

Pavement Management System Implementation

Final Report

June 2019





City of Orange Cove

633 6th St Orange Cove, CA 93646

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Submitted to:

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Table of Contents

Background. Study Objectives. Scope of Work. Pavement Network and Current Condition. Current Maintenance and Rehabilitation Practices. Budget Needs. Budget Scenarios. 10 Summary	Executive Summary	. 1
Scope of Work. Pavement Network and Current Condition	Background	. 2
Pavement Network and Current Condition Current Maintenance and Rehabilitation Practices. Budget Needs. Budget Scenarios Budget Scenarios Summary Recommendations List of Tables List of Tables List of Tables Table 1: Pavement Condition Categories Table 2. Pavement Network and Condition Summary Table 3. Pavement Condition Breakdown by Functional Class and Condition Category Table 4. Results of Budget Needs 2019 – 2028 Table 5. Summary of Results for Scenario 1 Table 6. Summary of Results for Scenario 2 Table 7. Summary of Results for Scenario 3 Table 8. Summary of Results for Scenario 4 Table 9. Summary of Results for Scenario 5 List of Figures Figure 1: Pavement Condition Categories Figure 2: Examples of Streets with Different PCIs Figure 3: Orange Cove PCI Comparison with Other Agencies Figure 4: Costs of Maintaining Pavements over Time Figure 5: PCI vs. Deferred Maintenance for Scenario 2 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 3 Table 9. PCI vs. Deferred Maintenance for Scenario 5 Table 9. PCI vs. Deferred Maintenance For Scenario 5 Table 9. PCI vs. Deferred Maintenance For Scenario 5	Study Objectives	. 3
Current Maintenance and Rehabilitation Practices		
Budget Scenarios		
Budget Scenarios		
List of Tables Eable 1: Pavement Condition Categories	S Comment of the comm	
List of Tables Table 1: Pavement Condition Categories	S .	
List of Tables Table 1: Pavement Condition Categories	3	
Table 1: Pavement Condition Categories	Recommendations	19
Table 2. Pavement Network and Condition Summary	List of Tables	
Table 3. Pavement Condition Breakdown by Functional Class and Condition Category		
Category	Table 2. Pavement Network and Condition Summary	. 7
Table 4. Results of Budget Needs 2019 – 2028	•	
Table 5. Summary of Results for Scenario 1	Category	. 7
Table 6. Summary of Results for Scenario 2	Table 4. Results of Budget Needs 2019 – 2028	. 9
Table 7. Summary of Results for Scenario 3	Table 5. Summary of Results for Scenario 1	12
Table 8. Summary of Results for Scenario 4	Table 6. Summary of Results for Scenario 2	13
List of Figures Figure 1: Pavement Condition Categories	Table 7. Summary of Results for Scenario 3	14
List of Figures Figure 1: Pavement Condition Categories	Table 8. Summary of Results for Scenario 4	15
Figure 1: Pavement Condition Categories	Table 9. Summary of Results for Scenario 5	16
Figure 2: Examples of Streets with Different PCIs	List of Figures	
Figure 3: Orange Cove PCI Comparison with Other Agencies	Figure 1: Pavement Condition Categories	. 5
Figure 4: Costs of Maintaining Pavements over Time8Figure 5: PCI vs. Deferred Maintenance for Scenario 112Figure 6: PCI vs. Deferred Maintenance for Scenario 213Figure 7: PCI vs. Deferred Maintenance for Scenario 314Figure 8: PCI vs. Deferred Maintenance for Scenario 415Figure 9: PCI vs. Deferred Maintenance for Scenario 516Figure 10: PCI Comparisons between Scenarios17Figure 11: Deferred Maintenance Comparisons between Scenarios17	Figure 2: Examples of Streets with Different PCIs	. 6
Figure 5:PCI vs. Deferred Maintenance for Scenario 112Figure 6:PCI vs. Deferred Maintenance for Scenario 213Figure 7:PCI vs. Deferred Maintenance for Scenario 314Figure 8:PCI vs. Deferred Maintenance for Scenario 415Figure 9:PCI vs. Deferred Maintenance for Scenario 516Figure 10:PCI Comparisons between Scenarios17Figure 11:Deferred Maintenance Comparisons between Scenarios17	Figure 3: Orange Cove PCI Comparison with Other Agencies	. 7
Figure 6: PCI vs. Deferred Maintenance for Scenario 213Figure 7: PCI vs. Deferred Maintenance for Scenario 314Figure 8: PCI vs. Deferred Maintenance for Scenario 415Figure 9: PCI vs. Deferred Maintenance for Scenario 516Figure 10: PCI Comparisons between Scenarios17Figure 11: Deferred Maintenance Comparisons between Scenarios17	Figure 4: Costs of Maintaining Pavements over Time	. 8
Figure 7: PCI vs. Deferred Maintenance for Scenario 314Figure 8: PCI vs. Deferred Maintenance for Scenario 415Figure 9: PCI vs. Deferred Maintenance for Scenario 516Figure 10: PCI Comparisons between Scenarios17Figure 11: Deferred Maintenance Comparisons between Scenarios17	Figure 5: PCI vs. Deferred Maintenance for Scenario 1	12
Figure 8: PCI vs. Deferred Maintenance for Scenario 4	Figure 6: PCI vs. Deferred Maintenance for Scenario 2	13
Figure 9: PCI vs. Deferred Maintenance for Scenario 516Figure 10: PCI Comparisons between Scenarios17Figure 11: Deferred Maintenance Comparisons between Scenarios17	Figure 7: PCI vs. Deferred Maintenance for Scenario 3	14
Figure 10: PCI Comparisons between Scenarios	Figure 8: PCI vs. Deferred Maintenance for Scenario 4	15
Figure 11: Deferred Maintenance Comparisons between Scenarios	Figure 9: PCI vs. Deferred Maintenance for Scenario 5	16
	Figure 10: PCI Comparisons between Scenarios	17
Figure 12: Resulting Payement Condition Breakdown for scenarios 18	Figure 11: Deferred Maintenance Comparisons between Scenarios	17
rigare 12. Resulting ravement condition breakdown for secretaries	Figure 12: Resulting Pavement Condition Breakdown for scenarios	18



Appendix A:

Quality Control Plan

Appendix B:

Section Description Inventory

Section PCI Listing: Sorted by Street Name Section PCI Listing: Sorted by Descending PCI

Appendix C:

Maintenance and Rehabilitation (M&R) Decision Tree

Appendix D:

Budget Needs:

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

Appendix E:

Scenarios Summary Reports:

Cost Summary Report Network Condition Summary Report

Appendix F:

Sections Selected for Treatment

Scenario 3: \$2.75 million per year

Appendix G:

GIS Maps

Current Network Condition (2019)
Projected Network Condition (FY 2028/29)
Scenarios 1-5



Executive Summary

NCE was selected by the Fresno Council of Governments (Fresno COG) to implement a pavement management system for the City of Orange Cove (City). This project included eight other cities (Coalinga, Fowler, Firebaugh, Huron, Kingsburg, Mendota, San Joaquin, and Selma) as well. The purpose of this project is to help inform and educate policy makers on the conditions of the street network.

The City is responsible for the maintenance and repair of approximately 31.9 centerline miles of streets and alleys which is valued at \$43.9 million. The network's Pavement Condition Index (PCI) is 46. The City utilizes the StreetSaver® pavement management software and collects pavement distresses in compliance with ASTM D6433-16¹.

The following budget scenarios were performed as part of this update. The scenarios study the impact of funding on the PCI for a period of ten years.

Scenario 1: \$1 million per year – An annual paving budget of \$1 million will decrease the network PCI to 39 over the next ten years. The unfunded backlog will increase from \$24.6 million to \$31.0 million.

Scenario 2: \$1.5 million per year – The City will need approximately \$1.5 million per year in order to maintain the current network PCI at 46 over the next ten years. The unfunded backlog will increase to \$25.2 million.

Scenario 3: \$2.75 million per year – At approximately \$2.75 million per year, the network PCI will gradually increase to 70 over the next ten years. The unfunded backlog will decrease to \$10.8 million.

Scenario 4: \$3.3 million per year – In order to improve the network PCI to 80 over the next ten years, the City will need to spend approximately \$3.3 million per year on street M&R projects. The unfunded backlog will decrease to \$4.7 million.

Scenario 5: \$3.75 million per year – At \$3.75 million per year, the network PCI will increase to 87 by the end of FY 2028/29. Additionally the unfunded backlog will be eliminated within 10 years.

NCE recommends that the City increase the paving budget to \$2.75 million per year in order to improve the pavement network.

¹ ASTM. "ASTM D6433-16." Standard Practice for Roads and Parking Lots Pavement Condition Index Inspections.



Background

With the passing of SB 1, Fresno COG has allocated funds to develop the Multijurisdictional PMS for nine local cities within the Region that currently do not have such a program in place. By assisting these cities with the creation of a PMS, the Region will have the resource available to them to prioritize roadway improvements and better manage their roadway repair and maintenance more efficiently.

To achieve this goal, Fresno COG selected NCE to implement a pavement management system for nine cities, including the City of Orange Cove. The other eight cities are Coalinga, Fowler, Firebaugh, Huron, Kingsburg, Mendota, San Joaquin, and Selma.

Broadly, a "... pavement management system (PMS) is 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." In other words, a PMS is designed to assist cities with answering questions such as:

- What comprises the City's street network and what are the conditions of the streets?
- How will the condition of the City-maintained streets respond over time to maintenance and rehabilitation (M&R) treatments proposed under the existing funding levels?
- What M&R strategies exist to improve the current street conditions?
- What is the backlog of M&R work that should be done in order to achieve the City's pavement condition goal?
- What are the future M&R needs?
- What are the street repair priorities?
- How much funding is needed in order to improve current pavement conditions?

In order to answer the questions above, Fresno COG selected a PMS software program called StreetSaver[®], which was developed by the Metropolitan Transportation Commission (MTC) and is widely used by Californian cities and counties.

⁻

² AASHTO "Guidelines for Pavement Management Systems". American Association of State Highway and Transportation Officials, Washington DC, July 1990.



Study Objectives

The goal of this project is to implement the StreetSaver PMS and populate it with current pavement conditions and to perform funding analyses with respect to the City's M&R program.

The objectives of this study were to:

- Setup the PMS database based on the City's shapefile or the shapefile publicly available on Fresno County's website
- Perform pavement condition inspections of the entire street network and determine the PCI of each street section as well as the street network PCI.
- Develop appropriate M&R strategies.
- Perform budgetary analyses and determine the M&R funding needs.
- Present a strategy for the most cost-effective program.

Finally, this report links the recommended repair program costs to the City's current and projected budget alternatives to improve the overall network condition. It also assesses the adequacy of existing revenues to meet the recommended maintenance needs.

Scope of Work

First, NCE performed pavement condition inspections of the City-maintained streets and alleys in December 2018 using the walking inspection method. Pavement distress data were collected and entered into StreetSaver to calculate the section's PCI. The condition inspections did not address non-pavement issues such as traffic, safety, street hazards, geometric issues, drainage issues, or immediate maintenance needs. As part of this task, a Quality Control Plan was developed and implemented and a copy is included in Appendix A.

Upon completion of the data collection activities, NCE reviewed and discussed M&R strategies with the City staff. This included selecting appropriate and effective treatments such as surface seals, overlays or reconstructions, as well as determining unit costs. The unit costs represent the overall project cost which incorporated material costs along with any related construction, engineering and design costs and were based on recent bid abstracts from the City as well as surrounding agencies. Once appropriate M&R alternatives were defined, they were entered into the StreetSaver® database for budgetary analyses.

NCE next performed a budget needs analysis using a period of ten years with an annual inflation rate of 3 percent. This identified M&R recommendations for each street section and determined the total M&R requirements over the analysis period under various funding levels.



Pavement Network and Current Condition

The City is responsible for the repair and maintenance of approximately 31.9 centerline miles of streets, of which 7.3 miles are arterial, 8.3 miles are collector, 16.3 miles are residential, and 3.0 miles are alley. Streets, or pavements, are one of the City's most valuable assets with an estimated replacement value is of \$43.9 million. This does not include the value of other non-pavement street components, such as curb and gutters, sidewalks, or drainage. Additionally, there are approximately 4.1 centerline miles of gravel roads within the City limit but they are not included in the analysis.

The PCI is a measurement of pavement grade or condition and ranges from 0 to 100. A newly constructed street will have a PCI of 100, while a failed street will have a PCI of 25 or less. The pavement condition is primarily affected by climate, traffic loads and volumes, subgrade failure, construction materials and age. Some of the distresses manifested by pavement as it ages or fails are:

Asphalt Concrete (AC) Pavement:

- Alligator (Fatigue) Cracking*
- Bleeding
- Block Cracking
- Bumps and Sags
- Corrugation
- Depression
- Edge Cracking
- Longitudinal/Transverse Cracking

- Joint reflection cracking
- Patching and Utility Cut Patching
- Potholes
- Rutting*
- Shoving*
- Slippage Cracking*
- Raveling
- Weathering

Table 1 and Figure 1 below illustrate the definitions of the pavement condition categories. Streets in "Fair" condition include streets with both non-load related (e.g., weathering or raveling) and load related (e.g., alligator cracking) distresses. Because the causes of these distresses are markedly different, the treatments used to address these conditions are also different, as are the costs of these treatments. Generally, streets with load-related distress are more expensive to repair. The two categories of distress are identified by II (non-load related) and III (load related). StreetSaver® assigns the appropriate treatments and costs to streets identified within each category.

^{*}Indicates load-related distresses



Table 1: Pavement Condition Categories

	ondition ategory	PCI	Pavement Description
(1)	Good	70-100	Pavements which have minimal surface distress which may include some hairline longitudinal/transverse cracks and/or weathering. The pavement structure is sound and minor oxidation may occur.
(11)	Fair, Non- Loaded	50-69	Pavements which have a significant level of distress that are predominantly non-load related such as longitudinal/transverse cracks, bleeding, block cracking, weathering and raveling, etc. The pavement structure is sound and some oxidation has occured.
(111)	Fair, Load- Related	50-69	Pavements which have a significant level of distress that are predominantly load related such as alligator cracking and minor rutting, etc. The pavement structure is becoming deficient (minimal base failure).
(IV)	Poor	25-49	The pavement has moderate to severe surface distresses. Extensive weathering or raveling, block cracking, and load-related distresses such as alligator cracking, rutting, and potholes may occur.
(V)	Very Poor	0-24	The pavement has severe weather-related distress as well as large quantities of load-related distresses. The pavement is nearing the end of its service life.

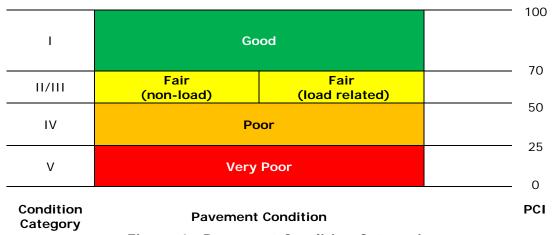


Figure 1: Pavement Condition Categories



The photos in Figure 2 below illustrate streets with a range of PCIs.



The photo on the left is from a portion of 3rd Street between Railroad Avenue and G Street. Pavement surface displayed minimal distresses; in fact, only minor weather-related distress was recorded during the inspection. PCI = 91 (Good)



The photo on the left is from 2nd Street between Park Street and north end. At this point, significant load-related distresses such as alligator cracking can be found along with block cracking and longitudinal cracking. The pavement had also oxidized substantially. PCI = 43 (Poor)



The photo on the left is from J Street from 11th Street to 8th Street and it shows a street that is near the end of its service life. Extensive load-related distresses such as alligator cracking can be found throughout the entire section. The surface of the pavement is heavily raveled. PCI = 14 (Very Poor)

Figure 2: Examples of Streets with Different PCIs

Based on the December 2018 inspection, the City's average weighted (by area) PCI³ is 46 which is considered "Poor" condition. However, the average PCI does not completely describe the street network. Table 2 summarizes the City's street network and the PCI by functional classification.

³ The weighted average PCI is a result of multiplying the area of each street section by the PCI of that section, totaling all sections together and then dividing by the total of the network area or functional classification.



Functional Class	Centerline Miles	Lane Miles	Pavement Area (sq ft)	% Pavement Area	Average Weighted PCI
Arterial	7.3	14.6	1,380,522	21.6%	70
Collector	8.3	17.1	1,417,856	22.2%	47
Residential	16.3	32.5	3,350,235	52.4%	35
Other/Alley	3.0	3.0	241,025	3.8%	65
Total	31.9	67.2	6,389,638	100.0%	46
Gravel Streets	4.1	4.2	310,952	N/A	N/A

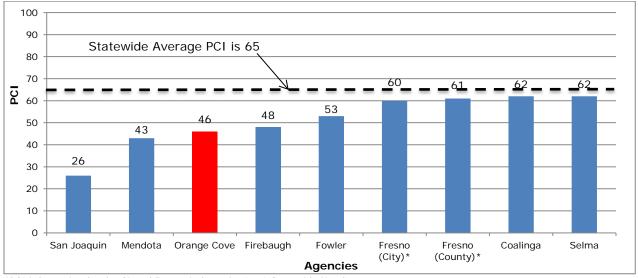
Table 2. Pavement Network and Condition Summary

Table 3 summarizes the network condition by condition category. Approximately 28.9 percent of the City's streets are in "Good" condition, 41.4 percent are in either "Fair" or "Poor" condition, and 29.6 percent are in the "Very Poor" category.

Table 3. Pavement Condition Breakdown by Functional Class and Condition Category

Condition Category	PCI Range	Arterial	Collector	Residential	Other/Alley	Network
Good (I)	70-100	12.6%	6.5%	7.1%	2.8%	28.9%
Fair (II/III)	50-69	5.5%	5.0%	4.5%	0.2%	15.2%
Poor (IV)	25-49	3.5%	4.0%	18.6%	0.1%	26.2%
Very Poor (V)	0-24	0.0%	6.7%	22.2%	0.7%	29.6%
Total (%)		21.6%	22.2%	52.4%	3.8%	100.0%

The City's average network PCI of 46 is significantly lower than the 2018 statewide average of 65. Figure 3 illustrates PCI comparisons between Orange Cove and neighboring agencies using information from the recent inspection data as well as the 2018 California Statewide Local Streets and Roads Needs Assessment.



*PCI information for the City of Fresno is from the 2018 Statewide Needs

Figure 3: Orange Cove PCI Comparison with Other Agencies



Current Maintenance and Rehabilitation Practices

Preventive maintenance treatments such as crack seal and slurry seals are suitable for pavements in the "Good" condition and should be applied every seven years if the pavement condition is appropriate. As pavement condition deteriorates to lower levels, hot mix asphalt (HMA) overlays, Cold-in-Place recycling (CIR), and full-depth reclamation (FDR) should be performed. These are considered "rehabilitation or reconstruction". Localized base repairs are commonly used as preparatory work prior to applying overlays. A detailed M&R decision tree can be found in Appendix C.

History has shown that it costs less to maintain streets in good condition than to repair ones that have failed. By letting pavements deteriorate, streets that once cost \$3.50 per square yard (SY) to slurry seal may, in a few years, cost as much as \$64.50/SY to reconstruct. With rising material costs, the timeliness of repairs becomes more critical.

After the acceptance of Senate Bill 1 in 2018, agencies within the Fresno County area experienced anywhere between 30 to 40 percent construction cost increase due to a shortage of construction materials and available contractors.

Figure 4 illustrates that pavement maintenance follows the old colloquial saying of "pay now or pay <u>more</u> later". The pavement deterioration curve shown by the blue line illustrates how pavement deteriorates over time.

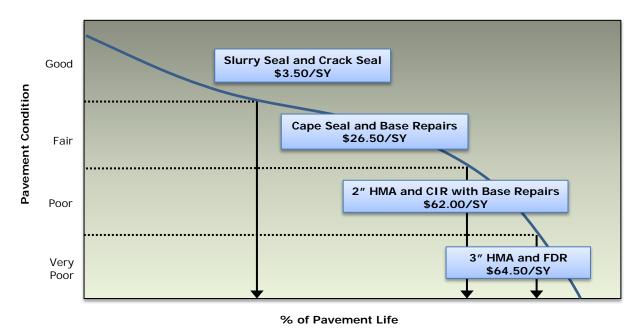


Figure 4: Costs of Maintaining Pavements over Time



Budget Needs

Once the pavement condition and the appropriate maintenance method has been determined, it is possible to determine the funding needed for maintenance of the City's streets. Simplistically, the StreetSaver® program seeks to answer the following questions:

If funding is not a constraint, how much money is needed to bring the pavement condition to a state of good repair? And maintain it at that level over the next ten years?

Therefore, based on the principle that it costs less to maintain streets in good condition, rather than focusing on fixing those in poor condition, StreetSaver® develops a funding strategy that will improve the overall condition of the streets and then maintain it at that level. The condition and functional classification of each street determines the appropriate treatment and cost from the decision tree.

For example, Jacob Avenue has a PCI ranging between 51 and 61, and the appropriate treatment is a cape seal and base repairs, then the area of the pavement section is multiplied by the unit cost to determine the total treatment cost. Additional surface seals over the next ten years may also be applied to preserve the pavement condition, if necessary.

Using this process, the entire street network for the City was evaluated and totaled. The resulting maintenance needs will be approximately \$34.9 million over the next ten years using an annual inflation rate of 3 percent. If the City follows the needs funding strategy recommended by the program, the average PCI will increase to 92 in fiscal year (FY) 2019/20 then fluctuate in the mid-80s until the end of the analysis period. If however, no funding is allocated to street pavement maintenance, the streets will deteriorate and the network PCI will drop to 23 by the end of FY 2028/29. The results of the budget needs analysis are summarized in Table 4.

Table 4. Results of Budget Needs 2019 - 2028

Fiscal Year (FY)	Current	19/ 20	20/ 21	21/ 22	22/ 23	23/ 24	24/ 25	25/ 26	26/ 27	27/ 28	28/ 29	Total
Budget Needs (\$M)	N/A	24.6	1.6	0.1	0.4	0.9	0.4	1.5	2.6	2.5	0.2	34.9
Treated PCI	67	92	88	86	85	84	83	83	86	86	84	N/A
Untreated PCI	67	44	41	38	35	33	31	29	27	25	23	N/A

In this analysis, the total funding needed is "front-loaded;" i.e., it is less expensive to repair the streets in the first year than in subsequent years due to the effect of deferring maintenance and inflation. Although very few agencies can afford this



"front-loaded" approach, it highlights the next treatments each street section needs and becomes a reference point for other funding scenarios.

The deferred maintenance in 2019 is \$24.6 million. Deferred maintenance consists of pavement maintenance, preservation, and rehabilitation activities that are needed, but cannot be performed due to lack of funding. It is also referred to as the unfunded backlog. Shrinking budgets have forced many cities and counties to defer much-needed pavement maintenance activities. Deferring these activities results in an increased frequency of citizen complaints about the condition of the pavement network and a higher cost to repair these streets.

The prediction models in StreetSaver® may result in a more conservative performance due to the impacts of newer and more cost-effective technologies are not included at this time. For example, if improved materials are utilized, e.g., asphalt-binder with rubber or polymers, the actual performance of these treatments may be under-stated by the models. However, if the City assesses the pavement conditions regularly, the prediction of future conditions will continue to improve.

Budget Scenarios

Having determined the ten-year maintenance needs of the City's street network, the next step in developing a cost-effective M&R strategy is to conduct "what-if" analyses. Using the StreetSaver® budget scenario module, the impacts of the City's budget can be evaluated. This module seeks to answer the following questions:

If funding is constrained, what is the most cost-effective way to spend the funds? What are the consequences on the PCI and deferred maintenance? Which streets will be prioritized for repairs and when will they be repaired?

The program determines the effects of the different funding scenarios on PCI and deferred maintenance. By examining the effects on these performance measures, the advantages and disadvantages of different funding levels and maintenance strategies become clear.

The following scenarios were performed:

Scenario 1: \$1 million per year – An annual paving budget of \$1 million will decrease the network PCI to 39 over the next ten years. The unfunded backlog will increase from \$24.6 million to \$31.0 million.

Scenario 2: \$1.5 million per year – The City will need approximately \$1.5 million per year in order to maintain the current network PCI at 46 over the next ten years. The unfunded backlog will increase to \$25.2 million.



Scenario 3: \$2.75 million per year – At approximately \$2.75 million per year, the network PCI will gradually increase to 70 over the next ten years. The unfunded backlog will decrease to \$10.8 million.

Scenario 4: \$3.3 million per year – In order to improve the network PCI to 80 over the next ten years, the City will need approximately \$3.3 million per year on street M&R projects. The unfunded backlog will decrease to \$4.7 million.

Scenario 5: \$3.75 million per year – At \$3.75 million per year, the network PCI will increase to 87 by the end of FY 2028/29. Additionally, the unfunded backlog will be eliminated within 10 years.

Detailed results of the budget needs and scenarios are presented in Appendices D and E.



Scenario 1: \$1 million per year

This scenario shows the impact of an annual paving budget of \$1 million per year over ten years. The network PCI will continue to decline to 39 and the deferred maintenance will increase to \$31 million over the next ten years. At the end of the analysis period, 45.1 percent of the network will be in "Good" condition while more than half (53.3 percent) will be in "Very Poor" condition. Table 5 and Figure 5 summarize the results from Scenario 1.

Fiscal Year	Current	19/ 20	20/ 21	21/ 22	22/ 23	23/ 24	24/ 25	25/ 26	26/ 27	27/ 28	28/ 29	Total
Budget (\$M)	N/A	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	10.0
Rehabilitation (\$M)	N/A	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.9	8.7
Preventive Maintenance (\$M)	N/A	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.1	1.3
Deferred Maintenance (\$M)	24.6	23.6	24.3	26.2	27.3	28.6	28.7	28.9	30.0	30.6	31.0	N/A
Treated PCI	46	46	44	43	42	41	40	40	39	39	39	N/A

Table 5. Summary of Results for Scenario 1

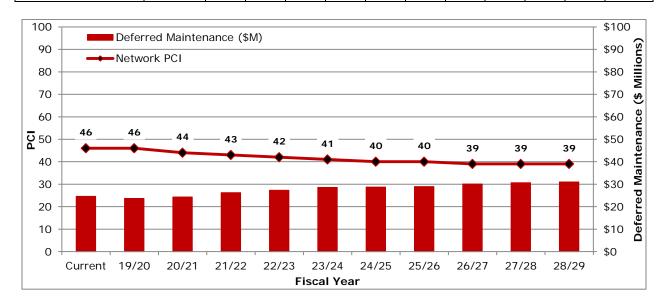


Figure 5: PCI vs. Deferred Maintenance for Scenario 1



Scenario 2: \$1.5 million per year

In Scenario 2, with an annual budget of approximately \$1.5 million per year, the network PCI will essentially be maintained at 46 over the next ten years. However, the deferred maintenance will increase to \$25.2 million in FY 2028/29. Approximately 55.5 percent of the streets will be under the "Good" condition, and the "Very Poor" condition streets will increase to 44.5 percent. Table 6 and Figure 6 summarize the results from Scenario 2.

20/ 21/ 22/ 23/ 24/ 25/ 19/ 26/ 27/ 28/ Fiscal Year Current Total 20 29 21 22 23 24 25 26 27 28 Budget (\$M) N/A 1.5 1.5 1.5 1.5 15.0 1.5 1.5 1.5 1.5 1.5 1.5 Rehabilitation N/A 1.4 1.4 1.3 1.4 1.4 1.3 1.5 1.2 1.2 1.3 13.3 (\$M) Preventive 0.1 0.1 N/A 0.1 0.1 0.2 0.2 0.0 0.3 0.3 0.2 1.7 Maintenance (\$M) Deferred 25.4 24.6 23.1 23.3 24.7 25.2 25.9 25.5 25.0 25.8 25.2 N/A Maintenance (\$M) **Treated PCI** 46 46 46 45 45 45 45 46 46 46 46 N/A

Table 6. Summary of Results for Scenario 2

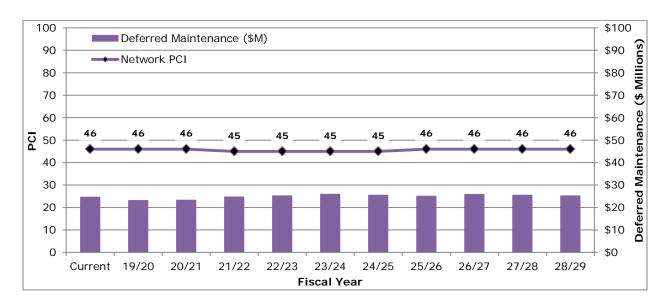


Figure 6: PCI vs. Deferred Maintenance for Scenario 2



Scenario 3: \$2.75 million per year

If the City increases the paving budget to \$2.75 million per year, the network PCI will gradually improve to 70 over the next ten years. The deferred maintenance will decrease to \$10.8 million in FY 2028/29. There will be approximately 81.2 percent of the network in "Good" condition and 18.8 percent in the "Very Poor" category by the end of FY 2028/29. Table 7 and Figure 7 summarize the results from Scenario 3.

Fiscal Year	Current	19/ 20	20/ 21	21/ 22	22/ 23	23/ 24	24/ 25	25/ 26	26/ 27	27/ 28	28/ 29	Total
Budget (\$M)	N/A	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75	27.5
Rehabilitation (\$M)	N/A	2.60	2.59	2.60	2.64	2.65	2.62	2.70	2.30	2.35	2.49	25.5
Preventive Maintenance (\$M)	N/A	0.15	0.16	0.15	0.11	0.10	0.13	0.05	0.45	0.40	0.26	2.0
Deferred Maintenance (\$M)	24.6	21.9	20.7	20.8	19.9	19.2	17.3	15.4	14.5	12.6	10.8	N/A
Treated PCI	46	48	50	51	53	55	58	61	63	67	70	N/A

Table 7. Summary of Results for Scenario 3

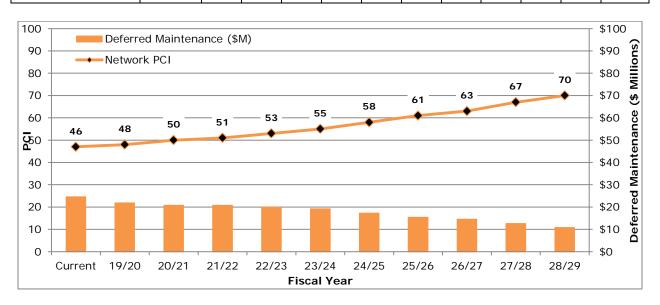


Figure 7: PCI vs. Deferred Maintenance for Scenario 3



Scenario 4: \$3.3 million per year

An annual budget of \$3.3 million is required to improve the network PCI to 80 over the next ten years. At this funding level, the deferred maintenance will decrease to \$4.67 million by FY 2028/29. At the end of the analysis period, almost all of the streets will be in "Good" condition, with only 7.3 percent in "Very Poor" condition. Table 8 and Figure 8 summarize the results from Scenario 4.

Fiscal Year	Current	19/ 20	20/ 21	21/ 22	22/ 23	23/ 24	24/ 25	25/ 26	26/ 27	27/ 28	28/ 29	Total
Budget (\$M)	N/A	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	33.0
Rehabilitation (\$M)	N/A	3.1	3.1	3.2	3.2	3.2	3.2	3.2	2.8	2.9	3.0	30.9
Preventive Maintenance (\$M)	N/A	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.4	0.3	2.1
Deferred Maintenance (\$M)	24.6	21.3	19.6	19.1	17.6	16.3	13.7	11.2	9.8	7.2	4.7	N/A
Treated PCI	46	49	52	54	57	60	64	68	71	76	80	N/A

Table 8. Summary of Results for Scenario 4

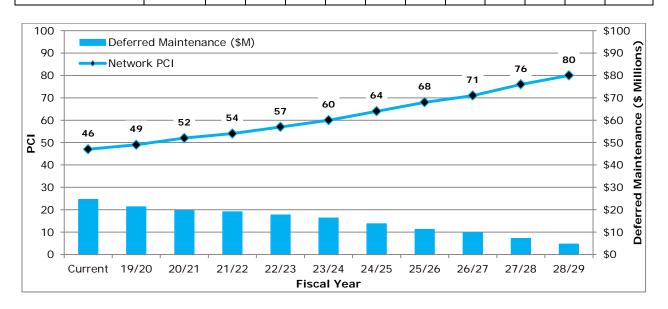


Figure 8: PCI vs. Deferred Maintenance for Scenario 4



Scenario 5: \$3.75 million per year

With \$3.75 million annually, the network PCI will improve to 87 over the next ten years and the deferred maintenance will essentially be eliminated. Every street section will be in "Good" condition by the end of the analysis period. Table 9 and Figure 9 summarize the results from Scenario 5.

Fiscal Year	Current	19/ 20	20/ 21	21/ 22	22/ 23	23/ 24	24/ 25	25/ 26	26/ 27	27/ 28	28/ 29	Total
Budget (\$M)	N/A	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	37.5
Rehabilitation (\$M)	N/A	3.61	3.59	3.60	3.64	3.65	3.61	3.71	3.35	3.35	2.50	34.6
Preventive Maintenance (\$M)	N/A	0.14	0.16	0.15	0.11	0.10	0.14	0.04	0.40	0.40	1.25	2.9
Deferred Maintenance (\$M)	24.6	20.9	18.7	17.7	15.8	13.9	10.8	7.7	5.7	2.6	0.0	N/A
Treated PCI	46	50	54	57	61	64	69	74	78	83	87	N/A

Table 9. Summary of Results for Scenario 5

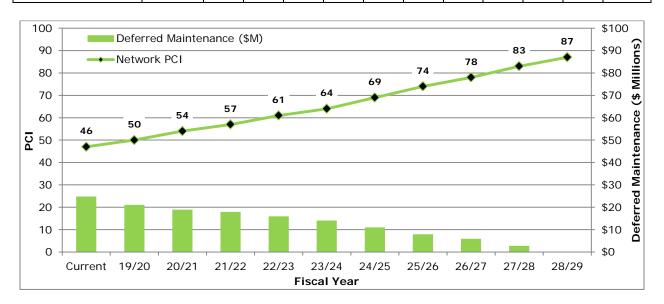


Figure 9: PCI vs. Deferred Maintenance for Scenario 5



Summary

Figures 10 and 11 compare the resulting PCIs and deferred maintenance for all budget scenarios.

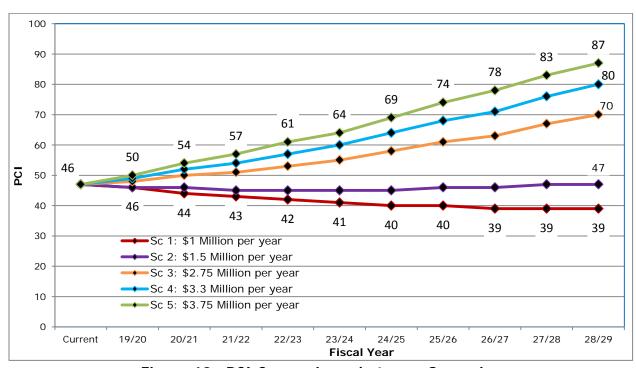


Figure 10: PCI Comparisons between Scenarios

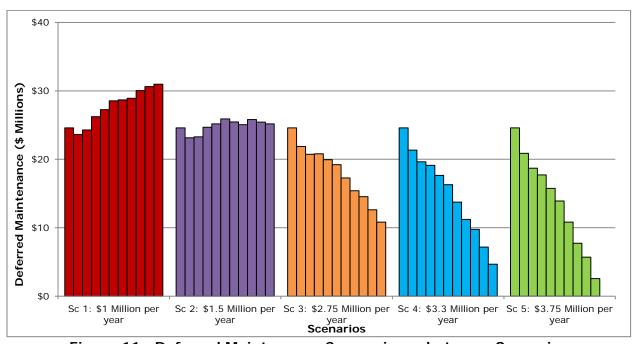


Figure 11: Deferred Maintenance Comparisons between Scenarios



Figure 12 compares the changes in the pavement condition distribution between the current condition and the five budget scenarios.

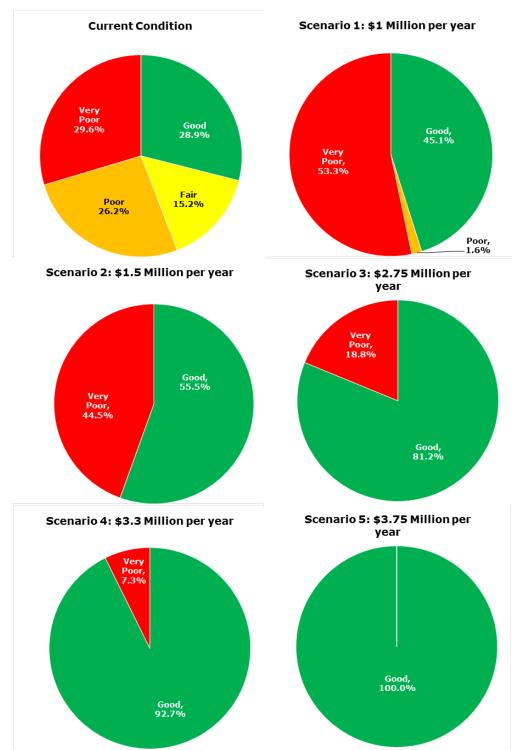


Figure 12: Resulting Pavement Condition Breakdown for Scenarios



Recommendations

The City of Orange Cove has a substantial investment in its street network with an estimated total replacement cost of \$43.9 million. Overall, the street network is in the "Poor" condition with a citywide average PCI of 46. Based on the data collected and the results of budget scenario analyses, NCE recommends that the City implements the following:

1. Pavement Funding

The City's overall pavement network is in critical condition. The network PCI will decrease to 23 if left untreated within the next ten years, which means that nearly every street will need to be reconstructed. NCE recommends that the City implements a paving program of approximately \$2.75 million per year (Scenario 3) as it will improve the network PCI to 70. The network condition will be mostly in the "Good" condition with 18.8 percent in the "Very Poor" category. Improving the pavement condition to the "Good" category will allow the City to preserve the streets through preventive maintenance methods such as slurry seals which are significantly cheaper than overlays.

2. Pavement Maintenance Strategies

NCE recommends that the City consider alternative treatment options as laid out in the decision tree. Full-depth reclamation (FDR) and cold-in-place recycling (CIR) are alternatives to reconstruction and conventional overlay. These treatments could potentially offer cost savings of approximately 20 to 30 percent compared to traditional treatments.

Due to the relatively small size of each pavement project, NCE recommends that the City investigate the option of combining paving projects with neighboring agencies in order to take advantage of economies of scale.

3. Re-inspection Strategies

In order to monitor future pavement performance and on-going maintenance needs, NCE recommends that the City inspects the arterial and collector network every two years and the residential network and alleys every five to six years.

4. M&R Decision Tree

NCE recommends that the City review and update the M&R decision tree and the associated unit costs annually to reflect new construction techniques and changing costs so the funding analysis will continue to be reliable and accurate.



5. Additional Funding

NCE recommends that the City take full advantage of SB-1 and actively pursue additional pavement funding sources if feasible. Some examples of funding sources are listed:

<u>Federal</u>

- Community Development Block Grants (CDBG)
- Congestion Mitigation & Air Quality Improvement (CMAQ)
- Surface Transportation Block Grant Program (STBG)
- Highway Safety Improvement Program (HSIP)

State

- State Transportation Improvement Program (STIP)
- Active Transportation Program (ATP)
- Vehicle License Fee (VLF)
- CalRecycle grants
- Transportation Development Act (TDA)

Local

- Local sales taxes
- Development impact fees
- Traffic impact and transportation mitigation fees
- Utility tax
- Parking and various permit fees
- Parcel taxes



Appendix A

Quality Control Plan



QC Plan

Pavement Management Program 2018





Fresno COG

Table of Contents

1.0	INTRODUCTION	. 1
	1.1 Objectives	. 1
	1.2 Structure	
2.0	QUALITY CONTROL PLAN	. 2
	2.1 Condition Survey Procedure	. 2
	2.2 Accuracy Required For Data Collection	
	2.3 Inspectors Qualification and Experience	
3.0	SAFETY PROCEDURE	

AppendixA. Resumes of Inspectors

1.0 INTRODUCTION

When performing data collection in any field, the need for quality control is paramount. This need for quality data is essential for accurate planning, analysis and design. NCE's "Quality Assurance Management Plan" (QAMP), which was last revised in March 2009, affirms that:

"NCE is dedicated to achieving technical and management excellence and to delivering professional engineering and environmental services that meet or exceed our clients' needs. NCE's Quality Assurance (QA) Program is designed to achieve these goals. This QA Management Plan (QAMP) describes NCE's QA Program, which is based on four principles: client satisfaction, employee participation, problem prevention, and continuous quality improvements."

NCE's QAMP establishes minimum quality standards for performance and procedures for assuring that our clients receive quality service. It requires the participation of employees at every level. It encourages Project Managers and technical staff to take pride in their work and responsibility for ensuring that the work is done correctly the first time. The program is designed to reduce the incidence of problems related to quality and results in implementation, where necessary, of corrective actions and modification of work procedures to minimize the incidence of future problems.

NCE has also prepared detailed and specific Quality Control Plans for projects, and the most notable example is for the <u>Long Term Pavement Performance (LTPP) – Western Regional Support Contract</u> for the Federal Highway Administration. This is a 150 page document that covers data collection on highways, including deflection, profile, pavement distresses, traffic, maintenance and rehabilitation history, materials testing and sampling as well as a document control.

1.1 Objectives

This document constitutes a formal Quality Control Plan (QCP) for the Fresno Council of Governments to include The Cities of Colinga, Firebaugh, Fowler, Huron, Kingsburg, Mendota, Orange Grove, San Joaquin and Selma (OCG). Specifically, it is intended for the 2018 Pavement Management Program Update project. The focus is on data collection issues.

1.2 Structure

The following components are addressed in this QC Plan:

- Condition survey procedures used
- Accuracy required for data collection
- Inspector qualifications and experience
- Safety

2.0 QUALITY CONTROL PLAN

2.1 Condition Survey Procedure

The governing documents in performing condition surveys are:

- "PAVER™ Pavement Distress Identification Manual for Asphalt Surfaced Roads and Parking Lots", US Army Corps of Engineers ERDC-CERL June 2009.
- "PAVER™ Pavement Distress Identification Manual for Concrete Surfaced Roads and Parking Lots", US Army Corps of Engineers ERDC-CERL June 2009.

Any exceptions to the above procedures are discussed with the agency before any surveys are performed. These are usually related to distresses or situations that are not covered in the manuals. Examples include slippage cracks, roller check marks or edge cracking on streets with no curbs and gutters. Others include the use of seals or open-graded asphalt concrete mixes. Any modifications must be documented and submitted to the City for approval.

All surveys are performed as *walking* surveys, and a minimum 10% sampling rate is utilized. Field crews are typically composed of a one-person crew on residential streets and some collectors, and up to two-person crews for major arterials, depending on traffic volumes and speeds. The safety of field personnel is paramount in all instances.

The sample unit selected must be representative of the entire pavement section. This assumes that the section is homogeneous; if it is not homogeneous, then the section must be split according to the criteria agreed upon by the agency. Typically, the criteria used are:

- Pavement condition
- Construction age, if known
- Maintenance history, if known
- Traffic volumes (or functional classification as a surrogate)
- Surface types e.g. asphalt concrete or Portland cement concrete
- Geometric elements e.g. widths

Any modifications to the section inventory data will be documented and provided to the City.

Typical sample unit dimensions are 100 ft long by the width of the street. Since the maximum size of a sample unit allowed under StreetSaver is 4000 sf, streets that are wider than 40 feet wide will have shorter lengths (generally 50 feet) or if they are divided by a raised median, separate sample units taken in each direction.

Any pavement areas that are not representative of the section will be noted and surveyed as a special sample unit.

2.2 Accuracy Required For Data Collection

The accuracy required for data collection has two components, both of which are further described in the following paragraphs.

- Re-inspections
- PCI comparisons with past surveys

2.2.1 Random and Systematic Re-inspection

A minimum of 5% of the total sample units will be re-inspected and this 5% will be selected based on both a random and a systematic basis. All re-inspections are made by an engineer or inspector other than the original inspector.

Random Re-inspections

Random re-inspections will include a representative selection across the following categories:

- Functional classes i.e. arterials, collectors, locals;
- Surface types e.g. asphalt concrete or Portland cement concrete;
- Pavement conditions e.g. good, fair, poor;
- Inspectors;
- Geographical areas, if applicable.

Systematic Re-inspections

For systematic re-inspections, this could be due to noticed trends such as specific treatment types (e.g. open-graded mixes), a specific inspector or geographical area. In such cases, more than 5% will be re-inspected.

Acceptability Criteria

At the time of re-inspection, the actual distresses will be re-inspected and verified, and any corrections made, if necessary. The following acceptance criteria shall be applied to the re-inspection as required by the Metropolitan Transportation Commission (MTC):

- 1) At least 50 percent of the PCI values for the re-inspected sections must be within +/- 5 PCI points of the original inspection PCI values.
- 2) No more than 12 percent of the PCI values for the re-inspected sections can be greater than +/- 15 PCI points of the original inspection PCI values

If the above acceptance criteria are not met then an additional 5% will be re-inspected. This will continue until the re-inspected sections meet the acceptability criteria.

2.2.2 PCI Comparison with Past Surveys

As another level of quality control, the new PCIs are compared with the previous PCI. If they differ by more than ± 15 PCI points, these sections are automatically flagged for further investigation.

If PCI is +15 points:

The section is investigated to see if a maintenance and rehabilitation event has occurred since the last survey, but which has not been recorded. This can only be resolved with feedback from the agency. Typically, it may include activities such as:

- Crack sealing activities changes medium or high severity cracking to low severity
- Patching activities alligator cracking that has been removed and patched, so that the resultant PCI is increased.
- Surface seals
- Overlays

If PCI is -15points

The section is checked to see if the average deterioration rate (usually 3 to 4 points per year) is exceeded. If the drop in PCI is within the range of what is acceptable, no further action is required. If the drop is more than the acceptable range, a re-inspection will be performed. The default performance curves in the StreetSaver program are the basis for what is acceptable.

2.3 Inspectors Qualification and Experience

All NCE's inspectors are required to attend formal training on condition distress surveys. For example, any of NCE's inspectors working on the LTPP project are required to attend a weeklong training workshop every year to maintain their certifications. The Regional Transportation Commission (RTC) of Washoe County requires inspectors to be calibrated prior to performing any work using the ASTM D6433 protocols (also known as the MicroPAVER surveys).

Similarly, in agencies that use the MTC StreetSaver system, NCE's inspectors attend the distress training conducted by MTC. After the formal training, they work with an experienced inspector before they are allowed to work on their own. Within the first month of working on their own, up to 20% of their work is checked weekly. Any necessary corrections are made immediately.

Finally, NCE conducts a one-day training and calibration workshop for all NCE staff involved with data collection. This is conducted once a year.

Resumes of NCE's technicians utilized on this project are included in Appendix A.

3.0 SAFETY PROCEDURE

NCE administers a health and safety program in compliance with the Nevada Occupational Safety and Health act (Section 618.383) and Cal OSHA Title VIII, Section 3203. The program is documented in NCE's *Workplace Safety Program Manual*.

Generally, the safety procedures include:

- Inspectors to wear a safety vest at all times;
- Flashing beacon on all vehicles utilized for surveys; and
- Stopped vehicles to be parked at locations away from moving traffic e.g. nearby parking, shoulders etc.

On streets where there is a high volume of traffic or high speeds, additional measures may be necessary, such as:

- Surveys to occur during off-peak periods or on weekends;
- Additional inspector to watch out for traffic; and
- Traffic flaggers in extreme cases.

In extreme cases where it is not possible to walk on the pavement surface, surveys will be performed from sidewalks or raised medians. However, this is extremely rare for city or county roads/streets; this is most often encountered on state highways, and lane closures are the most likely option at this point.

APPENDIX A RESUMES OF FIELD INSPECTORS



Franc Escobedo

Engineering Field Technician

Mr. Franc Escobedo has over 15 years of experience as a pavement management technician for NCE. He has performed numerous pavement condition inspections throughout California, Idaho, and Washington. His experience includes distress collection across various Pavement Management Systems including the Metropolitan Transportation Commission StreetSaver, PAVER, Cartegraph, and Hansen systems.

Additionally, Mr. Escobedo has completed both the OCTA PAVER and MTC "Distress Identification" courses for both Asphalt Concrete and Portland Cement Pavements and now assists with the training of agency staff on both courses.

Mr. Escobedo performs all activities relating to pavement data collection using hardcopy forms or tablets. As part of the quality control process, he performs cross-checks of data in the PMS database. He also regularly performs quality control checks of field collected data and pavement maintenance history to ensure that PMS databases are accurate and up-to-date. During this process, he also generates detailed reports, which are necessary to perform his cross-checks of the collected data.

His field experience and expertise are added benefits to agencies during field training. Listed below are a collection of agencies for which Mr. Escobedo has performed condition inspections – they total over 6,000 centerline miles of roads and streets.

Representative Projects

Pavement Management

Pavement Management Inspections | Engineering Field Technician

rav	ement managemen	t iiis	spections Linginieeri	ng r	ieiu recililiciari
	Ada County, Idaho	×.	Hayward	A.	San Diego County
	Agoura Hills	₹	Hillsborough		San Dimas
×.	Anaheim	×.	Humboldt County	×.	San Ramon
₹	Antioch	₹	Inyo County	×.	Santa Cruz County
	Bakersfield	₹.	La Habra		Santa Maria
	Bell	₹	Lake County		Seal Beach
	Buena Park	₹	Lake Forest	₹	Siskiyou County
	Camarillo	*	Lemon Grove		South Lake Tahoe
*	Chula Vista	-X -	Marin County	-	Stanislaus County
	Commerce	₹	Martinez	₹	Stanton
	Corona	₹.	Mendocino County		Thousand Oaks
	Cudahy	₹	Milpitas		Torrance
₹	Dana Point	₹	Mission Viejo	×.	Tulare
	Davis	₹.	Mono County		Tuolumne County
×.	El Centro	X.	Mountain View	×.	Tustin
₹	El Cerrito	₹	Newark	×.	Vallejo
	Elk Grove	₹.	Orange County		Vernon
×.	Encinitas	X.	Palm Springs	×.	Vista
	Fairfield	₹	Redwood City	×.	Walnut Creek
	Fremont	×.	San Clemente	A.	West Covina
*	Fullerton			×.	West Sacramento

Projects included various forms of inspections for pavement distress data collection, such as walking, windshield, and/or semi-automated.



Education

Computer Operations Program
Computer Learning Center, Los Angeles,
CA, 1983-84
Network Engineering & Administrative
Program
Computer Learning Center, Anaheim, CA,
1997
Certified Network Administration
Computer Learning Center, Anaheim, CA
1997

Registrations and Certifications

OCTA PAVER Certification 2016

MTC StreetSaver Rater Certification Program (expires September 2019)

Joined NCE 2004

Total Years of Experience 15



David BivinsSenior Engineering Technician

Mr. Bivins has over 17 years of experience as a pavement management technician. As a senior technician, his experience extends beyond data collection for pavement distresses. Mr. Bivins is one of NCE's most experienced distress collectors and a primary choice for working with and training of our clients in field data collection activities.

Mr. Bivins performs all functions relating to data collection using paper forms or a tablet. As part of the quality control process, he performs crosschecks of data in the PMS database. He has performed quality control checks of field collected data and pavement maintenance history to ensure that PMS databases are accurate and up-to-date. During this process, Mr. Bivins also generates detailed reports, which are needed to help perform his cross-checks of the collected data.

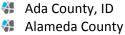
His field experience and expertise is an added benefit to agencies during field training. Having performed data collection for agencies all over the State of California, Mr. Bivins has a depth of experience related to pavement types and conditions from performing condition surveys on more than 15,000 centerline miles of roads and streets. In addition, Mr. Bivins is proficient and certified in the two most popular distress identification procedures – PAVER and StreetSaver. He attends annual in-house training and assists in training local agencies on distress identification and collection procedures.



Pavement Management

Pavement Management System Updates | Senior Field Technician Various Cities and Counties, CA

Projects included various forms of surveys for pavement distress data collection, this may have included walking, windshield, and/or semi-automated.



Albany

Buena Park

Campbell

Chula VistaCitrus Heights

Danville

Davis

East Bay Regional Park District

Elk Grove

Fairfield

FolsomFremont

Fullerton

Hayward

Humboldt County

Inyo County
Lafayette

Lake County

Los Gatos

Mammoth Lakes

Marin County

Mendocino County

Mission ViejoModesto

Newark

Orinda



Education
Civil Engineering Courses
San Francisco State University, 1994
AutoCAD Advanced Course
CAD Masters, Walnut Creek, CA, 1997

Registrations and Certifications MTC StreetSaver Rater Certification Program (expires September 2019)

Joined NCE

Total Years of Experience 17 years

Pebble Beach

Placer County

San Bruno

San Mateo County

Santa Barbara County

Santa Cruz

Santa Cruz County

Santa Rosa

Stanislaus County

Stanton

Torrance

West Sacramento



Jacob Rajnowski

Field Technician

Mr. Rajnowski joined NCE in 2016 as a as a pavement management technician and is experienced in collecting distress data and coring samples for pavement management systems. He is currently collecting pavement distress data for the Counties of Sonoma and Lake.

He is certified by the Metropolitan Transportation Commission's (MTC) to perform pavement distress inspections; the certification testing involves passing a rigorous field test.

Apart from conducting field inspections, Mr. Rajnowski performs all functions related to data collection and is an active participant in the QC process, including crosschecks of data in the PMS database, quality control checks of field collected data and pavement maintenance history to ensure that PMS databases are accurate and up to date. During this process, detailed reports are generated to perform crosschecks of the data collected. Additionally, Mr. Rajnowski has completed the OCTA PAVER™ 'Distress Identification' course for Asphalt Concrete and Portland Cement Pavements. He has performed condition surveys at San Francisco since 2016.



Pavement Management

Pavement Management System Updates / Field Technician Various Cities and Counties, CA

Projects included various forms of surveys for pavement distress data collection, this may have included walking, windshield, and/or semi-automated.

- Ada County, ID
- Buena Park
- # Half Moon Bay
- # Humboldt County
- Lake County
- Lincoln
- Martinez
- Mission Viejo
- Moreno Valley
- Placer County
- Pleasant Hill
- San Francisco
- Sonoma County
- Stockton
- Trinity County
- Ventura County
- Walnut Creek
- Yolo County



Education

Sterling High School, Sterling, IL, 2003

Joined NCE 2016

Registrations and Certifications

OCTA PAVER Certification 2017 MTC Certification 2016

Total Years of Experience 2 years



Appendix B

Section Description Inventory Section PCI Listing - Street Network

- I. Sorted by Street Name
- II. Sorted by Descending PCI
- **III. Gravel Streets**

Section Description Inventory Report

This report lists a variety of section description information for each of the City's street pavement sections. It lists the street and section identifiers, limits, functional class, surface type, number of lanes, lengths, widths, and inspected PCI.

All of the City's vehicular street sections are included in the report. The report is sorted alphabetically by Street Name and Section ID and by descending PCIs. The field descriptions in this report are listed.

A list of gravel streets are also included.

Header	Description
STREET ID	Street identification in StreetSaver® unique for each street
STREET NAME	The name of the street as indicated by street signs in the field
SECTION ID	Section identification number in StreetSaver® unique for each section of one street
BEG LOCATION	Beginning limit of the section
END LOCATION	Ending limit of the section
LENGTH (FT)	Length of the section in feet
WIDTH (FT)	Average width of the section in feet
AREA (SF)	Area of the section in square feet
FC	Functional Classification (A – Arterial, C – Collector, R – Residential/Local, O – Other/Alley)
# OF LANES	Number of travel lanes of the section
SURFACE TYPE	Surface Type (AC = Asphalt Concrete Pavement, AC/AC = AC Overlay of AC Pavement, Gravel =)
PCI DATE	Last pavement inspection date
PCI	Average inspected PCI for the section.





Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
10TH	10TH ST	0100	J ST	H ST	999	43	42,957	R	2	AC	12/26/2018	10
10TH	10TH ST	0200	H ST	PARK ST	1,012	45	45,540	R	2	AC	12/26/2018	9
10TH	10TH ST	0300	PARK ST	RAILROAD AVE WEST	258	32	8,256	R	2	AC	12/26/2018	58
10TH	10TH ST	0400	RAILROAD AVE EAST	C ST	989	52	51,428	R	2	AC	12/26/2018	18
10TH	10TH ST	0500	C ST	ADAMS AVE EAST	866	52	45,032	R	2	AC	12/26/2018	5
11TH	11TH ST	0100	SOUTH AVE	I ST	1,018	36	36,648	R	2	AC	12/26/2018	0
11TH	11TH ST	0200	I ST	NORTH END	1,312	36	47,232	R	2	AC	12/26/2018	10
11TH	11TH ST	0300	PARK S	RAILROAD AVE WEST	510	36	18,360	R	2	AC	12/26/2018	91
11TH	11TH ST	0400	RAILROAD AVE EAST	C ST	560	36	20,160	R	2	AC	12/26/2018	29
11TH	11TH ST	0500	C ST	ADAMS AVE EAST	1,010	36	36,360	R	2	AC	12/26/2018	18
12TH	12TH ST	0100	SOUTH ST	I ST	1,024	36	36,864	R	2	AC	12/26/2018	40
12TH	12TH ST	0200	I ST	PARK ST	1,529	26	39,754	R	2	AC	12/26/2018	34
12TH	12TH ST	0300	PARK ST	RAILROAD AVE WEST	969	36	34,884	R	2	AC	12/26/2018	36
12TH	12TH ST	0400	RAILROAD AVE EAST	ADAMS AVE EAST	1,301	36	46,836	R	2	AC	12/26/2018	9
2ND	2ND ST	0100	RAILROAD AVE EAST	PARK ST	1,702	33	56,166	R	2	AC	12/26/2018	53
2ND	2ND ST	0200	PARK ST	NORTH END	1,602	36	57,672	R	2	AC	12/26/2018	43
2ND	2ND ST	0300	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	11/8/2018	36
3RD	3RD ST	0100	SOUTH AVE	RAILROAD AVE WEST	871	30	26,130	R	2	AC	12/26/2018	9
3RD	3RD ST	0200	RAILROAD AVE WEST	G ST	1,051	36	37,836	R	2	AC	12/26/2018	91
3RD	3RD ST	0300	G ST	PARK ST	501	38	19,038	R	2	AC	12/26/2018	61
3RD	3RD ST	0400	PARK ST	D ST	1,061	36	38,196	R	2	AC	12/26/2018	32
3RD	3RD ST	0500	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	87
4TH	4TH AVE	0100	SOUTH AVE	RAILROAD AVE WEST	1,132	31	35,092	R	2	AC	12/26/2018	16
4TH	4TH AVE	0200	RAILROAD AVE WEST	PARK ST	1,088	26	28,288	R	2	AC	12/26/2018	20
4TH	4TH AVE	0300	PARK ST	D ST	998	42	41,916	R	2	AC	12/26/2018	12
4TH	4TH AVE	0400	D ST	ADAMS AVE	1,519	43	65,317	R	2	AC	12/26/2018	14
4TH	4TH AVE	0500	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	55
5TH	5TH AVE	0100	SOUTH AVE	RAILROAD AVE WEST	1,346	21	28,266	R	2	AC	12/26/2018	26
5TH	5TH AVE	0200	RAILROAD AVE WEST	PARK ST	764	52	39,728	R	2	AC	12/26/2018	20
5TH	5TH AVE	0300	PARK ST	D ST	1,032	52	53,664	R	2	AC	12/26/2018	27
5TH	5TH AVE	0400	D ST	E ADAMS AVE	1,555	52	80,860	R	2	AC	12/26/2018	16
5TH	5TH AVE	0500	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	27
6TH	6TH ST	0100	G ST	PARK ST	490	51	24,990	R	2	AC	12/26/2018	38
6TH	6TH ST	0200	PARK ST	D ST	1,019	52	52,988	R	2	AC	12/26/2018	29
6TH	6TH ST	0300	D ST	ADAMS ST EAST	1,538	52	79,976	R	2	AC	12/26/2018	9
6TH	6TH ST	0400	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	30
8TH	8TH ST	0100	SOUTH ST	I ST	1,037	53	54,961	R	2	AC	12/26/2018	27
8TH	8TH ST	0200	I ST	G ST	950	53	50,350	R	2	AC	12/26/2018	46
8TH	8TH ST	0300	RAILROAD AVE EAST	D ST	961	52	49,972	R	2	AC	12/26/2018	4
8TH	8TH ST	0400	D ST	ADAMS AVE	998	52	51,896	R	2	AC	12/26/2018	7
9TH	9TH ST	0100	SOUTH AVE	H ST	1,485	53	78,705	R	2	AC	12/26/2018	14
9TH	9TH ST	0200	H ST	PARK ST	999	53	52,947	R	2	AC	12/26/2018	35
9TH	9TH ST	0300	RAILROAD AVE EAST	C ST	1,187	53	62,911	R	2	AC	12/26/2018	7
9TH	9TH ST	0400	C ST	ADAM AVE EAST	998	53	52,894	R	2	AC	12/26/2018	13
ADAMS	ADAMS AVE EAST	0100	ANCHOR AVE EAST	10TH ST	1,385	33	45,705	С	2	AC	12/26/2018	31



Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
ADAMS	ADAMS AVE EAST	0150	10TH ST	CENTER ST	1,158	33	38,214	С	2	AC	12/26/2018	41
ADAMS	ADAMS AVE EAST	0200	CENTER ST	PAVEMENT CHANGE	1,127	38	42,826	С	2	AC	12/27/2018	17
ADAMS	ADAMS AVE EAST	0300	PAVEMENT CHANGE	BRIDGE W/S	998	38	37,924	С	2	AC	12/27/2018	94
ADAMS	ADAMS AVE EAST	0400	BRIDGE E/S	HILLS VALLEY RD	305	20	6,100	С	2	AC	12/27/2018	2
A-N/OPARK	ALLEY N/O PARK ST	0100	8TH ST	6TH ST	654	17	11,118	0	1	AC	12/2/2018	19
A-S/0PARK	ALLEY S/O PARK ST	0200	12TH ST	11TH ST	331	12	3,972	0	1	AC	12/26/2018	2
A-S/OPARK	ALLEY S/O PARK ST	0300	11TH ST	10TH ST	342	22	7,524	0	1	AC	12/26/2018	91
A-S/OPARK	ALLEY S/O PARK ST	0400	10TH ST	RAILRAOD AVE WEST	564	14	7,896	0	1	AC	12/26/2018	26
A-S/OPARK	ALLEY S/O PARK ST	0500	6TH ST	4TH ST	684	18	12,312	0	1	AC	12/26/2018	0
A-S/OPARK	ALLEY S/O PARK ST	0600	4TH ST	2ND ST	643	18	11,574	0	1	AC	12/26/2018	23
A-S/SOPARK	ALLEY S/O PARK ST	0100	ANCHOR AVE SOUTH	12TH ST	610	12	7,320	0	1	AC	12/26/2018	12
A-W/O 10TH	ALLEY W/O 10TH ST	0100	ADAMS AVE EAST	RAILROAD AVE EAST	1,567	15	23,505	0	1	AC	12/2/2018	79
A-W/O 10TH	ALLEY W/O 10TH ST	0200	J ST	I ST	444	15	6,660	0	1	AC	12/26/2018	75
A-W/O 11TH	ALLEY W/O 11TH ST	0200	I ST	ALLEY S/O PARK ST	1,181	14	16,534	0	1	AC	1/19/2018	78
	ALLEY W/O 12TH ST	0100	J ST	END OF PAVEMENT (224' N/O I ST)	695	15	10,425	0	1	AC	12/26/2018	61
A-W/O 12TH	ALLEY W/O 12TH ST	0200	ADAMS AVE EAST	C ST	935	15	14,025	0	1	AC	12/26/2018	79
-		0100	ADAMS AVE EAST	B ST	473	15	7,095	0	1	AC	12/26/2018	89
A-W/O 5TH	ALLEY W/O 5TH ST	0100	ADAMS AVE EAST	D ST	1,351	15	20,265	0	1	AC	12/26/2018	82
A-W/O 8TH	ALLEY W/O 8TH ST	0200	D ST	RAILROAD EAST	717	15	10,755	0	1	AC	12/26/2018	75
A-W/O 8TH	ALLEY W/O 8TH ST	0400	G ST	J ST	1,340	14	18,760	0	1	AC	12/26/2018	86
A-W/O 9TH	ALLEY W/O 9TH ST	0100	J ST	ALLEY S/O PARK ST	1,545	15	23,175	0	1	AC	12/26/2018	83
A-W/O 9TH	ALLEY W/O 9TH ST	0200	ADAMS AVE EAST	RAILROAD AVE EAST	1,874	15	28,110	0	1	AC	12/26/2018	80
ANCHOR	ANCHOR AVE SOUTH	0100	PARLIER AVE EAST	SOUTH AVE EAST	2,637	60	158,220	С	3	AC	12/27/2018	61
ANCHOR	ANCHOR AVE SOUTH	0200	SOUTH AVE	PARK ST	2,554	49	125,146	С	2	AC	12/27/2018	56
ANCHOR	ANCHOR AVE SOUTH	0300	PARK ST	ADAMS ST	2,579	40	103,160	С	2	AC	12/27/2018	87
B ST	B ST	0100	ANCHOR AVE SOUTH	10TH ST	1,396	36	50,256	R	2	AC	12/2/2018	25
B ST	B ST	0200	10TH ST	CENTER ST	1,135	36	40,860	R	2	AC	12/15/2018	25
B ST	B ST	0300	CENTER ST	4TH ST	1,149	36	41,364	R	2	AC	12/2/2018	20
BENJAMIN	BENJAMIN ST	0100	JACOBS AVE SOUTH	END	640	33	21,120	R	2	AC	12/2/2018	32
C ST	C ST	0100	RAILROAD AVE EAST	9TH ST	1,541	36	55,476	R	2	AC	12/2/2018	22
C ST	C ST	0200	9TH ST	CENTER ST	737	36	26,532	R	2	AC	12/2/2018	95
C ST	C ST	0300	CENTER ST	4TH ST	1,140	36	41,040	R	2	AC	12/2/2018	95
CASUGA	CASUGA ST	0100	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	792	33	26,136	R	2	AC	12/2/2018	48
CASUGA	CASUGA ST	0200	CELAYA ST	PAVEMENT CHANGE W/O LOPEZ	642	33	21,186	R	2	AC	12/2/2018	31
CELAYA ST	CELAYA ST	0100	VILLAREAL ST	MARTINEZ ST	981	36	35,316	R	2	AC	12/2/2018	57
CELAYA WY	CELAYA WY	0100	HOPE AVE	SERNA AVE	258	40	10,320	R	2	AC	12/2/2018	93
CENTER	CENTER ST	0100	SOUTH AVE	I ST	1,053	53	55,809	Α	2	AC	12/2/2018	93
CENTER	CENTER ST	0200	I ST	PARK ST	1,504	53	79,712	Α	2	AC	12/2/2018	93
CENTER	CENTER ST	0300	D ST	ADAMS AVE	1,504	53	79,712	Α	2	AC	12/2/2018	79
CENTER	CENTER ST	0400	PARK ST	D ST	1,000	53	53,000	Α	2	AC	2/2/2018	82
CITRUS	CITRUS AVE	0100	ADAMS AVE EAST	NORTH END	381	33	12,573	R	2	AC	12/26/2018	93
D ST	D ST	0100	RAILROAD AVE EAST	CENTER ST	1,660	43	71,380	С	2	AC	12/26/2018	13
D ST	D ST	0200	CENTER ST	4TH ST	1,144	43	49,192	С	2	AC	12/26/2018	90
D ST	D ST	0300	4TH ST	2ND ST	722	33	23,826	R	2	AC	12/26/2018	55
E ST	E ST	0100	12TH ST	11TH ST	339	32	10,848	R	2	AC	12/27/2018	48



Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
E ST	E ST	0200	9TH ST	6TH ST	1,150	53	60,950	R	2	AC	12/27/2018	14
E ST	E ST	0300	6TH ST	2ND ST	1,527	31	47,337	R	2	AC	12/27/2018	32
G ST	G ST	0100	ANCHOR AVE SOUTH	10TH ST	1,420	53	75,260	R	2	AC	12/27/2018	94
G ST	G ST	0200	10TH ST	CENTER ST	1,137	53	60,261	R	2	AC	12/27/2018	95
G ST	G ST	0300	6TH ST	5TH ST	325	27	8,775	R	2	AC	12/27/2018	48
G ST	G ST	0400	5TH ST	2ND ST	1,066	44	46,904	R	2	AC	12/27/2018	47
GUTIERREZ	GUTIERREZ ST	0100	JACOBS AVE SOUTH	CDS (E)	1,606	33	52,998	R	2	AC	12/27/2018	30
H ST	H ST	0100	ANCHOR AVE SOUTH	10TH ST	1,411	43	60,673	R	2	AC	12/27/2018	17
H ST	H ST	0200	10TH ST	CENTER ST	1,180	43	50,740	R	2	AC	12/27/2018	21
H ST	H ST	0300	4TH ST	2ND ST	685	24	16,440	R	2	AC	12/27/2018	18
HILLSVALLE	HILLS VALLEY RD SOUTH	0100	SOUTH AVE EAST	PARK ST	2,573	26	66,898	Α	2	AC	12/27/2018	69
HILLSVALLE	HILLS VALLEY RD SOUTH	0200	PARK ST	ADAMS AVE	2,568	26	66,768	Α	2	AC	12/27/2018	77
HILLSVALLE	HILLS VALLEY RD SOUTH	0300	ADAMS AVE	CITY LIMIT (N - PAVEMENT CHANGE)	7,880	26	204,880	Α	2	AC	12/27/2018	80
HOPE	HOPE AVE	0100	WEST END	CELAYA WY	613	34	20,842	R	2	AC	12/27/2018	93
I ST	I ST	0100	ANCHOR AVE SOUTH	10TH ST	1,362	36	49,032	R	2	AC	12/27/2018	95
I ST	I ST	0200	10TH ST	CENTER ST	1,186	34	40,324	R	2	AC	12/27/2018	5
J ST	J ST	0100	ANCHOR AVE SOUTH	11TH ST	1,010	35	35,350	R	2	AC	12/27/2018	27
J ST	J ST	0200	11TH ST	8TH ST	1,142	33	37,686	R	2	AC	12/27/2018	14
J ST	J ST	0300	4TH ST	3RD ST	346	33	11,418	R	2	AC	12/27/2018	31
J ST	J ST	0350	8TH AVE	EAST END	214	32	6,848	R	2	AC	12/27/2018	40
JACOBS	JACOBS AVE SOUTH	0100	ADAMS AVE EAST	GUTIERREZ ST	565	30	16,950	С	2	AC	12/27/2018	51
JACOBS	JACOBS AVE SOUTH	0200	GUTIERREZ ST	CITY LIMIT (N)	622	30	18,660	С	2	AC	12/27/2018	61
KIME	KIME ST	0100	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	810	33	26,730	R	2	AC	12/27/2018	42
KIME	KIME ST	0200	PAVEMENT CHANGE W/O LOPEZ	CELAYA ST	642	33	21,186	R	2	AC	12/27/2018	31
LOPEZ	LOPEZ LN	0100	SOUTH AVE	VILLAREAL ST	232	36	8,352	R	2	AC	12/27/2018	28
LOPEZ	LOPEZ LN	0200	SOUZA ST	CASUGA ST	212	36	7,632	R	2	AC	12/27/2018	71
LOPEZ	LOPEZ LN	0300	KIME ST	MATINEZ ST	219	36	7,884	R	2	AC	12/27/2018	46
LOPEZ	LOPEZ LN	0400	MARTINEZ ST	HOPE AVE	154	35	5,390	R	2	AC	12/27/2018	95
MANNING	MANNING AVE	0100	HILL AVE (CITY LIMIT)	CULVERT	1,489	25	37,225	Α	2	AC	12/27/2018	47
MANNING	MANNING AVE	0200	CULVERT	MONSON AVE	1,000	25	25,000	Α	2	AC	12/27/2018	28
MAPLE	MAPLE DR	0100	CITRUS AVE	EAST END	197	34	6,698	R	2	AC	12/27/2018	35
MARTINEZ	MARTINEZ ST	0100	W END	WIDTH CHANGE	644	30	19,320	R	2	AC	12/27/2018	55
MARTINEZ	MARTINEZ ST	0200	WIDTH CHANGE	PAVEMENT CHANGE W/O LOPEZ	320	37	11,840	R	2	AC	12/27/2018	50
MARTINEZ	MARTINEZ ST	0300	PAVEMENT CHANGE	ANCHOR AVE	932	37	34,484	R	2	AC	12/27/2018	29
MONSON	MONSON AVE SOUTH	0100	MANNING AVE EAST	PARLIER AVE EAST	2,579	20	51,580	С	2	AC	12/27/2018	71
MONSON	MONSON AVE SOUTH	0200	PARLIER AVE EAST	SOUTH AVE	2,574	17	43,758	С	2	AC	12/27/2018	25
MONSON	MONSON AVE SOUTH	0300	SOUTH AVE	SUMNER AVE EAST	2,587	17	43,979	С	2	AC	12/27/2018	39
OLIVE	OLIVE DR	0100	CITRIS AVE	WEST END	212	32	6,784	R	2	AC	12/27/2018	21
ORANGE	ORANGE AVE	0100	SOUTH END OF STREET	1,266' S/O SOUTH AVE EAST	1,108	33	36,564	R	2	AC	12/27/2018	80
ORANGE	ORANGE AVE	0200	1,266' S/O SOUTH AVE EAST	SOUTH AVE EAST	1,266	33	41,778	R	2	AC	12/27/2018	51
ORONAST	ORONA ST	0100	CASUGA CT	KIME CT	214	36	7,704	R	2	AC	12/27/2018	63
ORONA	ORONA WY	0100	HOPE AVE	SERNA AVE	278	40	11,120	R	2	AC	12/27/2018	93
PALM	PALM	0100	SOUTH END	SOUTH AVE SOUTH	329	18	5,922	R	1	AC	12/27/2018	42
PARK EB	PARK BLVD EB	0100	ANCHOR AVE SOUTH	CENTER ST	2,595	39	101,205	Α	2	AC	12/27/2018	48
PARK EB	PARK BLVD EB	0200	CENTER ST	HILLS VALLEY RD	2,563	36	92,268	Α	2	AC	12/27/2018	62



Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
PARK WB	PARK BLVD WB	0100	10TH ST	CENTER ST	2,563	36	92,268	Α	2	AC	12/4/2018	61
PARK WB	PARK BLVD WB	0200	10TH ST	ANCHOR AVE SOUTH	2,595	39	101,205	Α	2	AC	12/4/2018	57
PARLIER	PARLIER AVE EAST	0100	MONSON AVE SOUTH	WIDTH CHANGE	1,870	17	31,790	С	2	AC	12/27/2018	48
PARLIER	PARLIER AVE EAST	0200	WIDTH CHANGE	ANCHOR AVE	650	43	27,950	С	2	AC	12/27/2018	82
PARLIER	PARLIER AVE EAST	0300	ANCHOR AVE	WIDTH CHANGE	1,362	48	65,376	С	2	AC	12/27/2018	72
PARLIER	PARLIER AVE EAST	0400	WIDTH CHANGE	JACOBS AVE	1,234	20	24,680	С	2	AC	12/27/2018	31
ERAILROAD	RAILROAD AVE EAST	0100	ANCHOR AVE SOUTH	12TH ST	785	31	24,335	С	2	AC	12/27/2018	39
ERAILROAD	RAILROAD AVE EAST	0200	12TH ST	10TH ST	945	31	29,295	С	2	AC	12/27/2018	24
ERAILROAD	RAILROAD AVE EAST	0300	10TH ST	8TH AVE	1,001	31	31,031	С	2	AC	12/27/2018	13
ERAILROAD	RAILROAD AVE EAST	0400	6TH ST	4TH ST	927	36	33,372	С	2	AC	12/27/2018	17
ERAILROAD	RAILROAD AVE EAST	0500	4TH ST	2ND ST	985	24	23,640	С	2	AC	12/27/2018	13
ERAILROAD	RAILROAD AVE EAST	0600	2ND ST	HILLS VALLEY RD SOUTH	880	24	21,120	С	2	AC	12/27/2018	11
WRAILROAD	RAILROAD AVE WEST	0100	ANCHOR AVE SOUTH	12TH ST	709	24	17,016	С	2	AC	12/27/2018	6
WRAILROAD	RAILROAD AVE WEST	0200	12TH ST	11TH ST	442	36	15,912	С	2	AC	12/27/2018	0
WRAILROAD	RAILROAD AVE WEST	0300	11TH ST	PARK ST	910	25	22,750	С	2	AC	12/27/2018	10
WRAILROAD	RAILROAD AVE WEST	0400	PARK ST	CNETER ST	900	33	29,700	С	2	AC	12/27/2018	0
WRAILROAD	RAILROAD AVE WEST	0500	CENTER ST	5TH ST	960	32	30,720	С	2	AC	12/27/2018	3
WRAILROAD	RAILROAD AVE WEST	0600	5TH ST	3RD ST	945	24	22,680	С	2	AC	12/27/2018	6
WRAILROAD	RAILROAD AVE WEST	0700	3RD ST	HILLS VALLEY RD SOUTH	1,344	25	33,600	С	2	AC	12/27/2018	9
RAMONA	RAMONA ST	0100	2ND ST	EAST END	330	33	10,890	R	2	AC	12/27/2018	30
RODRIGUEZ	RODRIGUEZ ST	0100	SOUTH AVE EAST	SOUZA ST	1,251	37	46,287	R	2	AC	12/27/2018	55
SERNA	SERNA AVE	0100	ORONA WY	CELAYA WY	492	36	17,712	R	2	AC	12/27/2018	91
SOUTH	SOUTH AVE EAST	0100	HILLS VALLEY RD SOUTH	4TH ST	1,455	35	50,925	Α	2	AC	12/27/2018	82
SOUTH	SOUTH AVE EAST	0150	4TH ST	CENTER ST	1,138	35	39,830	Α	2	AC	12/27/2018	78
SOUTH	SOUTH AVE EAST	0200	CENTER ST	WIDTH CHANGE	1,245	37	46,065	Α	2	AC	12/27/2018	82
SOUTH	SOUTH AVE EAST	0300	WIDTH CHANGE	ANCHOR AVE SOUTH	1,290	48	61,920	Α	2	AC	12/27/2018	29
SOUTH	SOUTH AVE EAST	0400	ANCHOR AVE SOUTH	WIDTH CHANGE	1,859	48	89,232	Α	2	AC	12/27/2018	80
SOUTH	SOUTH AVE EAST	0500	WIDTH CHANGE	MONSON AVE SOUTH	610	60	36,600	Α	2	AC	12/27/2018	77
SOUZA	SOUZA ST	0100	RODRIGUEZ ST	ANCHOR AVE	1,728	33	57,024	R	2	AC	12/27/2018	44
SUMNER	SUMNER AVE EAST	0100	MONSON AVE SOUTH	WIDTH CHANGE	1,297	25	32,425	С	2	AC	12/27/2018	76
SUMNER	SUMNER AVE EAST	0200	WIDTH CHANGE (W)	WIDTH CHANGE (E)	508	51	25,908	С	2	AC	12/27/2018	74
SUMNER	SUMNER AVE EAST	0300	WIDTH CHANGE (E)	ANCHOR AVE	702	31	21,762	С	2	AC	12/27/2018	70
TAPIA	TAPIA CT	0100	C ST	NORTH END	230	22	5,060	R	2	AC	12/27/2018	76
VILLAREAL	VILLA REAL ST	0100	WEST END	CELAYA ST	748	36	26,928	R	2	AC	12/27/2018	37



Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
C ST	C ST	0200	9TH ST	CENTER ST	737	36	26,532	R	2	AC	12/2/2018	95
C ST	C ST	0300	CENTER ST	4TH ST	1,140	36	41,040	R	2	AC	12/2/2018	95
G ST	G ST	0200	10TH ST	CENTER ST	1,137	53	60,261	R	2	AC	12/27/2018	95
I ST	I ST	0100	ANCHOR AVE SOUTH	10TH ST	1,362	36	49,032	R	2	AC	12/27/2018	95
LOPEZ	LOPEZ LN	0400	MARTINEZ ST	HOPE AVE	154	35	5,390	R	2	AC	12/27/2018	95
ADAMS	ADAMS AVE EAST	0300	PAVEMENT CHANGE	BRIDGE W/S	998	38	37,924	С	2	AC	12/27/2018	94
G ST	G ST	0100	ANCHOR AVE SOUTH	10TH ST	1,420	53	75,260	R	2	AC	12/27/2018	94
CELAYA WY	CELAYA WY	0100	HOPE AVE	SERNA AVE	258	40	10,320	R	2	AC	12/2/2018	93
CENTER	CENTER ST	0100	SOUTH AVE	I ST	1,053	53	55,809	Α	2	AC	12/2/2018	93
CENTER	CENTER ST	0200	I ST	PARK ST	1,504	53	79,712	Α	2	AC	12/2/2018	93
CITRUS	CITRUS AVE	0100	ADAMS AVE EAST	NORTH END	381	33	12,573	R	2	AC	12/26/2018	93
HOPE	HOPE AVE	0100	WEST END	CELAYA WY	613	34	20,842	R	2	AC	12/27/2018	93
ORONA	ORONA WY	0100	HOPE AVE	SERNA AVE	278	40	11,120	R	2	AC	12/27/2018	93
11TH	11TH ST	0300	PARK S	RAILROAD AVE WEST	510	36	18,360	R	2	AC	12/26/2018	91
3RD	3RD ST	0200	RAILROAD AVE WEST	G ST	1,051	36	37,836	R	2	AC	12/26/2018	91
A-S/OPARK	ALLEY S/O PARK ST	0300	11TH ST	10TH ST	342	22	7,524	0	1	AC	12/26/2018	91
SERNA	SERNA AVE	0100	ORONA WY	CELAYA WY	492	36	17,712	R	2	AC	12/27/2018	91
D ST	D ST	0200	CENTER ST	4TH ST	1,144	43	49,192	С	2	AC	12/26/2018	90
A-W/O 4TH	ALLEY W/O 4TH ST	0100	ADAMS AVE EAST	B ST	473	15	7,095	0	1	AC	12/26/2018	89
3RD	3RD ST	0500	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	87
ANCHOR	ANCHOR AVE SOUTH	0300	PARK ST	ADAMS ST	2,579	40	103,160	С	2	AC	12/27/2018	87
A-W/O 8TH	ALLEY W/O 8TH ST	0400	G ST	J ST	1,340	14	18,760	0	1	AC	12/26/2018	86
A-W/O 9TH	ALLEY W/O 9TH ST	0100	J ST	ALLEY S/O PARK ST	1,545	15	23,175	0	1	AC	12/26/2018	83
A-W/O 5TH	ALLEY W/O 5TH ST	0100	ADAMS AVE EAST	D ST	1,351	15	20,265	0	1	AC	12/26/2018	82
CENTER	CENTER ST	0400	PARK ST	D ST	1,000	53	53,000	Α	2	AC	2/2/2018	82
PARLIER	PARLIER AVE EAST	0200	WIDTH CHANGE	ANCHOR AVE	650	43	27,950	С	2	AC	12/27/2018	82
SOUTH	SOUTH AVE EAST	0100	HILLS VALLEY RD SOUTH	4TH ST	1,455	35	50,925	Α	2	AC	12/27/2018	82
SOUTH	SOUTH AVE EAST	0200	CENTER ST	WIDTH CHANGE	1,245	37	46,065	Α	2	AC	12/27/2018	82
A-W/O 9TH	ALLEY W/O 9TH ST	0200	ADAMS AVE EAST	RAILROAD AVE EAST	1,874	15	28,110	0	1	AC	12/26/2018	80
HILLSVALLE	HILLS VALLEY RD SOUTH	0300	ADAMS AVE	CITY LIMIT (N - PAVEMENT CHANGE)	7,880	26	204,880	Α	2	AC	12/27/2018	80
ORANGE	ORANGE AVE	0100	SOUTH END OF STREET	1,266' S/O SOUTH AVE EAST	1,108	33	36,564	R	2	AC	12/27/2018	80
SOUTH	SOUTH AVE EAST	0400	ANCHOR AVE SOUTH	WIDTH CHANGE	1,859	48	89,232	Α	2	AC	12/27/2018	80
A-W/O 10TH	ALLEY W/O 10TH ST	0100	ADAMS AVE EAST	RAILROAD AVE EAST	1,567	15	23,505	0	1	AC	12/2/2018	79
A-W/O 12TH	ALLEY W/O 12TH ST	0200	ADAMS AVE EAST	C ST	935	15	14,025	0	1	AC	12/26/2018	79
CENTER	CENTER ST	0300	D ST	ADAMS AVE	1,504	53	79,712	Α	2	AC	12/2/2018	79
A-W/O 11TH	ALLEY W/O 11TH ST	0200	I ST	ALLEY S/O PARK ST	1,181	14	16,534	0	1	AC	1/19/2018	78
SOUTH	SOUTH AVE EAST	0150	4TH ST	CENTER ST	1,138	35	39,830	Α	2	AC	12/27/2018	78
HILLSVALLE	HILLS VALLEY RD SOUTH	0200	PARK ST	ADAMS AVE	2,568	26	66,768	Α	2	AC	12/27/2018	77
SOUTH	SOUTH AVE EAST	0500	WIDTH CHANGE	MONSON AVE SOUTH	610	60	36,600	A	2	AC	12/27/2018	77
SUMNER	SUMNER AVE EAST	0100	MONSON AVE SOUTH	WIDTH CHANGE	1,297	25	32,425	C	2	AC	12/27/2018	76
TAPIA	TAPIA CT	0100	C ST	NORTH END	230	22	5,060	R	2	AC	12/27/2018	76
	ALLEY W/O 10TH ST	0200	J ST	I ST	444	15	6,660	0	1	AC	12/26/2018	75
A-W/O 10111	ALLEY W/O 8TH ST	0200	D ST	RAILROAD EAST	717	15	10,755	0	1	AC	12/26/2018	75
SUMNER	SUMNER AVE EAST	0200	WIDTH CHANGE (W)	WIDTH CHANGE (E)	508	51	25,908	С	2	AC	12/27/2018	74
PARLIER	PARLIER AVE EAST	0300	ANCHOR AVE	WIDTH CHANGE (E)	1,362	48	65,376	С	2	AC	12/27/2018	72
PAKLIEK	FARLIER AVE EAST	0300	ANGI IOR AVE	WIDIR CRANGE	1,302	40	00,370	C		AC	12/2//2018	12



LOPEZ LOPEZ LN 0200 SOUZA ST CASUGA ST 212 36 7,632 R 2	AC		
	7.10	12/27/2018	71
MONSON MONSON AVE SOUTH 0100 MANNING AVE EAST PARLIER AVE EAST 2,579 20 51,580 C 2	AC	12/27/2018	71
SUMNER SUMNER AVE EAST 0300 WIDTH CHANGE (E) ANCHOR AVE 702 31 21,762 C 2	AC	12/27/2018	70
HILLS VALLEY RD SOUTH 0100 SOUTH AVE EAST PARK ST 2,573 26 66,898 A 2	AC	12/27/2018	69
ORONAST 0100 CASUGA CT KIME CT 214 36 7,704 R 2	AC	12/27/2018	63
PARK EB PARK BLVD EB 0200 CENTER ST HILLS VALLEY RD 2,563 36 92,268 A 2	AC	12/27/2018	62
3RD 3RD ST 0300 G ST PARK ST 501 38 19,038 R 2	AC	12/26/2018	61
A-W/O 12TH ALLEY W/O 12TH ST 0100 J ST END OF PAVEMENT (224' N/O I ST) 695 15 10,425 O 1	AC	12/26/2018	61
ANCHOR ANCHOR AVE SOUTH 0100 PARLIER AVE EAST SOUTH AVE EAST 2,637 60 158,220 C 3	AC	12/27/2018	61
JACOBS JACOBS AVE SOUTH 0200 GUTIERREZ ST CITY LIMIT (N) 622 30 18,660 C 2	AC	12/27/2018	61
PARK WB PARK BLVD WB 0100 10TH ST CENTER ST 2,563 36 92,268 A 2	AC	12/4/2018	61
10TH 10TH ST 0300 PARK ST RAILROAD AVE WEST 258 32 8,256 R 2	AC	12/26/2018	58
CELAYA ST CELAYA ST 0100 VILLAREAL ST MARTINEZ ST 981 36 35,316 R 2	AC	12/2/2018	57
PARK WB PARK BLVD WB 0200 10TH ST ANCHOR AVE SOUTH 2,595 39 101,205 A 2	AC	12/4/2018	57
ANCHOR ANCHOR AVE SOUTH 0200 SOUTH AVE PARK ST 2,554 49 125,146 C 2	AC	12/27/2018	56
4TH 4TH AVE 0500 GUTIERREZ ST BENJAMIN ST 589 33 19,437 R 2	AC	12/2/2018	55
D ST	AC	12/26/2018	55
MARTINEZ MARTINEZ ST 0100 W END WIDTH CHANGE 644 30 19,320 R 2	AC	12/27/2018	55
RODRIGUEZ RODRIGUEZ ST 0100 SOUTH AVE EAST SOUZA ST 1,251 37 46,287 R 2	AC	12/27/2018	55
2ND 2ND ST 0100 RAILROAD AVE EAST PARK ST 1,702 33 56,166 R 2	AC	12/26/2018	53
JACOBS JACOBS AVE SOUTH 0100 ADAMS AVE EAST GUTIERREZ ST 565 30 16,950 C 2	AC	12/27/2018	51
ORANGE ORANGE AVE 0200 1,266' S/O SOUTH AVE EAST SOUTH AVE EAST 1,266 33 41,778 R 2 MARTINEZ MARTINEZ ST 0200 WIDTH CHANGE PAVEMENT CHANGE W/O LOPEZ 320 37 11,840 R 2	AC AC	12/27/2018	51 50
MARTINEZ MARTINEZ ST 0200 WIDTH CHANGE PAVEMENT CHANGE W/O LOPEZ 320 37 11,840 R 2 CASUGA CASUGA ST 0100 RODRIGUEZ ST PAVEMENT CHANGE W/O LOPEZ 792 33 26,136 R 2	AC	12/27/2018 12/2/2018	48
E ST E ST 0100 12TH ST 11TH ST 339 32 10,848 R 2	AC	12/27/2018	48
G ST G ST 0300 6TH ST 5TH ST 325 27 8,775 R 2	AC	12/27/2018	48
PARK EB PARK BLVD EB 0100 ANCHOR AVE SOUTH CENTER ST 2,595 39 101,205 A 2	AC	12/27/2018	48
PARLIER PARLIER AVE EAST 0100 MONSON AVE SOUTH WIDTH CHANGE 1,870 17 31,790 C 2	AC	12/27/2018	48
G ST G ST 0400 5TH ST 2ND ST 1,066 44 46,904 R 2	AC	12/27/2018	47
MANNING MANNING AVE 0100 HILL AVE (CITY LIMIT) CULVERT 1,489 25 37,225 A 2	AC	12/27/2018	47
8TH 8TH ST 0200 ST G ST 950 53 50,350 R 2	AC	12/26/2018	46
LOPEZ LOPEZ LN 0300 KIME ST MATINEZ ST 219 36 7,884 R 2	AC	12/27/2018	46
SOUZA SOUZA ST 0100 RODRIGUEZ ST ANCHOR AVE 1,728 33 57,024 R 2	AC	12/27/2018	44
2ND 2ND ST 0200 PARK ST NORTH END 1,602 36 57,672 R 2	AC	12/26/2018	43
KIME KIME ST 0100 RODRIGUEZ ST PAVEMENT CHANGE W/O LOPEZ 810 33 26,730 R 2	AC	12/27/2018	42
PALM PALM 0100 SOUTH END SOUTH AVE SOUTH 329 18 5,922 R 1	AC	12/27/2018	42
ADAMS ADAMS AVE EAST 0150 10TH ST CENTER ST 1,158 33 38,214 C 2	AC	12/26/2018	41
12TH 12TH ST 0100 SOUTH ST I ST 1,024 36 36,864 R 2	AC	12/26/2018	40
J ST	AC	12/27/2018	40
MONSON MONSON AVE SOUTH 0300 SOUTH AVE SUMNER AVE EAST 2,587 17 43,979 C 2	AC	12/27/2018	39
ERAILROAD RAILROAD AVE EAST 0100 ANCHOR AVE SOUTH 12TH ST 785 31 24,335 C 2	AC	12/27/2018	39
6TH 6TH ST 0100 G ST PARK ST 490 51 24,990 R 2	AC	12/26/2018	38
VILLAREAL VILLA REAL ST 0100 WEST END CELAYA ST 748 36 26,928 R 2	AC	12/27/2018	37
12TH 12TH ST 0300 PARK ST RAILROAD AVE WEST 969 36 34,884 R 2	AC	12/26/2018	36
2ND 2ND ST 0300 GUTIERREZ ST BENJAMIN ST 589 33 19,437 R 2	AC	11/8/2018	36



Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
9TH	9TH ST	0200	H ST	PARK ST	999	53	52,947	R	2	AC	12/26/2018	35
MAPLE	MAPLE DR	0100	CITRUS AVE	EAST END	197	34	6,698	R	2	AC	12/27/2018	35
12TH	12TH ST	0200	I ST	PARK ST	1,529	26	39,754	R	2	AC	12/26/2018	34
3RD	3RD ST	0400	PARK ST	D ST	1,061	36	38,196	R	2	AC	12/26/2018	32
BENJAMIN	BENJAMIN ST	0100	JACOBS AVE SOUTH	END	640	33	21,120	R	2	AC	12/2/2018	32
E ST	E ST	0300	6TH ST	2ND ST	1,527	31	47,337	R	2	AC	12/27/2018	32
ADAMS	ADAMS AVE EAST	0100	ANCHOR AVE EAST	10TH ST	1,385	33	45,705	С	2	AC	12/26/2018	31
CASUGA	CASUGA ST	0200	CELAYA ST	PAVEMENT CHANGE W/O LOPEZ	642	33	21,186	R	2	AC	12/2/2018	31
J ST	J ST	0300	4TH ST	3RD ST	346	33	11,418	R	2	AC	12/27/2018	31
KIME	KIME ST	0200	PAVEMENT CHANGE W/O LOPEZ	CELAYA ST	642	33	21,186	R	2	AC	12/27/2018	31
PARLIER	PARLIER AVE EAST	0400	WIDTH CHANGE	JACOBS AVE	1,234	20	24,680	С	2	AC	12/27/2018	31
6TH	6TH ST	0400	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	30
GUTIERREZ	GUTIERREZ ST	0100	JACOBS AVE SOUTH	CDS (E)	1,606	33	52,998	R	2	AC	12/27/2018	30
RAMONA	RAMONA ST	0100	2ND ST	EAST END	330	33	10,890	R	2	AC	12/27/2018	30
11TH	11TH ST	0400	RAILROAD AVE EAST	C ST	560	36	20,160	R	2	AC	12/26/2018	29
6TH	6TH ST	0200	PARK ST	D ST	1,019	52	52,988	R	2	AC	12/26/2018	29
MARTINEZ	MARTINEZ ST	0300	PAVEMENT CHANGE	ANCHOR AVE	932	37	34,484	R	2	AC	12/27/2018	29
SOUTH	SOUTH AVE EAST	0300	WIDTH CHANGE	ANCHOR AVE SOUTH	1,290	48	61,920	Α	2	AC	12/27/2018	29
LOPEZ	LOPEZ LN	0100	SOUTH AVE	VILLAREAL ST	232	36	8,352	R	2	AC	12/27/2018	28
MANNING	MANNING AVE	0200	CULVERT	MONSON AVE	1,000	25	25,000	Α	2	AC	12/27/2018	28
5TH	5TH AVE	0300	PARK ST	D ST	1,032	52	53,664	R	2	AC	12/26/2018	27
5TH	5TH AVE	0500	GUTIERREZ ST	BENJAMIN ST	589	33	19,437	R	2	AC	12/2/2018	27
8TH	8TH ST	0100	SOUTH ST	I ST	1,037	53	54,961	R	2	AC	12/26/2018	27
J ST	J ST	0100	ANCHOR AVE SOUTH	11TH ST	1,010	35	35,350	R	2	AC	12/27/2018	27
5TH	5TH AVE	0100	SOUTH AVE	RAILROAD AVE WEST	1,346	21	28,266	R	2	AC	12/26/2018	26
A-S/OPARK	ALLEY S/O PARK ST	0400	10TH ST	RAILRAOD AVE WEST	564	14	7,896	0	1	AC	12/26/2018	26
B ST	B ST	0100	ANCHOR AVE SOUTH	10TH ST	1,396	36	50,256	R	2	AC	12/2/2018	25
B ST	B ST	0200	10TH ST	CENTER ST	1,135	36	40,860	R	2	AC	12/15/2018	25
MONSON	MONSON AVE SOUTH	0200	PARLIER AVE EAST	SOUTH AVE	2,574	17	43,758	С	2	AC	12/27/2018	25
ERAILROAD	RAILROAD AVE EAST	0200	12TH ST	10TH ST	945	31	29,295	С	2	AC	12/27/2018	24
A-S/OPARK	ALLEY S/O PARK ST	0600	4TH ST	2ND ST	643	18	11,574	0	1	AC	12/26/2018	23
C ST	C ST	0100	RAILROAD AVE EAST	9TH ST	1,541	36	55,476	R	2	AC	12/2/2018	22
H ST	н st	0200	10TH ST	CENTER ST	1,180	43	50,740	R	2	AC	12/27/2018	21
OLIVE	OLIVE DR	0100	CITRIS AVE	WEST END	212	32	6,784	R	2	AC	12/27/2018	21
4TH	4TH AVE	0200	RAILROAD AVE WEST	PARK ST	1,088	26	28,288	R	2	AC	12/26/2018	20
5TH	5TH AVE	0200	RAILROAD AVE WEST	PARK ST	764	52	39,728	R	2	AC	12/26/2018	20
B ST	B ST	0300	CENTER ST	4TH ST	1,149	36	41,364	R	2	AC	12/2/2018	20
A-N/OPARK	ALLEY N/O PARK ST	0100	8TH ST	6TH ST	654	17	11,118	0	1	AC	12/2/2018	19
10TH	10TH ST	0400	RAILROAD AVE EAST	C ST	989	52	51,428	R	2	AC	12/26/2018	18
11TH	11TH ST	0500	C ST	ADAMS AVE EAST	1,010	36	36,360	R	2	AC	12/26/2018	18
H ST	H ST	0300	4TH ST	2ND ST	685	24	16,440	R	2	AC	12/27/2018	18
ADAMS	ADAMS AVE EAST	0200	CENTER ST	PAVEMENT CHANGE	1,127	38	42,826	С	2	AC	12/27/2018	17
H ST	H ST	0100	ANCHOR AVE SOUTH	10TH ST	1,411	43	60,673	R	2	AC	12/27/2018	17
ERAILROAD	RAILROAD AVE EAST	0400	6TH ST	4TH ST	927	36	33,372	С	2	AC	12/27/2018	17
4TH	4TH AVE	0100	SOUTH AVE	RAILROAD AVE WEST	1,132	31	35,092	R	2	AC	12/26/2018	16



Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
5TH	5TH AVE	0400	D ST	E ADAMS AVE	1,555	52	80,860	R	2	AC	12/26/2018	16
4TH	4TH AVE	0400	D ST	ADAMS AVE	1,519	43	65,317	R	2	AC	12/26/2018	14
9TH	9TH ST	0100	SOUTH AVE	H ST	1,485	53	78,705	R	2	AC	12/26/2018	14
E ST	E ST	0200	9TH ST	6TH ST	1,150	53	60,950	R	2	AC	12/27/2018	14
J ST	J ST	0200	11TH ST	8TH ST	1,142	33	37,686	R	2	AC	12/27/2018	14
9TH	9TH ST	0400	C ST	ADAM AVE EAST	998	53	52,894	R	2	AC	12/26/2018	13
D ST	D ST	0100	RAILROAD AVE EAST	CENTER ST	1,660	43	71,380	С	2	AC	12/26/2018	13
ERAILROAD	RAILROAD AVE EAST	0300	10TH ST	8TH AVE	1,001	31	31,031	С	2	AC	12/27/2018	13
ERAILROAD	RAILROAD AVE EAST	0500	4TH ST	2ND ST	985	24	23,640	С	2	AC	12/27/2018	13
4TH	4TH AVE	0300	PARK ST	D ST	998	42	41,916	R	2	AC	12/26/2018	12
A-S/SOPARK	ALLEY S/O PARK ST	0100	ANCHOR AVE SOUTH	12TH ST	610	12	7,320	0	1	AC	12/26/2018	12
ERAILROAD	RAILROAD AVE EAST	0600	2ND ST	HILLS VALLEY RD SOUTH	880	24	21,120	С	2	AC	12/27/2018	11
10TH	10TH ST	0100	J ST	H ST	999	43	42,957	R	2	AC	12/26/2018	10
11TH	11TH ST	0200	I ST	NORTH END	1,312	36	47,232	R	2	AC	12/26/2018	10
WRAILROAD	RAILROAD AVE WEST	0300	11TH ST	PARK ST	910	25	22,750	С	2	AC	12/27/2018	10
10TH	10TH ST	0200	H ST	PARK ST	1,012	45	45,540	R	2	AC	12/26/2018	9
12TH	12TH ST	0400	RAILROAD AVE EAST	ADAMS AVE EAST	1,301	36	46,836	R	2	AC	12/26/2018	9
3RD	3RD ST	0100	SOUTH AVE	RAILROAD AVE WEST	871	30	26,130	R	2	AC	12/26/2018	9
6TH	6TH ST	0300	D ST	ADAMS ST EAST	1,538	52	79,976	R	2	AC	12/26/2018	9
WRAILROAD	RAILROAD AVE WEST	0700	3RD ST	HILLS VALLEY RD SOUTH	1,344	25	33,600	С	2	AC	12/27/2018	9
8TH	8TH ST	0400	D ST	ADAMS AVE	998	52	51,896	R	2	AC	12/26/2018	7
9TH	9TH ST	0300	RAILROAD AVE EAST	C ST	1,187	53	62,911	R	2	AC	12/26/2018	7
WRAILROAD	RAILROAD AVE WEST	0100	ANCHOR AVE SOUTH	12TH ST	709	24	17,016	С	2	AC	12/27/2018	6
WRAILROAD	RAILROAD AVE WEST	0600	5TH ST	3RD ST	945	24	22,680	С	2	AC	12/27/2018	6
10TH	10TH ST	0500	C ST	ADAMS AVE EAST	866	52	45,032	R	2	AC	12/26/2018	5
I ST	I ST	0200	10TH ST	CENTER ST	1,186	34	40,324	R	2	AC	12/27/2018	5
8TH	8TH ST	0300	RAILROAD AVE EAST	D ST	961	52	49,972	R	2	AC	12/26/2018	4
WRAILROAD	RAILROAD AVE WEST	0500	CENTER ST	5TH ST	960	32	30,720	С	2	AC	12/27/2018	3
ADAMS	ADAMS AVE EAST	0400	BRIDGE E/S	HILLS VALLEY RD	305	20	6,100	С	2	AC	12/27/2018	2
A-S/0PARK	ALLEY S/O PARK ST	0200	12TH ST	11TH ST	331	12	3,972	0	1	AC	12/26/2018	2
11TH	11TH ST	0100	SOUTH AVE	I ST	1,018	36	36,648	R	2	AC	12/26/2018	0
A-S/OPARK	ALLEY S/O PARK ST	0500	6TH ST	4TH ST	684	18	12,312	0	1	AC	12/26/2018	0
WRAILROAD	RAILROAD AVE WEST	0200	12TH ST	11TH ST	442	36	15,912	С	2	AC	12/27/2018	0
WRAILROAD	RAILROAD AVE WEST	0400	PARK ST	CNETER ST	900	33	29,700	С	2	AC	12/27/2018	0



City of Orange Cove Pavement Management System 2019 Update Gravel Street

Street ID	Street Name	Section ID	Beg Location	End Location	Length (ft)	Width (ft)	Area (sf)	FC	# of Lanes	Surface Type	PCI Date	PCI
A-E/OANCHO	ALLEY E/O ANCHOR AVE	0100	B ST	ADAMS AVE ST	894	14	12,516	0	2	GRAVEL		0
A-N/OPARK	ALLEY N/O PARK ST	0200	6TH ST	2ND ST	1,309	22	28,798	0	1	GRAVEL		0
A-N/O S	ALLEY N/O SOUTH AVE	0100	ANCHOR AVE SOUTH	12TH ST	597	16	9,552	0	1	GRAVEL		0
A-S/ADAMS	ALLEY S/O ADAMS EAST	0100	ALLEY S/O ANCHOR	ALLEY W/O 12TH	291	16	4,656	0	1	GRAVEL		0
A-W/O 10TH	ALLEY W/O 10TH ST	0300	I ST	ALLEY S/O PARK	1,192	14	16,688	0	1	GRAVEL		0
A-W/O 11TH	ALLEY W/O 11TH ST	0100	SOUTH AVE	I ST	928	14	12,992	0	1	GRAVEL		0
A-W/O 11TH	ALLEY W/O 11TH ST	0300	ADAMS AVE EAST	RAILROAD AVE EAST	1,181	14	16,534	0	1	GRAVEL		0
A-W/O 12TH	ALLEY W/O 12TH ST	0300	ALLEY S/O PARK ST	224' N/O I ST	929	14	13,006	0	1	GRAVEL		0
A-W/O 2ND	ALLEY W/O 2ND ST	0100	RAILROAD AVE EAST	NORTH END	353	12	4,236	0	1	GRAVEL		0
A-W/O 2ND	ALLEY W/O 2ND ST	0200	H ST	ALLEY S/O PARK ST	792	12	9,504	0	1	GRAVEL		0
A-W/O 2ND	ALLEY W/O 2ND ST	0300	ALLEY N/O PARLK ST	NORTH END	940	12	11,280	0	1	GRAVEL		0
A-W/O 3RD	ALLEY W/O 3RD ST	0100	SOUTH AVE	RAILROAD WEST	762	14	10,668	0	1	GRAVEL		0
A-W/O 3RD	ALLEY W/O 3RD ST	0200	END N/O D ST	ALLEY N/O PARK ST	929	14	13,006	0	1	GRAVEL		0
A-W/O 3RD	ALLEY W/O 3RD ST	0300	ALLEY S/O PARK ST	RAILROD AVE EAST	945	14	13,230	0	1	GRAVEL		0
A-W/O 4TH	ALLEY W/O 4TH ST	0200	B ST	ALLEY N/O PARK ST	1,670	15	25,050	0	1	GRAVEL		0
A-W/O 4TH	ALLEY W/O 4TH ST	0300	RAILOAD AVE EAST	ALLEY S/O PARK ST	681	14	9,534	0	1	GRAVEL		0
A-W/O 5TH	ALLEY W/O 5TH ST	0200	D ST	ALLEY N/O PARK ST	774	15	11,610	0	1	GRAVEL		0
A-W/O 5TH	ALLEY W/O 5TH ST	0300	G ST	ALLEY S/O PARK ST	326	15	4,890	0	1	GRAVEL		0
A-W/O 6TH	ALLEY W/O 6TH ST	0100	ADAMS AVE EAST	D ST	1,366	14	19,124	0	1	GRAVEL		0
A-W/O 6TH	ALLEY W/O 6TH ST	0200	D ST	E ST	463	14	6,482	0	1	GRAVEL		0
A-W/O 8TH	ALLEY W/O 8TH ST	0100	SOUTH AVE	J ST	471	14	6,594	0	1	GRAVEL		0
A-W/O 8TH	ALLEY W/O 8TH ST	0300	ADAMS AVE EAST	C ST	934	14	13,076	0	1	GRAVEL		0
A-W/OCENTE	ALLEY W/O CENTER ST	0100	8TH ST	SOUTH AVE EAST	428	14	5,992	0	1	GRAVEL		0
A-W/OCENTE	ALLEY W/O CENTER ST	0200	G ST	I ST	881	14	12,334	0	1	GRAVEL		0
A-W/OCENTE	ALLEY W/O CENTER ST	0300	E ST	D ST	452	14	6,328	0	1	GRAVEL		0
A-W/OCENTE	ALLEY W/O CENTER ST	0400	ADAMS AVE EAST	C ST	948	14	13,272	0	1	GRAVEL		0



Appendix C

Maintenance and Rehabilitation (M&R) Decision Tree

Maintenance and Rehabilitation Decision Tree

This report presents the current maintenance and rehabilitation (M&R) decision tree that exists in the database. The decision tree forms the basis for all of the budgetary computations that are included in this volume. *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 – Good. All preventive maintenance treatment listings are assigned only to sections in Condition Category I. Street sections with PCI values under this range are assigned to treatments listed in Categories II through V.

In the preventive maintenance category, 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).
- 2. 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 seven 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 three 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. Each line is defined by a specific combination of functional classification, surface type, and condition category.

The City adjusted the PCI thresholds for budget analysis in StreeSaver[®] for different functional classifications to meet the goal of improving the PCI.

- Arterial/Collector functional class
 - o Good 70-100
 - o Fair 50-69
 - o Poor 25-49
 - o Very Poor 0-24



- Residential/Local/Alley functional class
 - o Good 70-100
 - o Fair 50-69
 - o Poor 25-49
 - o Very Poor 0-24

COLUMN	DESCRIPTION
Functional Class	Functional Classification identifying the branch number.
Surface	Surface Type identifying the branch number. Surface Type (AC Pavement, AC/AC = AC Overlay of AC Pavement, AC/PCC = AC Overlay of PCC Pavement, PCC = PCC Pavement, ST = Surface treatment over gravel base/subgrade).
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 (e.g. microsurfacing). Third Row (Restoration Treatment) indicates surface restoration (e.g. overlay).
Treatment	Name of treatments from the "Treatment Descriptions" report.
Cost/SqYd, except Seal Cracks in LF	Average unit cost per square yard for each treatment except for "SEAL CRACKS" which is cost per linear feet.
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).
# of Surface Seals before Overlay	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.

Treatments highlighted in yellow indicated that a specific functional class and surface combination does not exist within the City (i.e. an AC overlay of PCC pavement arterial street, a surface treatment over gravel base/subgrade pavement residential street, etc.). Therefore, treatments for these functional class and surface combination will be "Do Nothing".

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.





City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	113 Detween	Yrs Between Surface Seals	# of Surface Seals before Overlay
Arterial	AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$4.00		7	
			Restoration Treatment	2" HMA+CIR+BASE REPAIRS	\$60.50			3
		II - Good, Non-Load Related		CAPE SEAL+CRACK SEAL	\$18.50			
		III - Good, Load Related		CAPE SEAL+BASE REPAIRS	\$26.50			
		IV - Poor		2" HMA+CIR+BASE REPAIRS	\$60.50			
		V - Very Poor		3" HMA+FDR 8"	\$67.00			
	AC/AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$18.50		7	
			Restoration Treatment	2" HMA+CIR+BASE REPAIRS	\$60.50			3
		II - Good, Non-Load Related		CAPE SEAL+CRACK SEAL	\$18.50			
		III - Good, Load Related		CAPE SEAL+BASE REPAIRS	\$26.50			
		IV - Poor		2" HMA+CIR+BASE REPAIRS	\$60.50			
		V - Very Poor		3" HMA+FDR 8"	\$67.00			
	AC/PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:		Yrs Between Surface Seals	# of Surface Seals before Overlay
Arterial	PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			
	ST	T I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



Decision Tree

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:		Yrs Between Surface Seals	# of Surface Seals before Overlay
Collector	AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$3.50		7	
			Restoration Treatment	2" HMA+CIR+BASE REPAIRS	\$62.00			3
		II - Good, Non-Load Related		CHIP SEAL+CRACK SEAL	\$11.00			
		III - Good, Load Related		CHIP SEAL+BASE REPAIRS	\$18.00			
		IV - Poor		2" HMA+CIR+BASE REPAIRS	\$62.00			
	AC/AC	V - Very Poor		3" HMA+FDR 6"	\$64.50			
	AC/AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$3.50		7	
			Restoration Treatment	2" HMA+CIR+BASE REPAIRS	\$62.00			3
		II - Good, Non-Load Related		CHIP SEAL+CRACK SEAL	\$11.00			
		III - Good, Load Related		CHIP SEAL+BASE REPAIRS	\$18.00			
		IV - Poor		2" HMA+CIR+BASE REPAIRS	\$62.00			
		V - Very Poor		3" HMA+FDR 6"	\$64.50			
	AC/PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		3	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:		Yrs Between Surface Seals	# of Surface Seals before Overlay
Collector	PCC	CC I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			
	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:		Yrs Between Surface Seals	# of Surface Seals before Overlay
Residential/Local	AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$3.25		7	
			Restoration Treatment	2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			3
		II - Good, Non-Load Related		TYPE III SLURRY SEAL+CRACK SEAL	\$3.25			
		III - Good, Load Related		TYPE III SLURRY SEAL+BASE REPAIRS	\$10.00			
		IV - Poor		2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			
		V - Very Poor		3" HMA+FDR 5"	\$62.00			
	AC/AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$3.25		7	
			Restoration Treatment	2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			3
		II - Good, Non-Load Related		TYPE III SLURRY SEAL+CRACK SEAL	\$3.25			
		III - Good, Load Related		TYPE III SLURRY SEAL+BASE REPAIRS	\$10.00			
		IV - Poor		2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			
		V - Very Poor		3" HMA+FDR 5"	\$62.00			
	AC/PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	113 Detween	Yrs Between Surface Seals	# of Surface Seals before Overlay
Residential/Local	PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			
	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:		Yrs Between Surface Seals	# of Surface Seals before Overlay
Other	AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$3.25		7	
			Restoration Treatment	2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			3
		II - Good, Non-Load Related		TYPE III SLURRY SEAL+CRACK SEAL	\$3.25			
		III - Good, Load Related		TYPE III SLURRY SEAL+BASE REPAIRS	\$10.00			
		IV - Poor		2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			
		V - Very Poor		3" HMA+FDR 5"	\$62.00			Seals Seals before Overlay
	AC/AC	I - Very Good	Crack Treatment	SEAL CRACKS	\$1.00	3		
			Surface Treatment	TYPE III SLURRY SEAL+CRACK SEAL	\$3.25		7	
			Restoration Treatment	2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			3
		II - Good, Non-Load Related		TYPE III SLURRY SEAL+CRACK SEAL	\$3.25			
		III - Good, Load Related		TYPE III SLURRY SEAL+BASE REPAIRS	\$10.00			
		IV - Poor		2" MILL AND HMA OVERLAY+BASE REPAIRS	\$47.00			
		V - Very Poor		3" HMA+FDR 5"	\$62.00			
	AC/PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

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	PCC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			
	ST	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	3		
			Surface Treatment	DO NOTHING	\$0.00		7	
			Restoration Treatment	DO NOTHING	\$0.00			3
		II - Good, Non-Load Related		DO NOTHING	\$0.00			
		III - Good, Load Related		DO NOTHING	\$0.00			
		IV - Poor		DO NOTHING	\$0.00			
		V - Very Poor		DO NOTHING	\$0.00			



Appendix D

Budget Needs

- I. Projected PCI/Cost Summary
- **II. Rehabilitation Treatment/Cost Summary**
- **III. Preventive Maintenance Treatment/Cost Summary**

Budget Needs Reports

The purpose of this module is to answer the question: *If the City 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 a period of ten years. The Budget Needs represents the "ideal world" funding levels, while the Budget Scenarios 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 shown below. An interest rate of 3% and an inflation factor of 3% were used to project the costs for the next ten years. This report shows the total ten-year budget that would be required to meet the City's standards as exemplified in the M&R decision tree.

As indicated in the report, with a budget of \$34.9 million over the next ten years the PCI of the street network will improve from the current level of 47 to 84 by fiscal year (FY) 2028/29. If no treatments are programmed, the weighted average PCI is projected to deteriorate to 23 by FY 2028/29.

Budget Needs reports included in this volume are listed below:

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



Needs - Projected PCI/Cost Summary

This report summarizes and projects the City's network PCI values over a ten-year period, both with and without treatments applied. These costs are based on those in the M&R decision tree. It also projects the costs over a ten-year period.

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 City'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

Inflation Rate = 3.00 % Printed: 04/05/2019

Year	PCI Treated	PCI Untreated	PM Cost	Rehab Cost	Cost
2019	92	44	\$287,745	\$24,340,321	\$24,628,066
2020	88	41	\$55,530	\$1,575,975	\$1,631,505
2021	86	38	\$23,015	\$44,997	\$68,012
2022	85	35	\$101,070	\$273,501	\$374,571
2023	84	33	\$83,504	\$802,295	\$885,799
2024	83	31	\$69,480	\$378,777	\$448,257
2025	83	29	\$1,035,618	\$490,745	\$1,526,363
2026	86	27	\$2,421,870	\$175,540	\$2,597,410
2027	86	25	\$2,508,560	\$33,694	\$2,542,254
2028	84	23	\$33,079	\$170,602	\$203,681
		% PM	PM Total Cost	Rehab Total Cost	Total Cost
		18.96%	\$6,619,471	\$28,286,447	\$34,905,918

Needs - Rehabilitation Treatment/Cost Summary

This report summarizes each rehabilitation treatment type, quantity of pavement affected, and total costs over the ten-year 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. 2019, 2021, 2022 etc).			
Area Treated	Quantities in square yard.			
Cost	Rehabilitation treatment cost.			





Needs - Rehabilitation Treatment/Cost Summary

Inflation Rate = 3.00 % Printed: 04/05/2019

Treatment	Year		Area Tre	eated	Cost
2" HMA+CIR+BASE REPAIRS	2019		50,111.44	sq.yd.	\$3,069,355
		Total	50,111.44	sq.yd.	\$3,069,355
2" MILL AND HMA OVERLAY+BASE REPAIRS	2019		119,983.78	sq.yd.	\$5,639,248
		Total	119,983.78	sq.yd.	\$5,639,248
3" HMA+FDR 5"	2019		169,811.78	sq.yd.	\$10,528,340
		Total	169,811.78	sq.yd.	\$10,528,340
3" HMA+FDR 6"	2019		52,766.67	sq.yd.	\$3,403,452
		Total	52,766.67	sq.yd.	\$3,403,452
CAPE SEAL+BASE REPAIRS	2019		7,433.11	sq.yd.	\$196,978
	2024		7,433.11	sq.yd.	\$228,351
		Total	14,866.22	sq.yd.	\$425,329
CAPE SEAL+CRACK SEAL	2019		31,749	sq.yd.	\$587,357
	2020		31,749		\$604,978
	2023		11,245		\$234,143
	2025		20,504	sq.yd.	\$452,934
		Total	95,247	sq.yd.	\$1,879,412
CHIP SEAL+BASE REPAIRS	2019		39,289.56	sq.yd.	\$707,212
	2020		40,822.44	sq.yd.	\$756,850
	2022		13,905.11	sq.yd.	\$273,501
	2023		26,917.33		\$545,324
	2024		5,731.11		\$119,591
	2028		7,264	sq.yd.	\$170,602
		Total	133,929.56	sq.yd.	\$2,573,080
CHIP SEAL+CRACK SEAL	2019		2,418	sq.yd.	\$26,598
	2020		2,878.67		\$32,616
	2021		3,602.78		\$42,045
	2024		2,418		\$30,835
	2025		2,878.67		\$37,811
	2026		3,602.78		\$48,741
	2027		2,418	sq.yd.	\$33,694
		Total	20,216.89	sq.yd.	\$252,340
TYPE III SLURRY SEAL+BASE REPAIRS	2019		13,373.33		\$133,734
	2020		13,373.33	sq.yd.	\$137,747
	2026	_	9,449.33	sq.yd.	\$116,217
		Total	36,196	sq.yd.	\$387,698
TYPE III SLURRY SEAL+CRACK SEAL	2019		14,783		\$48,047
	2020		13,079		\$43,784
	2021		856	sq.yd.	\$2,952



Needs - Rehabilitation Treatment/Cost Summary

Inflation Rate = 3.00 % Printed: 04/05/2019

Treatment	Year	Area Treated	Cost
	2023	6,240.67 sq.yd.	\$22,828
	2026	2,647.33 sq.yd.	\$10,582
	Total	37,606 sq.yd.	\$128,193

Total Cost \$28,286,447

Needs - Preventive Maintenance Treatment/Cost Summary

This report summarizes each preventive maintenance treatment type, quantity of pavement affected, and total costs over the ten-year 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. 2019, 2021, 2022, 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: 04/05/2019

Treatment	Year	Area Treated		Cost
2" HMA+CIR+BASE REPAIRS	2025	13,905.11	sq.yd.	\$1,029,413
	2027	30,898.33	sq.yd.	\$2,405,382
	Total	44,803.44		\$3,434,795
SEAL CRACKS	2022	2,842.5	ft.	\$3,118
	2023	2,789.85	ft.	\$3,153
	2024	3,753.91	ft.	\$4,371
	2025	5,171.02	ft.	\$6,205
	2026	1,157.76	ft.	\$1,429
	2027	1,157.78	ft.	\$1,472
	2028	876.37	ft.	\$1,145
	Total	17,749.19		\$20,893
TYPE III SLURRY SEAL+CRACK SEAL	2019	76,169.44	sq.yd.	\$287,745
	2020	15,706.33	sq.yd.	\$55,530
	2021	6,254.11	sq.yd.	\$23,015
	2022	24,105.89	sq.yd.	\$97,952
	2023	21,965.22	sq.yd.	\$80,351
	2024	16,956.33	sq.yd.	\$65,109
	2026	469,691.11	sq.yd.	\$2,420,441
	2027	23,821.33	sq.yd.	\$101,706
	2028	7,110.11	sq.yd.	\$31,934
	Total	661,779.89		\$3,163,783
		724,332.52		\$6,619,471



Appendix E

Scenario Summary Reports

- **Cost Summary**
- **II. Network Condition Summary**



Scenarios - Cost Summary

Scenario: \$1 Million per Year

Year	PM	Budget	Re	habilitation		reventative laintenance	Surplus PM	Deferred		Stop Gap
2019 \$1	\$100,000	\$1,000,000	II III	\$16,178 \$0	Non- Project	\$116,567	\$0	\$23,629,713	Funded Unmet	\$0 \$217,713
			IV	\$865,575	Project	\$0				
			V	\$0						
		To	otal	\$881,753						
		Proj	ject	\$0						
2020	\$100,000	\$1,000,000	II	\$43,576	Non-	\$111,991	\$0	\$24,295,662	Funded	\$0
			Ш	\$0	Project				Unmet	\$973
			IV	\$841,316	Project	\$0				
			V	\$0						
		To	otal	\$884,892						
		Proj	ject	\$0						
2021	\$100,000	\$1,000,000	II	\$73,215	Non-	\$109,147	\$0	\$26,219,287	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
		IV	\$787,352	Project	\$0					
			V	\$29,030						
		To	otal	\$889,597						
		Proj	ject	\$0						
2022	\$100,000	\$1,000,000	II	\$0	Non-	\$131,647	\$0	\$27,265,733	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$110,917	Project	\$0				
			V	\$754,844						
		To	otal	\$865,761						
		Proj	ject	\$0						
2023	\$100,000	\$1,000,000	II	\$0	Non-	\$87,563	\$12,437	\$28,551,284	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$886,661	Project	\$0				
			V	\$0						
		To	otal	\$886,661						
		Proj	ject	\$0						

Year	РМ	Budget	Re	habilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2024	\$100,000	\$1,000,000	II III	\$30,835 \$0	Non- Project	\$66,282	\$33,718	\$28,683,969	Funded Unmet	\$0 \$313,162
			IV	\$836,000	Project	\$0				, ,
			V	\$0	•					
		T	otal	\$866,835						
		Pro	ject	\$0						
2025	\$11,000	\$1,000,000	II	\$37,811	Non-	\$2,727	\$8,273	\$28,918,087	Funded	\$0
			Ш	\$0	Project				Unmet	\$1,128
			IV	\$933,127	Project	\$0				
			V	\$0						
			otal	\$970,938						
		Pro	ject	\$0						
2026	\$100,000	\$1,000,000	II	\$81,454	Non-	\$148,756	\$0	\$30,028,049	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$553,079	Project	\$0				
			V	\$214,492						
		T	otal	\$849,025						
		Pro	ject	\$0						
2027	\$100,000	\$1,000,000	II	\$0	Non-	\$103,390	\$0	\$30,625,557	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$570,513	Project	\$0				
			V	\$325,717						
		T	otal	\$896,230						
		Pro	ject	\$0						
2028	\$100,000	\$1,000,000	II	\$0	Non-	\$112,256	\$0	\$30,963,293	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$887,347						
		T	otal	\$887,347						
		Pro	ject	\$0						

Summary			Funded	Unmet
Functional Class	Rehabilitation	Prev. Maint.	Stop Gap	Stop Gap
Arterial	\$4,350,004	\$549,570	\$0	\$10,394
Collector	\$2,560,710	\$130,855	\$0	\$130,845
Other	\$36,673	\$70,509	\$0	\$9,742
Residential/Local	\$1,931,652	\$239,392	\$0	\$381,994
Grand Total:	\$8,879,039	\$990,326	\$0	\$532,976



Scenarios - Network Condition Summary

Interest: 3% Inf

Inflation: 3%

Printed: 04/05/2019

Scenario: \$1 Million per Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$1,000,000	\$100,000	2023	\$1,000,000	\$100,000	2027	\$1,000,000	\$100,000
2020	\$1,000,000	\$100,000	2024	\$1,000,000	\$100,000	2028	\$1,000,000	\$100,000
2021	\$1,000,000	\$100,000	2025	\$1,000,000	\$11,000			
2022	\$1,000,000	\$100,000	2026	\$1,000,000	\$100,000			

Projected	Network Averag	e PCI by year			
Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2019	44	46	2.62	5.05	
2020	41	44	2.10	3.99	
2021	38	43	2.89	4.89	
2022	35	42	4.02	6.88	
2023	33	41	3.48	6.59	
2024	31	40	3.85	6.87	
2025	29	40	5.43	9.64	
2026	27	39	4.96	9.48	
2027	25	39	4.61	8.39	
2028	23	39	4.49	7.75	

Percent Network Area by Functional Class and Condition Category

Condition in base year 2019, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	10.0%	5.6%	7.3%	2.9%	25.8%
II / III	5.8%	6.2%	4.0%	0.2%	16.1%
IV	3.7%	3.7%	17.7%	0.0%	25.1%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	10.6%	5.6%	9.8%	3.1%	29.1%
II / III	5.8%	6.2%	3.4%	0.0%	15.4%
IV	3.1%	3.7%	15.8%	0.0%	22.6%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	19.5%	9.2%	13.3%	3.1%	45.1%



Scenarios - Network Condition Summary

Interest: 3% Inflation: 3%

Printed: 04/05/2019

Scenario: \$1 Million per Year

IV	0.0%	0.0%	1.6%	0.0%	1.6%
V	0.0%	14.1%	38.4%	0.8%	53.3%
Total	19.5%	23.3%	53.3%	4.0%	100.0%



Scenarios - Cost Summary

Scenario: \$1.5 Million per Year

Year	PM	Budget	Re	ehabilitation		Preventative Naintenance	Surplus PM	Deferred		Stop Gap
2019	\$100,000	\$1,500,000	II	\$16,178	Non-	\$118,972	\$0	\$23,128,870	Funded	\$0
			Ш	\$0	Project				Unmet	\$216,238
			IV	\$1,364,013	Project	\$0				
			V	\$0						
		To	otal	\$1,380,191						
		Proj	ject	\$0						
2020	\$100,000	\$1,500,000	II	\$10,960	Non-	\$113,514	\$0	\$23,278,743	Funded	\$0
			Ш	\$0	Project				Unmet	\$1,358
			IV	\$706,977	Project	\$0				
			V	\$666,484						
		To	otal	\$1,384,421						
		Proj	ject	\$0						
2021	\$100,000	\$1,500,000	II	\$106,809	Non-	\$118,832	\$0	\$24,673,665	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,271,300	Project	\$0				
			V	\$0						
		To	otal	\$1,378,109						
		Proj	ject	\$0						
2022	\$100,000	\$1,500,000	II	\$0	Non-	\$116,232	\$0	\$25,177,923	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$971,325	Project	\$0				
			V	\$405,697						
		To	otal	\$1,377,022						
		Proj	ject	\$0						
2023	\$100,000	\$1,500,000	II	\$0	Non-	\$88,884	\$11,116	\$25,890,057	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,396,186	Project	\$0				
			V	\$0						
		To	otal	\$1,396,186						
		Proj	ject	\$0						

Year	PM	Budget	Re	habilitation		reventative laintenance	Surplus PM	Deferred		Stop Gap
2024	\$100,000	\$1,500,000	II III	\$67,544 \$0	Non- Project	\$66,404	\$33,596	\$25,464,182	Funded Unmet	\$0 \$288,665
			IV	\$263,785	Project	\$0				
			V	\$1,050,939						
		T	otal	\$1,382,268						
		Pro	ject	\$0						
2025	\$5,000	\$1,500,000	II	\$0	Non-	\$2,564	\$2,436	\$25,046,740	Funded	\$0
			Ш	\$0	Project				Unmet	\$1,128
			IV	\$424,282	Project	\$0				
			V	\$1,063,812						
		T	otal	\$1,488,094						
		Pro	ject	\$0						
2026	\$210,000	\$1,500,000	II	\$81,454	Non-	\$188,592	\$21,408	\$25,811,811	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,106,975	Project	\$0				
			V	\$94,197						
		T	otal	\$1,282,626						
		Pro	ject	\$0						
2027	\$239,000	\$1,500,000	II	\$0	Non-	\$238,723	\$277	\$25,428,217	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$1,239,710						
			otal	\$1,239,710						
		Pro	ject	\$0						
2028	\$208,000	\$1,500,000	II	\$0	Non-	\$205,303	\$2,697	\$25,174,752	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$1,280,565						
		T	otal	\$1,280,565						
		Pro	ject	\$0						

Summary			F d a d	l la as a t
,			Funded	Unmet
Functional Class	Rehabilitation	Prev. Maint.	Stop Gap	Stop Gap
Arterial	\$4,268,062	\$596,845	\$0	\$8,145
Collector	\$6,197,988	\$183,098	\$0	\$113,449
Other	\$316,075	\$133,697	\$0	\$10,141
Residential/Local	\$2,807,067	\$344,380	\$0	\$375,654
Grand Total:	\$13,589,192	\$1,258,020	\$0	\$507,389



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$1.5 Million per Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$1,500,000	\$100,000	2023	\$1,500,000	\$100,000	2027	\$1,500,000	\$239,000
2020	\$1,500,000	\$100,000	2024	\$1,500,000	\$100,000	2028	\$1,500,000	\$208,000
2021	\$1,500,000	\$100,000	2025	\$1,500,000	\$5,000			
2022	\$1,500,000	\$100,000	2026	\$1,500,000	\$210,000			

Projected	l Network Averag	e PCI by year			
Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2019	44	46	2.91	5.54	
2020	41	46	2.55	4.82	
2021	38	45	3.88	6.37	
2022	35	45	4.23	7.77	
2023	33	45	4.17	8.07	
2024	31	45	4.63	7.95	
2025	29	46	4.98	9.17	
2026	27	46	5.80	10.99	
2027	25	47	7.65	13.56	
2028	23	48	6.55	11.04	

Percent Network Area by Functional Class and Condition Category

Condition in base year 2019, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	10.0%	5.6%	7.3%	2.9%	25.8%
II / III	5.8%	6.2%	4.0%	0.2%	16.1%
IV	3.7%	3.7%	17.7%	0.0%	25.1%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	12.3%	5.6%	9.3%	3.1%	30.2%
II / III	5.8%	6.2%	3.4%	0.0%	15.4%
IV	1.4%	3.7%	16.4%	0.0%	21.5%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	19.5%	16.2%	16.2%	3.6%	55.5%



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$1.5 Million per Year

V	0.0%	7.1%	37.1%	0.3%	44.5%
Total	19.5%	23.3%	53.3%	4.0%	100.0%



Scenarios - Cost Summary

Scenario: \$2.75 Million per Year

Year	PM	Budget	Re	ehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2019	\$100,000	\$2,750,000	II III	\$42,776 \$0	Non- Project	\$111,986	\$0	\$21,879,664	Funded Unmet	\$0 \$210,349
			IV	\$2,549,893	Project	\$0				, -,-
			V	\$43,717	·					
		To	otal	\$2,636,386						
		Proj	ject	\$0						
2020	\$100,000	\$2,750,000	II	\$43,576	Non-	\$120,709	\$0	\$20,742,302	Funded	\$0
			Ш	\$0	Project				Unmet	\$973
			IV	\$872,669	Project	\$0				
			V	\$1,710,741						
		To	otal	\$2,626,986						
		Proj	ject	\$0						
2021	\$100,000	\$2,750,000	II	\$44,997	Non-	\$97,060	\$2,940	\$20,811,163	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$2,239,544	Project	\$0				
			V	\$365,308						
		To	otal	\$2,649,849						
		Proj	ject	\$0						
2022	\$100,000	\$2,750,000	II	\$0	Non-	\$105,918	\$0	\$19,945,288	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,331,496	Project	\$0				
			V	\$1,310,171						
			otal	\$2,641,667						
		Proj	ject	\$0						
2023	\$100,000	\$2,750,000	II	\$0	Non-	\$95,407	\$4,593	\$19,213,014	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,652,288	Project	\$0				
			V	\$995,060						
			otal	\$2,647,348						
		Proj	ject	\$0						

Year	PM	Budget	Re	ehabilitation		Preventative Naintenance	Surplus PM	Deferred		Stop Gap
2024	\$100,000	\$2,750,000	II III	\$30,835 \$0	Non- Project	\$94,578	\$5,422	\$17,280,589	Funded Unmet	\$0 \$213,101
			IV	\$0	Project	\$0				
			V	\$2,613,273	•					
		Т	otal	\$2,644,108						
		Pro	ject	\$0						
2025	\$0	\$2,750,000	II	\$37,811	Non-	\$3,417	\$0	\$15,395,123	Funded	\$0
			Ш	\$0	Project				Unmet	\$1,128
			IV	\$424,282	Project	\$0				
			V	\$2,280,710						
		Т	otal	\$2,742,803						
		Pro	ject	\$0						
2026	\$367,100	\$2,750,000	II	\$48,741	Non-	\$378,263	\$0	\$14,527,017 Funded	7 Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,106,975	Project	\$0				
			V	\$1,182,750						
		Т	otal	\$2,338,466						
		Pro	ject	\$0						
2027	\$351,000	\$2,750,000	II	\$33,694	Non-	\$351,630	\$0	\$12,623,338	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$2,339,494						
		Т	otal	\$2,373,188						
		Pro	ject	\$0						
2028	\$262,100	\$2,750,000	II	\$0	Non-	\$263,850	\$0	\$10,827,899	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$2,445,578						
			otal	\$2,445,578						
		Pro	ject	\$0						

Summary			Funded	Unmet
Functional Class	Rehabilitation	Prev. Maint.	Stop Gap	Stop Gap
Arterial	\$4,268,062	\$690,953	\$0	\$8,145
Collector	\$8,959,799	\$369,275	\$0	\$53,715
Other	\$455,124	\$124,263	\$0	\$8,625
Residential/Local	\$12,063,394	\$438,327	\$0	\$355,064
Grand Total:	\$25,746,379	\$1,622,818	\$0	\$425,550



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$2,750,000	\$100,000	2023	\$2,750,000	\$100,000	2027	\$2,750,000	\$351,000
2020	\$2,750,000	\$100,000	2024	\$2,750,000	\$100,000	2028	\$2,750,000	\$262,100
2021	\$2,750,000	\$100,000	2025	\$2,750,000	\$0			
2022	\$2,750,000	\$100,000	2026	\$2,750,000	\$367,100			

Projected	Network Averag	e PCI by year			
Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2019	44	48	4.32	8.23	
2020	41	50	3.80	7.46	
2021	38	51	4.04	6.94	
2022	35	53	4.59	8.66	
2023	33	55	5.93	11.48	
2024	31	58	5.75	10.44	
2025	29	61	8.06	14.73	
2026	27	63	8.40	16.70	
2027	25	67	9.68	18.06	
2028	23	70	6.61	11.10	

Percent Network Area by Functional Class and Condition Category

Condition in base year 2019, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	10.0%	5.6%	7.3%	2.9%	25.8%
II / III	5.8%	6.2%	4.0%	0.2%	16.1%
IV	3.7%	3.7%	17.7%	0.0%	25.1%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	12.3%	6.1%	13.0%	3.1%	34.4%
II / III	5.8%	5.8%	3.4%	0.0%	15.0%
IV	1.4%	3.7%	12.6%	0.0%	17.8%
V	0.0%	7.7%	24.2%	0.9%	32.8%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
	19.5%	23.3%	34.5%	4.0%	81.2%



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

V	0.0%	0.0%	18.8%	0.0%	18.8%
Total	19.5%	23.3%	53.3%	4.0%	100.0%



Scenarios - Cost Summary

Scenario: \$3.3 Million per Year

Year	PM	Budget	Re	ehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2019	\$100,000	\$3,300,000	II III	\$42,776 \$0	Non- Project	\$108,102	\$0	\$21,329,609	Funded Unmet	\$0 \$208,338
			IV	\$3,103,832	Project	\$0			Omnot	Ψ200,000
			V	\$43,717	0,001	Ψ0				
		To	otal	\$3,190,325						
		Proj		\$0						
2020	\$100,000	\$3,300,000	II	\$43,576	Non-	\$113,514	\$0	\$19,625,586	Funded	\$0
_0_0			Ш	\$0	Project				Unmet	\$973
			IV	\$302,111	Project	\$0				
			V	\$2,838,654						
		To	otal —	\$3,184,341						
		Proj	ject	\$0						
2021	\$100,000	\$3,300,000	II	\$44,997	Non-	\$102,867	\$0	\$19,108,260	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$2,239,544	Project	\$0				
			V	\$912,188						
		To	otal	\$3,196,729						
		Proj	ject	\$0						
2022	\$100,000	\$3,300,000	Ш	\$0	Non-	\$101,569	\$0	\$17,640,419	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,331,496	Project	\$0				
			V	\$1,865,358						
		To	otal	\$3,196,854						
		Proj	ject	\$0						
2023	\$100,000	\$3,300,000	II	\$0	Non-	\$133,420	\$0	\$16,289,447	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,652,288	Project	\$0				
			V	\$1,506,639						
		To	otal	\$3,158,927						
		Proj	ject	\$0						

Stop Gap		Deferred	Surplus PM	reventative aintenance		ehabilitation	Budget Re	PM	Year
\$0	Funded	\$13,749,714	\$30,727	\$66,273	Non-	\$30,835	\$3,300,000 II	\$97,000	2024
\$168,680	Unmet				Project	\$0	III		
				\$0	Project	\$0	IV		
						\$3,161,162	V		
						\$3,191,997	Total		
						\$0	Project		
\$0	Funded	\$11,214,801	\$0	\$3,418	Non-	\$37,811	\$3,300,000 II	\$0	2025
\$1,128	Unmet				Project	\$0	III		
				\$0	Project	\$424,282	IV		
						\$2,824,233	V		
						\$3,286,326	Total		
						\$0	Project		
\$0	Funded	\$9,766,826	\$45,901	\$321,199	Non-	\$48,741	\$3,300,000 II	\$367,100	2026
\$0	Unmet				Project	\$0	III		
				\$0	Project	\$1,106,975	IV		
						\$1,731,317	V		
						\$2,887,033	Total		
						\$0	Project		
\$0	Funded	\$7,179,281	\$0	\$375,134	Non-	\$33,694	\$3,300,000 II	\$351,000	2027
\$0	Unmet				Project	\$0	III		
				\$0	Project	\$0	IV		
						\$2,880,555	V		
						\$2,914,249	Total		
						\$0	Project		
\$0	Funded	\$4,674,824	\$0	\$276,728	Non-	\$0	\$3,300,000 II	\$262,100	2028
\$0	Unmet				Project	\$0	III		
				\$0	Project	\$0	IV		
						\$3,022,186	V		
						\$3,022,186	Total		
						\$0	Project		

Summary			Funded	Unmet
Functional Class	Rehabilitation	Prev. Maint.	Stop Gap	Stop Gap
Arterial	\$4,268,062	\$596,845	\$0	\$8,145
Collector	\$8,764,390	\$473,768	\$0	\$52,632
Other	\$449,647	\$125,015	\$0	\$7,832
Residential/Local	\$17,746,868	\$406,596	\$0	\$310,508
Grand Total:	\$31,228,967	\$1,602,224	\$0	\$379,118



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$3.3 Million per Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$3,300,000	\$100,000	2023	\$3,300,000	\$100,000	2027	\$3,300,000	\$351,000
2020	\$3,300,000	\$100,000	2024	\$3,300,000	\$97,000	2028	\$3,300,000	\$262,100
2021	\$3,300,000	\$100,000	2025	\$3,300,000	\$0			
2022	\$3,300,000	\$100,000	2026	\$3,300,000	\$367,100			

Projected	Network Averag	e PCI by year			
Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2019	44	49	4.89	9.50	
2020	41	52	3.92	7.58	
2021	38	54	4.81	8.48	
2022	35	57	5.15	10.06	
2023	33	60	6.71	12.74	
2024	31	64	5.29	9.52	
2025	29	68	8.12	15.34	
2026	27	71	8.94	17.36	
2027	25	76	9.75	18.04	
2028	23	80	8.08	14.36	

Percent Network Area by Functional Class and Condition Category

Condition in base year 2019, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	10.0%	5.6%	7.3%	2.9%	25.8%
II / III	5.8%	6.2%	4.0%	0.2%	16.1%
IV	3.7%	3.7%	17.7%	0.0%	25.1%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	12.3%	6.9%	13.7%	3.1%	35.9%
II / III	5.8%	5.8%	3.4%	0.0%	15.0%
IV	1.4%	2.9%	12.0%	0.0%	16.3%
V	0.0%	7.7%	24.2%	0.9%	32.8%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	19.5%	23.3%	46.0%	4.0%	92.7%



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$3.3 Million per Year

V	0.0%	0.0%	7.3%	0.0%	7.3%
Total	19.5%	23.3%	53.3%	4.0%	100.0%



Scenarios - Cost Summary

Interest: 3.00% Inflation: 3.00%

Scenario: \$3.75 Million per Year

Printed: 04/05/2019

Year	PM	Budget	Re	ehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2019	\$100,000	\$3,750,000	II III	\$42,776 \$0	Non- Project	\$100,901	\$0	\$20,878,530	Funded Unmet	\$0 \$202,796
			IV	\$3,103,832	Project	\$0				
			V	\$501,997						
		To	otal	\$3,648,605						
		Proj	ject	\$0						
2020	\$100,000	\$3,750,000	II	\$43,576	Non-	\$114,453	\$0	\$18,710,472	Funded	\$0
			Ш	\$0	Project				Unmet	\$973
		IV	\$302,111	Project	\$0					
		٧	\$3,288,218							
			otal	\$3,633,905						
		Proj	ject	\$0						
2021	2021 \$100,000	\$3,750,000	II	\$44,997	Non-	\$104,495	\$0	\$17,719,129	Funded	\$0
-			Ш	\$0	Project				Unmet	\$0
		IV	\$2,239,544	Project	\$0					
			V	\$1,357,126						
		To	otal	\$3,641,667						
		Proj	ject	\$0						
2022	\$100,000	\$3,750,000	II	\$0	Non-	\$107,760	\$0	\$15,758,483	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,331,496	Project	\$0				
			V	\$2,310,236						
			otal	\$3,641,732						
		Proj	ject	\$0						
2023	\$100,000	\$3,750,000	II	\$0	Non-	\$101,738	\$0	\$13,894,150	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$1,652,288	Project	\$0				
			V	\$1,995,221						
			otal	\$3,647,509						
	Proj	ject	\$0							

Year	PM	Budget	Re	ehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2024	\$66,403	\$3,750,000	II	\$30,835	Non-	\$97,792	\$0	\$10,812,654	Funded	\$0
			Ш	\$0	Project				Unmet	\$131,730
			IV	\$0	Project	\$0				
			V	\$3,599,563						
		T	otal	\$3,630,398						
		Pro	ject	\$0						
2025	\$0	\$3,750,000	II	\$37,811	Non-	\$3,461	\$0	\$7,733,704	Funded	\$0
			Ш	\$0	Project				Unmet	\$1,128
			IV	\$424,282	Project	\$0				
			V	\$3,280,157						
		T	otal	\$3,742,250						
		Pro	ject	\$0						
2026	\$367,100	\$3,750,000	II	\$48,741	Non-	\$343,006	\$24,094	4,094 \$5,693,528	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
		IV	\$1,106,975	Project	\$0					
		V	\$2,219,087							
		T	otal	\$3,374,803						
		Pro	ject	\$0						
2027	\$351,000	\$3,750,000	II	\$33,694	Non-	\$363,701	\$0	\$2,556,058	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$3,351,033						
			otal	\$3,384,727						
		Pro	ject	\$0						
2028	\$700,000	\$3,750,000	II	\$0	Non-	\$1,026,023	\$0	\$0	Funded	\$0
			Ш	\$0	Project				Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$2,217,434						
		T	otal	\$2,217,434						
		Pro	ject	\$0						
Summary	nary						Funde	d I	nmet	

Summary				
G 4			Funded	Unmet
Functional Class	Rehabilitation	Prev. Maint.	Stop Gap	Stop Gap
Arterial	\$4,268,062	\$1,239,887	\$0	\$8,145
Collector	\$8,687,583	\$542,290	\$0	\$47,090
Other	\$437,168	\$114,296	\$0	\$6,595
Residential/Local	\$21,170,217	\$466,857	\$0	\$274,795
Grand Total:	\$34,563,030	\$2,363,330	\$0	\$336,626



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$3.75 Million per Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$3,750,000	\$100,000	2023	\$3,750,000	\$100,000	2027	\$3,750,000	\$351,000
2020	\$3,750,000	\$100,000	2024	\$3,750,000	\$66,403	2028	\$3,750,000	\$700,000
2021	\$3,750,000	\$100,000	2025	\$3,750,000	\$0			
2022	\$3,750,000	\$100,000	2026	\$3,750,000	\$367,100			

Projected	Network Averag	e PCI by year			
Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles	
2019	44	50	5.10	10.01	
2020	41	54	4.56	8.99	
2021	38	57	4.92	8.77	
2022	35	61	5.21	9.93	
2023	33	64	6.87	13.25	
2024	31	69	5.78	10.40	
2025	29	74	8.19	15.14	
2026	27	78	9.52	18.93	
2027	25	83	11.21	21.24	
2028	23	87	10.88	19.83	

Percent Network Area by Functional Class and Condition Category

Condition in base year 2019, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	10.0%	5.6%	7.3%	2.9%	25.8%
II / III	5.8%	6.2%	4.0%	0.2%	16.1%
IV	3.7%	3.7%	17.7%	0.0%	25.1%
V	0.0%	7.8%	24.2%	0.9%	32.9%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	12.3%	7.9%	13.7%	3.1%	36.9%
II / III	5.8%	5.8%	3.4%	0.0%	15.0%
IV	1.4%	2.9%	12.0%	0.0%	16.3%
V	0.0%	6.6%	24.2%	0.9%	31.7%
Total	19.5%	23.3%	53.3%	4.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	19.5%	23.3%	53.3%	4.0%	100.0%



Scenarios - Network Condition Summary

Interest: 3%

Inflation: 3%

Printed: 04/05/2019

Scenario: \$3.75 Million per Year

Total	19.5%	23.3%	53.3%	4.0%	100.0%



Appendix F

Scenario 3: \$2.75 million per year (Improve Network PCI to 70)

Sections Selected for Treatment

Based on the recommended annual budget of \$2.75 million (Scenario 3), the "Sections Selected for Treatment" list provides the City with potential candidates for treatment based on each section's functional classification, PCI, treatment history, and available funding.

This list should not be blindly followed when preparing a street maintenance program. Engineering judgment and project level analysis should be applied to ensure that the treatment is appropriate and cost effective.





Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$2,750,000	\$100,000	2023	\$2,750,000	\$100,000	2027	\$2,750,000	\$351,000
2020	\$2,750,000	\$100,000	2024	\$2,750,000	\$100,000	2028	\$2,750,000	\$262,100
2021	\$2,750,000	\$100,000	2025	\$2,750,000	\$0			
2022	\$2,750,000	\$100,000	2026	\$2,750,000	\$367,100			

Year: 2019												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
2ND ST	PARK ST	NORTH END	2ND	0200	1,602	36	57,672	R	AC		42	41	100	\$301,176	9,694	2" MILL AND HMA OVERLAY+BASE REPAIRS
8TH ST	IST	G ST	8TH	0200	950	53	50,350	R	AC		45	44	100	\$262,939	9,527	2" MILL AND HMA OVERLAY+BASE REPAIRS
CASUGA ST	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	CASUGA	0100	792	33	26,136	R	AC		47	46	100	\$136,488	9,405	2" MILL AND HMA OVERLAY+BASE REPAIRS
E ST	12TH ST	11TH ST	E ST	0100	339	32	10,848	R	AC		47	46	100	\$56,651	9,394	2" MILL AND HMA OVERLAY+BASE REPAIRS
G ST	6TH ST	5TH ST	G ST	0300	325	27	8,775	R	AC		47	46	100	\$45,825	9,394	2" MILL AND HMA OVERLAY+BASE REPAIRS
G ST	5TH ST	2ND ST	G ST	0400	1,066	44	46,904	R	AC		46	45	100	\$244,944	9,465	2" MILL AND HMA OVERLAY+BASE REPAIRS
KIME ST	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	KIME	0100	810	33	26,730	R	AC		41	40	100	\$139,590	9,740	2" MILL AND HMA OVERLAY+BASE REPAIRS
LOPEZ LN	KIME ST	MATINEZ ST	LOPEZ	0300	219	36	7,884	R	AC		45	44	100	\$41,172	9,526	2" MILL AND HMA OVERLAY+BASE REPAIRS
MARTINEZ ST	WIDTH CHANGE	PAVEMENT CHANGE W/O LOPEZ	MARTINEZ	0200	320	37	11,840	R	AC		49	48	100	\$61,832	9,243	2" MILL AND HMA OVERLAY+BASE REPAIRS
PALM	SOUTH END	SOUTH AVE SOUTH	PALM	0100	329	18	5,922	R	AC		41	40	100	\$30,926	9,740	2" MILL AND HMA OVERLAY+BASE REPAIRS
SOUZA ST	RODRIGUEZ ST	ANCHOR AVE	SOUZA	0100	1,728	33	57,024	R	AC		43	42	100	\$297,792	9,641	2" MILL AND HMA OVERLAY+BASE REPAIRS
											Treatm	ent Total	\$	1,619,335		

** - Treatment from Project Selection 1 MTC StreetSaver SS1026

Scenarios Criteria:



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2019

Year: 2019												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
ADAMS AVE EAST	BRIDGE E/S	HILLS VALLEY RD	ADAMS	0400	305	20	6,100	С	AC		0	0	100	\$43,717	8,182	3" HMA+FDR 6"
										_	Treatm	ent Total		\$43,717		
SUMNER AVE EAST	WIDTH CHANGE (E)	ANCHOR AVE	SUMNER	0300	702	31	21,762	С	AC		69	68	77	\$26,598	9,269	CHIP SEAL+CRACK SEAL
											Treatm	ent Total		\$26,598		
MANNING AVE	HILL AVE (CITY LIMIT)	CULVERT	MANNING	0100	1,489	25	37,225	Α	AC		46	45	100	\$250,235	11,929	2" HMA+CIR+BASE REPAIRS
PARK BLVD EB	ANCHOR AVE SOUTH	CENTER ST	PARK EB	0100	2,595	39	101,205	Α	AC		47	46	100	\$680,323	11,860	2" HMA+CIR+BASE REPAIRS
										_	Treatm	ent Total		\$930,558		
3RD ST	G ST	PARK ST	3RD	0300	501	38	19,038	R	AC		60	60	70	\$6,875	36,588	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 10TH ST	J ST	IST	A-W/O 10TH	0200	444	15	6,660	0	AC		74	74	82	\$2,405	32,784	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 12TH ST	JST	END OF PAVEMENT (224' N/O I ST)	A-W/O 12TH	0100	695	15	10,425	0	AC		60	60	70	\$3,765	36,588	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 8TH ST	D ST	RAILROAD EAST	A-W/O 8TH	0200	717	15	10,755	0	AC		74	74	82	\$3,884	32,784	TYPE III SLURRY SEAL+CRACK SEAL
CENTER ST	D ST	ADAMS AVE	CENTER	0300	1,504	53	79,712	Α	AC		78	77	85	\$35,428	38,417	TYPE III SLURRY SEAL+CRACK SEAL
HILLS VALLEY RD SOUTH	PARK ST	ADAMS AVE	HILLSVALLE	0200	2,568	26	66,768	Α	AC		76	75	84	\$29,675	38,982	TYPE III SLURRY SEAL+CRACK SEAL
HILLS VALLEY RD SOUTH	ADAMS AVE	CITY LIMIT (N - PAVEMENT CHANGE)	HILLSVALLE	0300	415	26	10,790	Α	AC		79	78	86	\$4,796	37,898	TYPE III SLURRY SEAL+CRACK SEAL
LOPEZ LN	SOUZA ST	CASUGA ST	LOPEZ	0200	212	36	7,632	R	AC		70	69	79	\$2,756	32,627	TYPE III SLURRY SEAL+CRACK SEAL
DRONA ST	CASUGA CT	KIME CT	ORONAST	0100	214	36	7,704	R	AC		62	62	72	\$2,782	38,166	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	4TH ST	CENTER ST	SOUTH	0150	1,138	35	39,830	Α	AC		77	76	84	\$17,703	38,796	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	WIDTH CHANGE	MONSON AVE SOUTH	SOUTH	0500	610	60	36,600	Α	AC		76	75	84	\$16,267	38,982	TYPE III SLURRY SEAL+CRACK SEAL
ГАРІА СТ	C ST	NORTH END	TAPIA	0100	230	22	5,060	R	AC		75	75	83	\$1,828	32,715	TYPE III SLURRY SEAL+CRACK SEAL
										_	Treatm	ent Total		\$128,164		

** - Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year 2019 Area Total

777 351

Year 2019 Total

\$2,748,372

					Year 2	2019 Ar	ea Tota	al	/	77,351	Year 20	19 Total	1	52,748,372		
Year: 2020												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
2ND ST	RAILROAD AVE EAST	PARK ST	2ND	0100	1,702	33	56,166	R	AC		52	49	100	\$302,111	8,891	2" MILL AND HMA OVERLAY+BASE REPAIRS
ORANGE AVE	1,266' S/O SOUTH AVE EAST	SOUTH AVE EAST	ORANGE	0200	1,266	33	41,778	R	AC		50	47	100	\$224,720	9,053	2" MILL AND HMA OVERLAY+BASE REPAIRS
										_	Treatm	ent Total		\$526,831		
ADAMS AVE EAST	ANCHOR AVE EAST	10TH ST	ADAMS	0100	1,385	33	45,705	С	AC		29	22	100	\$337,380	7,944	3" HMA+FDR 6"
ADAMS AVE EAST	CENTER ST	PAVEMENT CHANGE	ADAMS	0200	1,127	38	42,826	С	AC		15	6	100	\$316,128	7,944	3" HMA+FDR 6"
RAILROAD AVE EAST	12TH ST	10TH ST	ERAILROAD	0200	945	31	29,295	С	AC		22	14	100	\$216,246	7,944	3" HMA+FDR 6"
RAILROAD AVE EAST	4TH ST	2ND ST	ERAILROAD	0500	985	24	23,640	С	AC	_	11	2	100	\$174,503	7,944	3" HMA+FDR 6"
											Treatm	ent Total	9	\$1,044,257		
SUMNER AVE EAST	WIDTH CHANGE (W)	WIDTH CHANGE (E)	SUMNER	0200	508	51	25,908	С	AC		73	69	78	\$32,616	9,207	CHIP SEAL+CRACK SEAL
											Treatm	ent Total		\$32,616		
MANNING AVE	CULVERT	MONSON AVE	MANNING	0200	1,000	25	25,000	Α	AC		26	21	100	\$191,695	9,755	3" HMA+FDR 8"
SOUTH AVE EAST	WIDTH CHANGE	ANCHOR AVE SOUTH	SOUTH	0300	1,290	48	61,920	Α	AC		27	22	100	\$474,789	9,755	3" HMA+FDR 8"
											Treatm	ent Total		\$666,484		
JACOBS AVE SOUTH	ADAMS AVE EAST	GUTIERREZ ST	JACOBS	0100	565	30	16,950	С	AC		49	44	100	\$120,270	8,224	2" HMA+CIR+BASE REPAIRS
PARLIER AVE EAST	MONSON AVE SOUTH	WIDTH CHANGE	PARLIER	0100	1,870	17	31,790	С	AC	_	46	41	100	\$225,568	8,324	2" HMA+CIR+BASE REPAIRS
											Treatm	ent Total		\$345,838		
3RD ST	G ST	PARK ST	3RD	0300	501	38	19,038	R	AC		60	69	78	\$7,082	41,674	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 12TH ST	J ST	END OF PAVEMENT (224' N/O I ST)	A-W/O 12TH	0100	695	15	10,425	0	AC		60	69	78	\$3,878	41,674	TYPE III SLURRY SEAL+CRACK SEAL
CENTER ST	PARK ST	D ST	CENTER	0400	1,000	53	53,000	Α	AC		79	76	84	\$24,263	37,675	TYPE III SLURRY SEAL+CRACK SEAL
PARLIER AVE EAST	WIDTH CHANGE	ANCHOR AVE	PARLIER	0200	650	43	27,950	С	AC		81	78	86	\$11,196	32,821	TYPE III SLURRY SEAL+CRACK SEAL

^{** -} Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2020																
1001. 2020												Treatn	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
SOUTH AVE EAST	HILLS VALLEY RD SOUTH	4TH ST	SOUTH	0100	1,455	35	50,925	Α	AC		81	78	86	\$23,313	36,852	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	CENTER ST	WIDTH CHANGE	SOUTH	0200	1,245	37	46,065	Α	AC		81	78	86	\$21,088	36,852	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	ANCHOR AVE SOUTH	WIDTH CHANGE	SOUTH	0400	1,859	48	89,232	Α	AC		79	76	84	\$40,849	37,694	TYPE III SLURRY SEAL+CRACK SEAL
											Treatm	nent Tota	l	\$131,669		
					Year 2	2020 Are	ea Tota	 al	6	97,613	Year 20	020 Tota	l \$2	2,747,695		

											Treatm	ent Tota	۱	\$1,636,375		
PARK BLVD WB	10TH ST	ANCHOR AVE SOUTH	PARK WB	0200	2,595	39	101,205	Α	AC	_	56	49	100	\$721,755	10,937	2" HMA+CIR+BASE REPAIRS
ANCHOR AVE SOUTH		PARK ST	ANCHOR	0200	2,554	49	125,146	С	AC		55	46	100	\$914,620		2" HMA+CIR+BASE REPAIRS
											Treatm	ent Tota	l	\$42,045		
SUMNER AVE EAST	MONSON AVE SOUTH	WIDTH CHANGE	SUMNER	0100	1,297	25	32,425	С	AC		75	69	78	\$42,045	8,847	CHIP SEAL+CRACK SEAL
										_	Treatm	ent Tota	l	\$365,308		
RAILROAD AVE WEST	ANCHOR AVE SOUTH	12TH ST	WRAILROAD	0100	709	24	17,016	С	AC		4	0	100	\$129,375	7,713	3" HMA+FDR 6"
RAILROAD AVE EAST	10TH ST	8TH AVE	ERAILROAD	0300	1,001	31	31,031	С	AC		11	0	100	\$235,933	7,713	3" HMA+FDR 6"
											Treatm	ent Tota	I	\$603,169		
RODRIGUEZ ST	SOUTH AVE EAST	SOUZA ST	RODRIGUEZ	0100	1,251	37	46,287	R	AC		54	49	100	\$256,442	8,621	2" MILL AND HMA OVERLAY+BASE REPAIRS
MARTINEZ ST	W END	WIDTH CHANGE	MARTINEZ	0100	644	30	19,320	R	AC		54	49	100	\$107,038	8,621	2" MILL AND HMA OVERLAY+BASE REPAIRS
D ST	4TH ST	2ND ST	D ST	0300	722	33	23,826	R	AC		54	49	100	\$132,003	8,621	2" MILL AND HMA OVERLAY+BASE REPAIRS
4TH AVE	GUTIERREZ ST	BENJAMIN ST	4TH	0500	589	33	19,437	R	AC		54	49	100	\$107,686	8,631	2" MILL AND HMA OVERLAY+BASE REPAIRS
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
Year: 2021												Treatm	nent			

^{** -} Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2021												Treatm	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
ALLEY W/O 10TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 10TH	0100	1,567	15	23,505	0	AC		78	74	83	\$9,005		TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 11TH ST	IST	ALLEY S/O PARK ST	A-W/O 11TH	0200	1,181	14	16,534	0	AC		76	72	81	\$6,335		TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 12TH ST	ADAMS AVE EAST	C ST	A-W/O 12TH	0200	935	15	14,025	0	AC		78	74	83	\$5,374	,	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 4TH ST	ADAMS AVE EAST	B ST	A-W/O 4TH	0100	473	15	7,095	0	AC		88	84	91	\$2,719		TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 9TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 9TH	0200	1,874	15	28,110	0	AC		79	75	84	\$10,770		TYPE III SLURRY SEAL+CRACK SEAL
ANCHOR AVE SOUTH	PARK ST	ADAMS ST	ANCHOR	0300	2,579	40	103,160	С	AC		86	81	89	\$42,561		TYPE III SLURRY SEAL+CRACK SEAL
D ST	CENTER ST	4TH ST	D ST	0200	1,144	43	49,192	С	AC		89	84	91	\$20,296	- ,	TYPE III SLURRY SEAL+CRACK SEAL
ORONA ST	CASUGA CT	KIME CT	ORONAST	0100	214	36	7,704	R	AC		62	69	79	\$2,952		TYPE III SLURRY SEAL+CRACK SEAL

 Year 2021 Area Total
 665,018
 Treatment Total
 \$100,012

 Year 2021 Total
 \$2,746,909

Year: 2022												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
ADAMS AVE EAST	10TH ST	CENTER ST	ADAMS	0150	1,158	33	38,214	С	AC		39	23	100	\$299,262	7,488	3" HMA+FDR 6"
D ST	RAILROAD AVE EAST	CENTER ST	D ST	0100	1,660	43	71,380	С	AC		11	0	100	\$558,992	7,488	3" HMA+FDR 6"
RAILROAD AVE EAST	ANCHOR AVE SOUTH	12TH ST	ERAILROAD	0100	785	31	24,335	С	AC		37	20	100	\$190,573	7,488	3" HMA+FDR 6"
RAILROAD AVE EAST	6TH ST	4TH ST	ERAILROAD	0400	927	36	33,372	С	AC		15	0	100	\$261,344	7,488	3" HMA+FDR 6"
										_	Treatm	ent Total	\$	1,310,171		
ANCHOR AVE SOUTH	PARLIER AVE EAST	SOUTH AVE EAST	ANCHOR	0100	2,637	60	158,220	С	AC		60	48	100	\$1,191,029	7,625	2" HMA+CIR+BASE REPAIRS
JACOBS AVE SOUTH	GUTIERREZ ST	CITY LIMIT (N)	JACOBS	0200	622	30	18,660	С	AC		60	48	100	\$140,467	7,625	2" HMA+CIR+BASE REPAIRS
											Treatm	ent Total	\$	1,331,496		
ALLEY W/O 5TH ST	ADAMS AVE EAST	D ST	A-W/O 5TH	0100	1,351	15	20,265	0	AC		81	76	84	\$7,997	29,620	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 8TH ST	G ST	J ST	A-W/O 8TH	0400	1,340	14	18,760	0	AC		85	80	87	\$7,403	27,657	TYPE III SLURRY SEAL+CRACK SEAI

^{** -} Treatment from Project Selection



Year: 2022

LOPEZ LN

TAPIA CT

SOUTH AVE EAST

SOUTH AVE EAST

SUMNER AVE EAST

City of Orange Cove 33 Sixth Street Orange Cove, CA 93646

CASUGA ST

CENTER ST

SOUTH

MONSON AVE

ANCHOR AVE

NORTH END

LOPEZ

SOUTH

SOUTH

SUMNER

TAPIA

0200

0150

0500

0300

0100

Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Treatment

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current	PCI Before	After	Cost	Rating	Treatment
ALLEY W/O 9TH ST	J ST	ALLEY S/O PARK ST	A-W/O 9TH	0100	1,545	15	23,175	0	AC		82	77	85	\$9,145	29,319	TYPE III SLURRY SEAL+CRACK SEAL
CENTER ST	SOUTH AVE	IST	CENTER	0100	1,053	53	55,809	Α	AC		91	83	90	\$27,105	29,511	TYPE III SLURRY SEAL+CRACK SEAL
CENTER ST	IST	PARK ST	CENTER	0200	1,504	53	79,712	Α	AC		91	83	90	\$38,713	29,511	TYPE III SLURRY SEAL+CRACK SEAL
ORANGE AVE	SOUTH END OF STREET	1,266' S/O SOUTH AVE	ORANGE	0100	1,108	33	36,564	R	AC		79	74	82	\$14,429	29,960	TYPE III SLURRY SEAL+CRACK SEAL
		EAST														
		EAST									Treatm	ent Tota		\$104,792		
ALLEY W/O 10TH ST	J ST	IST	A-W/O 10TH	0200	444	15	6,660	0	AC		Treatm	ent Tota	T 79	\$104,792 \$26	736,735	SEAL CRACKS
ALLEY W/O 10TH ST ALLEY W/O 8TH ST	J ST D ST			0200 0200	444 717	15 15	6,660 10,755	0	AC AC	_				. ,	,	SEAL CRACKS SEAL CRACKS
		IST					,			_	74	77	79	\$26	736,735	
ALLEY W/O 8TH ST	D ST	I ST RAILROAD EAST	A-W/O 8TH	0200 0300	717	15	10,755	0	AC		74 74	77 77	79 79	\$26 \$42	736,735 1,103,175	SEAL CRACKS

7,632

39,830

36,600

21.762

5,060

R AC

A AC

A AC

C AC

R AC

 Year 2022 Area Total
 Treatment Total
 \$1,126

 Year 2022 Area Total
 864,035
 Year 2022 Total
 \$2,747,585

212

610

702

230

1,138

36

35

60

31

22

Year: 2023 Treatment Area FC Surf PCI Street Name Begin Location End Location Street ID Section ID Length Width Area ID Current PCI Cost Rating Treatment Type PCI Before After ALLEY N/O PARK ST 8TH ST 6TH ST A-N/OPARK \$86.204 6.364 3" HMA+FDR 5" 0100 654 17 11,118 0 AC 17 2 100 12TH ST 331 0 0 ALLEY S/O PARK ST 11TH ST A-S/0PARK 0200 12 3,972 O AC 100 \$30,797 6,364 3" HMA+FDR 5"

Treatment Total \$117,001

70

77

76

69

75

74

78

77

70

78

76

80

79

72

80

\$36

\$151

\$145

\$116

\$19

693,263 SEAL CRACKS

1,089,416 SEAL CRACKS

1,073,852 SEAL CRACKS

595,087 SEAL CRACKS

746,748 SEAL CRACKS

** - Treatment from Project Selection

SOUZA ST

WIDTH CHANGE

WIDTH CHANGE

4TH ST

(E) C ST

6

MTC StreetSaver

Scenarios Criteria:



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2023

Year: 2023												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
10TH ST	PARK ST	RAILROAD AVE WEST	10TH	0300	258	32	8,256	R	AC		57	49	100	\$48,526	8,170	2" MILL AND HMA OVERLAY+BASE REPAIRS
CELAYA ST	VILLAREAL ST	MARTINEZ ST	CELAYA ST	0100	981	36	35,316	R	AC		56	47	100	\$207,576	8,266	2" MILL AND HMA OVERLAY+BASE REPAIRS
										_	Treatm	nent Total		\$256,102		
RAILROAD AVE EAST	2ND ST	HILLS VALLEY RD SOUTH	ERAILROAD	0600	880	24	21,120	С	AC		9	0	100	\$170,358	7,270	3" HMA+FDR 6"
MONSON AVE SOUTH	PARLIER AVE EAST	SOUTH AVE	MONSON	0200	2,574	17	43,758	С	AC		23	0	100	\$352,959	7,270	3" HMA+FDR 6"
MONSON AVE SOUTH	SOUTH AVE	SUMNER AVE EAST	MONSON	0300	2,587	17	43,979	С	AC		37	14	100	\$354,742	7,270	3" HMA+FDR 6"
										_	Treatm	nent Total		\$878,059		
PARK BLVD EB	CENTER ST	HILLS VALLEY RD	PARK EB	0200	2,563	36	92,268	Α	AC		61	49	100	\$698,093	10,318	2" HMA+CIR+BAS REPAIRS
PARK BLVD WB	10TH ST	CENTER ST	PARK WB	0100	2,563	36	92,268	Α	AC		60	47	100	\$698,093	10,418	2" HMA+CIR+BAS REPAIRS
										_	Treatm	nent Total		\$1,396,186		
11TH ST	PARK S	RAILROAD AVE WEST	11TH	0300	510	36	18,360	R	AC		90	82	90	\$7,463	24,347	TYPE III SLURRY SEAL+CRACK SE
BRD ST	RAILROAD AVE WEST	G ST	3RD	0200	1,051	36	37,836	R	AC		90	82	90	\$15,378	24,347	TYPE III SLURRY SEAL+CRACK SE
3RD ST	GUTIERREZ ST	BENJAMIN ST	3RD	0500	589	33	19,437	R	AC		86	79	87	\$7,900	27,407	TYPE III SLURRY SEAL+CRACK SE
ALLEY S/O PARK ST	11TH ST	10TH ST	A-S/OPARK	0300	342	22	7,524	0	AC		90	82	90	\$3,059	,-	TYPE III SLURRY SEAL+CRACK SE
CELAYA WY	HOPE AVE	SERNA AVE	CELAYA WY	0100	258	40	10,320	R	AC		92	84	90	\$4,195	22,845	TYPE III SLURRY SEAL+CRACK SE
CITRUS AVE	ADAMS AVE EAST	NORTH END	CITRUS	0100	381	33	12,573	R	AC		92	84	91	\$5,111	22,699	TYPE III SLURRY SEAL+CRACK SE
G ST	ANCHOR AVE SOUTH	10TH ST	G ST	0100	1,420	53	75,260	R	AC		93	84	91	\$30,589	21,994	TYPE III SLURRY SEAL+CRACK SE
HOPE AVE	WEST END	CELAYA WY	HOPE	0100	613	34	20,842	R	AC		92	84	91	\$8,471	22,694	TYPE III SLURRY SEAL+CRACK SE
ORONA WY	HOPE AVE	SERNA AVE	ORONA	0100	278	40	11,120	R	AC		92	84	91	\$4,520	22,694	TYPE III SLURRY SEAL+CRACK SE
SERNA AVE	ORONA WY	CELAYA WY	SERNA	0100	492	36	17,712	R	AC		90	82	90	\$7,199	24,341	TYPE III SLURRY SEAL+CRACK SE



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

										Treatmer	nt Total		\$93,885		
3RD ST	G ST	PARK ST	3RD	0300	501	38	19,038	R	AC	60	75	77	\$87	948,083	SEAL CRACKS
ALLEY W/O 12TH ST	J ST	END OF PAVEMENT (224' N/O I ST)	A-W/O 12TH	0100	695	15	10,425	0	AC	60	75	77	\$48	948,083	SEAL CRACKS
CENTER ST	PARK ST	D ST	CENTER	0400	1,000	53	53,000	Α	AC	79	78	80	\$207	1,057,097	SEAL CRACKS
MANNING AVE	HILL AVE (CITY LIMIT)	CULVERT	MANNING	0100	1,489	25	37,225	Α	AC	46	84	86	\$67	1,811,864	SEAL CRACKS
PARK BLVD EB	ANCHOR AVE SOUTH	CENTER ST	PARK EB	0100	2,595	39	101,205	Α	AC	47	84	86	\$183	1,811,864	SEAL CRACKS
PARLIER AVE EAST	WIDTH CHANGE	ANCHOR AVE	PARLIER	0200	650	43	27,950	С	AC	81	80	81	\$99	810,816	SEAL CRACKS
SOUTH AVE EAST	HILLS VALLEY RD SOUTH	4TH ST	SOUTH	0100	1,455	35	50,925	Α	AC	81	80	81	\$182	1,071,683	SEAL CRACKS
SOUTH AVE EAST	CENTER ST	WIDTH CHANGE	SOUTH	0200	1,245	37	46,065	Α	AC	81	80	81	\$164	1,071,683	SEAL CRACKS
SOUTH AVE EAST	ANCHOR AVE SOUTH	WIDTH CHANGE	SOUTH	0400	1,859	48	89,232	Α	AC	79	78	80	\$349	1,055,685	SEAL CRACKS
SUMNER AVE EAST	WIDTH CHANGE (W)	WIDTH CHANGE (E)	SUMNER	0200	508	51	25,908	С	AC	73	71	74	\$136	610,358	SEAL CRACKS
										Treatmer	nt Total		\$1,522		
					Year 202	23 Ar	ea Tota	 il	1,044,012	Year 2023	3 Total	\$2	2,742,755		

										•					
Year: 2024												Treatm	ont		
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current	PCI Before	PCI After	Cost	Rating Treatment
10TH ST	J ST	H ST	10TH	0100	999	43	42,957	R	AC		8	0	100	\$343,060	6,179 3" HMA+FDR 5"
10TH ST	H ST	PARK ST	10TH	0200	1,012	45	45,540	R	AC		7	0	100	\$363,688	6,179 3" HMA+FDR 5"
10TH ST	RAILROAD AVE EAST	C ST	10TH	0400	989	52	51,428	R	AC		17	0	100	\$410,710	6,179 3" HMA+FDR 5"
											Treatm	ent Total	\$	1,117,458	
PARLIER AVE EAST	WIDTH CHANGE	JACOBS AVE	PARLIER	0400	1,234	20	24,680	С	AC		29	0	100	\$205,045	7,058 3" HMA+FDR 6"
RAILROAD AVE WEST	12TH ST	11TH ST	WRAILROAD	0200	442	36	15,912	С	AC		0	0	100	\$132,199	7,058 3" HMA+FDR 6"
RAILROAD AVE WEST	11TH ST	PARK ST	WRAILROAD	0300	910	25	22,750	С	AC		8	0	100	\$189,010	7,058 3" HMA+FDR 6"
RAILROAD AVE WEST	PARK ST	CNETER ST	WRAILROAD	0400	900	33	29,700	С	AC		0	0	100	\$246,752	7,058 3" HMA+FDR 6"
RAILROAD AVE WEST	CENTER ST	5TH ST	WRAILROAD	0500	960	32	30,720	С	AC		1	0	100	\$255,226	7,058 3" HMA+FDR 6"
RAILROAD AVE WEST	5TH ST	3RD ST	WRAILROAD	0600	945	24	22,680	С	AC		4	0	100	\$188,429	7,058 3" HMA+FDR 6"
RAILROAD AVE WEST	3RD ST	HILLS VALLEY RD SOUTH	WRAILROAD	0700	1,344	25	33,600	С	AC		7	0	100	\$279,154	7,058 3" HMA+FDR 6"
										_	Treatm	ent Total	\$	1.495.815	

** - Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2024												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
SUMNER AVE EAST	WIDTH CHANGE (E)	ANCHOR AVE	SUMNER	0300	702	31	21,762	С	AC	_	69	67	76	\$30,835	7,861	CHIP SEAL+CRACK SEAL
											Treatm	nent Total		\$30,835		
ADAMS AVE EAST	PAVEMENT CHANGE	BRIDGE W/S	ADAMS	0300	998	38	37,924	С	AC		93	83	90	\$17,098	29,202	TYPE III SLURRY SEAL+CRACK SEAL
C ST	9TH ST	CENTER ST	C ST	0200	737	36	26,532	R	AC		93	83	90	\$11,108	23,179	TYPE III SLURRY SEAL+CRACK SEAL
C ST	CENTER ST	4TH ST	C ST	0300	1,140	36	41,040	R	AC		93	83	90	\$17,181	23,179	TYPE III SLURRY SEAL+CRACK SEAL
G ST	10TH ST	CENTER ST	G ST	0200	1,137	53	60,261	R	AC		93	83	90	\$25,227	23,040	TYPE III SLURRY SEAL+CRACK SEAL
IST	ANCHOR AVE SOUTH	10TH ST	IST	0100	1,362	36	49,032	R	AC		93	83	90	\$20,527	23,040	TYPE III SLURRY SEAL+CRACK SEAL
LOPEZ LN	MARTINEZ ST	HOPE AVE	LOPEZ	0400	154	35	5,390	R	AC		93	83	90	\$2,257	23,040	TYPE III SLURRY SEAL+CRACK SEA
											Treatm	nent Total		\$93,398		
ALLEY W/O 10TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 10TH	0100	1,567	15	23,505	0	AC		78	78	80	\$94	703,241	SEAL CRACKS
ALLEY W/O 11TH ST	IST	ALLEY S/O PARK ST	A-W/O 11TH	0200	1,181	14	16,534	0	AC		76	76	78	\$74	682,024	SEAL CRACKS
ALLEY W/O 12TH ST	ADAMS AVE EAST	C ST	A-W/O 12TH	0200	935	15	14,025	0	AC		78	78	80	\$56	703,493	SEAL CRACKS
ALLEY W/O 9TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 9TH	0200	1,874	15	28,110	0	AC		79	79	81	\$107	706,054	SEAL CRACKS
ANCHOR AVE SOUTH	PARK ST	ADAMS ST	ANCHOR	0300	2,579	40	103,160	С	AC		86	83	84	\$306	834,875	SEAL CRACKS
JACOBS AVE SOUTH	ADAMS AVE EAST	GUTIERREZ ST	JACOBS	0100	565	30	16,950	С	AC		49	84	86	\$33	1,216,411	SEAL CRACKS
MANNING AVE	CULVERT	MONSON AVE	MANNING	0200	1,000	25	25,000	Α	AC		26	84	85	\$68	1,022,472	SEAL CRACKS
ORONA ST	CASUGA CT	KIME CT	ORONAST	0100	214	36	7,704	R	AC		62	75	78	\$36	953,216	SEAL CRACKS
PARLIER AVE EAST	MONSON AVE SOUTH	WIDTH CHANGE	PARLIER	0100	1,870	17	31,790	С	AC		46	84	86	\$61	1,216,411	SEAL CRACKS
SOUTH AVE EAST	WIDTH CHANGE	ANCHOR AVE SOUTH	SOUTH	0300	1,290	48	61,920	Α	AC		27	84	85	\$168	1,022,472	SEAL CRACKS
SUMNER AVE EAST	MONSON AVE SOUTH	WIDTH CHANGE	SUMNER	0100	1,297	25	32,425	С	AC		75	71	73	\$177	582,743	SEAL CRACKS
											Treatm	ent Total		\$1,180		
					Year 2	2024 Ar	ea Tota	 al	9	23,031	Year 20	024 Total	\$	2,738,686		

** - Treatment from Project Selection

MTC StreetSaver

9 SS1026

Scenarios Criteria:



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2025												Treatm	ont			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
10TH ST	C ST	ADAMS AVE EAST	10TH	0500	866	52	45,032	R	AC		3	0	100	\$370,420	5,999	3" HMA+FDR 5"
11TH ST	SOUTH AVE	IST	11TH	0100	1,018	36	36,648	R	AC		0	0	100	\$301,456	5,999	3" HMA+FDR 5"
11TH ST	IST	NORTH END	11TH	0200	1,312	36	47,232	R	AC		8	0	100	\$388,516	5,999	3" HMA+FDR 5"
11TH ST	RAILROAD AVE EAST	C ST	11TH	0400	560	36	20,160	R	AC		28	7	100	\$165,830	5,999	3" HMA+FDR 5"
11TH ST	C ST	ADAMS AVE EAST	11TH	0500	1,010	36	36,360	R	AC		17	0	100	\$299,087	5,999	3" HMA+FDR 5"
12TH ST	SOUTH ST	IST	12TH	0100	1,024	36	36,864	R	AC		39	21	100	\$303,232	5,999	3" HMA+FDR 5"
12TH ST	IST	PARK ST	12TH	0200	1,529	26	39,754	R	AC		33	13	100	\$327,005	5,999	3" HMA+FDR 5"
ALLEY S/O PARK ST	10TH ST	RAILROAD AVE WEST	A-S/OPARK	0400	564	14	7,896	0	AC		25	3	100	\$64,951	5,999	3" HMA+FDR 5"
ALLEY S/O PARK ST	ANCHOR AVE SOUTH	12TH ST	A-S/SOPARK	0100	610	12	7,320	0	AC		10	0	100	\$60,213	5,999	3" HMA+FDR 5"
										_	Treatn	nent Total		\$2,280,710		
SUMNER AVE EAST	WIDTH CHANGE (W)	WIDTH CHANGE (E)	SUMNER	0200	508	51	25,908	С	AC		73	69	78	\$37,811	7,817	CHIP SEAL+CRACK SEAL
										_	Treatn	nent Total		\$37,811		
MONSON AVE SOUTH	MANNING AVE EAST	PARLIER AVE EAST	MONSON	0100	2,579	20	51,580	С	AC		70	49	100	\$424,282	6,908	2" HMA+CIR+BASE REPAIRS
										_	Treatn	nent Total		\$424,282		
2ND ST	PARK ST	NORTH END	2ND	0200	1,602	36	57,672	R	AC		42	84	85	\$128	917,330	SEAL CRACKS
8TH ST	IST	G ST	8TH	0200	950	53	50,350	R	AC		45	84	85	\$111	917,330	SEAL CRACKS
ALLEY W/O 10TH ST	J ST	IST	A-W/O 10TH	0200	444	15	6,660	0	AC		74	75	77	\$33	650,393	SEAL CRACKS
ALLEY W/O 4TH ST	ADAMS AVE EAST	B ST	A-W/O 4TH	0100	473	15	7,095	0	AC		88	84	85	\$21	680,443	SEAL CRACKS
ALLEY W/O 5TH ST	ADAMS AVE EAST	D ST	A-W/O 5TH	0100	1,351	15	20,265	0	AC		81	79	81	\$78	691,275	SEAL CRACKS
ALLEY W/O 8TH ST	D ST	RAILROAD EAST	A-W/O 8TH	0200	717	15	10,755	0	AC		74	75	77	\$53	650,393	SEAL CRACKS
ALLEY W/O 8TH ST	G ST	J ST	A-W/O 8TH	0400	1,340	14	18,760	0	AC		85	82	84	\$59	690,659	SEAL CRACKS
ALLEY W/O 9TH ST	J ST	ALLEY S/O PARK ST	(A-W/O 9TH	0100	1,545	15	23,175	0	AC		82	80	82	\$85	692,059	SEAL CRACKS
ANCHOR AVE SOUTH	SOUTH AVE	PARK ST	ANCHOR	0200	2,554	49	125,146	С	AC		55	84	86	\$245	1,180,982	SEAL CRACKS
CASUGA ST	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	CASUGA	0100	792	33	26,136	R	AC		47	84	85	\$58	917,330	SEAL CRACKS
CENTER ST	SOUTH AVE	IST	CENTER	0100	1,053	53	55,809	Α	AC		91	83	85	\$166	1,026,079	SEAL CRACKS

^{** -} Treatment from Project Selection

10



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2025

16ai. 2023												Treatn	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
CENTER ST	IST	PARK ST	CENTER	0200	1,504	53	79,712	Α	AC		91	83	85	\$236	1,026,079	SEAL CRACKS
CENTER ST	D ST	ADAMS AVE	CENTER	0300	1,504	53	79,712	Α	AC		78	74	76	\$395	928,419	SEAL CRACKS
D ST	CENTER ST	4TH ST	D ST	0200	1,144	43	49,192	С	AC		89	83	85	\$143	825,670	SEAL CRACKS
E ST	12TH ST	11TH ST	E ST	0100	339	32	10,848	R	AC		47	84	85	\$24	917,330	SEAL CRACKS
G ST	6TH ST	5TH ST	G ST	0300	325	27	8,775	R	AC		47	84	85	\$20	917,330	SEAL CRACKS
G ST	5TH ST	2ND ST	G ST	0400	1,066	44	46,904	R	AC		46	84	85	\$104	917,330	SEAL CRACKS
HILLS VALLEY RD SOUTH	PARK ST	ADAMS AVE	HILLSVALLE	0200	2,568	26	66,768	Α	AC		76	73	75	\$351	902,507	SEAL CRACKS
HILLS VALLEY RD SOUTH	ADAMS AVE	CITY LIMIT (N - PAVEMENT CHANGE)	HILLSVALLE	0300	415	26	10,790	Α	AC		79	75	77	\$52	947,277	SEAL CRACKS
KIME ST	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	KIME	0100	810	33	26,730	R	AC		41	84	85	\$59	917,330	SEAL CRACKS
LOPEZ LN	SOUZA ST	CASUGA ST	LOPEZ	0200	212	36	7,632	R	AC		70	71	74	\$43	606,979	SEAL CRACKS
LOPEZ LN	KIME ST	MATINEZ ST	LOPEZ	0300	219	36	7,884	R	AC		45	84	85	\$18	917,330	SEAL CRACKS
MARTINEZ ST	WIDTH CHANGE	PAVEMENT CHANGE W/O LOPEZ	MARTINEZ	0200	320	37	11,840	R	AC		49	84	85	\$27	917,330	SEAL CRACKS
ORANGE AVE	SOUTH END OF STREET	1,266' S/O SOUTH AVE EAST	ORANGE	0100	1,108	33	36,564	R	AC		79	78	80	\$154	679,481	SEAL CRACKS
PALM	SOUTH END	SOUTH AVE SOUTH	PALM	0100	329	18	5,922	R	AC		41	84	85	\$14	917,330	SEAL CRACKS
PARK BLVD WB	10TH ST	ANCHOR AVE SOUTH	PARK WB	0200	2,595	39	101,205	Α	AC		56	84	86	\$194	1,707,856	SEAL CRACKS
SOUTH AVE EAST	4TH ST	CENTER ST	SOUTH	0150	1,138	35	39,830	Α	AC		77	73	76	\$203	916,428	SEAL CRACKS
SOUTH AVE EAST	WIDTH CHANGE	MONSON AVE SOUTH	SOUTH	0500	610	60	36,600	Α	AC		76	73	75	\$193	902,507	SEAL CRACKS
SOUZA ST	RODRIGUEZ ST	ANCHOR AVE	SOUZA	0100	1,728	33	57,024	R	AC		43	84	85	\$126	917,330	SEAL CRACKS
TAPIA CT	C ST	NORTH END	TAPIA	0100	230	22	5,060	R	AC		75	75	78	\$24	654,224	SEAL CRACKS
											Treatn	nent Tota	l	\$3,417		

** - Treatment from Project Selection

MTC StreetSaver

1,445,569

Year 2025 Total

\$2,746,220

Year 2025 Area Total



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2026												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
12TH ST	PARK ST	RAILROAD AVE WEST	12TH	0300	969	36	34,884	R	AC		35	12	100	\$295,554	5,824	3" HMA+FDR 5"
12TH ST	RAILROAD AVE EAST	ADAMS AVE EAST	12TH	0400	1,301	36	46,836	R	AC		7	0	100	\$396,817	5,824	3" HMA+FDR 5"
2ND ST	GUTIERREZ ST	BENJAMIN ST	2ND	0300	589	33	19,437	R	AC		34	12	100	\$164,680	5,824	3" HMA+FDR 5"
3RD ST	SOUTH AVE	RAILROAD AVE WEST	3RD	0100	871	30	26,130	R	AC		7	0	100	\$221,386	5,824	3" HMA+FDR 5"
ALLEY S/O PARK ST	6TH ST	4TH ST	A-S/OPARK	0500	684	18	12,312	0	AC		0	0	100	\$104,313	5,824	3" HMA+FDR 5"
										-	Treatn	nent Total	\$	31,182,750		
SUMNER AVE EAST	MONSON AVE SOUTH	WIDTH CHANGE	SUMNER	0100	1,297	25	32,425	С	AC		75	68	77	\$48,741	7,552	CHIP SEAL+CRACK SEAL
										_	Treatn	nent Total		\$48,741		
HILLS VALLEY RD SOUTH	SOUTH AVE EAST	PARK ST	HILLSVALLE	0100	2,573	26	66,898	Α	AC		68	48	100	\$553,079	9,468	2" HMA+CIR+BASE REPAIRS
PARLIER AVE EAST	ANCHOR AVE	WIDTH CHANGE	PARLIER	0300	1,362	48	65,376	С	AC		71	47	100	\$553,896	6,798	2" HMA+CIR+BASE REPAIRS
										_	Treatn	nent Total	\$	31,106,975		
2ND ST	PARK ST	NORTH END	2ND	0200	1,602	36	57,672	R	AC		42	84	90	\$25,614	22,097	TYPE III SLURRY SEAL+CRACK SEAI
8TH ST	IST	G ST	8TH	0200	950	53	50,350	R	AC		45	84	90	\$22,362	22,097	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 10TH ST	J ST	IST	A-W/O 10TH	0200	444	15	6,660	0	AC		74	75	84	\$2,958	26,439	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 8TH ST	D ST	RAILROAD EAST	A-W/O 8TH	0200	717	15	10,755	0	AC		74	75	84	\$4,777	26,439	TYPE III SLURRY SEAL+CRACK SEAL
ADAMS AVE EAST	BRIDGE E/S	HILLS VALLEY RD	ADAMS	0400	305	20	6,100	С	AC		0	83	90	\$2,918	27,442	TYPE III SLURRY SEAL+CRACK SEAL
CASUGA ST	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	CASUGA	0100	792	33	26,136	R	AC		47	84	90	\$11,608	22,097	TYPE III SLURRY SEAL+CRACK SEAL
CENTER ST	D ST	ADAMS AVE	CENTER	0300	1,504	53	79,712	Α	AC		78	74	83	\$43,572	31,817	TYPE III SLURRY SEAL+CRACK SEAL
E ST	12TH ST	11TH ST	E ST	0100	339	32	10,848	R	AC		47	84	90	\$4,818	22,097	TYPE III SLURRY SEAL+CRACK SEAI
G ST	6TH ST	5TH ST	G ST	0300	325	27	8,775	R	AC		47	84	90	\$3,898	22,097	TYPE III SLURRY SEAL+CRACK SEA
G ST	5TH ST	2ND ST	G ST	0400	1,066	44	46,904	R	AC		46	84	90	\$20,832	22,097	TYPE III SLURRY SEAL+CRACK SEAI

^{** -} Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2026

Year: 2026												Treatn	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
HILLS VALLEY RD SOUTH	PARK ST	ADAMS AVE	HILLSVALLE	0200	2,568	26	66,768	Α	AC		76	73	82	\$36,497	31,812	TYPE III SLURRY SEAL+CRACK SEAL
HILLS VALLEY RD SOUTH	ADAMS AVE	CITY LIMIT (N - PAVEMENT CHANGE)	HILLSVALLE	0300	415	26	10,790	Α	AC		79	75	83	\$5,898	31,716	TYPE III SLURRY SEAL+CRACK SEAL
IME ST	RODRIGUEZ ST	PAVEMENT CHANGE W/O LOPEZ	KIME	0100	810	33	26,730	R	AC		41	84	90	\$11,872	22,097	TYPE III SLURRY SEAL+CRACK SEAL
LOPEZ LN	SOUZA ST	CASUGA ST	LOPEZ	0200	212	36	7,632	R	AC		70	72	81	\$3,390	26,669	TYPE III SLURRY SEAL+CRACK SEAL
OPEZ LN	KIME ST	MATINEZ ST	LOPEZ	0300	219	36	7,884	R	AC		45	84	90	\$3,502	22,097	TYPE III SLURRY SEAL+CRACK SEAL
MANNING AVE	HILL AVE (CITY LIMIT)	CULVERT	MANNING	0100	1,489	25	37,225	Α	AC		46	81	88	\$94,108	7,726	TYPE III SLURRY SEAL+CRACK SEAL
MARTINEZ ST	WIDTH CHANGE	PAVEMENT CHANGE W/O LOPEZ	MARTINEZ	0200	320	37	11,840	R	AC		49	84	90	\$5,259	22,097	TYPE III SLURRY SEAL+CRACK SEAL
PALM	SOUTH END	SOUTH AVE SOUTH	PALM	0100	329	18	5,922	R	AC		41	84	90	\$2,631	22,097	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	4TH ST	CENTER ST	SOUTH	0150	1,138	35	39,830	Α	AC		77	74	82	\$21,772	31,825	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	WIDTH CHANGE	MONSON AVE SOUTH	SOUTH	0500	610	60	36,600	Α	AC		76	73	82	\$20,006	31,812	TYPE III SLURRY SEAL+CRACK SEAL
SOUZA ST	RODRIGUEZ ST	ANCHOR AVE	SOUZA	0100	1,728	33	57,024	R	AC		43	84	90	\$25,326	22,097	TYPE III SLURRY SEAL+CRACK SEAL
TAPIA CT	C ST	NORTH END	TAPIA	0100	230	22	5,060	R	AC	_	75	76	84	\$2,248	26,296	TYPE III SLURRY SEAL+CRACK SEAL
											Treatm	nent Tota	l	\$375,866		
1TH ST	PARK S	RAILROAD AVE WEST	11TH	0300	510	36	18,360	R	AC		90	84	85	\$52	650,012	SEAL CRACKS
ND ST	RAILROAD AVE EAST	PARK ST	2ND	0100	1,702	33	56,166	R	AC		52	84	85	\$128	890,612	SEAL CRACKS
RD ST	RAILROAD AVE WEST	G ST	3RD	0200	1,051	36	37,836	R	AC		90	84	85	\$106	650,012	SEAL CRACKS
BRD ST	G ST	PARK ST	3RD	0300	501	38	19,038	R	AC		60	74	76	\$99	836,215	SEAL CRACKS
BRD ST	GUTIERREZ ST	BENJAMIN ST	3RD	0500	589	33	19,437	R	AC		86	82	83	\$65	671,859	SEAL CRACKS
ALLEY S/O PARK ST	11TH ST	10TH ST	A-S/OPARK	0300	342	22	7,524	0	AC		90	84	85	\$22	650,012	SEAL CRACKS
ALLEY W/O 12TH ST	J ST	END OF PAVEMENT (224' N/O I ST)	A-W/O 12TH	0100	695	15	10,425	0	AC		60	74	76	\$54	836,215	SEAL CRACKS

^{** -} Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year:	2026		
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												Treatm	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating T	reatment
ANCHOR AVE SOUTH	PARLIER AVE EAST	SOUTH AVE EAST	ANCHOR	0100	2,637	60	158,220	С	AC		60	84	86	\$319	1,146,584 S	EAL CRACKS
CENTER ST	PARK ST	D ST	CENTER	0400	1,000	53	53,000	Α	AC		79	73	76	\$279	889,211 S	EAL CRACKS
JACOBS AVE SOUTH	GUTIERREZ ST	CITY LIMIT (N)	JACOBS	0200	622	30	18,660	С	AC		60	84	86	\$38	1,146,584 S	EAL CRACKS
ORANGE AVE	1,266' S/O SOUTH AVE EAST	SOUTH AVE EAST	ORANGE	0200	1,266	33	41,778	R	AC		50	84	85	\$95	890,612 S	EAL CRACKS
PARLIER AVE EAST	WIDTH CHANGE	ANCHOR AVE	PARLIER	0200	650	43	27,950	С	AC		81	75	77	\$140	630,730 S	EAL CRACKS
SERNA AVE	ORONA WY	CELAYA WY	SERNA	0100	492	36	17,712	R	AC		90	84	85	\$50	649,909 S	EAL CRACKS
SOUTH AVE EAST	HILLS VALLEY RD SOUTH	4TH ST	SOUTH	0100	1,455	35	50,925	Α	AC		81	75	77	\$252	918,192 S	EAL CRACKS
SOUTH AVE EAST	CENTER ST	WIDTH CHANGE	SOUTH	0200	1,245	37	46,065	Α	AC		81	75	77	\$228	918,192 S	EAL CRACKS
SOUTH AVE EAST	ANCHOR AVE SOUTH	WIDTH CHANGE	SOUTH	0400	1,859	48	89,232	Α	AC		79	73	76	\$470	887,962 S	EAL CRACKS
											Treatm	ent Tota	I	\$2,397		

Year 2026 Area Total 1,593,843 Year 2026 Total \$2,716,729

Year:	2027

											Treatm	ent Total		\$33,694	
SUMNER AVE EAST	WIDTH CHANGE (E)	ANCHOR AVE	SUMNER	0300	702	31	21,762	С	AC		69	69	78	\$33,694	7,408 CHIP SEAL+CRACK SEAL
											Treatm	ent Total	\$2	2,339,494	
ALLEY S/O PARK ST	4TH ST	2ND ST	A-S/OPARK	0600	643	18	11,574	0	AC		22	0	100	\$101,003	5,655 3" HMA+FDR 5"
5TH AVE	GUTIERREZ ST	BENJAMIN ST	5TH	0500	589	33	19,437	R	AC		25	0	100	\$169,620	5,655 3" HMA+FDR 5"
5TH AVE	SOUTH AVE	RAILROAD AVE WEST	5TH	0100	1,346	21	28,266	R	AC		25	0	100	\$246,668	5,655 3" HMA+FDR 5"
4TH AVE	D ST	ADAMS AVE	4TH	0400	1,519	43	65,317	R	AC		13	0	100	\$569,998	5,655 3" HMA+FDR 5"
4TH AVE	PARK ST	D ST	4TH	0300	998	42	41,916	R	AC		10	0	100	\$365,786	5,655 3" HMA+FDR 5"
4TH AVE	RAILROAD AVE WEST	PARK ST	4TH	0200	1,088	26	28,288	R	AC		19	0	100	\$246,860	5,655 3" HMA+FDR 5"
4TH AVE	SOUTH AVE	RAILROAD AVE WEST	4TH	0100	1,132	31	35,092	R	AC		15	0	100	\$306,236	5,655 3" HMA+FDR 5"
3RD ST	PARK ST	D ST	3RD	0400	1,061	36	38,196	R	AC		31	3	100	\$333,323	5,655 3" HMA+FDR 5"
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating Treatment
Year: 2027												Treatm	ent		

** - Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2027												Treatm	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
ND ST	RAILROAD AVE EAST	PARK ST	2ND	0100	1,702	33	56,166	R	AC		52	84	90	\$25,693	21,454	TYPE III SLURRY SEAL+CRACK SEAL
RD ST	G ST	PARK ST	3RD	0300	501	38	19,038	R	AC		60	75	83	\$8,709	37,219	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 12TH ST	J ST	END OF PAVEMENT (224' N/O I ST)	A-W/O 12TH	0100	695	15	10,425	0	AC		60	75	83	\$4,769	37,219	TYPE III SLURRY SEAL+CRACK SEAL
ADAMS AVE EAST	ANCHOR AVE EAST	10TH ST	ADAMS	0100	1,385	33	45,705	С	AC		29	83	90	\$22,516	26,643	TYPE III SLURRY SEAL+CRACK SEAL
ADAMS AVE EAST	CENTER ST	PAVEMENT CHANGE	ADAMS	0200	1,127	38	42,826	С	AC		15	83	90	\$21,098	26,643	TYPE III SLURRY SEAL+CRACK SEAL
CENTER ST	PARK ST	D ST	CENTER	0400	1,000	53	53,000	Α	AC		79	74	82	\$29,840	30,898	TYPE III SLURRY SEAL+CRACK SEAL
RAILROAD AVE EAST	12TH ST	10TH ST	ERAILROAD	0200	945	31	29,295	С	AC		22	83	90	\$14,432	26,643	TYPE III SLURRY SEAL+CRACK SEAL
RAILROAD AVE EAST	4TH ST	2ND ST	ERAILROAD	0500	985	24	23,640	С	AC		11	83	90	\$11,646	26,643	TYPE III SLURRY SEAL+CRACK SEAL
ACOBS AVE SOUTH	ADAMS AVE EAST	GUTIERREZ ST	JACOBS	0100	565	30	16,950	С	AC		49	81	88	\$8,351	27,594	TYPE III SLURRY SEAL+CRACK SEAL
MANNING AVE	CULVERT	MONSON AVE	MANNING	0200	1,000	25	25,000	Α	AC		26	79	87	\$14,076	29,701	TYPE III SLURRY SEAL+CRACK SEAL
DRANGE AVE	1,266' S/O SOUTH AVE EAST	SOUTH AVE EAST	ORANGE	0200	1,266	33	41,778	R	AC		50	84	90	\$19,112	21,454	TYPE III SLURRY SEAL+CRACK SEAL
PARLIER AVE EAST	MONSON AVE SOUTH	WIDTH CHANGE	PARLIER	0100	1,870	17	31,790	С	AC		46	81	88	\$15,661	27,594	TYPE III SLURRY SEAL+CRACK SEAL
PARLIER AVE EAST	WIDTH CHANGE	ANCHOR AVE	PARLIER	0200	650	43	27,950	С	AC		81	75	83	\$13,770	25,648	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	HILLS VALLEY RD SOUTH	4TH ST	SOUTH	0100	1,455	35	50,925	Α	AC		81	75	83	\$28,672	30,800	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	CENTER ST	WIDTH CHANGE	SOUTH	0200	1,245	37	46,065	Α	AC		81	75	83	\$25,936	30,800	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	WIDTH CHANGE	ANCHOR AVE SOUTH	SOUTH	0300	1,290	48	61,920	Α	AC		27	79	87	\$34,862	29,701	TYPE III SLURRY SEAL+CRACK SEAL
SOUTH AVE EAST	ANCHOR AVE SOUTH	WIDTH CHANGE	SOUTH	0400	1,859	48	89,232	Α	AC		79	74	82	\$50,239	30,898	TYPE III SLURRY SEAL+CRACK SEAL
										_	Treatn	nent Tota		\$349,382		
TH AVE	GUTIERREZ ST	BENJAMIN ST	4TH	0500	589	33	19,437	R	AC		54	84	85	\$46	864,672	SEAL CRACKS
ALLEY W/O 10TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 10TH	0100	1,567	15	23,505	0	AC		78	75	77	\$118	615,710	SEAL CRACKS
LLEY W/O 11TH ST	IST	ALLEY S/O PARK	A-W/O 11TH	0200	1,181	14	16,534	0	AC		76	73	76	\$90	594,953	SEAL CRACKS

** - Treatment from Project Selection



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2027

16a1. 2021												Treatm	ent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
ALLEY W/O 12TH ST	ADAMS AVE EAST	C ST	A-W/O 12TH	0200	935	15	14,025	0	AC		78	75	78	\$70	616,094	SEAL CRACKS
ALLEY W/O 9TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 9TH	0200	1,874	15	28,110	0	AC		79	76	78	\$136	628,296	SEAL CRACKS
ADAMS AVE EAST	PAVEMENT CHANGE	BRIDGE W/S	ADAMS	0300	998	38	37,924	С	AC		93	84	85	\$113	791,665	SEAL CRACKS
ANCHOR AVE SOUTH	PARK ST	ADAMS ST	ANCHOR	0300	2,579	40	103,160	С	AC		86	78	80	\$457	678,434	SEAL CRACKS
C ST	9TH ST	CENTER ST	C ST	0200	737	36	26,532	R	AC		93	84	86	\$76	624,339	SEAL CRACKS
C ST	CENTER ST	4TH ST	C ST	0300	1,140	36	41,040	R	AC		93	84	86	\$117	624,339	SEAL CRACKS
CELAYA WY	HOPE AVE	SERNA AVE	CELAYA WY	0100	258	40	10,320	R	AC		92	83	85	\$32	642,904	SEAL CRACKS
CITRUS AVE	ADAMS AVE EAST	NORTH END	CITRUS	0100	381	33	12,573	R	AC		92	83	85	\$39	642,565	SEAL CRACKS
D ST	4TH ST	2ND ST	D ST	0300	722	33	23,826	R	AC		54	84	85	\$56	864,672	SEAL CRACKS
G ST	ANCHOR AVE SOUTH	10TH ST	G ST	0100	1,420	53	75,260	R	AC		93	84	85	\$228	641,066	SEAL CRACKS
HOPE AVE	WEST END	CELAYA WY	HOPE	0100	613	34	20,842	R	AC		92	83	85	\$65	642,557	SEAL CRACKS
MARTINEZ ST	W END	WIDTH CHANGE	MARTINEZ	0100	644	30	19,320	R	AC		54	84	85	\$46	864,672	SEAL CRACKS
ORONA WY	HOPE AVE	SERNA AVE	ORONA	0100	278	40	11,120	R	AC		92	83	85	\$35	642,557	SEAL CRACKS
ORONA ST	CASUGA CT	KIME CT	ORONAST	0100	214	36	7,704	R	AC		62	74	77	\$41	842,109	SEAL CRACKS
PARK BLVD EB	CENTER ST	HILLS VALLEY RD	PARK EB	0200	2,563	36	92,268	Α	AC		61	84	86	\$187	1,609,818	SEAL CRACKS
PARK BLVD WB	10TH ST	CENTER ST	PARK WB	0100	2,563	36	92,268	Α	AC		60	84	86	\$187	1,609,818	SEAL CRACKS
RODRIGUEZ ST	SOUTH AVE EAST	SOUZA ST	RODRIGUEZ	0100	1,251	37	46,287	R	AC		54	84	85	\$109	864,672	SEAL CRACKS
										_	Treatm	ent Total		\$2,248		

Year 2027 Area Total 1,683,608 Year 2027 Total \$2,724,818

Year: 2028

												Treatn	nent		
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating Treatment
5TH AVE	RAILROAD AVE WEST	PARK ST	5TH	0200	764	52	39,728	R	AC		19	0	100	\$357,093	5,490 3" HMA+FDR 5"
6TH ST	G ST	PARK ST	6TH	0100	490	51	24,990	R	AC		37	8	100	\$224,622	5,490 3" HMA+FDR 5"
6TH ST	PARK ST	D ST	6TH	0200	1,019	52	52,988	R	AC		28	0	100	\$476,280	5,490 3" HMA+FDR 5"
6TH ST	D ST	ADAMS ST EAST	6TH	0300	1,538	52	79,976	R	AC		7	0	100	\$718,860	5,490 3" HMA+FDR 5"
6TH ST	GUTIERREZ ST	BENJAMIN ST	6TH	0400	589	33	19,437	R	AC		29	0	100	\$174,709	5,490 3" HMA+FDR 5"
8TH ST	SOUTH ST	IST	8TH	0100	1,037	53	54,961	R	AC		26	0	100	\$494,014	5,490 3" HMA+FDR 5"

^{** -} Treatment from Project Selection

16 SS1026



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

										Tre	Treatment Total		\$	2,445,578		
4TH AVE	GUTIERREZ ST	BENJAMIN ST	4TH	0500	589	33	19,437	R	AC		54	84	90	\$9,159	20,829	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 10TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 10TH	0100	1,567	15	23,505	0	AC		78	76	84	\$11,075	24,807	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 11TH ST	IST	ALLEY S/O PARK ST	A-W/O 11TH	0200	1,181	14	16,534	0	AC		76	74	83	\$7,791	25,075	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 12TH ST	ADAMS AVE EAST	C ST	A-W/O 12TH	0200	935	15	14,025	0	AC		78	76	84	\$6,609	24,799	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 4TH ST	ADAMS AVE EAST	B ST	A-W/O 4TH	0100	473	15	7,095	0	AC		88	80	88	\$3,343	22,932	TYPE III SLURRY SEAL+CRACK SEAL
ALLEY W/O 9TH ST	ADAMS AVE EAST	RAILROAD AVE EAST	A-W/O 9TH	0200	1,874	15	28,110	0	AC		79	77	85	\$13,245	24,625	TYPE III SLURRY SEAL+CRACK SEAL
ANCHOR AVE SOUTH	SOUTH AVE	PARK ST	ANCHOR	0200	2,554	49	125,146	С	AC		55	81	88	\$63,501	26,791	TYPE III SLURRY SEAL+CRACK SEAL
ANCHOR AVE SOUTH	PARK ST	ADAMS ST	ANCHOR	0300	2,579	40	103,160	С	AC		86	77	85	\$52,345	25,792	TYPE III SLURRY SEAL+CRACK SEAL
D ST	CENTER ST	4TH ST	D ST	0200	1,144	43	49,192	С	AC		89	78	86	\$24,961	25,911	TYPE III SLURRY SEAL+CRACK SEAL
D ST	4TH ST	2ND ST	D ST	0300	722	33	23,826	R	AC		54	84	90	\$11,227	20,829	TYPE III SLURRY SEAL+CRACK SEAL
RAILROAD AVE EAST	10TH ST	8TH AVE	ERAILROAD	0300	1,001	31	31,031	С	AC		11	83	90	\$15,746	25,867	TYPE III SLURRY SEAL+CRACK SEAL
MARTINEZ ST	W END	WIDTH CHANGE	MARTINEZ	0100	644	30	19,320	R	AC		54	84	90	\$9,103	20,829	TYPE III SLURRY SEAL+CRACK SEAL
ORONA ST	CASUGA CT	KIME CT	ORONAST	0100	214	36	7,704	R	AC		62	76	84	\$3,630	37,130	TYPE III SLURRY SEAL+CRACK SEAL
RODRIGUEZ ST	SOUTH AVE EAST	SOUZA ST	RODRIGUEZ	0100	1,251	37	46,287	R	AC		54	84	90	\$21,809	20,829	TYPE III SLURRY SEAL+CRACK SEAL
RAILROAD AVE WEST	ANCHOR AVE SOUTH	12TH ST	WRAILROAD	0100	709	24	17,016	С	AC		4	83	90	\$8,635	25,867	TYPE III SLURRY SEAL+CRACK SEAL
										Tre	Treatment Total		\$262,179			
ALLEY N/O PARK ST	8TH ST	6TH ST	A-N/OPARK	0100	654	17	11,118	0	AC		17	84	85	\$34	612,797	SEAL CRACKS
ALLEY S/O PARK ST	12TH ST	11TH ST	A-S/0PARK	0200	331	12	3,972	0	AC		0	84	85	\$12	612,797	SEAL CRACKS
ALLEY W/O 5TH ST	ADAMS AVE EAST	D ST	A-W/O 5TH	0100	1,351	15	20,265	0	AC		81	76	79	\$99	612,135	SEAL CRACKS
ALLEY W/O 8TH ST	G ST	J ST	A-W/O 8TH	0400	1,340	14	18,760	0	AC		85	79	81	\$80	629,793	SEAL CRACKS
ALLEY W/O 9TH ST	J ST	ALLEY S/O PARK ST	A-W/O 9TH	0100	1,545	15	23,175	0	AC		82	77	79	\$109	614,882	SEAL CRACKS
CENTER ST	SOUTH AVE	IST	CENTER	0100	1,053	53	55,809	Α	AC		91	78	80	\$250	914,189	SEAL CRACKS
CENTER ST	IST	PARK ST	CENTER	0200	1,504	53	79,712	Α	AC		91	78	80	\$357	914,189	SEAL CRACKS
G ST	10TH ST	CENTER ST	G ST	0200	1,137	53	60,261	R	AC		93	83	84	\$198	626,223	SEAL CRACKS



Scenarios - Sections Selected for Treatment

Interest: 3.00%

Inflation: 3.00%

Printed: 04/05/2019

Scenario: \$2.75 Million per Year

Year: 2028

1 Ear. 2020												Treatm	nent			
Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	PCI Before	PCI After	Cost	Rating	Treatment
IST	ANCHOR AVE SOUTH	10TH ST	IST	0100	1,362	36	49,032	R	AC		93	83	84	\$161	626,223	3 SEAL CRACKS
LOPEZ LN	MARTINEZ ST	HOPE AVE	LOPEZ	0400	154	35	5,390	R	AC		93	83	84	\$18	626,223	SEAL CRACKS
ORANGE AVE	SOUTH END OF STREET	1,266' S/O SOUTH AVE EAST	ORANGE	0100	1,108	33	36,564	R	AC		79	75	77	\$192	596,148	3 SEAL CRACKS
SUMNER AVE EAST	WIDTH CHANGE (W)	WIDTH CHANGE (E)	SUMNER	0200	508	51	25,908	С	AC		73	70	73	\$161	510,757	SEAL CRACKS
											Treatm	ent Tota	I	\$1,671		
					Year 2	2028 Ar	ea Tota	 al	1,19	93,434	Year 20	28 Tota	I \$	2,709,428		
					Total Section Area:				: 10,887,514		Grand Tota		al \$27,369,197			



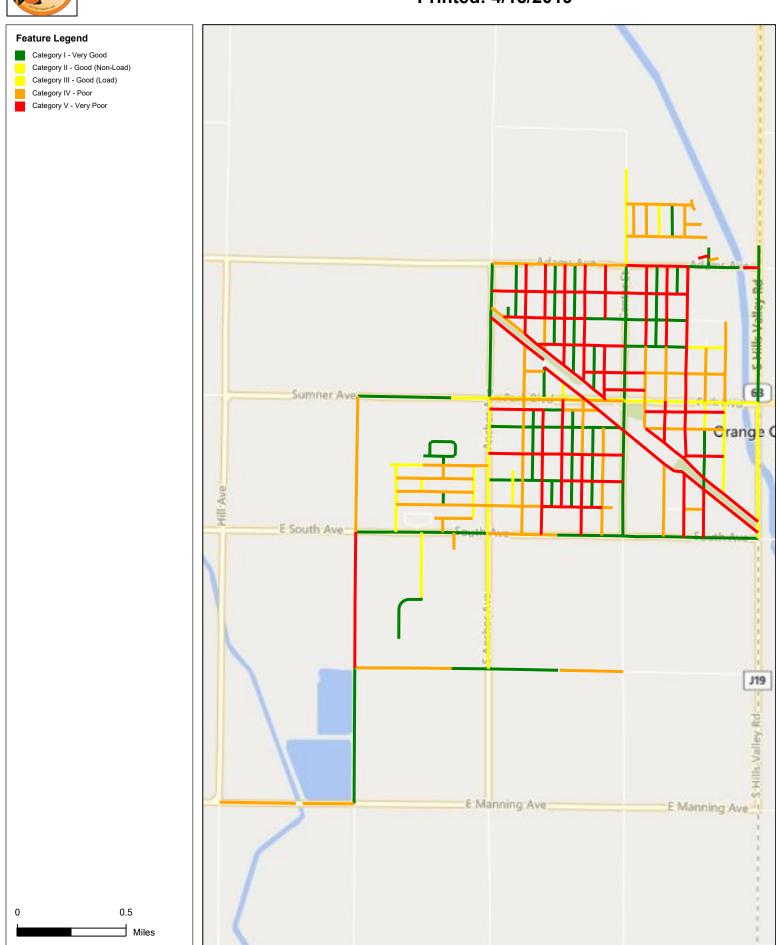
Appendix G

GIS Maps



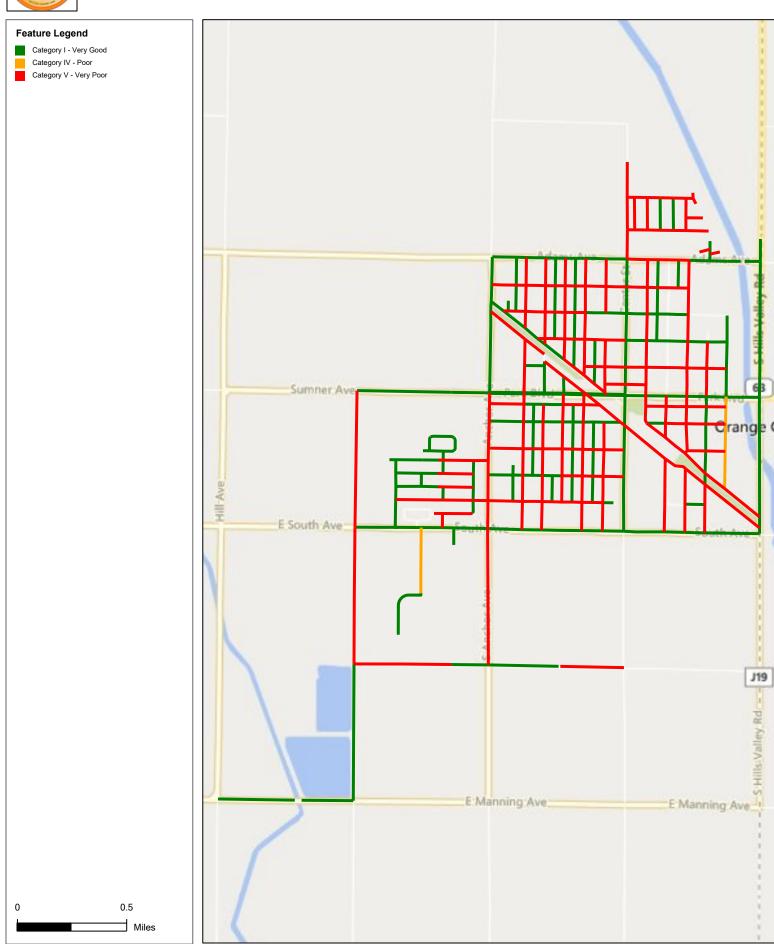
2019 PCI Condition

Printed: 4/15/2019



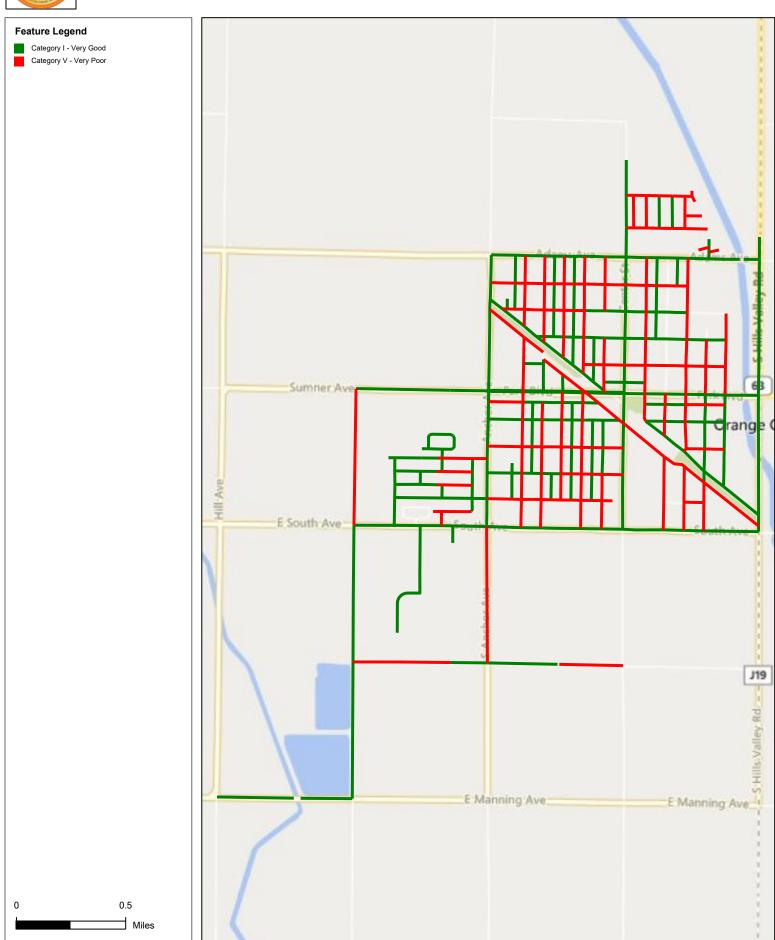


\$1 Million per Year - 2028 Projected PCI: 39 - Printed: 4/5/2019



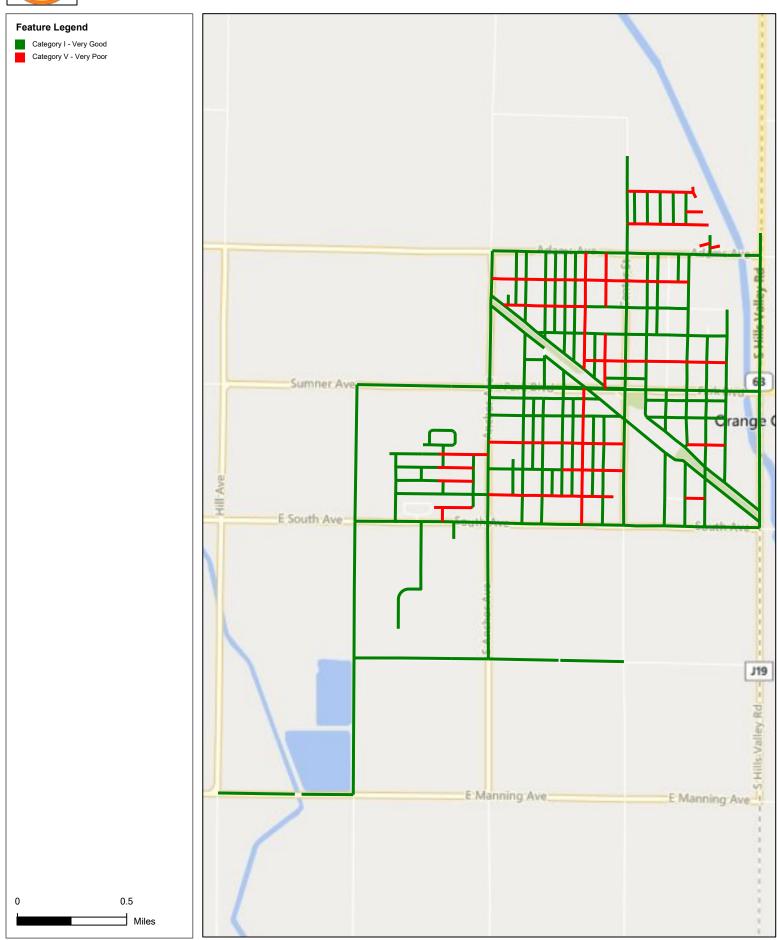


\$1.5 Million per Year - 2028 Projected PCI:47 - Printed: 4/5/2019



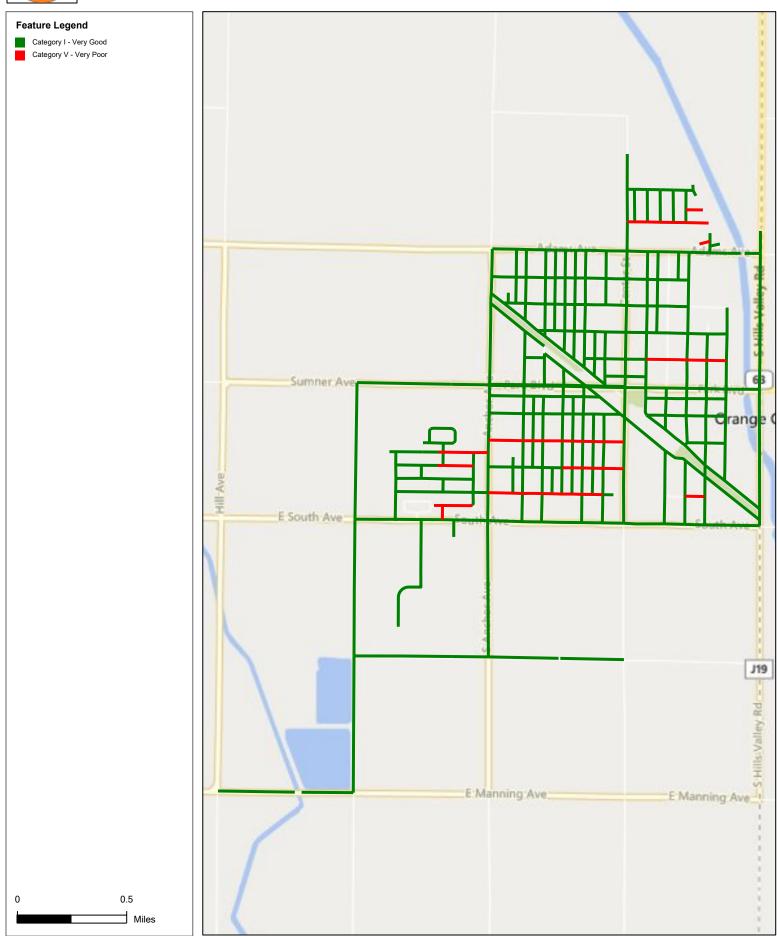


\$2.75 Million per Year - 2028 Projeced PCI: 70 - Printed: 4/5/2019





\$3.3 Million per Year - 2028 Projected PCI: 80 - Printed: 4/5/2019





\$3.75 Million per Year - 2028 Projected PCI: 87 - Printed: 4/5/2019

