



Legislation Details (With Text)

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Attachments: 1. Pavement Management System Presentation, 2. Pavement Management Consultant Report

Date	Ver.	Action By	Action	Result
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Agenda Item Name:

Pavement Management System - Presentation

Presenter:

Ramon D. Gavarrete, P.E.

Description:

Presentation on budget needs for Pavement Management.

Recommended Action:

Not Applicable

Prior Board Motions:

On November 12, 2019 the following motion carried 4-0:

1. Approve Budget Amendment 20-223 funding a Pavement Management Study & Training with Gas Tax Reserves in the amount of \$250,000
2. Present an Optimized Pavement Management Program vs. Worst-First Management Program no later than the FY 2022 Budget Cycle

Fiscal Consideration:

Funding for pavement projects is budgeted in 341.79.7910.541. For Fiscal year FY22, the budget for pavement projects is \$4,615,536.

Background:

The Kercher Group, Inc. (Kercher) was retained by Alachua County to perform a pavement management study for the County maintained asphalt pavement streets (approximately 690.3 centerline miles). A visual Pavement Condition Survey (PCS) of the asphalt pavement streets was conducted by Kercher, following the Federal Highway Administration's (FHWA) Long Term Pavement Performance (LTPP) methodology approach.

AgileAssets Pavement Analyst Software (Software) was used to perform the analysis on the County maintained asphalt streets. The Software incorporates deterioration models and treatment decision trees into the analysis while utilizing integer optimization. This analysis process allows the user to easily determine the greatest amount of benefit for any fixed budget or conversely determine the minimum level of funding needed over time to meet user-specified performance goals. This leads to the most cost-effective project selection for any given budget scenario the County requires. The analysis included a calculation of the current Pavement Condition Index (PCI), determining the Remaining Asset Value (RAV is defined as the dollar value of the asset based on the asset's condition, relative to the asset replacement value) and running multiple budget scenarios over a 20-year period and how this relates to the projected PCI and RAV.

Condition Year (2020) Results:

The current (based on 2020 distress data) condition and summary of critical elements of the network are described in Table 1. The County's weighted average network condition or Pavement Condition Index (PCI) is 60. The net worth (or Asset Value) of the County street network is estimated to be approximately \$1.5 billion. This estimate is derived by multiplying the total number of pavement square yards comprising the network (approximately 9.8 million square yards) by County's average square yard replacement cost of \$156.00.

The current backlog of needs for the County roadway network was determined to be \$408,167,827 and 1,210.10 backlog lane miles. The network replacement value has been determined to be \$1,531,086,492.