

# Pavement Management Budget Options Report



February, 2019

City of Bay City  
Public Works

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## Executive Summary

Capitol Asset & Pavement Services, Inc. was contracted by the City of Bay City public works to perform visual inspections of all of the paved streets maintained by the City of Bay City (City). All 11.23 centerline miles of paved streets maintained by the City were evaluated in accordance with MTC standards and the Streetsaver Online 9.0 database was updated with the inspection data. Inspections were completed in August, 2018.

The maintenance decision tree treatments and costs were reviewed and updated to reflect current pavement maintenance treatment prices. A budgetary needs analysis was performed based on the updated inspections and treatment costs and four budget scenarios were evaluated to compare the effects of various funding levels.

The City's street network consists of 11.23 centerline miles of streets. A detailed visual inspection of the City's streets resulted in a calculated average PCI of 75. Using a 0-100 PCI scale, with 100 being the most favorable, a rating of 75 places the City's street network in the 'Good' condition category.

Four scenarios were analyzed for various street maintenance funding levels. The budgets include preventative maintenance and rehabilitation work for existing paved street surfaces. The City's current strategy of street maintenance, along with current prices for the treatments, is represented in the Streetsaver decision tree matrix. This matrix defines what treatments need to be applied to streets in varying PCI conditions. Utilizing this decision matrix, it was determined that the City will need to spend \$1.79 million over the next five years to bring the street network into 'optimal' condition, or an overall street network PCI of 84. Comparing this with the current funding level of \$250,000 over the next five years shows that the average network PCI decreases by four points, to 71 by 2023. Scenarios were also run to determine the funding levels required to maintain the current overall network PCI of 75 as well as increase the overall network PCI by 5 points over the next five years. Scenario analyses show that at current funding levels, the overall street condition will likely decline. Table 1 summarizes the findings of the Scenarios.

One of the key elements of a pavement repair strategy is to keep streets that are in the 'Good' or 'Fair' categories from deteriorating. This is particularly true for streets in the 'Fair' range, because they are at the point where pavement deterioration accelerates if left untreated. However, the deterioration rate for pavements in the 'Poor' to 'Very Poor' range is relatively flat and the condition of these streets will not decline significantly if repairs are delayed. As more 'Good' streets deteriorate into the 'Fair', 'Poor', and 'Very Poor' categories, the cost of deferred maintenance will continue to increase.

The deferred maintenance backlog refers to the dollar amount of maintenance and rehabilitation work that should have been completed to maintain the street in 'Good' condition, but had to be deferred due to funding deficiencies for preventative maintenance and/or pavement rehabilitation programs. The cost of the deferred maintenance backlog will stop increasing only when enough funds are provided to prevent streets from deteriorating into a worse condition category, or the whole network falls into the 'Very Poor' category (i.e. cannot deteriorate any further). The actual repairs that are being deferred are often referred to as a "backlog." \$1.79 million in funding would be required over the next five years to eliminate the current backlog of \$900,000 and maintain a \$0 backlog throughout the five years. As examined scenarios deviate from this strategy, the cost to the

City will increase in the long term, as illustrated by the increasing backlog. Table 1 summarizes this deferred maintenance backlog for each scenario.

**Table 1 – Summary of outcome of different funding levels (Scenarios)**

Average yearly budget	\$358,841 (1-Unconstrained)	\$50,000 (2-Current Funding)	\$90,000 (3-Maintain Current PCI (75))	\$185,000 (4-Increase PCI 5 points (80))
<b>Total budget for 5 years</b>	\$1.79 million	\$250,000	\$450,000	\$925,000
<b>Average cost per month per EDU</b>	\$36.51	\$5.00	\$9.15	\$18.82
<b>Current PCI</b>	75	75	75	75
<b>Current % in 'Good' condition</b>	69.8%	69.8%	69.8%	69.8%
<b>PCI after 5 years (change)</b>	84 (+9)	71 (-4)	75 (0)	80 (+5)
<b>Backlog after 5 years</b>	\$0	\$1.4 million	\$1.3 million	\$0.9 million
<b>% 'Good' in 5 years</b>	94.5%	74.3%	79.9%	88.6%
<b>% 'Fair' in 5 years</b>	3.7%	9.9%	6.9%	3.7%
<b>% 'Poor' in 5 years</b>	1.8%	10.9%	8.3%	3.8%
<b>% 'Very Poor' in 5 years</b>	0.0%	4.8%	4.8%	4.0%

## Purpose

This report is intended to assist the City of Bay City with identifying street maintenance priorities specific to the City.

The report examines the overall condition of the street network and highlights the impacts of various funding levels on the network pavement condition and deferred maintenance funding shortfalls. The Metropolitan Transportation Commission, MTC, Streetsaver Pavement Management Program (PMP) was used for this evaluation. The intent of this program is to develop a maintenance strategy that will improve the overall condition of the street network to an optimal Pavement Condition Index (PCI) in the low to mid 80's and also to maintain it at that level.

The MTC Streetsaver program maximizes the cost-effectiveness of the maintenance treatment plan by recommending a multi-year street maintenance and rehabilitation plan based on the most cost-effective repairs available. A comprehensive preventative maintenance program is a critical component of this plan, as these treatments extend the life of good pavements at a much lower cost than rehabilitation overlay or reconstruction treatments. To this end, various 'what-if' analyses (scenarios) were conducted to determine the most cost-effective plan for maintaining the City's street network over five years and at various funding levels.

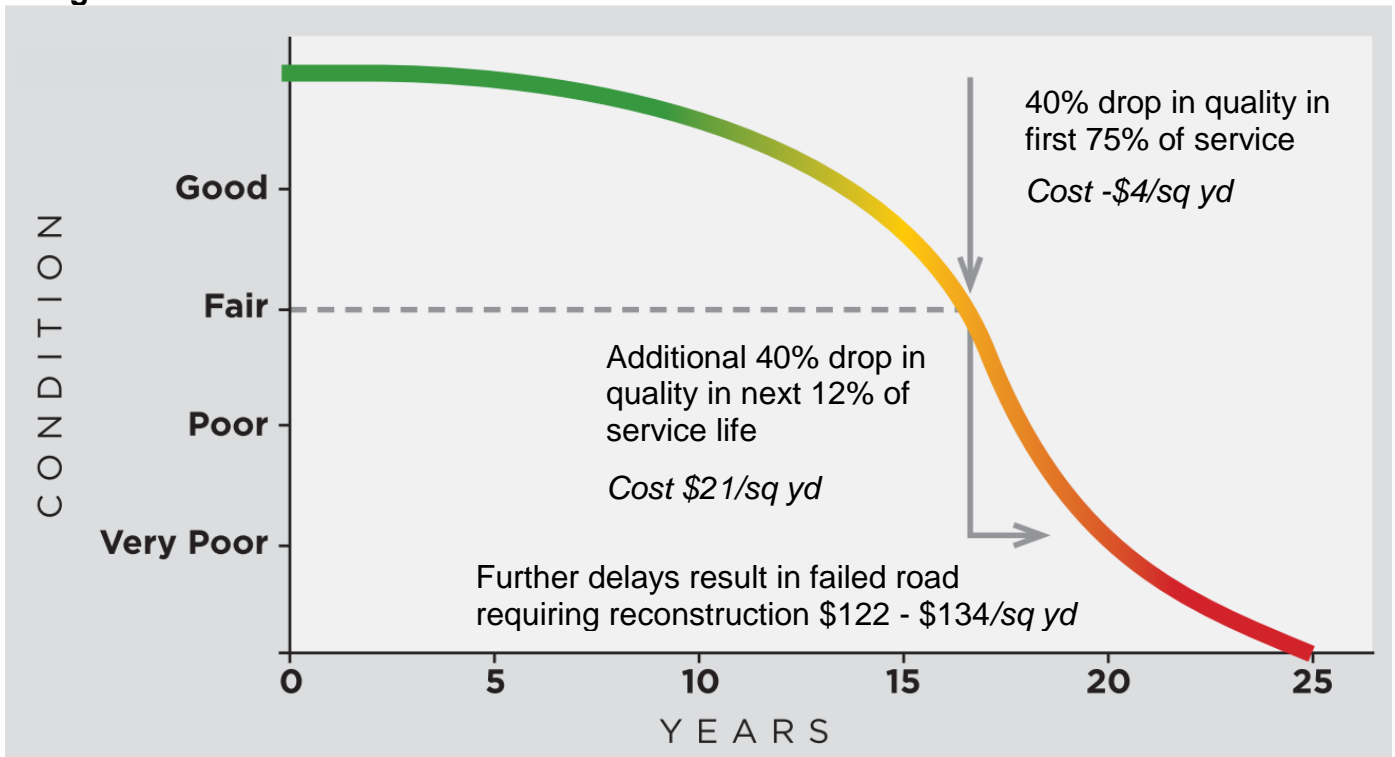
# Pavement Management Strategy

Pavement Management is a set of tools and philosophies designed to manage the maintenance activities of asphalt concrete and Portland concrete pavements. A Pavement Management System consists of a module to keep track of existing and historical pavement condition data and a decision making process to help choose the most cost-effective maintenance strategies and which streets to treat when.

Conventional wisdom of most public works and street department agencies has been to treat streets in a “worst-first” philosophy. Under this “worst-first” policy, streets are allowed to deteriorate to a nearly failed condition before any rehabilitation (such as overlays or reconstructions), are applied. This can also be called the “don’t fix if it isn’t broke” mentality.

Pavement management systems are designed with a more cost-effective, “best-first” approach. The reasoning behind this philosophy, is that it is better to treat streets with lower-cost, preventative maintenance treatments, such as slurry seals, chip seals, microsurfacing, and crack seals, and extend their life cycle before the street condition deteriorates to a state where it requires more costly rehabilitation and reconstruction treatments. Generally, paved streets spend about three-quarters of their life-cycle in fair to good condition, where the street shows little sign of deterioration and has a high service level. After this time, the street condition begins to deteriorate at a rapid rate and, if not maintained properly, will soon reach a condition where it will require costly overlays and reconstructions. If treated with a surface seal and other preventative measures, the street condition will remain at a good level for a longer period of time. Figure 1 shows a typical condition deterioration curve for a street.

**Figure 1 – Street Condition over time**



## Existing Pavement Condition

The City is responsible for the repair and maintenance of 11.23 centerline miles of paved streets. The City’s street network replacement value is estimated at \$17.45 million.<sup>1</sup> This asset valuation assumes replacement of the entire street network in present day dollars (street base and surface only, not curbs or sidewalk). This represents a significant asset for City officials to manage.

The average overall network Pavement Condition Index (PCI) of the City’s street network is 75, which indicates that the street network is in ‘Good’ condition. The PCI is a measurement of pavement condition that ranges from 0 to 100. A newly constructed or overlaid street would have a PCI of 100, while a failed street (requiring complete reconstruction) would have a PCI under 25. Appendix B contains a report detailing the PCI information for each street.

Table 2 details the network statistics and pavement condition by functional class.

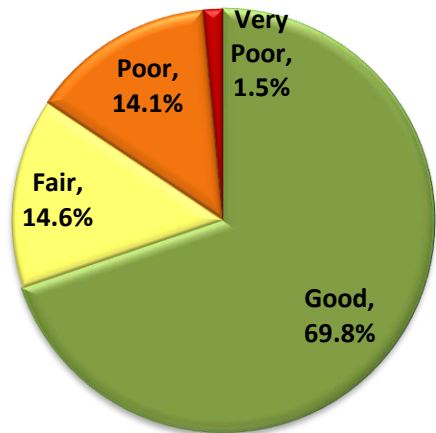
**Table 2 – Street Network Statistics and Average PCI by Functional Class**

Functional Class	# of Sections	Centerline Miles	Lane Miles	Average PCI
Collector	45	5.24	10.45	77
Residential	80	5.99	9.94	72
<b>Totals</b>	<b>125</b>	<b>11.23</b>	<b>20.39</b>	<b>75</b>

Table 3 and Figure 2 details the percentage of the street network area by each PCI range or condition category.

**Table 3 and Figure 2 – Percent Network Area by Functional Class and Condition**

Condition Class	PCI Range	Collector	Residential	Total
<b>Good (I)</b>	70-100	38.7%	31.1%	69.8%
<b>Fair (II/III)</b>	50-70	8.0%	6.6%	14.6%
<b>Poor (IV)</b>	25-50	6.1%	8.0%	14.1%
<b>Very Poor (V)</b>	0-25	0.0%	1.5%	1.5%
<b>Totals</b>		<b>52.7%</b>	<b>47.3%</b>	



<sup>1</sup> Replacement value is calculated as the current cost to reconstruct each street in the network, based on the values in the Streetsaver decision tree. This does not include sidewalks or curb.

## Present Cost to Repair the Street Network

The MTC Pavement Management Program (PMP) is designed to achieve an optimal network PCI somewhere between the low and mid 80's, which is in the middle of the good condition category. In other words, the system will recommend maintenance treatments in an attempt to bring all of the streets in the City to a 'Good' condition, with the majority of the streets falling in the low to mid 80's PCI range. Streets will remain in the 'Good' condition category for a longer period of time if relatively inexpensive preventive maintenance treatments are used. Once the PCI falls below 70, more expensive rehabilitation treatments will be needed.

The Budget Needs module of the PMP estimates a necessary funding level for the City's pavement preservation and rehabilitation program of \$1.79 million<sup>2</sup> over the next five-year period (2019–2023) in order to improve and maintain the street network PCI at an optimal level in the lower to mid 80's. Of this total, approximately \$899,000 is needed in the first year alone. The five-year cost of \$1.79 million exceeds the City's planned five-year funding level of \$250,000 by approximately \$1.5 million.

As mentioned earlier, the average PCI for the City's streets is 75, which is in the 'Good' condition category. Why then, does it cost so much to repair the City's streets, and why bother improving them?

The cost to repair and maintain a pavement depends on its current PCI. In the 'Good' category, it costs very little to apply preventive maintenance treatments such as crack and surface seals (slurry seal or chip seal), which can extend the life of a pavement by correcting minor faults and reducing further deterioration. Minor treatments are applied before pavement deterioration has become severe and usually costs less than \$4.00 per square yard<sup>3</sup>. 69.8% of the City's street network would benefit from these relatively inexpensive, life-extending treatments. The City typically slurry seals and crack seals streets in this condition category.

14.6% of the City's street network falls into the 'Fair' condition category. Pavements in this range show some form of distress caused by traffic load related activity or environmental distress that requires more than a life-extending treatment. At this point, a well-designed pavement will have served at least 75 percent of its life, with the quality of the pavement dropping approximately 40 percent. The street may still qualify for a chip seal (\$3.95 per square yard) if the pavement sub-base is still sufficient, which is indicated by the lack of load-related distresses (alligator cracking and/or depressions). However, if these distresses are present, this would indicate that some structure should be added to the pavement, in the form of a thin (1.5") overlay at a cost of \$13.10 per square yard.

14.1% of the City's street network falls into the 'Poor' condition category. These pavements are near the end of their service lives, and often exhibit major forms of distress such as potholes, extensive cracking, etc. A thicker overlay (2" with localized repair) would typically be required on streets in this condition, at a cost of \$21/sq yd.

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<sup>2</sup> Treatment costs are based on this year's average costs per square yard, with future years including a 3% inflation adjustment per year after 2019.

<sup>3</sup> For detailed treatments and costs used in analysis for this report, see appendix C – Decision Tree report

1.5% of the City’s street network falls into the ‘Very Poor’ condition category. Streets in the ‘Very Poor’ condition category indicate that the street has failed. These pavements are at the end of their service lives and have major distresses, often indicating the failure of the sub base. Streets at this stage require major rehabilitation, usually the complete reconstruction of the street surface. Estimated costs to reconstruct the street surface are approximately \$123 to \$135/sq yd (depending on functional class).

One of the key elements of a pavement repair strategy is to keep streets that are in the 'Good' or 'Fair' categories from deteriorating. This is particularly true for streets in the 'Fair' range, because they are at the point where pavement deterioration accelerates if left untreated. However, the deterioration rate for pavements in the ‘Poor’ to ‘Very Poor’ range is relatively flat and the condition of these streets will not decline significantly if repairs are delayed. As more 'Good' streets deteriorate into the 'Fair', ‘Poor’, and ‘Very Poor’ categories, the cost of deferred maintenance will continue to increase. The cost of the deferred maintenance backlog will stop increasing only when enough funds are provided to prevent streets from deteriorating into a worse condition category, or the whole network falls into the ‘Very Poor’ category (i.e. cannot deteriorate any further). The deferred maintenance backlog refers to the dollar amount of maintenance and rehabilitation work that should have been completed to maintain the street in ‘Good’ condition, but had to be deferred due to funding deficiencies for preventative maintenance and/or pavement rehabilitation programs. The actual repairs that are being deferred are often referred to as a “backlog.”

## Future Expenditures for Pavement Maintenance

Assuming projected funding is allocated for pavement maintenance; we anticipate that the City will spend \$250,000 on pavement maintenance rehabilitation during the next five years (2019- 2023) as detailed on Table 4.

**Table 4. Projected Pavement Budget for 2019 to 2023**

2019	2020	2021	2022	2023	Total
\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	<b>\$250,000</b>

## Budget Needs

Based on the principle that it costs less to maintain streets in good condition than bad, the MTC PMP strives to develop a maintenance strategy that will first improve the overall condition of the network to an optimal PCI somewhere between the low and mid 80’s, and then sustain it at that level. The average PCI for the City is 75, which is in the 'Good' condition category. Current funding strategies demonstrate there is a \$0.8 million deferred maintenance backlog<sup>4</sup> in the first year of the scenario. If these issues are not addressed, the quality of the street network will inevitably decline. In order to correct these deficiencies, cost-effective funding and street maintenance strategies must be implemented.

The first step in developing a cost-effective maintenance and rehabilitation strategy is to determine, assuming unlimited revenues, the maintenance “needs” of the City’s street network. Using the PMP budget needs module; street maintenance needs are estimated at \$1.79 million over the next five years. If the City follows the strategy recommended by the program, the average network PCI will

<sup>4</sup> Definition of deferred maintenance backlog can be found in Appendix A



increase to 84. If, however, current pavement maintenance funding is exhausted and little or no maintenance is applied over the next five years, already distressed streets will continue to deteriorate, and the network PCI will drop to 67. The results of the budget needs analysis are summarized in Table 5.<sup>5</sup>

**Table 5. Summary of Results from Needs Analysis**

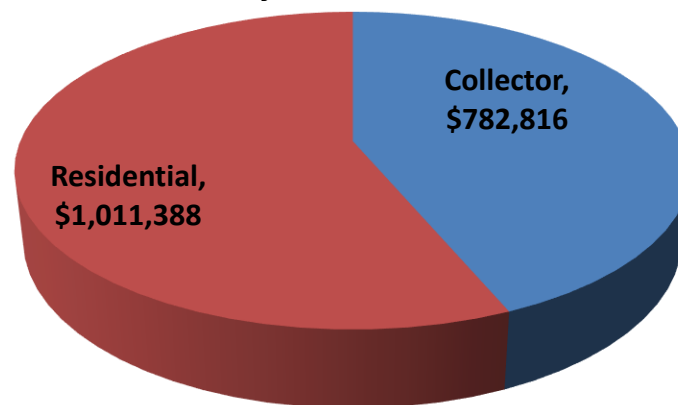
<i>Fiscal Years</i>	2019	2020	2021	2022	2023	Total
<b>PCI with Treatment</b>	86	85	84	83	84	---
<b>PCI, no Treatment</b>	74	72	71	69	67	---
<b>Budget Needs Total</b>	\$899,111	\$202,210	\$70,961	\$147,811	\$474,111	<b>\$1,794,204</b>
<b>Rehabilitation Portion</b>	\$685,938	\$176,086	\$14,945	\$143,777	\$445,855	<b>\$1,466,601</b>
<b>Preventative Maintenance Portion</b>	\$213,173	\$26,124	\$56,016	\$4,034	\$28,256	<b>\$327,603</b>

Table 5 shows the level of expenditure required to raise the City’s pavement condition to an optimal network PCI of 84 and eliminate the current maintenance and rehabilitation backlog. The results of the budget needs analysis represent the ideal funding strategy recommended by the MTC PMP.

Of the \$1.79 million recommended by the budget needs analysis, \$327,603 is being allocated for performing preventative maintenance. This is only 18.3% of the total budget needs, yet will keep the 69.8% of the street network that is in currently in good condition in good condition through 2023, This demonstrates the cost effectiveness of preventative maintenance. The remaining \$1.5 million, 81.7% of needs, will be required to rehabilitate the remaining portion of the street network (30.2%) that is in ‘Fair’, ‘Poor’, or ‘Very Poor’ condition.

Figure 4 is based on the budget needs predictive module. The pavement management program is recommending a funding level of \$1.79 million over a five-year period. Figure 4 illustrates the funding distribution by street functional classification.

**Figure 4. Budget Needs Funding Distribution by Functional Classification**



<sup>5</sup> Actual program outputs are included in Appendixes B through F

## Budget Scenarios

Having determined the maintenance and rehabilitation needs of the City’s street network, the next step in developing a cost-effective maintenance and rehabilitation strategy is to conduct ‘what-if’ analyses. Using the PMP budget scenarios module, the impact of various budget scenarios can be evaluated. The program projects the effects of the different scenarios on pavement condition PCI and deferred maintenance (backlog). By examining the effects on these indicators, the advantages and disadvantages of different funding levels and maintenance strategies become clear. For the purpose of this report, the following scenarios were run for five (5)-year periods (2019-2023). The results are summarized in Table 6.

1. *Unconstrained (zero “deferred maintenance”)* — The annual amounts, as identified in the budget needs analysis totaling \$1.79 million, were input into the scenarios module. This scenario shows the effects of implementing the ideal investment strategy (as recommended by the MTC PMP Needs module).
2. *Current Investment Level* — An average annual budget of \$50,000 was evaluated over five years, for a total of \$250,000, to determine the effects of continuing pavement maintenance at the current budget level. The overall network PCI decreases by four points, to 71, under this funding level.
3. *Maintain Current PCI (75)* — An annual funding level of \$90,000 per year, for a five year total of \$450,000, should maintain the overall network PCI at the current level of 75 over the entire five year analysis period.
4. *Increase PCI 5 points (80)* — An annual funding level of \$185,000 per year, for a five year total of \$925,000, should increase the overall network PCI by five points, to 80 by 2023.

**Table 6. Scenario Summary**

Scenario Name	5 Year Budget	2023 PCI (change)	2023 Deferred Maintenance	2023 % Good	2023 % Very Poor
1 – Unconstrained	\$1.79 million	84 (+9)	\$0	94.5%	0.0%
2 – Current Investment	\$250,000	71 (-4)	\$1.4 million	74.3%	4.8%
3 – Maintain Current PCI (75)	\$450,000	75 (0)	\$1.3 million	79.9%	4.8%
4 – Increase PCI 5 points (80)	\$925,000	80 (+5)	\$0.9 million	88.6%	4.0%

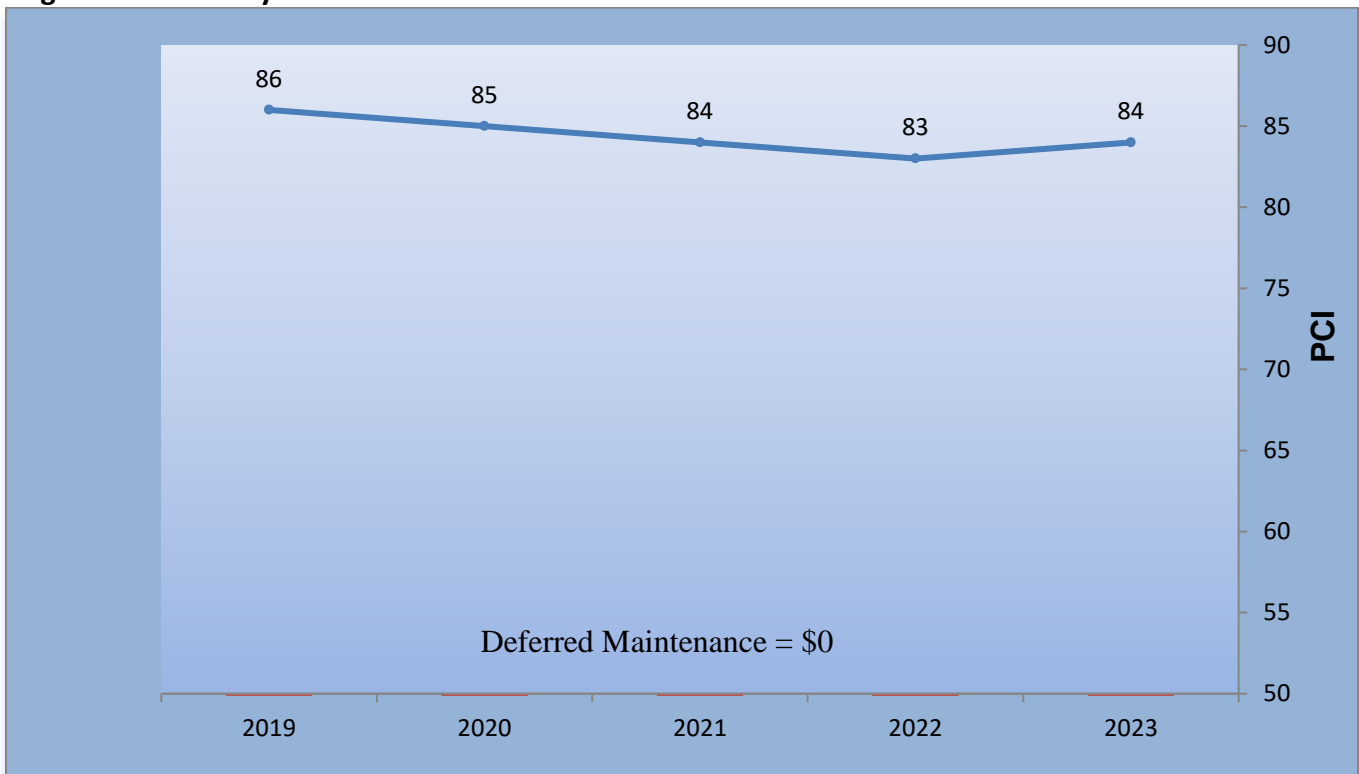
**Scenario 1 — Unconstrained Needs (zero deferred maintenance)**

This scenario shows the effects of implementing the ideal investment strategy (as recommended by the MTC PMP needs module). Because it is more cost-effective to eliminate the deferred maintenance backlog as quickly as possible, the bulk of the deferred maintenance needs are addressed in the first year of the five-year program, raising the overall average network PCI to 86. The overall network PCI eventually reaches 84 by 2023. By 2023, 94.5% of the network improves into the 'Good' condition category, a significant increase from the current level of 69.8% in 'Good' condition. These results are shown in both Table 7 and Figure 5.

**Table 7. Summary of Results from Scenario 1 — Unconstrained Needs**

	2019	2020	2021	2022	2023	Total
<b>Budget Total</b>	\$899,111	\$202,210	\$70,961	\$147,811	\$474,111	<b>\$1,794,204</b>
<b>Rehabilitation budget</b>	\$685,938	\$176,086	\$14,945	\$143,777	\$445,855	<b>\$1,466,601</b>
<b>Preventative Maintenance budget</b>	\$213,173	\$26,124	\$56,016	\$4,034	\$28,256	<b>\$327,603</b>
<b>Deferred Maintenance</b>	\$0	\$0	\$0	\$0	\$0	---
<b>PCI</b>	86	85	84	83	84	

**Figure 5. Summary of Results from Scenario 1 — Unconstrained Needs**



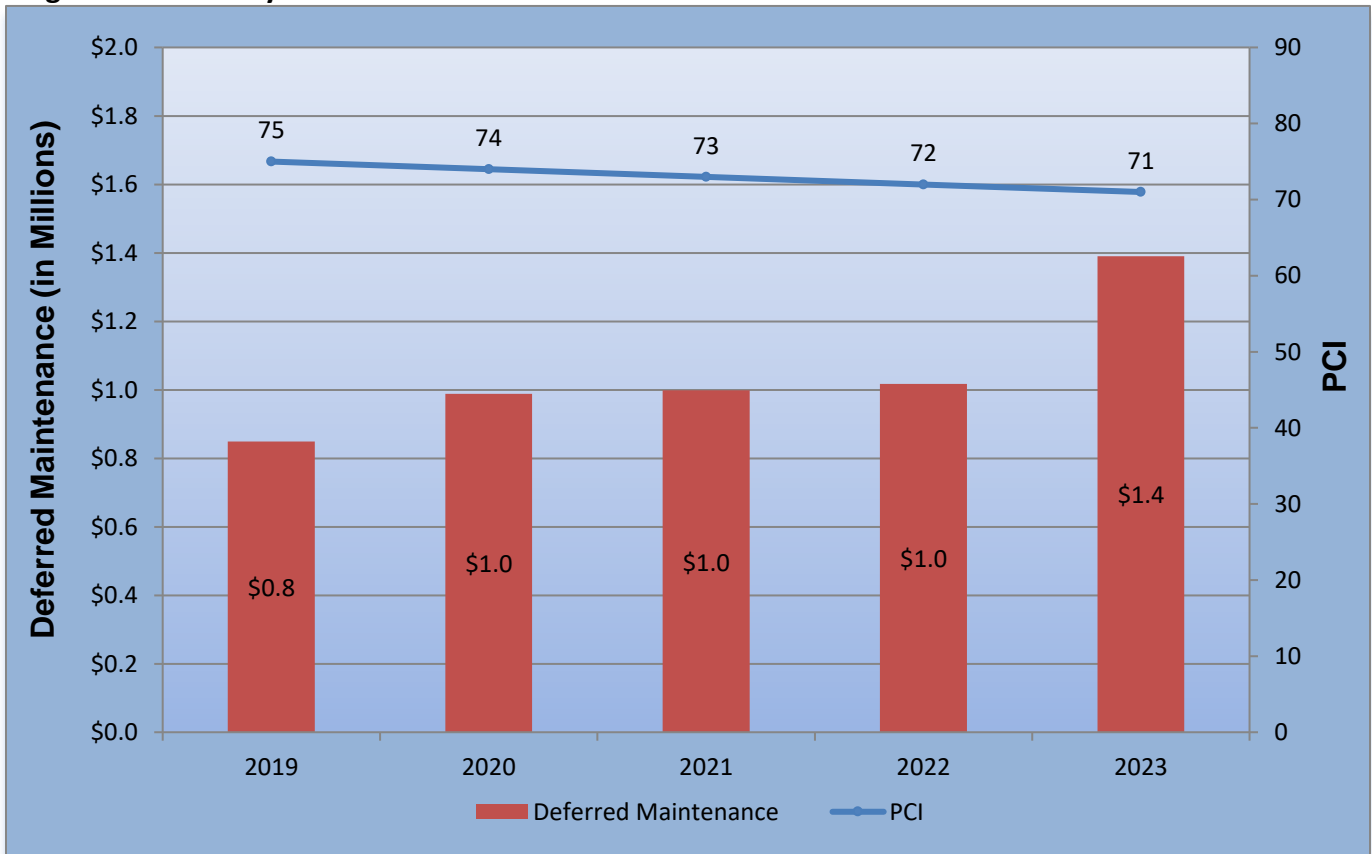
## Scenario 2 — Current Investment Level

This scenario shows the effects of the City’s current budget for street maintenance of \$250,000 over five years. Under this scenario, the overall network PCI decreases by four points, from 75 currently, to 71 by 2023. Under this investment level, the deferred maintenance backlog increases from \$0.8 million in 2019, to \$1.4 million in 2023, mainly due to the increase of streets that fall into ‘Very Poor’ condition, where they require expensive reconstruction treatments. The street network in ‘Very Poor’ condition increases from 1.5% currently, to 4.8% in 2023. The percentage of the street network in ‘Good’ condition remains at the current amount of 69.8% through 2023. Results are illustrated in Table 8 and Figure 6.

**Table 8. Summary of Results from Scenario 2 — Current Investment Level**

	2019	2020	2021	2022	2023	Total
<b>Budget Total</b>	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	<b>\$250,000</b>
<b>Rehabilitation budget</b>	\$44,554	\$40,048	\$41,759	\$39,313	\$44,801	<b>\$210,475</b>
<b>Preventative Maintenance budget</b>	\$5,219	\$9,903	\$7,837	\$9,976	\$4,890	<b>\$37,825</b>
<b>Deferred Maintenance</b>	\$849,305	\$988,790	\$998,365	\$1,017,517	\$1,390,346	---
<b>PCI</b>	75	74	73	72	71	

**Figure 6. Summary of Results from Scenario 2 — Current Investment Level**



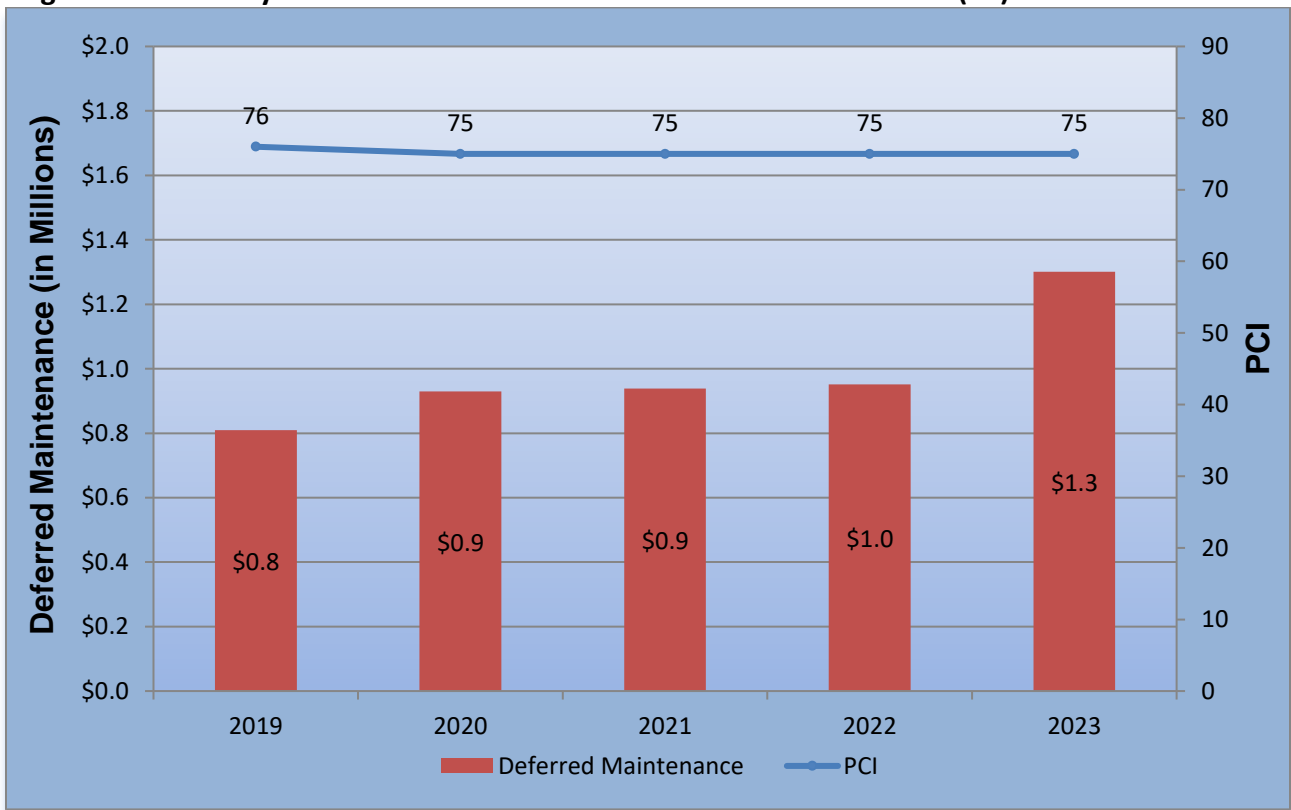
### Scenario 3 — Maintain Current PCI (75)

This scenario analyzes the funding level that would be required to maintain the current network PCI of 75 over the next five years. An annual investment level of \$90,000, for a total of \$450,000 over five years, would be needed. Under this scenario, the PCI remains at the current level of 75 through 2023. Even though the PCI remains level, the deferred maintenance backlog increases from \$0.8 million in 2019, to \$1.3 million by 2023. The street network in ‘Very Poor’ condition increases from 1.5% currently, to 4.8% in 2023. The percentage of the street network in the ‘Good’ condition category increases to 79.9% in 2023, from the current level of 69.8%. These results are illustrated in Table 9 and Figure 7.

**Table 9. Summary of Results, Scenario 3 — Maintain Current PCI (75)**

	2019	2020	2021	2022	2023	Total
<b>Budget Total</b>	\$90,000	\$90,000	\$90,000	\$90,000	\$90,000	<b>\$450,000</b>
<b>Rehabilitation budget</b>	\$70,988	\$68,991	\$67,625	\$71,786	\$70,611	<b>\$350,001</b>
<b>Preventative Maintenance budget</b>	\$18,700	\$20,728	\$21,708	\$17,574	\$18,932	<b>\$97,642</b>
<b>Deferred Maintenance</b>	\$809,392	\$929,290	\$938,794	\$951,642	\$1,300,956	---
<b>PCI</b>	76	75	75	75	75	

**Figure 7. Summary of Results from Scenario 3 — Maintain Current PCI (75)**



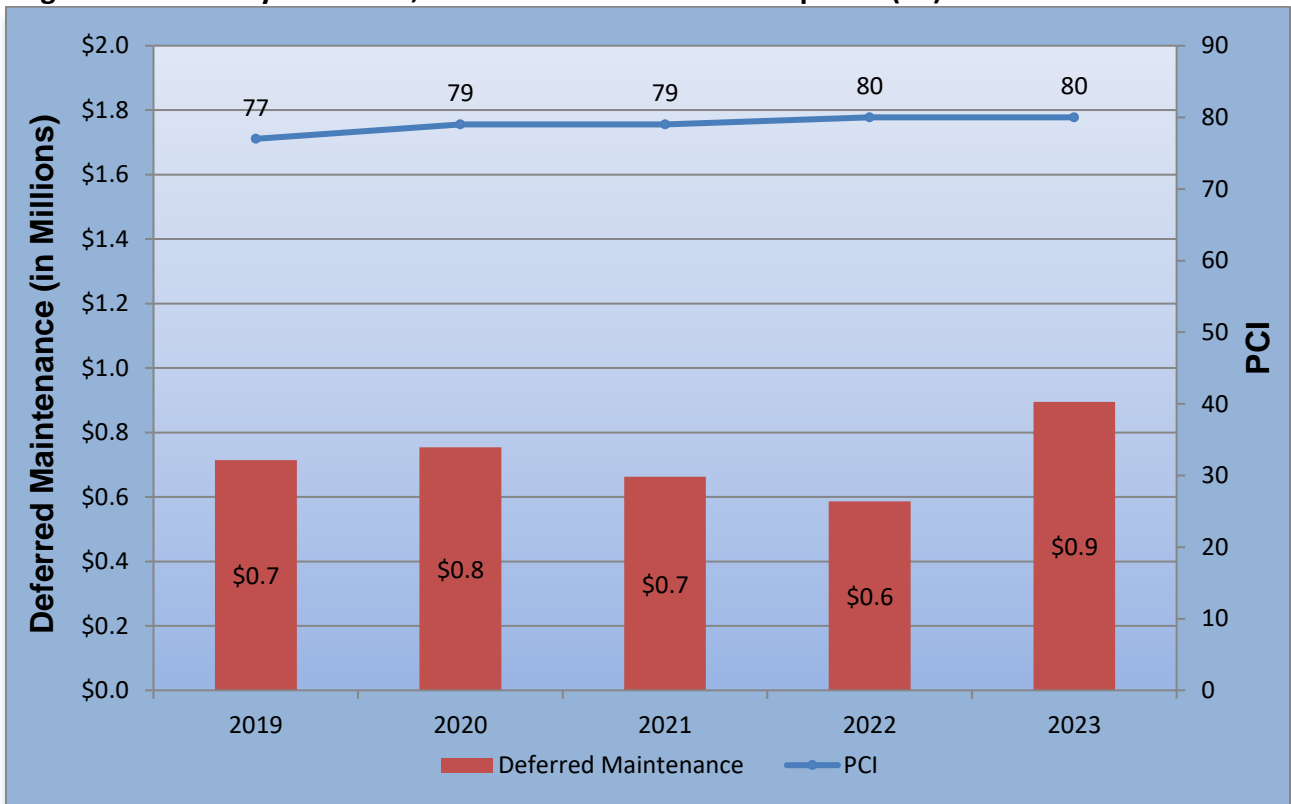
### Scenario 4 — Increase PCI 5 points (80)

This scenario analyzes the funding level required to increase the overall network PCI by 5 points over the next five years. Under this scenario the PCI increases by five points, from the current level of 75, to 80 by 2023. Even at this funding level, the deferred maintenance backlog increases, from \$0.7 million in 2019, to \$0.9 million in 2023. The percentage of the street network in the ‘Good’ condition category increases to 88.6% in 2023, from the current level of 69.8%. The street network in ‘Very Poor’ condition increases from 1.5% currently, to 4.0% in 2023. These results are illustrated in Table 10 and Figure 8.

**Table 10. Summary of Results, Scenario 4 — Increase PCI 5 points (80)**

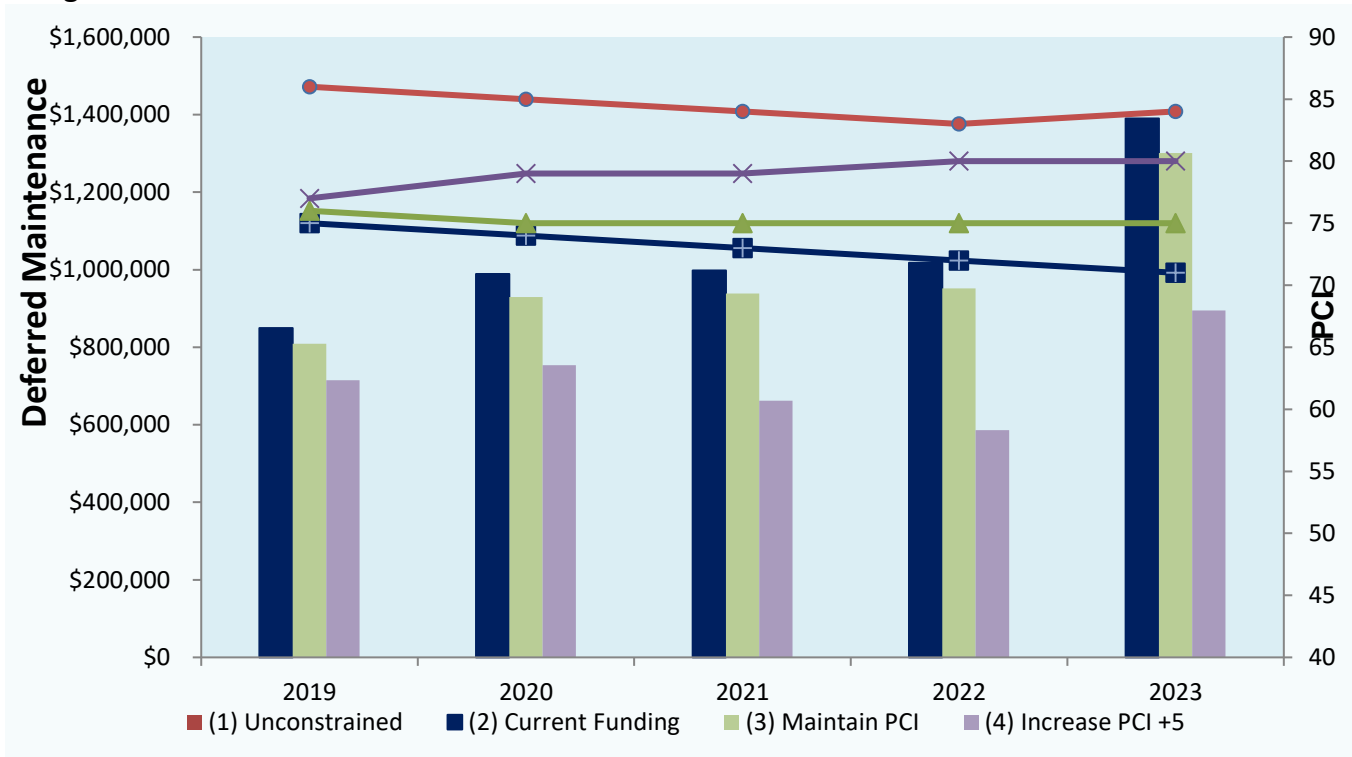
	2019	2020	2021	2022	2023	Total
<b>Budget Total</b>	\$185,000	\$185,000	\$185,000	\$185,000	\$185,000	<b>\$925,000</b>
<b>Rehabilitation budget</b>	\$147,010	\$143,251	\$145,381	\$130,831	\$140,161	<b>\$706,634</b>
<b>Preventative Maintenance budget</b>	\$37,527	\$41,266	\$39,538	\$53,899	\$43,433	<b>\$215,663</b>
<b>Deferred Maintenance</b>	\$714,546	\$753,682	\$662,333	\$586,462	\$894,574	---
<b>PCI</b>	77	79	79	80	80	

**Figure 8. Summary of Results, Scenario 4 — Increase PCI 5 points (80)**

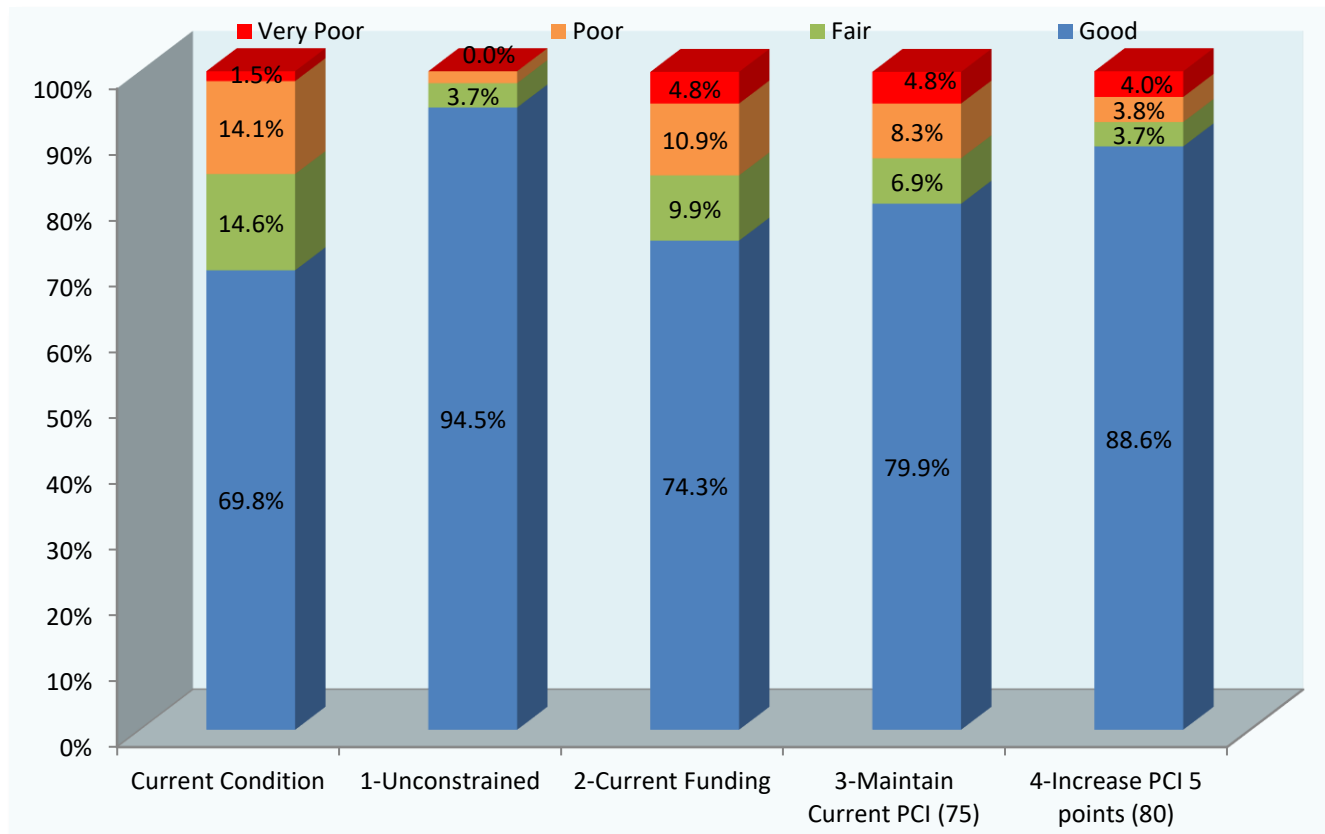


A comparison of the four scenarios is summarized in Figures 10 and 11. Figure 10 depicts the deferred maintenance costs as they relate to PCI for the four scenarios evaluated. Figure 11 depicts the percent of the street network in the various condition categories for the four scenarios evaluated.

**Figure 10 - Deferred Maintenance and PCI of Scenarios 1-4**



**Figure 11 – Pavement Condition Category Percentages in 2023 – Scenarios 1-4**



# 10 Year Extended Projections

Further analysis was performed to determine the effects of continuing the scenario projections out 10 years (to 2028). Table 12 summarizes the 10 year analysis and compares that to the 5 year scenarios.

**Table 12 – 10 Year Projection Summary**

Scenario	1 - Unconstrained		2 - Current Funding	
	5 year	10 year	5 year	10 year
Average Cost per year	\$359,000	\$268,500	\$50,000	\$50,000
Total Budget	\$1,794,000	\$2,685,000	\$250,000	\$500,000
PCI in Final Year	84	84	70	66
Deferred Backlog Final Year	\$0	\$0	\$1.4 million	\$3.2 million

Scenario	3 - Maintain Current PCI (75)		4 - Increase PCI 5 points (to 80)	
	5 year	10 year	5 year	10 year
Average Cost per year	\$90,000	\$124,200	\$175,000	\$216,800
Total Budget	\$450,000	\$1,242,000	\$875,000	\$2,168,000
PCI in Final Year	75	75	80	80
Deferred Backlog Final Year	\$1.3 million	\$2.1 million	\$900,000	\$790,000

The ten year Unconstrained Needs projections shows the benefit of treating the street maintenance issues sooner than later. While \$1.79 million was spent in the first five years to bring the street network into ‘optimal’ condition, only an additional \$890,000 was needed in the next five years to maintain the street network at the PCI of 84 through 2028.

The ten year current funding projections show that the street network will continue to decline, by an additional four points, if the current funding level of \$50,000 per year is maintained through 2028. The deferred maintenance backlog doubles in the final five years of the projection, due to the further increase of streets that will fall into ‘Very Poor’ condition (13.1% of the street network will fail under this funding level).

In order to maintain the current PCI level of 75 through 2028, an additional \$790,000 will be needed in 2024-2028, beyond the initial \$450,000 in 2019-2023. In the first five years, there were more streets in ‘Fair’ and ‘Good’ condition which could be treated with more cost effective treatments. Less ‘Fair’ and ‘Good’ streets were available to be treated in 2024-2028, thus more money went towards streets in ‘Poor’ and even ‘Very Poor’ condition, where there was less of a PCI increase for the same money spent (less value for one’s money).

A similar condition exists to maintain the five point gain achieved in scenario 4. An additional \$1.29 million is required in years 2024-2028 to maintain street network at an 80, five points above the current network PCI of 75. The deferred maintenance backlog does start to decline at this funding level, to \$790,000 in 2028.



## Recommendations

Of the various maintenance and funding options considered, the *ideal* strategy for the City is presented in Scenario 1, with a five-year expenditure total of \$1.79 million. Not only does this surface management plan improve the network to an optimal level of 84, it also eliminates the entire deferred maintenance backlog in the first year. As examined scenarios deviate from this strategy, the cost to the City will increase in the long term. However, the amount of funds in the first year of expenditure, approximately \$899,000, may make this strategy unrealistic for the City. This scenario can, however, be used as a base line for comparing other scenarios.

Under current five-year funding level (\$250,000 over five years) the current network PCI of 75 will decline by four point over the course of five years. The deferred maintenance price tag will increase by \$0.5 million, from \$0.8 million in 2019, to \$1.4 million in 2023. By following this strategy through 2023, 74.3% of the City’s street will be in the ‘Good’ condition category, increase as the current level of 69.8% in ‘Good’ condition. The street network in ‘Very Poor’ condition increases from 1.5% currently, to 4.8% in 2023. At the City’s current funding level, the street network condition will decline over the foreseeable future.

Scenario and Needs analyses assume that the City will follow a good pavement management philosophy of prioritizing preventative maintenance over rehabilitation. By first ensuring that Good streets stay Good, through the use of a cost-effective chip and crack seal program, the City will save money in the long run. The second priority should be to rehabilitate streets that are in ‘Fair’ condition through the use of a chip seal or thin overlay treatment. The use of 2” AC overlay with localized repairs to rehabilitate streets in Poor condition should be the third priority. Failed streets should be the lowest priority, as the reconstruction that would be required to rehabilitate them are very expensive, and the money is better used on more cost-effective treatments to maintain and rehabilitate better streets.

The PMP Budget Needs Module is recommending \$1.5 million for streets in the ‘Poor’ to ‘Very Poor’ condition. Because these categories require extensive rehabilitation and reconstruction work, the work will consume approximately 81.7% of the planned costs, as estimated by the PMP. This places the city in a challenging position of trying to avoid increasing future street rehabilitation costs coupled with the risk of a substantial increase in an already significant ten year shortfall projection. Currently, 1.5% of the street network is in ‘Poor’ to ‘Very Poor’ condition. However, this is likely to increase to 4.8% in five years if current funding levels continue. This conclusion is noteworthy to the City Council. Unless funding is allocated to support an increase in the City’s street rehabilitation program, the City may lose the opportunity to utilize lower cost preventative maintenance and light overlay treatment options. The City should seek to increase funding for street maintenance.

The city currently has a \$5 per month EDU fee. This provides the \$50,000 per year funding level for street maintenance. One option to raise additional funding for street rehabilitation and maintenance would be to increase this fee. Table 13 details the needed fee increase to fund the various 5 year scenarios.

**Table 13 – EDU Costs Needed to Fund Each Scenario**

Scenario	1-Unconstrained	2-Current Funding	3-Maintain Current PCI (75)	4-Increase PCI 5 points (80)
Cost per year	\$360,00	\$250,000	\$450,000	\$925,000
EDU cost/month	\$36.51	\$5.00	\$9.15	\$18.82

Preparation of a budget options report is just one step in using the MTC PMP to build an effective street maintenance program. Recommendations for further steps are:

- Link major street repairs with utility maintenance schedules to prevent damage to newly paved street surfaces.
- Obtain detailed subsurface information on selected sections before major rehabilitation projects are contracted. Costs for large rehabilitation projects are extremely variable and estimates can sometimes be reduced following project-level engineering analysis. It is possible that only a portion of a street recommended for reconstruction actually requires such heavy-duty repair.
- Evaluate the specific treatments and costs recommended by the PMP, and modify them to reflect the actual repairs and unit costs that are expected to be used.
- Test other budget options with varying revenues and preventive maintenance and rehabilitation splits.
- Prepare a recommended five-year maintenance program. The program should include the amount of revenues available for pavement repair, a list of streets to be repaired, and the type of repair to be completed (listed in order of year of scheduled treatment), as well as any requests for specific budgetary actions.

In addition to performing cyclic pavement condition inspections, unit cost information for the applications of various maintenance and rehabilitation treatments should be updated annually in the PMP 'Decision Tree Module'. If this data is not kept current, the City runs the risk of understating actual funding requirements to adequately maintain the street network. A pavement inspection cycle that would allow for the inspection of arterial and collector streets every two years and residential streets every three to four years is recommended.

The City has completed the foundation work necessary to execute a successful pavement management plan. At the current investment level, the overall street condition will likely decline, and the deferred maintenance backlog will likely increase as more streets fall into 'Poor' and 'Very Poor' condition. To reduce the deferred maintenance backlog, additional revenues and support from various decision-making bodies are required.

As more 'Fair' streets deteriorate into the 'Poor' and 'Very Poor' categories, the cost of deferred maintenance will continue to increase. The cost of the deferred maintenance backlog will stop increasing only when enough funds are provided to prevent streets from deteriorating into a worse condition category, or when the whole network falls into the 'Very Poor' category (i.e. cannot deteriorate any further). At that time, the network would have to be replaced at a cost of \$17.45 million.

## **Appendix A**

### Definitions

The *Pavement Condition Index*, or PCI, is a measurement of the health of the pavement network or condition and ranges from 0 to 100. A newly constructed street would have a PCI of 100, while a failed street would have a PCI of 10 or less. The PCI is calculated based on pavement distresses identified in the field.

*Network* is defined as a complete inventory of all streets and other pavement facilities in which the City has jurisdiction and maintenance responsibilities. To facilitate the management of streets, they are subdivided into management sections identified as a segment of street, which has the same characteristics.

*Urban Arterial street* system carries the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central City. In addition, significant intra-area-travel such as between central business districts and outlying residential areas exists.

*Urban Collector Street* provides land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. It differs from the arterial system in that facilities on a collector system may penetrate residential neighborhoods.

*Urban Local Street* system comprises all facilities not one of the higher systems. It serves primarily to provide direct access to abutting land and access to the higher systems.

*Preventive Maintenance* refers to repairs applied while the pavement is in “good” condition. Such repairs extend the life of the pavement at relatively low costs, and prevent the pavement from deteriorating into conditions requiring more expensive treatments. Preventive maintenance treatments include slurry seals, crack sealing, and deep patching. Treatments of this sort are applied before pavement deterioration has become severe and usually cost less than \$3.00/sq. yd.

*Deferred Maintenance* refers to the dollar amount of maintenance and rehabilitation work that should have been completed to maintain the street in “good” condition, but had to be deferred due to funding deficiencies for preventative maintenance and/or pavement rehabilitation programs. The actual repairs that are being deferred are often referred to as a “backlog.”

*Stop Gap* refers to the dollar amount of repairs applied to maintain the pavement in a serviceable condition (e.g. pothole patching). These repairs are a temporary measure to stop resident complaints, and do not extend the pavement life. Stopgap repairs are directly proportional to the amount of deferred maintenance.

*Surface Types* – AC is an Asphalt Concrete street that has one year’s asphalt, for example a street that has been newly constructed or reconstructed. In contrast AC/AC (in reports marked as O – AC/AC) is a street that has an overlay treatment over the original asphalt construction. Streets marked as ST do not have an asphalt concrete layer, only a surface composed of layers of oil and rock (macadam or chip seal). Portland Concrete Cement streets (PCC) are a mix of Portland cement, coarse aggregate, and sand.

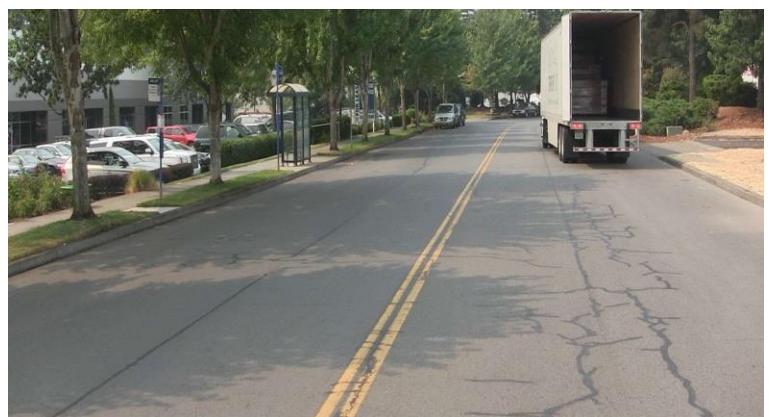
*'Good' Condition Category* – Streets in 'Good' condition have no to little distresses found on them. These streets may have some minor surface weathering or light cracking, but can generally be maintained with cost-effective preventative maintenance treatments (surface seals and crack seals).

Pavement is stable. New or lightly worn appearance. Minor cracking may be present, but cracks are generally less than 1/4" wide or are well sealed. May have sporadic cracking in the wheel paths with no or only a few interconnecting cracks and no spalling or pumping. Minor patching and possibly some minor deformation evident. Good riding qualities. Rutting may be present but is generally less than 1/2".



*'Fair' Condition Category* – Streets in 'Fair' condition show some form of distress caused by traffic load related activity or environmental distress that requires more than a life-extending treatment. The MTC Streetsaver program separates these into two condition categories for the purposes of the analysis. Category II – 'non-load' and Category III – 'load-related', based on whether a majority of the distresses found had load or environmental related causes

Pavement structure is generally stable with only minor areas of structural weakness or pavement deterioration evident. Cracks, if present, have widths generally less than 3/4". Wheel paths may have widespread, but not continuous, cracking with no or only a few interconnecting cracks and no spalling or pumping. Interconnected cracks forming complete patterns, or with spalling, are very small localized areas and are not representative of the rest of the section. The pavement may be patched but not excessively. Rutting may be present but is less than 3/4".



*'Poor' Condition Category* – Streets in 'Poor' condition are near the end of their service lives and often exhibit major forms of distress such as potholes, extensive alligator cracking, and/or pavement depressions.

Areas of instability, structural deficiency, or advanced pavement deterioration present in small areas (generally <10% of total pavement area). Continuous, interconnected cracking often present (mostly in wheel paths). Wheel paths may have widespread, and continuous, cracking with some interconnecting cracks and/or spalling (none or isolated areas of pumping). Medium severity patches. Deformation is somewhat noticeable.



*'Very Poor' Condition Category* - Streets in the 'Very Poor' condition category indicate that the street has failed. These pavements are at the end of their service lives and have major distresses, often indicating the failure of the sub base

Areas of instability, structural deficiency, or advanced pavement deterioration are frequent. Large crack patterns (alligatoring), heavy and numerous patches, potholes, or deformation is very noticeable. Riding qualities range from acceptable to poor. Rutting, if present, is generally greater than 3/4".



*Load related distress* - Load related distresses, such as alligator cracking, rutting, and depressions are usually a sign of a sub-base issue, caused by repeated traffic loads.

*Non-load related distress* - Non-load (or environmental), distresses typically have environmental causes related to the pavement becoming older and less elastic (brittle). Typical non-load distresses are longitudinal or transverse cracking, block cracking, and surface weathering and raveling.

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## **Appendix B**

Network Summary Statistics

Network Replacement Cost

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	Total Sections	Total Center Miles	Total Lane Miles	PCI
Collector	45	5.24	10.45	77
Residential/Local	80	5.99	9.94	72
Total	125	11.23	20.39	
Overall Network PCI as of 2/25/2019 1:10:00 PM:				75
**Combined	58	2.89	3.46	N/A
Gravel	58	2.89	3.46	N/A

\*\* Combined Sections are excluded from totals. These Sections do not have a PCI Date - they have not been inspected or had a Treatment applied.

Functional Class	Surface Type	Lane Miles	Unit Cost/ Square Foot	Pavement Area/ Square Feet	Cost To Replace (in thousands)
Collector	AC	1.1	\$14.94	67,200	\$1,004
	AC/AC	9.3	\$14.94	573,502	\$8,571
Proposed; Private; Non-County	AC	1.1	\$0.97	59,451	\$58
Residential/Local	AC	3.5	\$13.62	211,209	\$2,876
	AC/AC	6.4	\$13.62	363,042	\$4,943
Grand Total:		21.5		1,274,404	\$17,452

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## **Appendix C**


### Needs Analysis Reports

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# Decision Tree

Printed: 10/19/2018


Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Collector	AC	I - Good	Crack Treatment	DO NOTHING	\$0.00	4		
			Surface Treatment	SINGLE CHIP SEAL	\$3.95		8	
			Restoration Treatment	2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			3
		II - Fair, Non-Load Related		SINGLE CHIP SEAL	\$3.95		8	
		III - Fair, Load Related		2" OVERLAY WITH PRE-LEVEL	\$15.90			
		IV - Poor		2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$134.50			
	AC/AC	I - Good	Crack Treatment	DO NOTHING	\$0.00	4		
			Surface Treatment	SINGLE CHIP SEAL	\$3.95		8	
			Restoration Treatment	2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			3
		II - Fair, Non-Load Related		SINGLE CHIP SEAL	\$3.95		8	
		III - Fair, Load Related		2" OVERLAY WITH PRE-LEVEL	\$15.90			
		IV - Poor		2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$134.50			
	AC/PCC	I - Good	Crack Treatment	SEAL CRACKS	\$0.60	4		
Surface Treatment			SINGLE CHIP SEAL	\$0.74		7		
Restoration Treatment			MILL AND THIN OVERLAY	\$5.04			3	
II - Fair, Non-Load Related			DOUBLE CHIP SEAL	\$1.52				
III - Fair, Load Related			HEATER SCARIFY & OVERLAY	\$5.95				
IV - Poor			HEATER SCARIFY & OVERLAY	\$6.14				
	V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$11.38				
PCC	I - Good	Crack Treatment	DO NOTHING	\$0.00	9			
		Surface Treatment	DO NOTHING	\$0.00		99		
		Restoration Treatment	DO NOTHING	\$0.00			100	
	II - Fair, Non-Load Related		DO NOTHING	\$1.11				
	III - Fair, Load Related		DO NOTHING	\$1.51				
	IV - Poor		THICK AC OVERLAY(2.5 INCHES)	\$1.92				
	V - Very Poor		THIN AC OVERLAY(1.5 INCHES)	\$7.47				

 Functional Class and Surface combination not used

# Decision Tree

Printed: 10/19/2018


Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Residential/Local	AC	I - Good	Crack Treatment	DO NOTHING	\$0.00	4		
			Surface Treatment	SINGLE CHIP SEAL	\$3.95		8	
			Restoration Treatment	1.5" OVERLAY WITH PRE-LEVEL	\$20.65			3
		II - Fair, Non-Load Related		SINGLE CHIP SEAL	\$3.95		8	
		III - Fair, Load Related		1.5" OVERLAY WITH PRE-LEVEL	\$13.10			
		IV - Poor		2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$122.55			
	AC/AC	I - Very Good	Crack Treatment	DO NOTHING	\$0.00	4		
			Surface Treatment	SINGLE CHIP SEAL	\$3.95		8	
			Restoration Treatment	2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			3
		II - Fair, Non-Load Related		SINGLE CHIP SEAL	\$3.95			
		III - Fair, Load Related		1.5" OVERLAY WITH PRE-LEVEL	\$13.10			
		IV - Poor		2" OVERLAY WITH LOCALIZED REPAIR	\$20.65			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$122.55			
	AC/PCC	I - Good	Crack Treatment	SEAL CRACKS	\$0.60	4		
Surface Treatment			SINGLE CHIP SEAL	\$0.74		8		
Restoration Treatment			MILL AND THIN OVERLAY	\$5.04			3	
II - Fair, Non-Load Related			DOUBLE CHIP SEAL	\$1.52				
III - Fair, Load Related			HEATER SCARIFY & OVERLAY	\$5.95				
IV - Poor			HEATER SCARIFY & OVERLAY	\$6.14				
	V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$8.25				
PCC	I - Good	Crack Treatment	DO NOTHING	\$0.00	4			
		Surface Treatment	DO NOTHING	\$0.00		99		
		Restoration Treatment	DO NOTHING	\$0.00			100	
	II - Fair, Non-Load Related		DO NOTHING	\$1.11				
	III - Fair, Load Related		DO NOTHING	\$0.00				
	IV - Poor		THICK AC OVERLAY(2.5 INCHES)	\$1.92				
	V - Very Poor		THICK AC OVERLAY(2.5 INCHES)	\$7.27				

 Functional Class and Surface combination not used

# Decision Tree

Printed: 10/19/2018

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Other	AC	I - Good	Crack Treatment	SEAL CRACKS	\$1.60	4		
			Surface Treatment	SINGLE CHIP SEAL	\$1.74		8	
			Restoration Treatment	MILL AND THIN OVERLAY	\$5.04			3
		II - Fair, Non-Load Related		SINGLE CHIP SEAL	\$1.11			
		III - Fair, Load Related		THIN AC OVERLAY(1.5 INCHES)	\$3.99			
		IV - Poor		THICK AC OVERLAY(2.5 INCHES)	\$5.97			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$8.75			
	AC/AC	I - Good	Crack Treatment	SEAL CRACKS	\$1.60	4		
			Surface Treatment	SINGLE CHIP SEAL	\$1.74		8	
			Restoration Treatment	MILL AND THIN OVERLAY	\$5.04			3
		II - Fair, Non-Load Related		DOUBLE CHIP SEAL	\$1.52			
		III - Fair, Load Related		HEATER SCARIFY & OVERLAY	\$5.95			
		IV - Poor		HEATER SCARIFY & OVERLAY	\$6.14			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	\$8.75			
	AC/PCC	I - Good	Crack Treatment	SEAL CRACKS	\$1.60	4		
Surface Treatment			SINGLE CHIP SEAL	\$1.74		8		
Restoration Treatment			MILL AND THIN OVERLAY	\$5.04			3	
II - Fair, Non-Load Related			DOUBLE CHIP SEAL	\$1.52				
III - Fair, Load Related			HEATER SCARIFY & OVERLAY	\$5.95				
IV - Poor			HEATER SCARIFY & OVERLAY	\$6.14				
V - Very Poor			RECONSTRUCT STRUCTURE (AC)	\$8.75				
PCC	I - Good	Crack Treatment	DO NOTHING	\$0.00	9			
		Surface Treatment	DO NOTHING	\$0.00		99		
		Restoration Treatment	DO NOTHING	\$0.00			100	
	II - Fair, Non-Load Related		DO NOTHING	\$1.11				
	III - Fair, Load Related		DO NOTHING	\$1.51				
	IV - Poor		THICK AC OVERLAY(2.5 INCHES)	\$1.92				
	V - Very Poor		THICK AC OVERLAY(2.5 INCHES)	\$7.27				

 Functional Class and Surface combination not used

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## **Appendix D**

### Scenario Analysis Reports

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$899,111	0%	2021	\$70,961	0%	2023	\$474,111	0%
2020	\$202,210	0%	2022	\$147,811	0%			

### Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	86	6.82	12.32
2020	72	85	1.19	2.22
2021	71	84	1.42	2.71
2022	69	83	0.32	0.37
2023	67	84	0.79	1.53

### 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	49.9%	41.5%	0.0%	91.4%
II / III	0.0%	1.7%	1.7%	0.0%	3.5%
IV	0.0%	1.1%	4.0%	0.0%	5.1%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	51.7%	42.8%	0.0%	94.5%
II / III	0.0%	1.0%	2.7%	0.0%	3.7%
IV	0.0%	0.0%	1.8%	0.0%	1.8%
Total	0.0%	52.7%	47.3%	0.0%	100.0%



Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2019	0%	\$899,111	II	\$15,866	Non-Project	\$213,173	\$0	Funded	\$0
			III	\$164,274				Unmet	\$0
			IV	\$249,735	Project	\$0			
			V	\$256,063					
			Total	\$685,938					
Project	\$0								
2020	0%	\$202,210	II	\$6,279	Non-Project	\$26,124	\$0	Funded	\$0
			III	\$64,619				Unmet	\$0
			IV	\$32,439	Project	\$0			
			V	\$72,749					
			Total	\$176,086					
Project	\$0								
2021	0%	\$70,961	II	\$14,945	Non-Project	\$56,016	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$14,945					
Project	\$0								
2022	0%	\$147,811	II	\$0	Non-Project	\$4,034	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$13,790	Project	\$0			
			V	\$129,987					
			Total	\$143,777					
Project	\$0								
2023	0%	\$474,111	II	\$0	Non-Project	\$28,256	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$28,252	Project	\$0			
			V	\$417,603					
			Total	\$445,855					
Project	\$0								

<b>Summary</b>				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$614,427	\$168,389	\$0	\$0
Residential/Local	\$852,174	\$159,214	\$0	\$0
<b>Grand Total:</b>	<b>\$1,466,601</b>	<b>\$327,603</b>	<b>\$0</b>	<b>\$0</b>

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$50,000	10%	2021	\$50,000	10%	2023	\$50,000	10%
2020	\$50,000	10%	2022	\$50,000	10%			

### Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	75	0.63	1.05
2020	72	74	0.51	1.02
2021	71	73	0.57	1.14
2022	69	72	0.34	0.68
2023	67	71	0.31	0.55

### 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	39.7%	34.7%	0.0%	74.4%
II / III	0.0%	7.0%	3.0%	0.0%	10.0%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	39.3%	35.0%	0.0%	74.3%
II / III	0.0%	7.3%	2.7%	0.0%	9.9%
IV	0.0%	5.1%	5.8%	0.0%	10.9%
V	0.0%	1.1%	3.7%	0.0%	4.8%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (2) Current Funding

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap			
2019	10%	\$50,000	II	\$15,866	Non-Project	\$5,219	\$0	\$849,305	Funded	\$0
			III	\$28,688					Unmet	\$5,197
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$44,554						
			Project	\$0						
2020	10%	\$50,000	II	\$6,279	Non-Project	\$9,903	\$0	\$988,790	Funded	\$0
			III	\$33,769					Unmet	\$1,306
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$40,048						
			Project	\$0						
2021	10%	\$50,000	II	\$14,945	Non-Project	\$7,837	\$0	\$998,365	Funded	\$0
			III	\$12,552					Unmet	\$0
			IV	\$14,262	Project	\$0				
			V	\$0						
			Total	\$41,759						
			Project	\$0						
2022	10%	\$50,000	II	\$5,004	Non-Project	\$9,976	\$0	\$1,017,517	Funded	\$0
			III	\$0					Unmet	\$961
			IV	\$34,309	Project	\$0				
			V	\$0						
			Total	\$39,313						
			Project	\$0						
2023	10%	\$50,000	II	\$0	Non-Project	\$4,890	\$110	\$1,390,346	Funded	\$0
			III	\$21,672					Unmet	\$2,802
			IV	\$23,129	Project	\$0				
			V	\$0						
			Total	\$44,801						
			Project	\$0						

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$109,936	\$33,749	\$0	\$4,626
Residential/Local	\$100,539	\$4,076	\$0	\$5,639
<b>Grand Total:</b>	<b>\$210,475</b>	<b>\$37,825</b>	<b>\$0</b>	<b>\$10,265</b>

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$90,000	20%	2021	\$90,000	20%	2023	\$90,000	20%
2020	\$90,000	20%	2022	\$90,000	20%			

### Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	76	1.03	1.86
2020	72	75	0.70	1.39
2021	71	75	0.94	1.81
2022	69	75	0.72	1.38
2023	67	75	0.67	1.35

### 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	39.6%	35.3%	0.0%	75.0%
II / III	0.0%	7.0%	2.4%	0.0%	9.4%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	45.0%	34.9%	0.0%	79.9%
II / III	0.0%	4.3%	2.7%	0.0%	6.9%
IV	0.0%	2.3%	6.0%	0.0%	8.3%
V	0.0%	1.1%	3.7%	0.0%	4.8%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (3) Maintain Current PCI (75)

Year	PM	Budget	Rehabilitation		Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2019	20%	\$90,000	II	\$10,575	Non-Project	\$18,700	\$0	\$809,392	Funded	\$0
			III	\$60,413					Unmet	\$5,092
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$70,988						
Project	\$0									
2020	20%	\$90,000	II	\$6,279	Non-Project	\$20,728	\$0	\$929,290	Funded	\$0
			III	\$22,470					Unmet	\$1,306
			IV	\$40,242	Project	\$0				
			V	\$0						
			Total	\$68,991						
Project	\$0									
2021	20%	\$90,000	II	\$14,945	Non-Project	\$21,708	\$0	\$938,794	Funded	\$0
			III	\$12,552					Unmet	\$0
			IV	\$40,128	Project	\$0				
			V	\$0						
			Total	\$67,625						
Project	\$0									
2022	20%	\$90,000	II	\$5,004	Non-Project	\$17,574	\$426	\$951,642	Funded	\$0
			III	\$0					Unmet	\$961
			IV	\$66,782	Project	\$0				
			V	\$0						
			Total	\$71,786						
Project	\$0									
2023	20%	\$90,000	II	\$0	Non-Project	\$18,932	\$0	\$1,300,956	Funded	\$0
			III	\$70,611					Unmet	\$2,802
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$70,611						
Project	\$0									

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$255,137	\$79,154	\$0	\$4,630
Residential/Local	\$94,864	\$18,488	\$0	\$5,531
<b>Grand Total:</b>	<b>\$350,001</b>	<b>\$97,642</b>	<b>\$0</b>	<b>\$10,161</b>

# Scenarios - Network Condition Summary

Interest: 2%

Inflation: 3%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$185,000	20%	2021	\$185,000	20%	2023	\$185,000	20%
2020	\$185,000	20%	2022	\$185,000	20%			

## Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	77	1.67	3.06
2020	72	79	1.57	2.99
2021	71	79	1.51	2.95
2022	69	80	1.68	2.74
2023	67	80	1.04	1.98

## 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	42.6%	35.3%	0.0%	77.9%
II / III	0.0%	6.0%	2.4%	0.0%	8.4%
IV	0.0%	4.1%	8.0%	0.0%	12.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	50.6%	37.9%	0.0%	88.6%
II / III	0.0%	1.0%	2.7%	0.0%	3.7%
IV	0.0%	0.0%	3.8%	0.0%	3.8%
V	0.0%	1.1%	2.9%	0.0%	4.0%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

Year	PM	Budget	Rehabilitation		Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2019	20%	\$185,000	II	\$10,575	Non-Project	\$37,527	\$0	\$714,546	Funded	\$0
			III	\$82,228					Unmet	\$4,389
			IV	\$54,207	Project	\$0				
			V	\$0						
			Total	\$147,010						
Project	\$0									
2020	20%	\$185,000	II	\$11,729	Non-Project	\$41,266	\$0	\$753,682	Funded	\$0
			III	\$12,186					Unmet	\$1,070
			IV	\$119,336	Project	\$0				
			V	\$0						
			Total	\$143,251						
Project	\$0									
2021	20%	\$185,000	II	\$14,945	Non-Project	\$39,538	\$0	\$662,333	Funded	\$0
			III	\$120,621					Unmet	\$0
			IV	\$9,815	Project	\$0				
			V	\$0						
			Total	\$145,381						
Project	\$0									
2022	20%	\$185,000	II	\$5,004	Non-Project	\$53,899	\$0	\$586,462	Funded	\$0
			III	\$21,041					Unmet	\$827
			IV	\$66,323	Project	\$0				
			V	\$38,463						
			Total	\$130,831						
Project	\$0									
2023	20%	\$185,000	II	\$0	Non-Project	\$43,433	\$0	\$894,574	Funded	\$0
			III	\$0					Unmet	\$2,156
			IV	\$28,252	Project	\$0				
			V	\$111,909						
			Total	\$140,161						
Project	\$0									

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$394,773	\$124,733	\$0	\$3,418
Residential/Local	\$311,861	\$90,930	\$0	\$5,025
<b>Grand Total:</b>	<b>\$706,634</b>	<b>\$215,663</b>	<b>\$0</b>	<b>\$8,443</b>

# Scenarios - Network Condition Summary

Interest: 2%

Inflation: 3%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs - 10 year

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$899,111	0%	2023	\$474,111	0%	2027	\$411,270	0%
2020	\$202,210	0%	2024	\$306,741	0%	2028	\$72,216	0%
2021	\$70,961	0%	2025	\$100,415	0%			
2022	\$147,811	0%	2026	\$0	0%			

## Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	86	6.82	12.32
2020	72	85	1.19	2.22
2021	71	84	1.42	2.71
2022	69	83	0.32	0.37
2023	67	84	0.79	1.53
2024	66	84	0.51	0.99
2025	64	83	0.17	0.26
2026	62	82	0	0
2027	60	85	6.78	12.26
2028	58	84	1.19	2.22

## 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	49.9%	41.5%	0.0%	91.4%
II / III	0.0%	1.7%	1.7%	0.0%	3.5%
IV	0.0%	1.1%	4.0%	0.0%	5.1%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	49.6%	47.0%	0.0%	96.6%
II / III	0.0%	3.1%	0.3%	0.0%	3.4%
Total	0.0%	52.7%	47.3%	0.0%	100.0%



# Scenarios - Cost Summary

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs - 10 year

Year	PM	Budget	Rehabilitation		Preventative Maintenance	Surplus PM	Deferred	Stop Gap			
2019	0%	\$899,111	II	\$15,866	Non-Project	\$213,173	\$0	\$0	Funded	\$0	
			III	\$164,274					Unmet	\$0	
			IV	\$249,735	Project	\$0	\$0	\$0	\$0	Funded	\$0
			V	\$256,063							
			Total	\$685,938							
			Project	\$0							
2020	0%	\$202,210	II	\$6,279	Non-Project	\$26,124	\$0	\$0	Funded	\$0	
			III	\$64,619					Unmet	\$0	
			IV	\$32,439	Project	\$0	\$0	\$0	\$0	Funded	\$0
			V	\$72,749							
			Total	\$176,086							
			Project	\$0							
2021	0%	\$70,961	II	\$14,945	Non-Project	\$56,016	\$0	\$0	Funded	\$0	
			III	\$0					Unmet	\$0	
			IV	\$0	Project	\$0	\$0	\$0	\$0	Funded	\$0
			V	\$0							
			Total	\$14,945							
			Project	\$0							
2022	0%	\$147,811	II	\$0	Non-Project	\$4,034	\$0	\$0	Funded	\$0	
			III	\$0					Unmet	\$0	
			IV	\$13,790	Project	\$0	\$0	\$0	\$0	Funded	\$0
			V	\$129,987							
			Total	\$143,777							
			Project	\$0							
2023	0%	\$474,111	II	\$0	Non-Project	\$28,256	\$0	\$0	Funded	\$0	
			III	\$0					Unmet	\$0	
			IV	\$28,252	Project	\$0	\$0	\$0	\$0	Funded	\$0
			V	\$417,603							
			Total	\$445,855							
			Project	\$0							
2024	0%	\$306,741	II	\$0	Non-Project	\$18,674	\$0	\$0	Funded	\$0	
			III	\$0					Unmet	\$0	
			IV	\$9,927	Project	\$0	\$0	\$0	\$0	Funded	\$0
			V	\$278,140							
			Total	\$288,067							
			Project	\$0							

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2025	0%	\$100,415	II	\$0	Non-Project	\$0	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$22,696	Project	\$0			
			V	\$77,719					
			Total	\$100,415					
Project	\$0								
2026	0%	\$0	II	\$0	Non-Project	\$0	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$0					
Project	\$0								
2027	0%	\$411,270	II	\$15,094	Non-Project	\$396,176	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$15,094					
Project	\$0								
2028	0%	\$72,216	II	\$2,520	Non-Project	\$69,696	\$0	Funded	\$0
			III	\$0				Unmet	\$0
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$2,520					
Project	\$0								

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$614,427	\$417,158	\$0	\$0
Residential/Local	\$1,258,270	\$394,991	\$0	\$0
<b>Grand Total:</b>	<b>\$1,872,697</b>	<b>\$812,149</b>	<b>\$0</b>	<b>\$0</b>

# Scenarios - Network Condition Summary

Interest: 2%

Inflation: 3%

Printed: 02/25/2019

Scenario: (2) Current Funding

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$50,000	10%	2023	\$50,000	10%	2027	\$50,000	10%
2020	\$50,000	10%	2024	\$50,000	10%	2028	\$50,000	10%
2021	\$50,000	10%	2025	\$50,000	10%			
2022	\$50,000	10%	2026	\$50,000	10%			

## Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	75	0.63	1.05
2020	72	74	0.51	1.02
2021	71	73	0.57	1.14
2022	69	72	0.34	0.68
2023	67	71	0.31	0.55
2024	66	70	0.76	1.42
2025	64	69	0.74	1.36
2026	62	68	0.54	1.04
2027	60	67	0.78	1.57
2028	58	66	0.72	1.44

## 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	39.7%	34.7%	0.0%	74.4%
II / III	0.0%	7.0%	3.0%	0.0%	10.0%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	37.2%	36.6%	0.0%	73.7%
II / III	0.0%	8.4%	0.5%	0.0%	8.9%
IV	0.0%	1.9%	2.5%	0.0%	4.3%
V	0.0%	5.3%	7.8%	0.0%	13.1%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

# Scenarios - Cost Summary

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (2) Current Funding

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2019	10%	\$50,000	II	\$15,866	Non-Project	\$5,219	\$0	Funded	\$0
			III	\$28,688				Unmet	\$5,197
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$44,554					
			Project	\$0					
2020	10%	\$50,000	II	\$6,279	Non-Project	\$9,903	\$0	Funded	\$0
			III	\$33,769				Unmet	\$1,306
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$40,048					
			Project	\$0					
2021	10%	\$50,000	II	\$14,945	Non-Project	\$7,837	\$0	Funded	\$0
			III	\$12,552				Unmet	\$0
			IV	\$14,262	Project	\$0			
			V	\$0					
			Total	\$41,759					
			Project	\$0					
2022	10%	\$50,000	II	\$5,004	Non-Project	\$9,976	\$0	Funded	\$0
			III	\$0				Unmet	\$961
			IV	\$34,309	Project	\$0			
			V	\$0					
			Total	\$39,313					
			Project	\$0					
2023	10%	\$50,000	II	\$0	Non-Project	\$4,890	\$110	Funded	\$0
			III	\$21,672				Unmet	\$2,802
			IV	\$23,129	Project	\$0			
			V	\$0					
			Total	\$44,801					
			Project	\$0					
2024	10%	\$50,000	II	\$27,752	Non-Project	\$5,294	\$0	Funded	\$0
			III	\$16,908				Unmet	\$4,724
			IV	\$0	Project	\$0			
			V	\$0					
			Total	\$44,660					
			Project	\$0					

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap			
2025	10%	\$50,000	II	\$24,699	Non-Project	\$14,296	\$0	\$2,147,368	Funded	\$0
			III	\$0					Unmet	\$3,935
			IV	\$10,226	Project	\$0				
			V	\$0						
			Total	\$34,925						
Project	\$0									
2026	10%	\$50,000	II	\$17,695	Non-Project	\$9,030	\$0	\$2,465,025	Funded	\$0
			III	\$23,032					Unmet	\$1,757
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$40,727						
Project	\$0									
2027	10%	\$50,000	II	\$21,712	Non-Project	\$27,997	\$0	\$2,684,556	Funded	\$0
			III	\$0					Unmet	\$2,087
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$21,712						
Project	\$0									
2028	10%	\$50,000	II	\$22,184	Non-Project	\$27,331	\$0	\$3,194,071	Funded	\$0
			III	\$0					Unmet	\$5,997
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$22,184						
Project	\$0									

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$185,394	\$94,504	\$0	\$12,703
Residential/Local	\$189,289	\$27,269	\$0	\$16,062
<b>Grand Total:</b>	<b>\$374,683</b>	<b>\$121,773</b>	<b>\$0</b>	<b>\$28,765</b>

# Scenarios - Network Condition Summary

Interest: 2%

Inflation: 3%

Printed: 02/25/2019

Scenario: (3) Maintain PCI 5 points 10 year  
\$1.24M

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$90,000	20%	2023	\$90,000	20%	2027	\$160,000	20%
2020	\$90,000	20%	2024	\$160,000	20%	2028	\$160,000	20%
2021	\$90,000	20%	2025	\$160,000	20%			
2022	\$90,000	20%	2026	\$160,000	20%			

## Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	76	1.03	1.86
2020	72	75	0.70	1.39
2021	71	75	0.94	1.81
2022	69	75	0.72	1.38
2023	67	75	0.67	1.35
2024	66	75	1.37	2.55
2025	64	75	1.72	2.92
2026	62	75	1.33	2.43
2027	60	75	1.55	2.90
2028	58	75	1.01	1.90

## 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	39.6%	35.3%	0.0%	75.0%
II / III	0.0%	7.0%	2.4%	0.0%	9.4%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	48.1%	38.6%	0.0%	86.7%
II / III	0.0%	2.1%	0.5%	0.0%	2.6%
IV	0.0%	0.0%	1.5%	0.0%	1.5%
V	0.0%	2.6%	6.7%	0.0%	9.3%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

# Scenarios - Cost Summary

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (3) Maintain PCI 5 points 10 year  
\$1.24M

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap			
2019	20%	\$90,000	II	\$10,575	Non-Project	\$18,700	\$0	\$809,392	Funded	\$0
			III	\$60,413					Unmet	\$5,092
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$70,988						
Project	\$0									
2020	20%	\$90,000	II	\$6,279	Non-Project	\$20,728	\$0	\$929,290	Funded	\$0
			III	\$22,470					Unmet	\$1,306
			IV	\$40,242	Project	\$0				
			V	\$0						
			Total	\$68,991						
Project	\$0									
2021	20%	\$90,000	II	\$14,945	Non-Project	\$21,708	\$0	\$938,794	Funded	\$0
			III	\$12,552					Unmet	\$0
			IV	\$40,128	Project	\$0				
			V	\$0						
			Total	\$67,625						
Project	\$0									
2022	20%	\$90,000	II	\$5,004	Non-Project	\$17,574	\$426	\$951,642	Funded	\$0
			III	\$0					Unmet	\$961
			IV	\$66,782	Project	\$0				
			V	\$0						
			Total	\$71,786						
Project	\$0									
2023	20%	\$90,000	II	\$0	Non-Project	\$18,932	\$0	\$1,300,956	Funded	\$0
			III	\$70,611					Unmet	\$2,802
			IV	\$0	Project	\$0				
			V	\$0						
			Total	\$70,611						
Project	\$0									
2024	20%	\$160,000	II	\$24,463	Non-Project	\$32,165	\$0	\$1,499,581	Funded	\$0
			III	\$98,306					Unmet	\$3,717
			IV	\$4,022	Project	\$0				
			V	\$0						
			Total	\$126,791						
Project	\$0									

Year	PM	Budget	Rehabilitation		Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2025	20%	\$160,000	II	\$24,699	Non-Project	\$50,518	\$0	\$1,636,594	Funded	\$0
			III	\$0					Unmet	\$1,990
			IV	\$84,150	Project	\$0				
			V	\$0						
			Total	\$108,849						
Project	\$0									
2026	20%	\$160,000	II	\$17,695	Non-Project	\$51,527	\$0	\$1,526,128	Funded	\$0
			III	\$0					Unmet	\$0
			IV	\$23,377	Project	\$0				
			V	\$66,971						
			Total	\$108,043						
Project	\$0									
2027	20%	\$160,000	II	\$15,094	Non-Project	\$78,363	\$0	\$1,667,519	Funded	\$0
			III	\$0					Unmet	\$2,087
			IV	\$0	Project	\$0				
			V	\$65,823						
			Total	\$80,917						
Project	\$0									
2028	20%	\$160,000	II	\$5,773	Non-Project	\$57,723	\$0	\$2,093,588	Funded	\$0
			III	\$0					Unmet	\$5,566
			IV	\$0	Project	\$0				
			V	\$93,275						
			Total	\$99,048						
Project	\$0									

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$435,548	\$240,958	\$0	\$8,037
Residential/Local	\$438,101	\$126,980	\$0	\$15,483
<b>Grand Total:</b>	<b>\$873,649</b>	<b>\$367,938</b>	<b>\$0</b>	<b>\$23,520</b>



# Scenarios - Network Condition Summary

Interest: 2%

Inflation: 3%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80) 10 year  
\$2.17M

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$185,000	20%	2023	\$185,000	20%	2027	\$252,000	20%
2020	\$185,000	20%	2024	\$250,000	20%	2028	\$300,000	0%
2021	\$185,000	20%	2025	\$250,000	20%			
2022	\$185,000	20%	2026	\$200,000	0%			

## Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2019	74	77	1.67	3.06
2020	72	79	1.57	2.99
2021	71	79	1.51	2.95
2022	69	80	1.68	2.74
2023	67	80	1.04	1.98
2024	66	80	1.29	2.30
2025	64	80	1.36	2.43
2026	62	79	0.66	1.03
2027	60	80	1.78	3.32
2028	58	80	0.53	1.06

## 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	0.0%	38.7%	31.1%	0.0%	69.8%
II / III	0.0%	8.0%	6.6%	0.0%	14.6%
IV	0.0%	6.1%	8.0%	0.0%	14.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2019 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	42.6%	35.3%	0.0%	77.9%
II / III	0.0%	6.0%	2.4%	0.0%	8.4%
IV	0.0%	4.1%	8.0%	0.0%	12.1%
V	0.0%	0.0%	1.5%	0.0%	1.5%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

Condition in year 2028 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	0.0%	49.6%	43.4%	0.0%	93.1%
II / III	0.0%	3.1%	0.5%	0.0%	3.6%
V	0.0%	0.0%	3.4%	0.0%	3.4%
Total	0.0%	52.7%	47.3%	0.0%	100.0%

# Scenarios - Cost Summary

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80) 10 year  
\$2.17M

Year	PM	Budget	Rehabilitation		Preventative Maintenance	Surplus PM	Deferred	Stop Gap		
2019	20%	\$185,000	II	\$10,575	Non-Project	\$37,527	\$0	\$714,546	Funded	\$0
			III	\$82,228					Unmet	\$4,389
			IV	\$54,207	Project	\$0				
			V	\$0						
			Total	\$147,010						
			Project	\$0						
2020	20%	\$185,000	II	\$11,729	Non-Project	\$41,266	\$0	\$753,682	Funded	\$0
			III	\$12,186					Unmet	\$1,070
			IV	\$119,336	Project	\$0				
			V	\$0						
			Total	\$143,251						
			Project	\$0						
2021	20%	\$185,000	II	\$14,945	Non-Project	\$39,538	\$0	\$662,333	Funded	\$0
			III	\$120,621					Unmet	\$0
			IV	\$9,815	Project	\$0				
			V	\$0						
			Total	\$145,381						
			Project	\$0						
2022	20%	\$185,000	II	\$5,004	Non-Project	\$53,899	\$0	\$586,462	Funded	\$0
			III	\$21,041					Unmet	\$827
			IV	\$66,323	Project	\$0				
			V	\$38,463						
			Total	\$130,831						
			Project	\$0						
2023	20%	\$185,000	II	\$0	Non-Project	\$43,433	\$0	\$894,574	Funded	\$0
			III	\$0					Unmet	\$2,156
			IV	\$28,252	Project	\$0				
			V	\$111,909						
			Total	\$140,161						
			Project	\$0						
2024	20%	\$250,000	II	\$5,676	Non-Project	\$55,669	\$0	\$978,193	Funded	\$0
			III	\$0					Unmet	\$1,912
			IV	\$9,927	Project	\$0				
			V	\$178,692						
			Total	\$194,295						
			Project	\$0						

Year	PM	Budget	Rehabilitation	Preventative Maintenance	Surplus PM	Deferred	Stop Gap			
2025	20%	\$250,000	II	\$0	Non-Project	\$63,310	\$0	\$858,875	Funded	\$0
			III	\$0					Unmet	\$537
			IV	\$22,696	Project	\$0				
			V	\$163,079						
			Total	\$185,775						
Project	\$0									
2026	0%	\$200,000	II	\$0	Non-Project	\$28,222	\$0	\$687,497	Funded	\$0
			III	\$0					Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$168,926						
			Total	\$168,926						
Project	\$0									
2027	20%	\$252,000	II	\$15,094	Non-Project	\$89,221	\$0	\$561,849	Funded	\$0
			III	\$0					Unmet	\$0
			IV	\$0	Project	\$0				
			V	\$146,274						
			Total	\$161,368						
Project	\$0									
2028	0%	\$300,000	II	\$2,520	Non-Project	\$31,021	\$0	\$790,157	Funded	\$0
			III	\$0					Unmet	\$2,653
			IV	\$0	Project	\$0				
			V	\$265,656						
			Total	\$268,176						
Project	\$0									

Summary				
Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Collector	\$660,429	\$276,221	\$0	\$3,418
Residential/Local	\$1,024,745	\$206,885	\$0	\$10,127
<b>Grand Total:</b>	<b>\$1,685,174</b>	<b>\$483,106</b>	<b>\$0</b>	<b>\$13,545</b>

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## **Appendix E**

### Section PCI/RSL Listing Report

02/25/2019

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
10THST	005	10TH ST	SEATTLE AVE	DEAD END NORTH	261	22	Residential/ Local	AC/AC	09/19/2018	85
11THST	005	11TH ST	SOUTH DEAD END	SEATTLE	216	16	Residential/ Local	AC	09/19/2018	53
11THST	010	11TH ST	SEATTLE AVE	NORTH DEAD END	201	9	Residential/ Local	GRAVEL		0
11THST	030	11TH ST	PVT DRIVEWAY (CORNER)	MAIN ST	208	10	Residential/ Local	GRAVEL		0
11THST	040	11TH ST	PORTLAND AVE	E ST	198	11	Residential/ Local	GRAVEL		0
12THST	030	12TH ST	SEATTLE ST	NORTH DEAD END	447	16	Residential/ Local	AC	09/19/2018	87
12THST	050	12TH ST	PORTLAND AVE	E ST	233	14	Residential/ Local	GRAVEL		0
12THST	060	12TH ST	E ST	NORTH DEAD END	225	10	Residential/ Local	GRAVEL		0
13THST	020	13TH ST	SOUTH DEAD END	MAIN ST	296	12	Residential/ Local	GRAVEL		0
13THST	030	13TH ST	TILLAMOOK AVE	SEATTLE AVE	471	16	Residential/ Local	AC	09/19/2018	71
13THST	040	13TH ST	SEATTLE ST	NORTH DEAD END	231	10	Residential/ Local	GRAVEL		0
13THST	050	13TH ST	E ST	NORTH DEAD END	315	10	Residential/ Local	GRAVEL		0
14THST	003	14TH ST	SPRUCE ST	90 DEGREE CORNER WEST	179	22	Residential/ Local	AC/AC	09/19/2018	84
14THST	005	14TH ST	90 DEGREE CORNER WEST	100FT S OF WILLIAMS AVE	349	10	Residential/ Local	GRAVEL		0
14THST	007	14TH ST	100FT S OF WILLIAMS AVE	DEAD END N OF WILLIAMS AVE	297	14	Residential/ Local	GRAVEL		0
14THST	008	14TH ST	BASELINE RD	E ST	224	21	Residential/ Local	AC/AC	09/19/2018	88
14THST	009	14TH ST	E ST	NORTH DEAD END	651	10	Residential/ Local	GRAVEL		0
14THST	010	14TH ST	SOUTH CUL-DE-SAC	McCOY ST	627	24	Residential/ Local	AC	09/19/2018	91
15THST	010	15TH ST	SPRUCE ST	NORTH DEAD END	344	10	Residential/ Local	GRAVEL		0
15THST	020	15TH ST	TILLAMOOK AVE	SEATTLE ST	519	16	Residential/ Local	AC/AC	09/19/2018	74

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
15THST	030	15TH ST	SEATTLE ST	BASELINE RD	483	16	Residential/Local	AC/AC	09/19/2018	76
16TH ST	010	16TH ST	SPRUCE ST	WILLIAMS AVE	566	20	Residential/Local	AC/AC	09/19/2018	26
16TH ST	020	16TH ST	WILLIAMS AVE	NORTH DEAD END	353	12	Residential/Local	AC/AC	09/19/2018	48
16TH ST	025	16TH ST	UNION ST	SEATTLE ST	237	10	Residential/Local	GRAVEL		0
16TH ST	030	16TH ST	SEATTLE ST	SUNNYSIDE ST	213	10	Residential/Local	AC	09/19/2018	69
17TH ST	010	17TH ST	SOUTH DEAD END	WILLIAMS AVE	507	22	Residential/Local	AC/AC	09/19/2018	77
17TH ST	020	17TH ST	TILLAMOOK AVE	NORTH DEAD END	135	11	Residential/Local	GRAVEL		0
18TH ST	010	18TH ST	WEBER RD	WILLIAMS AVE	541	22	Residential/Local	AC/AC	09/19/2018	80
19THST	010	19TH ST	SOUTH DEAD END	WILLIAMS AVE	501	20	Residential/Local	AC	09/19/2018	76
1STST	010	1ST STREET	TRADE ST	MAIN ST	262	14	Residential/Local	AC/AC	09/19/2018	91
1STST	020	1ST STREET	PACIFIC ST	OCEAN ST	230	16	Residential/Local	AC/AC	09/19/2018	91
2NDST	010	2ND STREET	TRADE ST	SOLLMAN LN	151	16	Residential/Local	AC	09/19/2018	84
2NDST	020	2ND STREET	TRADE ST	MAIN ST	264	10	Residential/Local	GRAVEL		0
2NDST	030	2ND STREET	SALEM ST	HIGH ST	235	11	Residential/Local	AC	09/19/2018	25
2NDST	040	2ND STREET	OCEAN ST	SOUTH DEAD END	140	12	Residential/Local	GRAVEL		0
3RDST	010	3RD STREET	HAYES OYSTER DR	B ST	255	40	Residential/Local	AC/AC	09/19/2018	48
3RDST	020	3RD STREET	B ST	DEAD END N (CITY PARK)	215	15	Residential/Local	GRAVEL		0
4THST	010	4TH STREET	HWY 101 FRONTAGE RD	D ST	111	20	Residential/Local	AC/AC	09/19/2018	58
4THST	020	4TH STREET	D ST	HAYES OYSTER DR	261	40	Collector	AC/AC	09/19/2018	83
4THST	030	4TH STREET	HAYES OYSTER DR	A ST	520	40	Collector	AC/AC	09/19/2018	81
4THST	040	4TH STREET	A ST	MAIN ST	661	21	Collector	AC/AC	09/19/2018	83
4THST	050	4TH STREET	MAIN ST	OCEAN ST	547	20	Collector	AC/AC	09/19/2018	61
4THST	060	4TH STREET	OCEAN ST	HIGH ST	530	20	Collector	AC/AC	09/19/2018	79
4THST	070	4TH STREET	HIGH ST	HOBSONVILLE PT RD	306	21	Collector	AC/AC	09/19/2018	88
5THAV	010	5TH AVE	STATE HWY 101	B ST	864	46	Collector	AC/AC	09/19/2018	71
5THAV	020	5TH AVE	B ST	MAIN ST	915	23	Collector	AC/AC	09/19/2018	74
5THAV	030	5TH AVE	MAIN ST	OCEAN ST	534	22	Collector	AC/AC	09/19/2018	63
5THAV	040	5TH AVE	OCEAN ST	HOBSONVILLE PT RD	586	22	Collector	AC/AC	09/19/2018	83
5THAV	050	5TH AVE	HOBSONVILLE PT RD	HENDRICKS ST	193	15	Collector	AC/AC	09/19/2018	89

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
6THST	020	6TH ST	SOUTH DEAD END	PORTLAND AVE	318	12	Residential/Local	AC	09/19/2018	38
6THST	030	6TH ST	PORTLAND AVE	D ST	525	10	Residential/Local	AC	09/19/2018	34
6THST	035	6TH ST	D STREET	NORTH DEAD END	108	14	Residential/Local	AC	10/04/2018	59
6THST	040	6TH ST	B ST	A ST	261	14	Residential/Local	AC/AC	09/19/2018	46
6THST	050	6TH ST	A ST	NORTH DEAD END	336	12	Residential/Local	AC	09/19/2018	50
6THST	060	6TH ST	PACIFIC ST	OCEAN ST	243	9	Residential/Local	GRAVEL		0
6THST	070	6TH ST	OCEAN ST	NORTH DEAD END	481	20	Residential/Local	AC	09/19/2018	85
7THST	005	7TH ST	SOUTH DEAD END	D ST	229	20	Collector	AC/AC	09/19/2018	74
7THST	010	7TH ST	SEATTLE AVE	PORTLAND AVE	522	11	Residential/Local	AC/AC	09/19/2018	89
7THST	015	7TH ST	PORTLAND AVE	NORTH DEAD END	75	16	Residential/Local	AC/AC	10/04/2018	87
7THST	020	7TH ST	DEAD END S OF MAIN ST	MAIN ST	239	18	Residential/Local	GRAVEL		0
7THST	030	7TH ST	MAIN ST	OCEAN ST	519	21	Collector	AC/AC	09/19/2018	72
7THST	040	7TH ST	OCEAN ST	PENNSYLVANIA ST	1299	21	Collector	AC/AC	09/19/2018	89
8THPL	010	8TH PL	OCEAN ST	HOUSE #10015	231	21	Residential/Local	AC	09/19/2018	81
8THPL	020	8TH PL	HOUSE #10015	HIGH ST	222	21	Residential/Local	AC	09/19/2018	89
8THST	010	8TH ST	PORTLAND AVE	NORTH DEAD END	184	10	Residential/Local	GRAVEL		0
8THST	015	8TH ST	E ST	D ST	200	22	Residential/Local	AC	09/19/2018	72
8THST	017	8TH ST	D ST	NORTH DEAD END	77	20	Residential/Local	AC	09/19/2018	74
8THST	020	8TH ST	SOUTH DEAD END	MAIN ST	261	10	Residential/Local	GRAVEL		0
8THST	030	8TH ST	DEAD END SOUTH OF C ST	DEAD END NORTH OF C ST	267	10	Residential/Local	GRAVEL		0
9THST	010	9TH ST	STATE HWY 101	TILLAMOOK AVE	347	10	Residential/Local	AC/AC	09/19/2018	80
9THST	020	9TH ST	TILLAMOOK AVE	SEATTLE AVE	436	19	Residential/Local	AC/AC	09/19/2018	61
9THST	030	9TH ST	SEATTLE AVE	PORTLAND AVE	536	24	Residential/Local	AC/AC	09/19/2018	80
9THST	040	9TH ST	DEW POINTE DR	MAIN ST (N INT)	561	20	Residential/Local	AC/AC	09/19/2018	76
9THST	050	9TH ST	MAIN ST (N INT)	NORTH DEAD END	478	10	Residential/Local	AC	02/22/2019	40

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
9THST	060	9TH ST	E ST	D ST	224	22	Residential/Local	AC/AC	09/19/2018	73
9THST	070	9TH ST	D ST	C ST	240	10	Residential/Local	GRAVEL		0
AST	010	A ST	4TH ST	5TH ST	237	40	Residential/Local	AC/AC	09/19/2018	91
AST	020	A ST	5TH ST	6TH ST	249	14	Residential/Local	AC	09/19/2018	25
AST	030	A ST	6TH ST	EAST DEAD END	198	8	Residential/Local	GRAVEL		0
ALLPRD	010	ALDERBROOK LOOP RD	STATE HWY 101	EAST CITY LIMITS (HOUSE #7805)	774	22	Collector	AC/AC	09/19/2018	47
BST	010	B ST	WEST DEAD END	3RD ST	249	10	Residential/Local	GRAVEL		0
BST	020	B ST	3RD ST	4TH ST	262	52	Collector	AC/AC	09/19/2018	41
BST	030	B ST	4TH ST	5TH ST	236	34	Collector	AC/AC	09/19/2018	87
BST	040	B ST	5TH ST	6TH ST	249	14	Residential/Local	AC	09/19/2018	35
BST	050	B ST	6TH ST	EAST DEAD END	237	8	Residential/Local	GRAVEL		0
BASERD	010	BASELINE RD	14TH ST	BEWLEYS ST	1342	20	Collector	AC/AC	09/19/2018	88
BAYCIR	010	BAY CIRCLE	NORTH RIDGE DR	END OF CIRCLE	386	21	Proposed; Private; Non-County	AC	09/19/2018	69
BAYRCT	010	BAY RIDGE CT	SOUTH RIDGE DR	EAST DEAD END	265	21	Residential/Local	AC	09/19/2018	78
BAYST	010	BAY ST	HIGH ST	NORTH DEAD END	399	18	Proposed; Private; Non-County	AC	09/19/2018	91
BAYVST	010	BAYVIEW ST	SOUTH DEAD END	E ST	133	16	Residential/Local	AC	09/19/2018	76
BAYVWST	027	BAYVIEW ST	9TH ST	E ST/11TH ST	588	21	Collector	AC/AC	09/19/2018	65
BEWLST	010	BEWLEYS ST	WILLIAMS/VAUGHN RD	DOUGHTY RD	1342	21	Collector	AC/AC	09/19/2018	91
BEWLST	020	BEWLEYS ST	DOUGHTY RD	TILLAMOOK AVE	315	21	Collector	AC/AC	09/19/2018	89
BEWLST	030	BEWLEYS ST	TILLAMOOK AVE	BASELINE RD	988	21	Collector	AC/AC	09/19/2018	89
CST	010	C ST	8TH ST	9TH ST	211	10	Residential/Local	GRAVEL		0
CLAMST	010	CLAM ST	WEST DEAD END	50 FT EAST OF ELLIOT ST	383	20	Collector	AC	09/19/2018	93
DST	005	D ST	4TH ST	5TH ST	229	33	Residential/Local	AC/AC	09/19/2018	88
DST	010	D ST	6TH ST	9TH ST	842	22	Residential/Local	AC	09/19/2018	65
DST	020	D ST	9TH ST	EAST DEAD END	155	20	Residential/Local	GRAVEL		0
DEWPDR	010	DEW POINTE DR	9TH ST	EAST DEAD END	672	20	Residential/Local	AC	09/19/2018	91



Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
DEWPLP	010	DEW POINTE PL	SOUTH DEAD END	DEW POINTE DR	144	20	Residential/ Local	AC	09/19/2018	93
DOUGHT	010	DOUGHTY RD	BEWLEY ST	EAST CITY LIMITS	622	22	Collector	AC/AC	02/22/2019	50
EST	010	E ST	8TH ST	DEAD END EAST	153	20	Residential/ Local	AC	09/19/2018	50
EST	020	E ST	9TH ST	11TH ST/BAYVIEW ST	481	12	Residential/ Local	GRAVEL		0
EST	030	E ST	11TH ST/BAYVIEW ST	12TH ST	279	21	Collector	AC/AC	09/19/2018	52
EST	040	E ST	12TH ST	14TH ST	509	21	Collector	AC/AC	09/19/2018	88
ELLIST	010	ELLIOT ST	CLAM ST	SALMON ST	263	20	Collector	AC	09/19/2018	93
ELLIST	020	ELLIOT ST	SPRUCE ST	WATER TREATMENT PLANT	1475	12	Collector	GRAVEL		0
FERNST	010	FERN ST	WEST DEAD END	7TH ST	73	8	Residential/ Local	GRAVEL		0
FERNST	020	FERN ST	7TH ST	EAST DEAD END	300	12	Residential/ Local	GRAVEL		0
HAREST	010	HARE ST	SOUTH DEAD END	SALMON ST	175	20	Collector	GRAVEL		0
HAREST	020	HARE ST	SALMON ST	SPRUCE ST	284	20	Collector	AC	09/19/2018	91
HAREST	030	HARE ST	SPRUCE ST	NORTH DEAD END	211	14	Collector	GRAVEL		0
HAOACRD	010	HAYES OYSTER ACCESS RD	WEST DEAD END	RR TRACKS	711	33	Residential/ Local	AC/AC	09/19/2018	47
HAYEDR	010	HAYES OYSTER DR	ST HWY 101	4TH ST	287	42	Collector	AC	09/19/2018	71
HAYEDR	020	HAYES OYSTER DR	4TH ST	5TH ST	233	22	Collector	AC	09/19/2018	87
HENDST	010	HENDRICKS ST	WEST DEAD END	BEGINING OF PVMT	109	16	Residential/ Local	GRAVEL		0
HENDST	020	HENDRICKS ST	BEGINING OF PVMT (W OF 5TH)	END OF PVMT (E OF 5TH)	127	14	Residential/ Local	AC	09/19/2018	62
HENDST	030	HENDRICKS ST	END OF PVMT (E OF 5TH)	EAST DEAD END	152	16	Residential/ Local	GRAVEL		0
HENDST	040	HENDRICKS ST	7TH STREET	WEST DEAD END	134	12	Residential/ Local	GRAVEL		0
HIGHST	010	HIGH ST	RD WIDENS	2ND ST	824	10	Residential/ Local	AC	09/19/2018	89
HIGHST	020	HIGH ST	2ND ST	4TH ST	508	14	Residential/ Local	AC	09/19/2018	83
HIGHST	030	HIGH ST	7TH ST	END OF PVMT	235	20	Residential/ Local	AC	09/19/2018	84
HIGHST	040	HIGH ST	END OF PVMT	8TH PL	141	16	Residential/ Local	GRAVEL		0
HIGHST	005	HIGH ST ACCESS RD	NORTH RIDGE DR	RD WIDENS	156	12	Residential/ Local	AC	09/19/2018	64
HBPTRD	010	HOBSONVILLE PT RD	5TH AVE/HENDRICKS	250 FT. N. OF 4TH ST	595	22	Collector	AC/AC	02/22/2019	85
HBPTRD	020	HOBSONVILLE PT RD	250 FT. N. OF 4TH ST	NORTH CITY LIMITS	340	21	Collector	AC/AC	02/22/2019	44
MAINST	010	MAIN ST	WEST DEAD END	HOUSE #5155	101	14	Residential/ Local	AC	02/22/2019	16
MAINST	020	MAIN ST	HOUSE #5155	4TH ST	1207	16	Residential/ Local	AC/AC	09/19/2018	91

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
MAINST	030	MAIN ST	4TH ST	5TH ST	245	21	Residential/Local	AC/AC	09/19/2018	91
MAINST	040	MAIN ST	5TH ST	7TH ST	522	21	Collector	AC/AC	09/19/2018	89
MAINST	050	MAIN ST	7TH ST	9TH ST	527	18	Residential/Local	AC/AC	09/19/2018	72
MAINST	060	MAIN ST	9TH ST	11TH ST	530	16	Residential/Local	AC/AC	02/22/2019	35
MAINST	070	MAIN ST	11TH ST	13TH ST	516	11	Residential/Local	GRAVEL		0
MAINST	080	MAIN ST	13TH ST	EAST DEAD END	253	9	Residential/Local	GRAVEL		0
MCCOST	010	McCOY ST	STATE HWY 101	14TH ST	1172	21	Collector	AC/AC	09/19/2018	72
MCCOST	020	McCOY ST	14TH ST	HOUSE #6800	584	21	Collector	AC/AC	09/19/2018	89
MCCOST	030	McCOY ST	HOUSE #6800	BEWLEYS ST	748	21	Collector	AC/AC	09/19/2018	91
NRIDGDR	010	NORTH RIDGE DR	SOUTH RIDGE DR	CUL-DE-SAC WEST	765	21	Proposed; Private; Non-County	AC	09/19/2018	91
OCEACT	010	OCEAN CT	NORTH RIDGE DR	CUL-DE-SAC	346	21	Proposed; Private; Non-County	AC	09/19/2018	72
OCEAST	010	OCEAN ST	1ST ST	4TH ST	817	22	Residential/Local	AC/AC	09/19/2018	76
OCEAST	020	OCEAN ST	4TH ST	5TH ST	250	22	Residential/Local	AC/AC	09/19/2018	56
OCEAST	030	OCEAN ST	5TH ST	7TH ST	508	16	Residential/Local	AC/AC	09/19/2018	68
OCEAST	040	OCEAN ST	7TH ST	8TH PL	404	16	Residential/Local	AC/AC	09/19/2018	76
PACIST	010	PACIFIC ST	1ST ST	4TH ST	767	16	Residential/Local	AC/AC	09/19/2018	91
PACIST	020	PACIFIC ST	DEAD END WEST OF 6TH ST	7TH ST	449	10	Residential/Local	GRAVEL		0
PENNST	010	PENNSYLVANIA ST	7TH ST	EAST CITY LIMITS	522	22	Collector	AC/AC	09/19/2018	88
PORTAV	020	PORTLAND AVE	5TH ST	6TH ST	395	26	Collector	AC/AC	09/19/2018	53
PORTAV	025	PORTLAND AVE	6TH ST	9TH ST	785	21	Collector	AC/AC	09/19/2018	49
PORTAV	030	PORTLAND AVE	DEAD END WEST OF 11TH	11TH ST	123	10	Residential/Local	GRAVEL		0
PORTAV	040	PORTLAND AVE	11TH ST	12TH ST	258	10	Residential/Local	GRAVEL		0
PORTAV	050	PORTLAND AVE	14TH STREET	WEST DEAD END	117	10	Residential/Local	GRAVEL		0
SALEST	010	SALEM ST	WEST DEAD END	SECOND ST	105	12	Residential/Local	GRAVEL		0
SALEST	020	SALEM ST	4TH STREET	EAST DEAD END	189	12	Residential/Local	GRAVEL		0
SALEST	030	SALEM ST	5TH ST	EAST DEAD END	100	11	Residential/Local	GRAVEL		0

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
SALMST	010	SALMON ST	WEST DEAD END	HARE ST	836	20	Collector	AC	09/19/2018	91
SEATST	010	SEATTLE ST	7TH ST	9TH ST	493	11	Residential/ Local	AC	09/19/2018	84
SEATST	020	SEATTLE ST	9TH ST	10TH ST	262	22	Residential/ Local	AC	09/19/2018	87
SEATST	030	SEATTLE ST	11TH ST	13TH ST	521	12	Residential/ Local	AC	09/19/2018	67
SEATST	035	SEATTLE ST	13TH ST	EAST DEAD END	190	12	Residential/ Local	GRAVEL		0
SEATST	040	SEATTLE ST	15TH ST	BEWLEYS ST	1107	20	Residential/ Local	AC/AC	09/19/2018	91
SHORST	020	SHORT ST	9TH ST	END OF PVMT (#6190)	256	12	Residential/ Local	GRAVEL		0
SHORST	030	SHORT ST	END OF PVMT (#6190)	EAST DEAD END	327	10	Residential/ Local	GRAVEL		0
SORIDR	010	SOUTH RIDGE DR	WEST DEAD END	1ST ST	992	21	Proposed; Private; Non-County	AC	09/19/2018	78
SPRUST	010	SPRUCE ST	ELLIOT ST	HARE ST	432	14	Residential/ Local	GRAVEL		0
SPRUST	020	SPRUCE ST	HARE ST	END OF PVMT	715	20	Residential/ Local	AC/AC	09/19/2018	91
SPRUST	030	SPRUCE ST	STATE HWY 101	16TH ST	434	22	Residential/ Local	AC/AC	09/19/2018	63
SUNNST	020	SUNNYSIDE ST	15TH ST	16TH ST	395	12	Residential/ Local	AC	09/19/2018	88
SUNNST	030	SUNNYSIDE ST	WEST DEAD END	BEWLEYS ST	250	10	Residential/ Local	GRAVEL		0
TILLAV	010	TILLAMOOK AVE	WEST DEAD END	STATE HWY 101	154	24	Residential/ Local	AC/AC	09/19/2018	69
TILLAV	020	TILLAMOOK AVE	HWY 101	13TH ST	1330	21	Collector	AC/AC	09/19/2018	82
TILLAV	030	TILLAMOOK AVE	13TH ST	100FT EAST OF 17TH ST	1335	21	Collector	AC/AC	09/19/2018	80
TILLAV	040	TILLAMOOK AVE	100FT EAST OF 17TH ST	BEWLEYS ST	272	21	Collector	AC/AC	09/19/2018	81
TRADST	010	TRADE ST	WEST DEAD END	1ST ST	494	14	Residential/ Local	AC/AC	09/19/2018	91
TRADST	020	TRADE ST	1ST ST	2ND ST	242	14	Residential/ Local	AC/AC	09/19/2018	91
TRADST	030	TRADE ST	2ND ST	4TH ST	521	15	Residential/ Local	AC/AC	09/19/2018	78
UNIOST	010	UNION ST	WEST DEAD END	15TH ST	226	11	Residential/ Local	GRAVEL		0
UNIOST	020	UNION ST	15TH ST	HOUSE #6825	399	13	Residential/ Local	AC	09/19/2018	28
UNIOST	030	UNION ST	HOUSE #6825	16TH AVE	185	13	Residential/ Local	GRAVEL		0
WARRST	010	WARREN ST	SPRUCE ST	STATE HWY 101	700	21	Collector	AC	09/19/2018	93
WARRST	020	WARREN ST	STATE HWY 101	McCOY ST	880	25	Collector	AC/AC	09/19/2018	95

Street ID	Section ID	Street name	Begin Location	End Location	Length	Width	Functional Class	Surface	PCI Date	PCI
SHORST	010	WATT PARK ACCESS	McCOY ST	NORTH DEAD END	218	10	Residential/ Local	GRAVEL		0
WEBERD	010	WEBER RD	SOUTH DEAD END	18TH ST	150	28	Residential/ Local	AC/AC	09/19/2018	93
WILLAV	005	WILLIAMS AVE	ST HWY 101	EAST DEAD END	124	10	Residential/ Local	GRAVEL		0
WILLAV	010	WILLIAMS AVE	14TH ST	EAST DEAD END	242	8	Residential/ Local	GRAVEL		0
WILLAV	020	WILLIAMS AVE	16TH ST	BEWLEYS ST	881	20	Residential/ Local	AC/AC	09/19/2018	37
WOODST	010	WOOD ST	WARREN ST	EAST DEAD END	412	10	Residential/ Local	GRAVEL		0
WOODST	020	WOOD ST	14TH ST	EAST DEAD END	473	24	Residential/ Local	AC	09/19/2018	91

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## **Appendix F**

### Scenarios - Sections Selected for Treatment

*Scenario 1 - Unconstrained Needs*

*Scenario 2 - Current Budget Scenario*

*Scenario 3 - Maintain Current PCI*

*Scenario 4 - Increase PCI by 5 points*

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$899,111	0%	2021	\$70,961	0%	2023	\$474,111	0%
2020	\$202,210	0%	2022	\$147,811	0%			

## Year: 2019

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
5TH AVE	STATE HWY 101	B ST	5THAV	010	864	46	39,744	C	AC/AC		70	69	100	\$70,215	24,338	2" OVERLAY WITH PRE-LEVEL
5TH AVE	MAIN ST	OCEAN ST	5THAV	030	534	22	11,748	C	AC/AC		62	61	100	\$20,755	30,741	2" OVERLAY WITH PRE-LEVEL
BAYVIEW ST	9TH ST	E ST/11TH ST	BAYVWST	027	588	21	12,348	C	AC/AC		64	63	100	\$21,815	29,247	2" OVERLAY WITH PRE-LEVEL
<b>Treatment Total</b>													<b>\$112,785</b>			
16TH ST	WILLIAMS AVE	NORTH DEAD END	16TH ST	020	353	12	4,236	R	AC/AC		47	46	100	\$9,720	24,898	2" OVERLAY WITH LOCALIZED REPAIR
3RD STREET	HAYES OYSTER DR	B ST	3RDST	010	255	40	10,200	R	AC/AC		47	46	100	\$23,404	24,973	2" OVERLAY WITH LOCALIZED REPAIR
6TH ST	B ST	A ST	6THST	040	261	14	3,654	R	AC/AC		45	44	100	\$8,384	25,376	2" OVERLAY WITH LOCALIZED REPAIR
6TH ST	A ST	NORTH DEAD END	6THST	050	336	12	4,032	R	AC		49	48	100	\$9,252	24,893	2" OVERLAY WITH LOCALIZED REPAIR
ALDERBROOK LOOP RD	STATE HWY 101	EAST CITY LIMITS (HOUSE #7805)	ALLPRD	010	774	22	17,028	C	AC/AC		45	44	100	\$39,070	28,551	2" OVERLAY WITH LOCALIZED REPAIR
DOUGHTY RD	BEWLEY ST	EAST CITY LIMITS	DOUGHT	010	622	22	13,684	C	AC/AC		49	49	100	\$31,398	27,687	2" OVERLAY WITH LOCALIZED REPAIR
E ST	8TH ST	DEAD END EAST	EST	010	153	20	3,060	R	AC		49	48	100	\$7,021	24,860	2" OVERLAY WITH LOCALIZED REPAIR
E ST	11TH ST/BAYVIEW ST	12TH ST	EST	030	279	21	5,859	C	AC/AC		50	49	100	\$13,444	27,551	2" OVERLAY WITH LOCALIZED REPAIR
HAYES OYSTER ACCESS RD	WEST DEAD END	RR TRACKS	HAOACRD	010	711	33	23,463	R	AC/AC		46	45	100	\$53,835	25,261	2" OVERLAY WITH LOCALIZED REPAIR
HOBSONVILLE PT RD	250 FT. N. OF 4TH ST	NORTH CITY LIMITS	HBPTRD	020	340	21	7,140	C	AC/AC		43	42	100	\$16,383	28,858	2" OVERLAY WITH LOCALIZED REPAIR
PORTLAND AVE	6TH ST	9TH ST	PORTAV	025	785	21	16,485	C	AC/AC		47	46	100	\$37,824	28,285	2" OVERLAY WITH LOCALIZED REPAIR
<b>Treatment Total</b>													<b>\$249,735</b>			
13TH ST	TILLAMOOK AVE	SEATTLE AVE	13THST	030	471	16	7,536	R	AC		70	69	100	\$10,970	31,035	1.5" OVERLAY WITH PRE-LEVEL
16TH ST	SEATTLE ST	SUNNYSIDE ST	16TH ST	030	213	10	2,130	R	AC		68	67	100	\$3,101	29,896	1.5" OVERLAY WITH PRE-LEVEL
HENDRICKS ST	BEGINING OF PVMT (W OF 5TH)	END OF PVMT (E OF 5TH)	HENDST	020	127	14	1,778	R	AC		61	60	100	\$2,588	34,343	1.5" OVERLAY WITH PRE-LEVEL
OCEAN ST	5TH ST	7TH ST	OCEAST	030	508	16	8,128	R	AC/AC		67	66	100	\$11,831	27,316	1.5" OVERLAY WITH PRE-LEVEL
SEATTLE ST	11TH ST	13TH ST	SEATST	030	521	12	6,252	R	AC		66	65	100	\$9,101	31,295	1.5" OVERLAY WITH PRE-LEVEL

\*\* - Treatment from Project Selection

Scenarios Criteria:

Year: 2019

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment	
												PCI Before	PCI After				
SPRUCE ST	STATE HWY 101	16TH ST	SPRUST	030	434	22	9,548	R	AC/AC		62	61	100	\$13,898	31,258	1.5" OVERLAY WITH PRE-LEVEL	
												<b>Treatment Total</b>		<b>\$51,489</b>			
10TH ST	SEATTLE AVE	DEAD END NORTH	10THST	005	261	22	5,742	R	AC/AC		84	84	91	\$2,521	39,271	SINGLE CHIP SEAL	
12TH ST	SEATTLE ST	NORTH DEAD END	12THST	030	447	16	7,152	R	AC		86	86	92	\$3,139	42,294	SINGLE CHIP SEAL	
14TH ST	SPRUCE ST	90 DEGREE CORNER WEST	14THST	003	179	22	3,938	R	AC/AC		83	83	90	\$1,729	50,174	SINGLE CHIP SEAL	
14TH ST	BASELINE RD	E ST	14THST	008	224	21	4,704	R	AC/AC		87	87	93	\$2,065	33,812	SINGLE CHIP SEAL	
14TH ST	SOUTH CUL-DE-SAC	McCOY ST	14THST	010	627	24	15,048	R	AC		90	89	94	\$6,605	13,774	SINGLE CHIP SEAL	
15TH ST	TILLAMOOK AVE	SEATTLE ST	15THST	020	519	16	8,304	R	AC/AC		73	73	81	\$3,645	42,993	SINGLE CHIP SEAL	
15TH ST	SEATTLE ST	BASELINE RD	15THST	030	483	16	7,728	R	AC/AC		75	75	83	\$3,392	45,774	SINGLE CHIP SEAL	
17TH ST	SOUTH DEAD END	WILLIAMS AVE	17TH ST	010	507	22	11,154	R	AC/AC		76	76	84	\$4,896	37,527	SINGLE CHIP SEAL	
18TH ST	WEBER RD	WILLIAMS AVE	18TH ST	010	541	22	11,902	R	AC/AC		79	79	86	\$5,224	41,208	SINGLE CHIP SEAL	
19TH ST	SOUTH DEAD END	WILLIAMS AVE	19THST	010	501	20	10,020	R	AC		75	75	83	\$4,398	44,878	SINGLE CHIP SEAL	
2ND STREET	TRADE ST	SOLLMAN LN	2NDST	010	151	16	2,416	R	AC		83	83	90	\$1,061	33,930	SINGLE CHIP SEAL	
4TH STREET	D ST	HAYES OYSTER DR	4THST	020	261	40	10,440	C	AC/AC		82	81	89	\$4,582	46,347	SINGLE CHIP SEAL	
4TH STREET	HAYES OYSTER DR	A ST	4THST	030	520	40	20,800	C	AC/AC		80	80	87	\$9,129	58,889	SINGLE CHIP SEAL	
4TH STREET	A ST	MAIN ST	4THST	040	661	21	13,881	C	AC/AC		82	82	89	\$6,093	63,488	SINGLE CHIP SEAL	
4TH STREET	OCEAN ST	HIGH ST	4THST	060	530	20	10,600	C	AC/AC		78	78	85	\$4,653	54,597	SINGLE CHIP SEAL	
5TH AVE	OCEAN ST	HOBSONVILLE PT RD	5THAV	040	586	22	12,892	C	AC/AC		82	82	89	\$5,659	63,488	SINGLE CHIP SEAL	
5TH AVE	HOBSONVILLE PT RD	HENDRICKS ST	5THAV	050	193	15	2,895	C	AC/AC		88	87	93	\$1,271	20,322	SINGLE CHIP SEAL	
7TH ST	SEATTLE AVE	PORTLAND AVE	7THST	010	522	11	5,742	R	AC/AC		88	88	94	\$2,521	37,529	SINGLE CHIP SEAL	
7TH ST	PORTLAND AVE	NORTH DEAD END	7THST	015	75	16	1,200	R	AC/AC		86	86	92	\$527	36,035	SINGLE CHIP SEAL	
8TH PL	OCEAN ST	HOUSE #10015	8THPL	010	231	21	4,851	R	AC		80	79	87	\$2,130	28,941	SINGLE CHIP SEAL	
8TH PL	HOUSE #10015	HIGH ST	8THPL	020	222	21	4,662	R	AC		88	88	94	\$2,047	41,688	SINGLE CHIP SEAL	
9TH ST	STATE HWY 101	TILLAMOOK AVE	9THST	010	347	10	3,470	R	AC/AC		79	79	87	\$1,523	47,169	SINGLE CHIP SEAL	
9TH ST	SEATTLE AVE	PORTLAND AVE	9THST	030	536	24	12,864	R	AC/AC		79	79	87	\$5,646	49,804	SINGLE CHIP SEAL	
9TH ST	DEW POINTE DR	MAIN ST (N INT)	9THST	040	561	20	11,220	R	AC/AC		75	75	83	\$4,925	41,507	SINGLE CHIP SEAL	
BAY RIDGE CT	SOUTH RIDGE DR	EAST DEAD END	BAYRCT	010	265	21	5,565	R	AC		77	77	85	\$2,443	43,863	SINGLE CHIP SEAL	
BAYVIEW ST	SOUTH DEAD END	E ST	BAYVST	010	133	16	2,128	R	AC		75	74	83	\$934	30,549	SINGLE CHIP SEAL	
BEWLEYS ST	TILLAMOOK AVE	BASELINE RD	BEWLST	030	988	21	20,748	C	AC/AC		88	87	93	\$9,107	20,316	SINGLE CHIP SEAL	
B ST	4TH ST	5TH ST	BST	030	236	34	8,024	C	AC/AC		86	86	92	\$3,522	52,598	SINGLE CHIP SEAL	
DEW POINTE DR	9TH ST	EAST DEAD END	DEWPDR	010	672	20	13,440	R	AC		90	89	94	\$5,899	13,784	SINGLE CHIP SEAL	

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs

Year: 2019

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment			Cost	Rating	Treatment
												PCI Before	PCI After				
D ST	6TH ST	9TH ST	DST	010	842	22	18,524	R	AC		64	63	73	\$8,130	35,752	SINGLE CHIP SEAL	
E ST	12TH ST	14TH ST	EST	040	509	21	10,689	C	AC/AC		87	87	93	\$4,692	58,457	SINGLE CHIP SEAL	
HARE ST	SALMON ST	SPRUCE ST	HAREST	020	284	20	5,680	C	AC		90	89	94	\$2,493	26,277	SINGLE CHIP SEAL	
HAYES OYSTER DR	ST HWY 101	4TH ST	HAYEDR	010	287	42	12,054	C	AC		69	68	78	\$5,291	27,901	SINGLE CHIP SEAL	
HAYES OYSTER DR	4TH ST	5TH ST	HAYEDR	020	233	22	5,126	C	AC		86	85	92	\$2,250	45,570	SINGLE CHIP SEAL	
HOBSONVILLE PT RD	5TH AVE/HENDRICKS	250 FT. N. OF 4TH ST	HBPTRD	010	595	22	13,090	C	AC/AC		84	84	91	\$5,746	28,790	SINGLE CHIP SEAL	
HIGH ST ACCESS RD	NORTH RIDGE DR	RD WIDENS	HIGHST	005	156	12	1,872	R	AC		63	62	72	\$822	28,614	SINGLE CHIP SEAL	
HIGH ST	RD WIDENS	2ND ST	HIGHST	010	824	10	8,240	R	AC		88	87	93	\$3,617	17,967	SINGLE CHIP SEAL	
HIGH ST	2ND ST	4TH ST	HIGHST	020	508	14	7,112	R	AC		82	82	89	\$3,122	43,736	SINGLE CHIP SEAL	
HIGH ST	7TH ST	END OF PVMT	HIGHST	030	235	20	4,700	R	AC		83	83	90	\$2,063	43,132	SINGLE CHIP SEAL	
MAIN ST	HOUSE #5155	4TH ST	MAINST	020	1,207	16	19,312	R	AC/AC		90	89	94	\$8,476	14,720	SINGLE CHIP SEAL	
MAIN ST	4TH ST	5TH ST	MAINST	030	245	21	5,145	R	AC/AC		90	89	94	\$2,259	14,720	SINGLE CHIP SEAL	
McCOY ST	14TH ST	HOUSE #6800	MCCOST	020	584	21	12,264	C	AC/AC		88	87	93	\$5,383	20,322	SINGLE CHIP SEAL	
McCOY ST	HOUSE #6800	BEWLEYS ST	MCCOST	030	748	21	15,708	C	AC/AC		89	89	94	\$6,895	14,897	SINGLE CHIP SEAL	
OCEAN ST	1ST ST	4TH ST	OCEAST	010	817	22	17,974	R	AC/AC		75	75	83	\$7,889	47,646	SINGLE CHIP SEAL	
OCEAN ST	7TH ST	8TH PL	OCEAST	040	404	16	6,464	R	AC/AC		75	75	83	\$2,837	47,646	SINGLE CHIP SEAL	
SEATTLE ST	7TH ST	9TH ST	SEATST	010	493	11	5,423	R	AC		83	83	90	\$2,381	38,751	SINGLE CHIP SEAL	
SEATTLE ST	9TH ST	10TH ST	SEATST	020	262	22	5,764	R	AC		86	86	92	\$2,530	39,679	SINGLE CHIP SEAL	
SPRUCE ST	HARE ST	END OF PVMT	SPRUST	020	715	20	14,300	R	AC/AC		90	89	94	\$6,277	14,720	SINGLE CHIP SEAL	
TILLAMOOK AVE	WEST DEAD END	STATE HWY 101	TILLAV	010	154	24	3,696	R	AC/AC		68	68	77	\$1,623	43,098	SINGLE CHIP SEAL	
TILLAMOOK AVE	HWY 101	13TH ST	TILLAV	020	1,330	21	27,930	C	AC/AC		81	80	88	\$12,259	35,554	SINGLE CHIP SEAL	
TILLAMOOK AVE	13TH ST	100FT EAST OF 17TH ST	TILLAV	030	1,335	21	28,035	C	AC/AC		79	78	86	\$12,305	37,619	SINGLE CHIP SEAL	
TRADE ST	2ND ST	4TH ST	TRADST	030	521	15	7,815	R	AC/AC		77	77	85	\$3,430	37,145	SINGLE CHIP SEAL	
WOOD ST	14TH ST	EAST DEAD END	WOODST	020	473	24	11,352	R	AC		90	89	94	\$4,983	13,774	SINGLE CHIP SEAL	
													<b>Treatment Total</b>		<b>\$229,039</b>		
16TH ST	SPRUCE ST	WILLIAMS AVE	16TH ST	010	566	20	11,320	R	AC/AC		24	23	100	\$154,141	4,203	RECONSTRUCT STRUCTURE (AC)	
2ND STREET	SALEM ST	HIGH ST	2NDST	030	235	11	2,585	R	AC		23	22	100	\$35,200	4,203	RECONSTRUCT STRUCTURE (AC)	
A ST	5TH ST	6TH ST	AST	020	249	14	3,486	R	AC		23	22	100	\$47,468	4,203	RECONSTRUCT STRUCTURE (AC)	
MAIN ST	WEST DEAD END	HOUSE #5155	MAINST	010	101	14	1,414	R	AC		15	14	100	\$19,254	4,203	RECONSTRUCT STRUCTURE (AC)	
													<b>Treatment Total</b>		<b>\$256,063</b>		
<b>Year 2019 Area Total</b>										<b>748,657</b>		<b>Year 2019 Total</b>		<b>\$899,111</b>			

\*\* - Treatment from Project Selection

Scenarios Criteria:



# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs

## Year: 2020

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
7TH ST	MAIN ST	OCEAN ST	7THST	030	519	21	10,899	C	AC/AC		71	68	100	\$19,833	24,638	2" OVERLAY WITH PRE-LEVEL
McCOY ST	STATE HWY 101	14TH ST	MCCOST	010	1,172	21	24,612	C	AC/AC		71	68	100	\$44,786	25,517	2" OVERLAY WITH PRE-LEVEL
													<b>Treatment Total</b>	<b>\$64,619</b>		
11TH ST	SOUTH DEAD END	SEATTLE	11THST	005	216	16	3,456	R	AC		52	49	100	\$8,168	23,904	2" OVERLAY WITH LOCALIZED REPAIR
PORTLAND AVE	5TH ST	6TH ST	PORTAV	020	395	26	10,270	C	AC/AC		51	48	100	\$24,271	27,200	2" OVERLAY WITH LOCALIZED REPAIR
													<b>Treatment Total</b>	<b>\$32,439</b>		
4TH STREET	HIGH ST	HOBSONVILLE PT RD	4THST	070	306	21	6,426	C	AC/AC		87	86	92	\$2,905	46,847	SINGLE CHIP SEAL
6TH ST	OCEAN ST	NORTH DEAD END	6THST	070	481	20	9,620	R	AC		84	82	89	\$4,349	29,990	SINGLE CHIP SEAL
8TH ST	E ST	D ST	8THST	015	200	22	4,400	R	AC		71	68	78	\$1,990	29,009	SINGLE CHIP SEAL
DEW POINTE PL	SOUTH DEAD END	DEW POINTE DR	DEWPLP	010	144	20	2,880	R	AC		91	88	94	\$1,302	14,336	SINGLE CHIP SEAL
MAIN ST	7TH ST	9TH ST	MAINST	050	527	18	9,486	R	AC/AC		71	69	79	\$4,289	42,680	SINGLE CHIP SEAL
SALMON ST	WEST DEAD END	HARE ST	SALMST	010	836	20	16,720	C	AC		90	88	94	\$7,559	42,533	SINGLE CHIP SEAL
SEATTLE ST	15TH ST	BEWLEYS ST	SEATST	040	1,107	20	22,140	R	AC/AC		90	89	94	\$10,009	37,198	SINGLE CHIP SEAL
													<b>Treatment Total</b>	<b>\$32,403</b>		
UNION ST	15TH ST	HOUSE #6825	UNIOST	020	399	13	5,187	R	AC		26	22	100	\$72,749	4,081	RECONSTRUCT STRUCTURE (AC)
													<b>Treatment Total</b>	<b>\$72,749</b>		
<b>Year 2020 Area Total</b>											<b>126,096</b>		<b>Year 2020 Total</b>		<b>\$202,210</b>	

## Year: 2021

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
1ST STREET	PACIFIC ST	OCEAN ST	1STST	020	230	16	3,680	R	AC/AC		90	88	94	\$1,714	32,611	SINGLE CHIP SEAL
5TH AVE	B ST	MAIN ST	5THAV	020	915	23	21,045	C	AC/AC		73	69	78	\$9,799	40,830	SINGLE CHIP SEAL
7TH ST	SOUTH DEAD END	D ST	7THST	005	229	20	4,580	C	AC/AC		73	69	78	\$2,133	35,915	SINGLE CHIP SEAL
7TH ST	OCEAN ST	PENNSYLVANIA ST	7THST	040	1,299	21	27,279	C	AC/AC		88	86	92	\$12,702	45,397	SINGLE CHIP SEAL
8TH ST	D ST	NORTH DEAD END	8THST	017	77	20	1,540	R	AC		73	69	78	\$718	28,261	SINGLE CHIP SEAL
9TH ST	E ST	D ST	9THST	060	224	22	4,928	R	AC/AC		72	68	78	\$2,295	30,393	SINGLE CHIP SEAL
BASELINE RD	14TH ST	BEWLEYS ST	BASERD	010	1,342	20	26,840	C	AC/AC		87	84	91	\$12,498	43,848	SINGLE CHIP SEAL
D ST	4TH ST	5TH ST	DST	005	229	33	7,557	R	AC/AC		87	84	91	\$3,519	30,256	SINGLE CHIP SEAL
MAIN ST	5TH ST	7TH ST	MAINST	040	522	21	10,962	C	AC/AC		88	86	92	\$5,105	45,397	SINGLE CHIP SEAL

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs

## Year: 2021

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment		
												PCI Before	PCI After					
PACIFIC ST	1ST ST	4TH ST	PACIST	010	767	16	12,272	R	AC/AC		90	88	94	\$5,715	32,611	SINGLE CHIP SEAL		
PENNSYLVANIA ST	7TH ST	EAST CITY LIMITS	PENNST	010	522	22	11,484	C	AC/AC		87	84	91	\$5,348	43,848	SINGLE CHIP SEAL		
TILLAMOOK AVE	100FT EAST OF 17TH ST	BEWLEYS ST	TILLAV	040	272	21	5,712	C	AC/AC		80	75	84	\$2,660	33,351	SINGLE CHIP SEAL		
TRADE ST	WEST DEAD END	1ST ST	TRADST	010	494	14	6,916	R	AC/AC		90	88	94	\$3,221	32,611	SINGLE CHIP SEAL		
TRADE ST	1ST ST	2ND ST	TRADST	020	242	14	3,388	R	AC/AC		90	88	94	\$1,578	32,611	SINGLE CHIP SEAL		
WEBER RD	SOUTH DEAD END	18TH ST	WEBERD	010	150	28	4,200	R	AC/AC		91	87	93	\$1,956	18,094	SINGLE CHIP SEAL		
												<b>Treatment Total</b>		<b>\$70,961</b>				
<b>Year 2021 Area Total</b>										<b>152,383</b>	<b>Year 2021 Total</b>		<b>\$70,961</b>					

## Year: 2022

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment		
												PCI Before	PCI After					
OCEAN ST	4TH ST	5TH ST	OCEAST	020	250	22	5,500	R	AC/AC		55	48	100	\$13,790	22,499	2" OVERLAY WITH LOCALIZED REPAIR		
												<b>Treatment Total</b>		<b>\$13,790</b>				
1ST STREET	TRADE ST	MAIN ST	1STST	010	262	14	3,668	R	AC/AC		90	87	93	\$1,760	30,920	SINGLE CHIP SEAL		
SUNNYSIDE ST	15TH ST	16TH ST	SUNNST	020	395	12	4,740	R	AC		87	82	89	\$2,274	28,463	SINGLE CHIP SEAL		
												<b>Treatment Total</b>		<b>\$4,034</b>				
6TH ST	PORTLAND AVE	D ST	6THST	030	525	10	5,250	R	AC		32	22	100	\$78,117	3,847	RECONSTRUCT STRUCTURE (AC)		
B ST	5TH ST	6TH ST	BST	040	249	14	3,486	R	AC		33	23	100	\$51,870	3,847	RECONSTRUCT STRUCTURE (AC)		
												<b>Treatment Total</b>		<b>\$129,987</b>				
<b>Year 2022 Area Total</b>										<b>22,644</b>	<b>Year 2022 Total</b>		<b>\$147,811</b>					

## Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment		
												PCI Before	PCI After					
4TH STREET	MAIN ST	OCEAN ST	4THST	050	547	20	10,940	C	AC/AC		60	49	100	\$28,252	24,558	2" OVERLAY WITH LOCALIZED REPAIR		
												<b>Treatment Total</b>		<b>\$28,252</b>				
A ST	4TH ST	5TH ST	AST	010	237	40	9,480	R	AC/AC		90	85	91	\$4,683	28,943	SINGLE CHIP SEAL		
BEWLEYS ST	WILLIAMS/VAUGHN RD	DOUGHTY RD	BEWLST	010	1,342	21	28,182	C	AC/AC		90	85	92	\$13,922	42,473	SINGLE CHIP SEAL		
BEWLEYS ST	DOUGHTY RD	TILLAMOOK AVE	BEWLST	020	315	21	6,615	C	AC/AC		88	82	89	\$3,268	38,711	SINGLE CHIP SEAL		
CLAM ST	WEST DEAD END	50 FT EAST OF ELLIOT ST	CLAMST	010	383	20	7,660	C	AC		92	85	92	\$3,784	35,247	SINGLE CHIP SEAL		

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (1) Unconstrained Needs

## Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment	
												PCI Before	PCI After				
ELLIOT ST	CLAM ST	SALMON ST	ELLIST	010	263	20	5,260	C	AC		92	85	92	\$2,599	35,247	SINGLE CHIP SEAL	
													<b>Treatment Total</b>		<b>\$28,256</b>		
6TH ST	SOUTH DEAD END	PORTLAND AVE	6THST	020	318	12	3,816	R	AC		36	24	100	\$58,483	3,735	RECONSTRUCT STRUCTURE (AC)	
B ST	3RD ST	4TH ST	BST	020	262	52	13,624	C	AC/AC		39	22	100	\$229,158	3,898	RECONSTRUCT STRUCTURE (AC)	
MAIN ST	9TH ST	11TH ST	MAINST	060	530	16	8,480	R	AC/AC		34	24	100	\$129,962	3,735	RECONSTRUCT STRUCTURE (AC)	
													<b>Treatment Total</b>		<b>\$417,603</b>		
<b>Year 2023 Area Total</b>										<b>94,057</b>	<b>Year 2023 Total</b>		<b>\$474,111</b>				
<b>Total Section Area:</b>										<b>1,143,837</b>	<b>Grand Total</b>		<b>\$1,794,204</b>				

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (2) Current Funding

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$50,000	10%	2021	\$50,000	10%	2023	\$50,000	10%
2020	\$50,000	10%	2022	\$50,000	10%			

## Year: 2019

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
16TH ST	SEATTLE ST	SUNNYSIDE ST	16TH ST	030	213	10	2,130	R	AC		68	67	100	\$3,101	29,896	1.5" OVERLAY WITH PRE-LEVEL
HENDRICKS ST	BEGINING OF PVMT (W OF 5TH)	END OF PVMT (E OF 5TH)	HENDST	020	127	14	1,778	R	AC		61	60	100	\$2,588	34,343	1.5" OVERLAY WITH PRE-LEVEL
SEATTLE ST	11TH ST	13TH ST	SEATST	030	521	12	6,252	R	AC		66	65	100	\$9,101	31,295	1.5" OVERLAY WITH PRE-LEVEL
SPRUCE ST	STATE HWY 101	16TH ST	SPRUST	030	434	22	9,548	R	AC/AC		62	61	100	\$13,898	31,258	1.5" OVERLAY WITH PRE-LEVEL
<b>Treatment Total</b>													<b>\$28,688</b>			
7TH ST	PORTLAND AVE	NORTH DEAD END	7THST	015	75	16	1,200	R	AC/AC		86	86	92	\$527	36,035	SINGLE CHIP SEAL
D ST	6TH ST	9TH ST	DST	010	842	22	18,524	R	AC		64	63	73	\$8,130	35,752	SINGLE CHIP SEAL
E ST	12TH ST	14TH ST	EST	040	509	21	10,689	C	AC/AC		87	87	93	\$4,692	58,457	SINGLE CHIP SEAL
HAYES OYSTER DR	ST HWY 101	4TH ST	HAYEDR	010	287	42	12,054	C	AC		69	68	78	\$5,291	27,901	SINGLE CHIP SEAL
HIGH ST ACCESS RD	NORTH RIDGE DR	RD WIDENS	HIGHST	005	156	12	1,872	R	AC		63	62	72	\$822	28,614	SINGLE CHIP SEAL
TILLAMOOK AVE	WEST DEAD END	STATE HWY 101	TILLAV	010	154	24	3,696	R	AC/AC		68	68	77	\$1,623	43,098	SINGLE CHIP SEAL
<b>Treatment Total</b>													<b>\$21,085</b>			
<b>Year 2019 Area Total</b>										<b>67,743</b>	<b>Year 2019 Total</b>		<b>\$49,773</b>			

## Year: 2020

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
BAYVIEW ST	9TH ST	E ST/11TH ST	BAYVWST	027	588	21	12,348	C	AC/AC		64	61	100	\$22,470	29,621	2" OVERLAY WITH PRE-LEVEL
<b>Treatment Total</b>													<b>\$22,470</b>			
13TH ST	TILLAMOOK AVE	SEATTLE AVE	13THST	030	471	16	7,536	R	AC		70	66	100	\$11,299	31,348	1.5" OVERLAY WITH PRE-LEVEL
<b>Treatment Total</b>													<b>\$11,299</b>			
4TH STREET	A ST	MAIN ST	4THST	040	661	21	13,881	C	AC/AC		82	81	88	\$6,275	61,414	SINGLE CHIP SEAL
8TH ST	E ST	D ST	8THST	015	200	22	4,400	R	AC		71	68	78	\$1,990	29,009	SINGLE CHIP SEAL
B ST	4TH ST	5TH ST	BST	030	236	34	8,024	C	AC/AC		86	85	91	\$3,628	53,353	SINGLE CHIP SEAL
MAIN ST	7TH ST	9TH ST	MAINST	050	527	18	9,486	R	AC/AC		71	69	79	\$4,289	42,680	SINGLE CHIP SEAL
<b>Treatment Total</b>													<b>\$16,182</b>			
<b>Year 2020 Area Total</b>										<b>55,675</b>	<b>Year 2020 Total</b>		<b>\$49,951</b>			

\*\* - Treatment from Project Selection

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (2) Current Funding

## Year: 2021

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
E ST	11TH ST/BAYVIEW ST	12TH ST	EST	030	279	21	5,859	C	AC/AC		50	44	100	\$14,262	27,059	2" OVERLAY WITH LOCALIZED REPAIR
												<b>Treatment Total</b>	<b>\$14,262</b>			
OCEAN ST	5TH ST	7TH ST	OCEAST	030	508	16	8,128	R	AC/AC		67	64	100	\$12,552	27,972	1.5" OVERLAY WITH PRE-LEVEL
												<b>Treatment Total</b>	<b>\$12,552</b>			
14TH ST	SPRUCE ST	90 DEGREE CORNER WEST	14THST	003	179	22	3,938	R	AC/AC		83	81	89	\$1,834	47,961	SINGLE CHIP SEAL
5TH AVE	B ST	MAIN ST	5THAV	020	915	23	21,045	C	AC/AC		73	69	78	\$9,799	40,830	SINGLE CHIP SEAL
5TH AVE	OCEAN ST	HOBSONVILLE PT RD	5THAV	040	586	22	12,892	C	AC/AC		82	80	87	\$6,003	59,063	SINGLE CHIP SEAL
7TH ST	SOUTH DEAD END	D ST	7THST	005	229	20	4,580	C	AC/AC		73	69	78	\$2,133	35,915	SINGLE CHIP SEAL
8TH ST	D ST	NORTH DEAD END	8THST	017	77	20	1,540	R	AC		73	69	78	\$718	28,261	SINGLE CHIP SEAL
9TH ST	E ST	D ST	9THST	060	224	22	4,928	R	AC/AC		72	68	78	\$2,295	30,393	SINGLE CHIP SEAL
												<b>Treatment Total</b>	<b>\$22,782</b>			
<b>Year 2021 Area Total</b>										<b>62,910</b>	<b>Year 2021 Total</b>		<b>\$49,596</b>			

## Year: 2022

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
DOUGHTY RD	BEWLEY ST	EAST CITY LIMITS	DOUGHT	010	622	22	13,684	C	AC/AC		49	40	100	\$34,309	26,749	2" OVERLAY WITH LOCALIZED REPAIR
												<b>Treatment Total</b>	<b>\$34,309</b>			
15TH ST	TILLAMOOK AVE	SEATTLE ST	15THST	020	519	16	8,304	R	AC/AC		73	69	78	\$3,983	37,474	SINGLE CHIP SEAL
4TH STREET	HAYES OYSTER DR	A ST	4THST	030	520	40	20,800	C	AC/AC		80	76	84	\$9,976	51,559	SINGLE CHIP SEAL
BAYVIEW ST	SOUTH DEAD END	E ST	BAYVST	010	133	16	2,128	R	AC		75	69	78	\$1,021	27,546	SINGLE CHIP SEAL
												<b>Treatment Total</b>	<b>\$14,980</b>			
<b>Year 2022 Area Total</b>										<b>44,916</b>	<b>Year 2022 Total</b>		<b>\$49,289</b>			

## Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
7TH ST	MAIN ST	OCEAN ST	7THST	030	519	21	10,899	C	AC/AC		71	62	100	\$21,672	26,232	2" OVERLAY WITH PRE-LEVEL
												<b>Treatment Total</b>	<b>\$21,672</b>			
11TH ST	SOUTH DEAD END	SEATTLE	11THST	005	216	16	3,456	R	AC		52	42	100	\$8,925	22,920	2" OVERLAY WITH LOCALIZED REPAIR

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (2) Current Funding

## Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
OCEAN ST	4TH ST	5TH ST	OCEAST	020	250	22	5,500	R	AC/AC		55	46	100	\$14,204	22,217	2" OVERLAY WITH LOCALIZED REPAIR
												<b>Treatment Total</b>	<b>\$23,129</b>			
4TH STREET	HIGH ST	HOBSONVILLE PT RD	4THST	070	306	21	6,426	C	AC/AC		87	82	90	\$3,175	48,190	SINGLE CHIP SEAL
9TH ST	STATE HWY 101	TILLAMOOK AVE	9THST	010	347	10	3,470	R	AC/AC		79	75	83	\$1,715	40,770	SINGLE CHIP SEAL
												<b>Treatment Total</b>	<b>\$4,890</b>			
<b>Year 2023 Area Total</b>										<b>29,751</b>	<b>Year 2023 Total</b>		<b>\$49,691</b>			
<b>Total Section Area:</b>										<b>260,995</b>	<b>Grand Total</b>		<b>\$248,300</b>			

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (3) Maintain Current PCI (75)

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$90,000	20%	2021	\$90,000	20%	2023	\$90,000	20%
2020	\$90,000	20%	2022	\$90,000	20%			

## Year: 2019

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
5TH AVE	MAIN ST	OCEAN ST	5THAV	030	534	22	11,748	C	AC/AC		62	61	100	\$20,755	30,741	2" OVERLAY WITH PRE-LEVEL
													<b>Treatment Total</b>	<b>\$20,755</b>		
13TH ST	TILLAMOOK AVE	SEATTLE AVE	13THST	030	471	16	7,536	R	AC		70	69	100	\$10,970	31,035	1.5" OVERLAY WITH PRE-LEVEL
16TH ST	SEATTLE ST	SUNNYSIDE ST	16TH ST	030	213	10	2,130	R	AC		68	67	100	\$3,101	29,896	1.5" OVERLAY WITH PRE-LEVEL
HENDRICKS ST	BEGINING OF PVMT (W OF 5TH)	END OF PVMT (E OF 5TH)	HENDST	020	127	14	1,778	R	AC		61	60	100	\$2,588	34,343	1.5" OVERLAY WITH PRE-LEVEL
SEATTLE ST	11TH ST	13TH ST	SEATST	030	521	12	6,252	R	AC		66	65	100	\$9,101	31,295	1.5" OVERLAY WITH PRE-LEVEL
SPRUCE ST	STATE HWY 101	16TH ST	SPRUST	030	434	22	9,548	R	AC/AC		62	61	100	\$13,898	31,258	1.5" OVERLAY WITH PRE-LEVEL
													<b>Treatment Total</b>	<b>\$39,658</b>		
14TH ST	SPRUCE ST	90 DEGREE CORNER WEST	14THST	003	179	22	3,938	R	AC/AC		83	83	90	\$1,729	50,174	SINGLE CHIP SEAL
4TH STREET	A ST	MAIN ST	4THST	040	661	21	13,881	C	AC/AC		82	82	89	\$6,093	63,488	SINGLE CHIP SEAL
5TH AVE	OCEAN ST	HOBSONVILLE PT RD	5THAV	040	586	22	12,892	C	AC/AC		82	82	89	\$5,659	63,488	SINGLE CHIP SEAL
7TH ST	PORTLAND AVE	NORTH DEAD END	7THST	015	75	16	1,200	R	AC/AC		86	86	92	\$527	36,035	SINGLE CHIP SEAL
D ST	6TH ST	9TH ST	DST	010	842	22	18,524	R	AC		64	63	73	\$8,130	35,752	SINGLE CHIP SEAL
E ST	12TH ST	14TH ST	EST	040	509	21	10,689	C	AC/AC		87	87	93	\$4,692	58,457	SINGLE CHIP SEAL
HIGH ST ACCESS RD	NORTH RIDGE DR	RD WIDENS	HIGHST	005	156	12	1,872	R	AC		63	62	72	\$822	28,614	SINGLE CHIP SEAL
TILLAMOOK AVE	WEST DEAD END	STATE HWY 101	TILLAV	010	154	24	3,696	R	AC/AC		68	68	77	\$1,623	43,098	SINGLE CHIP SEAL
													<b>Treatment Total</b>	<b>\$29,275</b>		
<b>Year 2019 Area Total</b>											<b>105,684</b>		<b>Year 2019 Total</b>		<b>\$89,688</b>	

## Year: 2020

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
BAYVIEW ST	9TH ST	E ST/11TH ST	BAYVWST	027	588	21	12,348	C	AC/AC		64	61	100	\$22,470	29,621	2" OVERLAY WITH PRE-LEVEL
													<b>Treatment Total</b>	<b>\$22,470</b>		
ALDERBROOK LOOP RD	STATE HWY 101	EAST CITY LIMITS (HOUSE #7805)	ALLPRD	010	774	22	17,028	C	AC/AC		45	41	100	\$40,242	28,182	2" OVERLAY WITH LOCALIZED REPAIR

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (3) Maintain Current PCI (75)

											Treatment Total			\$40,242		
4TH STREET	HAYES OYSTER DR	A ST	4THST	030	520	40	20,800	C	AC/AC		80	78	86	\$9,403	56,653	SINGLE CHIP SEAL
4TH STREET	OCEAN ST	HIGH ST	4THST	060	530	20	10,600	C	AC/AC		78	76	84	\$4,792	52,267	SINGLE CHIP SEAL
4TH STREET	HIGH ST	HOBSONVILLE PT RD	4THST	070	306	21	6,426	C	AC/AC		87	86	92	\$2,905	46,847	SINGLE CHIP SEAL
8TH ST	E ST	D ST	8THST	015	200	22	4,400	R	AC		71	68	78	\$1,990	29,009	SINGLE CHIP SEAL
B ST	4TH ST	5TH ST	BST	030	236	34	8,024	C	AC/AC		86	85	91	\$3,628	53,353	SINGLE CHIP SEAL
MAIN ST	7TH ST	9TH ST	MAINST	050	527	18	9,486	R	AC/AC		71	69	79	\$4,289	42,680	SINGLE CHIP SEAL
											Treatment Total			\$27,007		

Year 2020 Area Total 89,112

Year 2020 Total \$89,719

## Year: 2021

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
PORTLAND AVE	6TH ST	9TH ST	PORTAV	025	785	21	16,485	C	AC/AC		47	40	100	\$40,128	27,584	2" OVERLAY WITH LOCALIZED REPAIR
											Treatment Total			\$40,128		
OCEAN ST	5TH ST	7TH ST	OCEAST	030	508	16	8,128	R	AC/AC		67	64	100	\$12,552	27,972	1.5" OVERLAY WITH PRE-LEVEL
											Treatment Total			\$12,552		
2ND STREET	TRADE ST	SOLLMAN LN	2NDST	010	151	16	2,416	R	AC		83	80	88	\$1,125	33,827	SINGLE CHIP SEAL
4TH STREET	D ST	HAYES OYSTER DR	4THST	020	261	40	10,440	C	AC/AC		82	79	87	\$4,862	45,483	SINGLE CHIP SEAL
5TH AVE	B ST	MAIN ST	5THAV	020	915	23	21,045	C	AC/AC		73	69	78	\$9,799	40,830	SINGLE CHIP SEAL
7TH ST	SOUTH DEAD END	D ST	7THST	005	229	20	4,580	C	AC/AC		73	69	78	\$2,133	35,915	SINGLE CHIP SEAL
8TH ST	D ST	NORTH DEAD END	8THST	017	77	20	1,540	R	AC		73	69	78	\$718	28,261	SINGLE CHIP SEAL
9TH ST	STATE HWY 101	TILLAMOOK AVE	9THST	010	347	10	3,470	R	AC/AC		79	77	85	\$1,616	44,083	SINGLE CHIP SEAL
9TH ST	SEATTLE AVE	PORTLAND AVE	9THST	030	536	24	12,864	R	AC/AC		79	77	85	\$5,990	46,337	SINGLE CHIP SEAL
9TH ST	E ST	D ST	9THST	060	224	22	4,928	R	AC/AC		72	68	78	\$2,295	30,393	SINGLE CHIP SEAL
MAIN ST	5TH ST	7TH ST	MAINST	040	522	21	10,962	C	AC/AC		88	86	92	\$5,105	45,397	SINGLE CHIP SEAL
OCEAN ST	7TH ST	8TH PL	OCEAST	040	404	16	6,464	R	AC/AC		75	73	81	\$3,010	43,583	SINGLE CHIP SEAL
											Treatment Total			\$36,653		

Year 2021 Area Total 103,322

Year 2021 Total \$89,333

## Year: 2022

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
6TH ST	A ST	NORTH DEAD END	6THST	050	336	12	4,032	R	AC		49	41	100	\$10,110	23,791	2" OVERLAY WITH LOCALIZED REPAIR

\*\* - Treatment from Project Selection

Scenarios Criteria:



# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (3) Maintain Current PCI (75)

## Year: 2022

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
DOUGHTY RD	BEWLEY ST	EAST CITY LIMITS	DOUGHT	010	622	22	13,684	C	AC/AC		49	40	100	\$34,309	26,749	2" OVERLAY WITH LOCALIZED REPAIR
E ST	8TH ST	DEAD END EAST	EST	010	153	20	3,060	R	AC		49	41	100	\$7,673	23,765	2" OVERLAY WITH LOCALIZED REPAIR
E ST	11TH ST/BAYVIEW ST	12TH ST	EST	030	279	21	5,859	C	AC/AC		50	41	100	\$14,690	26,695	2" OVERLAY WITH LOCALIZED REPAIR
													<b>Treatment Total</b>	<b>\$66,782</b>		
15TH ST	TILLAMOOK AVE	SEATTLE ST	15THST	020	519	16	8,304	R	AC/AC		73	69	78	\$3,983	37,474	SINGLE CHIP SEAL
7TH ST	OCEAN ST	PENNSYLVANIA ST	7THST	040	1,299	21	27,279	C	AC/AC		88	85	91	\$13,083	46,498	SINGLE CHIP SEAL
8TH PL	HOUSE #10015	HIGH ST	8THPL	020	222	21	4,662	R	AC		88	85	92	\$2,236	42,710	SINGLE CHIP SEAL
BAYVIEW ST	SOUTH DEAD END	E ST	BAYVST	010	133	16	2,128	R	AC		75	69	78	\$1,021	27,546	SINGLE CHIP SEAL
HIGH ST	7TH ST	END OF PVMT	HIGHST	030	235	20	4,700	R	AC		83	80	87	\$2,255	40,501	SINGLE CHIP SEAL
													<b>Treatment Total</b>	<b>\$22,578</b>		
<b>Year 2022 Area Total</b>										<b>73,708</b>	<b>Year 2022 Total</b>		<b>\$89,360</b>			

## Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
7TH ST	MAIN ST	OCEAN ST	7THST	030	519	21	10,899	C	AC/AC		71	62	100	\$21,672	26,232	2" OVERLAY WITH PRE-LEVEL
McCOY ST	STATE HWY 101	14TH ST	MCCOST	010	1,172	21	24,612	C	AC/AC		71	62	100	\$48,939	26,980	2" OVERLAY WITH PRE-LEVEL
													<b>Treatment Total</b>	<b>\$70,611</b>		
BASELINE RD	14TH ST	BEWLEYS ST	BASERD	010	1,342	20	26,840	C	AC/AC		87	82	89	\$13,259	44,709	SINGLE CHIP SEAL
PENNSYLVANIA ST	7TH ST	EAST CITY LIMITS	PENNST	010	522	22	11,484	C	AC/AC		87	82	89	\$5,673	44,709	SINGLE CHIP SEAL
													<b>Treatment Total</b>	<b>\$18,932</b>		
<b>Year 2023 Area Total</b>										<b>73,835</b>	<b>Year 2023 Total</b>		<b>\$89,543</b>			
<b>Total Section Area:</b>										<b>445,661</b>	<b>Grand Total</b>		<b>\$447,643</b>			

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2019	\$185,000	20%	2021	\$185,000	20%	2023	\$185,000	20%
2020	\$185,000	20%	2022	\$185,000	20%			

## Year: 2019

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
5TH AVE	MAIN ST	OCEAN ST	5THAV	030	534	22	11,748	C	AC/AC		62	61	100	\$20,755	30,741	2" OVERLAY WITH PRE-LEVEL
BAYVIEW ST	9TH ST	E ST/11TH ST	BAYVWST	027	588	21	12,348	C	AC/AC		64	63	100	\$21,815	29,247	2" OVERLAY WITH PRE-LEVEL
<b>Treatment Total</b>													<b>\$42,570</b>			
HOBSONVILLE PT RD	250 FT. N. OF 4TH ST	NORTH CITY LIMITS	HBPTRD	020	340	21	7,140	C	AC/AC		43	42	100	\$16,383	28,858	2" OVERLAY WITH LOCALIZED REPAIR
PORTLAND AVE	6TH ST	9TH ST	PORTAV	025	785	21	16,485	C	AC/AC		47	46	100	\$37,824	28,285	2" OVERLAY WITH LOCALIZED REPAIR
<b>Treatment Total</b>													<b>\$54,207</b>			
13TH ST	TILLAMOOK AVE	SEATTLE AVE	13THST	030	471	16	7,536	R	AC		70	69	100	\$10,970	31,035	1.5" OVERLAY WITH PRE-LEVEL
16TH ST	SEATTLE ST	SUNNYSIDE ST	16TH ST	030	213	10	2,130	R	AC		68	67	100	\$3,101	29,896	1.5" OVERLAY WITH PRE-LEVEL
HENDRICKS ST	BEGINING OF PVMT (W OF 5TH)	END OF PVMT (E OF 5TH)	HENDST	020	127	14	1,778	R	AC		61	60	100	\$2,588	34,343	1.5" OVERLAY WITH PRE-LEVEL
SEATTLE ST	11TH ST	13TH ST	SEATST	030	521	12	6,252	R	AC		66	65	100	\$9,101	31,295	1.5" OVERLAY WITH PRE-LEVEL
SPRUCE ST	STATE HWY 101	16TH ST	SPRUST	030	434	22	9,548	R	AC/AC		62	61	100	\$13,898	31,258	1.5" OVERLAY WITH PRE-LEVEL
<b>Treatment Total</b>													<b>\$39,658</b>			
14TH ST	SPRUCE ST	90 DEGREE CORNER WEST	14THST	003	179	22	3,938	R	AC/AC		83	83	90	\$1,729	50,174	SINGLE CHIP SEAL
4TH STREET	HAYES OYSTER DR	A ST	4THST	030	520	40	20,800	C	AC/AC		80	80	87	\$9,129	58,889	SINGLE CHIP SEAL
4TH STREET	A ST	MAIN ST	4THST	040	661	21	13,881	C	AC/AC		82	82	89	\$6,093	63,488	SINGLE CHIP SEAL
4TH STREET	OCEAN ST	HIGH ST	4THST	060	530	20	10,600	C	AC/AC		78	78	85	\$4,653	54,597	SINGLE CHIP SEAL
5TH AVE	OCEAN ST	HOBSONVILLE PT RD	5THAV	040	586	22	12,892	C	AC/AC		82	82	89	\$5,659	63,488	SINGLE CHIP SEAL
7TH ST	PORTLAND AVE	NORTH DEAD END	7THST	015	75	16	1,200	R	AC/AC		86	86	92	\$527	36,035	SINGLE CHIP SEAL
9TH ST	STATE HWY 101	TILLAMOOK AVE	9THST	010	347	10	3,470	R	AC/AC		79	79	87	\$1,523	47,169	SINGLE CHIP SEAL
B ST	4TH ST	5TH ST	BST	030	236	34	8,024	C	AC/AC		86	86	92	\$3,522	52,598	SINGLE CHIP SEAL
D ST	6TH ST	9TH ST	DST	010	842	22	18,524	R	AC		64	63	73	\$8,130	35,752	SINGLE CHIP SEAL
E ST	12TH ST	14TH ST	EST	040	509	21	10,689	C	AC/AC		87	87	93	\$4,692	58,457	SINGLE CHIP SEAL
HIGH ST ACCESS RD	NORTH RIDGE DR	RD WIDENS	HIGHST	005	156	12	1,872	R	AC		63	62	72	\$822	28,614	SINGLE CHIP SEAL
TILLAMOOK AVE	WEST DEAD END	STATE HWY 101	TILLAV	010	154	24	3,696	R	AC/AC		68	68	77	\$1,623	43,098	SINGLE CHIP SEAL

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

<b>Year 2019 Area Total</b>	<b>184,551</b>	<b>Treatment Total</b>	<b>\$48,102</b>
		<b>Year 2019 Total</b>	<b>\$184,537</b>

## Year: 2020

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment	
												PCI Before	PCI After				
6TH ST	B ST	A ST	6THST	040	261	14	3,654	R	AC/AC		45	42	100	\$8,636	24,966	2" OVERLAY WITH LOCALIZED REPAIR	
ALDERBROOK LOOP RD	STATE HWY 101	EAST CITY LIMITS (HOUSE #7805)	ALLPRD	010	774	22	17,028	C	AC/AC		45	41	100	\$40,242	28,182	2" OVERLAY WITH LOCALIZED REPAIR	
DOUGHTY RD	BEWLEY ST	EAST CITY LIMITS	DOUGHT	010	622	22	13,684	C	AC/AC		49	46	100	\$32,340	27,452	2" OVERLAY WITH LOCALIZED REPAIR	
E ST	11TH ST/BAYVIEW ST	12TH ST	EST	030	279	21	5,859	C	AC/AC		50	47	100	\$13,847	27,344	2" OVERLAY WITH LOCALIZED REPAIR	
PORTLAND AVE	5TH ST	6TH ST	PORTAV	020	395	26	10,270	C	AC/AC		51	48	100	\$24,271	27,200	2" OVERLAY WITH LOCALIZED REPAIR	
												<b>Treatment Total</b>			<b>\$119,336</b>		
OCEAN ST	5TH ST	7TH ST	OCEAST	030	508	16	8,128	R	AC/AC		67	65	100	\$12,186	27,685	1.5" OVERLAY WITH PRE-LEVEL	
												<b>Treatment Total</b>			<b>\$12,186</b>		
15TH ST	SEATTLE ST	BASELINE RD	15THST	030	483	16	7,728	R	AC/AC		75	74	82	\$3,494	43,872	SINGLE CHIP SEAL	
19TH ST	SOUTH DEAD END	WILLIAMS AVE	19THST	010	501	20	10,020	R	AC		75	73	82	\$4,530	42,724	SINGLE CHIP SEAL	
2ND STREET	TRADE ST	SOLLMAN LN	2NDST	010	151	16	2,416	R	AC		83	81	89	\$1,093	34,051	SINGLE CHIP SEAL	
4TH STREET	D ST	HAYES OYSTER DR	4THST	020	261	40	10,440	C	AC/AC		82	80	88	\$4,720	46,164	SINGLE CHIP SEAL	
4TH STREET	HIGH ST	HOBSONVILLE PT RD	4THST	070	306	21	6,426	C	AC/AC		87	86	92	\$2,905	46,847	SINGLE CHIP SEAL	
8TH ST	E ST	D ST	8THST	015	200	22	4,400	R	AC		71	68	78	\$1,990	29,009	SINGLE CHIP SEAL	
9TH ST	SEATTLE AVE	PORTLAND AVE	9THST	030	536	24	12,864	R	AC/AC		79	78	86	\$5,816	48,100	SINGLE CHIP SEAL	
HAYES OYSTER DR	ST HWY 101	4TH ST	HAYEDR	010	287	42	12,054	C	AC		69	66	75	\$5,450	25,658	SINGLE CHIP SEAL	
HAYES OYSTER DR	4TH ST	5TH ST	HAYEDR	020	233	22	5,126	C	AC		86	84	91	\$2,318	44,296	SINGLE CHIP SEAL	
HIGH ST	2ND ST	4TH ST	HIGHST	020	508	14	7,112	R	AC		82	81	88	\$3,216	42,816	SINGLE CHIP SEAL	
HIGH ST	7TH ST	END OF PVMT	HIGHST	030	235	20	4,700	R	AC		83	82	89	\$2,125	42,486	SINGLE CHIP SEAL	
MAIN ST	7TH ST	9TH ST	MAINST	050	527	18	9,486	R	AC/AC		71	69	79	\$4,289	42,680	SINGLE CHIP SEAL	
OCEAN ST	1ST ST	4TH ST	OCEAST	010	817	22	17,974	R	AC/AC		75	74	82	\$8,126	45,607	SINGLE CHIP SEAL	
OCEAN ST	7TH ST	8TH PL	OCEAST	040	404	16	6,464	R	AC/AC		75	74	82	\$2,923	45,607	SINGLE CHIP SEAL	
												<b>Treatment Total</b>			<b>\$52,995</b>		
<b>Year 2020 Area Total</b>										<b>175,833</b>		<b>Year 2020 Total</b>		<b>\$184,517</b>			

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

## Year: 2021

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment		
												PCI Before	PCI After					
5TH AVE	STATE HWY 101	B ST	5THAV	010	864	46	39,744	C	AC/AC		70	66	100	\$74,491	25,672	2" OVERLAY WITH PRE-LEVEL		
McCOY ST	STATE HWY 101	14TH ST	MCCOST	010	1,172	21	24,612	C	AC/AC		71	66	100	\$46,130	26,124	2" OVERLAY WITH PRE-LEVEL		
												<b>Treatment Total</b>		<b>\$120,621</b>				
6TH ST	A ST	NORTH DEAD END	6THST	050	336	12	4,032	R	AC		49	43	100	\$9,815	24,198	2" OVERLAY WITH LOCALIZED REPAIR		
												<b>Treatment Total</b>		<b>\$9,815</b>				
1ST STREET	PACIFIC ST	OCEAN ST	1STST	020	230	16	3,680	R	AC/AC		90	88	94	\$1,714	32,611	SINGLE CHIP SEAL		
5TH AVE	B ST	MAIN ST	5THAV	020	915	23	21,045	C	AC/AC		73	69	78	\$9,799	40,830	SINGLE CHIP SEAL		
7TH ST	SOUTH DEAD END	D ST	7THST	005	229	20	4,580	C	AC/AC		73	69	78	\$2,133	35,915	SINGLE CHIP SEAL		
7TH ST	OCEAN ST	PENNSYLVANIA ST	7THST	040	1,299	21	27,279	C	AC/AC		88	86	92	\$12,702	45,397	SINGLE CHIP SEAL		
8TH PL	HOUSE #10015	HIGH ST	8THPL	020	222	21	4,662	R	AC		88	86	92	\$2,171	42,749	SINGLE CHIP SEAL		
8TH ST	D ST	NORTH DEAD END	8THST	017	77	20	1,540	R	AC		73	69	78	\$718	28,261	SINGLE CHIP SEAL		
9TH ST	E ST	D ST	9THST	060	224	22	4,928	R	AC/AC		72	68	78	\$2,295	30,393	SINGLE CHIP SEAL		
BASELINE RD	14TH ST	BEWLEYS ST	BASERD	010	1,342	20	26,840	C	AC/AC		87	84	91	\$12,498	43,848	SINGLE CHIP SEAL		
MAIN ST	5TH ST	7TH ST	MAINST	040	522	21	10,962	C	AC/AC		88	86	92	\$5,105	45,397	SINGLE CHIP SEAL		
PENNSYLVANIA ST	7TH ST	EAST CITY LIMITS	PENNST	010	522	22	11,484	C	AC/AC		87	84	91	\$5,348	43,848	SINGLE CHIP SEAL		
												<b>Treatment Total</b>		<b>\$54,483</b>				
<b>Year 2021 Area Total</b>										<b>185,388</b>		<b>Year 2021 Total</b>		<b>\$184,919</b>				

## Year: 2022

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment		
												PCI Before	PCI After					
7TH ST	MAIN ST	OCEAN ST	7THST	030	519	21	10,899	C	AC/AC		71	64	100	\$21,041	25,814	2" OVERLAY WITH PRE-LEVEL		
												<b>Treatment Total</b>		<b>\$21,041</b>				
11TH ST	SOUTH DEAD END	SEATTLE	11THST	005	216	16	3,456	R	AC		52	45	100	\$8,665	23,286	2" OVERLAY WITH LOCALIZED REPAIR		
16TH ST	WILLIAMS AVE	NORTH DEAD END	16TH ST	020	353	12	4,236	R	AC/AC		47	40	100	\$10,621	23,730	2" OVERLAY WITH LOCALIZED REPAIR		
3RD STREET	HAYES OYSTER DR	B ST	3RDST	010	255	40	10,200	R	AC/AC		47	40	100	\$25,574	23,789	2" OVERLAY WITH LOCALIZED REPAIR		
E ST	8TH ST	DEAD END EAST	EST	010	153	20	3,060	R	AC		49	41	100	\$7,673	23,765	2" OVERLAY WITH LOCALIZED REPAIR		
OCEAN ST	4TH ST	5TH ST	OCEAST	020	250	22	5,500	R	AC/AC		55	48	100	\$13,790	22,499	2" OVERLAY WITH LOCALIZED REPAIR		

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

											Treatment Total			\$66,323		
10TH ST	SEATTLE AVE	DEAD END NORTH	10THST	005	261	22	5,742	R	AC/AC		84	81	88	\$2,754	38,532	SINGLE CHIP SEAL
12TH ST	SEATTLE ST	NORTH DEAD END	12THST	030	447	16	7,152	R	AC		86	83	90	\$3,430	41,747	SINGLE CHIP SEAL
14TH ST	BASELINE RD	E ST	14THST	008	224	21	4,704	R	AC/AC		87	84	91	\$2,256	36,026	SINGLE CHIP SEAL
15TH ST	TILLAMOOK AVE	SEATTLE ST	15THST	020	519	16	8,304	R	AC/AC		73	69	78	\$3,983	37,474	SINGLE CHIP SEAL
18TH ST	WEBER RD	WILLIAMS AVE	18TH ST	010	541	22	11,902	R	AC/AC		79	75	84	\$5,709	37,719	SINGLE CHIP SEAL
7TH ST	SEATTLE AVE	PORTLAND AVE	7THST	010	522	11	5,742	R	AC/AC		88	85	92	\$2,754	39,613	SINGLE CHIP SEAL
9TH ST	DEW POINTE DR	MAIN ST (N INT)	9THST	040	561	20	11,220	R	AC/AC		75	71	80	\$5,381	36,722	SINGLE CHIP SEAL
BAY RIDGE CT	SOUTH RIDGE DR	EAST DEAD END	BAYRCT	010	265	21	5,565	R	AC		77	73	82	\$2,669	38,346	SINGLE CHIP SEAL
BAYVIEW ST	SOUTH DEAD END	E ST	BAYVST	010	133	16	2,128	R	AC		75	69	78	\$1,021	27,546	SINGLE CHIP SEAL
SALMON ST	WEST DEAD END	HARE ST	SALMST	010	836	20	16,720	C	AC		90	86	92	\$8,019	42,055	SINGLE CHIP SEAL
SEATTLE ST	7TH ST	9TH ST	SEATST	010	493	11	5,423	R	AC		83	79	87	\$2,601	37,097	SINGLE CHIP SEAL
SEATTLE ST	9TH ST	10TH ST	SEATST	020	262	22	5,764	R	AC		86	83	90	\$2,765	39,701	SINGLE CHIP SEAL
SEATTLE ST	15TH ST	BEWLEYS ST	SEATST	040	1,107	20	22,140	R	AC/AC		90	88	94	\$10,619	39,346	SINGLE CHIP SEAL
TRADE ST	WEST DEAD END	1ST ST	TRADST	010	494	14	6,916	R	AC/AC		90	87	93	\$3,317	33,886	SINGLE CHIP SEAL
TRADE ST	1ST ST	2ND ST	TRADST	020	242	14	3,388	R	AC/AC		90	87	93	\$1,625	33,886	SINGLE CHIP SEAL
											Treatment Total			\$58,903		
2ND STREET	SALEM ST	HIGH ST	2NDST	030	235	11	2,585	R	AC		23	12	100	\$38,463	3,847	RECONSTRUCT STRUCTURE (AC)
											Treatment Total			\$38,463		
<b>Year 2022 Area Total</b>														<b>162,746</b>		
											Year 2022 Total			\$184,730		

## Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Treatment			Cost	Rating	Treatment
											Current PCI	PCI Before	PCI After			
4TH STREET	MAIN ST	OCEAN ST	4THST	050	547	20	10,940	C	AC/AC		60	49	100	\$28,252	24,558	2" OVERLAY WITH LOCALIZED REPAIR
											Treatment Total			\$28,252		
BEWLEYS ST	WILLIAMS/VAUGH N RD	DOUGHTY RD	BEWLST	010	1,342	21	28,182	C	AC/AC		90	85	92	\$13,922	42,473	SINGLE CHIP SEAL
BEWLEYS ST	DOUGHTY RD	TILLAMOOK AVE	BEWLST	020	315	21	6,615	C	AC/AC		88	82	89	\$3,268	38,711	SINGLE CHIP SEAL
CLAM ST	WEST DEAD END	50 FT EAST OF ELLIOT ST	CLAMST	010	383	20	7,660	C	AC		92	85	92	\$3,784	35,247	SINGLE CHIP SEAL
ELLIOT ST	CLAM ST	SALMON ST	ELLIST	010	263	20	5,260	C	AC		92	85	92	\$2,599	35,247	SINGLE CHIP SEAL
PACIFIC ST	1ST ST	4TH ST	PACIST	010	767	16	12,272	R	AC/AC		90	86	92	\$6,063	34,766	SINGLE CHIP SEAL
TILLAMOOK AVE	HWY 101	13TH ST	TILLAV	020	1,330	21	27,930	C	AC/AC		81	74	82	\$13,797	34,907	SINGLE CHIP SEAL
											Treatment Total			\$43,433		
6TH ST	SOUTH DEAD END	PORTLAND AVE	6THST	020	318	12	3,816	R	AC		36	24	100	\$58,483	3,735	RECONSTRUCT STRUCTURE (AC)

\*\* - Treatment from Project Selection

Scenarios Criteria:

# Scenarios - Sections Selected for Treatment

Interest: 2.00%

Inflation: 3.00%

Printed: 02/25/2019

Scenario: (4) Increase PCI 5 points (80)

Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surf Type	Area ID	Current PCI	Treatment		Cost	Rating	Treatment
												PCI Before	PCI After			
A ST	5TH ST	6TH ST	AST	020	249	14	3,486	R	AC		23	8	100	\$53,426	3,735	RECONSTRUCT STRUCTURE (AC)
												Treatment Total	\$111,909			
Year 2023 Area Total										106,161	Year 2023 Total		\$183,594			
Total Section Area:										814,679	Grand Total		\$922,297			

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## Appendix G

### Maps

*Map - Surface Types*

*Map – Current PCI*

*Scenario Maps – PCI Condition after Treatments in 2023 (all Scenarios)*

*Scenario Maps – Section Selected for Treatment (Scenarios 1-4)*

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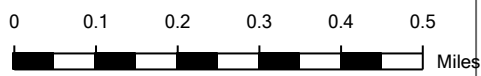
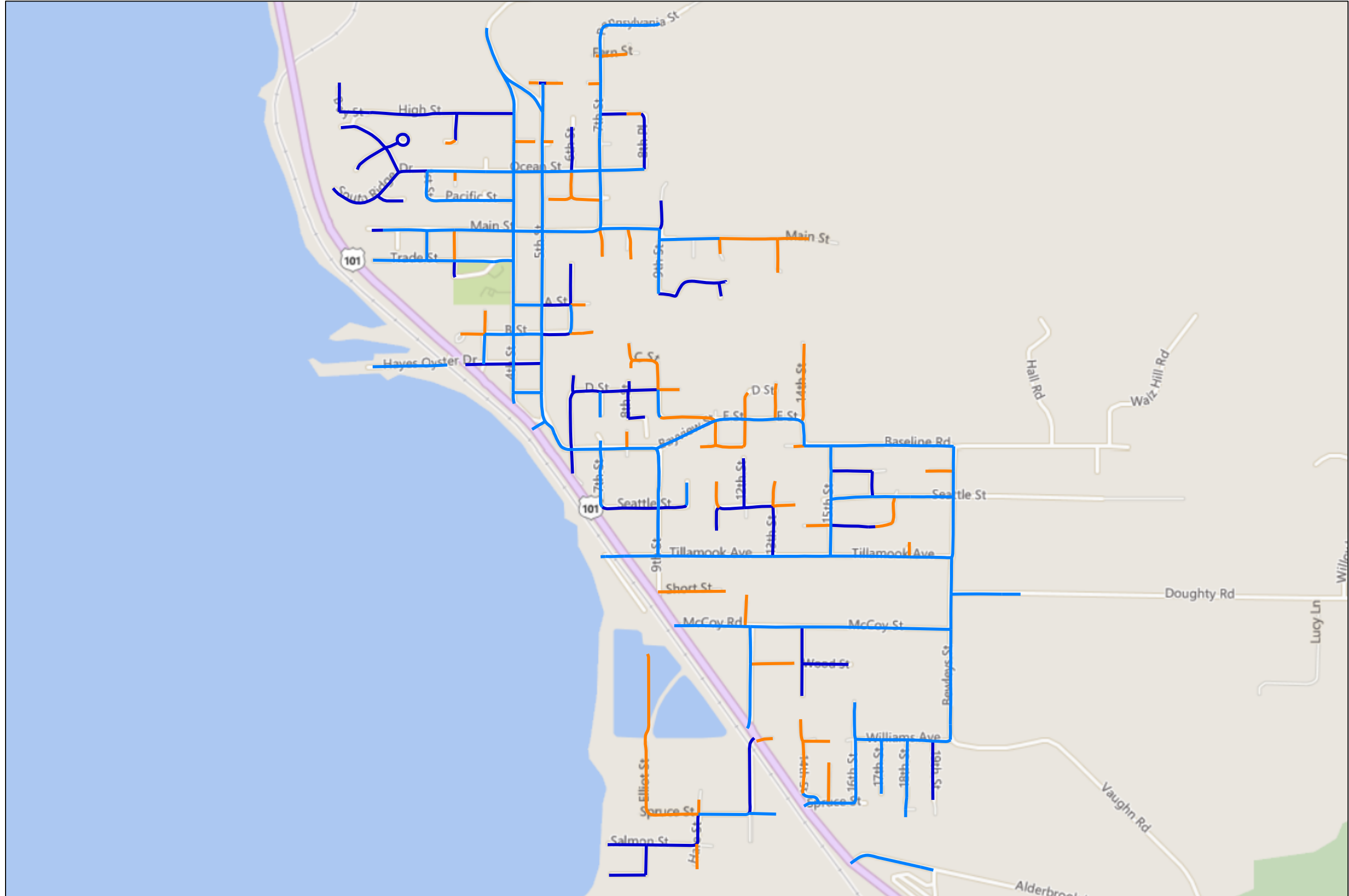


# Surface Types

Printed: 2/25/2019

### Feature Legend

- A AC
- G GRAVEL
- O AC/AC





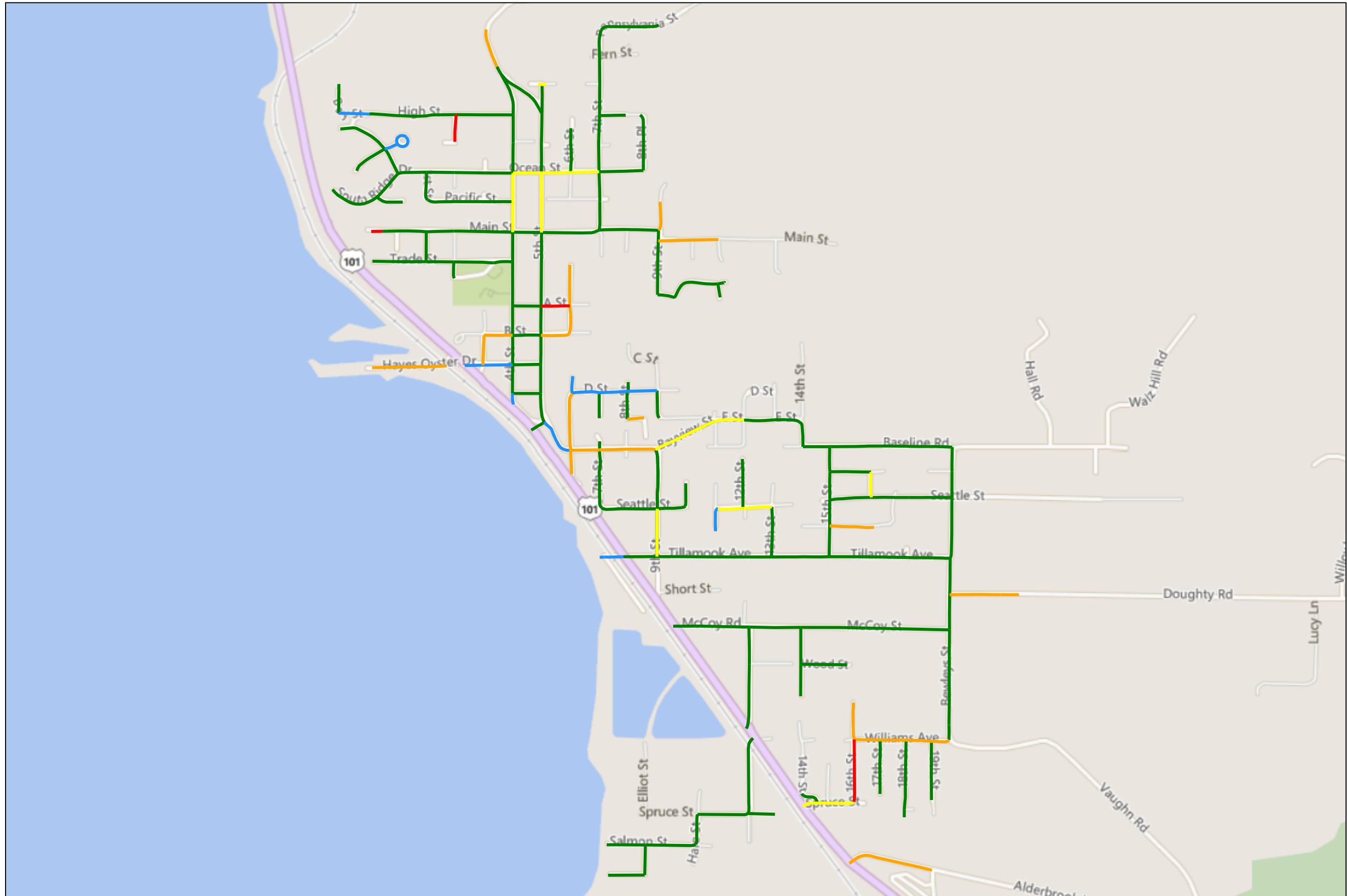


# Current PCI Condition

Printed: 2/25/2019

**Feature Legend**

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor





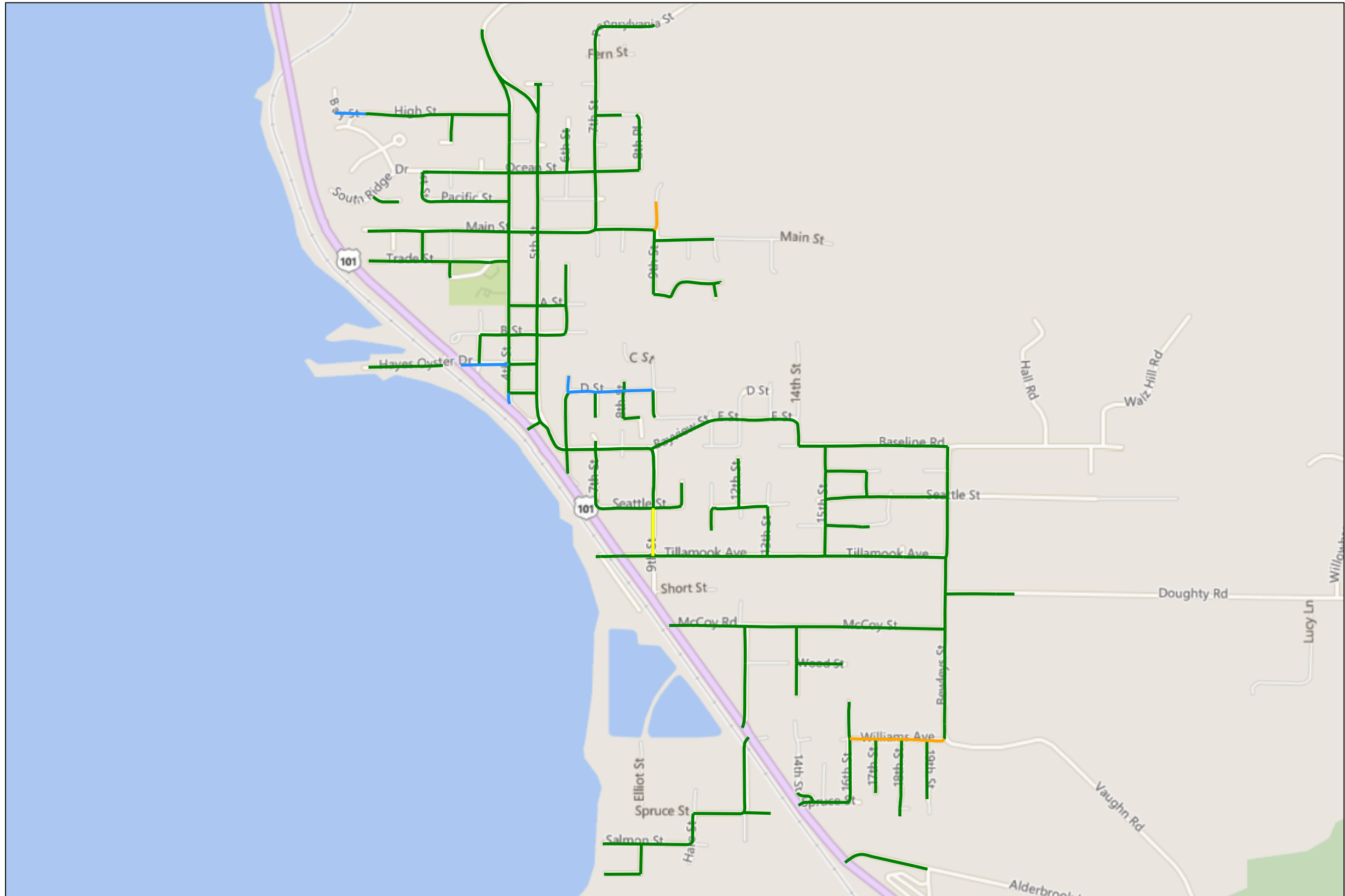
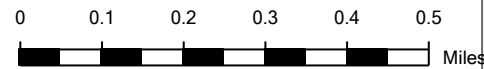
City of Bay City

# Scenario PCI Condition

(1) Unconstrained Needs - 2023 Project Period - Printed: 2/25/2019

### Feature Legend

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor





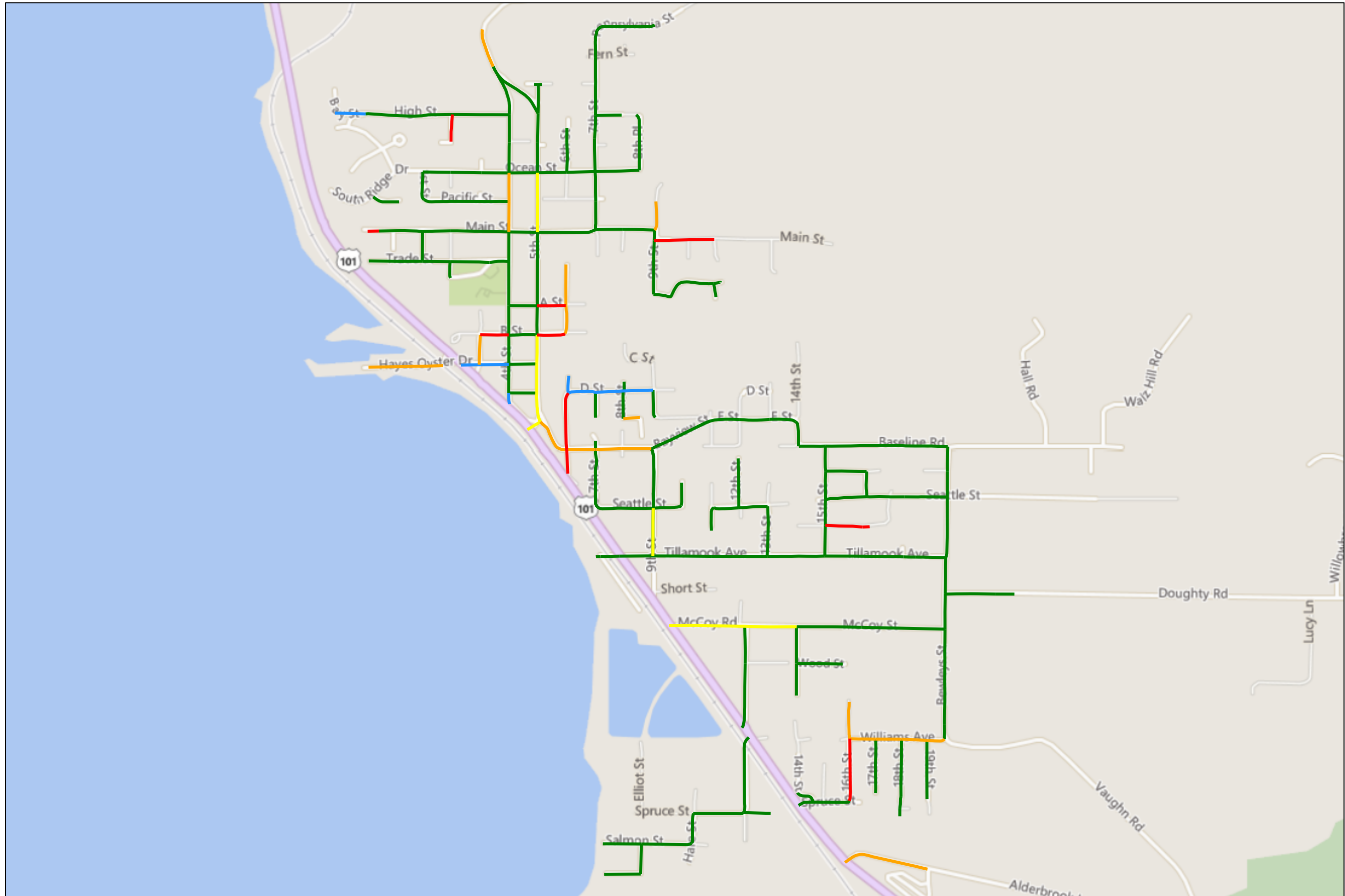
City of Bay City

# Scenario PCI Condition

(2) Current Funding - 2023 Project Period - Printed: 2/25/2019

**Feature Legend**

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor





City of Bay City

# Scenario PCI Condition

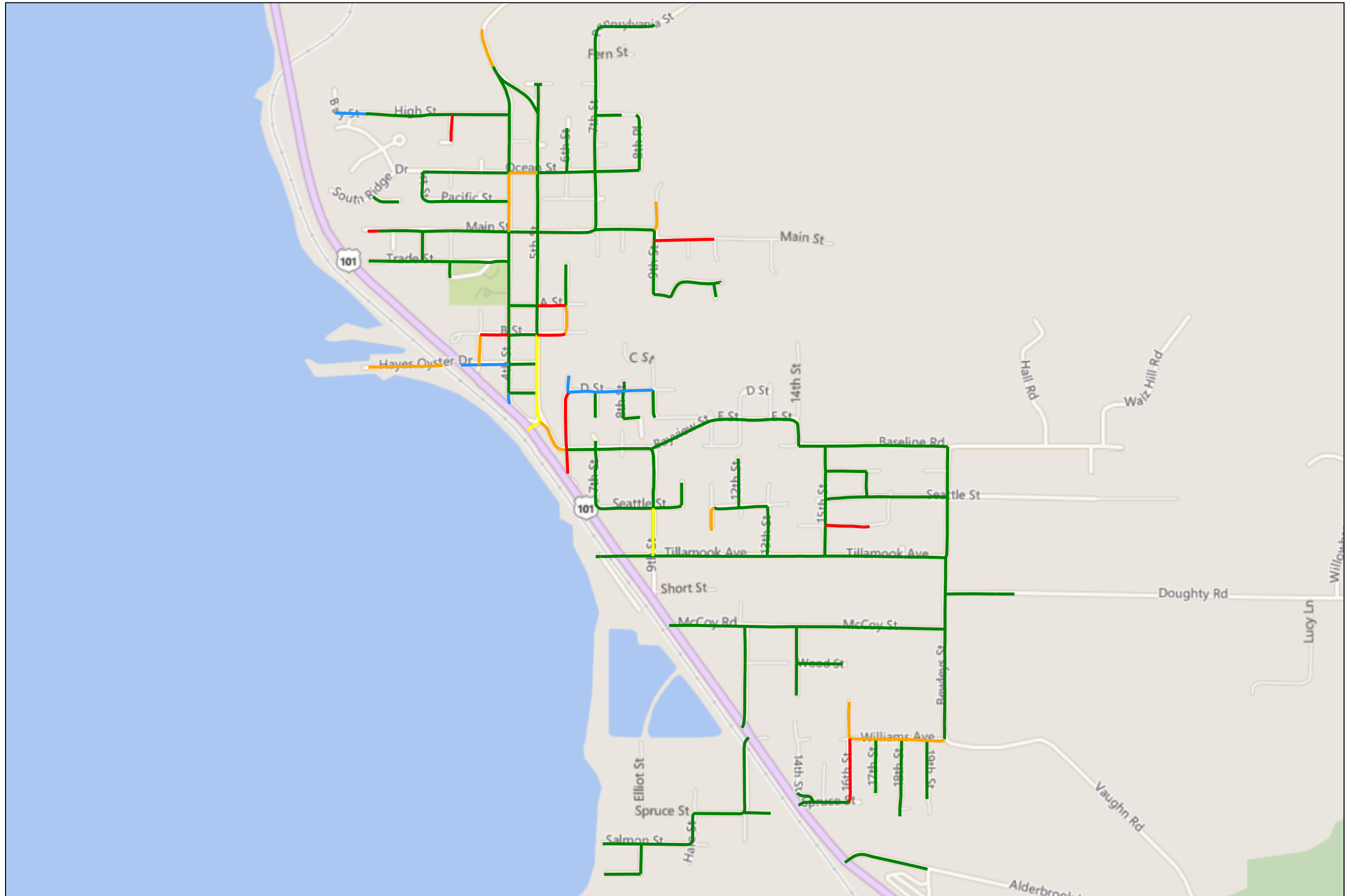
(3) Maintain Current PCI (75) - 2023 Project Period - Printed: 2/25/2019

**Feature Legend**

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor

0 0.1 0.2 0.3 0.4 0.5 Miles





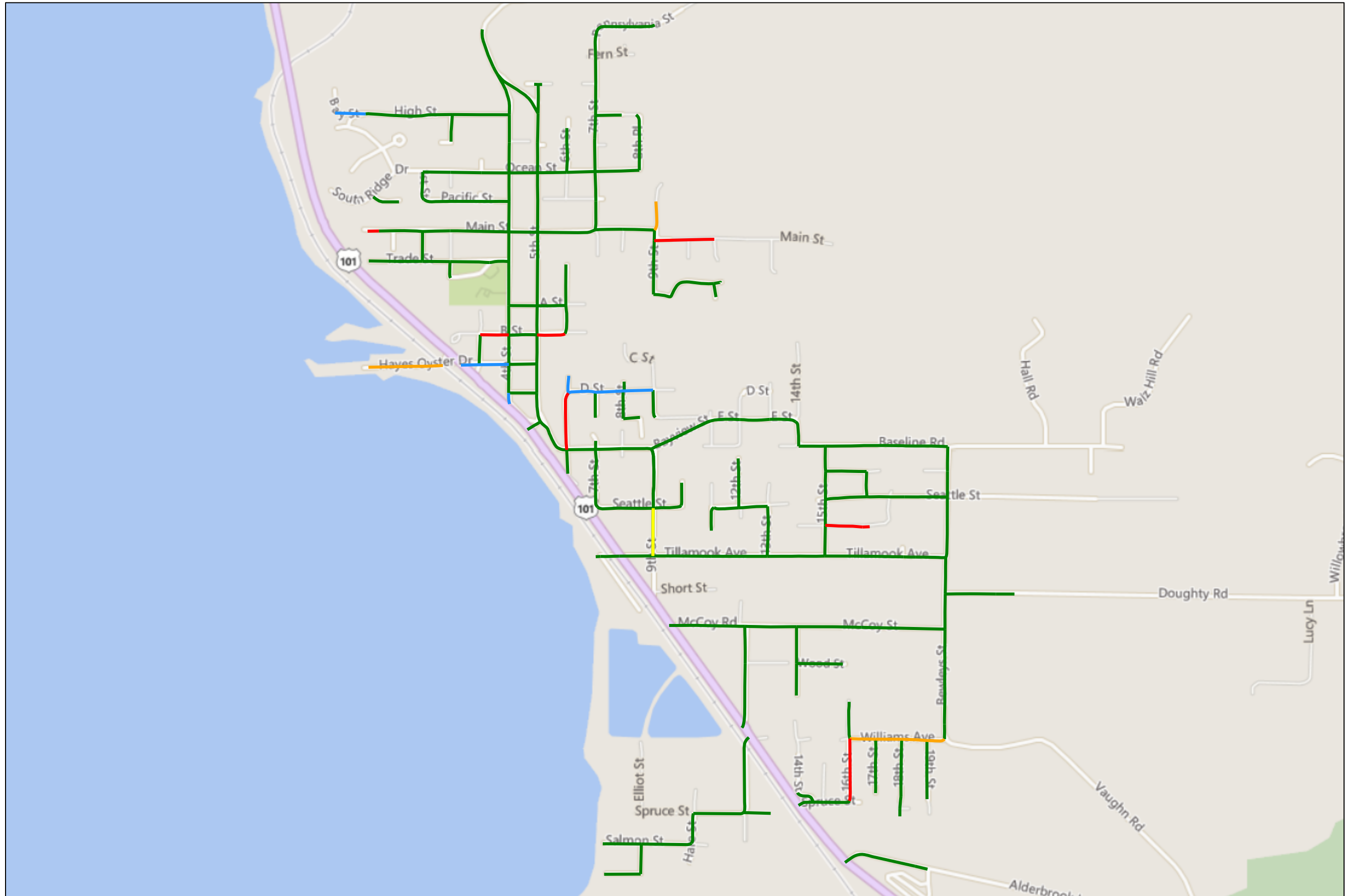
City of Bay City

# Scenario PCI Condition

(4) Increase PCI 5 points (80) - 2023 Project Period - Printed: 2/25/2019

**Feature Legend**

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor





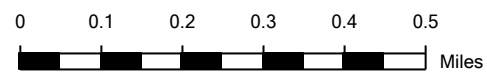
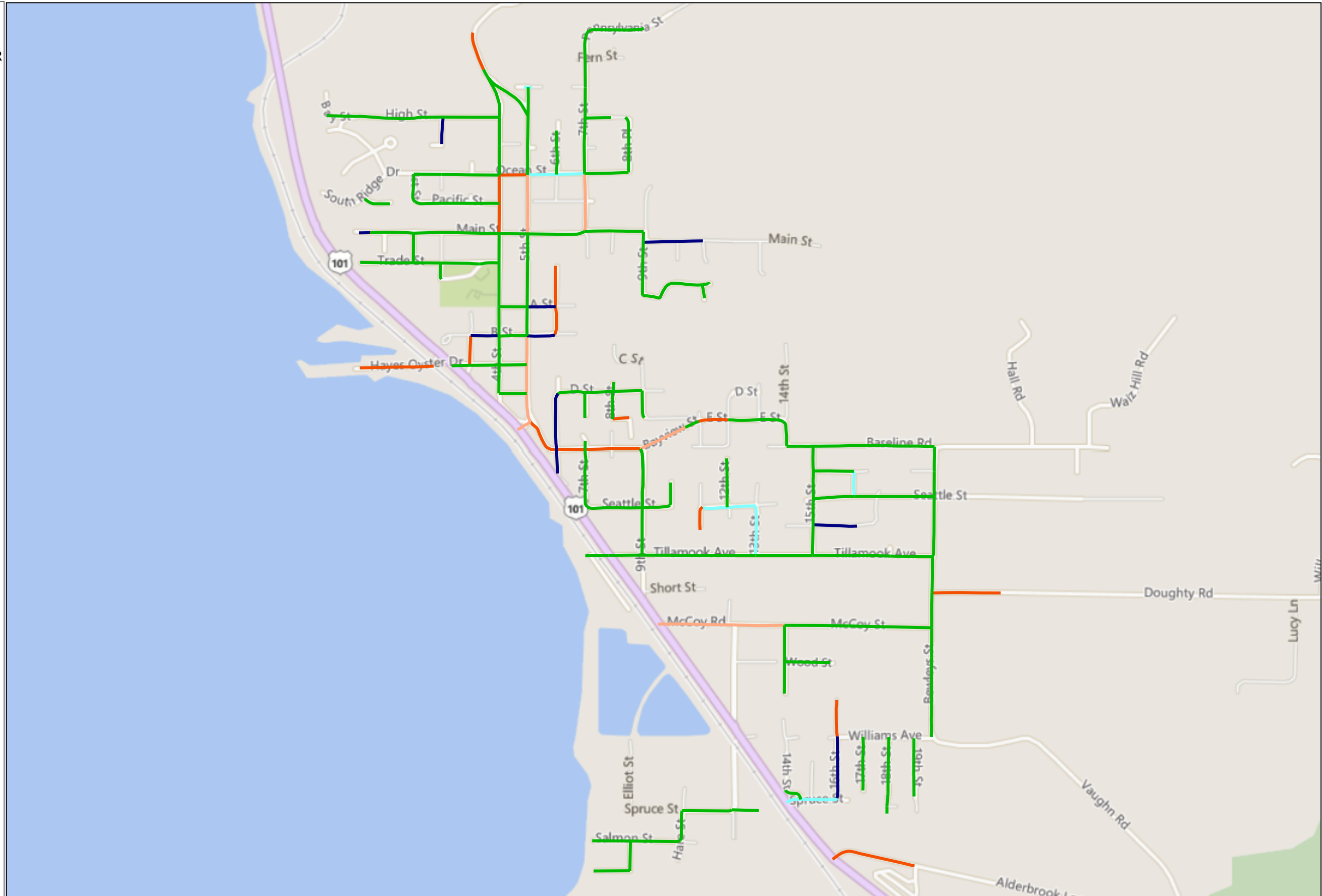
City of Bay City

# Scenario Treatments

(1) Unconstrained Needs - All Project Periods - Printed: 2/25/2019

### Feature Legend

- 1.5" OVERLAY WITH PRE-LEVEL
- 2" OVERLAY WITH LOCALIZED REPAIR
- 2" OVERLAY WITH PRE-LEVEL
- RECONSTRUCT STRUCTURE (AC)
- SINGLE CHIP SEAL





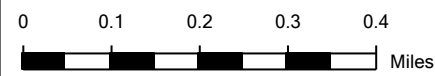
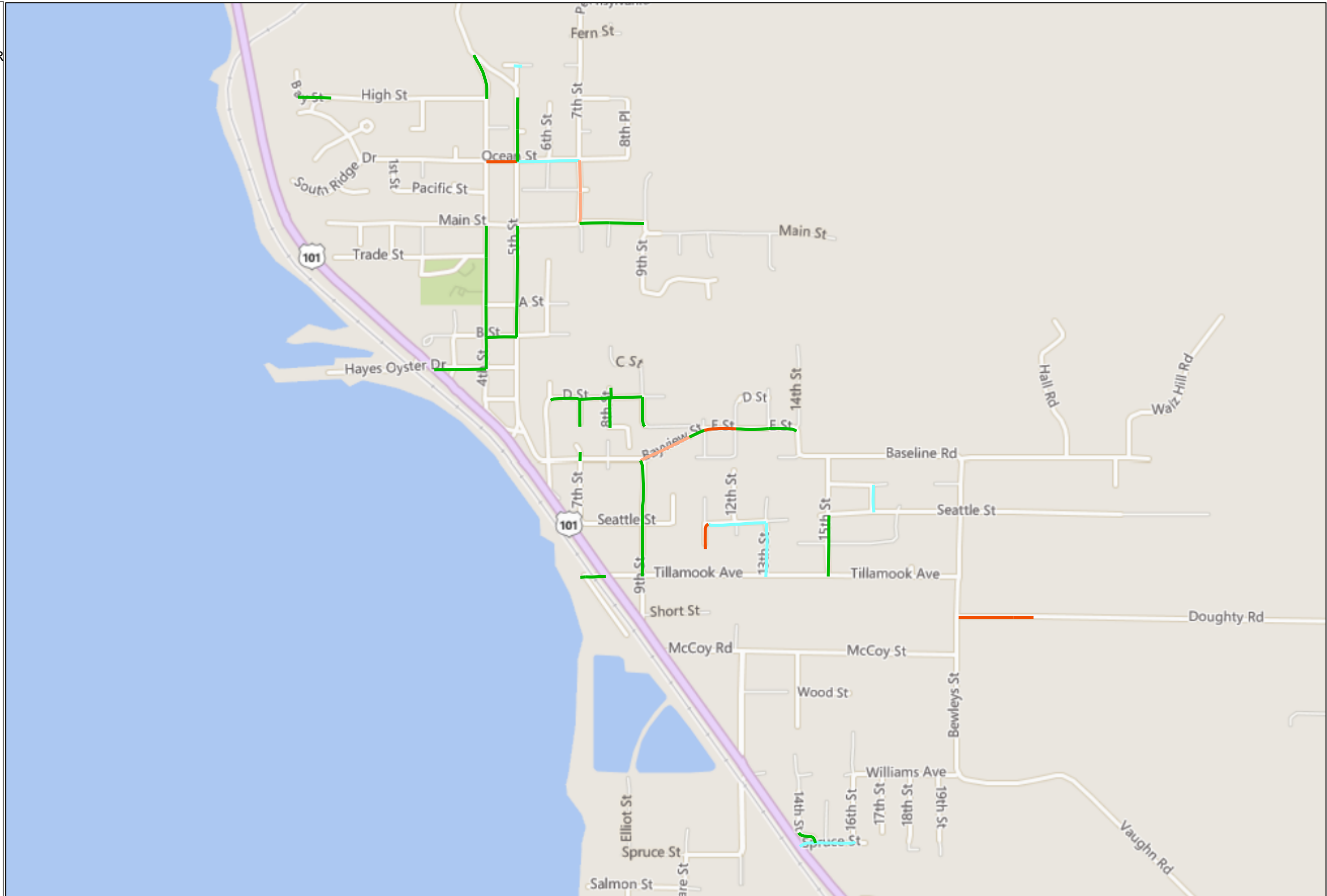
City of Bay City

# Scenario Treatments

(2) Current Funding - All Project Periods - Printed: 2/25/2019

### Feature Legend

- 1.5" OVERLAY WITH PRE-LEVEL
- 2" OVERLAY WITH LOCALIZED REPAIR
- 2" OVERLAY WITH PRE-LEVEL
- SINGLE CHIP SEAL



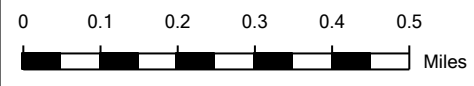
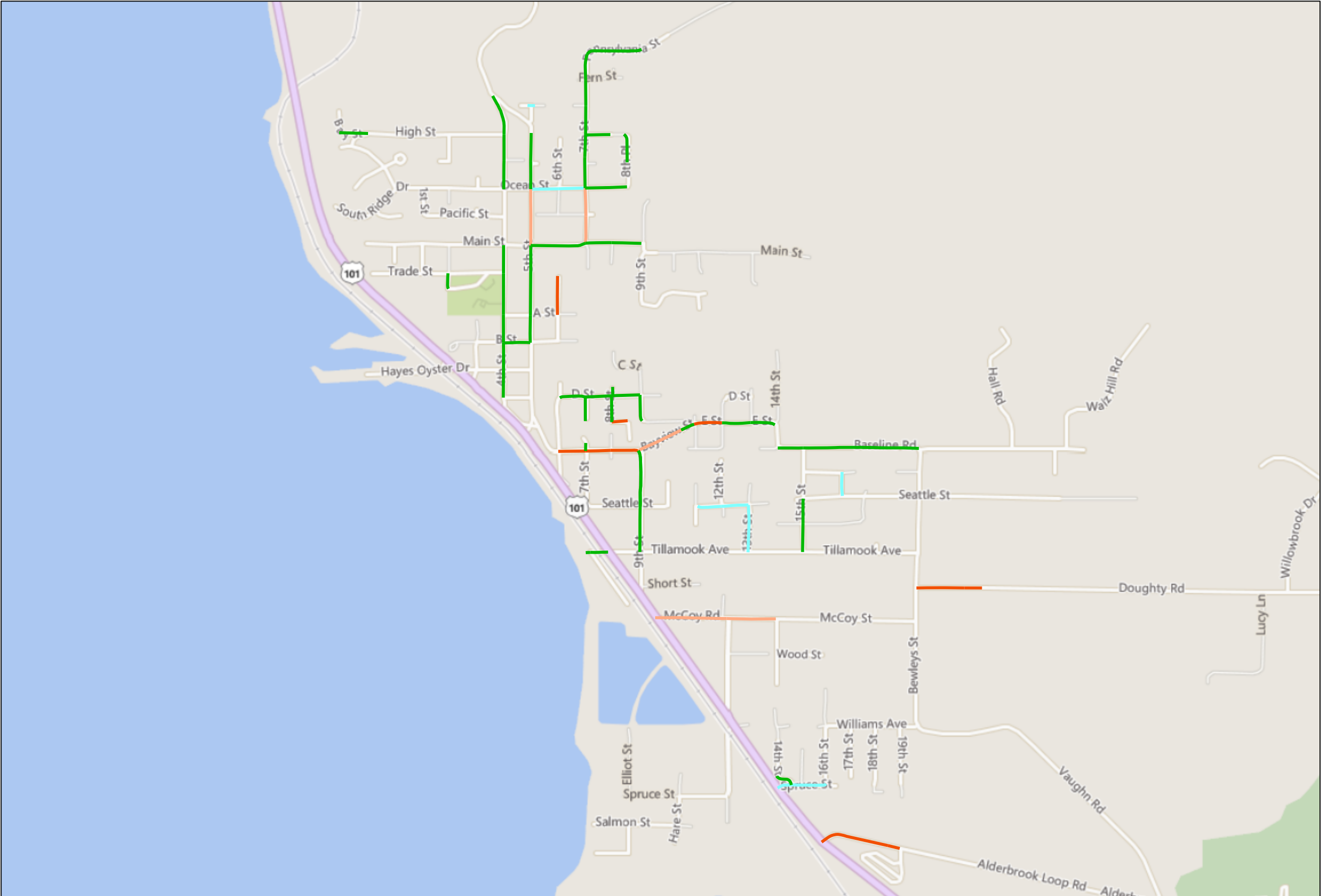


City of Bay City

# Scenario Treatments

(3) Maintain Current PCI (75) - All Project Periods - Printed: 2/25/2019

- Feature Legend**
- 1.5" OVERLAY WITH PRE-LEVEL
  - 2" OVERLAY WITH LOCALIZED REPAIR
  - 2" OVERLAY WITH PRE-LEVEL
  - SINGLE CHIP SEAL







City of Bay City

# Scenario Treatments

(4) Increase PCI 5 points (80) - All Project Periods - Printed: 2/25/2019

## Feature Legend

- 1.5" OVERLAY WITH PRE-LEVEL
- 2" OVERLAY WITH LOCALIZED REPAIR
- 2" OVERLAY WITH PRE-LEVEL
- RECONSTRUCT STRUCTURE (AC)
- SINGLE CHIP SEAL

