

# Pavement Management Update 2021 Final Report

NCE Project No. 270.09.55 December 2021





# **City of Willits**

111 E. Commercial Street Willits, CA 95490



#### **Final Report**

# **Pavement Management Program Update 2021** City of Willits

December 2021

#### **Prepared for:**

**City of Willits** 

111 E. Commercial Street Willits, CA 95490

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## **Executive Summary**

In 2021, Nichols Consulting Engineers, Chtd. (NCE) was selected by the Mendocino Council of Governments (MCOG) to update the City of Willit's (City) pavement management program (PMP) for the entire network. This report summarizes the results of the 2021 update for the City and its purpose is to help educate policy makers about the current condition of the pavement network and the impact of various funding scenarios on future network conditions.

The City's pavement network consists of 20.73 centerline miles of paved streets, which represents a substantial investment of approximately \$39 million. In 2021 NCE collected pavement condition data throughout the network using the Metropolitan Transportation Commission (MTC) survey protocols. The survey data were entered into the StreetSaver<sup>®</sup> database, which the City uses as a PMP decision-support tool.

Overall, the City's pavement network is currently in "Poor" condition with an average pavement condition index (PCI) of 47. Approximately 36.3 percent of the network is in "Good" condition and 52.6 percent is in "Poor" or "Failed" condition.

The budget needs analysis indicated that the City needs to spend approximately \$20 million over the next ten years to bring the road network to a condition that can be maintained with on-going preventive maintenance in the most cost-effective way. Three alternative budget scenarios were performed to illustrate the impacts of different funding levels. The following table lists each scenario with its corresponding ten-year budget, PCI, and deferred maintenance at the end of the analysis period.

Scenario	Description	10-Year Budget (\$M)	2031 PCI	2031 Deferred Maintenance (\$M)
1	Existing Funding	7	32	18
2	Improve PCI to 55 by 5th Year and 60 by 10th Year	12	60	12
3	Improve PCI to 65	14.2	65	10

NCE recommends that the City pursue Scenario 2 as a minimum, which will improve the existing network PCI to 55 by 2027 and then to 60 by 2031. This scenario will increase the portion of the network in "Good" condition and limit the deferred maintenance. This will require \$12 million over the next ten years.

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### **1** Introduction and Background

In 2017, NCE assisted City of Willits in updating the StreetSaver<sup>®</sup> pavement management program (PMP) with pavement condition surveys, historical maintenance and rehabilitation (M&R) records, pavement strategies, and budgetary analysis. No update has been conducted on pavement condition surveys or maintenance and rehabilitation strategies since 2017. In 2021, Nichols Consulting Engineers, Chtd. (NCE) was selected by the Mendocino Council of Governments (MCOG) to update the City of Willit's (City) pavement management program (PMP) for the entire network.

In general, PMPs are "designed to provide objective information and useful data for analysis so that... managers can make more consistent, cost effective, and defensible decisions related to the preservation of a pavement network.<sup>1</sup>"

This report answers the following questions for the City of Willits:

- What does the City's pavement network include?
- What is the current condition of the pavement network?
- What are the City's current M&R strategies?
- How much funding is required to perform all needed M&R treatments over the next 10 years?
- What effect will the City's existing funding have on the network condition and deferred maintenance?
- What effect will other funding levels have on the network condition and deferred maintenance?

To update the City's PMP, NCE performed walking surveys using the Metropolitan Transportation Commission's (MTC) survey procedures <sup>2</sup>. Surveys did not include non-pavement issues such as traffic, safety and road hazards, geometric issues, shoulders, sidewalks, curb and gutters, drainage issues, or immediate maintenance needs.

All survey data were then entered into the City's StreetSaver<sup>®</sup> database and pavement condition index (PCI) calculations were performed. NCE then met with the City staff and reviewed and updated the maintenance and rehabilitation (M&R) strategies and treatments. NCE also updated the treatment unit costs based on recent bid tabs from the City.

<sup>&</sup>lt;sup>1</sup> AASHTO "Guidelines for Pavement Management Systems". American Association of State Highway and Transportation Officials, Washington, DC, July 1990.

<sup>&</sup>lt;sup>2</sup> PCI Distress Identification Manuals (AC 4th Edition, PCC 3rd Edition), Metropolitan Transportation Commission, San Francisco, CA March 2016.

A budget needs analysis was performed for a ten-year analysis period with an annual inflation rate of 3 percent. This analysis identified M&R recommendations for each pavement section and determined the total M&R budget needs for the analysis period. Finally, three budget scenarios were analyzed for the street network.

## 2 Network Summary

The City is responsible for maintaining approximately 20.7 centerline miles of paved streets (or 125 pavement sections). The entire network is composed of asphalt concrete (AC) pavement. Table 1 summarizes the street network by functional classification. Three (3) gravel streets are also listed in the database but are not included in the budgetary analysis.

#### Functional Number of Centerline **Network Area** Lane Miles Class Sections Miles (%) Arterial 4 2.14 4.28 9.9% Collector 32 7.30 14.59 39.3% 6 4.9% Residential 1.09 2.19 45.9% Other 83 10.20 20.10 Total 125 20.73 41.16 100.0% 3 0.21 1.60 Gravel

#### Table 1. Network Summary Statistics

The street network replacement cost is estimated to be approximately \$39 million. This can be viewed as the value of the pavement network and is the amount needed to fund reconstruction of the entire paved network. It does not include related infrastructure assets such as sidewalks, signals, markings, signs, or storm drains.

## **3** Pavement Condition

Pavement condition is typically quantified using the pavement condition index (PCI), which ranges from 100 (best) to 0 (worst). A newly constructed street has a PCI of 100, while a failed street has a PCI of 25 or less. Pavement condition is affected by the environment, traffic loads and volumes, construction materials, and age.

The PCI scale is divided into four general condition categories. Pavements in "Good" condition have a PCI above 70, pavements in "Fair" condition have a PCI between 50 and 69, pavements in "Poor" condition have a PCI between 25 and 49, and finally pavements in "Failed" condition have a PCI below 25.

## 3.1 CITY'S PAVEMENT CONDITION INDEX

**The current average PCI for the City's pavement network is 47.** This value is an area-weighted calculation performed in StreetSaver<sup>®</sup> and is based on the condition survey performed in 2021. Figure 1 illustrates the City's historical network PCI since 2001 which shows that the average network PCI for the City has fluctuated between the high-40s and the low-50s in the past twenty years. The City has been able to maintain a relatively stable network PCI in high-40s for last seven years.

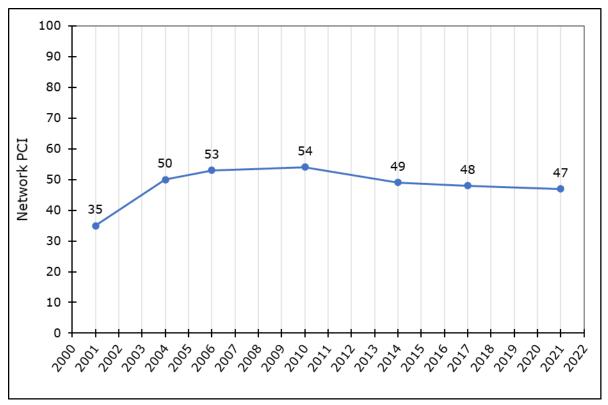


Figure 1. Historical Network PCI since 2001

Figure 2 shows photos of City streets with varying PCIs.

#### PAVEMENT MANAGEMENT PROGRAM UPDATE 2021 CITY OF WILLITS

#### PAVEMENT CONDITION



Figure 2. Examples of Streets with Different PCIs

A list of all pavement sections in the network along with their attributes, including the PCI at the time of last inspection, is provided in Appendix A. For convenience, two versions are provided – one sorted alphabetically by street name and the other sorted by descending PCI.

#### **3.2 CITY'S NETWORK CONDITION BREAKDOWN**

Figure 3 breaks down the current network PCI by functional classification. As shown, the arterials have the highest condition with a PCI of 74 while the local streets listed in the 'other' category have the lowest condition (Poor) with a PCI of 40. The area-

weighted average PCI for collectors is 45 which represents the "Poor" condition category. The average overall PCI for the entire City is in the "Poor" condition category (47).

Table 2 summarizes the pavement network by condition category and functional classification. Approximately 36.3 percent of the network are in "Good" condition, with approximately 11.1 percent in "Fair" condition. The remaining 52.6 percent are in "Poor" or "Failed" condition.

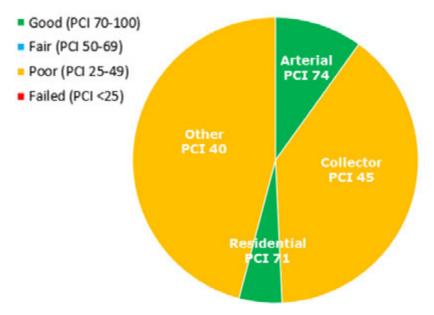


Figure 3. Network Condition Breakdown by Functional Classification

Condition Category	PCI Range	Arterial (%)	Collector (%)	Residential (%)	Other (%)	Entire Network (%)
Good	70-100	5.0	15.0	3.8	12.5	36.3
Fair	50-69	2.8	2.3	0.0	6.0	11.1
Poor	25-49	2.1	4.2	0.5	5.3	12.1
Failed	<25	0.0	17.8	0.6	22.1	40.5
Total	-	9.9	39.3	4.9	45.9	100.0

#### **3.3 PCI COMPARISON WITH NEIGHBORING COUNTIES**

As a comparison, Figure 4 shows the City's network PCI compared to the agencies with MCOG as well as the statewide average PCI. This comparison data was presented

as part of the Statewide Needs Assessment<sup>3</sup>. As illustrated, the City's network PCI is in bottom two within MCOG and 19 points below the statewide average.

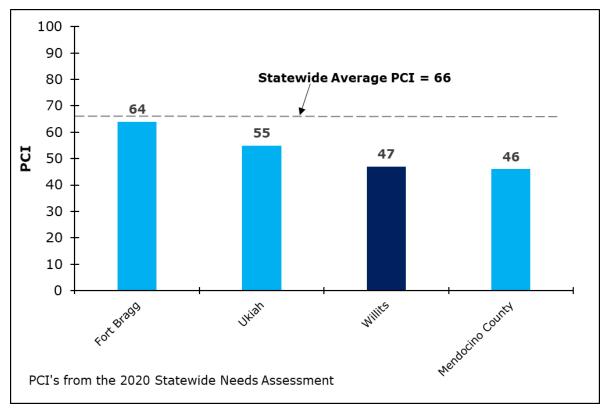


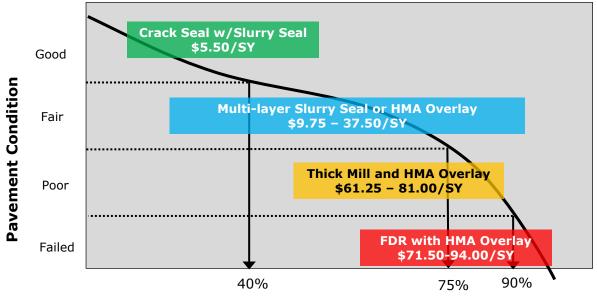
Figure 4. Comparison of Network PCI to Statewide Average

<sup>&</sup>lt;sup>3</sup> California Statewide Local Streets and Roads Needs Assessment, Nichols Consulting Engineers Chtd., August 2021.

## 4 Maintenance and Rehabilitation Strategies

Historically, the City has frequently used crack seals, slurry seal, chip seals and HMA overlays as maintenance and rehabilitation strategies. In general chip seals/slurry seals are applied to pavements in "Good" condition; a rubberized cape/chip seal or a thin hot mix asphalt (HMA) overlay are performed on pavements in "Fair" condition; mill with thick or thin HMA overlays are performed on pavements in "Poor" condition; and reconstruction (full depth reclamation (FDR) with HMA overlay or thick mill and HMA overlay) is performed when pavements are in "Failed" condition. These M&R strategies were discussed with the City and formalized into a decision tree<sup>4</sup> (presented in Appendix B), which is instrumental in performing the budget needs analysis and budget scenarios.

Experience and research have shown that it costs much less to maintain pavement in good condition than to repair pavements that have already failed. As shown in Figure 5, by allowing pavements to deteriorate, street that once cost \$5.50/square yard (SY) to seal may soon cost \$81/SY to overlay, or \$94/SY to reconstruct. In other words, delaying repairs can significantly increase M&R costs. Note that chip seals can be placed on approximately 17 times as many lane miles as those requiring surface reconstruction.



**Percent of Pavement Life** 

# Figure 5. Costs of Maintaining Pavements Over Time

<sup>&</sup>lt;sup>4</sup> Note: The StreetSaver<sup>®</sup> "Maintenance and Rehabilitation Decision Tree" divides the "Fair" condition category to separate pavements with primarily non-load-related distresses (e.g., longitudinal cracking) from those with load-related distresses (e.g., fatigue cracking).

## 5 Budget Analyses

Based on the principle that it costs less to maintain streets in good condition than it does to repair those that have failed, cost-effective PMPs employ strategies that eliminate the deferred maintenance<sup>5</sup> and then maintain the network with on-going preventive maintenance. Such strategies bring the network condition to an optimal PCI that can be maintained over time.

The first step in developing such a cost-effective strategy is to determine the total maintenance budget needs of the network. The next step is to conduct alternative budget scenario analyses. In consultation with the City, three funding scenarios were selected for analysis and performed using StreetSaver<sup>®</sup>:

- Scenario 1: Existing Budget This scenario assumes the City will spend approximately \$700,000 per year on pavement M&R for the next ten years.
- Scenario 2: Improve PCI to 55 by the 5<sup>th</sup> year and 60 by the 10<sup>th</sup> year
   This scenario aims to improve the existing network PCI of 47 to 55 over the next five years, and then to 60 by 2031.
- Scenario 3: Improve PCI to 65 This scenario aims to improve the network PCI to 65 by the end of analysis period.

The budget needs analysis and budget scenarios are presented in the following sections. The detailed results of the budget needs analysis are provided in Appendix C. The detailed results of the budget scenarios are provided in Appendix D. Additionally, maps illustrating the current pavement condition and the projected 2031 pavement condition for each scenario are provided in Appendix E.

 $<sup>^{\</sup>rm 5}$  Deferred maintenance is M&R not performed due to insufficient funding.

#### 5.1 BUDGET NEEDS ANALYSIS

The total budget needs for the network represents the cost associated with performing M&R treatments at the optimal time – optimal meaning the PCI is maximized and the cost is minimized – over the analysis period. This was done by performing a budget needs analysis in StreetSaver<sup>®</sup> with an inflation rate of 3 percent for an analysis period of ten years.

The results of the budget needs analysis are presented in Table 3. The total budget needs for the City for the next ten years is estimated to be \$20 million. Of the total budget needs, approximately \$2.5 million (12.5 percent) is devoted to preventive maintenance, while the rest is allocated for more costly rehabilitation and reconstruction treatments.

Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Budget Needs (\$M)	16.7	0.3	0.2	0.1	0.2	0.8	0.2	0.4	1.0	0.1	20.0
Treated PCI	93	89	88	86	86	86	85	84	86	84	NA
Untreated PCI	47	45	43	41	39	37	36	34	33	32	NA

## Table 3. Summary Results for Budget Needs Analysis

If the City follows this ideal, cost-effective strategy, the average network PCI will immediately increase as a large amount of deferred maintenance is addressed in the first year, and then stabilize between 80 and 85. This type of budget, that addresses the current deferred maintenance in the first year, is known as front-loaded. Alternatively, if no maintenance is performed over the next ten years, the PCI will drop to 32. The detailed results of the budget needs analysis are provided in Appendix C.

#### 5.2 SCENARIO 1: EXISTING FUNDING (\$7.0 M/10 YEARS)

This scenario assumes the City will have \$0.7 million to dedicate to pavement M&R each year for the next ten years. As shown in Table 4 and Figure 6, the network PCI will be maintained at 48 for next ten years. Additionally, by 2031, 42.1 percent of the network will be in "Failed" condition with 56.6 percent in "Good" condition. The deferred maintenance will slightly increase to \$18 million by 2031. A list of sections selected for treatment are provided in Appendix F.

Year	2021 before work	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Budget (\$M)	NA	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	7.0
Deferred Maintenance (\$M)	17	16	16	16	16	17	17	17	18	18	18	NA
Treated PCI	47	49	48	48	48	48	48	48	48	48	48	NA

#### Table 4. Summary Results for Scenario 1

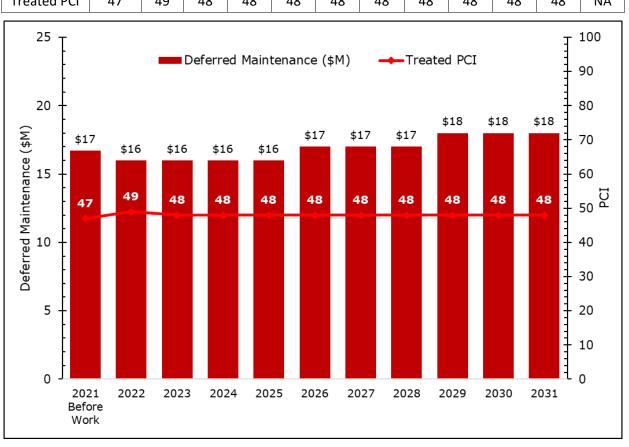


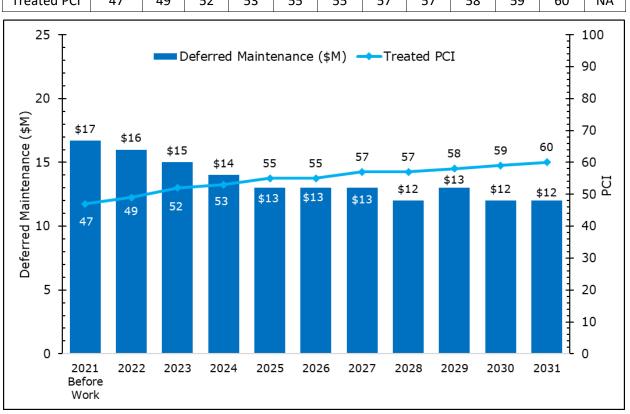
Figure 6. PCI vs Deferred Maintenance for Scenario 1

# 5.3 SCENARIO 2: IMPROVE PCI TO 55 BY 5TH YEAR AND 60 BY 10TH YEAR (\$12 M/10 YEARS)

This scenario aims to improve the network PCI from 47 to 55 by 2026 and then to 60 by 2031. As shown in Table 5 and Figure 7, the financial commitment required to accomplish this goal is \$12 million over ten years. This will result in 71.4 percent of the network being "Good" condition with 27.8 percent, in "Failed" condition. The deferred maintenance will decrease to \$12 million by the end of analysis period.

Year	2021 before work	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Budget (\$M)	NA	0.7	2.1	1.6	1.4	0.7	1.5	0.8	1.2	1.2	0.8	12.0
Deferred Maintenance (\$M)	17	16	15	14	13	13	13	12	13	12	12	NA
Treated PCI	47	49	52	53	55	55	57	57	58	59	60	NA

#### Table 5. Summary Results for Scenario 2



*Figure 7. PCI vs Deferred Maintenance for Scenario 2* 

#### 5.4 SCENARIO 3: IMPROVE PCI TO 65 (\$14.2 M/10 YEARS)

This scenario aims to improve the network PCI to 65. As shown in Table 6 and Figure 8, the financial commitment required to accomplish this goal is \$14.2 million over ten years which is approximately twice of the City's existing budget (Scenario 1). This will result in more than three quarters (76.8 percent) of the network in "Good" condition with 22.5 percent in "Failed" condition. The deferred maintenance will be decrease to \$10 million by the end of 2031.

Year	2021 before work	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Budget (\$M)	NA	0.7	2.0	1.7	1.7	1.2	2.0	1.5	1.5	1.0	0.9	14.2
Deferred Maintenance (\$M)	17	16	15	14	13	12	11	10	10	10	10	NA
Treated PCI	47	49	51	53	56	57	60	62	63	64	65	NA

#### Table 6. Summary Results for Scenario 3

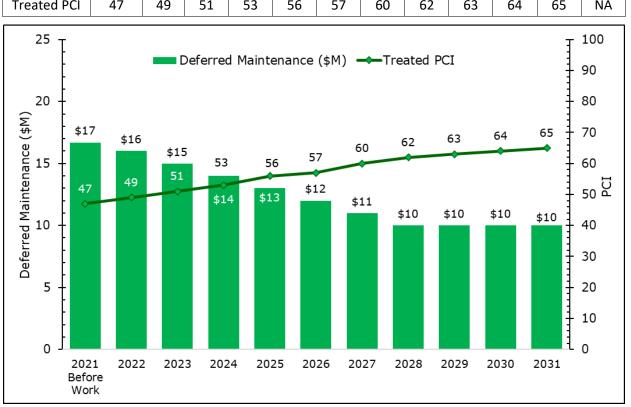
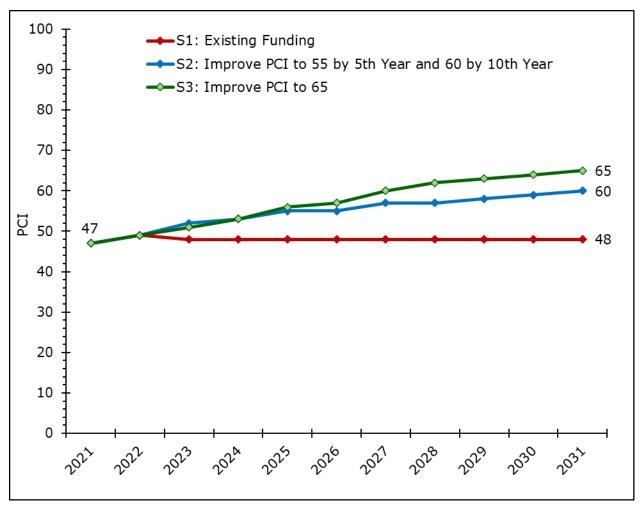


Figure 8. PCI vs Deferred Maintenance for Scenario 3

#### 5.5 SCENARIO COMPARISONS

Figure 9 graphically compares the annual changes in PCI for each of the scenarios. As previously noted, the PCI will be maintained at 48 in Scenario 1, be improved to 55 by 2026 and then to 60 by 2031 in Scenario 2, and increase to 65 in Scenario 3 by the end of analysis period.



#### Figure 9. Comparison of Annual PCI by Scenario

Figure 10 illustrates the changes in deferred maintenance over time for each scenario. For Scenario 1, the deferred maintenance will be \$18 million by the end of analysis period. In Scenarios 2 and 3 it will drop to \$12 million and \$10 million, respectively by 2031.

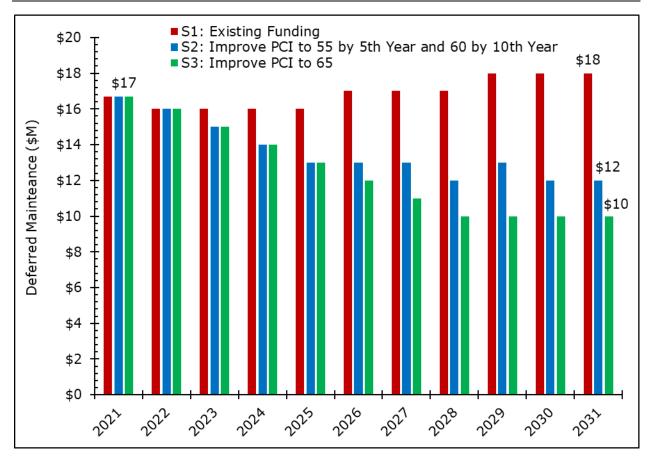


Figure 10. Comparison of Annual Deferred Maintenance by Scenario

Figure 11 illustrates the percent change in pavement condition for each scenario. As noted earlier, currently, 36.3 percent of the network is in "Good" condition, with 52.6 percent in "Poor" or "Failed" condition. For Scenario 1, the portion of the network in "Good" condition will increase to 56.6 percent but the portion in "Failed" condition will also increase to 42.1%. For Scenario 2, 71.4 percent will be in "Good" condition with 27.8 percent being in "Failed" condition. In Scenario 3, more than three quarters of the network will be in "Good" condition with 22.5 percent being in "Failed" condition.

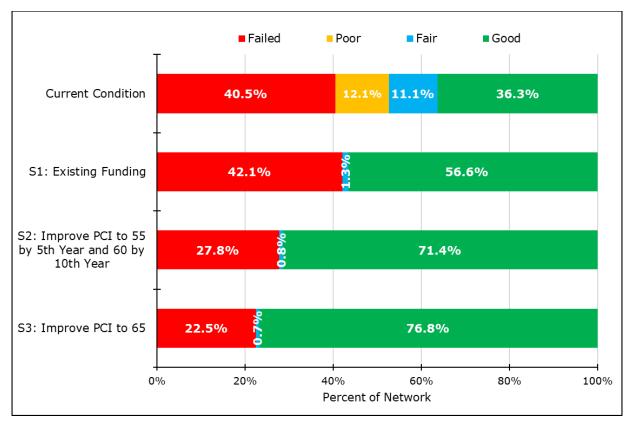


Figure 11. Comparison of Pavement Condition Breakdown by Scenario

## **6 Conclusion and Recommendations**

In summary, City of Willits has a substantial investment of \$39 million in the pavement network. Overall, the City's streets are in "Poor" condition with a 2021 PCI of 47. Approximately 36.3 percent of the road network is in "Good" condition and 40.5 percent is in "Failed" condition.

The analyses indicate that the City needs to spend approximately \$20 million on maintenance and rehabilitation over the next ten years to optimally repair all pavement sections, thus bringing the network into a condition that can be maintained with on-going preventive maintenance. In the long run, this strategy will save the City money by preventing future pavement deterioration to levels requiring rehabilitation or reconstruction.

Based on the data collected and the scenarios analyzed and presented in this report, NCE offers the following recommendations.

**1. Funding** - The primary goal of PMPs should be to offer users a safe and functional pavement network without unduly increasing the maintenance burden in the future. With that in mind, the recommended scenario for the City is Scenario 2, which requires \$12 million over the next ten years to improve the PCI to 55 by the 5<sup>th</sup> year and then to 60 by the 10<sup>th</sup> year. This budget allocation will increase the portion of the network in "Good" condition and limit the increase in deferred maintenance.

To address the gap between the City's existing funding and the recommended scenario, NCE recommends the City pursue additional funding sources. Potential sources include:

#### Federal Funding Sources

- Regional Surface Transportation Program (RSTP)
- Surface Transportation Program (STP)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Community Development Block Grants (CDBG)
- Highway Safety Improvement Program (HSIP)
- Federal Emergency Management Agency (FEMA)

#### State Funding Sources

- Active Transportation Program (ATP), which now includes the Bicycle Transportation Account (BTA) and Safe Routes to Schools (SR2S)
- State Transportation Improvement Program (STIP)
- AB 2766 (vehicle surcharge)
- Vehicle License Fees (VLF)
- CalRecycle grants

- State Water Resource Control Board
- Transportation Development Act (TDA)
- Traffic Safety Fund
- Transportation Uniform Mitigation Fee (TUMF)

## Local/Regional Funding Sources

- Sales tax measure
- Development impact fees
- General funds
- Various assessment districts (lighting, maintenance, flood control, community facilities)
- Traffic impact fees
- Utilities (e.g., stormwater, water, wastewater enterprise funds)
- Parcel/property taxes
- Vehicle registration fees
- Vehicle code fines
- 2. Pavement Management Strategies Since more than a quarter of City's streets are currently in "Good" condition, it is important to maintain that condition to the extent possible. Preservation occurs when streets with PCIs higher than 70 receive treatments such as surface seals (slurry, chip, microsurfacing, etc.). Seals are relatively inexpensive treatments that prevent moisture ingress and thus preserve the integrity of the underlying base material. NCE recommends that the City balance preventive maintenance with rehabilitation and reconstruction projects to preserve pavements in "Good" or "Fair" condition, improve pavements in "Poor" condition, and avoid increasing the deferred maintenance.
- **3. Reinspection Strategies** In order to make appropriate management decisions based on current data, NCE recommends that the City perform condition inspections on arterials and collectors every 2 years and on residentials at least every 4 to 5 years. Additionally, since StreetSaver<sup>®</sup> and other prediction models do not yet consider the effect of specialized materials such as asphalt-binders with rubber or polymers, the actual performance of City pavements may not be fully modeled in the analysis. For this additional reason, NCE recommends regular pavement condition surveys to ensure model accuracy and relevance.
- **4. M&R Decision Tree** NCE recommends that the City annually review and update the M&R treatment strategies and associated unit costs to reflect current construction techniques and changing costs. This will ensure that the results for the budget analyses are reliable and as accurate as possible.

# Appendix A

SECTION DESCRIPTION INVENTORY

# **Section Description Inventory Report**

This report lists a variety of section description information for each of the agency's pavement sections. It lists the street and section identifiers, limits, functional class, surface type, number of lanes, length, width, area, Inspected PCI, and PCI date.

All of the agency's pavement sections are included in the report. Two versions of the report are provided. The first is sorted alphabetically by Street Name and Section ID and the second report is sorted by descending PCI. The field descriptions in this report are listed below:

COLUMN	DESCRIPTION
Street ID	Street Identification - A code up to ten characters/digits to identify the street. Generally, the street name is truncated to six characters. The Street ID should be unique for each street.
Section ID	Section Identification - A code up to ten characters/digits to identify the section number. The Section ID must be unique for each section of one street.
Street Name	Street Name - The name of the street as indicated by signs in the field.
Begin Location	Beginning limit of the section.
End Location	Ending limit of the section.
No. of Lanes	Number of travel lanes.
Functional Class (FC)	Functional Classification: Arterial; Collector; Residential; Other
Length (ft)	Length of the section in feet.
Width (ft)	Average width of the section in feet.
Area (sf)	Area of section in square feet.
Surface Type (ST)	Surface Type: AC (Asphalt Concrete), ST (Surface Treated), Gravel
Last M&R Date	The date of last maintenance or rehabilitation
Last M&R Treatment	Type of treatment (maintenance or rehabilitation) received the last time
PCI Date	The last inspection date or treatment date (whichever is the latest)
PCI	Average PCI for the section. The value is based on the last inspection or last treatment (whichever is the latest).

Section Description Inventory – Sorted by Street Name

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
Alamed	01	Alameda Avenue	Main Street	Central Street	2	Other	630	23	14,490	AC/AC	10/1/2000	AC OVERLAY (2")	7/29/2021	69
Alderct	01	Alder Court	Alder Lane	Dead End	2	Residential	530	30	15,900	AC			7/28/2021	32
Alder	01	Alder Lane	west end	Main Street	2	Other	850	37	31,450	AC			7/28/2021	19
Alice	01	Alice Drive	Margie Drive	Nancy Lane	2	Other	700	33	23,100	AC			7/28/2021	3
Baecht	01	Baechtel Road	Main Street	Main Street	2	Collector	4,800	34	163,200	AC/AC	11/1/2003	1" LC & 2" OL w/FABRIC	7/28/2021	27
Bitten	01	Bittenbender Lane	end	Main Street	2	Other	500	13	6,500	AC			7/30/2021	31
Bloss	05	Blosser Lane	SOUTH END (CITY LIMITS)	113 FT S/O RR TRACKS	2	Collector	1,107	37	40,959	AC/AC			7/30/2021	0
Bloss	10	Blosser Lane	113 FT S/O RR TRACKS	FRANKLIN AVE	2	Collector	523	39	20,397	AC	10/1/2000	RECONSTRUCT SURFACE (AC)	7/30/2021	70
Bloss	15	Blosser Lane	FRANKLIN AVE	HWY 20	2	Collector	730	39	28,470	AC/AC			7/30/2021	0
Bonnie	01	Bonnie Lane	Nancy Lane	north end	2	Other	1,250	33	41,250	AC	4/1/2007	DOUBLE CHIP SEAL	7/28/2021	32
Bosca	01	Boscabelle Avenue	East Valley Street	East San Francisco Avenue	2	Other	680	27	18,360	AC/AC			7/29/2021	2
Brooks	01	Brookside Drive	West Mendocino Avenue	Hawthorne Lane	2	Other	450	32	14,400	AC/AC			7/30/2021	7
Bush	01	Bush Street	Coast Street	McKinley Street	2	Other	250	35	8,750	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	41
Calif	01	California Street	Main Street	Penn Street	2	Other	480	38	18,240	AC/AC			7/29/2021	4
Campln	01	Camp Lane	Spruce Street	end	2	Other	200	19	3,800	AC/AC			7/30/2021	3
Castee	01	Casteel Lane	Main Street	Williams Street	2	Other	250	22	5,500	AC			7/27/2021	4
Cather	01	Catherine Lane	Pine Avenue	Wood Street	2	Other	450	12	5,400	AC			7/30/2021	2
Cather	02	Catherine Lane	Wood Street	West Mendocino Avenue	1	Other	200	12	2,400	GRAVEL			-	-
Centra	01	Central Street	South Street	East San Francisco Avenue	2	Other	1,170	37	43,290	AC	8/1/2012	FDR W/4" AC OVERLAY	7/27/2021	71
Coast	01	Coast Street	Hwy 20	Pine Avenue	2	Collector	2,180	30	65,400	AC/AC			7/30/2021	17
Creek	01	Creekside Drive	East Valley Street	South Lenore Street	2	Other	1,050	35	36,750	AC/AC			7/29/2021	5
EBarb	01	East Barbara Lane	Main Street	Central Street	1	Other	510	12	6,120	AC			7/29/2021	13
EBarb	02	East Barbara Lane	Central Street	Railroad Avenue	2	Other	620	20	12,400	AC	8/1/2012	FDR W/4" AC OVERLAY	7/29/2021	91
EComm	01	East Commercial Street	Main Street	1400 feet East	2	Arterial	1,400	54	75,600	AC/AC	4/1/2007	# 2 Slurry seal	7/27/2021	56
EComm	02	East Commercial Street	1400 feet East of Main Street	Broaddus Creek Bridge	2	Collector	500	54	27,000	AC/AC	4/1/2007	AC OVERLAY (2")	7/27/2021	76
EComm	05	East Commercial Street	Broaddus Creek Bridge	312 ft E/O Broaddus Creek Brid	2	Collector	312	66	20,592	AC/AC			7/27/2021	47
EComm	07	East Commercial Street	312 ft E/O Broaddus Creek Brid	City Limits	2	Collector	1,588	54	85,752	AC			7/27/2021	44

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
EHill	01	East Hill Road	Baechtel Road	bridge at Haehl Creek	2	Collector	600	32	19,200	AC/AC	8/1/2015	AC OVERLAY (3")	7/28/2021	90
EHill	02	East Hill Road	bridge at Haehl Creek	east end (City Limits)	2	Collector	1,600	30	48,000	AC/AC	8/1/2015	AC OVERLAY (3")	7/28/2021	88
EMendo	01	East Mendocino Avenue	Main Street	Madden Lane	2	Other	830	25	20,750	AC			7/29/2021	11
EOak	01	East Oak Avenue	Main Street	Railroad Avenue	2	Other	1,150	37	42,550	AC/AC			7/29/2021	27
ESan	01	East San Francisco Ave	Main Street	east end	2	Other	1,900	37	70,300	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	72
EVally	05	East Valley Street	MAIN ST	827 FT W/O CITY LIMIT	2	Collector	2,060	40	82,400	AC/AC	1/1/2020	SLURRY SEAL	7/30/2021	77
EVally	10	East Valley Street	827 FT W/O CITY LIMIT	EAST END (CITY LIMIT)	2	Collector	827	23	19,021	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	68
EVan	01	East Van Lane	Main Street	Humboldt Street	1	Other	290	12	3,480	AC			7/29/2021	65
EVan	02	East Van Lane	Marin Street	Madden Lane	2	Other	250	16	4,000	AC			7/29/2021	25
EasySt	01	Easy Street	Redwood Avenue	West Mendocino Avenue	2	Other	310	36	11,160	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	47
Elm	01	Elm Lane	Muir Canyon Road	ALDER LANE	2	Other	820	33	27,060	AC/AC			7/28/2021	8
EvaClaire	01	Eva Claire Street	Holly Street	Dead End	2	Residential	560	22	12,320	AC			7/28/2021	5
Frank	01	Franklin Avenue	Blosser Lane	Main Street	2	Collector	2,380	29	69,020	AC/AC			7/30/2021	3
Gregor	01	Gregory Lane	west end	Main Street	2	Other	280	32	8,960	AC			7/28/2021	4
Grove	01	Grove Street	Haehl Creek Drive(loop)	Haehl Creek Drive(loop)	2	Residential	1,430	32	45,760	AC			7/28/2021	90
Haehlct	01	Haehl Creek Court	Haehl Creek Drive	Dead End	2	Residential	850	32	27,200	AC	1/1/2020	SLURRY SEAL	1/1/2020	84
Haehldr	01	Haehl Creek Drive	East Hill Road	Haehl Creek Court	2	Residential	1,950	32	62,400	AC	1/1/2020	SLURRY SEAL	1/1/2020	90
Harmon	01	Harmon Lane	Franklin Avenue	Hwy 20	2	Other	170	11	1,870	AC/AC			7/30/2021	8
Harms	01	Harms Lane	North Street	Coast Street	2	Other	780	21	16,380	AC/AC			7/30/2021	41
HawCt	01	Hawthorne Court	Hawthorne Lane	end	2	Other	200	25	5,000	AC/AC			7/30/2021	5
Hawln	01	Hawthorne Lane	Exley Lane	Brookside Drive	2	Other	400	32	12,800	AC/AC			7/30/2021	5
Hazel	05	Hazel Street	Main Street	Poplar Street	2	Other	653	32	20,896	AC/AC			7/28/2021	20
Hazel	10	Hazel Street	Poplar Street	Locust Street	2	Other	817	38	31,046	AC/AC			7/28/2021	91
Hellum	01	Hellums Lane	End	Main Street	2	Other	400	12	4,800	AC			7/30/2021	4
Hillsi	01	Hillside Drive	Mill Creek Drive	end	2	Other	450	32	14,400	AC			7/30/2021	1
Holly	01	Holly Street	Locust Street	Main Street	2	Collector	1,480	39	57,720	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	91
Humbol	02	Humboldt Street	East Valley St	East Commercial St	2	Collector	1,124	37	41,588	AC/AC	8/1/2015	AC OVERLAY (5.4") W/ PAVING GRID	7/29/2021	96

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
Humbol	03	Humboldt Street	East Commercial St	North End	2	Collector	526	36	18,936	AC/AC			7/29/2021	4
Laurel	01	Laurel Street	west end	Maple Street	2	Other	670	16	10,720	AC/AC			7/29/2021	0
Laurel	02	Laurel Street	Maple Street	North Street	2	Other	400	30	12,000	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/29/2021	100
Laurel	03	Laurel Street	North Street	Mill Street	2	Other	410	30	12,300	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	59
Lincol	01	Lincoln Way	Brookside Drive	end	2	Other	150	32	4,800	AC/AC			7/30/2021	9
Locust	01	Locust Street	Holly Street	Walnut Street	2	Collector	1,150	35	40,250	AC/AC			7/28/2021	7
Madden	01	Madden Lane	East Van Lane	Pearl Street	2	Other	460	31	14,260	AC	1/1/2020	SLURRY SEAL	1/1/2020	93
Madden	02	Madden Lane	Pearl Street	East Valley Street	2	Other	400	31	12,400	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	48
Madron	01	Madrone Street	Magnolia Avenue	Main Street	2	Other	800	46	36,800	AC/AC			7/28/2021	8
Magnol	01	Magnolia Avenue	Holly Street	Walnut Street	2	Other	1,300	36	46,800	AC/AC			7/28/2021	84
Manor	01	Manor Way	west end	Main Street	2	Other	450	32	14,400	AC			7/28/2021	8
Manzan	01	Manzanita Avenue	Holly Street	Hazel Street	2	Other	440	18	7,920	GRAVEL			-	-
Maple	01	Maple Street	Pine Street	Redwood Avenue	2	Other	360	36	12,960	AC/AC	1/1/2020	SLURRY SEAL	7/30/2021	98
Maple	011	Maple Street	South End	Pine Street	2	Other	400	36	14,400	AC/AC	7/1/2019	AC OVERLAY (1.5")	7/30/2021	100
Maple	02	Maple Street	East Mendocino Avenue	north end	2	Other	400	40	16,000	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/30/2021	100
Margie	01	Margie Drive	Monica Lane	Bonnie Lane	2	Other	1,800	34	61,200	AC	4/1/2007	DOUBLE CHIP SEAL	7/28/2021	24
Marin	01	Marin Street	East Van Lane	State Street	2	Other	520	35	18,200	AC/AC			7/29/2021	9
McKin	01	McKinley Street	Bush Street	West Valley Street	2	Other	920	36	33,120	AC/AC			7/30/2021	3
Mcrkct	01	Mill Creek Court	Northbrook Way	end	2	Other	200	36	7,200	AC	7/15/2019	SLURRY SEAL	7/30/2021	94
MCreek	05	Mill Creek Drive	MILL CREEK CT	HILLSIDE DR	2	Other	1,800	36	64,800	AC	7/15/2019	SLURRY SEAL	7/30/2021	90
MCreek	10	Mill Creek Drive	HILLSIDE DR	WEST COMMERCIAL STREET	2	Other	560	36	20,160	AC/AC	7/15/2019	SLURRY SEAL	7/30/2021	89
Mill	01	Mill Street	Coast Street	Pine Avenue	2	Collector	1,180	37	43,660	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	93
Monica	01	Monica Lane	Main Street	Margie Drive	2	Other	140	34	4,760	AC			7/28/2021	23
Monroe	01	Monroe Street	Main Street	Central Street	2	Other	570	37	21,090	AC/AC			7/29/2021	7
Muir	01	Muir Lane	Wood Street	West Commercial Street	1	Other	600	20	12,000	AC			7/30/2021	48
Nancy	01	Nancy Lane	Margie Drive	Bonnie Lane	2	Other	600	33	19,800	AC			7/28/2021	18
NLenor	01	North Lenore Street	East Commercial Street	1000 FT. N/E. COMMERCIAL ST.	2	Other	1,000	21	21,000	AC/AC			7/29/2021	22

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
NLenor	02	North Lenore Street	1000 FT. N/E. COMMERCIAL ST.	SEWER PLANT ROAD	2	Other	850	21	17,850	AC/AC			7/29/2021	2
MAIN	01	North Main Street	HWY 20	North End	2	Arterial	6,864	26	178,464	AC/AC	7/1/2019	MILL AND THICK OVERLAY	7/1/2019	100
North	01A	North Street	south end	West Mendocino Street	2	Collector	1,566	37	57,942	AC/AC			7/29/2021	2
North	01B	North Street	West Mendocino Street	West Commercial Street	2	Collector	404	37	14,948	AC/AC	7/15/2019	SLURRY SEAL	7/29/2021	96
Nbrook	01	Northbrook Way	Mill Creek Drive	Mill Creek Drive	2	Other	1,300	33	42,900	AC	1/1/2020	SLURRY SEAL	1/1/2020	78
Pearl	01	Pearl Street	Humboldt Street	Madden Lane	2	Other	520	19	9,880	AC			7/29/2021	7
Penn	01	Penn Street	California Street	East Valley Street	2	Other	250	37	9,250	AC/AC			7/29/2021	4
Pine	05	Pine Street	SPRUCE ST	MAPLE ST	2	Collector	360	37	13,320	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/30/2021	100
Pine	10	Pine Street	MAPLE ST	COAST ST	2	Collector	1,140	37	42,180	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	70
Poplar	01	Poplar Avenue	Furlong Road	Walnut Street	2	Other	1,700	46	78,200	AC/AC			7/28/2021	12
Rail	01	Railroad Avenue	East Valley Street	East San Francisco Avenue	2	Collector	750	22	16,500	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/29/2021	29
Rail	02A	Railroad Avenue	East San Francisco Avenue	E Oak Street	2	Collector	830	32	26,560	AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	75
Rail	02B	Railroad Avenue	E Oak Street	south end (s/Baechtel Creek)	2	Collector	1,100	32	35,200	AC/AC	8/1/2010	AC OVERLAY (4")	7/29/2021	81
Raymnd	01	Raymond Lane	Coast Street	Pine Avenue	2	Other	1,250	18	22,500	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	63
Redwd	05	Redwood Avenue	WEST END	EASY STREET	2	Other	697	34	23,698	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	81
Redwd	10A	Redwood Avenue	NORTH STREET	SPRUCE STREET	2	Other	696	34	23,664	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	78
Redwd	10B	Redwood Avenue	SPRUCE STREET	EASY STREET	2	Other	350	34	11,900	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	76
ROBERT	01	ROBERT DR	BLOSSER LN	END WEST	2	Collector	890	41	49,816	AC			7/30/2021	74
Sandy	01	Sandy Lane	Baechtel Road	Bonnie Lane	2	Other	570	33	18,810	AC	4/1/2007	DOUBLE CHIP SEAL	7/28/2021	38
SANHED	01	SANHEDRIN CIRCLE	END SOUTH	EAST HILL RD	2	Collector	762	25	19,050	AC	1/1/2020	SLURRY SEAL	1/1/2020	85
SCHNEI	01	Schnieder Lane	West Oak Street	State Route 20	2	Other	260	11	2,860	AC/AC			2/1/2017	12
School	01	School Street	Pine Avenue	West Commercial Street	2	Collector	1,060	34	36,040	AC/AC	11/16/2021	SLURRY SEAL	11/16/2021	85
SEQURD	10	SEQUOIA ROAD	REDWOOD AVE	S END	2	Residential	450	22	9,900	AC			7/30/2021	0
SPlant	01	Sewer Plant Road	North Lenore Street	east end (sewer plant)	2	Other	1,230	16	19,680	AC			7/29/2021	44
Shell	01	Shell Lane	Baechtel Road	railroad tracks	2	Other	1,000	28	28,000	AC	11/1/1997	RECONSTRUCT SURFACE (AC)	7/28/2021	69
Sherwd	01	Sherwood Road	City Limits	Main Street	2	Arterial	2,100	24	50,400	AC/AC	8/2/2011	SEAL CRACKS	7/27/2021	63
SCoast	01	South Coast Street	Coast Street	Bush Street	2	Other	200	17	3,400	AC			7/30/2021	7

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
SLenor	05	South Lenore Avenue	EAST COMMERCIAL ST	EAST VALLEY ST	2	Other	1,080	38	41,040	AC/AC	10/1/2000	AC OVERLAY (2")	7/27/2021	41
SLenor	10	South Lenore Avenue	EAST VALLEY ST	EAST SAN FRANCISCO AVE	2	Other	730	27	19,710	AC/AC			7/27/2021	10
South	01	South Street	Main Street	Central Street	2	Other	450	36	16,200	AC	10/1/2000	RECONSTRUCT SURFACE (AC)	7/29/2021	68
Spruce	01	Spruce Street	Pine Avenue	north end (Brookside School)	2	Other	1,000	35	35,000	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/30/2021	70
State	01	State Street	Main Street	east end	2	Other	900	40	36,000	AC/AC			7/29/2021	0
Tuttle	01	Tuttle Lane	Humboldt Street	Madden Lane	2	Other	520	15	7,800	AC			7/29/2021	0
Walnut	01	Walnut Street	Main Street	Magnolia	2	Collector	600	35	21,000	AC/AC			7/28/2021	77
Walnut	02	Walnut Street	Magnolia	Locust Street	2	Collector	700	35	24,500	AC/AC			7/28/2021	3
WComme	01	West Commercial Street	North Street	Main Street	2	Arterial	930	54	50,220	AC/AC	8/1/2010	MILL AND OVERLAY (3.5") W/ FABRIC	7/29/2021	69
WFRANK	05	West Franklin Avenue	BLOSSER LN	END WEST	2	Collector	700	44	41,862	AC/AC			7/30/2021	39
Wmendo	01	West Mendocino Avenue	Hawthorne Lane	Main Street	2	Collector	3,000	37	111,000	AC/AC			7/30/2021	15
WOak	01	West Oak Street	west end	Main Street	2	Other	650	36	23,400	AC/AC	4/1/2007	AC OVERLAY (2")	7/30/2021	95
WSan	01	West San Francisco Ave	Coast Street	McKinley Street	2	Other	250	30	7,500	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	39
WVally	01	West Valley Street	Coast Street	Main Street	2	Other	420	37	15,540	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	93
WVanIn	01	West Van Lane	North Street	School Street	1	Other	490	12	5,880	GRAVEL			-	-
WVanLn	02	West Van Lane	School Street	Main Street	1	Other	420	11	4,620	AC			7/30/2021	2
Willia	01	Williams Street	Casteel Lane	north end	2	Other	500	17	8,500	AC			7/27/2021	4
Willow	01	Willow Lane	Baechtel Road	end of street	2	Other	450	24	10,800	AC			7/28/2021	58
WoodSt	05	Wood Street	NORTH ST	SCHOOL ST	2	Other	600	22	13,200	AC/AC			7/30/2021	0
WoodSt	10	Wood Street	SCHOOL ST	MAIN ST	2	Other	370	22	8,140	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	79

Section Description Inventory – Sorted by Descending PCI

#### City of Willits PCI List by Descending PCI 2021 PMP Update

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
Laurel	02	Laurel Street	Maple Street	North Street	2	Other	400	30	12,000	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/29/2021	100
Maple	011	Maple Street	South End	Pine Street	2	Other	400	36	14,400	AC/AC	7/1/2019	AC OVERLAY (1.5")	7/30/2021	100
Maple	02	Maple Street	East Mendocino Avenue	north end	2	Other	400	40	16,000	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/30/2021	100
MAIN	01	North Main Street	HWY 20	North End	2	Arterial	6,864	26	178,464	AC/AC	7/1/2019	MILL AND THICK OVERLAY	7/1/2019	100
Pine	05	Pine Street	SPRUCE ST	MAPLE ST	2	Collector	360	37	13,320	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/30/2021	100
Maple	01	Maple Street	Pine Street	Redwood Avenue	2	Other	360	36	12,960	AC/AC	1/1/2020	SLURRY SEAL	7/30/2021	98
Humbol	02	Humboldt Street	East Valley St	East Commercial St	2	Collector	1,124	37	41,588	AC/AC	8/1/2015	AC OVERLAY (5.4") W/ PAVING GRID	7/29/2021	96
North	01B	North Street	West Mendocino Street	West Commercial Street	2	Collector	404	37	14,948	AC/AC	7/15/2019	SLURRY SEAL	7/29/2021	96
WOak	01	West Oak Street	west end	Main Street	2	Other	650	36	23,400	AC/AC	4/1/2007	AC OVERLAY (2")	7/30/2021	95
Mcrkct	01	Mill Creek Court	Northbrook Way	end	2	Other	200	36	7,200	AC	7/15/2019	SLURRY SEAL	7/30/2021	94
Madden	01	Madden Lane	East Van Lane	Pearl Street	2	Other	460	31	14,260	AC	1/1/2020	SLURRY SEAL	1/1/2020	93
Mill	01	Mill Street	Coast Street	Pine Avenue	2	Collector	1,180	37	43,660	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	93
WVally	01	West Valley Street	Coast Street	Main Street	2	Other	420	37	15,540	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	93
EBarb	02	East Barbara Lane	Central Street	Railroad Avenue	2	Other	620	20	12,400	AC	8/1/2012	FDR W/4" AC OVERLAY	7/29/2021	91
Hazel	10	Hazel Street	Poplar Street	Locust Street	2	Other	817	38	31,046	AC/AC			7/28/2021	91
Holly	01	Holly Street	Locust Street	Main Street	2	Collector	1,480	39	57,720	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	91
EHill	01	East Hill Road	Baechtel Road	bridge at Haehl Creek	2	Collector	600	32	19,200	AC/AC	8/1/2015	AC OVERLAY (3")	7/28/2021	90
Grove	01	Grove Street	Haehl Creek Drive(loop)	Haehl Creek Drive(loop)	2	Residential	1,430	32	45,760	AC			7/28/2021	90
Haehldr	01	Haehl Creek Drive	East Hill Road	Haehl Creek Court	2	Residential	1,950	32	62,400	AC	1/1/2020	SLURRY SEAL	1/1/2020	90
MCreek	05	Mill Creek Drive	MILL CREEK CT	HILLSIDE DR	2	Other	1,800	36	64,800	AC	7/15/2019	SLURRY SEAL	7/30/2021	90
MCreek	10	Mill Creek Drive	HILLSIDE DR	WEST COMMERCIAL STREET	2	Other	560	36	20,160	AC/AC	7/15/2019	SLURRY SEAL	7/30/2021	89
EHill	02	East Hill Road	bridge at Haehl Creek	east end (City Limits)	2	Collector	1,600	30	48,000	AC/AC	8/1/2015	AC OVERLAY (3")	7/28/2021	88
SANHED	01	SANHEDRIN CIRCLE	END SOUTH	EAST HILL RD	2	Collector	762	25	19,050	AC	1/1/2020	SLURRY SEAL	1/1/2020	85
School	01	School Street	Pine Avenue	West Commercial Street	2	Collector	1,060	34	36,040	AC/AC	11/16/2021	SLURRY SEAL	11/16/2021	85
Haehlct	01	Haehl Creek Court	Haehl Creek Drive	Dead End	2	Residential	850	32	27,200	AC	1/1/2020	SLURRY SEAL	1/1/2020	84
Magnol	01	Magnolia Avenue	Holly Street	Walnut Street	2	Other	1,300	36	46,800	AC/AC			7/28/2021	84
Rail	02B	Railroad Avenue	E Oak Street	south end (s/Baechtel Creek)	2	Collector	1,100	32	35,200	AC/AC	8/1/2010	AC OVERLAY (4")	7/29/2021	81

#### City of Willits PCI List by Descending PCI 2021 PMP Update

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
Redwd	05	Redwood Avenue	WEST END	EASY STREET	2	Other	697	34	23,698	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	81
WoodSt	10	Wood Street	SCHOOL ST	MAIN ST	2	Other	370	22	8,140	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	79
Nbrook	01	Northbrook Way	Mill Creek Drive	Mill Creek Drive	2	Other	1,300	33	42,900	AC	1/1/2020	SLURRY SEAL	1/1/2020	78
Redwd	10A	Redwood Avenue	NORTH STREET	SPRUCE STREET	2	Other	696	34	23,664	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	78
EVally	05	East Valley Street	MAIN ST	827 FT W/O CITY LIMIT	2	Collector	2,060	40	82,400	AC/AC	1/1/2020	SLURRY SEAL	7/30/2021	77
Walnut	01	Walnut Street	Main Street	Magnolia	2	Collector	600	35	21,000	AC/AC			7/28/2021	77
EComm	02	East Commercial Street	1400 feet East of Main Street	Broaddus Creek Bridge	2	Collector	500	54	27,000	AC/AC	4/1/2007	AC OVERLAY (2")	7/27/2021	76
Redwd	10B	Redwood Avenue	SPRUCE STREET	EASY STREET	2	Other	350	34	11,900	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	76
Rail	02A	Railroad Avenue	East San Francisco Avenue	E Oak Street	2	Collector	830	32	26,560	AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	75
ROBERT	01	ROBERT DR	BLOSSER LN	END WEST	2	Collector	890	41	49,816	AC			7/30/2021	74
ESan	01	East San Francisco Ave	Main Street	east end	2	Other	1,900	37	70,300	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	72
Centra	01	Central Street	South Street	East San Francisco Avenue	2	Other	1,170	37	43,290	AC	8/1/2012	FDR W/4" AC OVERLAY	7/27/2021	71
Bloss	10	Blosser Lane	113 FT S/O RR TRACKS	FRANKLIN AVE	2	Collector	523	39	20,397	AC	10/1/2000	RECONSTRUCT SURFACE (AC)	7/30/2021	70
Pine	10	Pine Street	MAPLE ST	COAST ST	2	Collector	1,140	37	42,180	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	70
Spruce	01	Spruce Street	Pine Avenue	north end (Brookside School)	2	Other	1,000	35	35,000	AC/AC	1/1/2019	MILL AND THIN OVERLAY	7/30/2021	70
Alamed	01	Alameda Avenue	Main Street	Central Street	2	Other	630	23	14,490	AC/AC	10/1/2000	AC OVERLAY (2")	7/29/2021	69
Shell	01	Shell Lane	Baechtel Road	railroad tracks	2	Other	1,000	28	28,000	AC	11/1/1997	RECONSTRUCT SURFACE (AC)	7/28/2021	69
WComme	01	West Commercial Street	North Street	Main Street	2	Arterial	930	54	50,220	AC/AC	8/1/2010	MILL AND OVERLAY (3.5") W/ FABRIC	7/29/2021	69
EVally	10	East Valley Street	827 FT W/O CITY LIMIT	EAST END (CITY LIMIT)	2	Collector	827	23	19,021	AC/AC	7/15/2019	SLURRY SEAL	7/15/2019	68
South	01	South Street	Main Street	Central Street	2	Other	450	36	16,200	AC	10/1/2000	RECONSTRUCT SURFACE (AC)	7/29/2021	68
EVan	01	East Van Lane	Main Street	Humboldt Street	1	Other	290	12	3,480	AC			7/29/2021	65
Raymnd	01	Raymond Lane	Coast Street	Pine Avenue	2	Other	1,250	18	22,500	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	63
Sherwd	01	Sherwood Road	City Limits	Main Street	2	Arterial	2,100	24	50,400	AC/AC	8/2/2011	SEAL CRACKS	7/27/2021	63
Laurel	03	Laurel Street	North Street	Mill Street	2	Other	410	30	12,300	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	59
Willow	01	Willow Lane	Baechtel Road	end of street	2	Other	450	24	10,800	AC			7/28/2021	58
EComm	01	East Commercial Street	Main Street	1400 feet East	2	Arterial	1,400	54	75,600	AC/AC	4/1/2007	# 2 Slurry seal	7/27/2021	56
Madden	02	Madden Lane	Pearl Street	East Valley Street	2	Other	400	31	12,400	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	48

#### City of Willits PCI List by Descending PCI 2021 PMP Update

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
Muir	01	Muir Lane	Wood Street	West Commercial Street	1	Other	600	20	12,000	AC			7/30/2021	48
EComm	05	East Commercial Street	Broaddus Creek Bridge	312 ft E/O Broaddus Creek Brid	2	Collector	312	66	20,592	AC/AC			7/27/2021	47
EasySt	01	Easy Street	Redwood Avenue	West Mendocino Avenue	2	Other	310	36	11,160	AC/AC	1/1/2020	SLURRY SEAL	1/1/2020	47
EComm	07	East Commercial Street	312 ft E/O Broaddus Creek Brid	City Limits	2	Collector	1,588	54	85,752	AC			7/27/2021	44
SPlant	01	Sewer Plant Road	North Lenore Street	east end (sewer plant)	2	Other	1,230	16	19,680	AC			7/29/2021	44
Bush	01	Bush Street	Coast Street	McKinley Street	2	Other	250	35	8,750	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	41
Harms	01	Harms Lane	North Street	Coast Street	2	Other	780	21	16,380	AC/AC			7/30/2021	41
SLenor	05	South Lenore Avenue	EAST COMMERCIAL ST	EAST VALLEY ST	2	Other	1,080	38	41,040	AC/AC	10/1/2000	AC OVERLAY (2")	7/27/2021	41
WFRANK	05	West Franklin Avenue	BLOSSER LN	END WEST	2	Collector	700	44	41,862	AC/AC			7/30/2021	39
WSan	01	West San Francisco Ave	Coast Street	McKinley Street	2	Other	250	30	7,500	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/30/2021	39
Sandy	01	Sandy Lane	Baechtel Road	Bonnie Lane	2	Other	570	33	18,810	AC	4/1/2007	DOUBLE CHIP SEAL	7/28/2021	38
Alderct	01	Alder Court	Alder Lane	Dead End	2	Residential	530	30	15,900	AC			7/28/2021	32
Bonnie	01	Bonnie Lane	Nancy Lane	north end	2	Other	1,250	33	41,250	AC	4/1/2007	DOUBLE CHIP SEAL	7/28/2021	32
Bitten	01	Bittenbender Lane	end	Main Street	2	Other	500	13	6,500	AC			7/30/2021	31
Rail	01	Railroad Avenue	East Valley Street	East San Francisco Avenue	2	Collector	750	22	16,500	AC/AC	4/1/2007	DOUBLE CHIP SEAL	7/29/2021	29
Baecht	01	Baechtel Road	Main Street	Main Street	2	Collector	4,800	34	163,200	AC/AC	11/1/2003	1" LC & 2" OL w/FABRIC	7/28/2021	27
EOak	01	East Oak Avenue	Main Street	Railroad Avenue	2	Other	1,150	37	42,550	AC/AC			7/29/2021	27
EVan	02	East Van Lane	Marin Street	Madden Lane	2	Other	250	16	4,000	AC			7/29/2021	25
Margie	01	Margie Drive	Monica Lane	Bonnie Lane	2	Other	1,800	34	61,200	AC	4/1/2007	DOUBLE CHIP SEAL	7/28/2021	24
Monica	01	Monica Lane	Main Street	Margie Drive	2	Other	140	34	4,760	AC			7/28/2021	23
NLenor	01	North Lenore Street	East Commercial Street	1000 FT. N/E. COMMERCIAL ST.	2	Other	1,000	21	21,000	AC/AC			7/29/2021	22
Hazel	05	Hazel Street	Main Street	Poplar Street	2	Other	653	32	20,896	AC/AC			7/28/2021	20
Alder	01	Alder Lane	west end	Main Street	2	Other	850	37	31,450	AC			7/28/2021	19
Nancy	01	Nancy Lane	Margie Drive	Bonnie Lane	2	Other	600	33	19,800	AC			7/28/2021	18
Coast	01	Coast Street	Hwy 20	Pine Avenue	2	Collector	2,180	30	65,400	AC/AC			7/30/2021	17
Wmendo	01	West Mendocino Avenue	Hawthorne Lane	Main Street	2	Collector	3,000	37	111,000	AC/AC			7/30/2021	15
EBarb	01	East Barbara Lane	Main Street	Central Street	1	Other	510	12	6,120	AC			7/29/2021	13

#### City of Willits PCI List by Descending PCI 2021 PMP Update

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
Poplar	01	Poplar Avenue	Furlong Road	Walnut Street	2	Other	1,700	46	78,200	AC/AC			7/28/2021	12
SCHNEI	01	Schnieder Lane	West Oak Street	State Route 20	2	Other	260	11	2,860	AC/AC			2/1/2017	12
EMendo	01	East Mendocino Avenue	Main Street	Madden Lane	2	Other	830	25	20,750	AC			7/29/2021	11
SLenor	10	South Lenore Avenue	EAST VALLEY ST	EAST SAN FRANCISCO AVE	2	Other	730	27	19,710	AC/AC			7/27/2021	10
Lincol	01	Lincoln Way	Brookside Drive	end	2	Other	150	32	4,800	AC/AC			7/30/2021	9
Marin	01	Marin Street	East Van Lane	State Street	2	Other	520	35	18,200	AC/AC			7/29/2021	9
Elm	01	Elm Lane	Muir Canyon Road	ALDER LANE	2	Other	820	33	27,060	AC/AC			7/28/2021	8
Harmon	01	Harmon Lane	Franklin Avenue	Hwy 20	2	Other	170	11	1,870	AC/AC			7/30/2021	8
Madron	01	Madrone Street	Magnolia Avenue	Main Street	2	Other	800	46	36,800	AC/AC			7/28/2021	8
Manor	01	Manor Way	west end	Main Street	2	Other	450	32	14,400	AC			7/28/2021	8
Brooks	01	Brookside Drive	West Mendocino Avenue	Hawthorne Lane	2	Other	450	32	14,400	AC/AC			7/30/2021	7
Locust	01	Locust Street	Holly Street	Walnut Street	2	Collector	1,150	35	40,250	AC/AC			7/28/2021	7
Monroe	01	Monroe Street	Main Street	Central Street	2	Other	570	37	21,090	AC/AC			7/29/2021	7
Pearl	01	Pearl Street	Humboldt Street	Madden Lane	2	Other	520	19	9,880	AC			7/29/2021	7
SCoast	01	South Coast Street	Coast Street	Bush Street	2	Other	200	17	3,400	AC			7/30/2021	7
Creek	01	Creekside Drive	East Valley Street	South Lenore Street	2	Other	1,050	35	36,750	AC/AC			7/29/2021	5
EvaClaire	01	Eva Claire Street	Holly Street	Dead End	2	Residential	560	22	12,320	AC			7/28/2021	5
HawCt	01	Hawthorne Court	Hawthorne Lane	end	2	Other	200	25	5,000	AC/AC			7/30/2021	5
Hawln	01	Hawthorne Lane	Exley Lane	Brookside Drive	2	Other	400	32	12,800	AC/AC			7/30/2021	5
Calif	01	California Street	Main Street	Penn Street	2	Other	480	38	18,240	AC/AC			7/29/2021	4
Castee	01	Casteel Lane	Main Street	Williams Street	2	Other	250	22	5,500	AC			7/27/2021	4
Gregor	01	Gregory Lane	west end	Main Street	2	Other	280	32	8,960	AC			7/28/2021	4
Hellum	01	Hellums Lane	End	Main Street	2	Other	400	12	4,800	AC			7/30/2021	4
Humbol	03	Humboldt Street	East Commercial St	North End	2	Collector	526	36	18,936	AC/AC			7/29/2021	4
Penn	01	Penn Street	California Street	East Valley Street	2	Other	250	37	9,250	AC/AC			7/29/2021	4
Willia	01	Williams Street	Casteel Lane	north end	2	Other	500	17	8,500	AC			7/27/2021	4
Alice	01	Alice Drive	Margie Drive	Nancy Lane	2	Other	700	33	23,100	AC			7/28/2021	3

#### City of Willits PCI List by Descending PCI 2021 PMP Update

Street ID	Section ID	Street Name	Beg Location	End Location	Lanes	Functional Class	Length	Width	Area	Surface Type	Last M&R Date	Last M&R Treatment	PCI/M&R Date	PCI
CampIn	01	Camp Lane	Spruce Street	end	2	Other	200	19	3,800	AC/AC			7/30/2021	3
Frank	01	Franklin Avenue	Blosser Lane	Main Street	2	Collector	2,380	29	69,020	AC/AC			7/30/2021	3
McKin	01	McKinley Street	Bush Street	West Valley Street	2	Other	920	36	33,120	AC/AC			7/30/2021	3
Walnut	02	Walnut Street	Magnolia	Locust Street	2	Collector	700	35	24,500	AC/AC			7/28/2021	3
Bosca	01	Boscabelle Avenue	East Valley Street	East San Francisco Avenue	2	Other	680	27	18,360	AC/AC			7/29/2021	2
Cather	01	Catherine Lane	Pine Avenue	Wood Street	2	Other	450	12	5,400	AC			7/30/2021	2
NLenor	02	North Lenore Street	1000 FT. N/E. COMMERCIAL ST.	SEWER PLANT ROAD	2	Other	850	21	17,850	AC/AC			7/29/2021	2
North	01A	North Street	south end	West Mendocino Street	2	Collector	1,566	37	57,942	AC/AC			7/29/2021	2
WVanLn	02	West Van Lane	School Street	Main Street	1	Other	420	11	4,620	AC			7/30/2021	2
Hillsi	01	Hillside Drive	Mill Creek Drive	end	2	Other	450	32	14,400	AC			7/30/2021	1
Bloss	05	Blosser Lane	SOUTH END (CITY LIMITS)	113 FT S/O RR TRACKS	2	Collector	1,107	37	40,959	AC/AC			7/30/2021	0
Bloss	15	Blosser Lane	FRANKLIN AVE	HWY 20	2	Collector	730	39	28,470	AC/AC			7/30/2021	0
Laurel	01	Laurel Street	west end	Maple Street	2	Other	670	16	10,720	AC/AC			7/29/2021	0
SEQURD	10	SEQUOIA ROAD	REDWOOD AVE	S END	2	Residential	450	22	9,900	AC			7/30/2021	0
State	01	State Street	Main Street	east end	2	Other	900	40	36,000	AC/AC			7/29/2021	0
Tuttle	01	Tuttle Lane	Humboldt Street	Madden Lane	2	Other	520	15	7,800	AC			7/29/2021	0
WoodSt	05	Wood Street	NORTH ST	SCHOOL ST	2	Other	600	22	13,200	AC/AC			7/30/2021	0
Cather	02	Catherine Lane	Wood Street	West Mendocino Avenue	1	Other	200	12	2,400	GRAVEL			-	-
Manzan	01	Manzanita Avenue	Holly Street	Hazel Street	2	Other	440	18	7,920	GRAVEL			-	-
WVanIn	01	West Van Lane	North Street	School Street	1	Other	490	12	5,880	GRAVEL			-	-

Appendix B

MAINTENANCE AND REHABILITATION DECISION TREE

### Maintenance and Rehabilitation (M&R) Decision Tree

This report presents the current maintenance and rehabilitation decision tree that exists in the database. The decision tree forms the basis for all of the budgetary computations included in this report. *Changes to the decision tree will make the results in the budget reports invalid.* All pavement treatment unit costs relevant to the street types in the database were updated.

The decision tree lists the treatments and costs selected for preventive maintenance and rehabilitation activities. Each line represents a specific combination of functional classification and surface type.

The preventive maintenance portion of the report is identified as Condition Category I – Very Good. All preventive maintenance treatment listings are assigned only to sections in Condition Category I where the PCI  $\geq$  70. Sections with PCI values less than 70 are assigned to treatments listed in Categories II through V.

In the preventive maintenance category (PCI  $\ge$  70), a time sequence is used to identify the appropriate treatment and cost. Each preventive maintenance treatment description consists of three parts: 1) a CRACK treatment, 2) a SURFACE treatment, and 3) a RESTORATION treatment. These three parts allow the user to specify one of three different preventive maintenance treatments depending on the prior maintenance history of the section.

- 1. The CRACK treatment part can be used to specify the most frequent type of preventive maintenance activity planned (typically crack seals).
- The SURFACE treatment part can be used to specify more extensive and less frequent preventive maintenance activities, such as chip seals or slurry seals. For example, a crack seal can be specified on a 3-year cycle with a slurry seal specified after 5 years.
- 3. The RESTORATION part can be used to specify a surface restoration treatment (such as an overlay) to be performed after a specified number of surface treatments. For example, after a certain number of successive slurry seals, an overlay can be specified instead of another slurry seal.

Rehabilitation treatments are assigned to sections in Condition Categories II through V (PCI less than 70). Each line is defined by a specific combination of functional classification, surface type, and condition category.

COLUMN	DESCRIPTION						
Functional Class	Functional Classification identifying the branch						
Surface	Surface Type identifying the branch number.						
Condition Category	Condition Category (I through V).						
Treatment Type	First Row (Crack Treatment) indicates localized treatment (e.g. crack sealing). Second Row (Surface Treatment) indicates surface treatment						

COLUMN	DESCRIPTION
	(e.g. slurry sealing). Third Row (Restoration Treatment) indicates surface restoration (e.g. overlay).
Treatment	Name of treatments from the "Treatment Descriptions" report.
Yrs. Between Crack Seals	First Row - number of years between successive treatment applications specified in the first row (i.e. CRACK treatment).
Yrs. Between Surface Seals	Second Row - number of years between successive treatment applications specified in the second row (i.e. SURFACE treatment).
Number of Sequential Seals	Number of times that the treatment application in the second row (i.e. SURFACE treatment) will be performed prior to performing the treatment application in the third row.

Note that the treatments assigned to each section should not be blindly followed in preparing a street maintenance program. Engineering judgment and project level analysis should be applied to ensure that the treatment is appropriate and cost effective for the section.

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Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Arterial	AC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	Slurry Seal w/Crack Seal	\$5.50		7	
			Restoration Treatment	DO NOTHING	\$0.00			99
		II - Good, Non-Load Related		Multi Layer Slurry Seal w/ 3% Digouts	\$12.25		7	
		III - Good, Load Related		2"AC Overlay w/5% Digouts	\$38.00			
		IV - Poor		4"Mill&Overlay w/5% Digouts	\$81.00			
		V - Very Poor		FDR W/4" AC OVERLAY	\$94.00			
	AC/AC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	Slurry Seal w/Crack Seal	\$5.50		7	
			Restoration Treatment	DO NOTHING	\$0.00			99
		II - Good, Non-Load Related		Multi Layer Slurry Seal w/ 3% Digouts	\$12.25		7	
		III - Good, Load Related		2"AC Overlay w/5% Digouts	\$38.00			
		IV - Poor		4"Mill&Overlay w/5% Digouts	\$81.00			
		V - Very Poor		FDR W/4" AC OVERLAY	\$94.00			
	AC/PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	SEAL CRACKS	\$0.60		3	
			Restoration Treatment	LC & THICK OL W/ FABRIC	\$8.82			1
		II - Good, Non-Load Related		THIN AC OVERLAY(1.5 INCHES)	\$5.76			
		III - Good, Load Related		MILL & THIN OL W/ FABRIC	\$10.08			
		IV - Poor		LC & THICK OL W/ FABRIC	\$8.82			
		V - Very Poor		RECONSTRUCT SURFACE (AC)	\$14.00			
	PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	DO NOTHING	\$0.00		99	
			Restoration Treatment	DO NOTHING	\$0.00			100
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		THIN AC OVERLAY(1.5 INCHES)	\$5.76			
		IV - Poor		THIN OVERLAY w/FABRIC	\$7.02			
		V - Very Poor		RECONSTRUCT SURFACE (AC)	\$14.00			

Functional Class and Surface combination not used

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Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Arterial	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	DO NOTHING	\$0.00		99	
			Restoration Treatment	DO NOTHING	\$0.00			100
		II - Good, Non-Load Related		SINGLE CHIP SEAL	\$1.11			
		III - Good, Load Related		SINGLE CHIP SEAL	\$1.51			
		IV - Poor		SINGLE CHIP SEAL	\$1.92			
		V - Very Poor		THICK AC OVERLAY(2.5 INCHES)	\$7.67			

Functional Class and Surface combination not used

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of Surface Seals before Overlay	Yrs Between Surface Seals	Yrs Between Crack Seals	Cost/Sq Yd, except Seal Cracks in LF:	Treatment	Treatment Type	Condition Category	Surface	Functional Class
		3	\$0.00	DO NOTHING	Crack Treatment	I - Very Good	AC	Collector
	5		\$5.50	Slurry Seal w/Crack Seal	Surface Treatment			
99			\$0.00	DO NOTHING	Restoration Treatment			
	5		\$12.25	Multi Layer Slurry Seal w/ 3% Digouts		II - Good, Non-Load Related		
			\$37.50	2"AC Overlay w/5% Digouts		III - Good, Load Related		
			\$79.75	4"Mill&Overlay w/5% Digouts		IV - Poor		
			\$84.25	FDR W/4" AC OVERLAY		V - Very Poor		
		99	\$0.00	DO NOTHING	Crack Treatment	I - Very Good	AC/AC	
	5		\$5.50	Slurry Seal w/Crack Seal	Surface Treatment			
99			\$0.00	DO NOTHING	Restoration Treatment			
	5		\$12.25	Multi Layer Slurry Seal w/ 3% Digouts		II - Good, Non-Load Related		
			\$37.50	2"AC Overlay w/5% Digouts		III - Good, Load Related		
			\$79.75	4"Mill&Overlay w/5% Digouts		IV - Poor		
			\$84.25	FDR W/4" AC OVERLAY		V - Very Poor		
		3	\$0.60	SEAL CRACKS	Crack Treatment	I - Very Good	AC/PCC	
	4		\$0.78	SLURRY SEAL	Surface Treatment			
1			\$8.82	LC & THICK OL W/ FABRIC	Restoration Treatment			
			\$5.76	THIN AC OVERLAY(1.5 INCHES)		II - Good, Non-Load Related		
			\$10.08	MILL & THIN OL W/ FABRIC		III - Good, Load Related		
			\$8.82	LC & THICK OL W/ FABRIC		IV - Poor		
			\$11.38	RECONSTRUCT SURFACE (AC)		V - Very Poor		
		99	\$0.00	DO NOTHING	Crack Treatment	I - Very Good	PCC	
	99		\$0.00	DO NOTHING	Surface Treatment			
100			\$0.00	DO NOTHING	Restoration Treatment			
			\$0.00	DO NOTHING		II - Good, Non-Load Related		
			\$5.76	THIN AC OVERLAY(1.5 INCHES)		III - Good, Load Related		
			\$9.45	PULVERIZE,RESHAPE,COMPACT		IV - Poor		
			\$11.38	RECONSTRUCT SURFACE (AC)		V - Very Poor		

Functional Class and Surface combination not used

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Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Collector	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	DO NOTHING	\$0.00		99	
			Restoration Treatment	DO NOTHING	\$0.00			100
		II - Good, Non-Load Related		SINGLE CHIP SEAL	\$1.11			
		III - Good, Load Related		SINGLE CHIP SEAL	\$1.51			
		IV - Poor		SINGLE CHIP SEAL	\$1.92			
		V - Very Poor		THICK AC OVERLAY(2.5 INCHES)	\$7.47			

Functional Class and Surface combination not used

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# of Surface Seals before Overlay	Yrs Between Surface Seals	Yrs Between Crack Seals	Cost/Sq Yd, except Seal Cracks in LF:	Treatment	Treatment Type	Condition Category	Surface	Functional Class
		9	\$0.00	DO NOTHING	Crack Treatment	I - Very Good	AC	Residential/Local
	8		\$5.25	Slurry Seal w/Crack Seal	Surface Treatment			
99			\$0.00	DO NOTHING	Restoration Treatment			
	8		\$9.75	Multi Layer Slurry Seal w/ 3% Digouts		II - Good, Non-Load Related		
			\$27.50	1.5"AC Overlay w/5% Digouts		III - Good, Load Related		
			\$61.25	3"Mill&Overlay w/5% Digouts		IV - Poor		
			\$71.50	FDR W/3" AC OVERLAY		V - Very Poor		
		99	\$0.00	DO NOTHING	Crack Treatment	I - Very Good	AC/AC	
	8		\$5.25	Slurry Seal w/Crack Seal	Surface Treatment			
99			\$0.00	DO NOTHING	Restoration Treatment			
	8		\$9.75	Multi Layer Slurry Seal w/ 3% Digouts		II - Good, Non-Load Related		
			\$27.50	1.5"AC Overlay w/5% Digouts		III - Good, Load Related		
			\$61.25	3"Mill&Overlay w/5% Digouts		IV - Poor		
			\$71.50	FDR W/3" AC OVERLAY		V - Very Poor		
		3	\$1.00	SEAL CRACKS	Crack Treatment	I - Very Good	AC/PCC	
	4		\$1.60	SLURRY SEAL	Surface Treatment			
1			\$10.00	AC OVERLAY (1.5")	Restoration Treatment			
			\$0.00	DO NOTHING		II - Good, Non-Load Related		
			\$7.02	THIN OVERLAY w/FABRIC		III - Good, Load Related		
			\$8.82	LC & THICK OL W/ FABRIC		IV - Poor		
			\$8.75	RECONSTRUCT SURFACE (AC)		V - Very Poor		
		99	\$0.00	DO NOTHING	Crack Treatment	I - Very Good	PCC	
	99		\$0.00	DO NOTHING	Surface Treatment			
100			\$0.00	DO NOTHING	Restoration Treatment			
			\$0.00	DO NOTHING		II - Good, Non-Load Related		
			\$0.00	DO NOTHING		III - Good, Load Related		
			\$8.12	AC OVERLAY (2 ") W/ FABRIC		IV - Poor		
			\$9.45	PULVERIZE, RESHAPE, COMPACT		V - Very Poor		

Functional Class and Surface combination not used

Printed: 11/23/2021

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Residential/Local	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	DO NOTHING	\$0.00		99	
			Restoration Treatment	DO NOTHING	\$0.00			100
		II - Good, Non-Load Related		SINGLE CHIP SEAL	\$1.11			
		III - Good, Load Related		SINGLE CHIP SEAL	\$1.51			
		IV - Poor		SINGLE CHIP SEAL	\$1.92			
		V - Very Poor		THICK AC OVERLAY(2.5 INCHES)	\$7.27			

Functional Class and Surface combination not used

Printed: 11/23/2021

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Other	AC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	Slurry Seal w/Crack Seal	\$5.25		8	3
			Restoration Treatment	DO NOTHING	\$0.00			99
		II - Good, Non-Load Related		Multi Layer Slurry Seal w/ 3% Digouts	\$9.75		8	3
		III - Good, Load Related		1.5"AC Overlay w/5% Digouts	\$27.50			
		IV - Poor		3"Mill&Overlay w/5% Digouts	\$61.50			
		V - Very Poor		FDR W/3" AC OVERLAY	\$71.50			
	AC/AC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	Slurry Seal w/Crack Seal	\$5.25		8	3
			Restoration Treatment	DO NOTHING	\$0.00			99
		II - Good, Non-Load Related		Multi Layer Slurry Seal w/ 3% Digouts	\$9.75		8	3
		III - Good, Load Related		1.5"AC Overlay w/5% Digouts	\$27.50			
		IV - Poor		3"Mill&Overlay w/5% Digouts	\$61.25			
		V - Very Poor		FDR W/3" AC OVERLAY	\$71.50			
	AC/PCC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.60	4		
			Surface Treatment	SINGLE CHIP SEAL	\$1.74		8	3
			Restoration Treatment	MILL AND THIN OVERLAY	\$15.04			3
		II - Good, Non-Load Related		DOUBLE CHIP SEAL	\$1.52			
		III - Good, Load Related		HEATER SCARIFY & OVERLAY	\$5.95			
		IV - Poor		HEATER SCARIFY & OVERLAY	\$6.14			
		V - Very Poor		RECONSTRUCT SURFACE (AC)	\$8.75			
	PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	99		
			Surface Treatment	DO NOTHING	\$0.00		99	)
			Restoration Treatment	DO NOTHING	\$0.00			100
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		THICK AC OVERLAY(2.5 INCHES)	\$1.92			
		V - Very Poor		AC OVERLAY (2")	\$6.86			

Functional Class and Surface combination not used

Printed: 11/23/2021

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Other	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	9		
			Surface Treatment	DO NOTHING	\$0.00		99	
			Restoration Treatment	THICK AC OVERLAY(2.5 INCHES)	\$0.00			100
		II - Good, Non-Load Related		SINGLE CHIP SEAL	\$1.11			
		III - Good, Load Related		SINGLE CHIP SEAL	\$1.51			
		IV - Poor		SINGLE CHIP SEAL	\$1.92			
		V - Very Poor		THICK AC OVERLAY(2.5 INCHES)	\$7.27			

Functional Class and Surface combination not used

Appendix C

BUDGET NEEDS ANALYSIS RESULTS

### **Budget Needs Reports**

The purpose of this section is to answer the question: *If the agency had all the money in the world, what sections should be fixed and how much will it cost?* Based on the Maintenance & Rehabilitation (M&R) decision tree and the PCIs of the sections, the program will then select a maintenance or rehabilitation action and compute the total costs over the analysis period. The Budget Needs represents the "ideal world" funding levels, while the Budget Scenario reports in the next section represent the most "cost effective" prioritization possible for the actual funding levels.

A budget needs analysis has been performed. The summary results from the analysis are provided. An interest rate of 3% and an inflation factor of 3% were used to project the costs for the analysis period. This report shows the total ten-year budget that would be required to meet the agency's standards as exemplified in the M&R decision tree.

Budget Needs reports included in this appendix are listed below:

- Projected PCI/Cost Summary
- Preventive Maintenance Treatment/Cost Summary
- Rehabilitation Treatment/Cost Summary

#### **Needs - Projected PCI/Cost Summary**

This report summarizes and projects the network PCI over the ten-year analysis period, both with and without treatments applied. It also reports the associated costs, which are based on the treatment unit costs presented in the M&R decision tree.

COLUMN	DESCRIPTION				
Year	Year in the analysis period.				
PCI Treated	Projected network average PCI with all needed treatments applied.				
PCI Untreated	Projected network average PCI without any treatments applied.				
PM Cost	Total preventive maintenance treatment cost.				
Rehab Cost	Total rehabilitation treatment cost.				
Cost	The budget required for each year in the analysis period to meet the agency's standard as shown on the M&R decision tree.				
Total Cost	Total budget required over a ten-year period.				

# Needs - Projected PCI/Cost Summary

Printed: 11/24/2021 Inflation Rate = 3.00 %

Cost	Rehab Cost	PM Cost	PCI Untreated	PCI Treated	Year
\$16,734,037	\$16,588,129	\$145,908	47	93	2022
\$274,747	\$222,464	\$52,283	45	89	2023
\$240,386	\$198,664	\$41,722	43	88	2024
\$175,181	\$39,733	\$135,448	41	86	2025
\$295,075	\$147,536	\$147,539	39	86	2026
\$860,606	\$130,697	\$729,909	37	86	2027
\$253,547	\$116,993	\$136,554	36	85	2028
\$384,000	\$230,306	\$153,694	34	84	2029
\$1,058,976	\$42,118	\$1,016,858	33	86	2030
\$138,929	\$0	\$138,929	32	84	2031
Total Cost	Rehab Total Cost	PM Total Cost	% PM		
\$20,415,484	\$17,716,640	\$2,698,844	13.22%		

#### **Needs - Preventive Maintenance Treatment/Cost Summary**

This report summarizes each preventive maintenance treatment type, quantity of pavement affected, and total costs over the analysis period. It also summarizes the total quantities and costs over the next ten years.

COLUMN	DESCRIPTION
Treatment	Type of preventive maintenance treatments needed.
Year	Year in the analysis period (i.e. 2022, 2023, 2024, etc.).
Area Treated	Quantities in linear feet (Seal Cracks) or square yard (Slurry Seal).
Cost	Maintenance treatment cost.

### Needs - Preventive Maintenance Treatment/Cost Summary

Inflation Rate = 3.00 % Printed: 11/24/2021

Treatment	Year	Area Treated	Cost
Slurry Seal w/Crack Seal	2022	26,995.56 sq. yd.	\$145,908
	2023	9,448.22 sq. yd.	\$52,283
	2024	7,340.89 sq. yd.	\$41,722
	2025	22,536.67 sq. yd.	\$135,448
	2026	23,833.78 sq. yd.	\$147,539
	2027	115,082.56 sq. yd.	\$729,909
	2028	21,460.89 sq. yd.	\$136,554
	2029	22,720.89 sq. yd.	\$153,694
	2030	152,051.78 sq. yd.	\$1,016,858
	2031	19,859.56 sq. yd.	\$138,929
	Total	421,330.78	\$2,698,844
	Total Quantity	421,330.78	\$2,698,844

#### **Needs - Rehabilitation Treatment/Cost Summary**

This report summarizes each rehabilitation treatment type, quantity of pavement affected, and total costs over the analysis period. It also summarizes the total quantities and costs over the next ten years.

COLUMN	DESCRIPTION
Treatment	Type of rehabilitation treatments needed.
Year	Year in the analysis period (i.e. 2022, 2023, 2024, etc.).
Area Treated	Quantities in square yard.
Cost	Rehabilitation treatment cost.

### Needs - Rehabilitation Treatment/Cost Summary

Inflation Rate = 3.00 % Printed: 11/24/2021

Treatment	Year	Area Treated	Cost
1.5"AC Overlay w/5% Digouts	2022	11,086.67 sq.yd.	\$304,885
	2023	4,810 sq.yd.	\$136,244
	2025	1,322.22 sq.yd.	\$39,733
	2026	4,766.67 sq.yd.	\$147,536
	2028	2,629.33 sq.yd.	\$86,338
	Total	24,614.89 sq.yd.	\$714,736
"AC Overlay w/5% Digouts	2022	11,180 sq.yd.	\$424,840
	Total	11,180 sq.yd.	\$424,840
8"Mill&Overlay w/5% Digouts	2022	22,763.33 sq.yd.	\$1,396,804
	2023	1,366.67 sq.yd.	\$86,220
	Total	24,130 sq.yd.	\$1,483,024
4"Mill&Overlay w/5% Digouts	2022	24,867.33 sq.yd.	\$1,993,670
	Total	24,867.33 sq.yd.	\$1,993,670
FDR W/3" AC OVERLAY	2022	90,231.78 sq.yd.	\$6,451,591
	Total	90,231.78 sq.yd.	\$6,451,591
FDR W/4" AC OVERLAY	2022	70,686.33 sq.yd.	\$5,955,328
	Total	70,686.33 sq.yd.	\$5,955,328
Multi Layer Slurry Seal w/ 3% Digouts	2022	5,676.33 sq.yd.	\$61,011
	2024	15,286.33 sq.yd.	\$198,664
	2027	10,981.89 sq.yd.	\$130,697
	2028	2,633.11 sq.yd.	\$30,655
	2029	15,286.33 sq.yd.	\$230,306
	2030	3,410 sq.yd.	\$42,118
	Total	53,274 sq.yd.	\$693,451

Total Cost

\$17,716,640

### Appendix D

BUDGET SCENARIO RESULTS

### Scenario 1: Existing Budget

Cost Summary Report Network Condition Summary Report

# Scenarios - Cost Summary

Inflation: 3.00%

Interest: 3.00%

Printed: 11/23/2021

Scenario: 2021 S1: Existing Budget \$700k/Year

Year	PM	Budget	Re	habilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2022	5%	\$700,000	П	\$61,011	Non-	\$38,012	\$0	\$16,045,206	Funded	\$(
			III	\$589,780	Project				Unmet	\$135,198
			IV V	\$0 \$0	Project	\$0				
		т	otal	\$650,791						
		Pro		\$050,791 \$0						
2023	5%	\$700,000	 	\$0	Non-	\$42,300	\$0	\$16,193,204	Funded	\$C
2023	• • •	<i><b>Q</b></i> 1 00,000	III	\$246,397	Project	ф. <u></u> ,	Ψ.C	¢.0,.00, <u>_</u> 0.	Unmet	\$C
			IV	\$162,234	Project	\$0			onnot	φο
			V	\$246,407						
			otal	\$655,038						
		Pro		\$0						
2024	8%	\$700,000	11	\$171,197	Non- Project	\$59,944	\$0	\$16,245,900	Funded	\$C
			III IV	\$0 \$0	Project	\$0			Unmet	\$291
			V	\$461,557	Tiojeet	φυ				
		т	otal	\$632,754						
		Pro		\$0						
2025	8%	\$700,000	, 	\$0	Non-	\$55,025	\$975	\$16,308,225	Funded	\$0
2020			III	\$39,733	Project				Unmet	\$C
			IV	\$0	Project	\$0				
		_	V	\$598,035						
			otal	\$637,768						
	<b>C</b> 0/	Proj		\$0	Nam	#22.0F4	¢1.040	¢40 505 000	Eurode d	<u></u>
2026	5%	\$700,000	 	\$0 \$147,536	Non- Project	\$33,951	\$1,049	\$16,565,689	Funded	\$C
			IV	\$0	Project	\$0			Unmet	\$C
			V	\$515,548						
		Т	otal	\$663,084						
		Pro	ject	\$0						
2027	5%	\$700,000	П	\$72,468	Non-	\$35,800	\$0	\$16,766,499	Funded	\$C
			III	\$0 \$0	Project	<b>*</b> 0			Unmet	\$157,232
			IV V	\$0 \$585,126	Project	\$0				
		т	otal	\$657,594						
		Pro		\$057,594 \$0						
2028	5%	\$700,000		\$30,655	Non-	\$36,511	\$0	\$16,860,935	Funded	\$C
2020	0,0	<i>\</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	III	\$86,338	Project	<i>\\</i> 00,011	ΨŬ	<i><b></b></i>	Unmet	\$C
			IV	\$201,255	Project	\$0			Onniet	ψυ
			V	\$343,872						
			otal	\$662,120						
		Pro		\$0						
2029	3%	\$700,000	11	\$198,464 ©0	Non- Project	\$34,724	\$0	\$17,526,152	Funded	\$C
			III IV	\$0 \$0	Project	\$0			Unmet	\$C
			V	<del>پ</del> 0 \$464,890	riojeci	ψŪ				
		т	otal	\$663,354						
		Pro		\$000,004 \$0						

Year	PM	Budget	Re	habilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2030	3%	\$700,000	II	\$79,446	Non-	\$34,767	\$0	\$17,689,419	Funded	\$0
2000			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$584,475						
		Т	otal	\$663,921						
		Pro	ject	\$0						
2031	3%	\$700,000	II	\$37,295	Non-	\$37,871	\$0	\$17,695,801	Funded	\$0
			111	\$0	Project				Unmet	\$0
			IV	\$624,244	Project	\$0				
			V	\$0						
			otal	\$661,539						
		Pro	ject	\$0						
	Summa	ary								
							Funded	U	nmet	
	Functional	Class		Rehabil	itation	Prev. Maint.	Stop Gap	Stop	Gap	
	Arterial		\$4	24,840	\$0	\$0	\$	3,628		
	Collector			\$3,1	57,412	\$344,868	\$0	\$11	8,417	
	Other			\$2,7	90,353	\$64,037	\$0	\$16	6,166	
	Residentia	al/Local		\$1	75,358	\$0	\$0	\$	4,512	
	Grand Tot	al:		\$6,5	47,963	\$408,905	\$0	\$29	2,722	

### Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3% F

Printed: 11/23/2021

Scenario: 2021 S1: Existing Budget \$700k/Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2022	\$700,000	5%	2026	\$700,000	5%	2030	\$700,000	3%
2023	\$700,000	5%	2027	\$700,000	5%	2031	\$700,000	3%
2024	\$700,000	8%	2028	\$700,000	5%			
2025	\$700,000	8%	2029	\$700,000	3%			

#### Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2022	47	49	1.66	3.27	
2023	45	48	1.18	2.35	
2024	43	48	1.40	2.80	
2025	41	48	0.84	1.67	
2026	39	48	0.86	1.72	
2027	37	48	0.89	1.78	
2028	36	48	0.95	1.89	
2029	34	48	1.11	2.12	
2030	33	48	0.81	1.57	
2031	32	48	0.75	1.50	

#### Percent Network Area by Functional Class and Condition Category

#### Condition in base year 2022, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	5.0%	15.0%	3.8%	12.5%	36.3%
11 / 111	2.8%	2.3%	0.0%	6.0%	11.1%
IV	2.1%	4.2%	0.4%	5.3%	12.0%
V	0.0%	17.8%	0.6%	22.1%	40.6%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

#### Condition in year 2022 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
1	7.8%	15.6%	3.8%	14.8%	42.1%
11 / 111	0.0%	1.7%	0.0%	3.6%	5.3%
IV	2.1%	4.2%	0.4%	5.3%	12.0%
V	0.0%	17.8%	0.6%	22.1%	40.6%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

#### Condition in year 2031 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	7.8%	22.5%	4.2%	22.0%	56.6%
11 / 111	0.0%	1.3%	0.0%	0.0%	1.3%
V	2.1%	15.5%	0.6%	23.9%	42.1%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

# Scenario 2: Improve PCI to 55 by 5<sup>th</sup> Year and 60 by 10<sup>th</sup> Year

Cost Summary Report Network Condition Summary Report

# Scenarios - Cost Summary

Inflation: 3.00%

Interest: 3.00%

Printed: 11/23/2021

Scenario: 2021 S2: Improve PCI to 55(5thYr) & 60(10thYr)

Year	PM	Budget	Re	ehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2022	5%	\$770,000	 	\$61,011 \$589,780	Non- Project	\$38,012	\$488	\$15,971,322	Funded Unmet	\$124.200
			IV	\$0	Project	\$0			Unmer	\$134,392
			V	\$73,884						
		Т	otal	\$724,675						
		Pro	ject	\$0						
2023	0%	\$2,100,000	Ш	\$0	Non-	\$0	\$0	\$14,719,853	Funded	\$C
			III IV	\$246,397 \$863.046	Project	\$0			Unmet	\$C
			V	\$863,046 \$985,146	Project	\$U				
		т	otal	\$2,094,589						
			ject	\$0 \$0						
2024	5%	\$1,600,000	 	\$171,197	Non-	\$93,820	\$0	\$13,821,074	Funded	\$0
2024		, ,,	Ш	\$0	Project	, ,	• -	· - , - , -	Unmet	\$291
			IV	\$0	Project	\$0			onniet	Ψ201
			V	\$1,334,953						
			otal	\$1,506,150						
		Pro	-	\$0						
2025	5%	\$1,400,000	11	\$0	Non- Project	\$77,729	\$0	\$13,109,480	Funded	\$C
			III IV	\$39,733 \$0	Project	\$0			Unmet	\$C
			V	\$1,276,507	Појест	ψΟ				
		т	otal	\$1,316,240						
		Pro		\$0						
2026	5%	\$750,000	, 	\$0	Non-	\$33,951	\$3,549	\$13,221,611	Funded	\$0
2020			III	\$147,536	Project				Unmet	\$C
			IV	\$0	Project	\$0				• •
			V	\$564,918						
			otal	\$712,454						
	5%		ject	\$0	Niew	¢00 504		\$40 F00 407	E	
2027	5%	\$1,500,000	 	\$42,408 \$0	Non- Project	\$93,501	\$0	\$12,506,167	Funded	\$0
			IV	\$0	Project	\$0			Unmet	\$123,025
			V	\$1,356,856	,					
		Т	otal	\$1,399,264						
		Pro	ject	\$0						
2028	0%	\$800,000	II	\$30,655	Non-	\$10,825	\$0	\$12,390,066	Funded	\$C
			III	\$86,338	Project	<b>A A</b>			Unmet	\$C
			IV V	\$201,255 \$467,920	Project	\$0				
		-	otal	\$786,168						
			ject	\$780,108 \$0						
2029	5%	\$1,200,000	II	\$198,464	Non-	\$62,543	\$0	\$12,514,626	Funded	\$C
2029	0,10	ψ1,200,000		\$0	Project	<i>Q02,010</i>	ψŬ	<i><b>Q</b></i> 12,011,020	Unmet	\$C
			IV	\$588,410	Project	\$0			onnet	φυ
			V	\$350,280						
			otal	\$1,137,154						
		Pro	ject	\$0						

Year	PM	Budget	Re	habilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2030	5%	\$1,200,000	11	\$79,446	Non-	\$66,361	\$0	\$12,033,806	Funded	\$0
2000			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0			•	ψū
			V	\$1,053,983						
		Т	otal	\$1,133,429						
		Proj	ect	\$0						
2031	5%	\$800,000	П	\$71,127	Non-	\$66,901	\$0	\$11,782,998	Funded	\$0
			III	\$0 \$0	Project	<b>*</b> •			Unmet	\$0
			IV V	\$0 \$661.426	Project	\$0				
		-		\$661,436						
			otal	\$732,563						
		Proj	ect	\$0						
	Summary	y								
							Funded	U	nmet	
	Functional C	Class		Rehabil	itation	Prev. Maint.	Stop Gap	Stop	Gap	
	Arterial			\$1,1	25,652	\$77,925	\$0	\$	1,680	
	Collector			\$5,9	42,266	\$382,633	\$0	\$9	0,475	
	Other			\$4,1	67,018	\$83,085	\$0	\$16	1,042	
	Residential/	/Local		\$3	07,750	\$0	\$0	\$	4,512	
	Grand Total	1:		\$11,5	42,686	\$543,643	\$0	\$25	7,709	

### Scenarios - Network Condition Summary

CITY OF WILLITS

Interest: 3% Inflation: 3% Printed: 11/23/2021

Scenario: 2021 S2: Improve PCI to 55(5thYr) & 60(10thYr)

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2022	\$770,000	5%	2026	\$750,000	5%	2030	\$1,200,000	5%
2023	\$2,100,000	0%	2027	\$1,500,000	5%	2031	\$800,000	5%
2024	\$1,600,000	5%	2028	\$800,000	0%			
2025	\$1,400,000	5%	2029	\$1,200,000	5%			

#### Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2022	47	49	1.75	3.44	
2023	45	52	1.40	2.81	
2024	43	53	2.30	4.60	
2025	41	55	1.51	3.03	
2026	39	55	0.86	1.72	
2027	37	57	1.40	2.70	
2028	36	57	0.63	1.27	
2029	34	58	1.73	3.45	
2030	33	59	1.47	2.88	
2031	32	60	1.00	2.01	

#### Percent Network Area by Functional Class and Condition Category

#### Condition in base year 2022, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
1	5.0%	15.0%	3.8%	12.5%	36.3%
11 / 111	2.8%	2.3%	0.0%	6.0%	11.1%
IV	2.1%	4.2%	0.4%	5.3%	12.0%
V	0.0%	17.8%	0.6%	22.1%	40.6%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

#### Condition in year 2022 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
1	7.8%	15.6%	3.8%	15.1%	42.3%
11 / 111	0.0%	1.7%	0.0%	3.6%	5.3%
IV	2.1%	4.2%	0.4%	5.3%	12.0%
V	0.0%	17.8%	0.6%	21.9%	40.4%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

#### Condition in year 2031 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	9.9%	30.9%	4.6%	26.0%	71.4%
11 / 111	0.0%	0.7%	0.0%	0.0%	0.7%
V	0.0%	7.7%	0.3%	19.9%	27.8%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

### Scenarios - Network Condition Summary

Interest: 3% Inflation: 3% Printed: 11/23/2021

Scenario: 2021 S2: Improve PCI to 55(5thYr) & 60(10thYr)

Scenarios Criteria:

### Scenario 3: Improve PCI to 65

Cost Summary Report Network Condition Summary Report

# Scenarios - Cost Summary

Inflation: 3.00%

Interest: 3.00%

Printed: 11/23/2021

Scenario: 2021 S3: Improve PCI to 65

Year	PM	Budget	Re	habilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2022	5%	\$770,000	Ш	\$61,011	Non-	\$38,012	\$488	\$15,971,322	Funded	\$0
				\$589,780	Project	<b>\$</b> 0			Unmet	\$134,392
			IV V	\$0 \$73,884	Project	\$0				
		т	otal	\$724,675						
		Pro		\$724,073 \$0						
2023	0%	\$2,000,000		\$0	Non-	\$0	\$0	\$14,820,255	Funded	\$0
2020			Ш	\$246,397	Project				Unmet	\$0
			IV	\$863,046	Project	\$0				• •
			V	\$884,744						
			otal	\$1,994,187						
0004	5%	Pro		\$0 \$171.107	Non	¢96 146	\$0	¢10 001 067	Fundad	
2024	5%	\$1,700,000	 	\$171,197 \$0	Non- Project	\$86,146	\$0	\$13,831,867	Funded	\$0
			IV	\$0	Project	\$0			Unmet	\$291
			V	\$1,435,250						
		Т	otal	\$1,606,447						
		Pro	ject	\$0						
2025	5%	\$1,700,000	П	\$0	Non-	\$96,903	\$0	\$12,816,084	Funded	\$0
			III	\$39,733	Project	<b>\$</b> 0			Unmet	\$0
			IV V	\$0 \$1,561,845	Project	\$0				
		т	otal	\$1,601,578						
		Proj		\$1,001,578 \$0						
2026	5%	\$1,200,000	 	\$0	Non-	\$74,772	\$0	\$12,468,583	Funded	\$0
2020		• • • - •	Ш	\$147,536	Project	. ,	• -	• • • • • • • • •	Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$974,929						
			otal	\$1,122,465						
	<b>E</b> 0/	Pro		\$0	NL	<b>#404 470</b>		\$44.005.050	E	
2027	5%	\$2,000,000	 	\$42,408 \$0	Non- Project	\$101,470	\$0	\$11,225,853	Funded	\$0
			IV	\$0	Project	\$0			Unmet	\$112,289
			V	\$1,853,582						
		Т	otal	\$1,895,990						
		Pro	ject	\$0						
2028	0%	\$1,500,000	Ш	\$30,655	Non-	\$10,825	\$0	\$10,368,671	Funded	\$0
				\$86,338	Project	<b>#</b> 0			Unmet	\$0
			IV V	\$201,255 \$1,170,594	Project	\$0				
		т	otal	\$1,488,842						
		Pro		φ1,+00,042 \$0						
2029	5%	\$1,500,000	 	\$198,464	Non-	\$84,236	\$0	\$10,132,432	Funded	\$0
2020			III	\$0	Project				Unmet	\$0
			IV	\$588,410	Project	\$0				<i>t</i>
			V	\$628,743						
			otal	\$1,415,617						
		Pro	ject	\$0						

Year	PM	Budget	Re	habilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2030	5%	\$1,000,000	11	\$79,446	Non-	\$54,595	\$0	\$9,787,801	Funded	\$0
2000			III	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0			onnot	ψū
			V	\$865,489						
		Т	otal	\$944,935						
		Proj	ect	\$0						
2031	5%	\$850,000	II	\$71,127	Non-	\$65,703	\$0	\$9,543,104	Funded	\$0
			III	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
		_	V	\$710,779						
			otal	\$781,906						
		Proj	ect	\$0						
	Summa	ry								
							Funded	U	nmet	
	Functional	Class		Rehabil	itation	Prev. Maint.	Stop Gap	Stop	Gap	
	Arterial			\$1,1	25,652	\$75,626	\$0	\$	1,680	
	Collector			\$7,6	85,409	\$467,563	\$0	\$7	6,147	
	Other			\$4,5	590,223	\$69,473	\$0	\$16	4,634	
	Residentia	l/Local		\$1	75,358	\$0	\$0	\$	4,512	
	Grand Tot	al·		\$13.5	76,642	\$612,662	\$0	\$24	6,973	

Interest: 3%

Inflation: 3% Printed: 11/23/2021

Scenario: 2021 S3: Improve PCI to 65

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2022	\$770,000	5%	2026	\$1,200,000	5%	2030	\$1,000,000	5%
2023	\$2,000,000	0%	2027	\$2,000,000	5%	2031	\$850,000	5%
2024	\$1,700,000	5%	2028	\$1,500,000	0%			
2025	\$1,700,000	5%	2029	\$1,500,000	5%			

#### Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2022	47	49	1.75	3.44	
2023	45	51	1.33	2.67	
2024	43	53	2.36	4.72	
2025	41	56	1.71	3.43	
2026	39	57	1.23	2.37	
2027	37	60	1.86	3.72	
2028	36	62	0.98	1.96	
2029	34	63	1.92	3.84	
2030	33	64	1.35	2.64	
2031	32	65	1.12	2.25	

#### Percent Network Area by Functional Class and Condition Category

#### Condition in base year 2022, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
1	5.0%	15.0%	3.8%	12.5%	36.3%
11 / 111	2.8%	2.3%	0.0%	6.0%	11.1%
IV	2.1%	4.2%	0.4%	5.3%	12.0%
V	0.0%	17.8%	0.6%	22.1%	40.6%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

#### Condition in year 2022 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
1	7.8%	15.6%	3.8%	15.1%	42.3%
11 / 111	0.0%	1.7%	0.0%	3.6%	5.3%
IV	2.1%	4.2%	0.4%	5.3%	12.0%
V	0.0%	17.8%	0.6%	21.9%	40.4%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

#### Condition in year 2031 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	9.9%	35.4%	4.2%	27.2%	76.8%
11 / 111	0.0%	0.7%	0.0%	0.0%	0.7%
V	0.0%	3.1%	0.6%	18.7%	22.5%
Total	9.9%	39.3%	4.9%	45.9%	100.0%

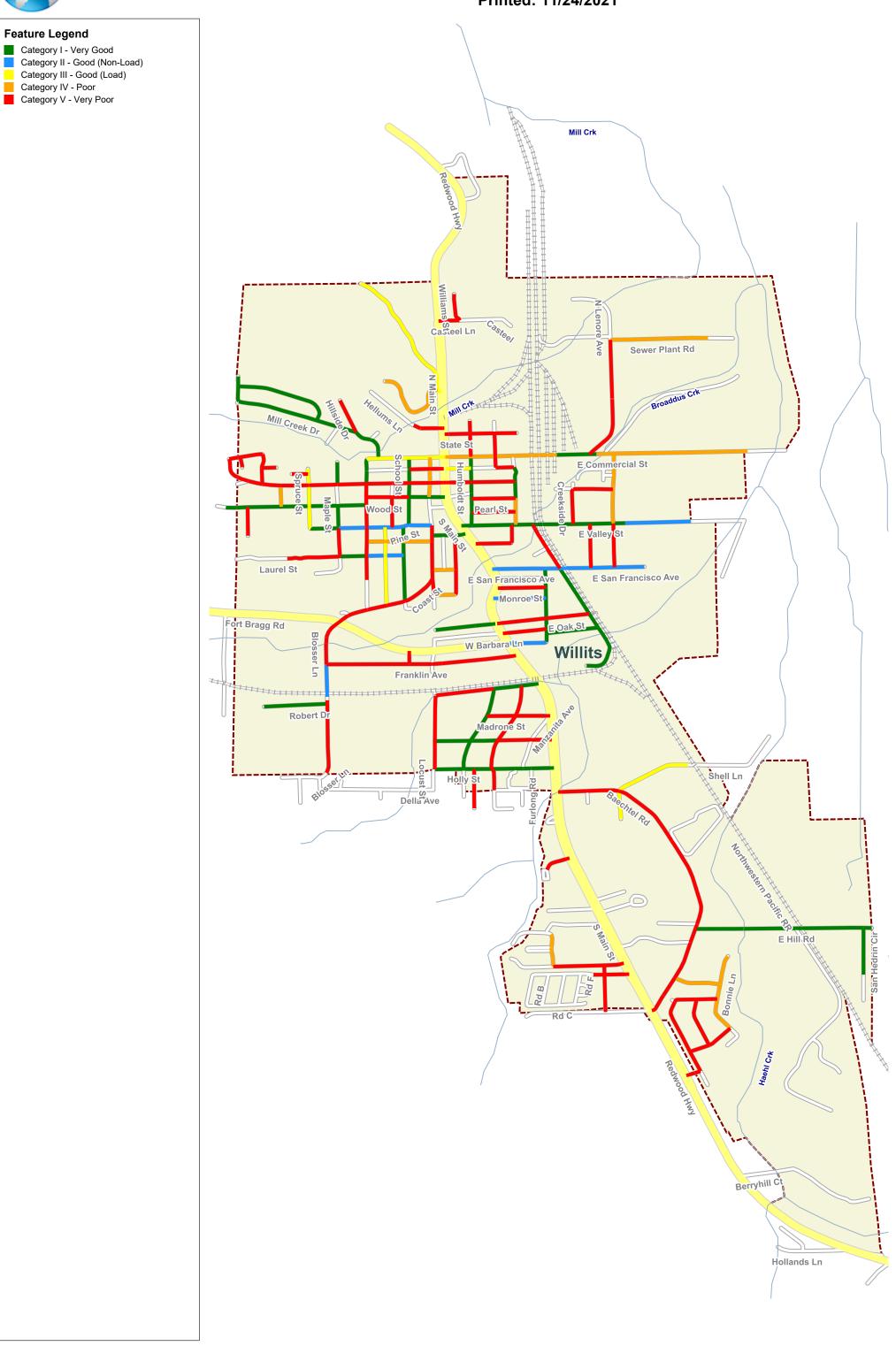
### Appendix E

PAVEMENT CONDITION MAPS

**Current Network Condition – 2021** 



### **Current PCI Condition** Printed: 11/24/2021



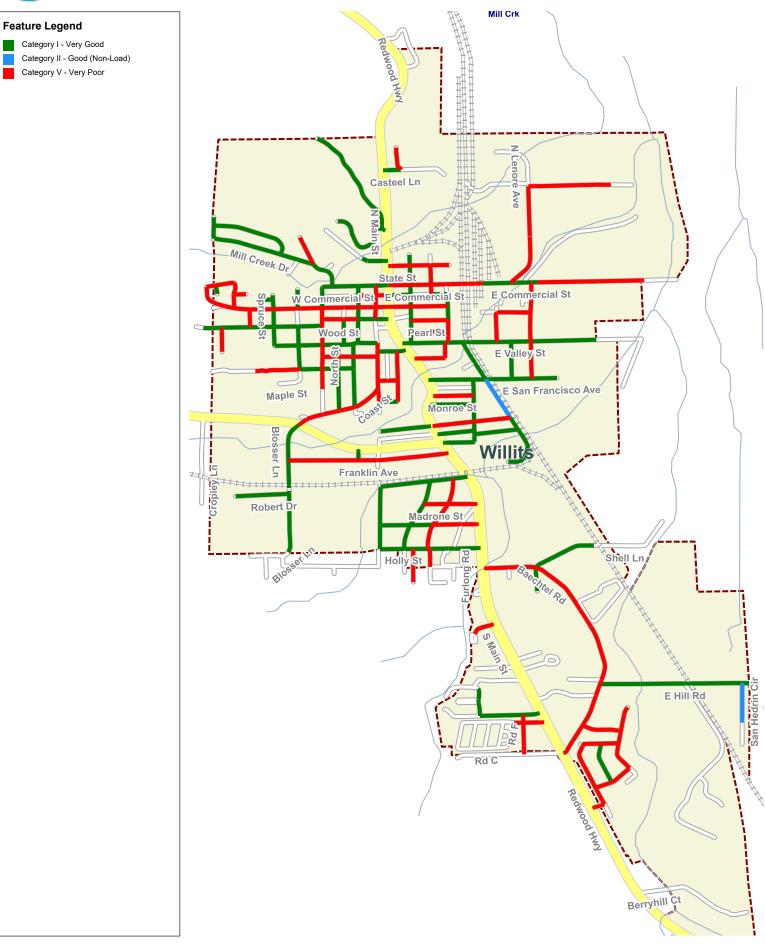
Scenario 1: Existing Budget Projected Street Network Condition – 2031



CITY OF WILLITS

### **Scenario PCI Condition**

2021 S1: Existing Budget \$700k/Year - 2031 Project Period - Total Rehab for 2031: \$661,539 - Printed: 11/24/2021



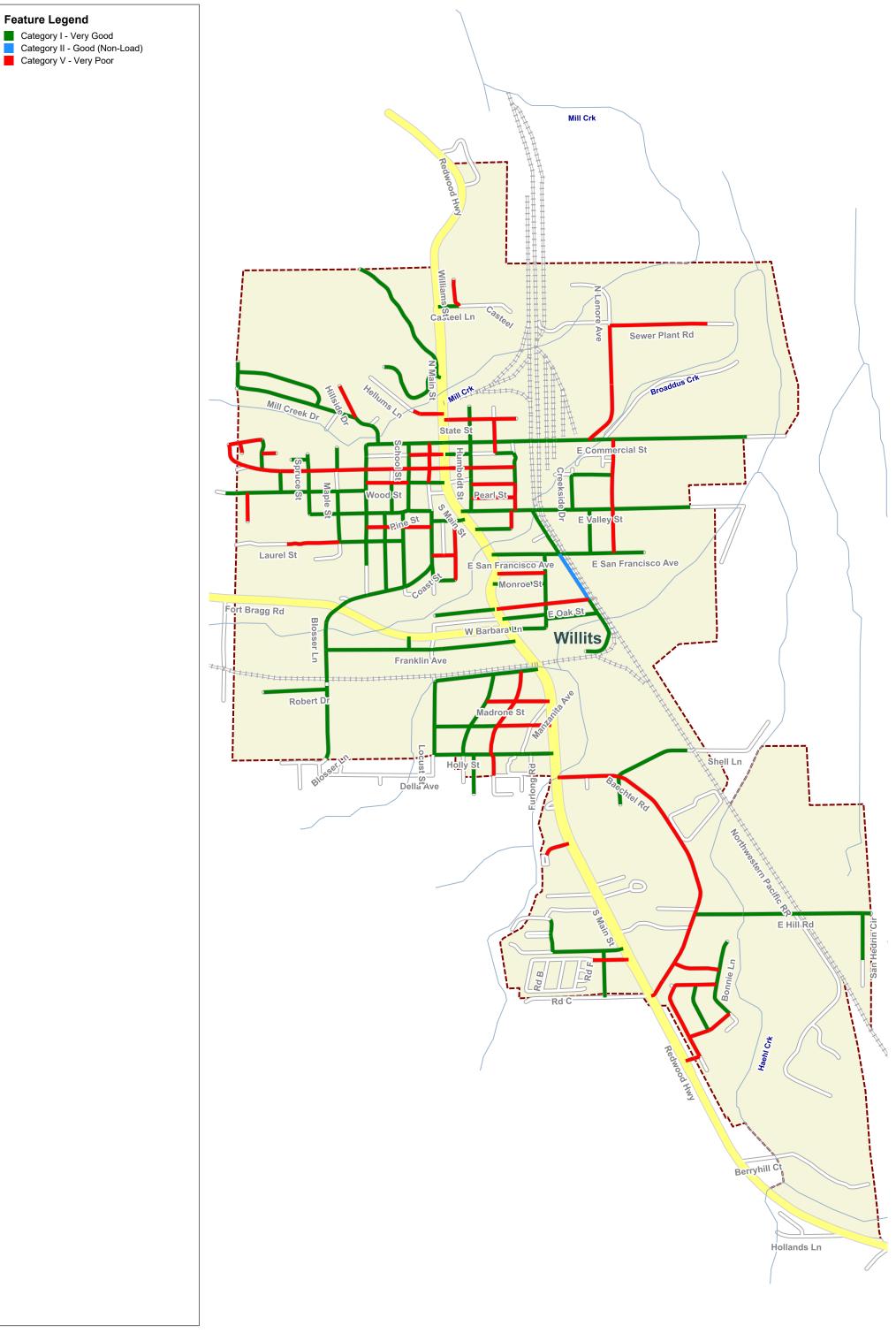
Scenario 2: Improve PCI to 55 by 5<sup>th</sup> Year and 60 by 10<sup>th</sup> Year Projected Street Network Condition – 2031



CITY OF WILLITS

# **Scenario PCI Condition**

2021 S2: Improve PCI to 55(5thYr) & 60(10thYr) - 2031 Project Period - Total Rehab for 2031: \$732,563 - Printed: 11/24/2021



Scenario 3: Improve PCI to 65

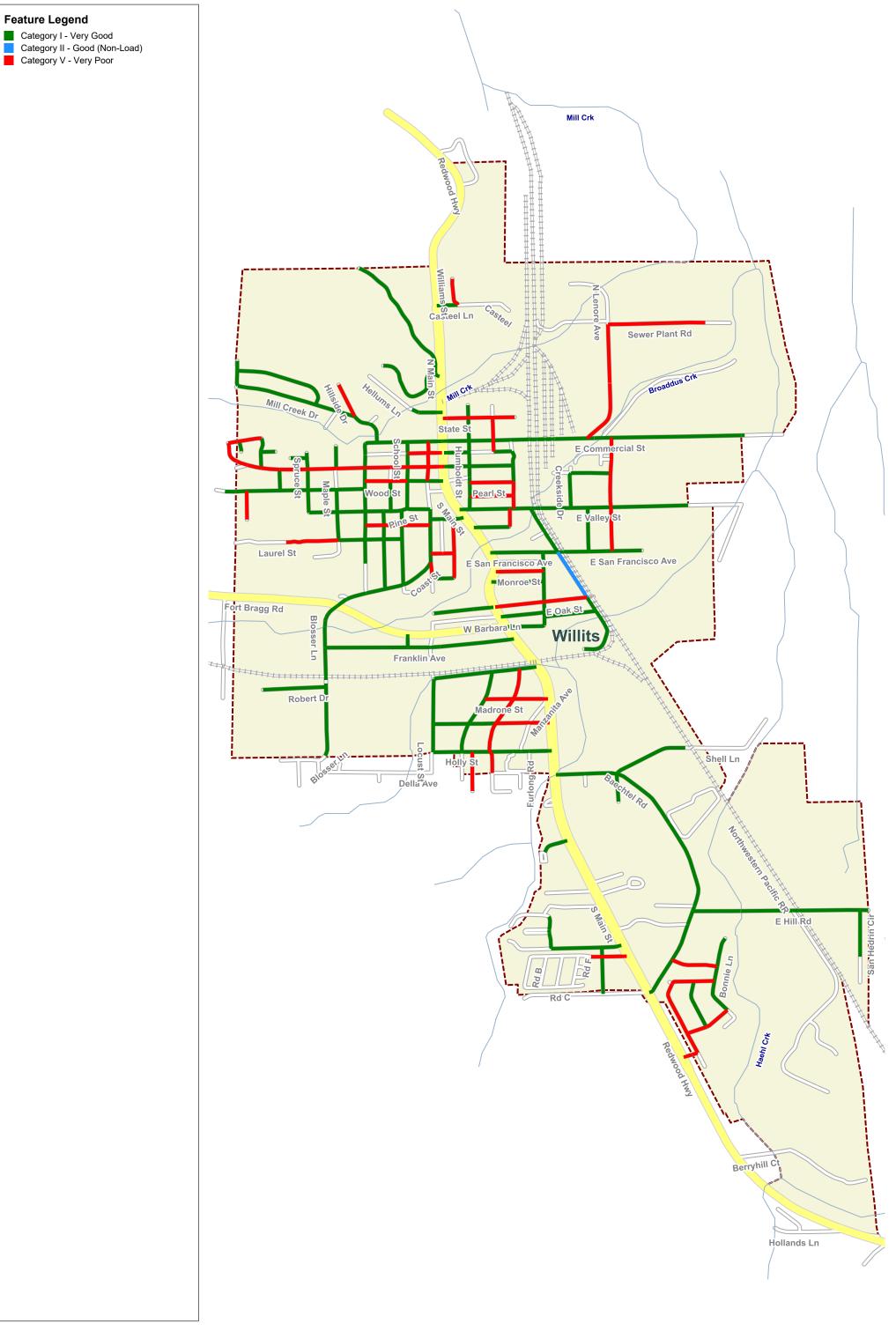
Projected Street Network Condition – 2031



CITY OF WILLITS

# **Scenario PCI Condition**

2021 S3: Improve PCI to 65 - 2031 Project Period - Total Rehab for 2031: \$781,906 - Printed: 11/24/2021



Appendix F

SECTIONS SELECTED FOR TREATMENT - SCENARIO 1

Interest: 3.00% Inflation: 3.00% Printed: 11/24/2021

\$182,580

Scenario: 2021 S1: Existing Budget \$700k/Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2022	\$700,000	5%	2026	\$700,000	5%	2030	\$700,000	3%
2023	\$700,000	5%	2027	\$700,000	5%	2031	\$700,000	3%
2024	\$700,000	8%	2028	\$700,000	5%			
2025	\$700,000	8%	2029	\$700,000	3%			

Year: 2022

											<b>a</b> , ,	Treatm				
Street Name	Begin Location	End Location	Street ID	Section ID	) Length	Width	Area	FC	Surface Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
East Commercial Street	1400 feet East of Main Street	Broaddus Creek Bridge	EComm	02	500	54	27,000	С	AC/AC	0	76	75	84	\$16,500	-	Slurry Seal w/Crack Seal
Railroad Avenue	E Oak Street	south end (s/Baechtel Creek)	Rail	02B	1,100	32	35,200	С	AC/AC	0	81	80	88	\$21,512	35,056	Slurry Seal w/Crack Seal
											Treatmer	nt Tota	I	\$38,012		
Alameda Avenue	Main Street	Central Street	Alamed	01	630	23	14,490	0	AC/AC	0	69	68	78	\$15,698	14,250	Multi Layer Slurry Seal w/ 3% Digouts
Blosser Lane	113 FT S/O RR TRACKS	FRANKLIN AVE	Bloss	10	523	39	20,397	С	AC	0	69	69	78	\$27,763	12,016	Multi Layer Slurry Seal w/ 3% Digouts
South Street	Main Street	Central Street	South	01	450	36	16,200	0	AC	0	68	67	77	\$17,550	13,750	Multi Layer Slurry Seal w/ 3% Digouts
											Treatmer	nt Tota	I	\$61,011		
Sherwood Road	City Limits	Main Street	Sherwd	01	2,100	24	50,400	A	AC/AC	0	62	62	100	\$212,800	15,616	2"AC Overlay w/5% Digouts
West Commercial Street	North Street	Main Street	WComme	01	930	54	50,220	A	AC/AC	0	68	68	100	\$212,040	13,659	2"AC Overlay w/5% Digouts
											Treatmer	nt Tota	I	\$424,840		
East Van Lane	Main Street	Humboldt Street	EVan	01	290	12	3,480	0	AC	0	64	64	100	\$10,634	13,013	1.5"AC Overlay w/5% Digouts
Raymond Lane	Coast Street	Pine Avenue	Raymnd	01	1,250	18	22,500	0	AC/AC	0	62	62	100	\$68,750	12,988	1.5"AC Overlay w/5% Digouts
Shell Lane	Baechtel Road	railroad tracks	Shell	01	1,000	28	28,000	0	AC	0	69	68	100	\$85,556	11,199	1.5"AC Overlay w/5% Digouts
											Treatmer	nt Tota	I	\$164,940		
				Y	′ear 2022 A	Area Tot	al	20	67,887		Year 2022	2 Total		\$688,803		
Year: 2023																
												Treatm				
Street Name	Begin Location	End Location	Street ID	Section ID	) Length	Width	Area	FC	Surface Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment

East Commercial St North End

Humboldt Street

18,936 C AC/AC

0

2

0

100

6,082 FDR W/4" AC OVERLAY

03

Humbol

526

36

Interest: 3.00%

Inflation: 3.00% Printed: 11/24/2021

Scenario: 2021 S1: Existing Budget \$700k/Year

											Treatment	Total		\$182,580	
East Hill Road	Baechtel Road	bridge at Haehl Creek	EHill	01	600	32	19,200	С	AC/AC	0	90	89	94	\$12,086	31,733 Slurry Seal w/Crack Seal
East Hill Road	bridge at Haehl Creek	east end (City Limits)	EHill	02	1,600	30	48,000	С	AC/AC	0	88	86	93	\$30,214	30,553 Slurry Seal w/Crack Seal
											Treatment	Total		\$42,300	
Central Street	South Street	East San Francisco Avenue	Centra	01	1,170	37	43,290	0	AC	0	70	68	100	\$136,244	12,317 1.5"AC Overlay w/5% Digouts
Spruce Street	Pine Avenue	north end (Brookside School)	Spruce	01	1,000	35	35,000	0	AC/AC	0	70	68	100	\$110,153	11,039 1.5"AC Overlay w/5% Digouts
											Treatment	Total		\$246,397	
Laurel Street	North Street	Mill Street	Laurel	03	410	30	12,300	0	AC/AC	0	57	55	100	\$86,220	6,413 3"Mill&Overlay w/5% Digouts
Willow Lane	Baechtel Road	end of street	Willow	01	450	24	10,800	0	AC	0	57	55	100	\$76,014	6,379   3"Mill&Overlay w/5% Digouts
											Treatment	Total		\$162,234	
Camp Lane	Spruce Street	end	CampIn	01	200	19	3,800	0	AC/AC	0	2	0	100	\$31,095	6,030 FDR W/3" AC OVERLAY
East Van Lane	Marin Street	Madden Lane	EVan	02	250	16	4,000	0	AC	0	24	20	100	\$32,732	6,030 FDR W/3" AC OVERLAY
											Treatment	Total		\$63,827	
				Ye	ar 2023 A	Area Tot	al	19	95,326		Year 2023	Total		\$697,338	
Year: 2024				Ye	ar 2023 /	Area Tot	al	19	95,326		Year 2023	Total		\$697,338	
Year: 2024				Ye	ar 2023 /	Area Tot	al	19	·			Treatme		\$697,338	
-		<b>Fud Location</b>	Otro of ID						Surface	Arra	Current	Treatme PCI	PCI	<u> </u>	Define Tradement
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI Bo	<b>Treatme</b> PCI efore	PCI After	Cost	Rating Treatment
-			Street ID Bloss						Surface	Area ID 0	Current	Treatme PCI	PCI	<u> </u>	Rating Treatment 5,905 FDR W/4" AC OVERLAY
Street Name	Begin Location SOUTH END (CITY	113 FT S/O RR		Section ID	Length	Width	Area	FC	Surface Type		Current PCI Bo	Treatme PCI efore	PCI After	Cost	0
Street Name	Begin Location SOUTH END (CITY	113 FT S/O RR		Section ID	Length	Width	Area	FC	Surface Type		Current PCI Br 0	Treatme PCI efore	PCI After	Cost \$406,773	0
Street Name Blosser Lane	Begin Location SOUTH END (CITY LIMITS)	113 FT S/O RR TRACKS	Bloss	Section ID 05	Length 1,107	Width 37	<b>Area</b> 40,959	FC C	Surface Type AC/AC	0	Current PCI Br 0 Treatment	Treatme PCI efore 0	PCI After 100	Cost \$406,773 \$406,773	5,905 FDR W/4" AC OVERLAY
Street Name Blosser Lane East Barbara Lane	Begin Location SOUTH END (CITY LIMITS) Central Street	113 FT S/O RR TRACKS Railroad Avenue	Bloss EBarb Magnol	Section ID 05	Length 1,107 620	Width 37 20	Area 40,959 12,400	FC C	Surface Type AC/AC AC	0	Current PCI B 0 Treatment	Treatme PCI efore 0 Total 86	PCI After 100 93	Cost \$406,773 \$406,773 \$7,674	5,905 FDR W/4" AC OVERLAY
Street Name Blosser Lane East Barbara Lane Magnolia Avenue	Begin Location SOUTH END (CITY LIMITS) Central Street Holly Street West Mendocino	113 FT S/O RR TRACKS Railroad Avenue Walnut Street West Commercial	Bloss EBarb Magnol	Section ID 05 02 01	Length 1,107 620 1,300	Width 37 20 36	Area 40,959 12,400 46,800	FC C	Surface Type AC/AC AC AC	0 0 0 0	Current PCI Bo 0 Treatment 90 84	Treatme PCI efore 0 Total 86 81	PCI After 100 93 88	Cost \$406,773 \$406,773 \$7,674 \$28,963	5,905 FDR W/4" AC OVERLAY 14,853 Slurry Seal w/Crack Seal 18,490 Slurry Seal w/Crack Seal
Street Name Blosser Lane East Barbara Lane Magnolia Avenue North Street	Begin Location SOUTH END (CITY LIMITS) Central Street Holly Street West Mendocino Street	113 FT S/O RR TRACKS Railroad Avenue Walnut Street West Commercial Street	Bloss EBarb Magnol North	Section ID 05 02 01 01B	Length 1,107 620 1,300 404	Width 37 20 36 37	Area 40,959 12,400 46,800 14,948	FC C 0 0 C	Surface Type AC/AC AC AC/AC AC/AC	0 0 0 0	Current PCI Br 0 Treatment 90 84 93	Treatme PCI efore 0 Total 86 81 88 73	PCI After 100 93 88 94	Cost \$406,773 \$406,773 \$7,674 \$28,963 \$9,692	5,905 FDR W/4" AC OVERLAY 14,853 Slurry Seal w/Crack Seal 18,490 Slurry Seal w/Crack Seal 14,680 Slurry Seal w/Crack Seal
Street Name Blosser Lane East Barbara Lane Magnolia Avenue North Street	Begin Location SOUTH END (CITY LIMITS) Central Street Holly Street West Mendocino Street	113 FT S/O RR TRACKS Railroad Avenue Walnut Street West Commercial Street	Bloss EBarb Magnol North	Section ID 05 02 01 01B	Length 1,107 620 1,300 404	Width 37 20 36 37	Area 40,959 12,400 46,800 14,948	FC C 0 0 C	Surface Type AC/AC AC AC/AC AC/AC	0 0 0 0	Current PCI B 0 Treatment 90 84 93 76	Treatme PCI efore 0 Total 86 81 88 73	PCI After 100 93 88 94	Cost \$406,773 \$406,773 \$7,674 \$28,963 \$9,692 \$13,615	5,905 FDR W/4" AC OVERLAY 14,853 Slurry Seal w/Crack Seal 18,490 Slurry Seal w/Crack Seal 14,680 Slurry Seal w/Crack Seal
Street Name Blosser Lane East Barbara Lane Magnolia Avenue North Street Walnut Street	Begin Location SOUTH END (CITY LIMITS) Central Street Holly Street West Mendocino Street Main Street	113 FT S/O RR TRACKS Railroad Avenue Walnut Street West Commercial Street Magnolia COAST ST	Bloss EBarb Magnol North Walnut	Section ID 05 02 01 01B 01	Length 1,107 620 1,300 404 600	Width 37 20 36 37 35	Area 40,959 12,400 46,800 14,948 21,000	FC C O C C	Surface Type AC/AC AC AC/AC AC/AC AC/AC	0 0 0 0	Current PCI B 0 Treatment 90 84 93 76 Treatment 65 74	Treatme PCI efore Total 86 81 88 73 Total	PCI After 100 93 88 94 82 72 72	Cost \$406,773 \$406,773 \$7,674 \$28,963 \$9,692 \$13,615 \$59,944	5,905 FDR W/4" AC OVERLAY 14,853 Slurry Seal w/Crack Seal 18,490 Slurry Seal w/Crack Seal 14,680 Slurry Seal w/Crack Seal 23,757 Slurry Seal w/Crack Seal 11,164 Multi Layer Slurry Seal
Street Name Blosser Lane East Barbara Lane Magnolia Avenue North Street Walnut Street Pine Street	Begin Location SOUTH END (CITY LIMITS) Central Street Holly Street West Mendocino Street Main Street Main Street MAPLE ST East San Francisco	113 FT S/O RR TRACKS Railroad Avenue Walnut Street West Commercial Street Magnolia COAST ST	Bloss EBarb Magnol North Walnut Pine	Section ID 05 02 01 01B 01 01 01	Length 1,107 620 1,300 404 600 1,140	Width 37 20 36 37 35 35 33	Area 40,959 12,400 46,800 14,948 21,000 42,180	FC C 0 C C	Surface Type AC/AC AC/AC AC/AC AC/AC AC/AC	0 0 0 0 0	Current PCI Br 0 Treatment 90 84 93 76 Treatment 65	Treatme PCI efore 0 Total 86 81 88 73 Total 61	PCI After 100 93 88 94 82 72	Cost \$406,773 \$406,773 \$7,674 \$28,963 \$9,692 \$13,615 \$59,944 \$60,909	5,905 FDR W/4" AC OVERLAY 14,853 Slurry Seal w/Crack Seal 18,490 Slurry Seal w/Crack Seal 14,680 Slurry Seal w/Crack Seal 23,757 Slurry Seal w/Crack Seal 11,164 Multi Layer Slurry Seal w/ 3% Digouts 7,872 Multi Layer Slurry Seal

\*\* - Treatment from Project Selection

Interest: 3.00%

Inflation: 3.00% Printed: 11/24/2021

Scenario: 2021 S1: Existing Budget \$700k/Year

Year: 2024																
												Treat	ment			
o									Surface		Current	PC			-	
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width			Туре	Area ID		Before		Cost	•	Treatment
Bittenbender Lane	end	Main Street	Bitten	01	500	13	6,500	0	AC	0	30	24		\$54,784	5,855	FDR W/3" AC OVERLAY
											Treatme	ent lota	al	\$54,784		
				Yea	ar 2025 <i>i</i>	Area To	tal	20	61,163		Year 202	5 Tota		\$692,698		
Year: 2025																
												Treat	ment			
									Surface		Current	PC				
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Туре	Area ID	PCI	Before	After	Cost	Rating	Treatment
Blosser Lane	FRANKLIN AVE	HWY 20	Bloss	15	730	39	28,470	С	AC/AC	0	0	0		\$291,224	,	FDR W/4" AC OVERLAY
Railroad Avenue	East Valley Street	East San Francisco Avenue	Rail	01	750	22	16,500	С	AC/AC	0	28	15	100	\$168,781	5,733	FDR W/4" AC OVERLAY
											Treatme	ent Tota	al	\$460,005		
East Valley Street	MAIN ST	827 FT W/O CITY LIMIT	' EVally	05	2,060	40	82,400	С	AC/AC	0	77	72	81	\$55,025	33,842	Slurry Seal w/Crack Sea
											Treatme	ent Tota	al	\$55,025		
Redwood Avenue	SPRUCE STREET	EASY STREET	Redwd	10B	350	34	11,900	0	AC/AC	0	74	70	100	\$39,733	9,844	1.5"AC Overlay w/5% Digouts
											Treatme	ent Tota	al	\$39,733		
Alder Court	Alder Lane	Dead End	Alderct	01	530	30	15,900	R	AC		31	22	100	\$138,030	5,684	FDR W/3" AC OVERLAY
											Treatme	ent Tota	al	\$138,030		
				Yea	ar 2025 /	Area To	tal	1	55,170		Year 202	5 Tota	I	\$692,793		
Year: 2026																
												Treat	ment			
									Surface		Current	PC	PCI			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Туре	Area ID	PCI	Before	After	Cost	Rating	Treatment
Locust Street	Holly Street	Walnut Street	Locust	01	1,150	35	40,250	С	AC/AC	0	5	0	100	\$424,075	5,566	FDR W/4" AC OVERLAY
											Treatme	ent Tota	al	\$424,075		
Pine Street	SPRUCE ST	MAPLE ST	Pine	05	360	37	13,320	С	AC/AC	0	93	84	91	\$9,162	16,442	Slurry Seal w/Crack Sea
School Street	Pine Avenue	West Commercial Street	School	01	1,060	34	36,040	С	AC/AC	0	84	80	87	\$24,789	32,195	Slurry Seal w/Crack Sea
											Treatme	ent Tota	al	\$33,951		
Northbrook Way	Mill Creek Drive	Mill Creek Drive	Nbrook	01	1,300	33	42,900	0	AC	0	75	69	100	\$147,536	10,508	1.5"AC Overlay w/5% Digouts

CITY OF WILLITS									Sc	enario	s - Sec	tions	s Se	elected	for Tr	reatment
										Intere	st: 3.00%	I	nflatio	n: 3.00%		Printed: 11/24/2021
													So	enario: 2021 S	S1: Existir	ng Budget \$700k/Year
											Treatme	nt Total		\$147,536		
Casteel Lane	Main Street	Williams Street	Castee	01	250	22	5,500	0	AC	0	3	0	100	\$49,179	5,519	FDR W/3" AC OVERLAY
Harmon Lane	Franklin Avenue	Hwy 20	Harmon	01	170	11	1,870	0	AC/AC	0	7	0	100	\$16,721	5,519	FDR W/3" AC OVERLAY
Schnieder Lane	West Oak Street	State Route 20	SCHNEI	01	260	11	2,860	0	AC/AC	0	0	0	100	\$25,573	5,519	FDR W/3" AC OVERLAY
											Treatme	nt Total		\$91,473		
				Ye	ar 2026 /	Area Tot	al	14	42,740		Year 2026	6 Total		\$697,035		
Year: 2027																
									Surface		Current	Treatm PCI	ent PCI			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Туре	Area ID	PCI		After	Cost	Rating	Treatment
East Commercial Street	Broaddus Creek Bridge	312 ft E/O Broaddus Creek Brid	EComm	05	312	66	20,592	С	AC/AC	0	46	30	100	\$223,467	5,384	FDR W/4" AC OVERLAY
Walnut Street	Magnolia	Locust Street	Walnut	02	700	35	24,500	С	AC/AC	0	1	0	100	\$265,877	5,404	FDR W/4" AC OVERLAY
											Treatme	nt Total		\$489,344		
Mill Creek Court	Northbrook Way	end	Mcrkct	01	200	36	7,200	0	AC	0	93	83	90	\$4,869	14,326	Slurry Seal w/Crack Seal
Mill Street	Coast Street	Pine Avenue	Mill	01	1,180	37	43,660	С	AC/AC	0	92	88	94	\$30,931	32,643	Slurry Seal w/Crack Seal
											Treatme	nt Total		\$35,800		
Blosser Lane	113 FT S/O RR TRACKS	FRANKLIN AVE	Bloss	10	523	39	20,397	С	AC	0	69	70	79	\$32,185	10,517	Multi Layer Slurry Seal w/ 3% Digouts
SANHEDRIN CIRCLE	END SOUTH	EAST HILL RD	SANHED	01	762	25	19,050	С	AC		81	68	78	\$30,060	8,765	Multi Layer Slurry Seal w/ 3% Digouts
Wood Street	SCHOOL ST	MAIN ST	WoodSt	10	370	22	8,140	0	AC/AC	0	76	69	78	\$10,223	11,947	Multi Layer Slurry Seal w/ 3% Digouts
											Treatme	nt Total		\$72,468		
Catherine Lane	Pine Avenue	Wood Street	Cather	01	450	12	5,400	0	AC	0	1	0	100	\$49,733	5,358	FDR W/3" AC OVERLAY
Hawthorne Court	Hawthorne Lane	end	HawCt	01	200	25	5,000	0	AC/AC	0	4	0	100	\$46,049	5,358	FDR W/3" AC OVERLAY
											Treatme	nt Total		\$95,782		
				Ye	ar 2027 /	Area Tot	al	1:	53,939		Year 2027	7 Total		\$693,394		
Year: 2028																
												Treatm	ent			
				0 // ID				50	Surface		Current	PCI	PCI	<b>A</b> 1	<b>D</b> ''	<b>-</b> · ·
Street Name Railroad Avenue	Begin Location	End Location	Street ID	Section ID	Length	Width	Area			Area ID	81		After	Cost	-	Treatment Slurry Seal w/Crack Seal
	E Oak Street	south end (s/Baechtel Creek)	Rail	02B	1,100	32	35,200	U	AC/AC	0	01	82	89	\$25,686	20,091	Siurry Sear W/Crack Sear
West Valley Street	Coast Street	Main Street	WVally	01	420	37	15,540	0	AC/AC	0	92	87	93	\$10,825	24,034	Slurry Seal w/Crack Seal
											Treatme	nt Total		\$36,511		

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\*\* - Treatment from Project Selection

Year: 2028

#### Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00% Printed: 11/24/2021

Scenario: 2021 S1: Existing Budget \$700k/Year

												Treatr	nent			
Street Nome	Desin Leastion	End Location	Street ID	Castion ID	Longth	\\/idth	A ====	FO	Surface	Area	Current	PCI		Cost	Dating	Tractment
Street Name Redwood Avenue	Begin Location	End Location	Street ID Redwd	Section ID	Length 697	Width 34	Area	FC O		Area ID 0	PCI 78	Before 69		Cost \$30,655	0	
Reawood Avenue	WEST END	EASY STREET	Reawa	05	697	34	23,698	0	AC/AC	0		69	/8	\$30,655	9,573	Multi Layer Slurry Seal w/ 3% Digouts
											Treatme	nt Tota	l	\$30,655		
Redwood Avenue	NORTH STREET	SPRUCE STREET	Redwd	10A	696	34	23,664	0	AC/AC	0	76	69	100	\$86,338	8,240	1.5"AC Overlay w/5% Digouts
											Treatme	nt Tota	ıl	\$86,338		
East Valley Street	827 FT W/O CITY LIMIT	EAST END (CITY LIMIT)	′ EVally	10	827	23	19,021	С	AC/AC	0	63	48	100	\$201,255	5,277	4"Mill&Overlay w/5% Digouts
											Treatme	nt Tota	ıl	\$201,255		
Alder Lane	west end	Main Street	Alder	01	850	37	31,450	0	AC	0	18	0	100	\$298,338	5,202	FDR W/3" AC OVERLA
Hellums Lane	End	Main Street	Hellum	01	400	12	4,800	0	AC	0	3	0	100	\$45,534	5,202	FDR W/3" AC OVERLA
											Treatme	nt Tota	ıl	\$343,872		
				Ye	ar 2028 /	Area To	tal	1	53,373		Year 202	8 Total		\$698,631		
Year: 2029																
												Treatr	nent			
									Surface		Current	PCI	PCI			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Туре	Area ID	PCI	Before	After	Cost	Rating	Treatment
East Commercial Street	1400 feet East of Main Street	Broaddus Creek Bridge	EComm	02	500	54	27,000	С	AC/AC	0	76	75	83	\$20,293	26,413	Slurry Seal w/Crack Sea
East Hill Road	Baechtel Road	bridge at Haehl Creek	EHill	01	600	32	19,200	С	AC/AC	0	90	89	95	\$14,431	25,666	Slurry Seal w/Crack Sea
											Treatme	nt Tota	l	\$34,724		
Pine Street	MAPLE ST	COAST ST	Pine	10	1,140	37	42,180	С	AC/AC	0	65	64	74	\$70,610	9,954	Multi Layer Slurry Seal w/ 3% Digouts
Railroad Avenue	East San Francisco Avenue	E Oak Street	Rail	02A	830	32	26,560	С	AC	0	74	65	75	\$44,462	6,361	Multi Layer Slurry Seal w/ 3% Digouts
ROBERT DR	BLOSSER LN	END WEST	ROBERT	01	890	41	49,816	С	AC		73	66	76	\$83,392	7,922	Multi Layer Slurry Seal w/ 3% Digouts
											Treatme	nt Tota	l	\$198,464		
Alice Drive	Margie Drive	Nancy Lane	Alice	01	700	33	23,100	0	AC	0	2	0	100	\$225,703	5,050	FDR W/3" AC OVERLA
Boscabelle Avenue	East Valley Street	East San Francisco Avenue	Bosca	01	680	27	18,360	0	AC/AC	0	1	0	100	\$179,390	5,050	FDR W/3" AC OVERLA
East Barbara Lane	Main Street	Central Street	EBarb	01	510	12	6,120	0	AC	0	12	0	100	\$59,797	5,050	FDR W/3" AC OVERLA
											Treatme	nt Tota	l	\$464,890		
				Ye	ar 2029 /	Area To	tal	2	12,336		Year 202	9 Total		\$698,078		

\*\* - Treatment from Project Selection

Scenarios Criteria:

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MTC StreetSaver

Inflation: 3.00%

Interest: 3.00%

Printed: 11/24/2021

Scenario: 2021 S1: Existing Budget \$700k/Year

Year:	2030

												Treatn	nent			
									Surface		Current	PCI	PCI			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width			Туре	Area ID		Before	After	Cost	-	Treatment
West Franklin Avenue	BLOSSER LN	END WEST	WFRANK	05	700	44	41,862	С	AC/AC	0	38	6	100	\$496,416	4,945	FDR W/4" AC OVERLAY
											Treatme	nt Tota	I	\$496,416		
East Van Lane	Main Street	Humboldt Street	EVan	01	290	12	3,480	0	AC	0	64	81	89	\$2,572	15,065	Slurry Seal w/Crack Seal
Humboldt Street	East Valley St	East Commercial St	Humbol	02	1,124	37	41,588	С	AC/AC	0	93	77	86	\$32,195	21,787	Slurry Seal w/Crack Seal
											Treatme	nt Tota	I	\$34,767		
Alameda Avenue	Main Street	Central Street	Alamed	01	630	23	14,490	0	AC/AC	0	69	68	78	\$19,886	11,246	Multi Layer Slurry Seal w/ 3% Digouts
Haehl Creek Court	Haehl Creek Drive	Dead End	Haehlct	01	850	32	27,200	R	AC		81	69	78	\$37,328	8,953	Multi Layer Slurry Seal w/ 3% Digouts
South Street	Main Street	Central Street	South	01	450	36	16,200	0	AC	0	68	67	76	\$22,232	10,767	Multi Layer Slurry Seal w/ 3% Digouts
											Treatme	nt Tota	I	\$79,446		
Bush Street	Coast Street	McKinley Street	Bush	01	250	35	8,750	0	AC/AC	0	40	20	100	\$88,059	4,903	FDR W/3" AC OVERLAY
											Treatme	nt Tota	I	\$88,059		
				Yea	ar 2030 /	Area Tot	tal	1	53,570		Year 2030	) Total		\$698,688		
Year: 2031																
												Treatn	nent			
									Surface		Current	PCI	PCI			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Туре	Area ID	PCI	Before	After	Cost	Rating	Treatment
Laurel Street	Maple Street	North Street	Laurel	02	400	30	12,000	0	AC/AC	0	95	79	87	\$9,134	15,504	Slurry Seal w/Crack Seal
School Street	Pine Avenue	West Commercial Street	School	01	1,060	34	36,040	С	AC/AC	0	84	82	90	\$28,737	26,843	Slurry Seal w/Crack Seal
											Treatme	nt Tota	I	\$37,871		
Walnut Street	Main Street	Magnolia	Walnut	01	600	35	21,000	С	AC/AC	0	76	70	79	\$37,295	8,561	Multi Layer Slurry Seal w/ 3% Digouts
											Treatme	nt Tota	I	\$37,295		
East San Francisco Ave	Main Street	east end	ESan	01	1,900	37	70,300	0	AC/AC	0	68	50	100	\$624,244	5,364	3"Mill&Overlay w/5% Digouts
											Treatme	nt Tota	I	\$624,244		
				Yea	ar 2031 /	Area Tot	tal	1	39,340		Year 203	1 Total		\$699,410		
				Grand To	otal Sect	ion Area	a:	1,8	34,844		Grand	Total	\$	6,956,868		

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\*\* - Treatment from Project Selection

MTC StreetSaver