



COLLIN COUNTY

Public Works Department
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Date: May 4, 2011
To: Judge Self and Commissioner's Court
From: Jon Kleinheksel, Director of Public Works 
Re: New Equipment Purchase

As the "50 mile a year" program progresses toward its logical conclusion, PW staff recognized the need to modify our equipment inventory to accommodate a fundamental shift in our mandate. This recalibration from a project centric to a maintenance centric mode requires different equipment to meet new demands.

In addition, Collin County has experienced a dramatic increase in both population and vehicular traffic on county roads over the preceding ten years. Historically, the Department's threshold for classifying a "high traffic road" was 150 cars per day. The County now far exceeds that figure on most of our roads. A representative sample is provided below:

CR 543

Jan 2002	-	506 cars/day
2011	-	1000+ cars/day

CR125

Nov 2001	-	86 cars/day
2011	-	1000+ cars/day

CR719 (Rock Ridge Rd.)

Aug 1997	-	700 cars/day
2011	-	2500+ cars/days

As weather and traffic combine to vitiate the integrity of our roads, it becomes imperative to mobilize the appropriate equipment to repair and reconstitute them to support the ever increasing traffic demands.

Based on evolving needs, PW determined the equipment necessary to fulfill our mission as described below (please see attached Powerpoint for supplemental background information).

<u>Equipment</u>	<u>Purchase Price</u>	<u>Rental (per month)</u>	<u>Breakeven Point</u>
1. Asphalt Reclaimer	\$502,000	\$20,000	25 months
2. Laydown Machine	\$270,000	\$15,000	18 months
3. Heavy Duty Roller	\$126,000	\$5,000	25 months

Purchase Grand Total: \$898,000

Currently, PW contracts full service Full Depth Reclamation (FDR) services at a cost of **\$165,000 per mile** which is neither efficient nor cost effective.

Various options were studied by PW to obtain an Asphalt Reclaimer machine, considered the essential piece in this effort. PW learned that a reclaimer could be rented for \$20,000 per month. The purchase price of the same reclaimer is \$502,000. Both figures exclude operating costs. Extrapolating equipment usage on an annual basis reveals that the reclaimer would pay for itself in just over two years. Similar data for the other proposed equipment can be found in the chart above.

Not only is purchasing cost effective, the County can also expect to realize a substantial benefit regarding our paving calendar. Currently, paving operations are strictly limited to the warmer months (May – October) due to temperature requirements. Full Depth Reclamation operations are not restrained to these meteorologic conditions enabling PW to conduct operations throughout the year. This will result in more productivity from R&B crews and the ability to rebuild significantly more roads in the same calendar year.

PW currently has funds earmarked for FDR services in Major Road Account **#010-7501-680.75-29**. To fund this equipment purchase, PW proposes to use those funds in lieu of either contracting FDR services or renting the equipment.

PW requests Commissioners' Court consideration and approval to purchase the Reclaimer, Heavy Duty Roller, and Laydown Machine from account #010-7501-680.75-29. Should you require additional information, please contact me and I will respond accordingly.