CITY OF ASHLAND

# Council Communication

## Pavement Management Strategy

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|---|---|---|---|
| Meeting Date: | February 17, 2009 | Primary Staff Contact: | Michael R. Faught |
| Department: | Public Works Admin | E-Mail: | faughtm@ashland.or.us |
| Secondary Dept.: | Finance | Secondary Contact: | John Peterson |
| Approval: | Martha Bennett | Estimated Time: | 20 Minutes |

## Question:

Will the City Council adopt staff's recommended pavement management strategy?

## Staff Recommendation:

Staff recommends that Council approve its pavement management strategy.

## Background:

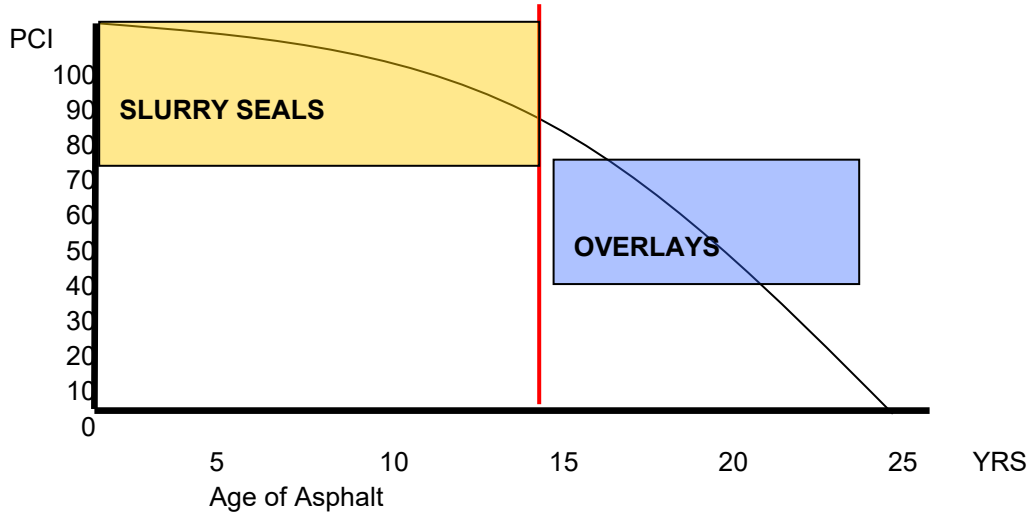
At the October 1, 2007 council study session staff presented the findings of the City's Transportation Financing Task Force. After reviewing the condition of the City's street system and evaluating the needs for new or extending transportation links, the task force identified a $2 million per year transportation funding short fall. As a result, the task force recommended that the council consider implementing new transportation funding options. The task force transportation funding recommendations/options included:

- Partial food and beverage allocation to the street fund
- Regional gas tax
- Local or regional vehicle registration
- Increase business license fees for those with heavy vehicle/truck activities
- Bicycle registration
- Increase transportation utility fee to meet all or a portion of debt service gaps

In addition to recommending new transportation funding options, the task force also recognized the need to reduce the community's reliability in the traditional automobile use and recommended looking at modal equity opportunities.

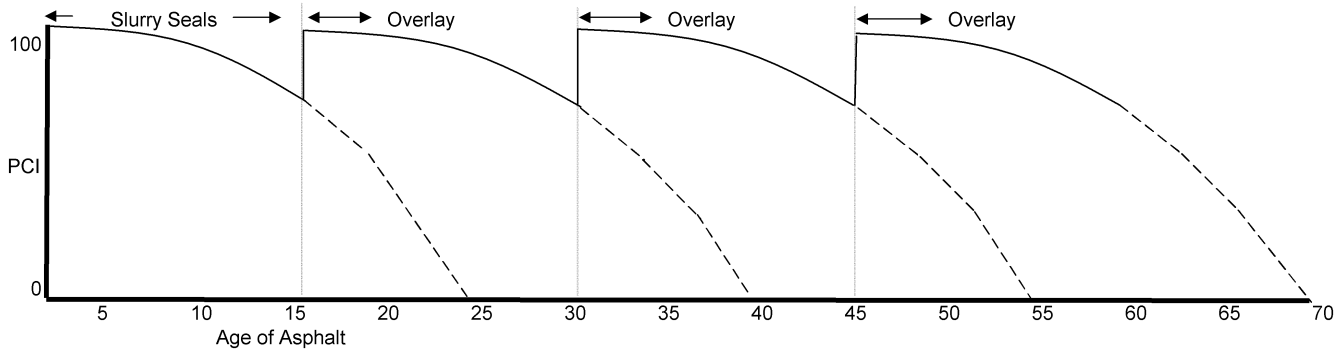
Staff recognizes that with the current economic conditions, it would be difficult to generate new revenue sources to meet the $2 million per year transportation funding gap. Therefore, in the interim, staff is recommending a pavement management strategy that focuses limited transportation funds on maintaining the existing street system based on pavement life cycles.

Not unlike the roof on a house, a street has a design life of 20 years. Equally like the roof on a house, if the street is not maintained during those twenty years then structural failures will begin to develop. The only real difference is that structural deterioration of a street is significantly more expensive to repair than it is for a home. The following chart demonstrates the street life cycle:




A new street generally performs very well for the first 15 years and deteriorates very quickly over the last five years of the design life. If that street is not maintained during the first 15 years, then it will fall into a reconstruction category, which is the most expensive street maintenance treatment at about $1.4 million per mile. Once the street is reconstructed, it begins a new 20 year life cycle. If the pattern of no street maintenance continues for the next twenty years, then that street section will need to be reconstructed again. With 90 miles of improved streets, this maintenance strategy will cost $126 million every twenty years.

In contrast, the street life cycle can be extended for another twenty years if the street is overlaid at year 15 at a cost of about $270,000 per mile. Applying the overlay treatment at 15 year intervals reduces the over all cost to maintain the street system dramatically. The cost to maintain the 90 mile street system by overlaying at year 15 is $24.3 million or about 1/5 the cost to wait for the end of the street life cycle and then reconstruct it. Timely overlays represent the most cost effective method to maintain a street.



There are additional street maintenance treatments (crack sealing, slurry sealing, base repair, etc) that can also extend a streets life cycle to twenty five years for residential streets. These street maintenance treatments can reduce the overall cost of the street maintenance program as residential streets represent 90 % of the streets in Ashland. The paved street classification inventory is as follows:

| Street Classification | Miles |
|---|---|
| Residential | 83.0 |
| Collector | 4.5 |
| Arterial | 4.2 |

Ashland has a comprehensive pavement management program that tracks street defects section by section for every street in town (see attached map). Using an overall condition index (OCI), the program identifies street maintenance treatments for each of those street sections. Currently the pavement management program has identified the following streets maintenance needs:

- 3.50 Miles of Reconstruct Projects @ $ 5.5 Million
- 10.25 Miles of Overlay Projects @ $ 3.1 Million
- 76.50 Miles of Slurry Seal Projects @ $ 2.5 Million
    - Total $11.1 Million

The financial impacts of focusing on those streets identified as reconstruction projects is that the limited street funds will quickly be expended on 4% of the total miles of streets requiring maintenance and 49% of the total cost needed to bring the street system to a satisfactory condition. That would then leave the remaining 86 plus miles of streets with out funds for maintenance ensuring that they too will fall in to a reconstruction category which is the most expensive street maintenance plan.

Staff therefore recommends that those projects identified as reconstruction projects become the lowest priority projects and that future capital funds for street maintenance projects be prioritized for overlay and slurry seal projects as it represents the most cost effective method to manage the street system. The timing of this presentation is important as staff is requesting approval of the pavement management strategy prior to the final development of the Capital Improvement Plan (CIP) and subsequent budget process.

To that end, the following four street reconstruction projects are listed in the 2009-20014 CIP:

| Street Section | | Budget |
|---|---|---|
| B Street - | Oak to 5th | $ 407,000 |
| Granite Street - | Nutley to Pioneer Street | $ 402,000 |
| Harrison Street | Siskiyou to Iowa to Euclid | $ 600,000 |
| East Main | North Mountain to RRX | $ 380,000 |
| | Total | $1,789,000 |

If the pavement management strategy is approved, staff would remove those reconstruction street sections from the CIP and reallocate the $1,789,000 to Overlay and Slurry Seal Projects. In order to meet a more aggressive street maintenance schedule, some of the funds should be reallocated to the street operation budget to pay for additional temporary staff, asphalt and crack seal materials.

The interesting fact here is that most of those streets which fall into the overlay or slurry seal category will visually appear to be in good shape, while those projects which fall into the reconstruction category clearly show high levels of deterioration. Therefore, most people believe that the best course of action is to focus on the street that looks like it has deteriorated (reconstruction) first and wonder why the City is repairing a street that looks like it is in great shape. Therefore if the council approves this pavement management strategy, it will be important to provide the community with detailed information regarding street maintenance strategies.

As to what to do about existing reconstruction projects, the plan is to continue to look for other funds (grants, bonds, new revenues, etc.) to fix those streets. Staff has submitted an application for Federal Stimulus funds to reconstruct both B Street and Granite Street.

## Related City Policies:

None.

## Council Options:

1) The City Council could approve staffs recommended pavement management strategy
2) The City Council could recommend modifications to staffs recommended pavement management strategy
3) The City Council could decide not to take any action.

## Potential Motions:

1) Move to approve staff recommended pavement management strategy.
2) Move to modify (_____) staffs recommendations.

## Attachments:

1. City of Ashland's 2009 Pavement Treatment Map