

CITY OF COOS BAY CITY COUNCIL
Agenda Staff Report

| MEETING DATE | AGENDA ITEM NUMBER |
|--------------|--------------------|
| July 7, 2015 | |

TO: Mayor Shoji and City Councilors

FROM: Jim Hossley, Public Works Director *JH*

Through: Rodger Craddock, City Manager *rc*

ISSUE: Report on Pavement Condition Survey and Asset Management Plan

BACKGROUND:

The Street Task Force recommended and the City Council approved updating the City's Street Condition Survey. The City contracted with a consultant who completed the field work for the updated survey in January of 2015. The investigation was only of paved asphalt and concrete streets, not gravel roads. The Street Task Force met March 17, 2015 to review and discuss the consultant's draft preliminary Pavement Condition Survey and Asset Management Plan. The Task Force and staff provided input for revisions to the draft report. The draft final report was submitted June 1st and staff will present the results of the Pavement Condition Survey and Asset Management Plan to the City Council.

The consultant inputted the collected survey field data into the Pavement Management Program (PMP) they used to provide us a current inventory with condition and preservation requirements for the roadways, and a forecasting of the budget needs. The consultant's recommendations generated by the PMP are for planning purposes only and are not intended to replace sound engineering judgment. Final project recommendations should be weighed against the actual approach the City wishes to utilize in scheduling the workloads for contracting purposes. In addition, an engineering review of the pavement condition may indicate that a particular pavement section needs attention earlier than the other roads in its localized area.

The pavement network within the City of Coos Bay has 67.0 centerline miles of paved surfaces, comprised of 50.4 miles of local streets, 6.7 miles of collector streets, and 9.9 miles of arterial streets. There is a total of over 11,557,160 square feet of pavement. The estimated replacement value of this pavement is \$46.9 million for local/collector streets and \$17.1 million for arterial for a total of \$64 million.

The overall condition of the City of Coos Bay's road network is "Fair", with an average "Pavement Condition Index" (PCI) of 64.3, with 100 being a brand new street and 0 being a badly deteriorated street with virtually no remaining life.

| PCI RANGE | CONDITION |
|-----------|--------------|
| 86 –100 | Good |
| 71 -85 | Satisfactory |
| 56 -70 | Fair |
| 41 -55 | Poor |
| 26 -40 | Very Poor |
| 11 -25 | Serious |
| 0 -10 | Failed |

A strategy was developed to reduce the backlog of street preservation work over the next 5 years and increase the overall condition of the road network. This strategy involves using both slurry seal and pavement resurfacing as preservation components.

The consultant suggests that preventative maintenance on streets with better than average PCI ratings must be considered in combination with the more extensive rehabilitation of failing streets to realize the maximum net benefit and reduce the long term costs. The strategy is developed to provide alternatives for halting the deterioration of the existing pavement, reducing the backlog of street maintenance work over the next 5 years and improving the overall condition of the roadway network. The strategy generally involves the utilization of crack sealing, patching, slurry sealing, and major work typically consisting of pavement overlays, and reconstruction. Future roadway maintenance plans for the City should be based on the general maintenance strategies developed from this pavement system analysis in combination with the other major contributing factors.

In developing an annual expenditure level required to maintain the street network at its current average PCI level, three (3) budget scenarios were presented by the consultant. The budget scenarios should be utilized in conjunction with each other to consider possible plans for the maintenance strategies within the City. The budget scenarios are as follows:

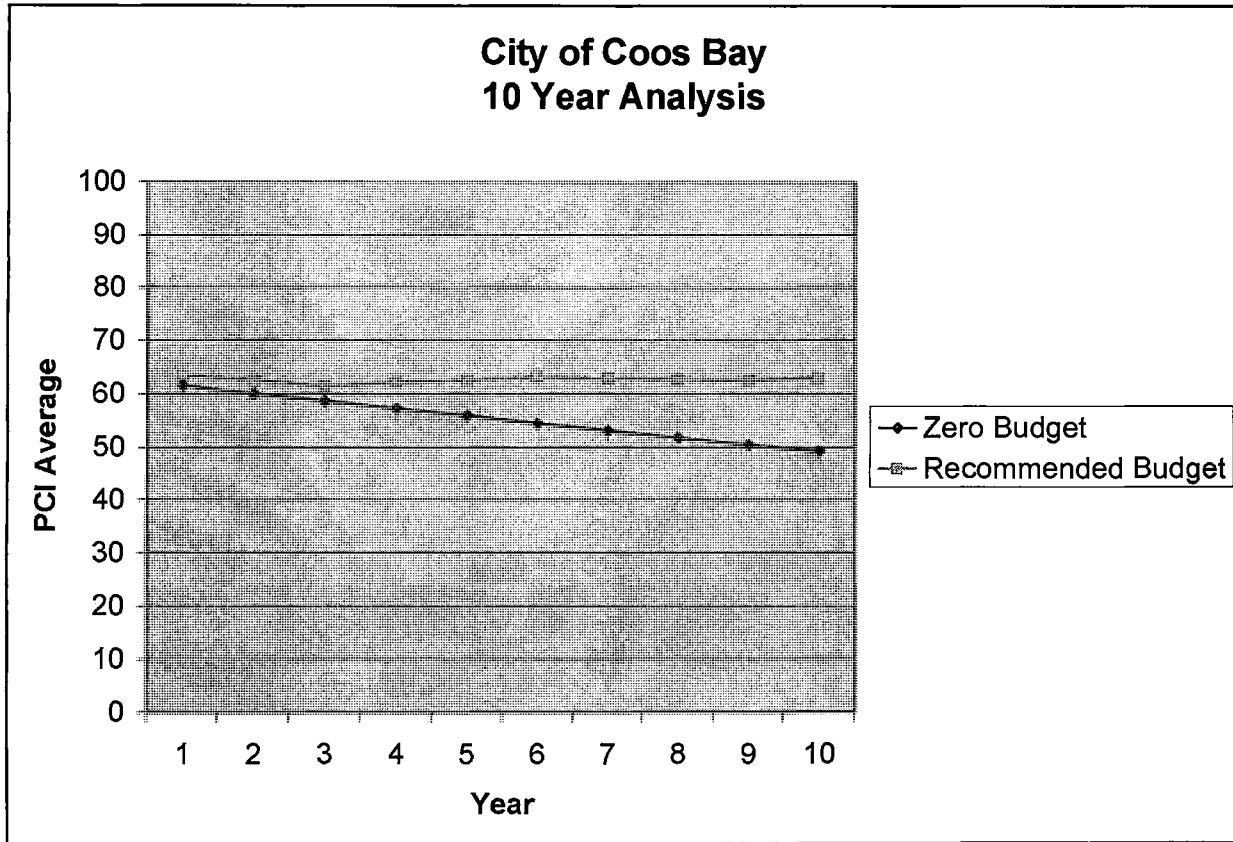
UNLIMITED BUDGET – Unlimited Budget scenario is the amount of money necessary to complete all of the maintenance required each year for the entire roadway network. The City of Coos Bay’s backlog of maintenance is approximately \$19.6 million.

5 YEAR SLURRY SEAL BUDGET – The 5 Year Slurry Seal Budget scenario is the amount of money recommended for the slurry seal maintenance required each year for the entire roadway network. The recommended slurry seal budget is approximately \$250,000.

RECOMMENDED BUDGET –Recommended Budget scenario is \$750K a year for five years for a total budget of \$3.75 Million. Maintenance types include thin overlay, overlay, reconstruction, and slurry seals. Before the end of the five year period it is advisable to reassess the street network to identify the projects for the second five year period. Because of escalating construction cost, fewer projects will be possible for \$750,000 annually in the second five year period compared to the first 5 year period.

In the consultant’s list of suggested projects over the next five years, under the “Recommended Budget”, the City would start with applying Slurry Seal (SS) to approximately 65 sections of street, primarily local and collector streets throughout the City in the first year. The second year’s recommendation is approximately 50 sections of street primarily with SS. Some of the projects also include overlays. The street sections are mostly local streets with a few collector streets as well. A majority of the projects recommended in the first two years will take our average streets (“Fair” condition) and improve them to “Satisfactory” and “Good”. The projects recommended for last three years are all overlays and repairs. The cost of these projects limits the number of projects on the recommendation list to approximately 25 over the last 3 years. The recommended projects include streets that are presently rated from “Very Poor” condition to

“Fair Condition” and bring them to “Good” condition.



Slurry seal is proposed as a major portion of the maintenance work. SS is used on streets that are in fair or better condition. SS slows the deterioration of the street and protects it from water infiltration. SS rejuvenates the wearing surface. SS is much cheaper than asphalt overlays. Many more SS projects can be completed. SS may last from 2 to 7 years depending upon the traffic volumes. SS does not improve the structural condition of a street (e.g. if there are potholes, SS does not solve the problem or fill in the hole). SS does not improve the “rideability” of the street. SS application to the street surface is weather sensitive and there would typically be a 6 week to 8 week window annually here in Coos Bay when the material can be applied.

ADVANTAGES:

Adopting the Report on Pavement Condition Survey and Asset Management Plan provides the City Council and staff a plan to guide the maintenance of the City’s street system. Provides citizens with the City’s proposal for maintaining City streets should adequate funding become available.

DISADVANTAGES:

None

BUDGET IMPLICATIONS:

The recommended budget presented by the Consultant is \$750,000 annually for the next 5 years. The estimated cost for each of the projects listed in the recommended budget list includes assumed cost per unit area for materials, labor, utility adjustments, re-striping costs, dig out/repair, design, inspection and administration. The estimated costs don’t include

drainage facilities, landscaping, signage, curb, gutter or sidewalk. Some projects on the list may require more dig out/repairs and utility adjustments than assumed at this level of investigation.

On April 7, 2015, the City Council discussed the Street Task Force recommendations for funding street maintenance/repair. The Street Task Force recommended the City Council consider increasing the PacifiCorp franchise fee an additional 2% to cover the City's current cost for streetlight and traffic signal expense (Council is discussing on July 7th). A 2% increase in the PacifiCorp franchise fee is estimated to generate around \$320,000 annually. They also recommended implementing a \$0.05/gallon local fuel tax. This would provide additional revenue for street maintenance/repair and would be paid by local and out of town users of the City's street system. A \$0.05 per gallon gas tax is estimated to generate approximately \$500,000 annually. Ten percent (10%) of revenue generated by a local gas tax will go to the State of Oregon to cover its cost for collecting the gas tax.

ACTION REQUESTED:

If it pleases the Council, accept the Coos Bay Citywide Pavement Management Program Final Report.

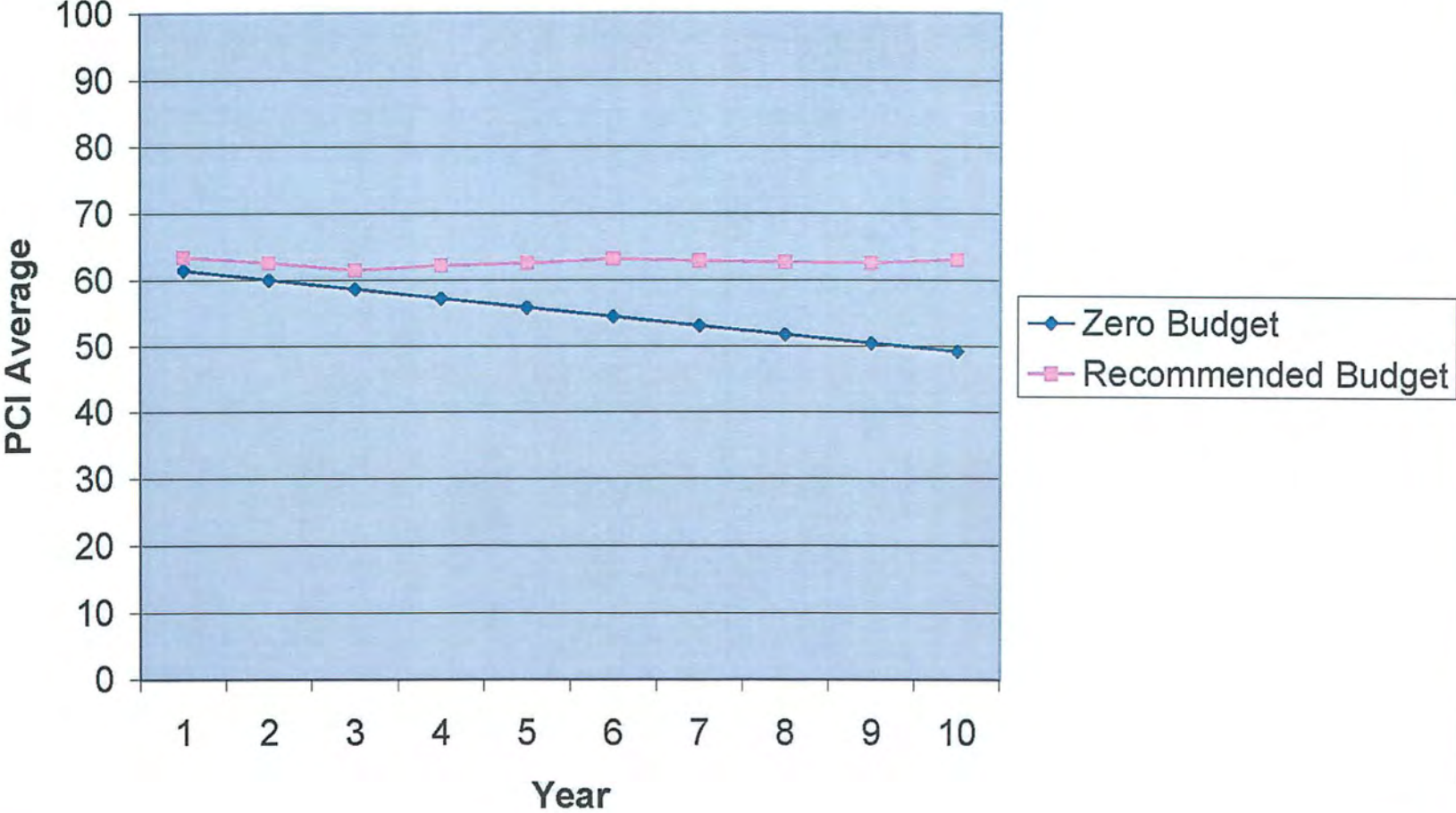
ATTACHMENTS:

Copy of Bar Graphs from Pavement Management Program Report

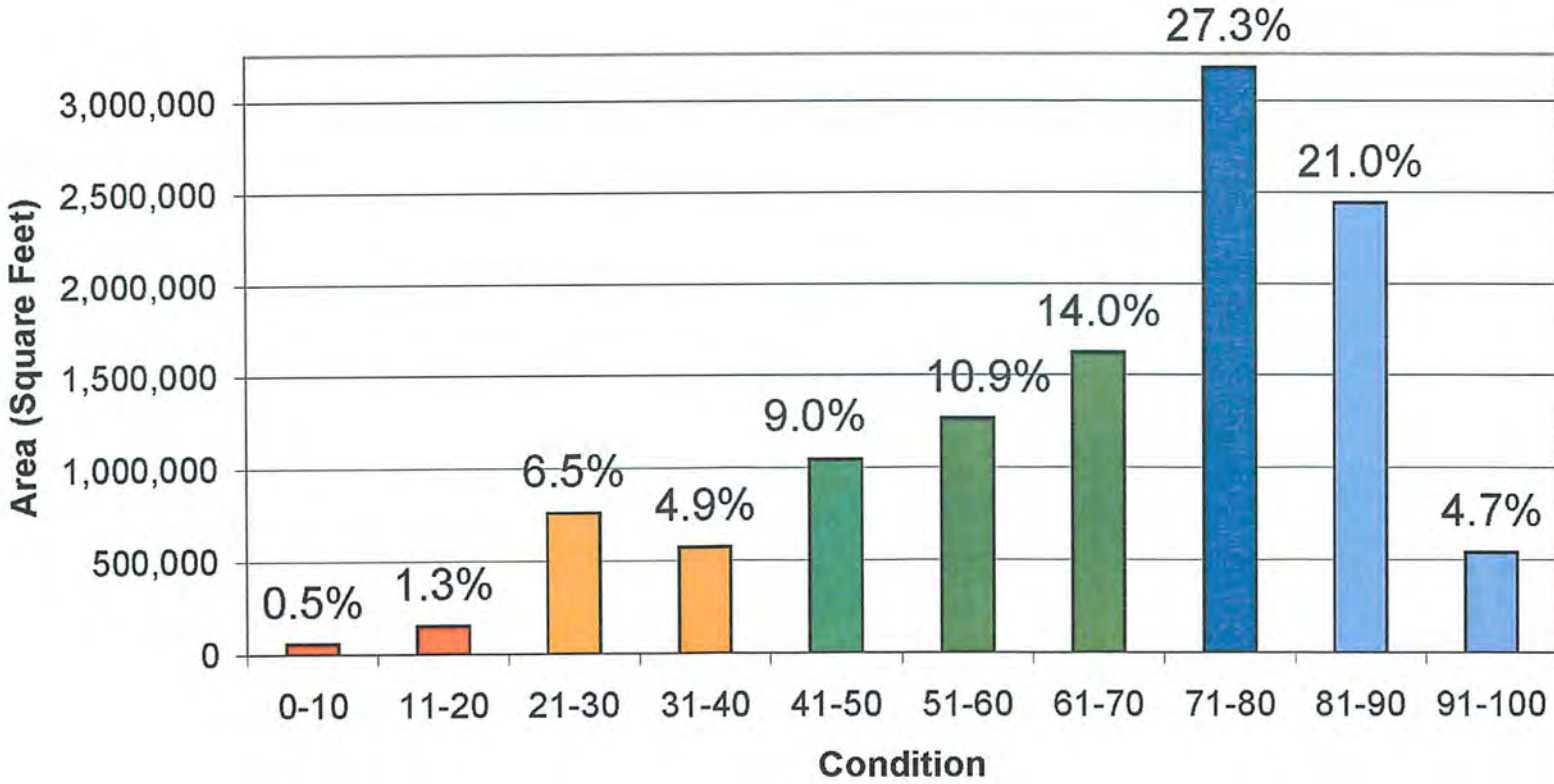
Pavement Condition Index

| PCI RANGE | CONDITION |
|------------------|------------------|
| 86 -100 | Good |
| 71 -85 | Satisfactory |
| 56 -70 | Fair |
| 41 -55 | Poor |
| 26 -40 | Very Poor |
| 11 -25 | Serious |
| 0 -10 | Failed |

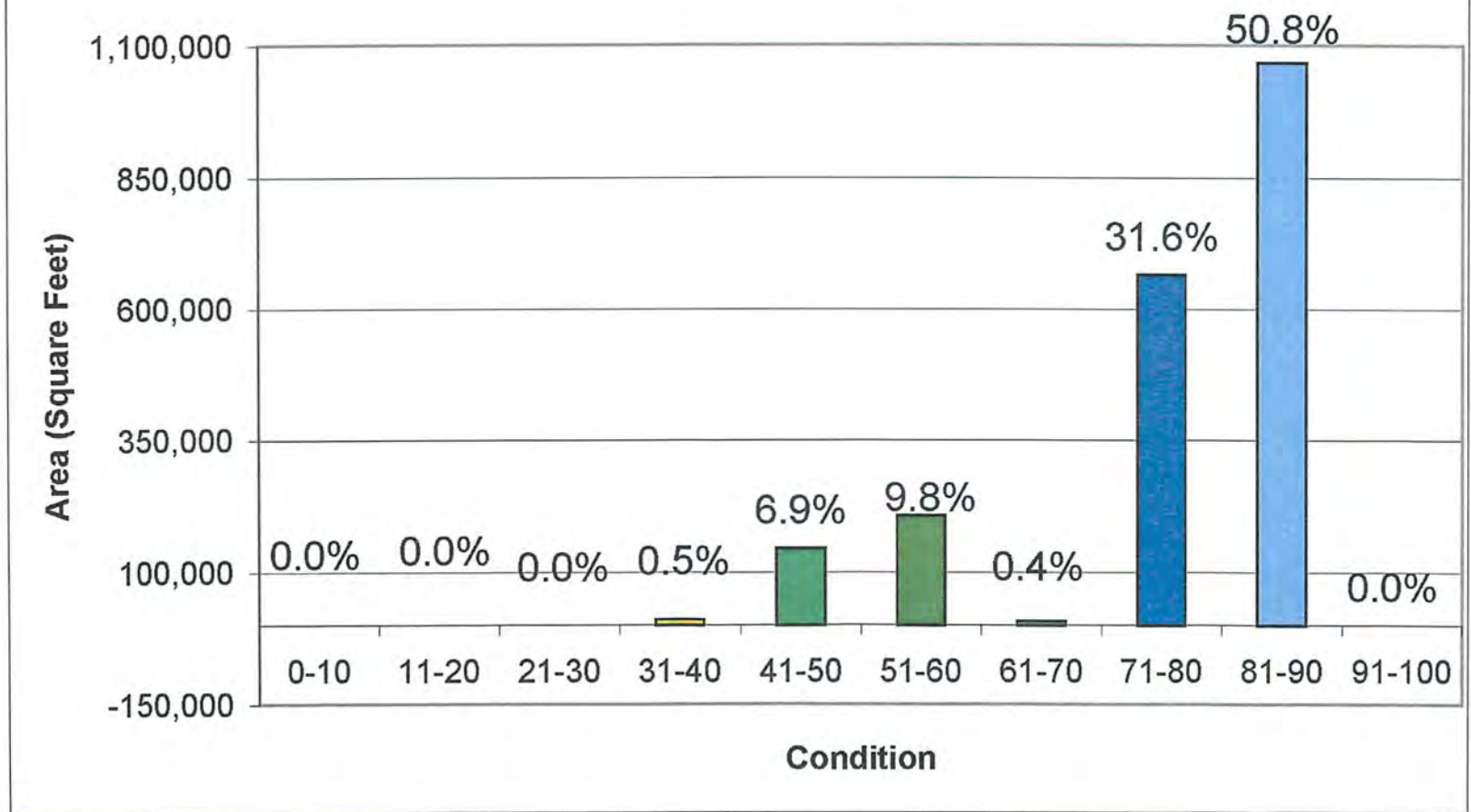
City of Coos Bay 10 Year Analysis



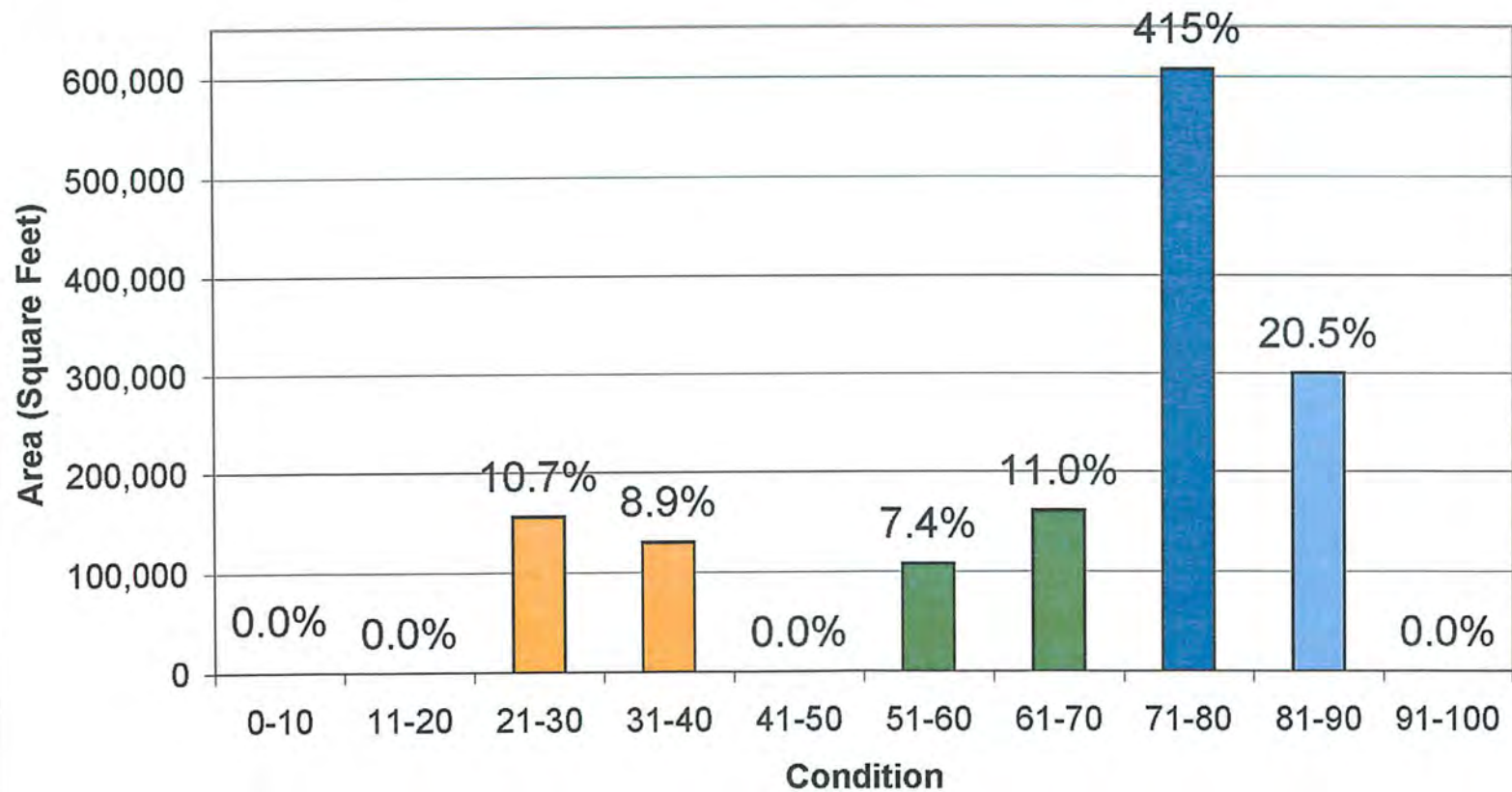
System Condition Distribution (All Streets)



System Condition Distribution (Arterial Streets)



System Condition Distribution (Collector Streets)



System Condition Distribution (Residential Streets)

