



Staff Report

TO: City Council
FROM: Robert L. Vestal, Public Works Director
DATE: June 17, 2025
SUBJECT: 2025 Pavement Management Program (PMP) Update

Description Discuss and Approve the 2025 Pavement Management Program (PMP) Update.

Background and Analysis:

The Pavement Management Program (PMP) is a systematic approach used by the City to maintain and improve the condition of its roadways. This approach involves assessing the current state of pavement, prioritizing maintenance and repair projects, and allocating resources efficiently to extend the lifespan of the City's streets. The PMP is periodically reviewed and updated to reflect changes in road conditions, traffic patterns, and funding availability. Refer to Attachment A for the PMP Update report.

On January 19, 2024, the City awarded a Professional Services Agreement (PSA) to Nichols Consulting Engineers (NCE) to conduct a pavement assessment and prepare the 2025 PMP Update. NCE's scope of work encompassed:

- **Assessment and Data Collection:**
 - Regular inspections are conducted to evaluate the condition of roads.
 - A Pavement Condition Index (PCI) is often used to rate roads on a scale (e.g., 0 to 100), where higher scores indicate better conditions.
- **Planning and Prioritization:**
 - Roads are categorized based on their condition, traffic volume, and importance to the community.
 - Maintenance strategies are developed, such as preventive maintenance, resurfacing, or full reconstruction.
- **Budgeting and Resource Allocation:**
 - Fund allocation recommendations based on maintaining and/or improving the City's PCI.
 - The program ensures cost-effective use of public funds by focusing on preventive maintenance to avoid costly repairs later.
- **Implementation:**

- Maintenance and repair work frequency, often in phases to minimize disruption.
- Techniques like sealing cracks, overlaying asphalt, or replacing damaged sections are used.

Assessment Results:

The City is responsible for maintaining approximately 148 centerline miles of streets, an investment of approximately \$339.6 million. The street network includes 27.1 miles of arterial streets, 25.2 miles of collector streets, and 95.6 miles of residential streets. Table A of the Report shown below illustrates the condition of City streets based on PCI and functional classification:

Table 1. Network Summary Statistics by Functional Class.

| Functional Class | Centerline Mileage | Percent Area | Weighted Average PCI ¹ | Condition |
|------------------|--------------------|---------------|-----------------------------------|------------------|
| Arterial | 27.1 | 22.1% | 79 | Very Good |
| Collector | 25.2 | 19.7% | 78 | Very Good |
| Residential | 95.6 | 58.2% | 78 | Very Good |
| Total | 147.9 | 100.0% | 78 | Very Good |

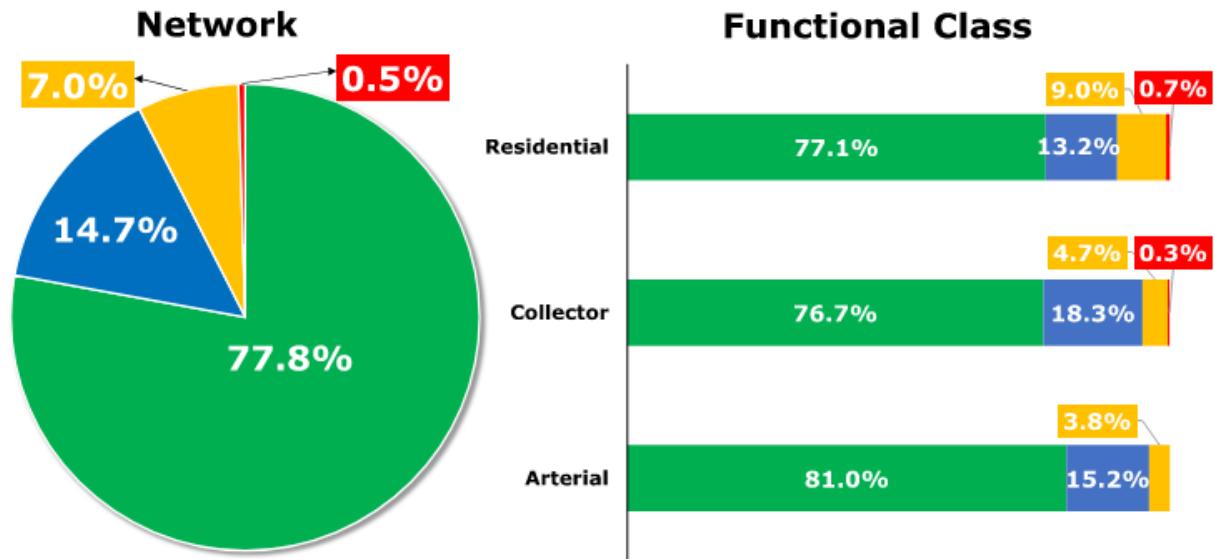
The City’s street network weighted average PCI (by area) is currently 78. Overall, 77.8% of the City’s street network is in “Very Good” condition, 14.7% is in “Fair” condition, 7% is in “Poor” condition, and 0.5% is in “Very Poor” condition. Table 2 of the Report shown below describes these industry standards categories:

Table 2. Pavement Condition Categories.

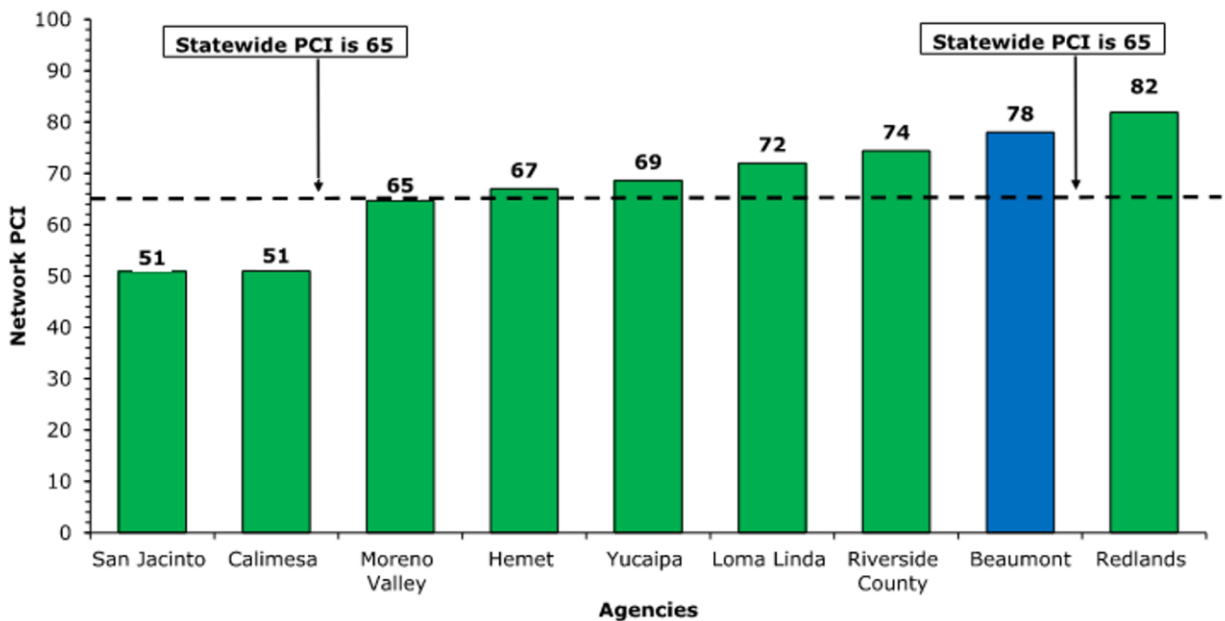
| Condition Category | PCI Range | Description |
|--------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very Good | 70 – 100 | Pavements with minimal surface distress that may include some hairline longitudinal/transverse cracks and/or weathering. The pavement structure is sound, and minor oxidation may occur. |
| Fair | 50 – 69 | Pavements with significant distress that is predominantly non-load-related, such as longitudinal/transverse cracks, bleeding, block cracking, weathering, raveling, etc. The pavement structure is sound, and some oxidation has occurred. |
| Poor | 25 – 49 | Pavements with moderate to severe surface distresses. Extensive weathering or raveling, block cracking, and load-related distresses such as alligator cracking, rutting, and potholes may occur. |
| Very Poor | 0 – 24 | Pavements with severe weather-related distress and large quantities of load-related distress. These pavements are nearing the end of their service life. |

The following figures provide the PCIs for streets with different functional classifications. The condition of streets by functional class is relatively the same, with over 76% of all

functional classes rated in the “Very Good” condition. It is important to note that the City has no arterials rated as “Very Poor”.



The following table provides a PCI comparison between the City of Beaumont and its neighboring cities and the County based on information gathered from the 2022 California Statewide Local Streets and Roads Needs Assessment:



The fact that approximately 78% of the City’s streets are in “Very Good” condition allows the City to use crack seals or slurry seals for preventative maintenance. As pavement conditions deteriorate to lower levels or categories, overlays and full-depth reconstruction must be applied. Figure 6 of the Report shown below illustrates how costs of pavement treatment increase as pavement conditions decrease. The costs

shown in Figure 6 are based on recent bids received by the City and illustrate that it costs less to maintain streets in good condition than to repair or reconstruct streets in poor condition. For instance, by letting pavements deteriorate, streets that once cost \$6.2 per square yard to treat with slurry seal may later cost \$89 per square yard to reconstruct.

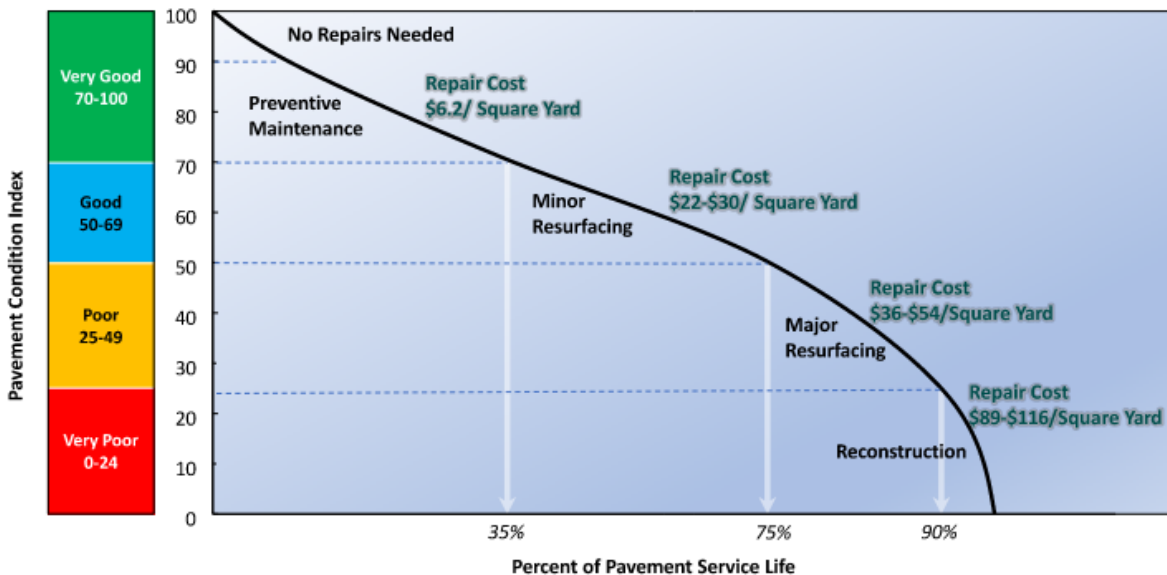


Figure 6. Costs⁵ of Maintaining Pavements over their Service Lives.

Budget Scenarios:

To maintain the City's PCI rating of 78, the Report examined five different budget scenarios using an initial yearly inflation rate of 4%, decreasing by 0.5% each year until reaching 3%. The following budget scenarios include paving and non-paving costs, staff time, design, construction management, and contingencies:

Scenario 1: City's Anticipated Budget (\$4.0M/year) – The network PCI is projected to decrease from 78 to 74 by the end of this 5-year period. The cost of deferred maintenance¹ will increase from \$21.6 million to \$44.1 million by FY 30/31.

Scenario 2: PCI 78 by FY 30/31 (\$6.6M/year) – This scenario assumes that the City will allocate \$6.6 million each year to maintain the PCI at 78 by the end of FY 30/31. This will cost \$33.0 million total over 5 years. Deferred maintenance costs will increase from \$21.6 million to \$29.4 million by FY 30/31.

Scenario 3: PCI 80 by FY 30/31 (\$8.4M/year) – This scenario assumes that the City will increase the network PCI to 80. This will cost \$42.0 million total over 5 years. Deferred maintenance costs will be reduced to \$20.3 million by FY 30/31.

Scenario 4: PCI 81 by FY 30/31 (\$9.2M/year) – This scenario assumes that the City will increase the network PCI to 81 by FY 30/31. This will cost \$45.7 million total over 5 years. Deferred maintenance costs will be reduced to \$16.8 million by FY 30/31.

Scenario 5: Reduced Budget (\$3.5M/year) – The network PCI is projected to decrease to 73 by the end of FY 30/31. This scenario aims to project the PCI outcome by decreasing the City’s Budget by \$0.5 million each year. The cost of deferred maintenance will increase from \$21.6 million to \$46.5 million by FY 30/31.

Table B summarizes each scenario and its corresponding 5-year budget, PCI, and deferred maintenance costs at the end of the analysis period.

Table B. Budget Scenario Analysis Summary

| Scenario | Description | Cumulative 5-year Budget (\$M) | End of FY 30/31 | |
|----------|--------------------|--------------------------------------|-----------------|-------------------------------|
| | | | Network PCI | Deferred Maintenance (\$M) |
| 1 | City’s Budget | 20.0 | 74 | 44.1 |
| 2 | PCI 78 by FY 30/31 | 33.0 | 78 | 29.4 |
| 3 | PCI 80 by FY 30/31 | 42.0 | 80 | 20.3 |
| 4 | PCI 81 by FY 30/31 | 45.7 | 81 | 16.8 |
| 5 | Reduced Budget | 17.5 | 73 | 46.5 |

Based on these budget scenarios, the Report recommends that the City increase the funding level to improve the network condition and decrease deferred maintenance. Scenario 4 in Table B accomplishes both of these objectives by increasing PCI from 78 to 81 and decreasing deferred maintenance from \$21.6 million to \$16.8 million by the end of FY 30/31.

City staff recommends maintaining Scenario 1 to align with the approved Street Rehabilitation budget for the next five years, ensuring financial stability and economic sustainability. This approach provides consistency in infrastructure improvements while allowing annual budget adjustments to accommodate changing conditions.

Fiscal Impact:

The cost to prepare this staff report is estimated to be \$350.

All recommendations proposed within the PMP Report will be funded through the City of Beaumont's Capital Improvement Plan.

Recommended Action:

Approve the 2025 Pavement Management Program Update and Scenario 1 of the PMP Update to align with the current Street Rehabilitation funding in the adopted FY26 - FY30 Capital Improvement Plan (CIP).

Attachments:

- A. 2025 Pavement Management Program Update
- B. Presentation