement that has received one or more asphalt overlays.
  - APC: PCC surface that has received one or more asphalt overlays.
  - PCC: Portland cement concrete pavement.
  - BR: Brick surface.
  - GR: Gravel road.
  - ST: Surface Treatment (e.g., chip seal surfaces)
- *Last construction date* – Date of original construction or last major rehabilitation, such as reconstruction or an overlay.

Examples of other information that are beneficial to record in a PMS database are included in the following list (note that this list is not comprehensive):

- *Pavement cross-section* – Information on the thicknesses and material types of each pavement layer.
- *Traffic* – Types and levels of traffic.

- *Maintenance history* – Date, type, and cost of maintenance activities performed on the pavements.
- *Testing data* – Coring, boring, deflection, roughness data, and so on.
- *Drainage facilities* – Type and location of drainage facilities.
- *Shoulders or curbs* – Type and location of shoulders or curbs.

In addition to there being mandatory types of information included in a PMS, there are also organizational requirements for building a database, as follows:

- Each network must have one or more branches.
- Each branch must have one or more sections.
- Each branch must have a defined use (i.e., roadway or parking lot).
- Each section must be contained within a single branch.
- Each section must have a last construction date, area, and surface type.

Since pavement maintenance and rehabilitation recommendations, pavement deterioration rates, and cost estimates are determined at the section level, a section's characteristics should be as consistent as possible in terms of pavement design and construction, traffic, and condition. There should also be a systematic method for assigning branch and section names and identifiers.

### Condition Assessment

Pavement management decisions depend on some method of pavement evaluation. The method selected to evaluate pavement condition is extremely important because it is the basis of all M&R recommendations. For that reason, it is critical to select an objective and repeatable procedure so that PMS recommendations are reliable.

Pavement managers must evaluate their needs when determining not only the type of condition data to collect, but also how often to collect the data. For example, an agency experiencing rapid deterioration rates may elect to survey its pavements more frequently than the average organization, or to survey high-priority pavements on a more frequent basis than low-priority areas. Each agency must carefully evaluate its own circumstances to ensure that the data collection aspects of their PMS match both its needs and financial means. The PCI method is one of the most used methods to evaluate pavement conditions and this method has been used to assess the condition of the City's roadways.

### Database

Once the network inventory and pavement condition data have been collected, a database can be established to store and use the information. Although a manual filing system may be possible for a small network, the efficiency and cost-effectiveness of storing data on a computer makes an automated database the most practical alternative, especially when a comprehensive PMS is desired. PAVER, which is distributed by the American Public Works Association (APWA), was used as the City's PMS software program.



## Data Analysis

Data analysis can occur at the network or project level. At the network level, potential rehabilitation needs of the entire network are evaluated and prioritized for planning and scheduling budget needs over a multi-year period. The objective of network-level analysis is to evaluate rehabilitation needs for a future time period and prioritize project lists so that the agency makes the best use of the limited funds available for M&R. After the planning and programming decisions have been made during the network-level analysis, the information in the database can be used to supplement a project-level analysis. At the project-level, each individual project is investigated in detail to determine the appropriate rehabilitation treatment.

## System Outputs

There are several different methods for presenting the results of the analyses, including tables, reports, graphs and maps. Because of the volume of information obtained from a PMS, graphical reports are generally more effective than comprehensive project reports for people who need to quickly evaluate large amounts of data.

Many agencies have found value in linking their PMS to maps to display information through color-coded maps. As with the graphical display, this capability has greatly enhanced the usefulness of the PMS to agencies that need to convey a lot of information in a short period of time. Map links are perhaps most useful in displaying the funded projects in each year of the analysis and for displaying pavement condition results.

## Feedback Loop

An often-overlooked component of a PMS is the development of a feedback loop. The feedback loop establishes a process by which actual performance and cost data are input back into the models used in the pavement management analysis. For example, the PMS may use models that estimate the life of an asphalt overlay at 12 years. Actual performance data may show that the life of the agency's overlays is closer to 8 to 10 years. This type of information should be used to update the pavement management models so that the system recommendations remain reliable and become improved with time.

## PAVEMENT INVENTORY AND EVALUATION RESULTS

### Systems Inventory and Network Definition

The City of Marengo provided a GIS shape file from which the roadway network definition was established. The network consists of 40 centerline miles of streets classified as Minor Arterials, Collectors, and Local streets. Figure 4 provides a map showing the City street network by functional class.

The network is almost exclusively surfaced with asphalt concrete (99.55 percent). There are small amounts of portland cement concrete (PCC) surfaced streets (1 section) and gravel streets (2 sections – excluded from the condition survey).

Network definition is the process of dividing a collection of roadways into a logically organized system. A pavement management system requires that network definition activities be conducted to facilitate the storage and reporting of information and to provide a sound engineering basis for making maintenance and rehabilitation (M&R) recommendations. The procedures outlined in ASTM D6433 were followed during the network definition process.

Pavement divisions are established by creating an organizational hierarchy of the pavement network. The pavement network for the City consists of branches, sections, and sample units. A branch consists of the entire length of a road. A section is a subdivision of a branch containing pavement with the same design, construction history, traffic, and condition. Finally, sections are divided into sample units. Sample units are relatively small areas. Within selected sample units, distress types and severities are identified and quantified to estimate repair needs and to calculate PCIs.

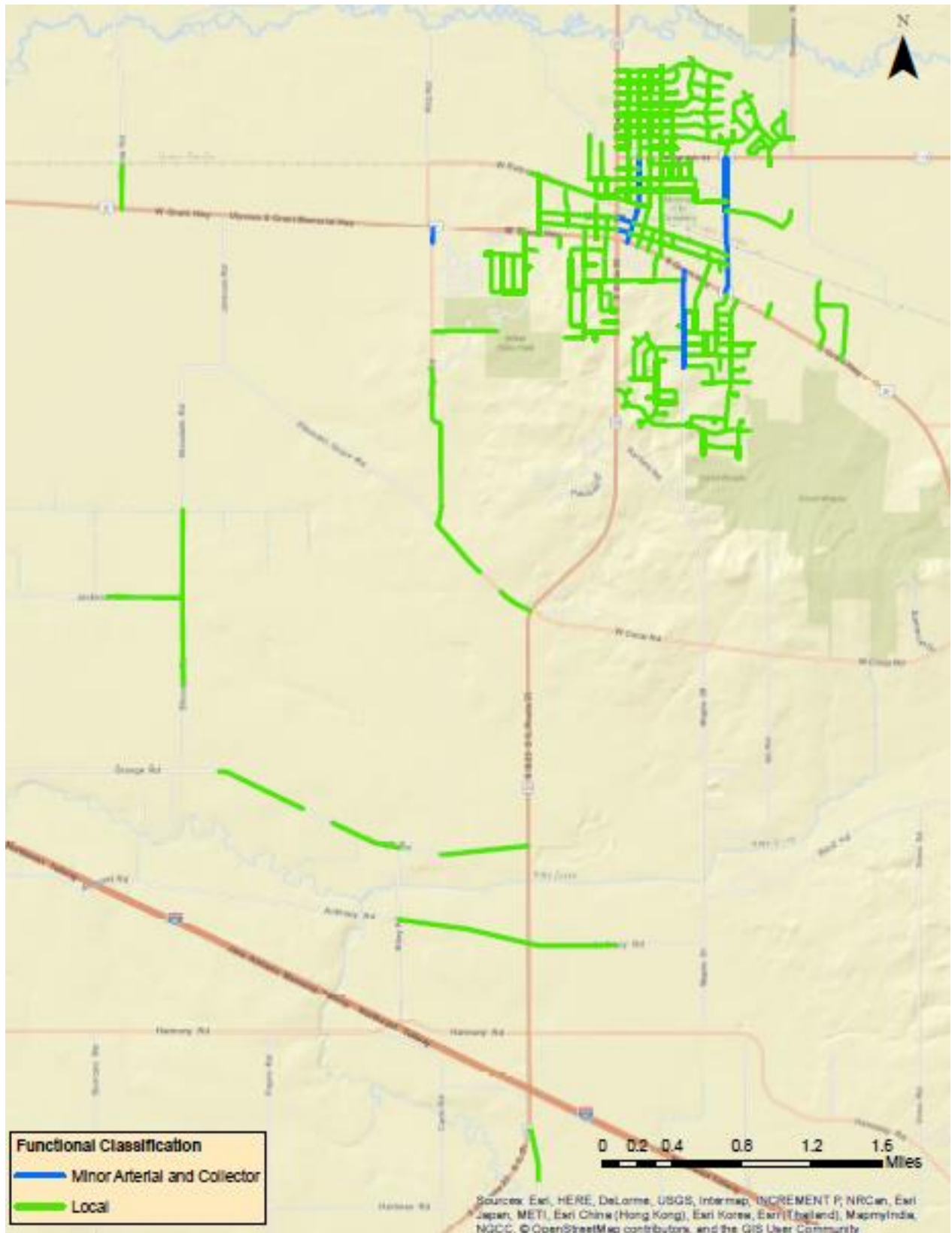


Figure 4. City of Marengo street network by functional class.

Approximately 40 centerline-miles (over 5.5 million ft<sup>2</sup>) of roads, which consists of 434 pavement sections, are currently defined in the City’s PAVER database. The pavement sections fell into three surface types: Asphalt Concrete Pavement (AC), Gravel (GR), and Concrete Pavement (PCC). Figure 5 shows the distribution of area by surface type. Although gravel sections were not inspected and are not included in the various analyses conducted for this project, these roads were inventoried in the PAVER database.

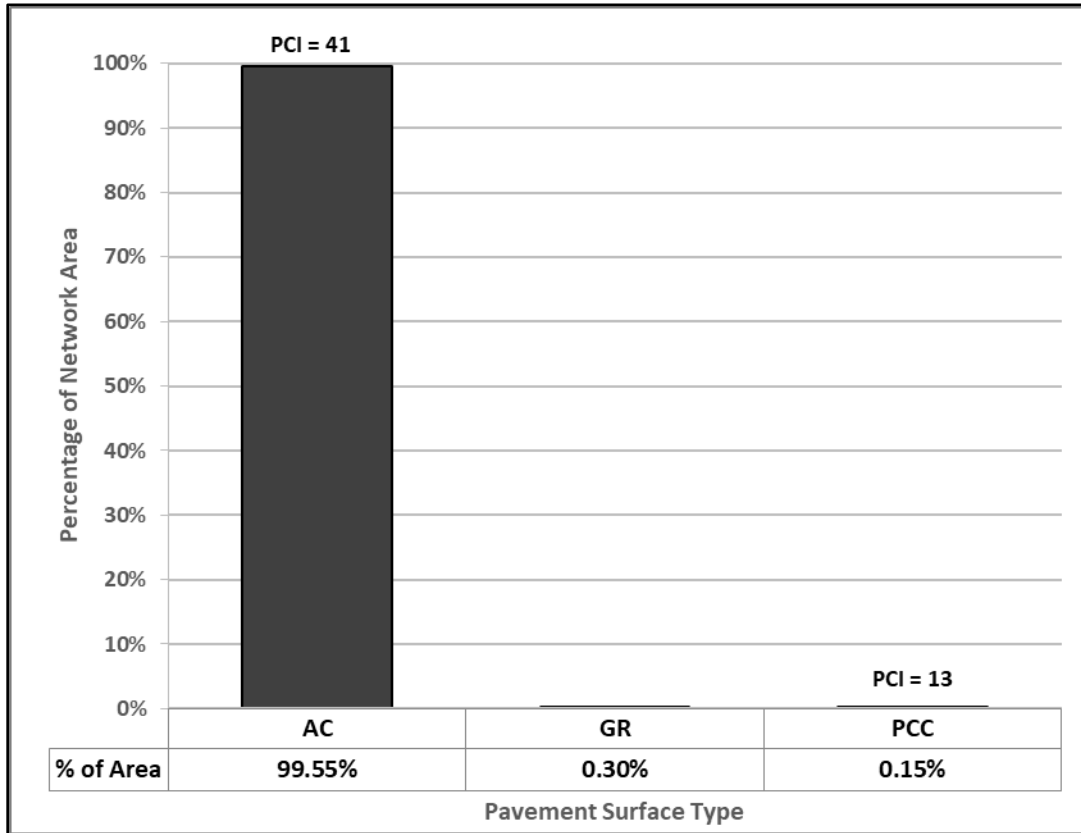


Figure 5. City of Marengo network makeup by surface type.

Figure 6 displays the breakdown of network area by functional classification. Local roads make up about 94 percent of the network surface area.

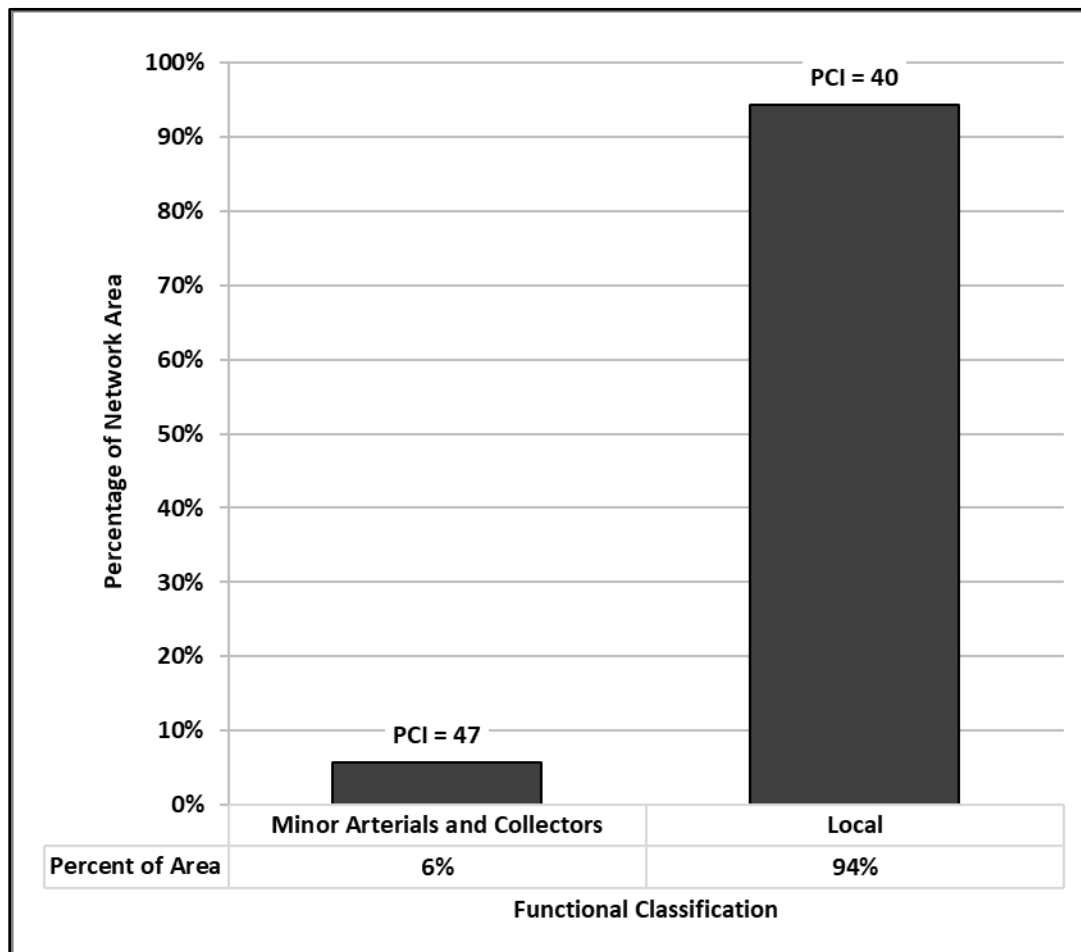


Figure 6. Network area by functional classification.

### Pavement Condition Assessment Procedure

One of the most important components of a pavement management system is the methodology for the systematic assessment of pavement conditions. Pavement condition data are used to identify current M&R needs, predict future needs, and project the impact of alternative M&R strategies on overall network conditions. Because of its importance to the pavement management system, the approach used to evaluate pavement condition must provide the level of detail required for the data analysis needs and be repeatable among inspectors.

The PCI procedure described in ASTM D6433, *Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys*, was used to assess pavement condition during the pavement evaluations conducted in April 2021. The PCI provides a numerical indication of the overall pavement condition. The PCI procedure is one of the standard approaches used by the pavement management industry to visually assess pavement condition. It was developed to provide a consistent, objective, and repeatable tool to represent the overall pavement condition. This methodology involves traveling the pavement length, identifying the type and severity of existing distress, and measuring the quantity (generally, length, area, or number of slabs affected) of distress.

Figure 7 illustrates PCI condition ranges. The PCI scale ranges from a value of 0 (representing a pavement in a completely failed condition) to a value of 100 (representing a pavement with no visible distress). In general terms, pavements with a PCI above 60 that are not exhibiting significant amounts of load-related distress (e.g., alligator cracking in the wheel-path) benefit from preventive maintenance actions, such as crack sealing and patching. Crack sealing and patching are cost-effective ways to extend pavement life when the pavement surface is still in good condition, generally when the PCI is between 70 and 85. Pavements with a PCI between 30 and 60 are more likely candidates for rehabilitation activities (such as an HMA overlay). Often, when the PCI is less than 30, reconstruction is the most viable alternative due to presence of the substantial damage to the pavement structure.








PCI Range		Condition Category	
100	86	Good	
85	71	Satisfactory	
70	56	Fair	
55	41	Poor	
40	26	Very Poor	
25	11	Serious	
10	0	Failed	

Figure 7. PCI condition ranges and categories.

During the condition inspections the APTEch survey crew documented conditions with digital photographs, both to record typical conditions and to highlight areas of concern. These pictures may help visualize the differences between different PCI condition ranges. Pictures of pavement sections at PCI categories ranging from Good to Serious are provided in figure 8.



PCI 93 (Good)  
Sunset Drive  
Section SEC0000231



PCI 75 (Satisfactory)  
Hickory Court  
Section SEC0000101



PCI 64 (Fair)  
Prairie Street  
Section SEC0000349



PCI 46 (Poor)  
West Street  
Section SEC0000238



PCI 30 (Very Poor)  
Maple Street  
Section SEC0000408



PCI 14 (Serious)  
Railroad Street  
Section SEC0000339

Figure 8. Example street segments at different PCIs.

Although PCI ratings can be used as a general guideline for identifying the repair type, examining the individual distresses measured during the inspection is often more useful in assessing the cause(s) of deterioration. The PCI procedure divides distresses into three categories based on the expected cause of the distress. By knowing the cause(s) of the pavement deterioration, appropriate repair and rehabilitation alternatives can be identified.

The three categories of distress types are load-related distresses (such as alligator cracking, rutting, or corner breaks), climate-related distresses (such as block cracking or joint seal damage), and other distresses (which include distresses that are not directly related to load or climate, such as lane/shoulder drop-off). Load-related distresses are defined as being caused by vehicular traffic and may provide an indication of structural deficiency. Climate-related distresses often signify the presence of aged and/or environment-susceptible materials. Asphalt and PCC pavement distresses are summarized by category in table 1.

Table 1. Pavement distresses by category (as categorized in PAVER).

Load-Related	Climate-Related	Other
<b>Asphalt Pavement</b>		
<ul style="list-style-type: none"> <li>• Fatigue (Alligator) Cracking</li> <li>• Edge Cracking</li> <li>• Potholes</li> <li>• Rutting</li> </ul>	<ul style="list-style-type: none"> <li>• Block Cracking</li> <li>• Joint Reflection Cracking</li> <li>• Longitudinal and Transverse (L&amp;T) Cracking</li> <li>• Raveling</li> <li>• Weathering</li> </ul>	<ul style="list-style-type: none"> <li>• Bleeding</li> <li>• Bumps and Sags</li> <li>• Corrugation</li> <li>• Depression</li> <li>• Lane/Shoulder Drop-off</li> <li>• Patching</li> <li>• Polished Aggregate</li> <li>• Railroad Crossing</li> <li>• Shoving</li> <li>• Slippage Cracking</li> <li>• Swelling</li> </ul>
<b>PCC Pavement</b>		
<ul style="list-style-type: none"> <li>• Corner Break</li> <li>• Divided Slab</li> <li>• Linear Cracking</li> <li>• Punchout</li> </ul>	<ul style="list-style-type: none"> <li>• Blow Up</li> <li>• Durability Cracking</li> <li>• Joint Seal Damage</li> <li>• Shrinkage Cracking</li> <li>• Corner Spalling</li> <li>• Joint Spalling</li> </ul>	<ul style="list-style-type: none"> <li>• Faulting</li> <li>• Lane/Shoulder Drop Off</li> <li>• Large Patch</li> <li>• Small Patch</li> <li>• Polished Aggregate</li> <li>• Popout</li> <li>• Pumping</li> <li>• Railroad Crossing</li> <li>• Scaling</li> </ul>

**Pavement Condition Inspection Results**

Overall, the area-weighted average PCI of the City-maintained roadways is 41. This puts the area-weighted average PCI for the City in the Poor condition category. A map of the City showing PCI for each road segment is shown in Figure 9.



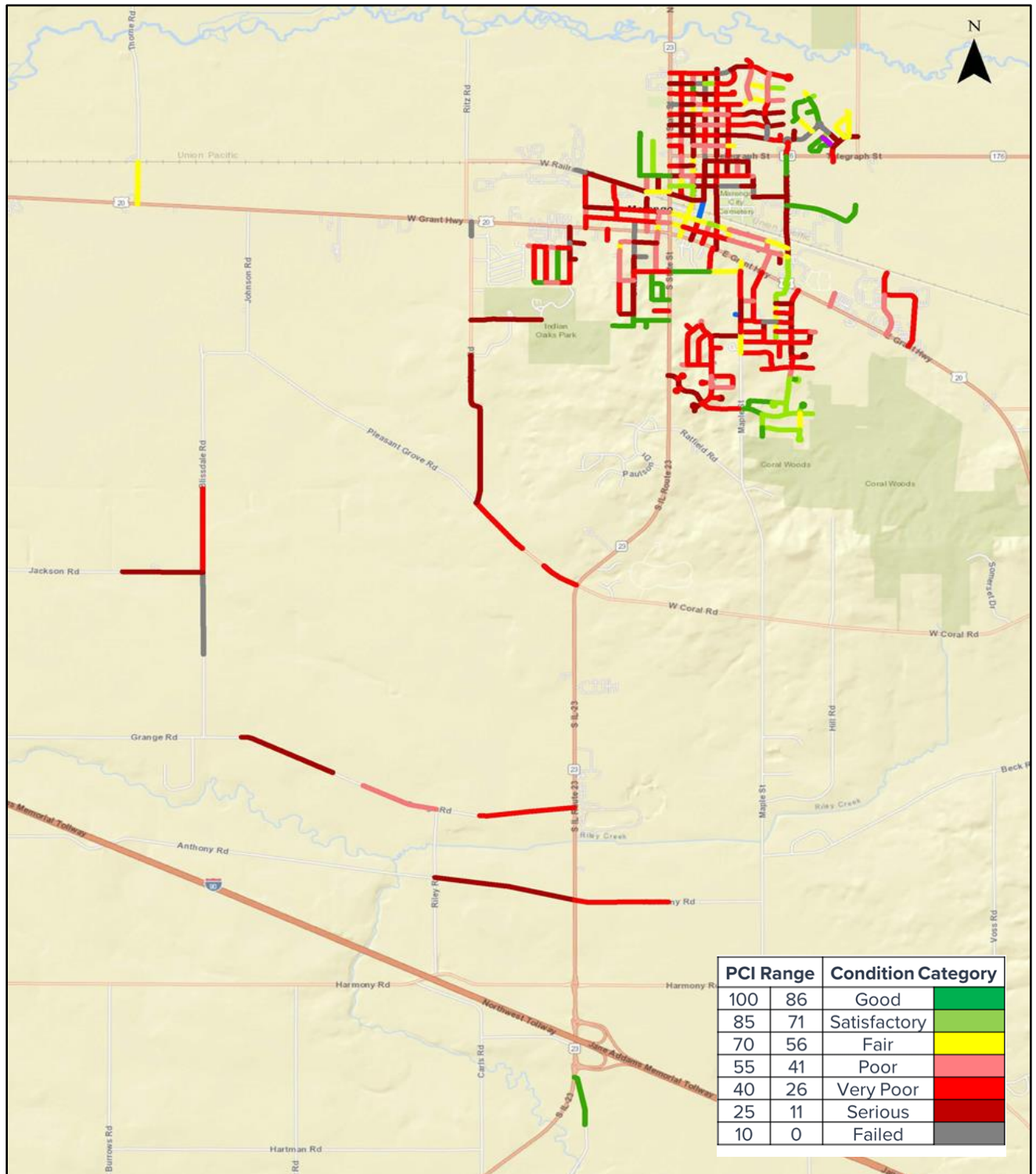


Figure 9. City of Marengo map showing color-coded PCI.

Figure 10 shows the area-weighted PCI by pavement surface type, which ranges from a PCI of 41 for AC pavements to a 13 for PCC pavements. Figure 11 shows the percentage of pavement area associated with each condition category. A tabulated summary of 2021 PCI results for each pavement section is provided in Appendix A.

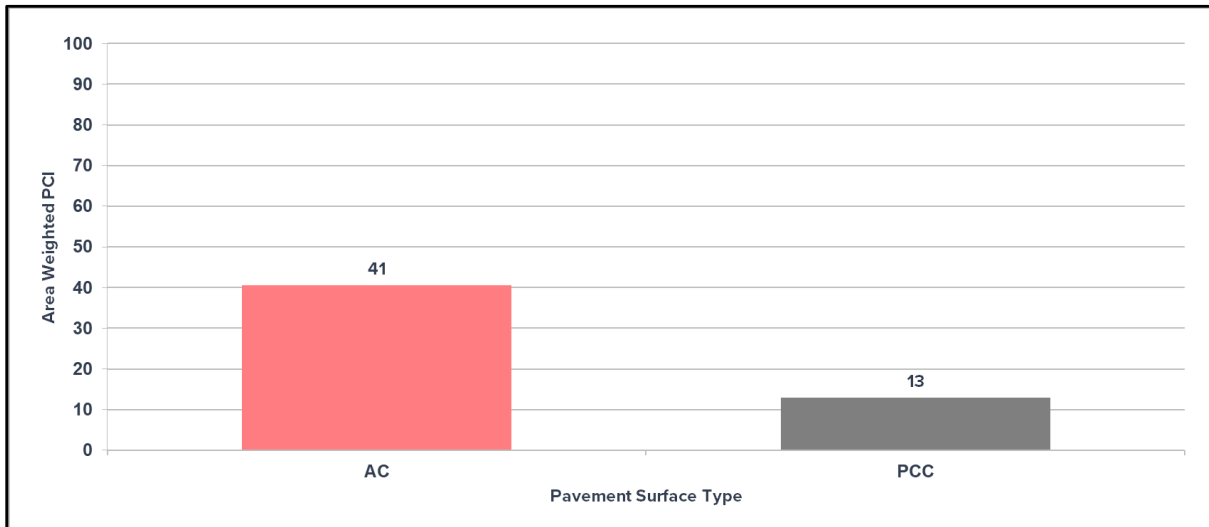


Figure 10. Area weighted PCI by pavement type.

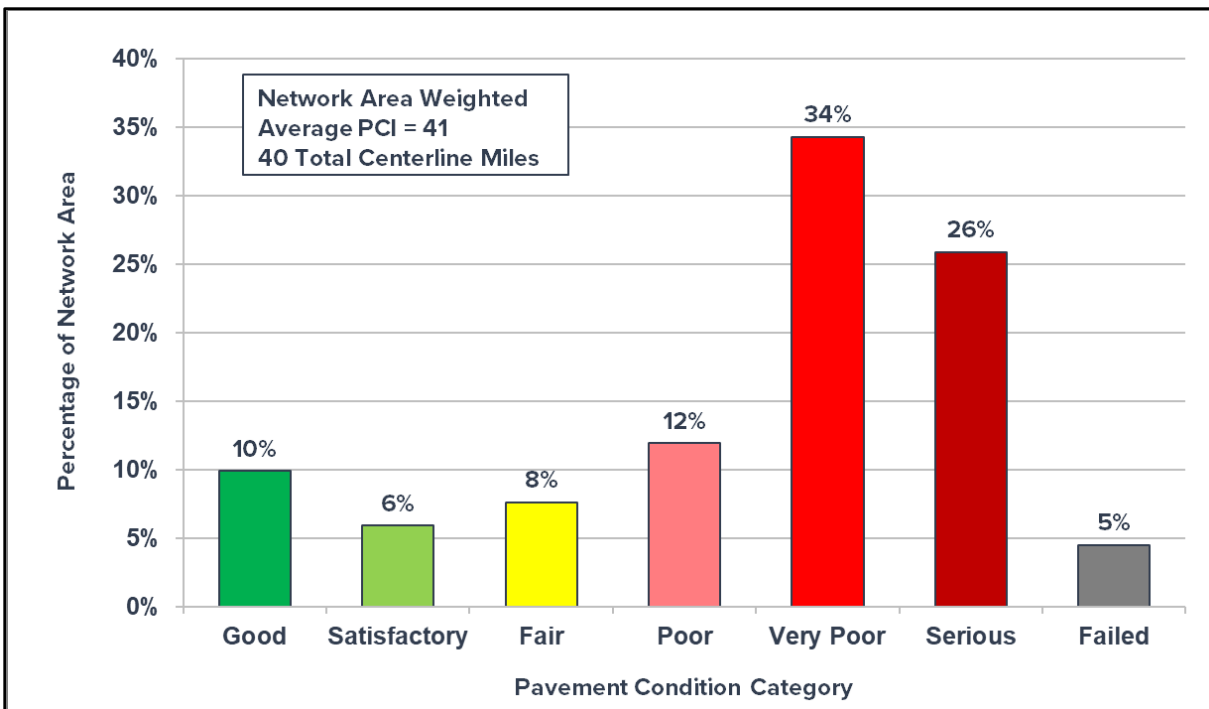


Figure 11. Percentage of network area by PCI category.

Figure 12 provides pie charts showing the distribution in terms of percent area for both the minor arterial and collector roads, and the local roads. Recall that the City network is about 94 percent local roads. For the minor arterial and collector roads the area weighted average is 47. For the local roads representing a large majority of City mileage, the area weighted average PCI is 40.

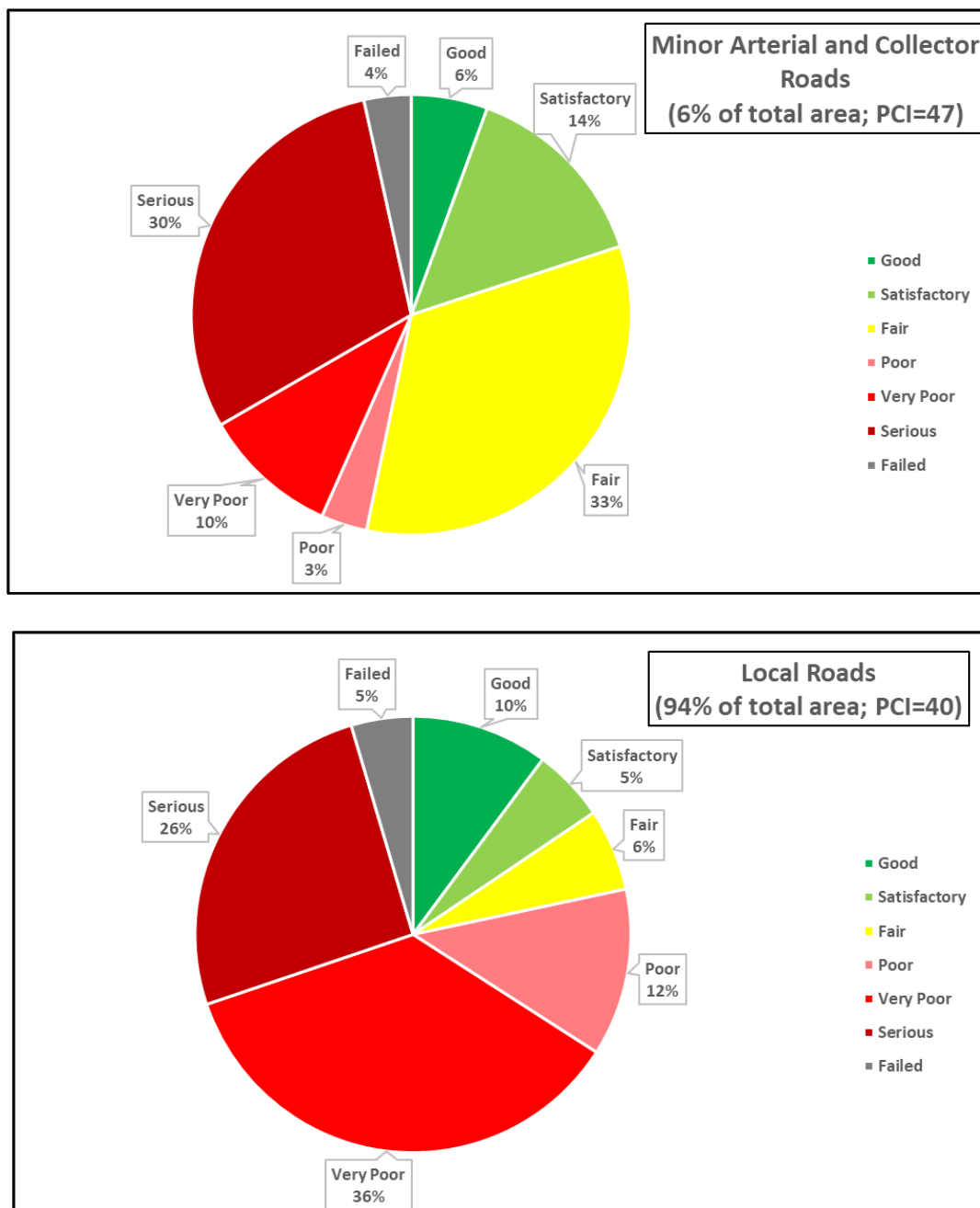


Figure 12. Distribution of condition for both arterial/collector and local roads.

In addition to cracking distress, APTEch measured roughness, summarized as International Roughness Index (IRI) for each road segment. It is noteworthy to mention that specifications for reliable IRI data collection require higher speeds than the Marengo network layout generally allowed for, resulting in higher overall roughness values. Figure 13 shows the percentage of pavement sections associated within each IRI category. IRI categories were developed for high volume roadways in general, and don't apply well to local streets. Since local streets are usually slower speeds, the importance of smoothness is not nearly as significant. The City network is 94 percent local streets, so the impact of IRI on decision making is likely low. A summary of 2021

IRI results for each pavement section along with a map of the City showing IRI values are provided in Appendix C.

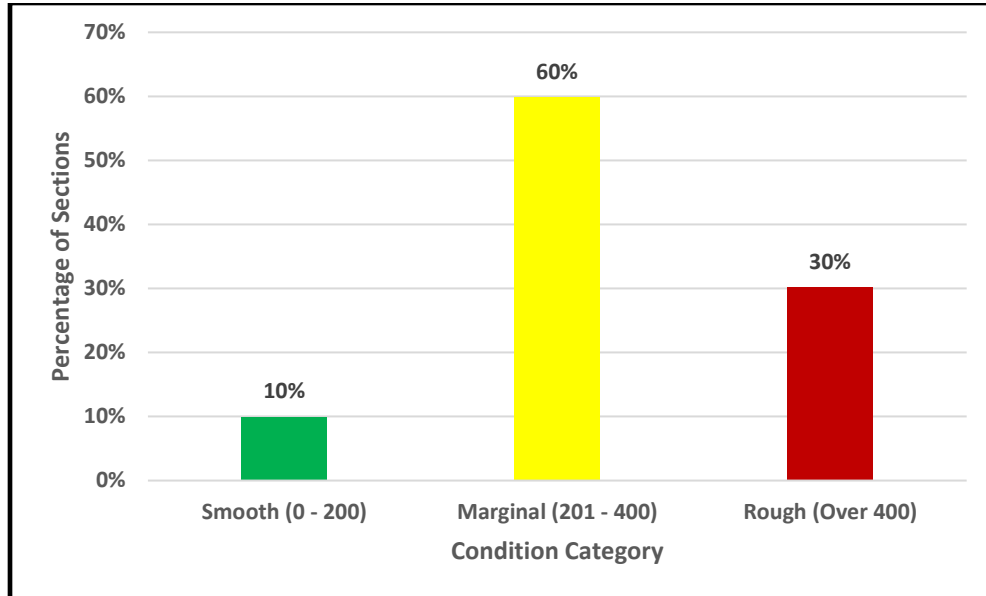


Figure 13. Percentage of network area by IRI condition category.

## PAVER DATABASE CUSTOMIZATION

### Background

PAVER is a pavement management software tool developed by the US Army Corps of Engineers and distributed by the American Public Works Association (APWA). It stores pavement inventory information, calculates pavement conditions using visual assessment data, develops models to predict future pavement performance, stores past performance data, and develops basic M&R plans. The software was customized to reflect the specific conditions and needs for maintaining the pavements for the City. Customizing PAVER is essential to ensure the analysis results are meaningful and applicable to the specific agency needs. APTech defined the PAVER inputs using past pavement management experience and assistance from City staff.

PAVER permits the user to define many database fields to meet specific requirements. This customization occurs at three levels: the network level (e.g., all City-maintained roads), the branch level (e.g., entire street length), and the section level (e.g., portions of each street with the same surface and condition). The City pavement system is represented by a single network, where each road is a unique branch. Sections are used to further divide each branch into smaller areas with common attributes (such as pavement type and general condition). Sample units are also identified within each section, as required by the inspection process. Note that as per CMAP specifications surveys were conducted for 100 percent of each section, so there was one sample unit per section.

The customization of the City pavement management system can be broken down into the following areas:

- Database-related customization.
- Performance modeling.
- M&R alternatives.

Each of these areas is addressed under separate headings in this chapter.

### Database-Related Customization

At the network level, the network identifier and name can be customized, and user-definable fields can be developed. The City database has been customized at the network level to include one network in the database consisting of all City roads. The network identifier and network name are Marengo.

Branches are subdivisions within a network. A branch is a single entity that serves a distinct function. In PAVER, the user can customize the facility identifier, the facility name, and the branch use; user-definable fields can also be developed. The City PAVER system includes branch IDs that correspond to road names, and the use is defined as Roadway. No user-defined fields were established.

A section is a subdivision of a branch used to define pavements with common attributes, such as cross section, construction date, traffic level, and general condition. In PAVER the user can customize the section identifier, from/to descriptors, use, pavement type, rank, category, street type, and zone. In addition, there are unlimited user-definable fields available for use. The City

system has been customized at the section level with section identifiers specific to the City; from/to fields providing reference locations using intersections; ranks of C and E defined as Minor Arterial/Collector and Local Roads, respectively; surface types appropriate to the City; last construction dates; and user-defined fields noting curb percentage information and IRI.

## Performance Modeling

Performance models play an essential role in developing pavement M&R programs. The performance models are used within a pavement management system to predict pavement performance over time, helping to determine the appropriate time to apply maintenance or rehabilitation to maximize the benefits from the expenditure. In addition, by projecting the rate at which the pavement condition will change over time, a meaningful life cycle cost analysis can be performed to compare the costs of different rehabilitation alternatives.

A PCI assessment provides the condition of the pavement at the time of the inspection. However, for developing future M&R plans, it is also valuable to be able to predict the future PCI of the pavement sections. This can be done in PAVER through the development and application of performance models. By using the actual pavement condition data from all inspections and the known age at the time of inspection, it is possible to develop database-specific performance models for groups of pavements. First, the pavement network is divided into groups of pavements called “families,” which are comprised of sections that are expected to perform in a similar manner over time. For example, AC surfaced roadway pavements that receive heavy traffic might be grouped into one family, whereas AC surfaced pavements that are primarily used for residential traffic might comprise another family.

Figure 14 graphically illustrates the application of performance model prediction. In this example, a pavement family model was developed using past pavement condition data (shown as black points) and statistically fitted through the data to develop the performance model (shown as the blue curve). For a given pavement section, if the pavement is performing better (or worse) than the rest of the pavement family (for example, see PCI value at 10 years), the model is “shifted” horizontally within PAVER to represent the improved pavement condition (shown as the orange modified family model). In this example, the model shift results in an extension of predicted future pavement condition from the original pavement family model.

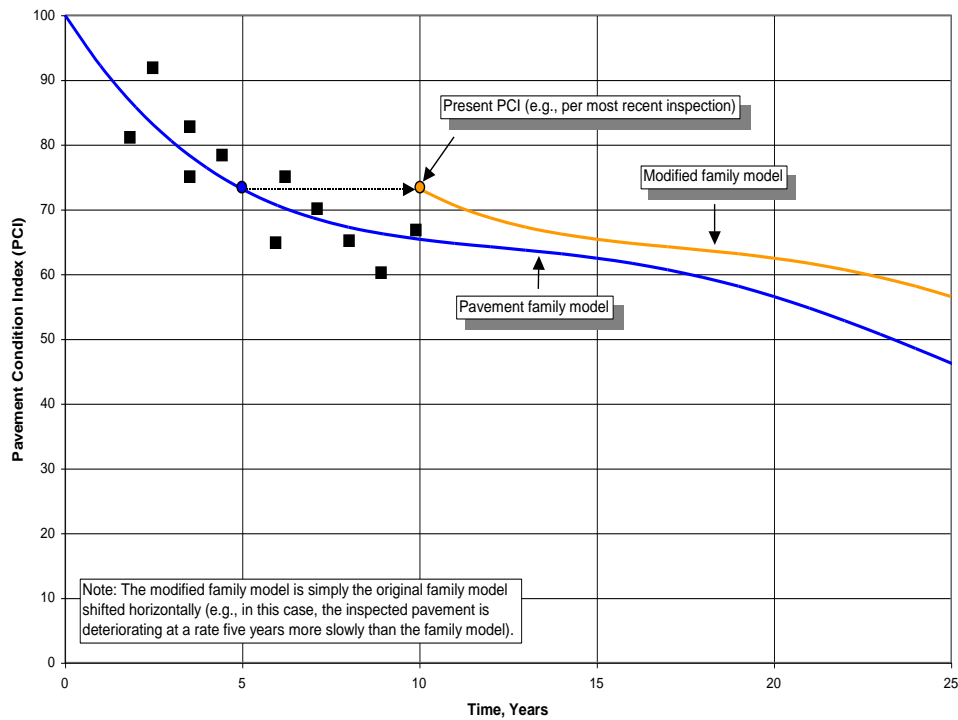


Figure 14. Example of pavement performance model application.

Performance characteristics such as pavement use, pavement type, surface type, and traffic level can be investigated to determine their impact on pavement performance. For the City of Marengo, pavements were divided into two families: AC-surfaced roads, and PCC-surfaced roads. The performance curves developed for each of these pavements are shown in figures 15 and 16 respectively.

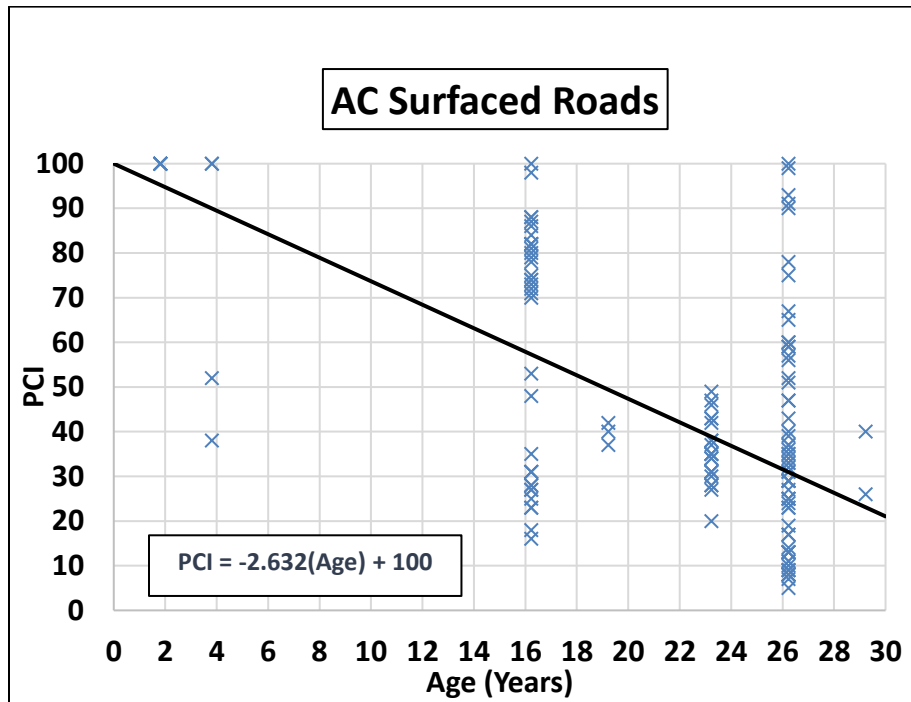


Figure 15. AC-surfaced pavement performance model.

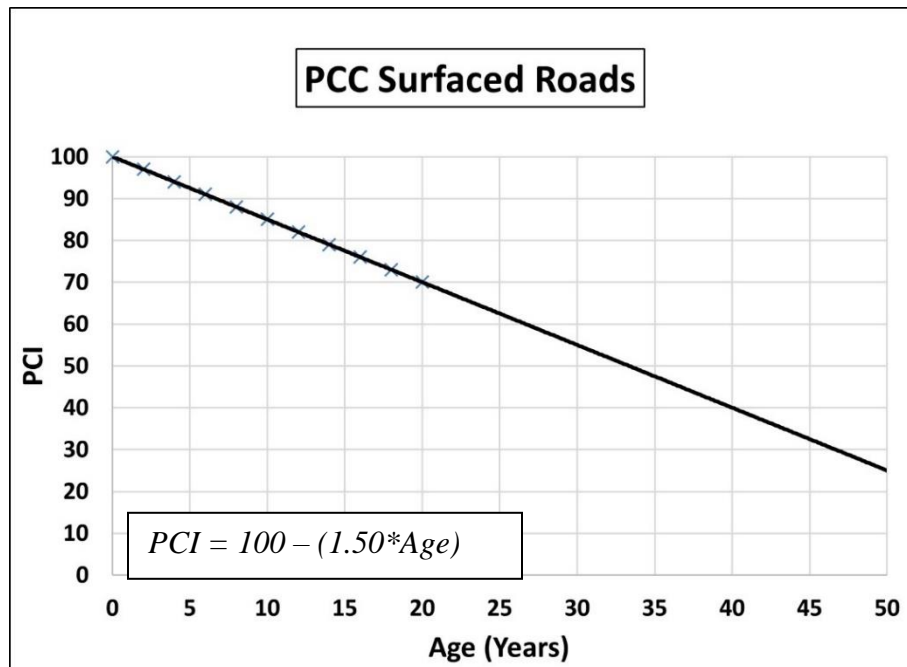


Figure 16. PCC-surfaced pavement performance model.

## Maintenance and Rehabilitation Alternatives

### Maintenance Policies

Preventive maintenance, such as crack sealing, is the application of treatments to pavement surfaces that are generally in good condition. The goal of preventive maintenance is to preserve the pavement system by slowing the rate of deterioration through proactive treatments. Since



preventive maintenance treatments are usually very low in cost, their use is a cost-effective strategy for preserving network conditions. Preventive maintenance policies are established to define the type of maintenance action needed to correct each distress type observed during the pavement evaluation.

The critical PCI is the pavement condition level below which preventive maintenance actions are no longer cost-effective, and it represents the time when rehabilitation work should be triggered. Preventive maintenance actions are recommended above the critical PCI level. Currently all City roads are set to a critical PCI of 50.

Stopgap maintenance, such as localized patching, is recommended when rehabilitation activities are warranted but funding is insufficient to perform the needed level of work. The goal of these policies is to keep the pavement operational through the repair of distress type and severity level combinations that could create hazardous situations through the potential for tire damage, hydroplaning, or other safety concerns.

Tables 2 and 3 present localized preventive and stopgap maintenance policies that were used in PAVER for AC and PCC pavements, respectively. The localized preventive and stopgap maintenance policies primarily consist of crack and joint sealing, patching, and slab replacement to address isolated areas of distress and to slow down the rate of deterioration of the pavement section. The maintenance activities recommended for the City will be discussed in later sections of this report.

Table 2. Localized preventive and stopgap maintenance policies for asphalt pavements.

Distress Type	Severity Level	Maintenance Action	Stopgap Maintenance Action
Alligator Cracking	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Bleeding	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Block Cracking	Low	Monitor	Monitor
	Medium	Crack Sealing – AC	Monitor
	High	Crack Sealing and Patching	Monitor
Bumps and Sags	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Corrugation	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Depression	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Edge Cracking	Low	Monitor	Monitor
	Medium	Crack Sealing – AC	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Joint Reflection Cracking	Low	Monitor	Monitor
	Medium	Crack Sealing – AC	Monitor
	High	Crack Sealing and Patching	Monitor
Lane/Shoulder Drop-off	Low	Monitor	Patching and Repairs
	Medium	Monitor	Monitor
	High	Monitor	Monitor
Longitudinal and Transverse Cracking	Low	Monitor	Monitor
	Medium	Crack Sealing – AC	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Patching	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Polished Aggregate	N/A	Monitor	Monitor
Potholes	Low	Crack Sealing and Patching	Patching and Repairs
	Medium	Crack Sealing and Patching	Patching and Repairs
	High	Crack Sealing and Patching	Patching and Repairs
Rutting	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Shoving	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Slippage Cracking	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Patching and Repairs
	High	Crack Sealing and Patching	Patching and Repairs
Swelling	Low	Monitor	Monitor
	Medium	Crack Sealing and Patching	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Raveling	Medium	Monitor	Monitor
	High	Crack Sealing and Patching	Patching and Repairs
Weathering	All	Monitor	Monitor

Table 3. Localized preventive and stopgap policies for PCC pavements.

Distress Type	Severity Level	Maintenance Action	Stopgap Maintenance Action
Blow-Up	Low	Patching – PCC Full Depth	Monitor
	Medium	Patching – PCC Full Depth	Slab Replacement - PCC
	High	Patching – PCC Full Depth	Slab Replacement - PCC
Corner Break	Low	Monitor	Monitor
	Medium	Patching – PCC Full Depth	Monitor
	High	Patching – PCC Full Depth	Slab Replacement - PCC
Divided/Shattered Slab	Low	Monitor	Monitor
	Medium	Slab Replacement – PCC	Monitor
	High	Slab Replacement – PCC	Slab Replacement – PCC
Durability Cracking	Low	Monitor	Monitor
	Medium	Patching – PCC Full Depth	Monitor
	High	Patching – PCC Full Depth	Slab Replacement - PCC
Faulting/Settlement	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Monitor	Slab Replacement - PCC
Joint Seal Damage	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Joint Seal (Localized)	Monitor
Lane/Shoulder Drop off	Low	Monitor	Monitor
	Medium	Patching – AC Leveling	Monitor
	High	Patching – AC Leveling	Monitor
Linear Crack	Low	Monitor	Monitor
	Medium	Crack Sealing – PCC	Monitor
	High	Patching – PCC Full Depth	Slab Replacement - PCC
Patch (Large)	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Patching – PCC Full Depth	Slab Replacement - PCC
Patch (Small)	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Patching – PCC Full Depth	Patching and Repairs
Polished Aggregate	N/A	Monitor	Monitor
Popouts	N/A	Monitor	Monitor
Pumping	N/A	Monitor	Monitor
Punchout	Low	Monitor	Monitor
	Medium	Patching – PCC Full Depth	Monitor
	High	Patching – PCC Full Depth	Slab Replacement - PCC
Scaling	Low	Monitor	Monitor
	Medium	Monitor	Monitor
	High	Slab Replacement – PCC	Monitor
Shrinkage Cracks	N/A	Monitor	Monitor
Spalls (Joint and Corner)	Low	Monitor	Monitor
	Medium	Patching – PCC Partial Depth	Monitor
	High	Patching – PCC Partial Depth	Patching and Repairs

### Treatment Strategies

In PAVER treatment strategies determine what action will be taken when a pavement is in a certain condition range. They can be altered to explore the impact of different treatment types on network condition over time. For this analysis, treatment strategies were created in accordance with the City’s current practices and APTech’s recommendations. Figures 17 and 18 show the treatment strategies created in the PAVER database for AC and PCC-surfaced roads, respectively. These treatment strategies were reviewed by the City prior to their use in the analyses.

PCI		Stopgap	Localized Preventive	Major M&R
0	10	Patching and Repairs	Do Nothing	Reconstruction
10	20			Mill and Overlay (Variable Depth)
20	30			
30	40			
40	50			
50	60	Do Nothing	Crack Seal and Patching	Do Nothing
60	70			
70	80			
80	90			
90	100			
<b>Critical PCI = 50</b>				

Figure 17. Treatment approach for AC surfaced roads.

PCI		Stopgap	Localized Preventive	Major M&R
0	10	Full Depth Patching and Slab Replacement	Do Nothing	Reconstruction
10	20			Slab Replacement
20	30			
30	40			
40	50			
50	60	Do Nothing	Joint and Crack Sealing, Full Depth Patching, and Slab Replacement	Do Nothing
60	70			
70	80			
80	90			
90	100			
<b>Critical PCI = 50</b>				

Figure 18. Treatment approach for PCC surfaced roads.

### Unit Costs

Unit cost data for maintenance activities is presented in tables 4 and 5. This information is used by PAVER to estimate the cost of M&R needs. The cost data is based on information provided by the City. Note that for mill and overlay operations, there was a range of costs given depending on the amount of curb and gutter present. The percentage of curb and gutter was provided as an attribute in the roadway network shape file, so this information was available to use in adjusting unit rates as required. This approach recognizes the increased complexity and resulting unit cost due to curb and gutter.

Table 4. Unit costs for AC maintenance activities.

<b>Treatment</b>	<b>Unit Cost</b>
Crack Seal	\$0.60/ft
Crack Seal and Patching	\$2.00/ft <sup>2</sup>
Patching and Repairs	\$3.33/ft <sup>2</sup>
Mill and Overlay (No Curb)	\$1.30 – 2.30/ft <sup>2</sup>
Mill and Overlay (5% Curb)	\$1.34 – 2.34/ft <sup>2</sup>
Mill and Overlay (10% Curb)	\$1.38 – 2.38/ft <sup>2</sup>
Mill and Overlay (15% Curb)	\$1.42 – 2.42/ft <sup>2</sup>
Mill and Overlay (20% Curb)	\$1.46 – 2.46/ft <sup>2</sup>
Mill and Overlay (25% Curb)	\$1.50 – 2.50/ft <sup>2</sup>
Mill and Overlay (30% Curb)	\$1.54 – 2.54/ft <sup>2</sup>
Mill and Overlay (35% Curb)	\$1.58 – 2.58/ft <sup>2</sup>
Mill and Overlay (40% Curb)	\$1.62 – 2.62/ft <sup>2</sup>
Mill and Overlay (45% Curb)	\$1.66 – 2.66/ft <sup>2</sup>
Mill and Overlay (50% Curb)	\$1.70 – 2.70/ft <sup>2</sup>
Mill and Overlay (60% Curb)	\$1.78 – 2.78/ft <sup>2</sup>
Mill and Overlay (75% Curb)	\$1.90 – 2.90/ft <sup>2</sup>
Mill and Overlay (85% Curb)	\$1.98 – 2.98/ft <sup>2</sup>
Mill and Overlay (100% Curb)	\$2.10 – 3.10/ft <sup>2</sup>
Reconstruction	\$14.00/ft <sup>2</sup>

Table 5. Unit costs for PCC maintenance activities.

<b>Treatment</b>	<b>Unit Cost</b>
Joint and Crack Seal	\$1.5/ft
Full Depth Patching	\$4.0/ft <sup>2</sup>
Slab Replacement	\$12.0/ft <sup>2</sup>
Reconstruction	\$20.0/ft <sup>2</sup>

## MAJOR WORK BUDGET ANALYSIS RESULTS

The PAVER analyses considered six scenarios over a 10-year period. These were:

- Eliminate backlog – Project the funds required to fix the entire network
- Maintain current condition – Project the funds required to maintain the current area weighted average network condition (PCI = 41).
- Current funding – Project the PCI at the end of the analysis period given the current agency funding (\$150,000/year).
- Increased funding – Project the PCI at the end of the analysis period given an increase in annual funding (\$200,000/year).
- Further increased funding – Project the PCI at the end of the analysis period given additional funds (\$250,000/year).
- Do nothing – Project the PCI at the end of the analysis period if no M&R funds are spent, and only stopgap spending for safety work is considered.

The starting date (year 1) for the analysis was selected to be January 1, 2022 and an inflation rate of 3 percent was added to costs after the 2022 simulation year. All scenarios **only** include major work activities such as AC and PCC reconstruction, AC mill and overlays, and PCC slab replacements.

Figure 19 compares projected network conditions over time for six budget scenarios. An annual funding level of \$460,000 is required to maintain the current area-weighted average network condition (PCI = 41) for the analysis period. Since much of the network is below the critical PCI value, the analyses are struggling to find projects that can be constructed within the available annual budget. At the current annual budget level of \$150,000, PAVER is projecting a decline in condition over the analysis period to a network average PCI of 26. Anything below an annual funding level of \$460,000 will result in a decline in PCI over time.

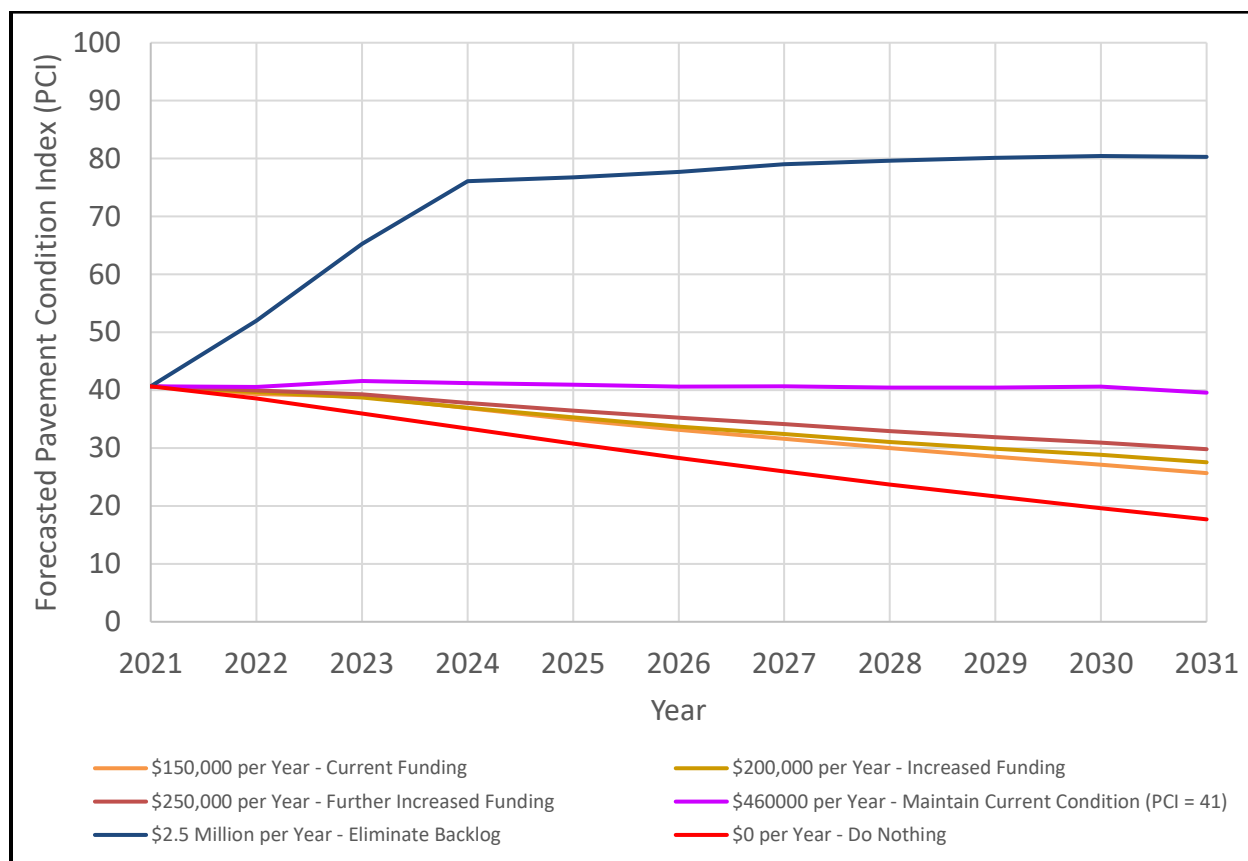


Figure 19. Impact of different budget levels on PCI.

Figure 20 provides a comparison of the backlog over the analysis period. Backlog represents the unresolved work needs in the network. As may be seen, for all scenarios except the backlog elimination there is a notable growth in backlog over time. None of the funding scenarios result in a decline in backlog.

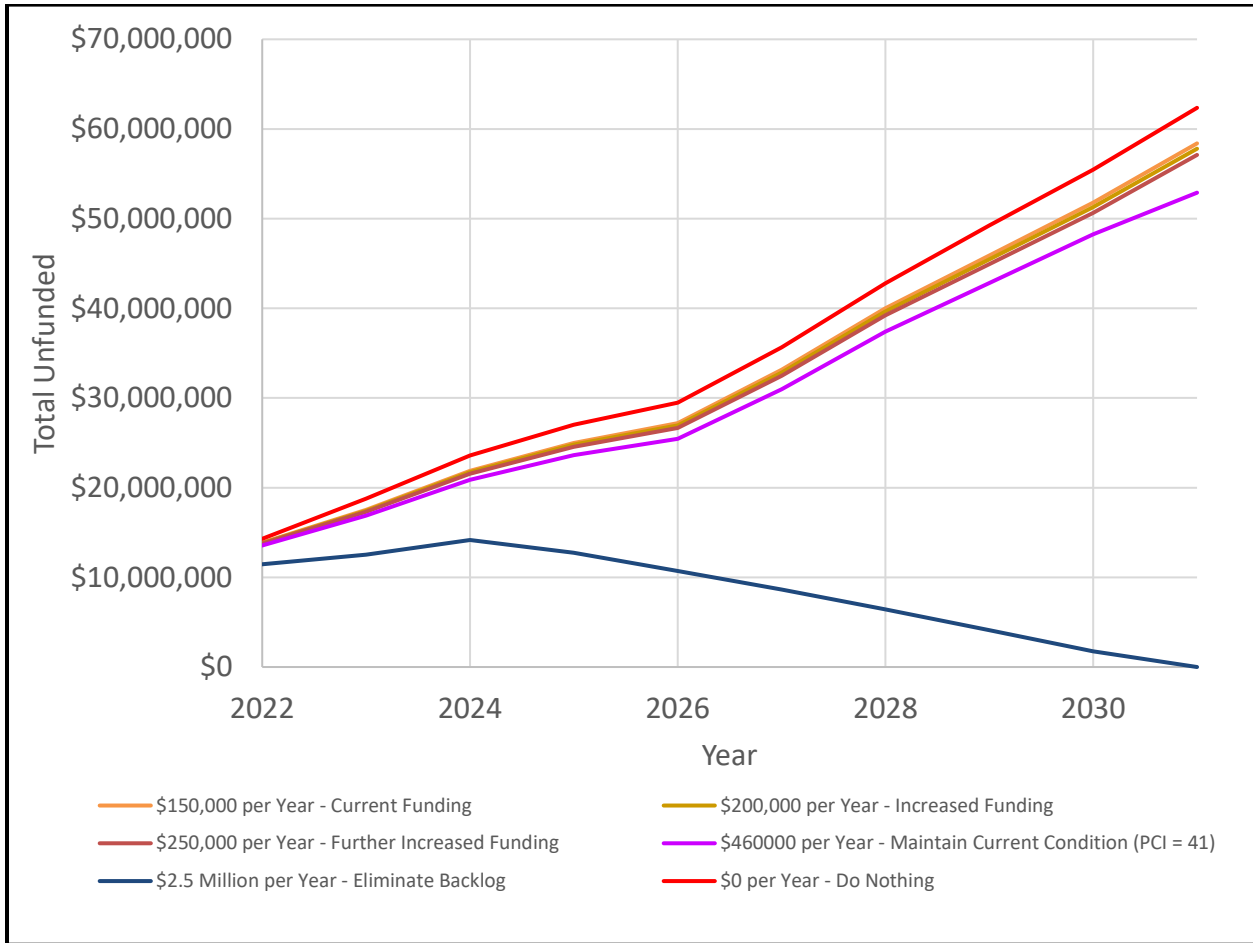


Figure 20. Impact of different budget levels on backlog.

Figure 21 shows the percentage of the network in each PCI condition range over the 10-year analysis period at the current City funding level of \$150,000 per year. It is clear to see that there is a projected transition over time from very poor, to serious, to failed. The annual budget is insufficient to keep up with repair needs, and the work backlog is growing over time as the network condition declines.



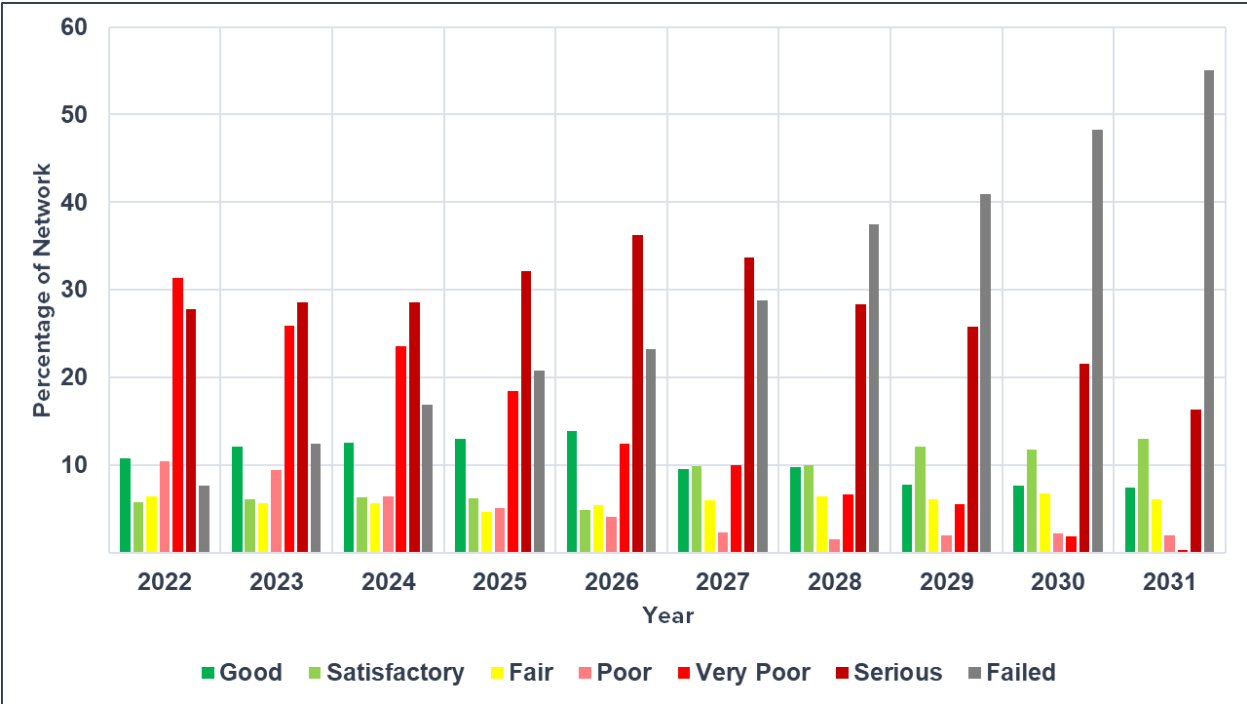


Figure 21. Percent of network in condition ranges over time at the current City funding level.

Table 6 provides a comparison of the total funded plus backlog value for each of the funding scenarios for the 10-year analysis period, and the forecasted PCI for each. This table is valuable in that it displays the total accumulated cost of deferring repairs over time. The Total Funded + Backlog column shows that the less that is spent annually, the greater the network cost, and the poorer the network condition.

Table 6. Comparison of total accumulated cost over time at different funding levels.

Funding Scenario	Total 10-Year Funded Costs	Remaining M&R Backlog in 2031	Total Funded + Backlog	Forecasted PCI in 2031
\$2.5 Million per Year - Eliminate Backlog	\$25,116,886	\$0	\$25,116,886	80
\$460,000 per Year - Maintain Current Condition (PCI = 41)	\$4,601,888	\$52,898,226	\$57,500,114	40
\$250,000 per Year - Further Increased Funding	\$2,476,458	\$57,108,981	\$59,585,439	30
\$200,000 per Year - Increased Funding	\$1,987,434	\$57,802,188	\$59,789,622	28
\$150,000 per Year - Current Funding	\$1,482,471	\$58,392,914	\$59,875,385	26
\$0 per Year - Do Nothing	\$0	\$62,359,050	\$62,359,050	18

This analysis clearly shows that the City of Marengo’s road network is in a serious decline, and significant additional funding will be required to reverse this trend.

APTech prepared a summary of work needs by year as projected by PAVER for the City’s current funding level (\$150,000 per year) for the 10-year analysis period. A summary of the

results of that analysis is provided in figure 22, showing that at the current funding level PAVER projects that just over 5 miles of City roads will be repaired over the analysis period. Figure 23 shows the locations of projects identified by PAVER by year. This work needs list is provided in table form in Appendix C.

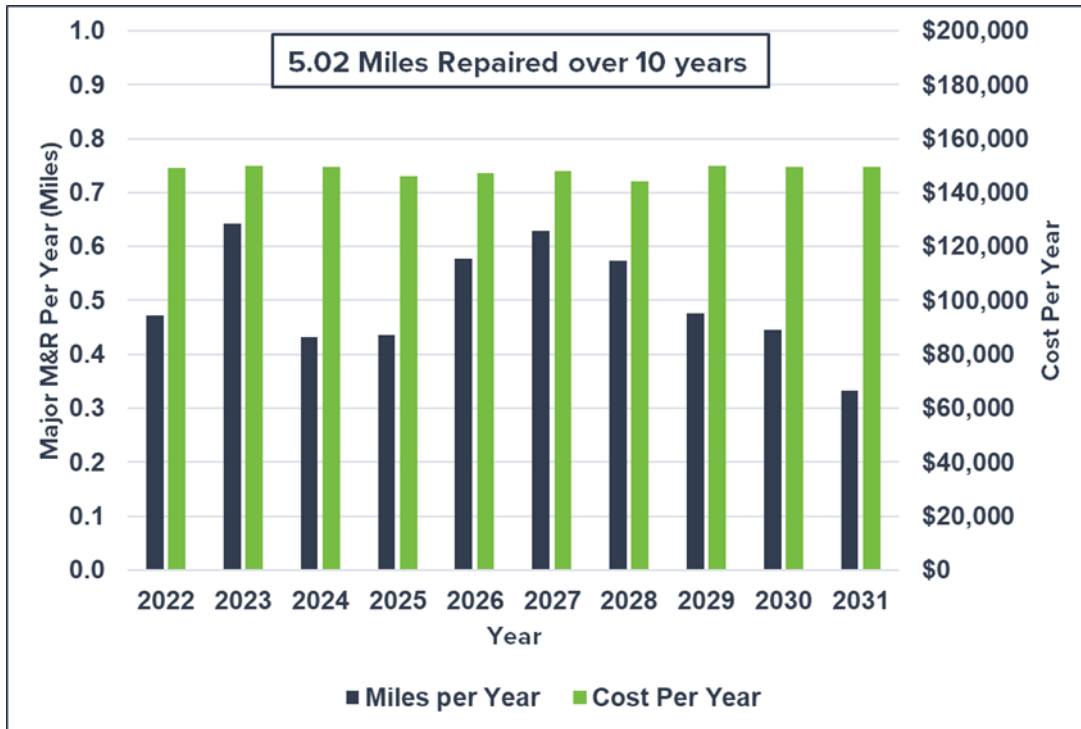


Figure 22. Summary of work completion by year for the current City funding level.

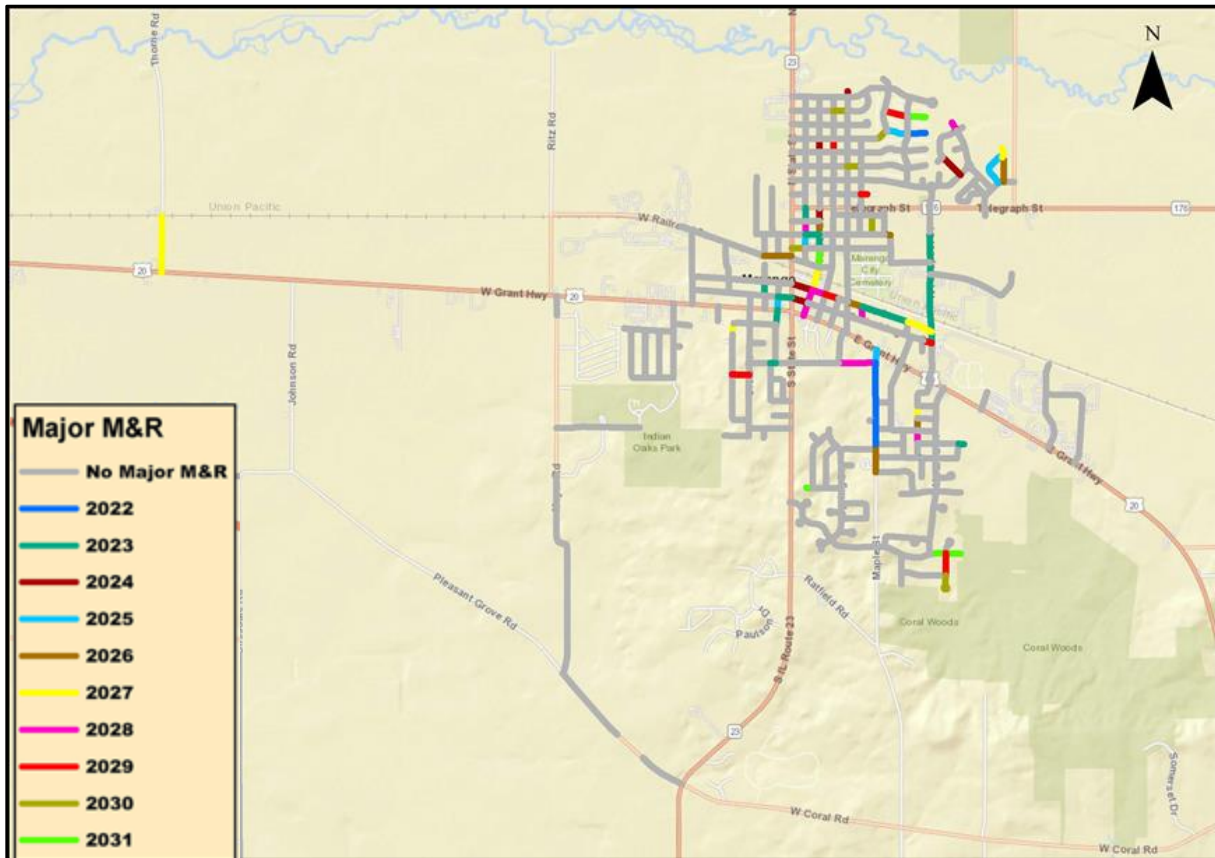


Figure 23. Map of PAVER projected work by year at the current City funding.

## LOCALIZED MAINTENANCE WORK RESULTS

In addition to the budget scenario analyses, AP Tech used PAVER to project work needs for the City. The first work needs projection is called the Consequence of Localized Distress Maintenance. This summary, presented in table 7, shows the localized stopgap and preventive maintenance needs for the entire network. This work needs report is typically run immediately after a condition survey to help the agency understand current stopgap and preventive maintenance needs across the network.

For the City of Marengo, PAVER identified 217 (of the total 434 sections) that are currently in need of localized stopgap work, at a projected cost of \$673,651. Recall that stopgap work is done to maintain safe roadway conditions when funds do not exist to address major M&R needs. An additional 85 sections are recommended for localized preventive maintenance work at a current cost of \$28,998. The projected localized stopgap and preventive work needs across the City are shown in figure 24.

Table 7. Consequence of localized distress maintenance.

Policy	Number of Sections	Cost	Weighted Average PCI Before Maintenance	Weighted Average PCI After Maintenance
Localized Stopgap	217	\$673,651	25	30
Localized Preventive	85	\$28,998	72	78

Policy	Work Description	Work Quantity (ft <sup>2</sup> )	Work Cost
Localized Stopgap	Patching and Repairs	180,192	\$600,040
Localized Preventive	Crack Sealing - AC	10,846	\$6,508
Localized Preventive	Crack Sealing and Patching	11,245	\$22,490
Localized Stopgap	Slab Replacement - PCC	6,134	\$73,611
<b>Total</b>			<b>\$702,649</b>

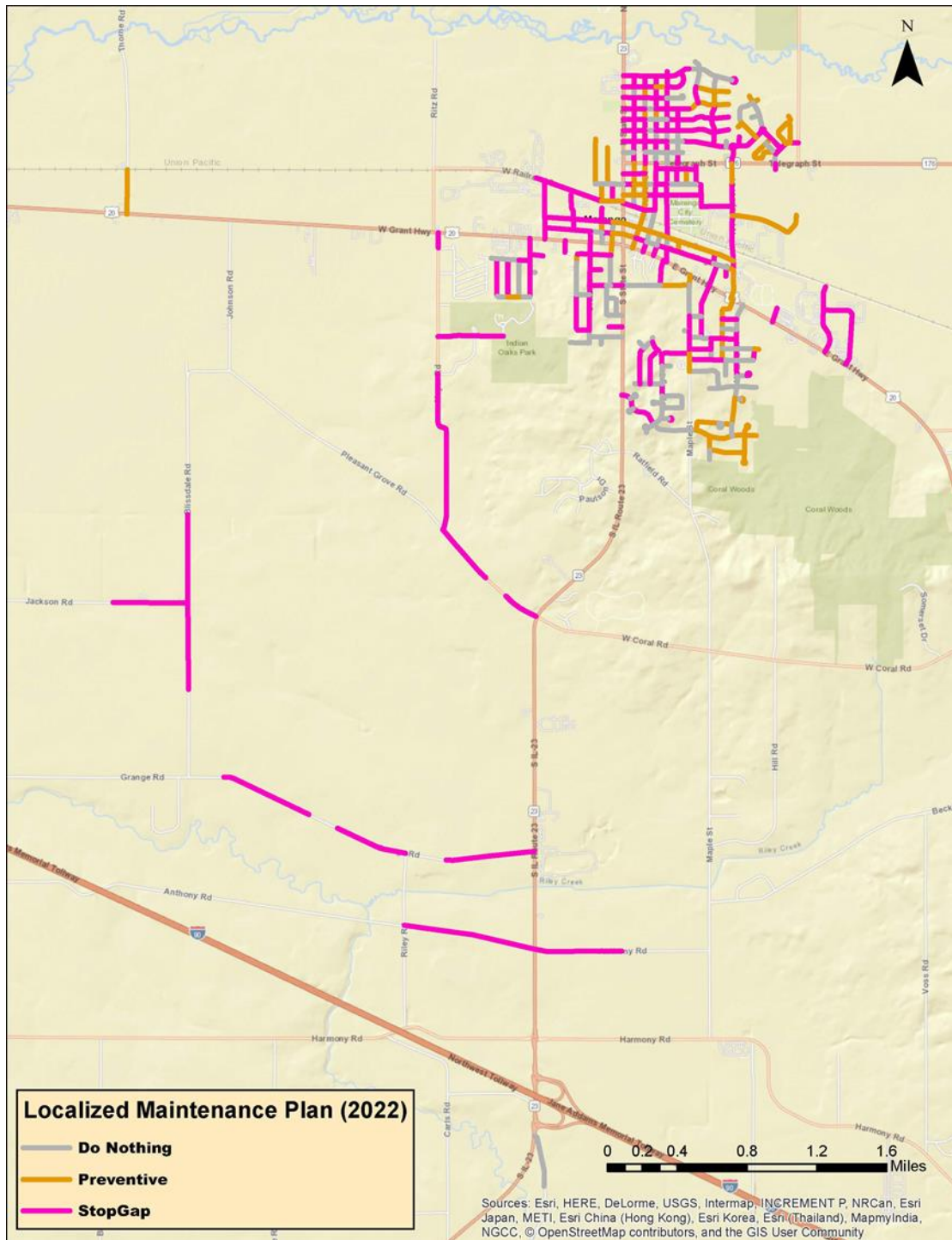


Figure 24. Localized stopgap and preventive maintenance needs in 2022.

## THE IMPACT OF PAVEMENT PRESERVATION

According to the National Center for Pavement Preservation (NCP), it costs six to fourteen times less to use pavement preservation activities and extend the life of pavement segments rather than waiting until the pavement reaches poor condition and repairing or replacing it. Figure 25 shows the benefit of using a pavement preservation approach.

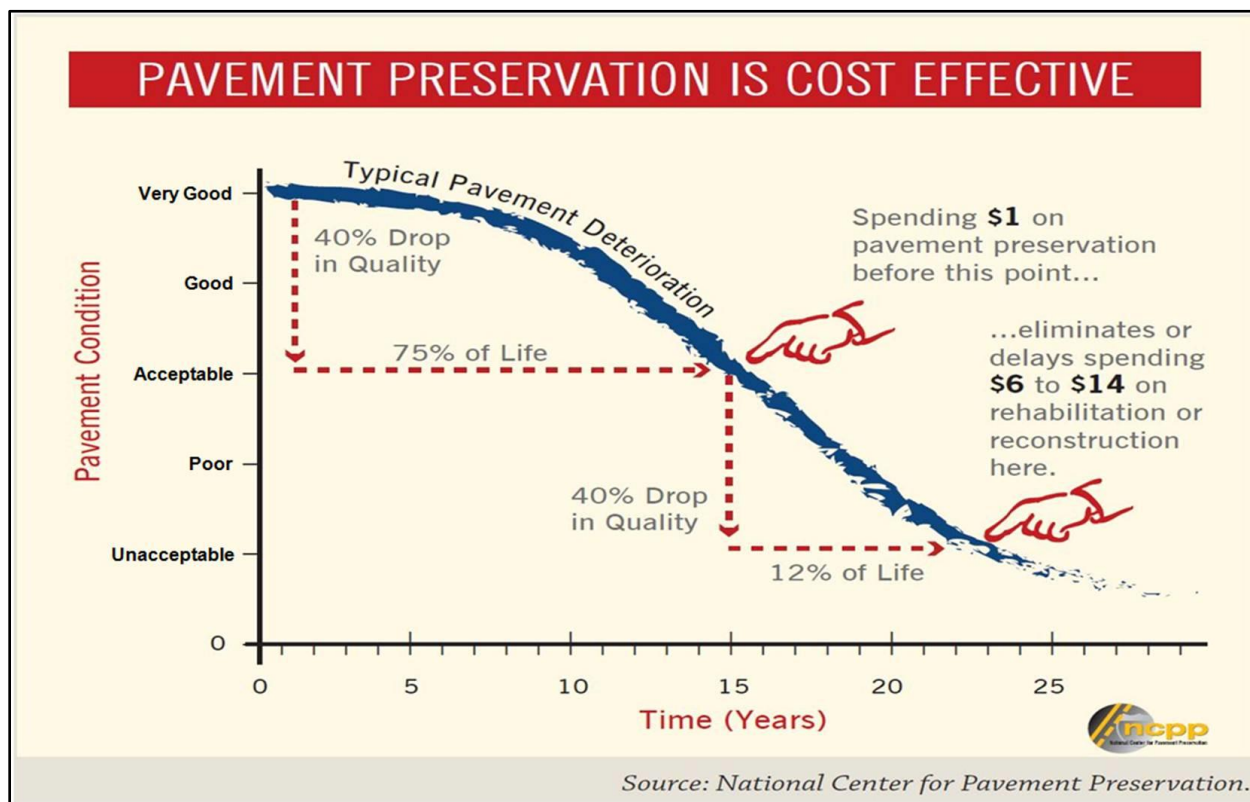


Figure 25. Pavement preservation cost vs. pavement rehabilitation cost.

Preservation treatments have shorter expected lifespans, which causes concern among the public about more frequent applications and associated interruptions. However, research clearly shows that life-cycle costs for roadway maintenance are reduced by using pavement preservation approaches, keeping good roads in good condition while repairing those that have fallen below acceptable levels of condition for preservation.

One might question how, with a network average like the City of Marengo, such an approach would even be reasonably considered. The answer is by preserving the roads currently in the City, those pavements currently in fair or good condition will not decline and add to the already significant rehabilitation and reconstruction burden the City has. It is extremely important to keep the good roads in good condition at low cost, especially when considering the situation the City is in.

Preservation approaches need not be complicated. Sealing cracks and making spot repairs to maintain a pavement surface that does not allow water intrusion is an extremely cost-effective preservation approach. More extensive methods can effectively preserve pavements in fair

condition as well, slowing their decline in condition over time and reducing the growing rehabilitation burden. Such treatments might include:

- Crack Sealing
- Patching
- Rejuvenation
- Microsurfacing (or other similar surface treatments)

Pavement preservation has been proven to be an effective way to make the most out of scarce resources. There are vendors in the area that can provide these treatments at competitive rates. Pavement preservation will help the City maintain pavements at a better condition for a longer period at a lower life-cycle cost.

## SUMMARY AND RECOMMENDATIONS

CMAAP hired APTEch to implement the PAVER pavement management system, document the condition of the City's road network, create a PAVER database, configure PAVER for analyses, and develop a maintenance and rehabilitation plan. This implementation's goal was to provide a tool for the City of Marengo to use for annual pavement maintenance planning and helping prioritize pavement M&R needs for future years.

In April 2021, APTEch inspected approximately 40 centerline-miles of roadway pavement maintained by the City of Marengo. The 2021 area-weighted average network PCI is 41, placing the network average in the Poor condition category. The following summarizes the findings from analyzing the PCI data and M&R planning scenarios:

- If no funding is provided for pavement maintenance and rehabilitation, the pavement system is expected to deteriorate from the current PCI of 41 to a PCI of 18 by 2031. This will result in an increase in the financial burden to maintain the roadway network.
- The required annual funding to maintain the current PCI of 41 for the next 10 years is \$460,000. This number is quite high due to the existing backlog of work required in the network.
- At the City's request three additional budget levels were evaluated: \$150,000 (City's current yearly budget), \$200,000, and \$250,000. At these budget levels the PCI for the network would drop to 26, 28, and 30 respectively.
- A budget of \$2.5 million per year is necessary to eliminate the existing backlog by 2031. In this scenario the resulting average network PCI would increase to an 80, at which point it would be well maintained with maintenance and preservation treatments.
- Work needs were projected at the current City annual funding level (\$150,000), resulting in about 5 miles of pavements across the City receiving major M&R work over the 10-year analysis period. A summary of those results is provided in Appendix C.

The condition of the City roadway network has reached the point that the rate of decline is greater than the current or reasonable increases in funding can sustain. If the City desires to overcome the declining trend it is going to have to seek alternative funding mechanisms to significantly increase its investment in road M&R. It is recommended that the results of this analysis be used to demonstrate to decision makers the dire condition of the roadway network, and the impact of decisions that do not address the needs.

It is also recommended that while planning for M&R work the City make greater use of preservation treatments such as crack sealing, patching, and possibly seal coats, to preserve the roads currently in good condition. This will prevent them from declining in condition and adding additional requirements for expensive M&R work.

The PAVER PMS that has been established for the City can be used in future years to perform additional analyses and evaluate different strategies. To do this the City will need to maintain the PMS by periodically updating work history information and collecting updated condition data.



**APPENDIX A – 2021 PCI STREET LIST**

Table A-1. 2021 PCI by road segment.

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	ADAMS00001	Adams St	SEC0000336	State St	Hale St	332	24	7,961	AC	30	Very Poor
Marengo	ADAMS00001	Adams St	SEC0000337	Hale St	Taylor St	327	24	7,844	AC	14	Serious
Marengo	ANNST00002	Ann St	SEC0000261	Washington St	Prairie St	342	36	12,313	AC	44	Poor
Marengo	ANNST00002	Ann St	SEC0000262	Grant Hwy	Washington St	314	36	11,289	AC	58	Fair
Marengo	ANNST00002	Ann St	SEC0000263	Chappel St	Grant Hwy	356	40	14,222	AC	54	Poor
Marengo	ANNST00002	Ann St	SEC0000264	Forest St	Chappel St	911	32	29,154	AC	49	Poor
Marengo	ANTHO00003	Anthony Rd	SEC0000431	Riley Rd	Il-23	4,012	24	96,279	AC	25	Serious
Marengo	ANTHO00003	Anthony Rd	SEC0000432	IL-23	Maple St	2,641	24	63,388	AC	31	Very Poor
Marengo	ARTEL00004	Artell St	SEC0000222	Van Buren St	Stevenson St	456	32	14,581	AC	55	Poor
Marengo	AUTUM00005	Autumn St	SEC0000412	Street end	Maple St	148	24	3,551	GR	N/A	N/A
Marengo	BARBA00006	Barbara Ave	SEC0000395	Street end	Dietz St	569	26	14,795	AC	34	Very Poor
Marengo	BAUMA00007	Bauman St	SEC0000064	Maple St	Meadow Ln	1,341	28	37,561	AC	33	Very Poor
Marengo	BEAVE00008	Beaver Pond Dr	SEC0000115	Prospect St	Prospect St	171	22	3,769	AC	9	Failed
Marengo	BEAVE00008	Beaver Pond Dr	SEC0000116	Beaver Pond Dr	White Tail Dr	615	32	19,685	AC	8	Failed
Marengo	BEAVE00008	Beaver Pond Dr	SEC0000117	White Tail Dr	Mallard Dr	235	32	7,533	AC	5	Failed
Marengo	BEAVE00008	Beaver Pond Dr	SEC0000118	White Tail Dr	Mallard Dr	85	22	1,876	AC	13	Serious
Marengo	BEAVE00008	Beaver Pond Dr	SEC0000119	Prospect St	Beaver Pond Pl	121	32	3,863	AC	8	Failed
Marengo	BEAVE00009	Beaver Pond Pl	SEC0000120	Beaver Pond Dr	Street end	275	28	7,689	AC	11	Serious
Marengo	BEGGS00010	Beggs Ln	SEC0000016	Beggs Ln	Street end	391	18	7,029	AC	11	Serious
Marengo	BLISS00011	Blissdale Rd	SEC0000424	Jackson Rd	Pleasant Grove Rd	2,674	24	64,167	AC	34	Very Poor
Marengo	BLISS00011	Blissdale Rd	SEC0000425	Grange Rd	Jackson Rd	2,604	24	62,503	AC	10	Failed
Marengo	BRIDE00012	Briden Dr	SEC0000396	Tioga Trl	Johnson St	175	30	5,236	AC	46	Poor
Marengo	BRIDE00012	Briden Dr	SEC0000397	Kennedy St	Eisenhower Dr	334	32	10,688	AC	41	Poor
Marengo	BRIDE00012	Briden Dr	SEC0000398	Eisenhower Dr	Park Dr	333	32	10,642	AC	28	Very Poor
Marengo	BRIDE00012	Briden Dr	SEC0000399	Johnson St	Kennedy St	332	32	10,627	AC	39	Very Poor
Marengo	BROOK00013	Brookside Ct	SEC0000065	Mildred Ln	Street end	305	28	8,553	AC	31	Very Poor
Marengo	BROOK00013	Brookside Ct	SEC0000066	Mildred Ln	Street end	239	28	6,704	AC	18	Serious
Marengo	BUTTO00014	Buttonwood Ct	SEC0000104	Cottonwood Ln	Street end	435	28	12,180	AC	52	Poor
Marengo	BUTTO00015	Buttonwood Ln	SEC0000102	Kishwaukee St	Foxglove Ln	351	32	11,230	AC	56	Fair

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	BUTTO00015	Buttonwood Ln	SEC0000103	Foxglove Ln	Cottonwood Ln	496	28	13,884	AC	59	Fair
Marengo	CAROL00016	Caroline St	SEC0000363	Maple St	Locust St	366	24	8,773	AC	41	Poor
Marengo	CASCA00017	Cascade Dr	SEC0000140	White Tail Dr	Street end	224	32	7,180	AC	67	Fair
Marengo	CASCA00017	Cascade Dr	SEC0000141	Cascade Pl	Beaver Pond Dr	418	32	13,386	AC	93	Good
Marengo	CASCA00017	Cascade Dr	SEC0000142	Cascade Pl	Beaver Pond Dr	108	22	2,368	AC	8	Failed
Marengo	CASCA00017	Cascade Dr	SEC0000143	White Tail Dr	Cascade Pl	427	32	13,657	AC	90	Good
Marengo	CASCA00018	Cascade Pl	SEC0000144	Street end	Cascade Dr	241	30	7,235	AC	100	Good
Marengo	CENTE00019	Center Dr	SEC0000123	Telegraph St	Quail Ln	317	32	10,146	AC	31	Very Poor
Marengo	CENTE00019	Center Dr	SEC0000124	Village Cir	Deerpass Rd	245	34	8,329	AC	13	Serious
Marengo	CENTE00019	Center Dr	SEC0000125	Village Cir	Village Cir	133	34	4,534	AC	10	Failed
Marengo	CENTE00019	Center Dr	SEC0000126	Mallard Dr	Village Cir	212	34	7,201	AC	13	Serious
Marengo	CENTE00019	Center Dr	SEC0000419	Quail Ln	Mallard Dr	221	32	7,059	AC	17	Serious
Marengo	CHAPP00020	Chappel St	SEC0000388	Stanford Dr	Dietz St	375	24	8,993	AC	44	Poor
Marengo	CHAPP00020	Chappel St	SEC0000389	Dietz St	Ann St	632	24	15,164	AC	13	Serious
Marengo	CHEST00021	Chestnut Ct	SEC0000106	Cottonwood Ln	Street end	510	28	14,274	AC	17	Serious
Marengo	CHEST00022	Chestnut Ln	SEC0000105	Kishwaukee	Cottonwood Ln	727	28	20,368	AC	23	Serious
Marengo	CIRCL00023	Circle Ct	SEC0000394	Street end	State St	397	14	5,552	AC	28	Very Poor
Marengo	CLARK00024	Clark St	SEC0000203	Washington St	Prairie St	322	26	8,370	AC	42	Poor
Marengo	CLARK00024	Clark St	SEC0000204	Grant Hwy	Washington St	341	26	8,879	AC	36	Very Poor
Marengo	COONC00025	Coon Creek Rd	SEC0000430	Coon Creek Rd	IL-23	1,592	24	38,207	AC	100	Good
Marengo	COTTO00026	Cottonwood Ln	SEC0000130	Hickory Ct	Woodbine Dr	460	32	14,733	AC	47	Poor
Marengo	COTTO00026	Cottonwood Ln	SEC0000131	Walnut Ct	Chestnut Ct	441	32	14,126	AC	11	Serious
Marengo	COTTO00026	Cottonwood Ln	SEC0000132	Woodland Ln	Walnut Ct	393	32	12,564	AC	8	Failed
Marengo	COTTO00026	Cottonwood Ln	SEC0000133	Chestnut Ct	Buttonwood Ct	412	32	13,169	AC	36	Very Poor
Marengo	COTTO00026	Cottonwood Ln	SEC0000134	Buttonwood Ct	Hickory Ln	414	32	13,258	AC	51	Poor
Marengo	COURT00027	Courtney Ln	SEC0000033	Linda Ct	State St	294	36	10,578	AC	20	Serious
Marengo	COURT00027	Courtney Ln	SEC0000034	Spring Dr	Street end	1,072	32	34,297	AC	28	Very Poor
Marengo	COURT00027	Courtney Ln	SEC0000035	Joy Ct	Linda Ct	314	26	8,153	AC	22	Serious
Marengo	COURT00027	Courtney Ln	SEC0000036	Spring Dr	Joy Ct	837	40	33,496	AC	19	Serious

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	COURT00027	Courtney Ln	SEC0000041	Street end	Maplewood Ln	131	34	4,469	AC	98	Good
Marengo	COURT00027	Courtney Ln	SEC0000042	Courtney Ln	Street end	348	34	11,845	AC	74	Satisfactory
Marengo	COURT00027	Courtney Ln	SEC0000043	Courtney Ln	Mildred Dr	709	34	24,120	AC	82	Satisfactory
Marengo	COURT00027	Courtney Ln	SEC0000044	Mildred Dr	Courtney Ln	380	34	12,918	AC	75	Satisfactory
Marengo	COURT00027	Courtney Ln	SEC0000045	Maplewood Dr	Courtney Ln	428	34	14,537	AC	88	Good
Marengo	DIANE00028	Diane Ct	SEC0000364	Riley Dr	Mildred Dr	438	24	10,514	AC	11	Serious
Marengo	DIETZ00029	Dietz St	SEC0000250	Grant Hwy	Washington St	332	16	5,310	AC	0	Failed
Marengo	DIETZ00029	Dietz St	SEC0000251	Kent St	Chappel St	468	24	11,232	AC	9	Failed
Marengo	DIETZ00029	Dietz St	SEC0000252	Chappel St	Grant Hwy	357	22	7,847	AC	8	Failed
Marengo	DIETZ00029	Dietz St	SEC0000253	South St	Forest St	1,079	26	28,065	AC	24	Serious
Marengo	DIETZ00029	Dietz St	SEC0000254	Forest St	Forest St	281	26	7,312	AC	26	Very Poor
Marengo	DIETZ00029	Dietz St	SEC0000255	Forest St	Kent St	476	26	12,388	AC	20	Serious
Marengo	DIETZ00029	Dietz St	SEC0000256	Barbara Ave	South St	185	22	4,080	AC	10	Failed
Marengo	DIETZ00029	Dietz St	SEC0000257	South St	South St	200	22	4,410	AC	15	Serious
Marengo	DORAL00030	Doral Dr	SEC0000022	Spring Dr	Maple St	858	30	25,726	AC	20	Serious
Marengo	DORAL00030	Doral Dr	SEC0000049	Lura Ln	Spring Dr	1,108	28	31,017	AC	35	Very Poor
Marengo	DUNHA00031	Dunham Ct	SEC0000218	James Ct	Georgeann Ct	330	22	7,264	AC	17	Serious
Marengo	DUNHA00031	Dunham Ct	SEC0000219	Randall Ct	James Ct	321	20	6,423	AC	30	Very Poor
Marengo	EASTS00032	East St	SEC0000152	8th Ave	Street end	134	12	1,607	AC	25	Serious
Marengo	EASTS00032	East St	SEC0000153	Washington St	Prairie St	330	22	7,265	AC	40	Very Poor
Marengo	EASTS00032	East St	SEC0000154	Telegraph St	1st Ave	328	18	5,900	AC	25	Serious
Marengo	EASTS00032	East St	SEC0000156	Second Ave	Third Ave	323	24	7,750	AC	16	Serious
Marengo	EASTS00032	East St	SEC0000157	First Ave	Second Ave	338	26	8,780	AC	14	Serious
Marengo	EASTS00032	East St	SEC0000158	Greenlee St	Jackson St	330	28	9,236	AC	11	Serious
Marengo	EASTS00032	East St	SEC0000159	Third Ave	Fourth Ave	334	22	7,348	AC	17	Serious
Marengo	EASTS00032	East St	SEC0000160	Jackson St	Van Buren St	333	24	7,997	AC	35	Very Poor
Marengo	EASTS00032	East St	SEC0000161	Van Buren St	Stevenson St	466	20	9,312	AC	27	Very Poor
Marengo	EASTS00032	East St	SEC0000162	Grant Hwy	Washington St	413	20	8,262	PCC	13	Serious
Marengo	EASTS00032	East St	SEC0000163	Prairie St	Greenlee St	942	26	24,505	AC	18	Serious

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	EASTS00032	East St	SEC0000164	Fifth Ave	Sixth Ave	330	26	8,569	AC	36	Very Poor
Marengo	EASTS00032	East St	SEC0000165	Seventh Ave	Eighth Ave	325	24	7,807	AC	24	Serious
Marengo	EASTS00032	East St	SEC0000166	Fourth Ave	Fifth Ave	321	20	6,418	AC	14	Serious
Marengo	EASTS00032	East St	SEC0000167	Sixth Ave	Seventh Ave	337	20	6,749	AC	31	Very Poor
Marengo	EIGHT00033	Eighth Ave	SEC0000330	State St	Hale St	322	18	5,800	AC	33	Very Poor
Marengo	EIGHT00033	Eighth Ave	SEC0000331	East St	7th Cir	431	28	12,068	AC	9	Failed
Marengo	EIGHT00033	Eighth Ave	SEC0000332	Taylor St	Page St	327	18	5,886	AC	35	Very Poor
Marengo	EIGHT00033	Eighth Ave	SEC0000333	Page St	East St	337	18	6,058	AC	37	Very Poor
Marengo	EIGHT00033	Eighth Ave	SEC0000334	Hale St	Taylor St	334	18	6,004	AC	36	Very Poor
Marengo	EIGHT00033	Eighth Ave	SEC0000335	Seventh Cir	Woodbine Dr	282	28	7,895	AC	19	Serious
Marengo	EISEN00034	Eisenhower St	SEC0000239	Keppler Dr	Briden Dr	1,121	28	31,395	AC	100	Good
Marengo	ELMST00035	Elm St	SEC0000205	Forest St	Grant Hwy	771	34	26,218	AC	30	Very Poor
Marengo	FIFTH00036	Fifth Ave	SEC0000313	State St	Hale St	324	22	7,118	AC	9	Failed
Marengo	FIFTH00036	Fifth Ave	SEC0000314	East St	Kishwaukee St	327	30	9,820	AC	40	Very Poor
Marengo	FIFTH00036	Fifth Ave	SEC0000315	Taylor St	Page St	340	24	8,155	AC	45	Poor
Marengo	FIFTH00036	Fifth Ave	SEC0000316	Page St	East St	327	24	7,856	AC	38	Very Poor
Marengo	FIFTH00036	Fifth Ave	SEC0000317	Hale St	Taylor St	327	22	7,199	AC	12	Serious
Marengo	FIFTH00036	Fifth Ave	SEC0000318	Kishwaukee St	Foxglove Ln	331	28	9,281	AC	35	Very Poor
Marengo	FIRST00037	First Ave	SEC0000289	State St	Hale St	319	22	7,013	AC	29	Very Poor
Marengo	FIRST00037	First Ave	SEC0000290	Taylor St	Page St	317	20	6,331	AC	41	Poor
Marengo	FIRST00037	First Ave	SEC0000291	Page St	East St	334	20	6,678	AC	45	Poor
Marengo	FIRST00037	First Ave	SEC0000292	East St	Kishwaukee St	336	24	8,054	AC	47	Poor
Marengo	FIRST00037	First Ave	SEC0000293	Kishwaukee St	Street end	143	18	2,578	AC	68	Fair
Marengo	FORDS00038	Ford St	SEC0000232	Railroad St	Van Buren St	525	26	13,638	AC	51	Poor
Marengo	FORDS00038	Ford St	SEC0000233	Prairie St	Street end	391	22	8,612	AC	24	Serious
Marengo	FORDS00038	Ford St	SEC0000234	Grant Hwy	Washington St	325	26	8,441	AC	48	Poor
Marengo	FORDS00038	Ford St	SEC0000235	Washington St	Prairie St	339	20	6,775	AC	53	Poor
Marengo	FORES00039	Forest St	SEC0000017	Park Dr	Street end	159	32	5,095	AC	25	Serious
Marengo	FORES00039	Forest St	SEC0000358	Dietz St	Oak Manor Dr	511	18	9,197	AC	26	Very Poor

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	FORES00039	Forest St	SEC0000359	State St	Page St	723	22	15,896	AC	100	Good
Marengo	FORES00039	Forest St	SEC0000360	Ann St	State St	361	32	11,558	AC	34	Very Poor
Marengo	FORES00039	Forest St	SEC0000361	Elm St	Maple St	885	18	15,932	AC	63	Fair
Marengo	FORES00039	Forest St	SEC0000362	Oak Manor Dr	Ann St	124	14	1,742	AC	37	Very Poor
Marengo	FORES00039	Forest St	SEC0000391	Stanford Dr	Dietz St	400	20	8,006	AC	48	Poor
Marengo	FORES00039	Forest St	SEC0000434	Page St	Elm St	414	22	9,107	AC	100	Good
Marengo	FOURT00040	Fourth Ave	SEC0000307	State St	Hale St	320	24	7,685	AC	35	Very Poor
Marengo	FOURT00040	Fourth Ave	SEC0000308	Kishwaukee	Cottonwood Ln	327	30	9,797	AC	32	Very Poor
Marengo	FOURT00040	Fourth Ave	SEC0000309	East St	Kishwaukee St	334	28	9,348	AC	47	Poor
Marengo	FOURT00040	Fourth Ave	SEC0000310	Taylor St	Page St	334	22	7,342	AC	30	Very Poor
Marengo	FOURT00040	Fourth Ave	SEC0000311	Page St	East St	327	24	7,845	AC	49	Poor
Marengo	FOURT00040	Fourth Ave	SEC0000312	Hale St	Taylor St	333	22	7,335	AC	16	Serious
Marengo	FOXGL00041	Foxglove Ct	SEC0000129	Woodbine Dr	Street end	263	28	7,353	AC	35	Very Poor
Marengo	FOXGL00042	Foxglove Ln	SEC0000127	Hickory Ln	Woodbine Dr	556	32	17,779	AC	43	Poor
Marengo	FOXGL00042	Foxglove Ln	SEC0000128	Buttonwood Ln	Hickory Ln	497	32	15,902	AC	47	Poor
Marengo	FRANC00043	Francis St	SEC0000366	Maple St	Locust St	365	22	8,038	AC	35	Very Poor
Marengo	FRANK00044	Franks Rd	SEC0000414	Lindlow Ln	Street end	708	24	16,987	AC	37	Very Poor
Marengo	FRANK00044	Franks Rd	SEC0000415	Grant Hwy	Lindow Ln	1,353	24	32,480	AC	42	Poor
Marengo	GEORG00045	Georgann St	SEC0000367	Locust St	Dunham Ct	304	30	9,113	AC	34	Very Poor
Marengo	GEORG00045	Georgann St	SEC0000368	Riley Dr	Mildred Dr	430	24	10,322	AC	38	Very Poor
Marengo	GEORG00045	Georgann St	SEC0000369	Dunham Ct	Riley Dr	344	20	6,878	AC	7	Failed
Marengo	GERAL00046	Geraldine Ct	SEC0000365	Riley Dr	Mildred Dr	433	24	10,382	AC	37	Very Poor
Marengo	GRACE00047	Grace Ct	SEC0000028	Street end	Spring Dr	165	32	5,283	AC	47	Poor
Marengo	GRACE00047	Grace Ct	SEC0000029	Street end	Spring Dr	291	30	8,733	AC	28	Very Poor
Marengo	GRACE00048	Grace St	SEC0000150	Jackson St	Van Buren St	315	26	8,196	AC	13	Serious
Marengo	GRACE00048	Grace St	SEC0000151	Greenlee St	Jackson St	345	26	8,963	AC	9	Failed
Marengo	GRACE00048	Grace St	SEC0000220	Stevenson St	Street end	102	18	1,843	AC	8	Failed
Marengo	GRACE00048	Grace St	SEC0000221	Van Buren St	Stevenson St	451	20	9,015	AC	12	Serious
Marengo	GRANG00049	Grange Rd	SEC0000427	Blissdale Rd	Riley Rd	2,810	24	67,432	AC	24	Serious

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	GRANG00049	Grange Rd	SEC0000428	Blissdale Rd	Riley Rd	2,199	24	52,777	AC	41	Poor
Marengo	GRANG00049	Grange Rd	SEC0000429	Riley Rd	IL-23	2,674	24	64,173	AC	28	Very Poor
Marengo	GREEN00050	Greenlee St	SEC0000095	Prospect St	Street end	2,393	36	86,134	AC	100	Good
Marengo	GREEN00050	Greenlee St	SEC0000265	Grace St	Prospect St	613	20	12,255	AC	18	Serious
Marengo	GREEN00050	Greenlee St	SEC0000266	Grace St	Prospect St	318	20	6,366	AC	17	Serious
Marengo	HALES00051	Hale St	SEC0000191	Seventh Ave	Eighth Ave	334	24	8,008	AC	36	Very Poor
Marengo	HALES00051	Hale St	SEC0000192	Third Ave	Fourth Ave	339	22	7,457	AC	14	Serious
Marengo	HALES00051	Hale St	SEC0000193	Railroad St	Jackson St	331	22	7,277	AC	39	Very Poor
Marengo	HALES00051	Hale St	SEC0000194	Jackson St	Van Buren St	332	20	6,649	AC	58	Fair
Marengo	HALES00051	Hale St	SEC0000195	Telegraph St	First Ave	329	22	7,242	AC	31	Very Poor
Marengo	HALES00051	Hale St	SEC0000196	Second Ave	Third Ave	327	26	8,504	AC	20	Serious
Marengo	HALES00051	Hale St	SEC0000197	First Ave	Second Ave	334	22	7,357	AC	41	Poor
Marengo	HALES00051	Hale St	SEC0000198	Van Buren St	Adams St	317	20	6,346	AC	55	Poor
Marengo	HALES00051	Hale St	SEC0000199	Adams St	Telegraph St	314	22	6,901	AC	54	Poor
Marengo	HALES00051	Hale St	SEC0000200	Fifth Ave	Sixth Ave	341	24	8,178	AC	33	Very Poor
Marengo	HALES00051	Hale St	SEC0000201	Fourth Ave	Fifth Ave	320	24	7,681	AC	29	Very Poor
Marengo	HALES00051	Hale St	SEC0000202	Sixth Ave	Seventh Ave	323	22	7,109	AC	40	Very Poor
Marengo	HICKO00052	Hickory Ct	SEC0000101	Cottonwood Ln	Street end	428	28	11,995	AC	75	Satisfactory
Marengo	HICKO00053	Hickory Ln	SEC0000100	Foxglove Ln	Cottonwood Ln	575	28	16,103	AC	60	Fair
Marengo	HUNTE00054	Hunters Path	SEC0000089	Randall Ct	Mary Ct	346	28	9,697	AC	25	Serious
Marengo	JACKS00055	Jackson Rd	SEC0000426	Burma Rd	Blissdale Rd	2,257	24	54,170	AC	13	Serious
Marengo	JACKS00056	Jackson St	SEC0000267	State St	Hale St	319	20	6,386	AC	71	Satisfactory
Marengo	JACKS00056	Jackson St	SEC0000268	East St	Grace St	718	20	14,366	AC	9	Failed
Marengo	JACKS00056	Jackson St	SEC0000269	Taylor St	Page St	311	26	8,088	AC	11	Serious
Marengo	JACKS00056	Jackson St	SEC0000270	Page St	East St	336	40	13,442	AC	18	Serious
Marengo	JACKS00056	Jackson St	SEC0000271	Hale St	Taylor St	342	28	9,569	AC	78	Satisfactory
Marengo	JACKS00056	Jackson St	SEC0000272	East St	Grace St	329	24	7,896	AC	11	Serious
Marengo	JACQU00057	Jacquelynn Ct	SEC0000021	Street end	South St	217	28	6,080	AC	24	Serious
Marengo	JAMES00058	James Ct	SEC0000370	Maple St	Dunham Ct	654	24	15,700	AC	27	Very Poor

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	JOHNS00059	Johnson St	SEC0000014	Keppler Dr	Briden Dr	1,141	28	31,951	AC	38	Very Poor
Marengo	JOYCT00060	Joy Ct	SEC0000039	Courtney Ln	Street end	267	26	6,932	AC	29	Very Poor
Marengo	JOYCT00060	Joy Ct	SEC0000040	Courtney Ln	Street end	68	26	1,770	AC	27	Very Poor
Marengo	KENNE00061	Kennedy St	SEC0000015	Keppler Dr	Briden Dr	1,139	34	38,743	AC	26	Very Poor
Marengo	KENTS00062	Kent St	SEC0000018	Kent St	Street end	335	16	5,353	AC	8	Failed
Marengo	KEPPL00063	Keppler Dr	SEC0000400	Johnson St	Kennedy St	320	26	8,321	AC	100	Good
Marengo	KEPPL00063	Keppler Dr	SEC0000401	Eisenhower St	Park Dr	337	32	10,773	AC	40	Very Poor
Marengo	KEPPL00063	Keppler Dr	SEC0000402	Kennedy St	Eisenhower St	328	24	7,873	AC	52	Poor
Marengo	KERIM00064	Kerim Ct	SEC0000023	Spring Dr	Street end	249	28	6,984	AC	34	Very Poor
Marengo	KISHW00065	Kishwaukee St	SEC0000223	Van Buren St	Stevenson St	461	24	11,054	AC	13	Serious
Marengo	KISHW00065	Kishwaukee St	SEC0000224	Fourth Ave	Fifth Ave	321	30	9,633	AC	36	Very Poor
Marengo	KISHW00065	Kishwaukee St	SEC0000225	Telegraph St	First Ave	332	24	7,965	AC	36	Very Poor
Marengo	KISHW00065	Kishwaukee St	SEC0000226	Second Ave	Third Ave	331	22	7,284	AC	33	Very Poor
Marengo	KISHW00065	Kishwaukee St	SEC0000227	First Ave	Second Ave	332	28	9,300	AC	39	Very Poor
Marengo	KISHW00065	Kishwaukee St	SEC0000228	Third Ave	Fourth Ave	332	26	8,642	AC	31	Very Poor
Marengo	LINDA00066	Linda Ct	SEC0000037	Courtney Ln	Street end	94	26	2,449	AC	38	Very Poor
Marengo	LINDA00066	Linda Ct	SEC0000038	Courtney Ln	Street end	280	26	7,292	AC	30	Very Poor
Marengo	LINDO00067	Lindow Ln	SEC0000413	Grant Hwy	Franks Rd	2,469	24	59,258	AC	40	Very Poor
Marengo	LOCUS00068	Locust St	SEC0000207	Grant Hwy	Washington St	699	20	13,974	AC	49	Poor
Marengo	LOCUS00068	Locust St	SEC0000208	Carline St	Grant Hwy	962	26	25,016	AC	28	Very Poor
Marengo	LOCUS00068	Locust St	SEC0000209	Francis St	Caroline St	630	26	16,392	AC	27	Very Poor
Marengo	LOCUS00068	Locust St	SEC0000210	Washington St	Prairie St	318	22	6,990	AC	42	Poor
Marengo	LURAL00069	Lura Ln	SEC0000024	Street end	Ridge Dr	151	26	3,920	AC	43	Poor
Marengo	LURAL00069	Lura Ln	SEC0000025	Doral Dr	Spring Dr	354	32	11,326	AC	27	Very Poor
Marengo	LURAL00069	Lura Ln	SEC0000026	Ridge Dr	Doral Dr	311	32	9,964	AC	30	Very Poor
Marengo	LYNNA00070	Lynnann Ct	SEC0000031	Spring Dr	Street end	290	32	9,277	AC	25	Serious
Marengo	LYNNA00070	Lynnann Ct	SEC0000032	Spring Dr	Street end	218	26	5,666	AC	27	Very Poor
Marengo	MAJIC00071	Majic Way	SEC0000030	Spring Dr	Sara Ln	599	30	17,975	AC	46	Poor
Marengo	MALLA00072	Mallard Dr	SEC0000121	Mallard Dr	Beaver Pond Dr	134	22	2,943	AC	9	Failed



Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	MALLA00072	Mallard Dr	SEC0000122			424	32	13,562	AC	14	Serious
Marengo	MALLA00072	Mallard Dr	SEC0000435	Mallard Dr	Beaver Pond Dr	293	32	9,374	AC	7	Failed
Marengo	MAPLE00073	Maple St	SEC0000407	Forest St	Grant Hwy	298	24	7,162	AC	58	Fair
Marengo	MAPLE00073	Maple St	SEC0000408	Caroline St	Forest St	943	24	22,640	AC	30	Very Poor
Marengo	MAPLE00073	Maple St	SEC0000409	Autumn St	Caroline St	446	24	10,708	AC	15	Serious
Marengo	MAPLE00073	Maple St	SEC0000410	Maple St	James Ct	123	24	2,940	AC	60	Fair
Marengo	MAPLE00073	Maple St	SEC0000411	James Ct	Francis St	369	24	8,867	AC	39	Very Poor
Marengo	MAPLE00073	Maple St	SEC0000433	Francis St	Autumn St	186	24	4,460	AC	17	Serious
Marengo	MAPLE00074	Maplewood Dr	SEC0000072	Courtney Ln	Maplewood Dr	911	26	23,687	AC	88	Good
Marengo	MAPLE00074	Maplewood Dr	SEC0000073	Maplewood Dr	Mildred Dr	311	26	8,088	AC	79	Satisfactory
Marengo	MAPLE00074	Maplewood Dr	SEC0000074	Maplewood Dr	Mildred Dr	77	26	2,000	AC	73	Satisfactory
Marengo	MARYC00075	Mary Ct	SEC0000371	Riley Dr	Mildred Dr	433	24	10,384	AC	38	Very Poor
Marengo	MARYC00075	Mary Ct	SEC0000372	Mildred Dr	Hunters Path	545	34	18,523	AC	31	Very Poor
Marengo	MARYC00075	Mary Ct	SEC0000373	Hunters Path	Street end	132	34	4,478	AC	53	Poor
Marengo	MEADO00076	Meadow Ln	SEC0000067	Street end	Meadow Ln	301	28	8,424	AC	32	Very Poor
Marengo	MEADO00076	Meadow Ln	SEC0000068	Mildred Dr	Street end	571	34	19,415	AC	35	Very Poor
Marengo	MEADO00076	Meadow Ln	SEC0000069	Bauman St	Mildred Dr	546	30	16,367	AC	33	Very Poor
Marengo	MEYER00077	Meyer Rd	SEC0000421	Pleasant Grove Rd	Lakewood Dr	4,859	24	116,618	AC	17	Serious
Marengo	MEYER00077	Meyer Rd	SEC0000422	Briden Dr	Grant Hwy	454	24	10,906	AC	8	Failed
Marengo	MILDR00078	Mildred Dr	SEC0000079	Diane Ct	Grant Hwy	471	34	16,017	AC	28	Very Poor
Marengo	MILDR00078	Mildred Dr	SEC0000080	Mildred Dr	Meadow Ln	350	34	11,894	AC	48	Poor
Marengo	MILDR00078	Mildred Dr	SEC0000081	Randall Ct	Mary Ct	350	34	11,902	AC	27	Very Poor
Marengo	MILDR00078	Mildred Dr	SEC0000082	Brookside Ct	Randall Ct	467	34	15,887	AC	23	Serious
Marengo	MILDR00078	Mildred Dr	SEC0000083	Georgeann Ct	Geradline Ct	297	34	10,104	AC	23	Serious
Marengo	MILDR00078	Mildred Dr	SEC0000084	Meadow Ln	Brookside Ct	325	34	11,059	AC	28	Very Poor
Marengo	MILDR00078	Mildred Dr	SEC0000085	Mary Ct	Georgeann Ct	294	34	10,008	AC	16	Serious
Marengo	MILDR00078	Mildred Dr	SEC0000086	Maplewood Dr	Mildred Dr	800	34	27,214	AC	82	Satisfactory
Marengo	MILDR00078	Mildred Dr	SEC0000087	Geradline Ct	Diane Ct	304	34	10,343	AC	27	Very Poor
Marengo	MILDR00078	Mildred Dr	SEC0000088	Courtney Ln	Maplewood Dr	350	34	11,913	AC	82	Satisfactory

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	OAKMA00079	Oak Manor Dr	SEC0000258	Royal Oak Dr	Forest St	379	28	10,623	AC	100	Good
Marengo	OAKMA00079	Oak Manor Dr	SEC0000259	Royal Oak Dr	State ST	183	28	5,120	AC	98	Good
Marengo	OAKMA00079	Oak Manor Dr	SEC0000260	Royal Oak Dr	Royal Oak Dr	794	32	25,395	AC	100	Good
Marengo	OCONN00080	OConnell Rd	SEC0000406	Meyer Rd	Indian Oaks Trl	1,968	24	47,238	AC	14	Serious
Marengo	PAGES00081	Page St	SEC0000168	Seventh Ave	Eighth Ave	327	24	7,855	AC	17	Serious
Marengo	PAGES00081	Page St	SEC0000169	Telegraph St	First Ave	333	20	6,653	AC	41	Poor
Marengo	PAGES00081	Page St	SEC0000170	Stevenson St	Telegraph St	160	22	3,515	AC	2	Failed
Marengo	PAGES00081	Page St	SEC0000171	Second Ave	Third Ave	324	22	7,133	AC	38	Very Poor
Marengo	PAGES00081	Page St	SEC0000172	Washington St	Prairie St	324	22	7,128	AC	34	Very Poor
Marengo	PAGES00081	Page St	SEC0000173	First Ave	Second Ave	334	26	8,673	AC	35	Very Poor
Marengo	PAGES00081	Page St	SEC0000174	Railroad St	Jackson St	450	30	13,500	AC	15	Serious
Marengo	PAGES00081	Page St	SEC0000175	Third Ave	Fourth Ave	336	22	7,383	AC	23	Serious
Marengo	PAGES00081	Page St	SEC0000176	Jackson St	Van Buren St	333	24	7,987	AC	23	Serious
Marengo	PAGES00081	Page St	SEC0000177	Grant Hwy	Washington St	319	30	9,571	AC	23	Serious
Marengo	PAGES00081	Page St	SEC0000178	Prairie St	Railroad St	667	20	13,341	GR	N/A	N/A
Marengo	PAGES00081	Page St	SEC0000179	Van Buren St	Stevenson St	471	24	11,314	AC	17	Serious
Marengo	PAGES00081	Page St	SEC0000180	Fifth Ave	Sixth Ave	331	22	7,272	AC	12	Serious
Marengo	PAGES00081	Page St	SEC0000181	Sixth Ave	Seventh Ave	337	20	6,732	AC	10	Failed
Marengo	PAGES00081	Page St	SEC0000182	Fourth Ave	Fifth Ave	321	26	8,336	AC	68	Fair
Marengo	PARKD00082	Park Dr	SEC0000240	Beggs Ln	Grant Hwy	495	32	15,837	AC	20	Serious
Marengo	PARKD00082	Park Dr	SEC0000241	Keppler Dr	Forest St	745	26	19,368	AC	26	Very Poor
Marengo	PARKD00082	Park Dr	SEC0000242	Forest St	Briden Dr	366	28	10,237	AC	22	Serious
Marengo	PARKD00082	Park Dr	SEC0000243	Briden Dr	Beggs Ln	171	20	3,427	AC	6	Failed
Marengo	PARTR00083	Partridge Cir	SEC0000416	Quail Ln	Mallard Dr	215	24	5,152	AC	84	Satisfactory
Marengo	PARTR00083	Partridge Cir	SEC0000417	Quail Ln	Quail Ln	1,245	24	29,869	AC	89	Good
Marengo	PLEAS00084	Pleasant Grove Rd	SEC0000404	Meyer Rd	IL-23	1,100	20	22,005	AC	38	Very Poor
Marengo	PLEAS00084	Pleasant Grove Rd	SEC0000405	Meyer Rd	IL-23	1,948	20	38,955	AC	33	Very Poor
Marengo	PRAIR00085	Prairie St	SEC0000012	State St	Taylor St	522	34	17,745	AC	57	Fair
Marengo	PRAIR00085	Prairie St	SEC0000344	Taylor St	Page St	332	30	9,967	AC	66	Fair

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	PRAIR00085	Prairie St	SEC0000345	Page St	Clark St	329	26	8,545	AC	68	Fair
Marengo	PRAIR00085	Prairie St	SEC0000346	East St	Sullivan St	362	24	8,686	AC	61	Fair
Marengo	PRAIR00085	Prairie St	SEC0000347	Clark St	East St	230	30	6,896	AC	79	Satisfactory
Marengo	PRAIR00085	Prairie St	SEC0000348	Sullivan St	Locust St	1,143	22	25,146	AC	52	Poor
Marengo	PRAIR00085	Prairie St	SEC0000349	Locust St	Prospect St	614	30	18,405	AC	64	Fair
Marengo	PRAIR00085	Prairie St	SEC0000379	West St	Sponable St	871	22	19,160	AC	23	Serious
Marengo	PRAIR00085	Prairie St	SEC0000380	Ford St	Ann St	346	20	6,927	AC	26	Very Poor
Marengo	PRAIR00085	Prairie St	SEC0000381	Sponable St	Ford St	852	28	23,851	AC	27	Very Poor
Marengo	PRAIR00085	Prairie St	SEC0000382	Ann St	State St	297	26	7,717	AC	55	Poor
Marengo	PROSP00086	Prospect St	SEC0000001	Washington St	Prairie St	267	34	9,064	AC	19	Serious
Marengo	PROSP00086	Prospect St	SEC0000002	Greenlee St	Greenlee St	282	28	7,899	AC	11	Serious
Marengo	PROSP00086	Prospect St	SEC0000003	Prairie St	Greenlee St	1,368	28	38,300	AC	15	Serious
Marengo	PROSP00086	Prospect St	SEC0000004	Grant Hwy	Washington St	879	38	33,410	AC	84	Satisfactory
Marengo	PROSP00086	Prospect St	SEC000000A	Greenlee St	Telegraph St	731	32	23,384	AC	13	Serious
Marengo	PROSP00086	Prospect St	SEC000000B	Greenlee St	Telegraph St	552	32	17,679	AC	98	Good
Marengo	PROSP00086	Prospect St	SEC0000135	Telegraph St	Beaver Pond Dr	464	50	23,212	AC	39	Very Poor
Marengo	QUAIL00087	Quail Ln	SEC0000418	Center Dr	Partridge Cir	136	24	3,261	AC	88	Good
Marengo	QUAIL00087	Quail Ln	SEC0000420*	Partridge Cir	Partridge Cir	295	24	7,087	AC	N/A	N/A
Marengo	RAILR00088	Railroad St	SEC0000338	West St	Ford St	1,846	24	44,314	AC	12	Serious
Marengo	RAILR00088	Railroad St	SEC0000339	State St	Hale St	340	30	10,205	AC	14	Serious
Marengo	RAILR00088	Railroad St	SEC0000340	Ann St	State St	312	26	8,119	AC	58	Fair
Marengo	RAILR00088	Railroad St	SEC0000341	Ford St	Ann St	327	26	8,493	AC	62	Fair
Marengo	RAILR00088	Railroad St	SEC0000342	Hale St	Taylor St	352	32	11,279	AC	18	Serious
Marengo	RAILR00088	Railroad St	SEC0000343	Taylor St	Page St	317	40	12,697	AC	17	Serious
Marengo	RAILR00088	Railroad St	SEC0000403	Railroad St	West St	257	24	6,173	AC	10	Failed
Marengo	RAINB00089	Rainbow Dr	SEC0000145	Street end	Telegraph St	170	22	3,733	AC	27	Very Poor
Marengo	RANDA00090	Randall Ct	SEC0000374	Randall Ct	Dunham Ct	653	26	16,979	AC	37	Very Poor
Marengo	RANDA00090	Randall Ct	SEC0000375	Mildred Dr	Hunters Path	504	28	14,117	AC	31	Very Poor
Marengo	RANDA00090	Randall Ct	SEC0000376	Riley Dr	Riley DR	116	20	2,330	AC	49	Poor

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	RANDA00090	Randall Ct	SEC0000377	Dunham Ct	Riley Dr	335	20	6,690	AC	36	Very Poor
Marengo	RANDA00090	Randall Ct	SEC0000378	Riley Dr	Mildred Dr	321	24	7,712	AC	30	Very Poor
Marengo	RIDGE00091	Ridge Dr	SEC0000046	Ruth Ct	Spring Dr	304	30	9,133	AC	35	Very Poor
Marengo	RIDGE00091	Ridge Dr	SEC0000047	Lura Ln	Ruth Ct	1,148	32	36,748	AC	31	Very Poor
Marengo	RILEY00092	Riley Dr	SEC0000212	Diane Ct	Grant Hwy	810	22	17,810	AC	76	Satisfactory
Marengo	RILEY00092	Riley Dr	SEC0000213	Mary Ct	Georgeann Ct	301	20	6,017	AC	63	Fair
Marengo	RILEY00092	Riley Dr	SEC0000214	Georgeann Ct	Geraldine Ct	300	22	6,593	AC	60	Fair
Marengo	RILEY00092	Riley Dr	SEC0000215	Geraldine Ct	Diane Ct	292	22	6,418	AC	63	Fair
Marengo	RILEY00092	Riley Dr	SEC0000216	Randall Ct	Mary Ct	349	20	6,983	AC	76	Satisfactory
Marengo	RILEY00092	Riley Dr	SEC0000217	Street end	Randall Ct	451	20	9,018	AC	36	Very Poor
Marengo	ROWLA00093	Rowland Ave	SEC0000244	Grant Hwy	Street end	352	28	9,860	AC	30	Very Poor
Marengo	ROYAL00094	Royal Oak Dr	SEC0000392	Oak Manor Dr	Oak Manor Dr	789	32	25,234	AC	100	Good
Marengo	RUTHC00095	Ruth Ct	SEC0000048	Ridge Dr	Street end	230	28	6,429	AC	34	Very Poor
Marengo	SARAL00096	Sara Ln	SEC0000027	Majic Way	Spring Dr	926	32	29,622	AC	38	Very Poor
Marengo	SCHOO00097	School Ct	SEC0000211	Street end	Washington St	269	22	5,908	AC	21	Serious
Marengo	SECON00098	Second Ave	SEC0000295	State St	Hale St	321	22	7,058	AC	33	Very Poor
Marengo	SECON00098	Second Ave	SEC0000296	East St	Kishwaukee St	340	22	7,475	AC	22	Serious
Marengo	SECON00098	Second Ave	SEC0000297	Taylor St	Page St	335	26	8,706	AC	27	Very Poor
Marengo	SECON00098	Second Ave	SEC0000298	Page St	East St	327	26	8,500	AC	30	Very Poor
Marengo	SECON00098	Second Ave	SEC0000299	Kishwaukee	Cottonwood Ln	130	22	2,870	AC	25	Serious
Marengo	SECON00098	Second Ave	SEC0000300	Hale St	Taylor St	333	22	7,332	AC	20	Serious
Marengo	SEVEN00099	Seventh Ave	SEC0000325	State St	Hale St	327	22	7,203	AC	23	Serious
Marengo	SEVEN00099	Seventh Ave	SEC0000326	Taylor St	Page St	333	26	8,658	AC	8	Failed
Marengo	SEVEN00099	Seventh Ave	SEC0000327	Page St	East St	335	26	8,698	AC	73	Satisfactory
Marengo	SEVEN00099	Seventh Ave	SEC0000328	Hale St	Taylor St	328	22	7,209	AC	15	Serious
Marengo	SEVEN00100	Seventh Cir	SEC0000329	East St	Eighth Ave	870	34	29,591	AC	33	Very Poor
Marengo	SHADY00101	Shady Ln	SEC0000149	Grant Hwy	Street end	440	22	9,678	AC	44	Poor
Marengo	SIXTH00102	Sixth Ave	SEC0000319	State St	Hale St	326	26	8,476	AC	28	Very Poor
Marengo	SIXTH00102	Sixth Ave	SEC0000320	Taylor St	Page St	327	24	7,850	AC	24	Serious

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	SIXTH00102	Sixth Ave	SEC0000321	Page St	East St	334	20	6,675	AC	15	Serious
Marengo	SIXTH00102	Sixth Ave	SEC0000322	Hale St	Taylor St	334	18	6,003	AC	30	Very Poor
Marengo	SIXTH00103	Sixth Cir	SEC0000323	East St	Street end	416	30	12,473	AC	37	Very Poor
Marengo	SIXTH00103	Sixth Cir	SEC0000324	East St	Street end	235	28	6,589	AC	31	Very Poor
Marengo	SOUTH00104	South St	SEC0000019	Dietz St	Jacquelynn Ct	366	24	8,790	AC	10	Failed
Marengo	SOUTH00104	South St	SEC0000020	Jacquelynn Ct	State St	632	22	13,896	AC	12	Serious
Marengo	SOUTH00104	South St	SEC0000393	Stanford Dr	Dietz St	349	22	7,672	AC	12	Serious
Marengo	SPONA00105	Sponable St	SEC0000245	Prairie St	Street end	737	20	14,735	AC	31	Very Poor
Marengo	SPONA00105	Sponable St	SEC0000246	Washington St	Prairie St	326	24	7,828	AC	37	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000050	Ridge Dr	Street end	141	28	3,955	AC	42	Poor
Marengo	SPRIN00106	Spring Dr	SEC0000051	Spring Dr	Courtney Ln	203	32	6,499	AC	28	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000052	Lynnnann Ct	Majic Way	303	30	9,081	AC	35	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000053	Sara Ln	Lura Ln	363	32	11,602	AC	38	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000054	Doral Dr	Doral Dr	149	30	4,466	AC	37	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000055	Spring Dr	Spring Dr	70	30	2,103	AC	30	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000056	Spring Dr	Street end	97	32	3,110	AC	25	Serious
Marengo	SPRIN00106	Spring Dr	SEC0000057	Majic Way	Grace Ct	145	30	4,360	AC	43	Poor
Marengo	SPRIN00106	Spring Dr	SEC0000058	Kerim Ct	Doral Dr	359	30	10,783	AC	31	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000059	Grace Ct	Sara Ln	212	32	6,770	AC	49	Poor
Marengo	SPRIN00106	Spring Dr	SEC0000060	Doral Dr	Ridge Dr	300	30	8,993	AC	28	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000061	Lura Ln	Kerim Ct	539	28	15,100	AC	31	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000062	Courtney Ln	Lynnnann Ct	287	32	9,187	AC	29	Very Poor
Marengo	SPRIN00106	Spring Dr	SEC0000063	Spring Dr	Spring Dr	287	30	8,599	AC	24	Serious
Marengo	STANF00107	Stanford Dr	SEC0000247	Chappel St	Chappel St	274	24	6,575	AC	64	Fair
Marengo	STANF00107	Stanford Dr	SEC0000248	South St	Forest St	1,098	32	35,149	AC	27	Very Poor
Marengo	STANF00107	Stanford Dr	SEC0000249	Forest St	Chappel St	949	26	24,678	AC	48	Poor
Marengo	STEVE00108	Stevenson St	SEC0000285	Page St	East St	345	32	11,028	AC	15	Serious
Marengo	STEVE00108	Stevenson St	SEC0000286	East St	Kishwaukee St	286	18	5,153	AC	14	Serious
Marengo	STEVE00108	Stevenson St	SEC0000287	Kishwaukee St	Artell St	290	16	4,640	AC	17	Serious

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	STEVE00108	Stevenson St	SEC0000288	Artell St	Grave St	294	22	6,469	AC	18	Serious
Marengo	SULLI00109	Sullivan St	SEC0000206	Washington St	Prairie St	330	18	5,947	AC	56	Fair
Marengo	SUNSE00110	Sunset Dr	SEC0000231	Van Buren St	Street end	1,348	22	29,647	AC	93	Good
Marengo	TAYLO00111	Taylor St	SEC0000005	Adams St	Telegraph St	305	24	7,313	AC	56	Fair
Marengo	TAYLO00111	Taylor St	SEC0000006	Washington St	Prairie St	326	26	8,483	AC	67	Fair
Marengo	TAYLO00111	Taylor St	SEC0000007	Prairie St	Railroad St	567	26	14,751	AC	64	Fair
Marengo	TAYLO00111	Taylor St	SEC0000008	Railroad St	Jackson St	449	26	11,675	AC	74	Satisfactory
Marengo	TAYLO00111	Taylor St	SEC0000009	Jackson St	Van Buren St	333	32	10,642	AC	54	Poor
Marengo	TAYLO00111	Taylor St	SEC0000010	Grant Hwy	Washington St	312	28	8,742	AC	66	Fair
Marengo	TAYLO00111	Taylor St	SEC0000011	Van Buren St	Adams St	326	26	8,481	AC	62	Fair
Marengo	TAYLO00111	Taylor St	SEC0000183	Seventh Ave	Eighth Ave	327	26	8,499	AC	41	Poor
Marengo	TAYLO00111	Taylor St	SEC0000184	Second Ave	Third Ave	326	24	7,816	AC	13	Serious
Marengo	TAYLO00111	Taylor St	SEC0000185	Telegraph St	First Ave	336	22	7,382	AC	17	Serious
Marengo	TAYLO00111	Taylor St	SEC0000186	First Ave	Second Ave	330	22	7,250	AC	11	Serious
Marengo	TAYLO00111	Taylor St	SEC0000187	Third Ave	Fourth Ave	337	26	8,769	AC	18	Serious
Marengo	TAYLO00111	Taylor St	SEC0000188	Fifth Ave	Six Ave	336	20	6,712	AC	46	Poor
Marengo	TAYLO00111	Taylor St	SEC0000189	Six Ave	Seventh Ave	330	26	8,579	AC	90	Good
Marengo	TAYLO00111	Taylor St	SEC0000190	Fourth Ave	Fifth Ave	320	24	7,687	AC	56	Fair
Marengo	THIRD00112	Third Ave	SEC0000301	State St	Hale St	321	18	5,777	AC	13	Serious
Marengo	THIRD00112	Third Ave	SEC0000302	Taylor St	Page St	333	24	8,004	AC	48	Poor
Marengo	THIRD00112	Third Ave	SEC0000303	Page St	East St	334	22	7,343	AC	43	Poor
Marengo	THIRD00112	Third Ave	SEC0000304	East St	Kishwaukee St	320	20	6,396	AC	47	Poor
Marengo	THIRD00112	Third Ave	SEC0000305	Kishwaukee	Cottonwood Ln	326	24	7,813	AC	37	Very Poor
Marengo	THIRD00112	Third Ave	SEC0000306	Hale St	Taylor St	333	24	8,004	AC	12	Serious
Marengo	THORN00113	Thorne Rd	SEC0000423	Grant Hwy	Thorne Rd	1,337	24	32,085	AC	65	Fair
Marengo	UNKNO00114	Unknown001	SEC0000070	Mildred Dr	Street end	257	26	6,676	AC	78	Satisfactory
Marengo	UNKNO00114	Unknown001	SEC0000071	Mildred Dr	Street end	177	26	4,591	AC	86	Good
Marengo	UNKNO00115	Unknown002	SEC0000075	Maplewood Dr	Maplewood Dr	307	32	9,827	AC	84	Satisfactory
Marengo	UNKNO00116	Unknown003	SEC0000076	Unknown	Unknown	1,065	26	27,699	AC	74	Satisfactory

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	UNKNO00117	Unknown004	SEC0000077	Courtney Ln	Unknown	436	32	13,967	AC	80	Satisfactory
Marengo	UNKNO00117	Unknown004	SEC0000078	Unknown	Street end	280	32	8,965	AC	100	Good
Marengo	UNKNO00118	Unknown005	SEC0000090	Unknown	Street end	252	26	6,554	AC	71	Satisfactory
Marengo	UNKNO00118	Unknown005	SEC0000091	Courtney Ln	Street end	231	26	5,996	AC	81	Satisfactory
Marengo	UNKNO00118	Unknown005	SEC0000092	Courtney Ln	Unknown	534	26	13,889	AC	70	Fair
Marengo	UNKNO00118	Unknown005	SEC0000093	Unknown	Street end	241	26	6,263	AC	72	Satisfactory
Marengo	UNKNO00118	Unknown005	SEC0000094	Courtney Ln	Street end	262	26	6,810	AC	87	Good
Marengo	VANBU00119	Van Buren St	SEC0000273	Sunset St	Ford St	203	22	4,458	AC	89	Good
Marengo	VANBU00119	Van Buren St	SEC0000274	State St	Hale St	324	26	8,430	AC	16	Serious
Marengo	VANBU00119	Van Buren St	SEC0000275	East St	Kishwaukee St	296	22	6,517	AC	38	Very Poor
Marengo	VANBU00119	Van Buren St	SEC0000276	Taylor St	Page St	323	32	10,340	AC	37	Very Poor
Marengo	VANBU00119	Van Buren St	SEC0000277	Page St	East St	342	16	5,472	AC	19	Serious
Marengo	VANBU00119	Van Buren St	SEC0000278	Hale St	Taylor St	330	26	8,573	AC	54	Poor
Marengo	VANBU00119	Van Buren St	SEC0000279	Grave St	Grace St	157	17	2,675	AC	43	Poor
Marengo	VANBU00119	Van Buren St	SEC0000280	Ann St	State St	324	22	7,131	AC	92	Good
Marengo	VANBU00119	Van Buren St	SEC0000281	Van Buren St	Stevenson St	291	20	5,822	AC	34	Very Poor
Marengo	VANBU00119	Van Buren St	SEC0000282	Ford St	Willow Rd	177	22	3,887	AC	91	Good
Marengo	VANBU00119	Van Buren St	SEC0000283	Artell St	Grave St	286	18	5,152	AC	31	Very Poor
Marengo	VANBU00119	Van Buren St	SEC0000284	Willow Rd	Ann St	144	22	3,164	AC	88	Good
Marengo	VILLA00120	Village Cir	SEC0000146	Center Dr	Village Ct	858	30	25,749	AC	59	Fair
Marengo	VILLA00120	Village Cir	SEC0000147	Center Dr	Village Ct	603	30	18,084	AC	60	Fair
Marengo	VILLA00121	Village Ct	SEC0000148	Village Cir	Street end	240	34	8,161	AC	65	Fair
Marengo	WALNU00122	Walnut Ct	SEC0000108	Cottonwood Ln	Street end	434	28	12,142	AC	24	Serious
Marengo	WALNU00123	Walnut Ln	SEC0000107	Kishwaukee	Cottonwood Ln	800	28	22,397	AC	29	Very Poor
Marengo	WASHI00124	Washington St	SEC0000013	State St	Taylor St	404	40	16,171	AC	57	Fair
Marengo	WASHI00124	Washington St	SEC0000350	Taylor St	Page St	345	26	8,971	AC	39	Very Poor
Marengo	WASHI00124	Washington St	SEC0000351	East St	Sullivan St	371	26	9,657	AC	36	Very Poor
Marengo	WASHI00124	Washington St	SEC0000352	Clark St	East St	299	26	7,786	AC	36	Very Poor
Marengo	WASHI00124	Washington St	SEC0000353	Page St	Clark St	335	26	8,699	AC	38	Very Poor

Table A-1. 2021 PCI by road segment (continued).

NetworkID	BranchID	Branch Name	SectionID	From	To	Length	Width	Area	Surface Type	PCI	PCI Category
Marengo	WASHI00124	Washington St	SEC0000354	Sullivan St	Locust St	1,122	26	29,167	AC	47	Poor
Marengo	WASHI00124	Washington St	SEC0000355	Locust St	Locust St	116	26	3,011	AC	43	Poor
Marengo	WASHI00124	Washington St	SEC0000356	School Ct	Prospect St	208	26	5,407	AC	70	Fair
Marengo	WASHI00124	Washington St	SEC0000357	Locust St	School Ct	304	26	7,893	AC	45	Poor
Marengo	WASHI00124	Washington St	SEC0000383	West St	Sponable St	868	26	22,559	AC	27	Very Poor
Marengo	WASHI00124	Washington St	SEC0000384	Ford St	Ann St	322	26	8,380	AC	30	Very Poor
Marengo	WASHI00124	Washington St	SEC0000385	Ann St	State St	320	40	12,793	AC	54	Poor
Marengo	WASHI00124	Washington St	SEC0000386	Dietz St	Ford St	341	26	8,874	AC	32	Very Poor
Marengo	WASHI00124	Washington St	SEC0000387	Sponable St	Dietz St	520	26	13,509	AC	26	Very Poor
Marengo	WESTS00125	West St	SEC0000236	Prairie St	Railroad St	1,107	24	26,562	AC	36	Very Poor
Marengo	WESTS00125	West St	SEC0000237	Grant Hwy	Washington St	357	24	8,578	AC	40	Very Poor
Marengo	WESTS00125	West St	SEC0000238	Washington St	Prairie St	314	24	7,545	AC	46	Poor
Marengo	WHITE00126	White Tail Dr	SEC0000136	Cascade Dr	Street end	163	32	5,223	AC	78	Satisfactory
Marengo	WHITE00126	White Tail Dr	SEC0000137	Beaver Pond Dr	White Tail Pl	599	32	19,160	AC	57	Fair
Marengo	WHITE00126	White Tail Dr	SEC0000138	White Tail Pl	Cascade Dr	887	32	28,368	AC	91	Good
Marengo	WHITE00127	White Tail Pl	SEC0000139	White Tail Dr	Street end	162	40	6,468	AC	99	Good
Marengo	WILLO00128	Willow Rd	SEC0000229	Railroad St	Van Buren St	519	26	13,503	AC	17	Serious
Marengo	WILLO00128	Willow Rd	SEC0000230	Van Buren St	Street end	1,097	26	28,525	AC	82	Satisfactory
Marengo	WOODB00129	Woodbine Dr	SEC0000096	Cottonwood Ln	Street end	373	22	8,208	AC	29	Very Poor
Marengo	WOODB00129	Woodbine Dr	SEC0000097	Eighth Ave		309	32	9,880	AC	23	Serious
Marengo	WOODB00129	Woodbine Dr	SEC0000098	Foxglove Ln	Cottonwood Ln	575	32	18,406	AC	34	Very Poor
Marengo	WOODB00129	Woodbine Dr	SEC0000099	Cottonwood Ln	Street end	487	32	15,592	AC	29	Very Poor
Marengo	WOODL00130	Woodland Ct	SEC0000114	Woodland Ln	Street end	166	44	7,323	AC	29	Very Poor
Marengo	WOODL00131	Woodland Ln	SEC0000109	Kishwaukee	Cottonwood Ln	942	28	26,378	AC	25	Serious
Marengo	WOODL00131	Woodland Ln	SEC0000110	Woodland Ct	Prospect St	149	32	4,772	AC	25	Serious
Marengo	WOODL00131	Woodland Ln	SEC0000111	Woodland Ct	Prospect St	95	22	2,096	AC	13	Serious
Marengo	WOODL00131	Woodland Ln	SEC0000112	Cottonwood Ln		401	32	12,821	AC	27	Very Poor
Marengo	WOODL00131	Woodland Ln	SEC0000113	Prospect St	Beaver Pond Pl	102	22	2,241	AC	33	Very Poor

\* Construction work was ongoing at the time the data collection vehicle was in Marengo, unable to collect data.



**APPENDIX B – CURRENT FUNDING WORK NEEDS PROJECTION**

Table B-1. Recommended Major M&amp;R by Year.

Year	Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	Cost	Work Type
2022	Marengo	BUTTO00014	SEC0000104	12,180.	49.97	\$25,579.34	Mill and Overlay
2022	Marengo	MAPLE00073	SEC0000408	22,632.	27.97	\$59,999.48	Mill and Overlay
2022	Marengo	MAPLE00073	SEC0000409	10,704.	12.97	\$32,389.81	Mill and Overlay
2022	Marengo	MAPLE00073	SEC0000411	8,856.	36.97	\$14,752.47	Mill and Overlay
2022	Marengo	MAPLE00073	SEC0000433	4,464.	14.97	\$13,284.74	Mill and Overlay
2022	Marengo	RANDA00090	SEC0000376	2,320.	46.97	\$3,190.85	Mill and Overlay
2023	Marengo	ANNST00002	SEC0000263	14,240.	49.34	\$19,887.82	Mill and Overlay
2023	Marengo	FORDS00038	SEC0000235	6,780.	48.34	\$9,365.06	Mill and Overlay
2023	Marengo	FORES00039	SEC0000362	1,736.	32.34	\$3,114.55	Mill and Overlay
2023	Marengo	HALES00051	SEC0000199	6,908.	49.34	\$9,363.59	Mill and Overlay
2023	Marengo	MARYC00075	SEC0000373	4,488.	48.34	\$9,896.80	Mill and Overlay
2023	Marengo	PRAIR00085	SEC0000348	25,146.	47.34	\$35,382.32	Mill and Overlay
2023	Marengo	PROSP00086	SEC0000001	9,078.	14.34	\$22,361.87	Mill and Overlay
2023	Marengo	PROSP00086	SEC0000002	7,896.	6.34	\$113,856.73	Reconstruction
2023	Marengo	PROSP00086	SEC0000003	38,304.	10.34	\$396,127.80	Reconstruction
2023	Marengo	PROSP00086	SEC000000A	23,392.	8.34	\$337,302.02	Reconstruction
2023	Marengo	TAYLO00111	SEC0000009	10,656.	49.34	\$23,223.28	Mill and Overlay
2023	Marengo	VANBU00119	SEC0000278	8,580.	49.34	\$11,629.93	Mill and Overlay
2023	Marengo	WASHI00124	SEC0000385	12,800.	49.34	\$27,895.83	Mill and Overlay
2024	Marengo	EASTS00032	SEC0000152	1,608.	17.71	\$3,595.41	Mill and Overlay
2024	Marengo	PRAIR00085	SEC0000012	17,748.	49.71	\$39,665.29	Mill and Overlay
2024	Marengo	TAYLO00111	SEC0000005	7,320.	48.71	\$16,554.09	Mill and Overlay
2024	Marengo	TAYLO00111	SEC0000190	7,680.	48.71	\$10,850.91	Mill and Overlay
2024	Marengo	WASHI00124	SEC0000013	16,160.	49.71	\$36,116.25	Mill and Overlay
2024	Marengo	WHITE00126	SEC0000137	19,168.	49.71	\$42,838.87	Mill and Overlay
2025	Marengo	ANNST00002	SEC0000262	11,304.	48.07	\$26,528.85	Mill and Overlay
2025	Marengo	BUTTO00015	SEC0000103	13,888.	49.07	\$32,212.88	Mill and Overlay
2025	Marengo	HALES00051	SEC0000194	6,640.	48.07	\$10,648.87	Mill and Overlay
2025	Marengo	MAPLE00073	SEC0000407	7,152.	48.07	\$16,784.71	Mill and Overlay
2025	Marengo	VILLA00120	SEC0000146	25,740.	49.07	\$59,703.30	Mill and Overlay
2026	Marengo	MAPLE00073	SEC0000410	15,912.	47.44	\$25,851.61	Mill and Overlay
2026	Marengo	PRAIR00085	SEC0000346	8,688.	48.44	\$13,088.78	Mill and Overlay
2026	Marengo	RAILR00088	SEC0000340	8,112.	45.44	\$15,831.62	Mill and Overlay
2026	Marengo	RAILR00088	SEC0000341	8,502.	49.44	\$12,568.90	Mill and Overlay
2026	Marengo	RILEY00092	SEC0000214	6,600.	47.44	\$10,129.26	Mill and Overlay
2026	Marengo	TAYLO00111	SEC0000011	8,476.	49.44	\$20,161.31	Mill and Overlay
2026	Marengo	VANBU00119	SEC0000279	2,669.	30.44	\$5,375.46	Mill and Overlay
2026	Marengo	VILLA00120	SEC0000147	18,090.	47.44	\$44,049.62	Mill and Overlay
2027	Marengo	PRAIR00085	SEC0000349	18,420.	48.81	\$28,384.92	Mill and Overlay
2027	Marengo	RILEY00092	SEC0000215	6,424.	47.81	\$10,085.87	Mill and Overlay

Table B-1. Recommended Major M&amp;R by Year (continued).

Year	Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	Cost	Work Type
2027	Marengo	STANF00107	SEC0000247	6,576.	48.81	\$10,133.51	Mill and Overlay
2027	Marengo	TAYLO00111	SEC0000007	14,742.	48.81	\$30,924.71	Mill and Overlay
2027	Marengo	THORN00113	SEC0000423	32,088.	49.81	\$48,515.38	Mill and Overlay
2027	Marengo	VILLA00121	SEC0000148	8,160.	49.81	\$19,904.24	Mill and Overlay
2028	Marengo	CASCA00017	SEC0000140	7,168.	49.18	\$18,144.14	Mill and Overlay
2028	Marengo	FORES00039	SEC0000361	15,930.	45.18	\$27,014.15	Mill and Overlay
2028	Marengo	HALES00051	SEC0000198	6,340.	37.18	\$12,268.49	Mill and Overlay
2028	Marengo	PRAIR00085	SEC0000344	9,960.	48.18	\$25,509.43	Mill and Overlay
2028	Marengo	RILEY00092	SEC0000213	6,020.	45.18	\$10,208.74	Mill and Overlay
2028	Marengo	SULLI00109	SEC0000206	5,940.	38.18	\$11,316.74	Mill and Overlay
2028	Marengo	TAYLO00111	SEC0000006	8,476.	49.18	\$19,433.13	Mill and Overlay
2028	Marengo	TAYLO00111	SEC0000010	8,736.	48.18	\$20,290.02	Mill and Overlay
2029	Marengo	FIRST00037	SEC0000293	2,574.	47.54	\$4,308.78	Mill and Overlay
2029	Marengo	FORES00039	SEC0000391	8,000.	27.54	\$18,319.56	Mill and Overlay
2029	Marengo	HICKO00053	SEC0000100	16,100.	39.54	\$46,757.64	Mill and Overlay
2029	Marengo	PAGES00081	SEC0000182	8,346.	47.54	\$16,029.54	Mill and Overlay
2029	Marengo	PRAIR00085	SEC0000345	8,554.	47.54	\$14,319.08	Mill and Overlay
2029	Marengo	UNKNO00118	SEC0000092	13,884.	49.54	\$36,044.44	Mill and Overlay
2029	Marengo	WASHI00124	SEC0000356	5,408.	49.54	\$14,039.78	Mill and Overlay
2030	Marengo	ARTEL00004	SEC0000222	14,592.	31.91	\$32,396.59	Mill and Overlay
2030	Marengo	BUTTO00015	SEC0000102	11,232.	32.91	\$35,961.68	Mill and Overlay
2030	Marengo	JACKS00056	SEC0000267	6,380.	47.91	\$10,925.42	Mill and Overlay
2030	Marengo	MAPLE00074	SEC0000074	2,002.	49.91	\$5,329.85	Mill and Overlay
2030	Marengo	SEVEN00099	SEC0000327	8,710.	49.91	\$14,362.62	Mill and Overlay
2030	Marengo	THIRD00112	SEC0000304	6,400.	23.91	\$15,830.81	Mill and Overlay
2030	Marengo	UNKNO00118	SEC0000090	6,552.	47.91	\$17,859.00	Mill and Overlay
2030	Marengo	UNKNO00118	SEC0000093	6,266.	48.91	\$16,880.55	Mill and Overlay
2031	Marengo	COURT00027	SEC0000042	11,832.	48.28	\$33,075.25	Mill and Overlay
2031	Marengo	COURT00027	SEC0000044	12,920.	49.28	\$35,694.27	Mill and Overlay
2031	Marengo	HICKO00052	SEC0000101	11,984.	49.28	\$33,108.37	Mill and Overlay
2031	Marengo	LURAL00069	SEC0000024	3,926.	17.28	\$14,948.81	Mill and Overlay
2031	Marengo	TAYLO00111	SEC0000008	11,674.	48.28	\$32,633.58	Mill and Overlay

Table B-2. Recommended Localized and Stopgap Maintenance.

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	ANNST00002	SEC0000262	11,304	58	65	\$263.79	Localized Preventive
Marengo	ANNST00002	SEC0000263	14,240	54	62	\$427.90	Localized Preventive
Marengo	ARTEL00004	SEC0000222	14,592	55	67	\$669.62	Localized Preventive
Marengo	BUTTO00014	SEC0000104	12,180	52	64	\$665.02	Localized Preventive
Marengo	BUTTO00015	SEC0000102	11,232	56	74	\$816.74	Localized Preventive
Marengo	BUTTO00015	SEC0000103	13,888	59	72	\$630.69	Localized Preventive
Marengo	CASCA00017	SEC0000140	7,168	67	68	\$16.86	Localized Preventive
Marengo	COTTO00026	SEC0000134	13,248	51	72	\$1,823.19	Localized Preventive
Marengo	COURT00027	SEC0000042	11,832	74	74	\$5.82	Localized Preventive
Marengo	COURT00027	SEC0000043	24,106	82	82	\$16.79	Localized Preventive
Marengo	COURT00027	SEC0000044	12,920	75	75	\$2.30	Localized Preventive
Marengo	COURT00027	SEC0000045	14,552	88	89	\$41.76	Localized Preventive
Marengo	FORDS00038	SEC0000232	13,650	51	61	\$548.53	Localized Preventive
Marengo	FORDS00038	SEC0000235	6,780	53	70	\$699.69	Localized Preventive
Marengo	FORES00039	SEC0000361	15,930	63	87	\$1,183.85	Localized Preventive
Marengo	GREEN00050	SEC0000095	86,148	100	100	\$10.12	Localized Preventive
Marengo	HALES00051	SEC0000194	6,640	58	68	\$235.44	Localized Preventive
Marengo	HALES00051	SEC0000198	6,340	55	75	\$464.34	Localized Preventive
Marengo	HALES00051	SEC0000199	6,908	54	73	\$658.94	Localized Preventive
Marengo	HICKO00052	SEC0000101	11,984	75	78	\$154.32	Localized Preventive
Marengo	HICKO00053	SEC0000100	16,100	60	74	\$925.00	Localized Preventive
Marengo	JACKS00056	SEC0000267	6,380	71	78	\$150.27	Localized Preventive
Marengo	JACKS00056	SEC0000271	9,576	78	80	\$36.72	Localized Preventive
Marengo	KEPPL00063	SEC0000402	7,872	52	76	\$858.66	Localized Preventive
Marengo	MAPLE00073	SEC0000407	7,152	58	70	\$199.96	Localized Preventive
Marengo	MAPLE00073	SEC0000410	15,912	60	61	\$2.41	Localized Preventive
Marengo	MAPLE00074	SEC0000072	23,686	88	87	\$7.65	Localized Preventive
Marengo	MAPLE00074	SEC0000073	8,086	79	79	\$0.74	Localized Preventive
Marengo	MAPLE00074	SEC0000074	2,002	73	73	\$1.03	Localized Preventive
Marengo	MARYC00075	SEC0000373	4,488	53	64	\$248.49	Localized Preventive
Marengo	MILDR00078	SEC0000086	27,200	82	82	\$19.96	Localized Preventive
Marengo	PAGES00081	SEC0000182	8,346	68	78	\$291.38	Localized Preventive
Marengo	PARTR00083	SEC0000416	5,160	84	84	\$5.17	Localized Preventive
Marengo	PARTR00083	SEC0000417	29,880	89	90	\$31.59	Localized Preventive
Marengo	PRAIR00085	SEC0000012	17,748	57	66	\$683.94	Localized Preventive
Marengo	PRAIR00085	SEC0000344	9,960	66	69	\$142.49	Localized Preventive
Marengo	PRAIR00085	SEC0000345	8,554	68	78	\$251.68	Localized Preventive
Marengo	PRAIR00085	SEC0000346	8,688	61	68	\$245.58	Localized Preventive
Marengo	PRAIR00085	SEC0000347	6,900	79	81	\$22.94	Localized Preventive
Marengo	PRAIR00085	SEC0000348	25,146	52	68	\$1,418.77	Localized Preventive

Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	PRAIR00085	SEC0000349	18,420	64	76	\$803.35	Localized Preventive
Marengo	PRAIR00085	SEC0000382	7,722	55	65	\$375.77	Localized Preventive
Marengo	PROSP00086	SEC0000004	33,402	84	84	\$16.03	Localized Preventive
Marengo	PROSP00086	SEC000000B	17,664	98	98	\$1.54	Localized Preventive
Marengo	QUAIL00087	SEC0000418	3,264	88	88	\$1.35	Localized Preventive
Marengo	RAILR00088	SEC0000340	8,112	58	67	\$301.08	Localized Preventive
Marengo	RAILR00088	SEC0000341	8,502	62	79	\$633.25	Localized Preventive
Marengo	RILEY00092	SEC0000212	17,820	76	78	\$137.38	Localized Preventive
Marengo	RILEY00092	SEC0000213	6,020	63	72	\$202.15	Localized Preventive
Marengo	RILEY00092	SEC0000214	6,600	60	66	\$206.13	Localized Preventive
Marengo	RILEY00092	SEC0000215	6,424	63	70	\$155.75	Localized Preventive
Marengo	RILEY00092	SEC0000216	6,980	76	77	\$15.93	Localized Preventive
Marengo	SEVEN00099	SEC0000327	8,710	73	78	\$133.12	Localized Preventive
Marengo	STANF00107	SEC0000247	6,576	64	75	\$319.11	Localized Preventive
Marengo	SULLI00109	SEC0000206	5,940	56	79	\$652.53	Localized Preventive
Marengo	SUNSE00110	SEC0000231	29,656	93	93	\$0.94	Localized Preventive
Marengo	TAYLO00111	SEC0000005	7,320	56	68	\$318.62	Localized Preventive
Marengo	TAYLO00111	SEC0000006	8,476	67	73	\$175.86	Localized Preventive
Marengo	TAYLO00111	SEC0000007	14,742	64	67	\$208.14	Localized Preventive
Marengo	TAYLO00111	SEC0000008	11,674	74	80	\$211.19	Localized Preventive
Marengo	TAYLO00111	SEC0000009	10,656	54	62	\$327.61	Localized Preventive
Marengo	TAYLO00111	SEC0000010	8,736	66	80	\$398.23	Localized Preventive
Marengo	TAYLO00111	SEC0000011	8,476	62	65	\$149.28	Localized Preventive
Marengo	TAYLO00111	SEC0000189	8,580	90	90	\$1.21	Localized Preventive
Marengo	TAYLO00111	SEC0000190	7,680	56	72	\$546.83	Localized Preventive
Marengo	THORN00113	SEC0000423	32,088	65	68	\$427.61	Localized Preventive
Marengo	UNKNO00114	SEC0000070	6,682	78	78	\$1.47	Localized Preventive
Marengo	UNKNO00116	SEC0000076	27,690	74	74	\$13.48	Localized Preventive
Marengo	UNKNO00117	SEC0000077	13,952	80	80	\$3.77	Localized Preventive
Marengo	UNKNO00118	SEC0000090	6,552	71	73	\$10.98	Localized Preventive
Marengo	UNKNO00118	SEC0000091	6,006	81	82	\$18.49	Localized Preventive
Marengo	UNKNO00118	SEC0000092	13,884	70	70	\$1.52	Localized Preventive
Marengo	UNKNO00118	SEC0000093	6,266	72	74	\$13.10	Localized Preventive
Marengo	UNKNO00118	SEC0000094	6,812	87	87	\$0.09	Localized Preventive
Marengo	VANBU00119	SEC0000278	8,580	54	66	\$527.25	Localized Preventive
Marengo	VILLA00120	SEC0000146	25,740	59	78	\$2,410.34	Localized Preventive
Marengo	VILLA00120	SEC0000147	18,090	60	77	\$1,270.48	Localized Preventive
Marengo	VILLA00121	SEC0000148	8,160	65	80	\$552.56	Localized Preventive
Marengo	WASHI00124	SEC0000013	16,160	57	60	\$281.32	Localized Preventive
Marengo	WASHI00124	SEC0000356	5,408	70	77	\$120.69	Localized Preventive

Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	WASHI00124	SEC0000385	12,800	54	65	\$608.17	Localized Preventive
Marengo	WHITE00126	SEC0000136	5,216	78	80	\$8.56	Localized Preventive
Marengo	WHITE00126	SEC0000137	19,168	57	74	\$1,552.39	Localized Preventive
Marengo	WHITE00127	SEC0000139	6,480	99	99	\$2.41	Localized Preventive
Marengo	WILLO00128	SEC0000230	28,522	82	82	\$0.71	Localized Preventive
Marengo	ADAMS00001	SEC0000336	7,968	30	37	\$505.24	Stopgap
Marengo	ADAMS00001	SEC0000337	7,848	14	26	\$1,001.85	Stopgap
Marengo	ANTHO00003	SEC0000431	96,288	25	30	\$8,733.04	Stopgap
Marengo	ANTHO00003	SEC0000432	63,384	31	31	\$130.85	Stopgap
Marengo	BEAVE00008	SEC0000115	3,762	9	11	\$4,767.41	Stopgap
Marengo	BEAVE00008	SEC0000116	19,680	8	13	\$17,096.16	Stopgap
Marengo	BEAVE00008	SEC0000117	7,520	5	16	\$4,293.60	Stopgap
Marengo	BEAVE00008	SEC0000118	1,870	13	18	\$1,551.93	Stopgap
Marengo	BEAVE00008	SEC0000119	3,872	8	12	\$7,756.84	Stopgap
Marengo	BEAVE00009	SEC0000120	7,700	11	22	\$3,479.30	Stopgap
Marengo	BEGGS00010	SEC0000016	7,038	11	22	\$3,809.39	Stopgap
Marengo	BLISS00011	SEC0000424	64,176	34	34	\$1,756.72	Stopgap
Marengo	BLISS00011	SEC0000425	62,496	10	18	\$46,698.44	Stopgap
Marengo	BRIDE00012	SEC0000398	10,656	28	38	\$526.75	Stopgap
Marengo	BROOK00013	SEC0000066	6,692	18	27	\$760.93	Stopgap
Marengo	CASCA00017	SEC0000142	2,376	8	23	\$1,595.65	Stopgap
Marengo	CENTE00019	SEC0000124	8,330	13	27	\$2,209.69	Stopgap
Marengo	CENTE00019	SEC0000125	4,522	10	22	\$659.04	Stopgap
Marengo	CENTE00019	SEC0000126	7,208	13	25	\$2,929.82	Stopgap
Marengo	CENTE00019	SEC0000419	7,072	17	27	\$954.08	Stopgap
Marengo	CHAPP00020	SEC0000388	9,000	44	45	\$73.98	Stopgap
Marengo	CHAPP00020	SEC0000389	15,168	13	24	\$13,137.20	Stopgap
Marengo	CHEST00021	SEC0000106	14,280	17	27	\$1,560.20	Stopgap
Marengo	CHEST00022	SEC0000105	20,356	23	24	\$488.75	Stopgap
Marengo	CIRCL00023	SEC0000394	5,558	28	36	\$603.95	Stopgap
Marengo	CLARK00024	SEC0000204	8,866	36	36	\$97.73	Stopgap
Marengo	COTTO00026	SEC0000131	14,112	11	25	\$5,174.34	Stopgap
Marengo	COTTO00026	SEC0000132	12,576	8	26	\$5,563.65	Stopgap
Marengo	COTTO00026	SEC0000133	13,184	36	37	\$532.85	Stopgap
Marengo	COURT00027	SEC0000033	10,584	20	23	\$1,176.02	Stopgap
Marengo	COURT00027	SEC0000035	8,164	22	22	\$255.41	Stopgap
Marengo	COURT00027	SEC0000036	33,480	19	19	\$1,230.26	Stopgap
Marengo	DIANE00028	SEC0000364	10,512	11	12	\$6,003.36	Stopgap
Marengo	DIETZ00029	SEC0000250	5,312	0	12	\$5,642.84	Stopgap
Marengo	DIETZ00029	SEC0000251	11,232	9	18	\$5,844.10	Stopgap

Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	DIETZ00029	SEC0000252	7,854	8	19	\$2,861.41	Stopgap
Marengo	DIETZ00029	SEC0000253	28,054	24	30	\$4,263.02	Stopgap
Marengo	DIETZ00029	SEC0000254	7,306	26	36	\$914.87	Stopgap
Marengo	DIETZ00029	SEC0000255	12,376	20	26	\$3,144.29	Stopgap
Marengo	DORAL00030	SEC0000022	25,740	20	27	\$2,377.13	Stopgap
Marengo	DORAL00030	SEC0000049	31,024	35	36	\$142.20	Stopgap
Marengo	DUNHA00031	SEC0000218	7,260	17	23	\$1,508.42	Stopgap
Marengo	EASTS00032	SEC0000152	1,608	25	31	\$96.22	Stopgap
Marengo	EASTS00032	SEC0000157	8,788	14	21	\$446.14	Stopgap
Marengo	EASTS00032	SEC0000158	9,240	11	18	\$11,600.76	Stopgap
Marengo	EASTS00032	SEC0000159	7,348	17	28	\$2,910.18	Stopgap
Marengo	EASTS00032	SEC0000160	7,992	35	47	\$534.59	Stopgap
Marengo	EASTS00032	SEC0000161	9,320	27	38	\$1,149.40	Stopgap
Marengo	EASTS00032	SEC0000162	8,260	13	38	\$73,750.11	Stopgap
Marengo	EASTS00032	SEC0000163	24,492	18	25	\$15,494.17	Stopgap
Marengo	EASTS00032	SEC0000164	8,580	36	36	\$108.60	Stopgap
Marengo	EASTS00032	SEC0000165	7,800	24	29	\$970.55	Stopgap
Marengo	EASTS00032	SEC0000166	6,420	14	26	\$3,955.80	Stopgap
Marengo	EASTS00032	SEC0000167	6,740	31	33	\$262.04	Stopgap
Marengo	EIGHT00033	SEC0000330	5,796	33	38	\$543.95	Stopgap
Marengo	EIGHT00033	SEC0000331	12,068	9	24	\$2,115.69	Stopgap
Marengo	EIGHT00033	SEC0000332	5,886	35	40	\$273.33	Stopgap
Marengo	EIGHT00033	SEC0000333	6,066	37	50	\$449.74	Stopgap
Marengo	EIGHT00033	SEC0000334	6,012	36	37	\$202.21	Stopgap
Marengo	EIGHT00033	SEC0000335	7,896	19	28	\$521.15	Stopgap
Marengo	ELMST00035	SEC0000205	26,214	30	32	\$1,526.37	Stopgap
Marengo	FIFTH00036	SEC0000313	7,128	9	16	\$10,102.31	Stopgap
Marengo	FIFTH00036	SEC0000314	9,810	40	44	\$286.86	Stopgap
Marengo	FIFTH00036	SEC0000316	7,848	38	43	\$143.27	Stopgap
Marengo	FIFTH00036	SEC0000317	7,194	12	23	\$6,501.11	Stopgap
Marengo	FIFTH00036	SEC0000318	9,268	35	44	\$444.68	Stopgap
Marengo	FORDS00038	SEC0000233	8,602	24	36	\$1,160.15	Stopgap
Marengo	FORES00039	SEC0000358	9,198	26	37	\$2,252.40	Stopgap
Marengo	FORES00039	SEC0000360	11,552	34	35	\$433.70	Stopgap
Marengo	FOUR00040	SEC0000307	7,680	35	39	\$306.39	Stopgap
Marengo	FOUR00040	SEC0000308	9,810	32	37	\$321.57	Stopgap
Marengo	FOUR00040	SEC0000309	9,352	47	50	\$148.55	Stopgap
Marengo	FOUR00040	SEC0000312	7,326	16	28	\$983.01	Stopgap
Marengo	FOXGL00042	SEC0000128	15,904	47	49	\$105.65	Stopgap
Marengo	FRANK00044	SEC0000414	16,992	37	40	\$229.99	Stopgap

Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	FRANK00044	SEC0000415	32,472	42	46	\$219.20	Stopgap
Marengo	GEORG00045	SEC0000368	10,320	38	40	\$90.12	Stopgap
Marengo	GEORG00045	SEC0000369	6,880	7	15	\$1,155.17	Stopgap
Marengo	GRACE00048	SEC0000150	8,190	13	20	\$6,658.20	Stopgap
Marengo	GRACE00048	SEC0000151	8,970	9	24	\$5,347.32	Stopgap
Marengo	GRACE00048	SEC0000220	1,836	8	39	\$6,727.08	Stopgap
Marengo	GRACE00048	SEC0000221	9,020	12	28	\$13,714.28	Stopgap
Marengo	GRANG00049	SEC0000427	67,440	24	29	\$2,836.16	Stopgap
Marengo	GRANG00049	SEC0000428	52,776	41	43	\$748.44	Stopgap
Marengo	GRANG00049	SEC0000429	64,176	28	28	\$1,263.81	Stopgap
Marengo	GREEN00050	SEC0000265	12,260	18	30	\$8,252.66	Stopgap
Marengo	GREEN00050	SEC0000266	6,360	17	28	\$2,481.78	Stopgap
Marengo	HALES00051	SEC0000191	8,016	36	35	\$130.05	Stopgap
Marengo	HALES00051	SEC0000192	7,458	14	32	\$1,338.30	Stopgap
Marengo	HALES00051	SEC0000195	7,238	31	45	\$790.30	Stopgap
Marengo	HALES00051	SEC0000196	8,502	20	30	\$1,721.36	Stopgap
Marengo	HALES00051	SEC0000197	7,348	41	41	\$13.99	Stopgap
Marengo	HALES00051	SEC0000200	8,184	33	37	\$82.96	Stopgap
Marengo	HALES00051	SEC0000201	7,680	29	32	\$474.40	Stopgap
Marengo	HUNTE00054	SEC0000089	9,688	25	25	\$33.12	Stopgap
Marengo	JACKS00055	SEC0000426	54,168	13	26	\$10,733.90	Stopgap
Marengo	JACKS00056	SEC0000268	14,360	9	11	\$26,059.73	Stopgap
Marengo	JACKS00056	SEC0000269	8,086	11	15	\$10,672.98	Stopgap
Marengo	JACKS00056	SEC0000270	13,440	18	20	\$4,770.97	Stopgap
Marengo	JACKS00056	SEC0000272	7,896	11	18	\$12,343.71	Stopgap
Marengo	JAMES00058	SEC0000370	15,696	27	29	\$602.00	Stopgap
Marengo	JOHNS00059	SEC0000014	31,948	38	38	\$75.97	Stopgap
Marengo	KENNE00061	SEC0000015	38,726	26	34	\$2,994.88	Stopgap
Marengo	KENTS00062	SEC0000018	5,360	8	11	\$6,397.53	Stopgap
Marengo	KISHW00065	SEC0000223	11,064	13	22	\$4,182.66	Stopgap
Marengo	KISHW00065	SEC0000224	9,630	36	36	\$25.84	Stopgap
Marengo	KISHW00065	SEC0000225	7,968	36	37	\$131.90	Stopgap
Marengo	KISHW00065	SEC0000228	8,632	31	31	\$152.68	Stopgap
Marengo	LINDO00067	SEC0000413	59,256	40	41	\$387.86	Stopgap
Marengo	LOCUS00068	SEC0000207	13,980	49	50	\$33.21	Stopgap
Marengo	LOCUS00068	SEC0000208	25,012	28	28	\$884.96	Stopgap
Marengo	LOCUS00068	SEC0000209	16,380	27	27	\$142.99	Stopgap
Marengo	LOCUS00068	SEC0000210	6,996	42	42	\$217.80	Stopgap
Marengo	LYNNA00070	SEC0000031	9,280	25	25	\$79.14	Stopgap
Marengo	MALLA00072	SEC0000121	2,948	9	24	\$2,231.39	Stopgap



Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	MALLA00072	SEC0000122	13,568	14	20	\$8,034.99	Stopgap
Marengo	MALLA00072	SEC0000435	9,376	7	16	\$2,698.50	Stopgap
Marengo	MAPLE00073	SEC0000409	10,704	15	18	\$324.51	Stopgap
Marengo	MAPLE00073	SEC0000411	8,856	39	43	\$121.57	Stopgap
Marengo	MAPLE00073	SEC0000433	4,464	17	21	\$145.23	Stopgap
Marengo	MEYER00077	SEC0000421	116,616	17	29	\$20,122.59	Stopgap
Marengo	MEYER00077	SEC0000422	10,896	8	19	\$5,119.89	Stopgap
Marengo	MILDR00078	SEC0000081	11,900	27	28	\$77.62	Stopgap
Marengo	MILDR00078	SEC0000082	15,878	23	25	\$75.80	Stopgap
Marengo	MILDR00078	SEC0000083	10,098	23	23	\$162.79	Stopgap
Marengo	MILDR00078	SEC0000085	9,996	16	25	\$1,334.46	Stopgap
Marengo	OCONE00080	SEC0000406	47,232	14	27	\$25,764.02	Stopgap
Marengo	PAGES00081	SEC0000168	7,848	17	25	\$4,902.31	Stopgap
Marengo	PAGES00081	SEC0000170	3,520	2	22	\$2,675.65	Stopgap
Marengo	PAGES00081	SEC0000173	8,684	35	40	\$205.67	Stopgap
Marengo	PAGES00081	SEC0000174	13,500	15	19	\$6,459.14	Stopgap
Marengo	PAGES00081	SEC0000175	7,392	23	29	\$365.60	Stopgap
Marengo	PAGES00081	SEC0000176	7,992	23	34	\$825.37	Stopgap
Marengo	PAGES00081	SEC0000177	9,570	23	30	\$774.99	Stopgap
Marengo	PAGES00081	SEC0000179	11,304	17	28	\$1,904.16	Stopgap
Marengo	PAGES00081	SEC0000180	7,282	12	19	\$3,423.95	Stopgap
Marengo	PAGES00081	SEC0000181	6,740	10	26	\$4,211.56	Stopgap
Marengo	PARKD00082	SEC0000240	15,840	20	32	\$1,009.28	Stopgap
Marengo	PARKD00082	SEC0000241	19,370	26	32	\$604.94	Stopgap
Marengo	PARKD00082	SEC0000242	10,248	22	30	\$336.24	Stopgap
Marengo	PARKD00082	SEC0000243	3,420	6	27	\$454.64	Stopgap
Marengo	PLEAS00084	SEC0000404	22,000	38	38	\$95.86	Stopgap
Marengo	PLEAS00084	SEC0000405	38,960	33	33	\$336.09	Stopgap
Marengo	PRAIR00085	SEC0000379	19,162	23	26	\$650.03	Stopgap
Marengo	PRAIR00085	SEC0000380	6,920	26	31	\$315.72	Stopgap
Marengo	PRAIR00085	SEC0000381	23,856	27	32	\$668.96	Stopgap
Marengo	PROSP00086	SEC0000001	9,078	19	40	\$6,122.29	Stopgap
Marengo	PROSP00086	SEC0000002	7,896	11	15	\$5,502.56	Stopgap
Marengo	PROSP00086	SEC0000003	38,304	15	18	\$16,479.70	Stopgap
Marengo	PROSP00086	SEC000000A	23,392	13	11	\$13,505.94	Stopgap
Marengo	PROSP00086	SEC0000135	23,200	39	41	\$808.32	Stopgap
Marengo	RAILR00088	SEC0000338	44,304	12	6	\$27,854.64	Stopgap
Marengo	RAILR00088	SEC0000339	10,200	14	17	\$988.03	Stopgap
Marengo	RAILR00088	SEC0000342	11,264	18	29	\$2,832.67	Stopgap
Marengo	RAILR00088	SEC0000343	12,680	17	23	\$2,223.46	Stopgap

Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	RAILR00088	SEC0000403	6,168	10	21	\$2,226.33	Stopgap
Marengo	RAINB00089	SEC0000145	3,740	27	28	\$120.84	Stopgap
Marengo	RANDA00090	SEC0000374	16,978	37	37	\$199.06	Stopgap
Marengo	RANDA00090	SEC0000377	6,700	36	36	\$136.69	Stopgap
Marengo	RIDGE00091	SEC0000047	36,736	31	31	\$194.92	Stopgap
Marengo	ROWLA00093	SEC0000244	9,856	30	36	\$20.75	Stopgap
Marengo	SCHOO00097	SEC0000211	5,918	21	25	\$444.08	Stopgap
Marengo	SECON00098	SEC0000295	7,062	33	35	\$176.55	Stopgap
Marengo	SECON00098	SEC0000297	8,710	27	29	\$297.22	Stopgap
Marengo	SECON00098	SEC0000298	8,502	30	30	\$23.13	Stopgap
Marengo	SECON00098	SEC0000300	7,326	20	20	\$31.89	Stopgap
Marengo	SEVEN00099	SEC0000325	7,194	23	25	\$543.18	Stopgap
Marengo	SEVEN00099	SEC0000326	8,658	8	20	\$2,045.53	Stopgap
Marengo	SEVEN00099	SEC0000328	7,216	15	19	\$634.50	Stopgap
Marengo	SEVEN00100	SEC0000329	29,580	33	31	\$424.09	Stopgap
Marengo	SHADY00101	SEC0000149	9,680	44	48	\$64.39	Stopgap
Marengo	SIXTH00102	SEC0000319	8,476	28	28	\$76.83	Stopgap
Marengo	SIXTH00102	SEC0000320	7,848	24	24	\$62.95	Stopgap
Marengo	SIXTH00102	SEC0000321	6,680	15	22	\$448.64	Stopgap
Marengo	SIXTH00102	SEC0000322	6,012	30	30	\$75.24	Stopgap
Marengo	SOUTH00104	SEC0000393	7,678	12	23	\$3,888.08	Stopgap
Marengo	SPONA00105	SEC0000245	14,740	31	33	\$367.85	Stopgap
Marengo	SPONA00105	SEC0000246	7,824	37	39	\$29.45	Stopgap
Marengo	SPRIN00106	SEC0000053	11,616	38	40	\$68.98	Stopgap
Marengo	SPRIN00106	SEC0000058	10,770	31	31	\$102.68	Stopgap
Marengo	SPRIN00106	SEC0000060	9,000	28	28	\$231.07	Stopgap
Marengo	STANF00107	SEC0000248	35,136	27	36	\$2,913.49	Stopgap
Marengo	STEVE00108	SEC0000285	11,040	15	30	\$1,253.34	Stopgap
Marengo	STEVE00108	SEC0000286	5,148	14	28	\$942.05	Stopgap
Marengo	STEVE00108	SEC0000287	4,640	17	29	\$536.40	Stopgap
Marengo	STEVE00108	SEC0000288	6,468	18	23	\$300.39	Stopgap
Marengo	TAYLO00111	SEC0000183	8,502	41	48	\$84.36	Stopgap
Marengo	TAYLO00111	SEC0000184	7,824	13	22	\$3,421.20	Stopgap
Marengo	TAYLO00111	SEC0000185	7,392	17	23	\$3,569.08	Stopgap
Marengo	TAYLO00111	SEC0000186	7,260	11	22	\$4,446.41	Stopgap
Marengo	TAYLO00111	SEC0000187	8,762	18	34	\$1,437.16	Stopgap
Marengo	THIRD00112	SEC0000301	5,778	13	14	\$4,445.24	Stopgap
Marengo	THIRD00112	SEC0000303	7,348	43	43	\$56.17	Stopgap
Marengo	THIRD00112	SEC0000304	6,400	47	48	\$53.77	Stopgap
Marengo	THIRD00112	SEC0000305	7,824	37	38	\$151.41	Stopgap

Table B-2. Recommended Localized and Stopgap Maintenance (continued).

Network ID	Branch ID	Section ID	True Area (Sq Ft)	PCI Before	PCI After	Cost	Policy
Marengo	THIRD00112	SEC0000306	7,992	12	15	\$6,154.34	Stopgap
Marengo	VANBU00119	SEC0000274	8,424	16	27	\$1,307.28	Stopgap
Marengo	VANBU00119	SEC0000277	5,472	19	22	\$169.67	Stopgap
Marengo	VANBU00119	SEC0000279	2,669	43	43	\$77.17	Stopgap
Marengo	WALNU00122	SEC0000108	12,152	24	26	\$66.42	Stopgap
Marengo	WALNU00123	SEC0000107	22,400	29	29	\$67.68	Stopgap
Marengo	WASHI00124	SEC0000350	8,970	39	40	\$64.32	Stopgap
Marengo	WASHI00124	SEC0000351	9,646	36	38	\$124.54	Stopgap
Marengo	WASHI00124	SEC0000352	7,774	36	37	\$137.81	Stopgap
Marengo	WASHI00124	SEC0000354	29,172	47	49	\$93.91	Stopgap
Marengo	WASHI00124	SEC0000383	22,568	27	27	\$885.71	Stopgap
Marengo	WASHI00124	SEC0000384	8,372	30	31	\$132.37	Stopgap
Marengo	WASHI00124	SEC0000387	13,520	26	26	\$176.26	Stopgap
Marengo	WESTS00125	SEC0000236	26,568	36	37	\$260.76	Stopgap
Marengo	WESTS00125	SEC0000237	8,568	40	41	\$64.23	Stopgap
Marengo	WESTS00125	SEC0000238	7,536	46	46	\$46.29	Stopgap
Marengo	WILLO00128	SEC0000229	13,494	17	28	\$1,494.44	Stopgap
Marengo	WOODB00129	SEC0000096	8,206	29	31	\$113.58	Stopgap
Marengo	WOODL00131	SEC0000109	26,376	25	27	\$2,001.87	Stopgap
Marengo	WOODL00131	SEC0000110	4,768	25	27	\$276.89	Stopgap
Marengo	WOODL00131	SEC0000111	2,090	13	34	\$880.66	Stopgap
Marengo	WOODL00131	SEC0000112	12,832	27	27	\$645.23	Stopgap

## **APPENDIX C – 2021 IRI SUMMARY**

Table C-1. IRI values by road segment.

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	ADAMS00001	SEC0000336	State St	Hale St	593	Rough (Over 400)
Marengo	ADAMS00001	SEC0000337	Hale St	Taylor St	622	Rough (Over 400)
Marengo	ANNST00002	SEC0000261	Washington St	Prairie St	162	Smooth (0 - 200)
Marengo	ANNST00002	SEC0000262	Grant Hwy	Washington St	256	Marginal (201 - 400)
Marengo	ANNST00002	SEC0000263	Chappel St	Grant Hwy	377	Marginal (201 - 400)
Marengo	ANNST00002	SEC0000264	Forest St	Chappel St	231	Marginal (201 - 400)
Marengo	ANTHO00003	SEC0000431	Riley Rd	IL-23	141	Smooth (0 - 200)
Marengo	ANTHO00003	SEC0000432	IL-23	Maple St	131	Smooth (0 - 200)
Marengo	ARTEL00004	SEC0000222	Van Buren St	Stevenson St	264	Marginal (201 - 400)
Marengo	AUTUM00005	SEC0000412	Street end	Maple St		IRI not Available
Marengo	BARBA00006	SEC0000395	Street end	Dietz St	254	Marginal (201 - 400)
Marengo	BAUMA00007	SEC0000064	Maple St	Meadow Ln	330	Marginal (201 - 400)
Marengo	BEAVE00008	SEC0000115	Prospect St	Prospect St	388	Marginal (201 - 400)
Marengo	BEAVE00008	SEC0000116	Beaver Pond Dr	White Tail Dr	471	Rough (Over 400)
Marengo	BEAVE00008	SEC0000117	White Tail Dr	Mallard Dr	334	Marginal (201 - 400)
Marengo	BEAVE00008	SEC0000118	White Tail Dr	Mallard Dr	692	Rough (Over 400)
Marengo	BEAVE00008	SEC0000119	Prospect St	Beaver Pond Pl	330	Marginal (201 - 400)
Marengo	BEAVE00009	SEC0000120	Beaver Pond Dr	Street end	503	Rough (Over 400)
Marengo	BEGGS00010	SEC0000016	Beggs Ln	Street end	474	Rough (Over 400)
Marengo	BLISS00011	SEC0000424	Jackson Rd	Pleasant Grove Rd	182	Smooth (0 - 200)
Marengo	BLISS00011	SEC0000425	Grange Rd	Jackson Rd	216	Marginal (201 - 400)
Marengo	BRIDE00012	SEC0000396	Tioga Trl	Johnson St	317	Marginal (201 - 400)
Marengo	BRIDE00012	SEC0000397	Kennedy St	Eisenhower Dr	317	Marginal (201 - 400)
Marengo	BRIDE00012	SEC0000398	Eisenhower Dr	Park Dr	230	Marginal (201 - 400)
Marengo	BRIDE00012	SEC0000399	Johnson St	Kennedy St	290	Marginal (201 - 400)
Marengo	BROOK00013	SEC0000065	Mildred Ln	Street end	266	Marginal (201 - 400)
Marengo	BROOK00013	SEC0000066	Mildred Ln	Street end	305	Marginal (201 - 400)
Marengo	BUTTO00014	SEC0000104	Cottonwood Ln	Street end	286	Marginal (201 - 400)
Marengo	BUTTO00015	SEC0000102	Kishwaukee St	Foxglove Ln	279	Marginal (201 - 400)
Marengo	BUTTO00015	SEC0000103	Foxglove Ln	Cottonwood Ln	261	Marginal (201 - 400)
Marengo	CAROL00016	SEC0000363	Maple St	Locust St	202	Marginal (201 - 400)
Marengo	CASCA00017	SEC0000140	White Tail Dr	Street end	299	Marginal (201 - 400)
Marengo	CASCA00017	SEC0000141	Cascade Pl	Beaver Pond Dr	108	Smooth (0 - 200)
Marengo	CASCA00017	SEC0000142	Cascade Pl	Beaver Pond Dr	499	Rough (Over 400)
Marengo	CASCA00017	SEC0000143	White Tail Dr	Cascade Pl	146	Smooth (0 - 200)
Marengo	CASCA00018	SEC0000144	Street end	Cascade Dr	219	Marginal (201 - 400)
Marengo	CENTE00019	SEC0000123	Telegraph St	Quail Ln	424	Rough (Over 400)
Marengo	CENTE00019	SEC0000124	Village Cir	Deerpass Rd	401	Rough (Over 400)
Marengo	CENTE00019	SEC0000125	Village Cir	Village Cir	429	Rough (Over 400)
Marengo	CENTE00019	SEC0000126	Mallard Dr	Village Cir	363	Marginal (201 - 400)
Marengo	CENTE00019	SEC0000419	Quail Ln	Mallard Dr	364	Marginal (201 - 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	CHAPP00020	SEC0000388	Stanford Dr	Dietz St	445	Rough (Over 400)
Marengo	CHAPP00020	SEC0000389	Dietz St	Ann St	617	Rough (Over 400)
Marengo	CHEST00021	SEC0000106	Cottonwood Ln	Street end	242	Marginal (201 - 400)
Marengo	CHEST00022	SEC0000105	Kishwaukee	Cottonwood Ln	302	Marginal (201 - 400)
Marengo	CIRCL00023	SEC0000394	Street end	State St	460	Rough (Over 400)
Marengo	CLARK00024	SEC0000203	Washington St	Prairie St	440	Rough (Over 400)
Marengo	CLARK00024	SEC0000204	Grant Hwy	Washington St	507	Rough (Over 400)
Marengo	COONC00025	SEC0000430	Coon Creek Rd	IL-23	113	Smooth (0 - 200)
Marengo	COTTO00026	SEC0000130	Hickory Ct	Woodbine Dr	212	Marginal (201 - 400)
Marengo	COTTO00026	SEC0000131	Walnut Ct	Chestnut Ct	361	Marginal (201 - 400)
Marengo	COTTO00026	SEC0000132	Woodland Ln	Walnut Ct	416	Rough (Over 400)
Marengo	COTTO00026	SEC0000133	Chestnut Ct	Buttonwood Ct	398	Marginal (201 - 400)
Marengo	COTTO00026	SEC0000134	Buttonwood Ct	Hickory Ln	310	Marginal (201 - 400)
Marengo	COURT00027	SEC0000033	Linda Ct	State St	270	Marginal (201 - 400)
Marengo	COURT00027	SEC0000034	Spring Dr	Street end	254	Marginal (201 - 400)
Marengo	COURT00027	SEC0000035	Joy Ct	Linda Ct	318	Marginal (201 - 400)
Marengo	COURT00027	SEC0000036	Spring Dr	Joy Ct	226	Marginal (201 - 400)
Marengo	COURT00027	SEC0000041	Street end	Maplewood Ln	325	Marginal (201 - 400)
Marengo	COURT00027	SEC0000042	Courtney Ln	Street end	273	Marginal (201 - 400)
Marengo	COURT00027	SEC0000043	Courtney Ln	Mildred Dr	217	Marginal (201 - 400)
Marengo	COURT00027	SEC0000044	Mildred Dr	Courtney Ln	224	Marginal (201 - 400)
Marengo	COURT00027	SEC0000045	Maplewood Dr	Courtney Ln	234	Marginal (201 - 400)
Marengo	DIANE00028	SEC0000364	Riley Dr	Mildred Dr	452	Rough (Over 400)
Marengo	DIETZ00029	SEC0000250	Grant Hwy	Washington St	953	Rough (Over 400)
Marengo	DIETZ00029	SEC0000251	Kent St	Chappel St	406	Rough (Over 400)
Marengo	DIETZ00029	SEC0000252	Chappel St	Grant Hwy	586	Rough (Over 400)
Marengo	DIETZ00029	SEC0000253	South St	Forest St	361	Marginal (201 - 400)
Marengo	DIETZ00029	SEC0000254	Forest St	Forest St	266	Marginal (201 - 400)
Marengo	DIETZ00029	SEC0000255	Forest St	Kent St	405	Rough (Over 400)
Marengo	DIETZ00029	SEC0000256	Barbara Ave	South St	446	Rough (Over 400)
Marengo	DIETZ00029	SEC0000257	South St	South St	416	Rough (Over 400)
Marengo	DORAL00030	SEC0000022	Spring Dr	Maple St	342	Marginal (201 - 400)
Marengo	DORAL00030	SEC0000049	Lura Ln	Spring Dr	340	Marginal (201 - 400)
Marengo	DUNHA00031	SEC0000218	James Ct	Georgeann Ct	549	Rough (Over 400)
Marengo	DUNHA00031	SEC0000219	Randall Ct	James Ct	238	Marginal (201 - 400)
Marengo	EASTS00032	SEC0000152	8th Ave	Street end	562	Rough (Over 400)
Marengo	EASTS00032	SEC0000153	Washington St	Prairie St	220	Marginal (201 - 400)
Marengo	EASTS00032	SEC0000154	Telegraph St	1st Ave	248	Marginal (201 - 400)
Marengo	EASTS00032	SEC0000156	Second Ave	Third Ave	331	Marginal (201 - 400)
Marengo	EASTS00032	SEC0000157	First Ave	Second Ave	184	Smooth (0 - 200)
Marengo	EASTS00032	SEC0000158	Greenlee St	Jackson St	285	Marginal (201 - 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	EASTS00032	SEC0000159	Third Ave	Fourth Ave	561	Rough (Over 400)
Marengo	EASTS00032	SEC0000160	Jackson St	Van Buren St	421	Rough (Over 400)
Marengo	EASTS00032	SEC0000161	Van Buren St	Stevenson St	497	Rough (Over 400)
Marengo	EASTS00032	SEC0000162	Grant Hwy	Washington St	524	Rough (Over 400)
Marengo	EASTS00032	SEC0000163	Prairie St	Greenlee St	433	Rough (Over 400)
Marengo	EASTS00032	SEC0000164	Fifth Ave	Sixth Ave	414	Rough (Over 400)
Marengo	EASTS00032	SEC0000165	Seventh Ave	Eighth Ave	272	Marginal (201 - 400)
Marengo	EASTS00032	SEC0000166	Fourth Ave	Fifth Ave	486	Rough (Over 400)
Marengo	EASTS00032	SEC0000167	Sixth Ave	Seventh Ave	343	Marginal (201 - 400)
Marengo	EIGHT00033	SEC0000330	State St	Hale St	445	Rough (Over 400)
Marengo	EIGHT00033	SEC0000331	East St	7th Cir	331	Marginal (201 - 400)
Marengo	EIGHT00033	SEC0000332	Taylor St	Page St	407	Rough (Over 400)
Marengo	EIGHT00033	SEC0000333	Page St	East St	479	Rough (Over 400)
Marengo	EIGHT00033	SEC0000334	Hale St	Taylor St	291	Marginal (201 - 400)
Marengo	EIGHT00033	SEC0000335	Seventh Cir	Woodbine Dr	473	Rough (Over 400)
Marengo	EISEN00034	SEC0000239	Keppler Dr	Briden Dr	171	Smooth (0 - 200)
Marengo	ELMST00035	SEC0000205	Forest St	Grant Hwy	287	Marginal (201 - 400)
Marengo	FIFTH00036	SEC0000313	State St	Hale St	451	Rough (Over 400)
Marengo	FIFTH00036	SEC0000314	East St	Kishwaukee St	366	Marginal (201 - 400)
Marengo	FIFTH00036	SEC0000315	Taylor St	Page St	393	Marginal (201 - 400)
Marengo	FIFTH00036	SEC0000316	Page St	East St	382	Marginal (201 - 400)
Marengo	FIFTH00036	SEC0000317	Hale St	Taylor St	394	Marginal (201 - 400)
Marengo	FIFTH00036	SEC0000318	Kishwaukee St	Foxglove Ln	472	Rough (Over 400)
Marengo	FIRST00037	SEC0000289	State St	Hale St	433	Rough (Over 400)
Marengo	FIRST00037	SEC0000290	Taylor St	Page St	217	Marginal (201 - 400)
Marengo	FIRST00037	SEC0000291	Page St	East St	264	Marginal (201 - 400)
Marengo	FIRST00037	SEC0000292	East St	Kishwaukee St	299	Marginal (201 - 400)
Marengo	FIRST00037	SEC0000293	Kishwaukee St	Street end	241	Marginal (201 - 400)
Marengo	FORDS00038	SEC0000232	Railroad St	Van Buren St	416	Rough (Over 400)
Marengo	FORDS00038	SEC0000233	Prairie St	Street end	351	Marginal (201 - 400)
Marengo	FORDS00038	SEC0000234	Grant Hwy	Washington St	388	Marginal (201 - 400)
Marengo	FORDS00038	SEC0000235	Washington St	Prairie St	591	Rough (Over 400)
Marengo	FORES00039	SEC0000017	Park Dr	Street end	464	Rough (Over 400)
Marengo	FORES00039	SEC0000358	Dietz St	Oak Manor Dr	398	Marginal (201 - 400)
Marengo	FORES00039	SEC0000359	State St	Page St	203	Marginal (201 - 400)
Marengo	FORES00039	SEC0000360	Ann St	State St	518	Rough (Over 400)
Marengo	FORES00039	SEC0000361	Elm St	Maple St	181	Smooth (0 - 200)
Marengo	FORES00039	SEC0000362	Oak Manor Dr	Ann St	553	Rough (Over 400)
Marengo	FORES00039	SEC0000391	Stanford Dr	Dietz St	251	Marginal (201 - 400)
Marengo	FORES00039	SEC0000434	Page St	Elm St	196	Smooth (0 - 200)
Marengo	FOURT00040	SEC0000307	State St	Hale St	572	Rough (Over 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	FOURT00040	SEC0000308	Kishwaukee	Cottonwood Ln	492	Rough (Over 400)
Marengo	FOURT00040	SEC0000309	East St	Kishwaukee St	365	Marginal (201 - 400)
Marengo	FOURT00040	SEC0000310	Taylor St	Page St	526	Rough (Over 400)
Marengo	FOURT00040	SEC0000311	Page St	East St	513	Rough (Over 400)
Marengo	FOURT00040	SEC0000312	Hale St	Taylor St	605	Rough (Over 400)
Marengo	FOXGL00041	SEC0000129	Woodbine Dr	Street end	359	Marginal (201 - 400)
Marengo	FOXGL00042	SEC0000127	Hickory Ln	Woodbine Dr	250	Marginal (201 - 400)
Marengo	FOXGL00042	SEC0000128	Buttonwood Ln	Hickory Ln	280	Marginal (201 - 400)
Marengo	FRANC00043	SEC0000366	Maple St	Locust St	213	Marginal (201 - 400)
Marengo	FRANK00044	SEC0000414	Lindow Ln	Street end	239	Marginal (201 - 400)
Marengo	FRANK00044	SEC0000415	Grant Hwy	Lindow Ln	242	Marginal (201 - 400)
Marengo	GEORG00045	SEC0000367	Locust St	Dunham Ct	227	Marginal (201 - 400)
Marengo	GEORG00045	SEC0000368	Riley Dr	Mildred Dr	244	Marginal (201 - 400)
Marengo	GEORG00045	SEC0000369	Dunham Ct	Riley Dr	361	Marginal (201 - 400)
Marengo	GERAL00046	SEC0000365	Riley Dr	Mildred Dr	516	Rough (Over 400)
Marengo	GRACE00047	SEC0000028	Street end	Spring Dr	394	Marginal (201 - 400)
Marengo	GRACE00047	SEC0000029	Street end	Spring Dr	496	Rough (Over 400)
Marengo	GRACE00048	SEC0000150	Jackson St	Van Buren St	287	Marginal (201 - 400)
Marengo	GRACE00048	SEC0000151	Greenlee St	Jackson St	434	Rough (Over 400)
Marengo	GRACE00048	SEC0000220	Stevenson St	Street end	417	Rough (Over 400)
Marengo	GRACE00048	SEC0000221	Van Buren St	Stevenson St	374	Marginal (201 - 400)
Marengo	GRANG00049	SEC0000427	Blissdale Rd	Riley Rd	211	Marginal (201 - 400)
Marengo	GRANG00049	SEC0000428	Blissdale Rd	Riley Rd	179	Smooth (0 - 200)
Marengo	GRANG00049	SEC0000429	Riley Rd	IL-23	167	Smooth (0 - 200)
Marengo	GREEN00050	SEC0000095	Prospect St	Street end	165	Smooth (0 - 200)
Marengo	GREEN00050	SEC0000265	Grace St	Prospect St	257	Marginal (201 - 400)
Marengo	GREEN00050	SEC0000266	Grace St	Prospect St	274	Marginal (201 - 400)
Marengo	HALES00051	SEC0000191	Seventh Ave	Eighth Ave	541	Rough (Over 400)
Marengo	HALES00051	SEC0000192	Third Ave	Fourth Ave	364	Marginal (201 - 400)
Marengo	HALES00051	SEC0000193	Railroad St	Jackson St	306	Marginal (201 - 400)
Marengo	HALES00051	SEC0000194	Jackson St	Van Buren St	218	Marginal (201 - 400)
Marengo	HALES00051	SEC0000195	Telegraph St	First Ave	375	Marginal (201 - 400)
Marengo	HALES00051	SEC0000196	Second Ave	Third Ave	475	Rough (Over 400)
Marengo	HALES00051	SEC0000197	First Ave	Second Ave	519	Rough (Over 400)
Marengo	HALES00051	SEC0000198	Van Buren St	Adams St	272	Marginal (201 - 400)
Marengo	HALES00051	SEC0000199	Adams St	Telegraph St	352	Marginal (201 - 400)
Marengo	HALES00051	SEC0000200	Fifth Ave	Sixth Ave	361	Marginal (201 - 400)
Marengo	HALES00051	SEC0000201	Fourth Ave	Fifth Ave	623	Rough (Over 400)
Marengo	HALES00051	SEC0000202	Sixth Ave	Seventh Ave	552	Rough (Over 400)
Marengo	HICKO00052	SEC0000101	Cottonwood Ln	Street end	230	Marginal (201 - 400)
Marengo	HICKO00053	SEC0000100	Foxglove Ln	Cottonwood Ln	233	Marginal (201 - 400)



Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	HUNTE00054	SEC0000089	Randall Ct	Mary Ct	231	Marginal (201 - 400)
Marengo	JACKS00055	SEC0000426	Burma Rd	Blissdale Rd	175	Smooth (0 - 200)
Marengo	JACKS00056	SEC0000267	State St	Hale St	191	Smooth (0 - 200)
Marengo	JACKS00056	SEC0000268	East St	Grace St	411	Rough (Over 400)
Marengo	JACKS00056	SEC0000269	Taylor St	Page St	516	Rough (Over 400)
Marengo	JACKS00056	SEC0000270	Page St	East St	456	Rough (Over 400)
Marengo	JACKS00056	SEC0000271	Hale St	Taylor St	367	Marginal (201 - 400)
Marengo	JACKS00056	SEC0000272	East St	Grace St	297	Marginal (201 - 400)
Marengo	JACQU00057	SEC0000021	Street end	South St	551	Rough (Over 400)
Marengo	JAMES00058	SEC0000370	Maple St	Dunham Ct	323	Marginal (201 - 400)
Marengo	JOHNS00059	SEC0000014	Keppler Dr	Briden Dr	246	Marginal (201 - 400)
Marengo	JOYCT00060	SEC0000039	Courtney Ln	Street end	384	Marginal (201 - 400)
Marengo	JOYCT00060	SEC0000040	Courtney Ln	Street end	422	Rough (Over 400)
Marengo	KENNE00061	SEC0000015	Keppler Dr	Briden Dr	285	Marginal (201 - 400)
Marengo	KENTS00062	SEC0000018	Kent St	Street end	556	Rough (Over 400)
Marengo	KEPPL00063	SEC0000400	Johnson St	Kennedy St	270	Marginal (201 - 400)
Marengo	KEPPL00063	SEC0000401	Eisenhower St	Park Dr	170	Smooth (0 - 200)
Marengo	KEPPL00063	SEC0000402	Kennedy St	Eisenhower St	322	Marginal (201 - 400)
Marengo	KERIM00064	SEC0000023	Spring Dr	Street end	352	Marginal (201 - 400)
Marengo	KISHW00065	SEC0000223	Van Buren St	Stevenson St	646	Rough (Over 400)
Marengo	KISHW00065	SEC0000224	Fourth Ave	Fifth Ave	276	Marginal (201 - 400)
Marengo	KISHW00065	SEC0000225	Telegraph St	First Ave	255	Marginal (201 - 400)
Marengo	KISHW00065	SEC0000226	Second Ave	Third Ave	329	Marginal (201 - 400)
Marengo	KISHW00065	SEC0000227	First Ave	Second Ave	223	Marginal (201 - 400)
Marengo	KISHW00065	SEC0000228	Third Ave	Fourth Ave	369	Marginal (201 - 400)
Marengo	LINDA00066	SEC0000037	Courtney Ln	Street end	625	Rough (Over 400)
Marengo	LINDA00066	SEC0000038	Courtney Ln	Street end	689	Rough (Over 400)
Marengo	LINDO00067	SEC0000413	Grant Hwy	Franks Rd	187	Smooth (0 - 200)
Marengo	LOCUS00068	SEC0000207	Grant Hwy	Washington St	310	Marginal (201 - 400)
Marengo	LOCUS00068	SEC0000208	Carlina St	Grant Hwy	321	Marginal (201 - 400)
Marengo	LOCUS00068	SEC0000209	Francis St	Caroline St	290	Marginal (201 - 400)
Marengo	LOCUS00068	SEC0000210	Washington St	Prairie St	362	Marginal (201 - 400)
Marengo	LURAL00069	SEC0000024	Street end	Ridge Dr	236	Marginal (201 - 400)
Marengo	LURAL00069	SEC0000025	Doral Dr	Spring Dr	251	Marginal (201 - 400)
Marengo	LURAL00069	SEC0000026	Ridge Dr	Doral Dr	311	Marginal (201 - 400)
Marengo	LYNNA00070	SEC0000031	Spring Dr	Street end	497	Rough (Over 400)
Marengo	LYNNA00070	SEC0000032	Spring Dr	Street end	361	Marginal (201 - 400)
Marengo	MAJIC00071	SEC0000030	Spring Dr	Sara Ln	251	Marginal (201 - 400)
Marengo	MALLA00072	SEC0000121	Mallard Dr	Beaver Pond Dr	732	Rough (Over 400)
Marengo	MALLA00072	SEC0000122			285	Marginal (201 - 400)
Marengo	MALLA00072	SEC0000435	Mallard Dr	Beaver Pond Dr	203	Marginal (201 - 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	MAPLE00073	SEC0000407	Forest St	Grant Hwy	280	Marginal (201 - 400)
Marengo	MAPLE00073	SEC0000408	Caroline St	Forest St	298	Marginal (201 - 400)
Marengo	MAPLE00073	SEC0000409	Autumn St	Caroline St	408	Rough (Over 400)
Marengo	MAPLE00073	SEC0000410	Bouman St	James Ct	238	Marginal (201 - 400)
Marengo	MAPLE00073	SEC0000411	James Ct	Francis St	233	Marginal (201 - 400)
Marengo	MAPLE00073	SEC0000433	Francis St	Autumn St	410	Rough (Over 400)
Marengo	MAPLE00074	SEC0000072	Courtney Ln	Maplewood Dr	243	Marginal (201 - 400)
Marengo	MAPLE00074	SEC0000073	Maplewood Dr	Mildred Dr	269	Marginal (201 - 400)
Marengo	MAPLE00074	SEC0000074	Maplewood Dr	Mildred Dr	209	Marginal (201 - 400)
Marengo	MARYC00075	SEC0000371	Riley Dr	Mildred Dr	237	Marginal (201 - 400)
Marengo	MARYC00075	SEC0000372	Mildred Dr	Hunters Path	289	Marginal (201 - 400)
Marengo	MARYC00075	SEC0000373	Hunters Path	Street end	318	Marginal (201 - 400)
Marengo	MEADO00076	SEC0000067	Street end	Meadow Ln	277	Marginal (201 - 400)
Marengo	MEADO00076	SEC0000068	Mildred Dr	Street end	256	Marginal (201 - 400)
Marengo	MEADO00076	SEC0000069	Bauman St	Mildred Dr	317	Marginal (201 - 400)
Marengo	MEYER00077	SEC0000421	Pleasant Grove Rd	Lakewood Dr	264	Marginal (201 - 400)
Marengo	MEYER00077	SEC0000422	Briden Dr	Grant Hwy	282	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000079	Diane Ct	Grant Hwy	279	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000080	Mildred Dr	Meadow Ln	310	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000081	Randall Ct	Mary Ct	211	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000082	Brookside Ct	Randall Ct	190	Smooth (0 - 200)
Marengo	MILDR00078	SEC0000083	Georgeann Ct	Geradline Ct	194	Smooth (0 - 200)
Marengo	MILDR00078	SEC0000084	Meadow Ln	Brookside Ct	182	Smooth (0 - 200)
Marengo	MILDR00078	SEC0000085	Mary Ct	Georgeann Ct	224	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000086	Maplewood Dr	Mildred Dr	208	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000087	Geradline Ct	Diane Ct	244	Marginal (201 - 400)
Marengo	MILDR00078	SEC0000088	Courtney Ln	Maplewood Dr	270	Marginal (201 - 400)
Marengo	OAKMA00079	SEC0000258	Royal Oak Dr	Forest St	251	Marginal (201 - 400)
Marengo	OAKMA00079	SEC0000259	Royal Oak Dr	State ST	336	Marginal (201 - 400)
Marengo	OAKMA00079	SEC0000260	Royal Oak Dr	Royal Oak Dr	298	Marginal (201 - 400)
Marengo	OCONN00080	SEC0000406	Meyer Rd	Indian Oaks Trl	245	Marginal (201 - 400)
Marengo	PAGES00081	SEC0000168	Seventh Ave	Eighth Ave	491	Rough (Over 400)
Marengo	PAGES00081	SEC0000169	Telegraph St	First Ave	448	Rough (Over 400)
Marengo	PAGES00081	SEC0000170	Stevenson St	Telegraph St	379	Marginal (201 - 400)
Marengo	PAGES00081	SEC0000171	Second Ave	Third Ave	381	Marginal (201 - 400)
Marengo	PAGES00081	SEC0000172	Washington St	Prairie St	564	Rough (Over 400)
Marengo	PAGES00081	SEC0000173	First Ave	Second Ave	326	Marginal (201 - 400)
Marengo	PAGES00081	SEC0000174	Railroad St	Jackson St	424	Rough (Over 400)
Marengo	PAGES00081	SEC0000175	Third Ave	Fourth Ave	464	Rough (Over 400)
Marengo	PAGES00081	SEC0000176	Jackson St	Van Buren St	442	Rough (Over 400)
Marengo	PAGES00081	SEC0000177	Grant Hwy	Washington St	474	Rough (Over 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	PAGES00081	SEC0000178	Prairie St	Railroad St		IRI not Available
Marengo	PAGES00081	SEC0000179	Van Buren St	Stevenson St	503	Rough (Over 400)
Marengo	PAGES00081	SEC0000180	Fifth Ave	Sixth Ave	417	Rough (Over 400)
Marengo	PAGES00081	SEC0000181	Sixth Ave	Seventh Ave	456	Rough (Over 400)
Marengo	PAGES00081	SEC0000182	Fourth Ave	Fifth Ave	322	Marginal (201 - 400)
Marengo	PARKD00082	SEC0000240	Beggs Ln	Grant Hwy	158	Smooth (0 - 200)
Marengo	PARKD00082	SEC0000241	Keppler Dr	Forest St	237	Marginal (201 - 400)
Marengo	PARKD00082	SEC0000242	Forest St	Briden Dr	186	Smooth (0 - 200)
Marengo	PARKD00082	SEC0000243	Briden Dr	Beggs Ln	184	Smooth (0 - 200)
Marengo	PARTR00083	SEC0000416	Quail Ln	Mallard Dr	254	Marginal (201 - 400)
Marengo	PARTR00083	SEC0000417	Quail Ln	Quail Ln	283	Marginal (201 - 400)
Marengo	PLEAS00084	SEC0000404	Meyer Rd	IL-23	222	Marginal (201 - 400)
Marengo	PLEAS00084	SEC0000405	Meyer Rd	IL-23	183	Smooth (0 - 200)
Marengo	PRAIR00085	SEC0000012	State St	Taylor St	242	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000344	Taylor St	Page St	207	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000345	Page St	Clark St	255	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000346	East St	Sullivan St	177	Smooth (0 - 200)
Marengo	PRAIR00085	SEC0000347	Clark St	East St	289	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000348	Sullivan St	Locust St	247	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000349	Locust St	Prospect St	277	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000379	West St	Sponable St	388	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000380	Ford St	Ann St	296	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000381	Sponable St	Ford St	278	Marginal (201 - 400)
Marengo	PRAIR00085	SEC0000382	Ann St	State St	330	Marginal (201 - 400)
Marengo	PROSP00086	SEC0000001	Washington St	Prairie St	278	Marginal (201 - 400)
Marengo	PROSP00086	SEC0000002	Greenlee St	Greenlee St	282	Marginal (201 - 400)
Marengo	PROSP00086	SEC0000003	Prairie St	Greenlee St	348	Marginal (201 - 400)
Marengo	PROSP00086	SEC0000004	Grant Hwy	Washington St	121	Smooth (0 - 200)
Marengo	PROSP00086	SEC000000A	Greenlee St	Telegraph St	344	Marginal (201 - 400)
Marengo	PROSP00086	SEC000000B	Greenlee St	Telegraph St	195	Smooth (0 - 200)
Marengo	PROSP00086	SEC0000135	Telegraph St	Beaver Pond Dr	309	Marginal (201 - 400)
Marengo	QUAIL00087	SEC0000418	Center Dr	Partridge Cir	330	Marginal (201 - 400)
Marengo	QUAIL00087	SEC0000420	Partridge Cir	Partridge Cir		IRI not Available
Marengo	RAILR00088	SEC0000338	West St	Ford St	442	Rough (Over 400)
Marengo	RAILR00088	SEC0000339	State St	Hale St	352	Marginal (201 - 400)
Marengo	RAILR00088	SEC0000340	Ann St	State St	312	Marginal (201 - 400)
Marengo	RAILR00088	SEC0000341	Ford St	Ann St	182	Smooth (0 - 200)
Marengo	RAILR00088	SEC0000342	Hale St	Taylor St	504	Rough (Over 400)
Marengo	RAILR00088	SEC0000343	Taylor St	Page St	427	Rough (Over 400)
Marengo	RAILR00088	SEC0000403	Railroad St	West St	284	Marginal (201 - 400)
Marengo	RAINB00089	SEC0000145	Street end	Telegraph St	722	Rough (Over 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	RANDA00090	SEC0000374	Randall Ct	Dunham Ct	256	Marginal (201 - 400)
Marengo	RANDA00090	SEC0000375	Mildred Dr	Hunters Path	239	Marginal (201 - 400)
Marengo	RANDA00090	SEC0000376	Riley Dr	Riley DR	288	Marginal (201 - 400)
Marengo	RANDA00090	SEC0000377	Dunham Ct	Riley Dr	248	Marginal (201 - 400)
Marengo	RANDA00090	SEC0000378	Riley Dr	Mildred Dr	227	Marginal (201 - 400)
Marengo	RIDGE00091	SEC0000046	Ruth Ct	Spring Dr	258	Marginal (201 - 400)
Marengo	RIDGE00091	SEC0000047	Lura Ln	Ruth Ct	333	Marginal (201 - 400)
Marengo	RILEY00092	SEC0000212	Diane Ct	Grant Hwy	357	Marginal (201 - 400)
Marengo	RILEY00092	SEC0000213	Mary Ct	Georgeann Ct	226	Marginal (201 - 400)
Marengo	RILEY00092	SEC0000214	Georgeann Ct	Geraldine Ct	334	Marginal (201 - 400)
Marengo	RILEY00092	SEC0000215	Geraldine Ct	Diane Ct	256	Marginal (201 - 400)
Marengo	RILEY00092	SEC0000216	Randall Ct	Mary Ct	176	Smooth (0 - 200)
Marengo	RILEY00092	SEC0000217	Street end	Randall Ct	334	Marginal (201 - 400)
Marengo	ROWLA00093	SEC0000244	Grant Hwy	Street end	469	Rough (Over 400)
Marengo	ROYAL00094	SEC0000392	Oak Manor Dr	Oak Manor Dr	339	Marginal (201 - 400)
Marengo	RUTHC00095	SEC0000048	Ridge Dr	Street end	416	Rough (Over 400)
Marengo	SARAL00096	SEC0000027	Majic Way	Spring Dr	317	Marginal (201 - 400)
Marengo	SCHOO00097	SEC0000211	Street end	Washington St	548	Rough (Over 400)
Marengo	SECON00098	SEC0000295	State St	Hale St	378	Marginal (201 - 400)
Marengo	SECON00098	SEC0000296	East St	Kishwaukee St	561	Rough (Over 400)
Marengo	SECON00098	SEC0000297	Taylor St	Page St	406	Rough (Over 400)
Marengo	SECON00098	SEC0000298	Page St	East St	625	Rough (Over 400)
Marengo	SECON00098	SEC0000299	Kishwaukee	Cottonwood Ln	838	Rough (Over 400)
Marengo	SECON00098	SEC0000300	Hale St	Taylor St	611	Rough (Over 400)
Marengo	SEVEN00099	SEC0000325	State St	Hale St	443	Rough (Over 400)
Marengo	SEVEN00099	SEC0000326	Taylor St	Page St	379	Marginal (201 - 400)
Marengo	SEVEN00099	SEC0000327	Page St	East St	433	Rough (Over 400)
Marengo	SEVEN00099	SEC0000328	Hale St	Taylor St	390	Marginal (201 - 400)
Marengo	SEVEN00100	SEC0000329	East St	Eighth Ave	350	Marginal (201 - 400)
Marengo	SHADY00101	SEC0000149	Grant Hwy	Street end	498	Rough (Over 400)
Marengo	SIXTH00102	SEC0000319	State St	Hale St	454	Rough (Over 400)
Marengo	SIXTH00102	SEC0000320	Taylor St	Page St	373	Marginal (201 - 400)
Marengo	SIXTH00102	SEC0000321	Page St	East St	527	Rough (Over 400)
Marengo	SIXTH00102	SEC0000322	Hale St	Taylor St	383	Marginal (201 - 400)
Marengo	SIXTH00103	SEC0000323	East St	Street end	383	Marginal (201 - 400)
Marengo	SIXTH00103	SEC0000324	East St	Street end	474	Rough (Over 400)
Marengo	SOUTH00104	SEC0000019	Dietz St	Jacquelynn Ct	342	Marginal (201 - 400)
Marengo	SOUTH00104	SEC0000020	Jacquelynn Ct	State St	386	Marginal (201 - 400)
Marengo	SOUTH00104	SEC0000393	Stanford Dr	Dietz St	487	Rough (Over 400)
Marengo	SPONA00105	SEC0000245	Prairie St	Street end	398	Marginal (201 - 400)
Marengo	SPONA00105	SEC0000246	Washington St	Prairie St	321	Marginal (201 - 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	SPRIN00106	SEC0000050	Ridge Dr	Street end	293	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000051	Spring Dr	Courtney Ln	260	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000052	Lynnann Ct	Majic Way	321	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000053	Sara Ln	Lura Ln	297	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000054	Doral Dr	Doral Dr	446	Rough (Over 400)
Marengo	SPRIN00106	SEC0000055	Spring Dr	Spring Dr	427	Rough (Over 400)
Marengo	SPRIN00106	SEC0000056	Spring Dr	Street end	422	Rough (Over 400)
Marengo	SPRIN00106	SEC0000057	Majic Way	Grace Ct	215	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000058	Kerim Ct	Doral Dr	471	Rough (Over 400)
Marengo	SPRIN00106	SEC0000059	Grace Ct	Sara Ln	285	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000060	Doral Dr	Ridge Dr	280	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000061	Lura Ln	Kerim Ct	314	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000062	Courtney Ln	Lynnann Ct	344	Marginal (201 - 400)
Marengo	SPRIN00106	SEC0000063	Spring Dr	Spring Dr	716	Rough (Over 400)
Marengo	STANF00107	SEC0000247	Chappel St	Chappel St	377	Marginal (201 - 400)
Marengo	STANF00107	SEC0000248	South St	Forest St	319	Marginal (201 - 400)
Marengo	STANF00107	SEC0000249	Forest St	Chappel St	288	Marginal (201 - 400)
Marengo	STEVE00108	SEC0000285	Page St	East St	484	Rough (Over 400)
Marengo	STEVE00108	SEC0000286	East St	Kishwaukee St	443	Rough (Over 400)
Marengo	STEVE00108	SEC0000287	Kishwaukee St	Artell St	271	Marginal (201 - 400)
Marengo	STEVE00108	SEC0000288	Artell St	Grave St	577	Rough (Over 400)
Marengo	SULLI00109	SEC0000206	Washington St	Prairie St	269	Marginal (201 - 400)
Marengo	SUNSE00110	SEC0000231	Van Buren St	Street end	155	Smooth (0 - 200)
Marengo	TAYLO00111	SEC0000005	Adams St	Telegraph St	333	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000006	Washington St	Prairie St	293	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000007	Prairie St	Railroad St	471	Rough (Over 400)
Marengo	TAYLO00111	SEC0000008	Railroad St	Jackson St	263	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000009	Jackson St	Van Buren St	269	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000010	Grant Hwy	Washington St	209	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000011	Van Buren St	Adams St	170	Smooth (0 - 200)
Marengo	TAYLO00111	SEC0000183	Seventh Ave	Eighth Ave	344	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000184	Second Ave	Third Ave	398	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000185	Telegraph St	First Ave	662	Rough (Over 400)
Marengo	TAYLO00111	SEC0000186	First Ave	Second Ave	566	Rough (Over 400)
Marengo	TAYLO00111	SEC0000187	Third Ave	Fourth Ave	554	Rough (Over 400)
Marengo	TAYLO00111	SEC0000188	Fifth Ave	Six Ave	336	Marginal (201 - 400)
Marengo	TAYLO00111	SEC0000189	Six Ave	Seventh Ave	173	Smooth (0 - 200)
Marengo	TAYLO00111	SEC0000190	Fourth Ave	Fifth Ave	359	Marginal (201 - 400)
Marengo	THIRD00112	SEC0000301	State St	Hale St	551	Rough (Over 400)
Marengo	THIRD00112	SEC0000302	Taylor St	Page St	462	Rough (Over 400)
Marengo	THIRD00112	SEC0000303	Page St	East St	390	Marginal (201 - 400)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	THIRD00112	SEC0000304	East St	Kishwaukee St	409	Rough (Over 400)
Marengo	THIRD00112	SEC0000305	Kishwaukee	Cottonwood Ln	638	Rough (Over 400)
Marengo	THIRD00112	SEC0000306	Hale St	Taylor St	563	Rough (Over 400)
Marengo	THORN00113	SEC0000423	Grant Hwy	Thorne Rd	121	Smooth (0 - 200)
Marengo	UNKNO00114	SEC0000070	Mildred Dr	Street end	507	Rough (Over 400)
Marengo	UNKNO00114	SEC0000071	Mildred Dr	Street end	272	Marginal (201 - 400)
Marengo	UNKNO00115	SEC0000075	Maplewood Dr	Maplewood Dr	288	Marginal (201 - 400)
Marengo	UNKNO00116	SEC0000076	Unknown	Unknown	239	Marginal (201 - 400)
Marengo	UNKNO00117	SEC0000077	Courtney Ln	Unknown	245	Marginal (201 - 400)
Marengo	UNKNO00117	SEC0000078	Unknown	Street end	99	Smooth (0 - 200)
Marengo	UNKNO00118	SEC0000090	Unknown	Street end	358	Marginal (201 - 400)
Marengo	UNKNO00118	SEC0000091	Courtney Ln	Street end	330	Marginal (201 - 400)
Marengo	UNKNO00118	SEC0000092	Courtney Ln	Unknown	246	Marginal (201 - 400)
Marengo	UNKNO00118	SEC0000093	Unknown	Street end	267	Marginal (201 - 400)
Marengo	UNKNO00118	SEC0000094	Courtney Ln	Street end	408	Rough (Over 400)
Marengo	VANBU00119	SEC0000273	Sunset St	Ford St	190	Smooth (0 - 200)
Marengo	VANBU00119	SEC0000274	State St	Hale St	609	Rough (Over 400)
Marengo	VANBU00119	SEC0000275	East St	Kishwaukee St	362	Marginal (201 - 400)
Marengo	VANBU00119	SEC0000276	Taylor St	Page St	599	Rough (Over 400)
Marengo	VANBU00119	SEC0000277	Page St	East St	455	Rough (Over 400)
Marengo	VANBU00119	SEC0000278	Hale St	Taylor St	424	Rough (Over 400)
Marengo	VANBU00119	SEC0000279	Grave St	Grace St	304	Marginal (201 - 400)
Marengo	VANBU00119	SEC0000280	Ann St	State St	322	Marginal (201 - 400)
Marengo	VANBU00119	SEC0000281	Van Buren St	Stevenson St	446	Rough (Over 400)
Marengo	VANBU00119	SEC0000282	Ford St	Willow Rd	205	Marginal (201 - 400)
Marengo	VANBU00119	SEC0000283	Artell St	Grave St	305	Marginal (201 - 400)
Marengo	VANBU00119	SEC0000284	Willow Rd	Ann St	155	Smooth (0 - 200)
Marengo	VILLA00120	SEC0000146	Center Dr	Village Ct	170	Smooth (0 - 200)
Marengo	VILLA00120	SEC0000147	Center Dr	Village Ct	157	Smooth (0 - 200)
Marengo	VILLA00121	SEC0000148	Village Cir	Street end	255	Marginal (201 - 400)
Marengo	WALNU00122	SEC0000108	Cottonwood Ln	Street end	299	Marginal (201 - 400)
Marengo	WALNU00123	SEC0000107	Kishwaukee	Cottonwood Ln	332	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000013	State St	Taylor St	287	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000350	Taylor St	Page St	419	Rough (Over 400)
Marengo	WASHI00124	SEC0000351	East St	Sullivan St	446	Rough (Over 400)
Marengo	WASHI00124	SEC0000352	Clark St	East St	350	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000353	Page St	Clark St	337	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000354	Sullivan St	Locust St	375	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000355	Locust St	Locust St	384	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000356	School Ct	Prospect St	199	Smooth (0 - 200)
Marengo	WASHI00124	SEC0000357	Locust St	School Ct	170	Smooth (0 - 200)

Table C-1. IRI values by road segment (continued).

NetworkID	BranchID	SectionID	From	To	IRI	Range
Marengo	WASHI00124	SEC0000383	West St	Sponable St	325	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000384	Ford St	Ann St	316	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000385	Ann St	State St	368	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000386	Dietz St	Ford St	392	Marginal (201 - 400)
Marengo	WASHI00124	SEC0000387	Sponable St	Dietz St	382	Marginal (201 - 400)
Marengo	WESTS00125	SEC0000236	Prairie St	Railroad St	230	Marginal (201 - 400)
Marengo	WESTS00125	SEC0000237	Grant Hwy	Washington St	267	Marginal (201 - 400)
Marengo	WESTS00125	SEC0000238	Washington St	Prairie St	193	Smooth (0 - 200)
Marengo	WHITE00126	SEC0000136	Cascade Dr	Street end	205	Marginal (201 - 400)
Marengo	WHITE00126	SEC0000137	Beaver Pond Dr	White Tail Pl	220	Marginal (201 - 400)
Marengo	WHITE00126	SEC0000138	White Tail Pl	Cascade Dr	106	Smooth (0 - 200)
Marengo	WHITE00127	SEC0000139	White Tail Dr	Street end	363	Marginal (201 - 400)
Marengo	WILLO00128	SEC0000229	Railroad St	Van Buren St	312	Marginal (201 - 400)
Marengo	WILLO00128	SEC0000230	Van Buren St	Street end	238	Marginal (201 - 400)
Marengo	WOODB00129	SEC0000096	Cottonwood Ln	Street end	407	Rough (Over 400)
Marengo	WOODB00129	SEC0000097	Eigth Ave		210	Marginal (201 - 400)
Marengo	WOODB00129	SEC0000098	Foxglove Ln	Cottonwood Ln	252	Marginal (201 - 400)
Marengo	WOODB00129	SEC0000099	Cottonwood Ln	Street end	273	Marginal (201 - 400)
Marengo	WOODL00130	SEC0000114	Woodland Ln	Street end	450	Rough (Over 400)
Marengo	WOODL00131	SEC0000109	Kishwaukee	Cottonwood Ln	368	Marginal (201 - 400)
Marengo	WOODL00131	SEC0000110	Woodland Ct	Prospect St	298	Marginal (201 - 400)
Marengo	WOODL00131	SEC0000111	Woodland Ct	Prospect St	744	Rough (Over 400)
Marengo	WOODL00131	SEC0000112	Cottonwood Ln		243	Marginal (201 - 400)
Marengo	WOODL00131	SEC0000113	Prospect St	Beaver Pond Pl	422	Rough (Over 400)

## **APPENDIX D – DEFINITION OF TERMS**



## Definition of Terms

This section provides definitions of some of the more general terms used in discussions about pavement management.

- **Backlog** – Amount of unfunded maintenance and rehabilitation (M&R).
- **Branch** – A part of the network that is a distinct entity and has a unique function. Each road and parking lot in the pavement network is considered a separate branch. Note that a branch does not have to have consistent characteristics throughout its area, such as surface type or age.
- **Condition analysis** – Determination of current pavement condition in terms of amount of deterioration present, cause of deterioration, and deterioration rate.
- **Deterioration rate** – Drop in pavement condition in terms of PCI points per year.
- **Effect on pavement life** – The effect that a treatment has on the remaining life of a section. For example, complete reconstruction yields an essentially new pavement with all of its life (as defined by the performance model assigned to the section) remaining.
- **Family** – Group of pavement sections that deteriorate in a similar manner.
- **Hot Mix Asphalt (HMA)** – asphalt mix prepared at an asphalt plant that requires compaction after placement.
- **Impact analysis** – A comparison of different M&R plans to determine the impact that different decisions will have on the pavement network.
- **M&R** – This is an abbreviation for “maintenance and rehabilitation,” but generally refers to any pavement work activities, such as localized maintenance, rehabilitation, and reconstruction.
- **PAVER** – A pavement management system developed by the U.S. Army Corps of Engineers. It consists of a Microsoft® Access database for storing inventory and condition information and some analysis tools.
- **Needs analysis** – The determination of M&R requirements, associated costs, and scheduling subject to constraints (e.g., funding levels or desired network condition) for a specified period of time (often 1 to 5 years).
- **Network** – A broad grouping of pavements within a specified physical area, sometimes managed separately (such as districts within a city or subdivisions within a town).
- **Pavement condition index (PCI)** – A numerical indicator between 0 and 100 that reflects the surface condition of a pavement. PCI inspections are performed in accordance with ASTM D-6433, *Standard Test Method for Roads and Parking Lots Pavement Condition Index Surveys*<sup>2</sup>, and correspond with PAVER pavement management software.
- **Pavement maintenance** – Routine maintenance actions, both preventive and reactive, applied to preserve the pavement structure.

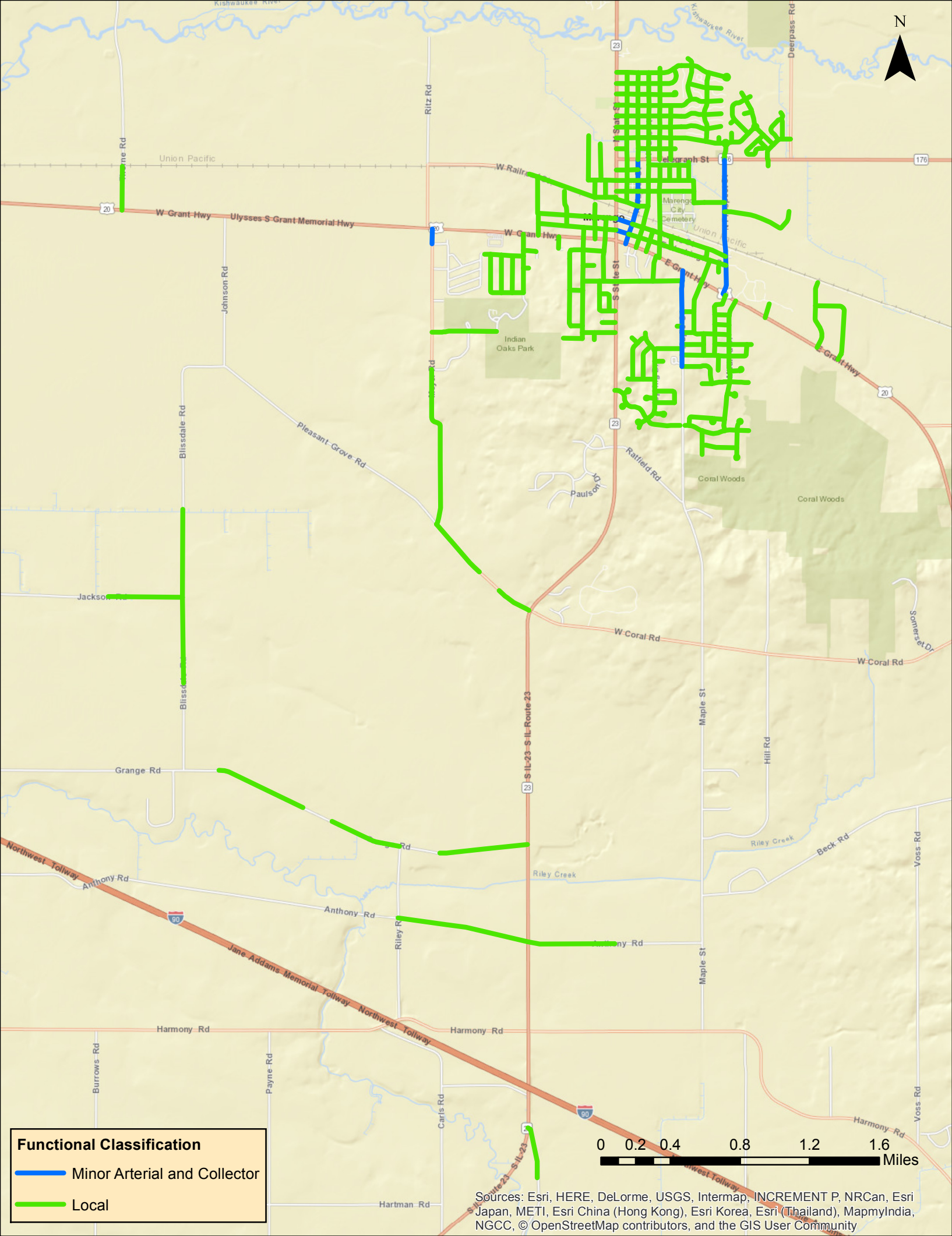
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<sup>2</sup> American Society for Testing and Materials (ASTM). 2007. *Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys*. ASTM D6433-07. American Society for Testing and Materials, West Conshohocken, PA.

- **Pavement rehabilitation** – Work undertaken to restore the serviceability and extend the life of an existing pavement. This includes overlays and other work necessary to return an existing pavement to a condition of structural or functional adequacy.
- **Performance** – Change in pavement condition over time.
- **Performance model** – Mathematical description of the expected values that pavement attributes will take during a specified analysis period.
- **Preventive maintenance** – Maintenance activities performed with the primary objective of slowing the rate of pavement deterioration.
- **Prioritization** – Technique used to determine which M&R activities should be performed when there is insufficient funding to perform all required M&R.
- **Regression analysis** – Statistical tool that is used to relate two or more variables in a mathematical equation.
- **Sample unit** – A subdivision of a pavement section for PCI inspection purposes.
- **Section** – A part of a branch that has consistent characteristics throughout its area. The PMS analyzes pavement information at the section level; therefore, a section is considered the management unit. This means that pavement condition is analyzed at the section level and that pavement M&R recommendations are made at the section level.
- **Stopgap Maintenance** – Maintenance activities performed to keep the pavement operational in a safe condition.
- **Treatment trigger** – A set of conditions that must exist in order for a treatment to be considered. For example, in order for a thin asphalt concrete (AC) overlay to be considered a viable treatment for a pavement section, the following criteria need to be met: 1) the section PCI must be between 40 and 70, and 2) the section must have an asphalt surface.

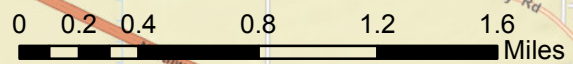
## **APPENDIX E – MAPS**

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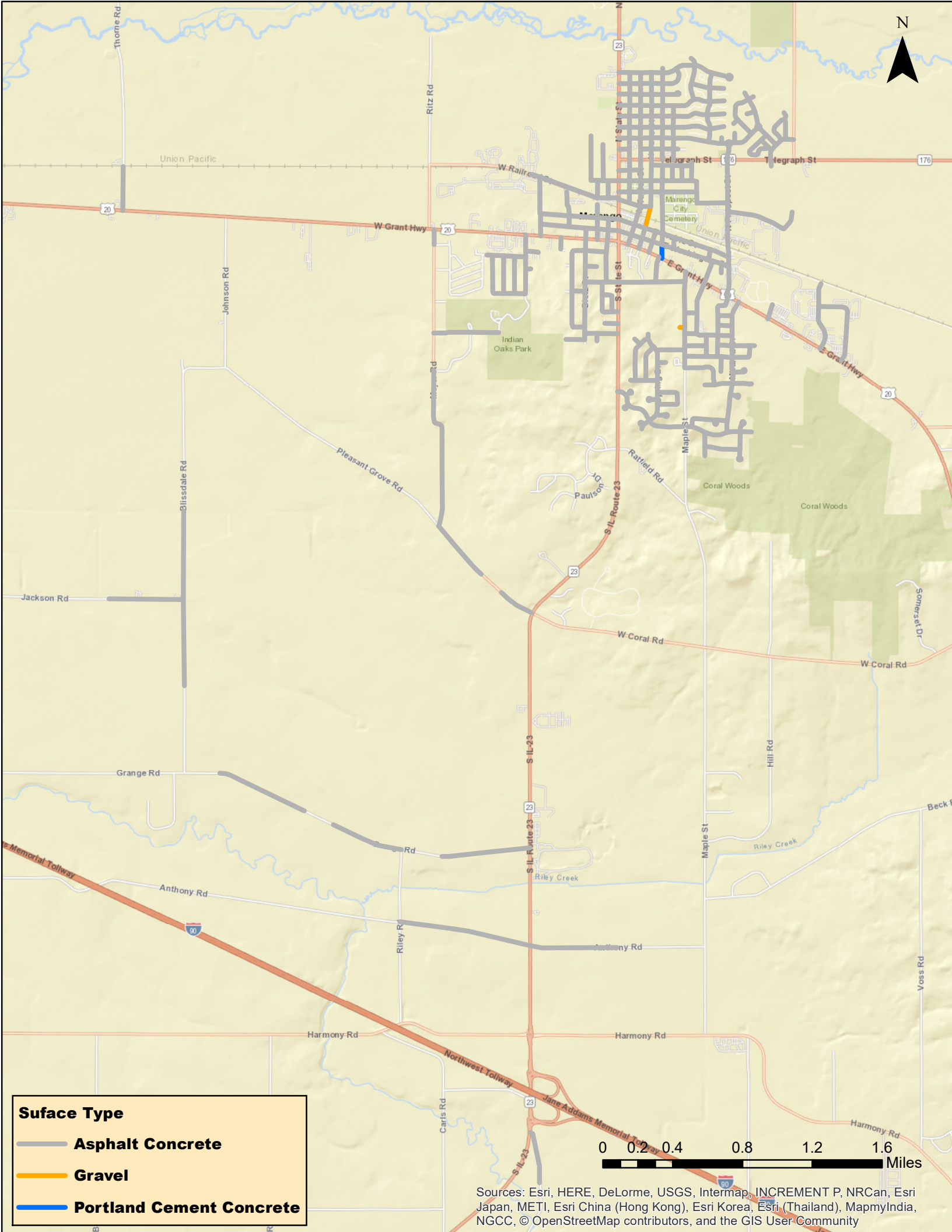


**Functional Classification**

- Minor Arterial and Collector
- Local

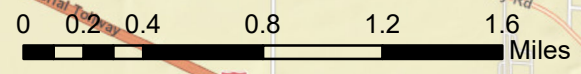


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

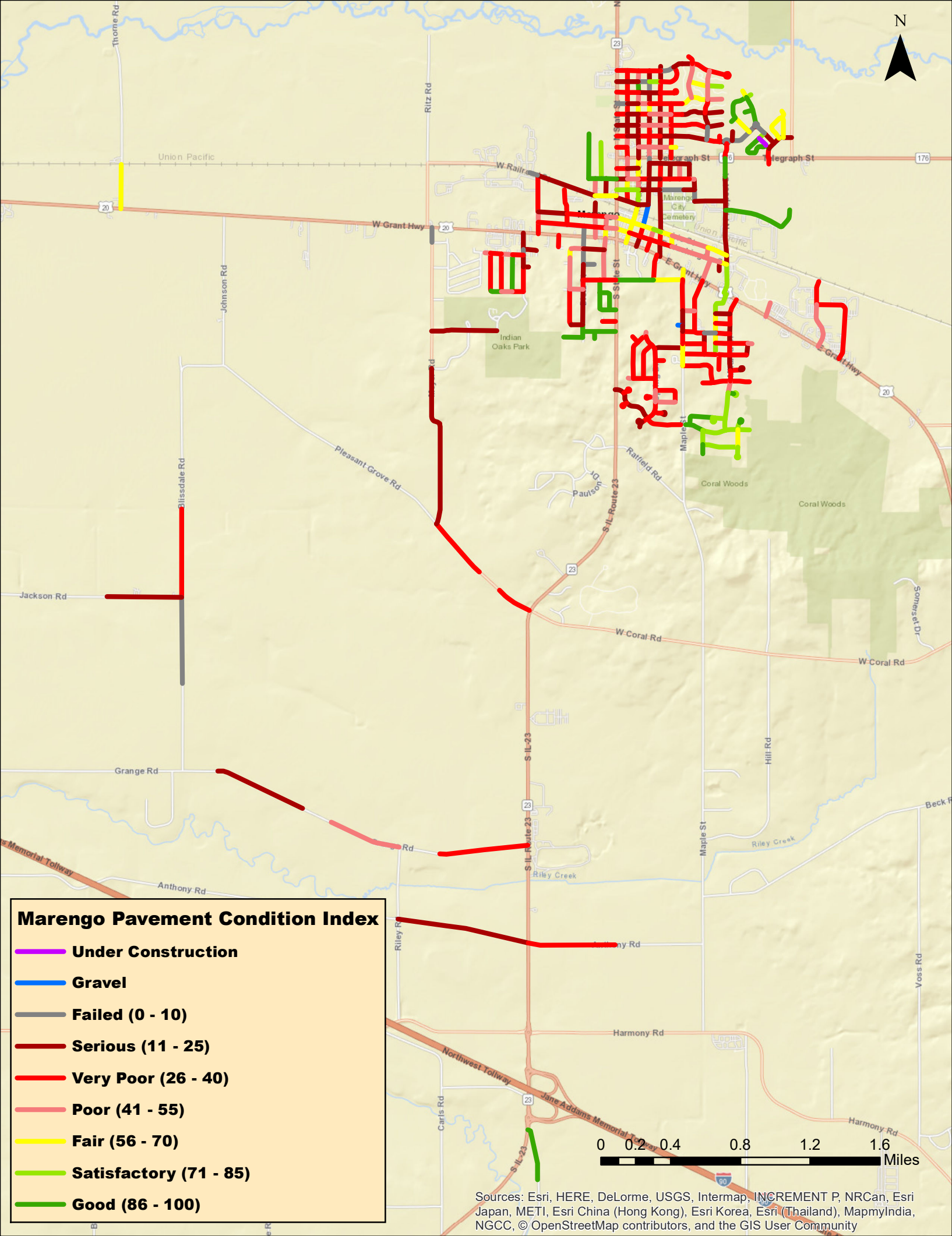


**Surface Type**

- Asphalt Concrete**
- Gravel**
- Portland Cement Concrete**

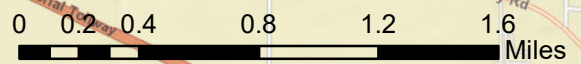


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

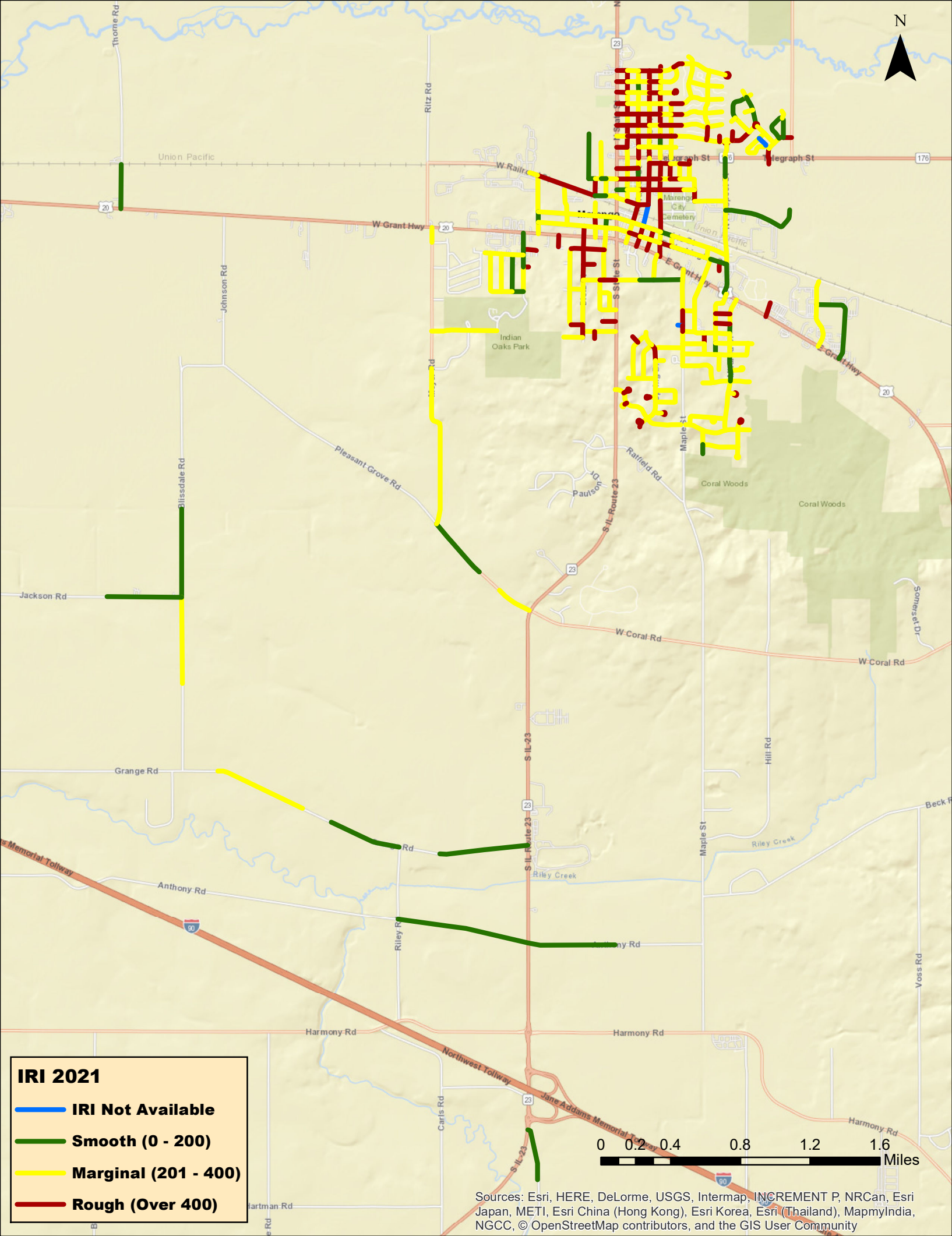


**Marengo Pavement Condition Index**

- **Under Construction**
- **Gravel**
- **Failed (0 - 10)**
- **Serious (11 - 25)**
- **Very Poor (26 - 40)**
- **Poor (41 - 55)**
- **Fair (56 - 70)**
- **Satisfactory (71 - 85)**
- **Good (86 - 100)**

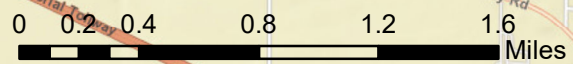


Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

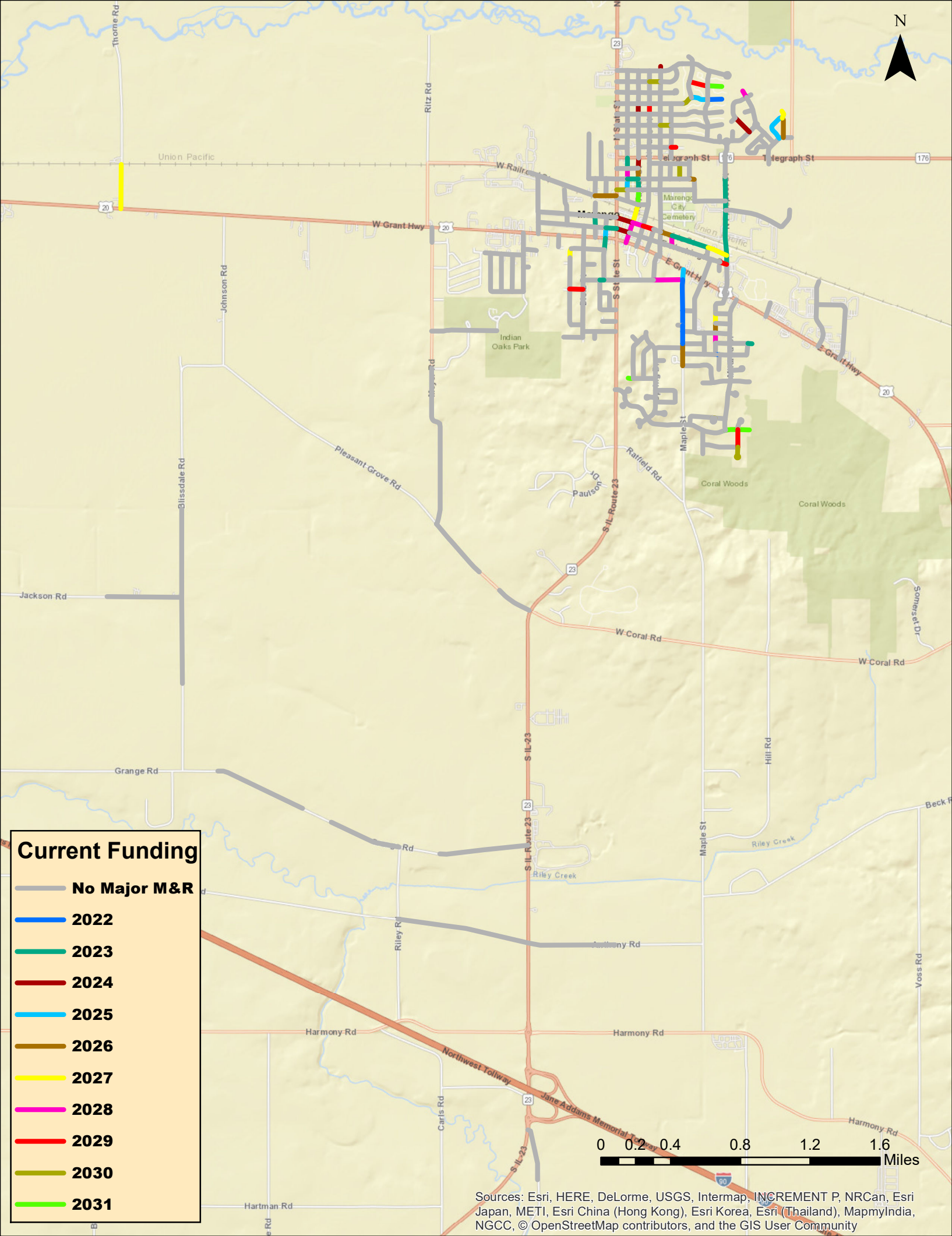


**IRI 2021**

- IRI Not Available
- Smooth (0 - 200)
- Marginal (201 - 400)
- Rough (Over 400)

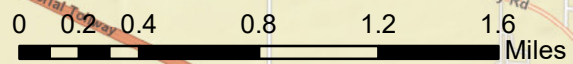


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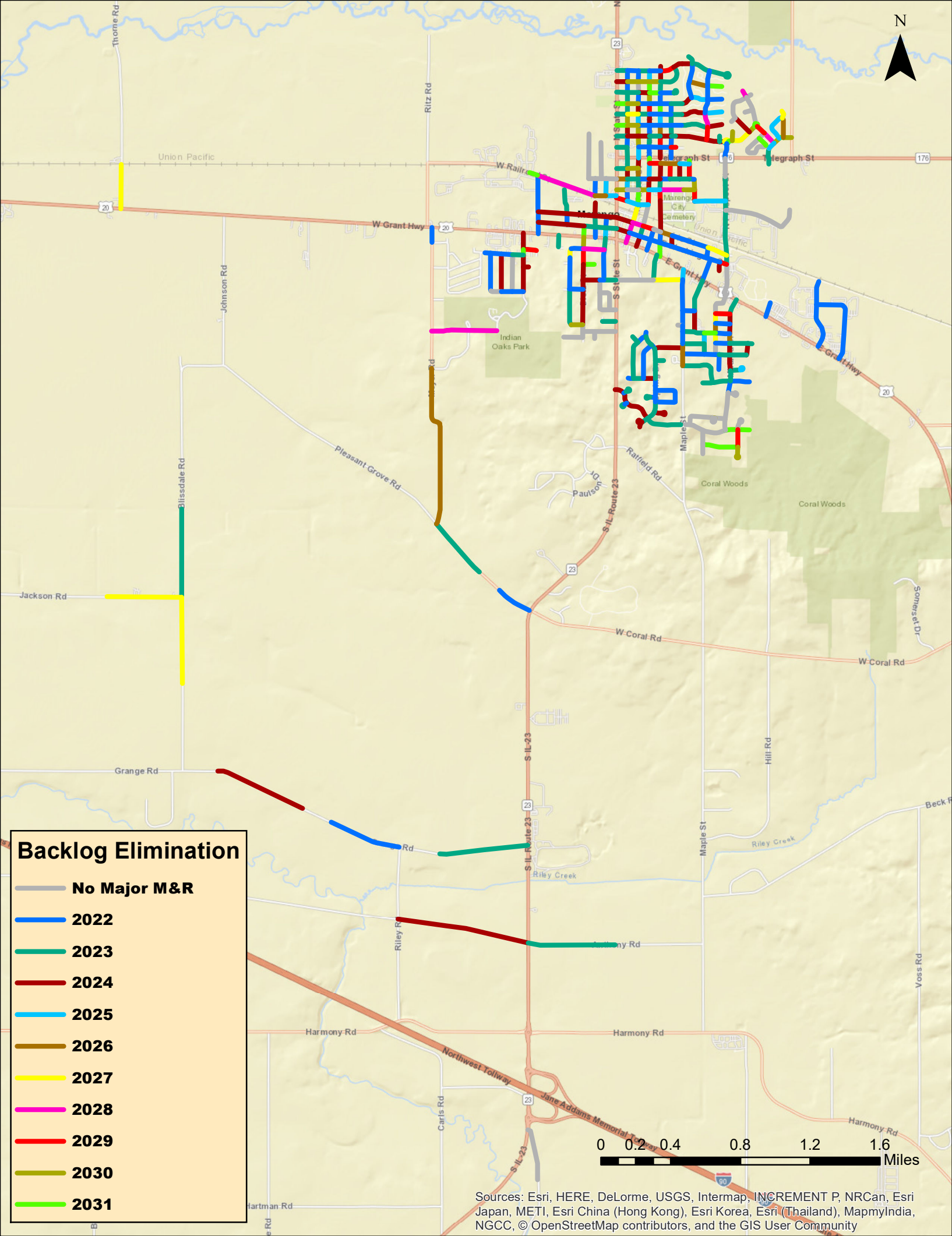
**Current Funding**

- No Major M&R**
- 2022**
- 2023**
- 2024**
- 2025**
- 2026**
- 2027**
- 2028**
- 2029**
- 2030**
- 2031**



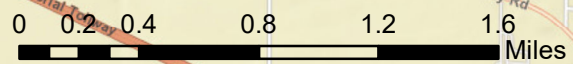
Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



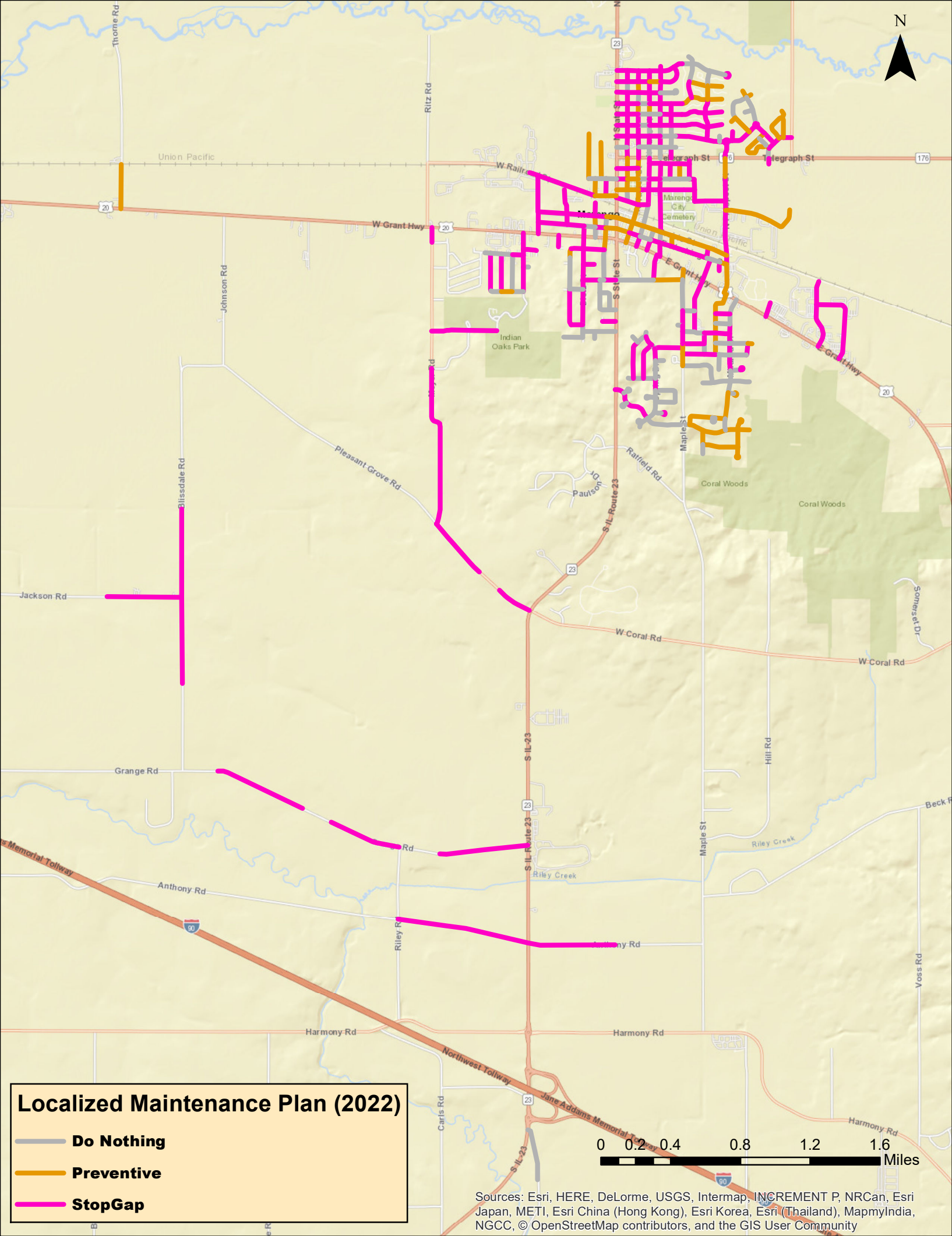


### Backlog Elimination

- No Major M&R
- 2022
- 2023
- 2024
- 2025
- 2026
- 2027
- 2028
- 2029
- 2030
- 2031



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



N



### Localized Maintenance Plan (2022)

-  Do Nothing
-  Preventive
-  StopGap

0 0.2 0.4 0.8 1.2 1.6 Miles

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community