

TO: James L. App, City Manager  
FROM: Doug Monn, Public Works Director  
SUBJECT: Street Maintenance Plan  
DATE: March 5, 2013

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**NEEDS:** For City Council to consider adopting a multi-year Street Maintenance Plan.

- FACTS:**
1. In 2005, the City retained Pavement Engineering, Inc. (PEI) to assess the City's street system by establishing a Pavement Condition Index (PCI), identifying maintenance requirements and cost estimates for each road segment.
  2. On December 19, 2006 the City Council adopted a Pavement Management Plan (PMP) and established the following preventive condition targets:
    - Maintain major thoroughfares (arterials & collectors) at PCI level 80
    - Maintain residential streets at PCI level 70
    - Maintain alleys at PCI level 65
  3. A policy on how to allocate funds for maintenance was also adopted:
    - 70% for street reconstruction and/or overlay
    - 20% for slurry seal or light overlay
    - 10% for downtown alleys
  4. Using the PMP and adopted policies, a "Street Maintenance Plan" was developed (see attached).
  5. Since adoption of the Plan, the State discontinued gas tax transfers to cities. The top two streets on the Plan have been addressed; 10th Street – Spring to Riverside, was completed as part of the City parking lot earthquake repairs, and 21st Street – Riverside to Spring, is scheduled for this spring.

Additionally, other major road improvements have been completed (pursuant to grants or in conjunction with other construction) including South Vine Street, North and South River Road, Union Road (Riverglen to Kleck) and 13th/17th/24th Streets highway access improvements. More is programmed in 2013 including 21st Street, Rambouillet between Niblick and Nicklaus, as well as Union Road between Kleck and Montebello Oaks.

6. With passage of a temporary ½ cent Sales Tax Measure, as well resumption of Gas Tax transfers to the City, street maintenance revenues anticipated for the next four years are as follows:

FY 2013/14	\$2,000,000 (sales tax)	+	\$700,000 (HUTA)	=	\$2,700,000
FY 2014/15	\$3,500,000 (sales tax)	+	\$700,000 (HUTA)	=	\$4,200,000
FY 2015/16	\$3,500,000 (sales tax)	+	\$700,000 (HUTA)	=	\$4,200,000
FY 2016/17	\$3,500,000 (sales tax)	+	\$700,000 (HUTA)	=	\$4,200,000

**ANALYSIS &**

**CONCLUSION:** Since development of the Street Maintenance Plan, the base costs for road work increased 50 to 80%.

In addition, street maintenance will be required to include potentially costly “low impact” storm water handling improvements (as required by the Regional Water Control Board). These features could add another 50 to 60% to the costs for maintenance. In short, road maintenance costs in 2013 and future years will be greater than identified in the 2006 plan.

Two maintenance options are presented for consideration.

PLAN A: This plan includes a ten-year street repair plan (prepared in 2008) and adds a few collector and arterial streets. It includes arterial, collector, and residential streets.

PLAN B: This plan option focuses on arterial and collector streets. Additionally, there are certain streets in the City’s system that are designated as “residential” but function as “collector” as they serve adjacent businesses and schools (see attached list). A few of these streets are included in Plan B.

In order to implement the Street Maintenance Plan, field work is necessary to develop a design treatment for each street segment. The field work includes pavement deflection testing, coring to establish R-values and to determine structural base that exists below the pavement. Once the field data has been gathered then a proper maintenance treatment may be developed (i.e. slurry seal, grind, or overlay).

Pavement Engineering Inc. (PEI) has submitted a scope of work and fee proposal to gather the above field data. In addition, they will physically walk each street segment and record physical elements to be incorporated in the rehabilitation work such as; locations of pavement markings, limits of paving transitions, dig-outs, any tree root pavement damage. The fee for this work is \$136,145. There is an approximate 80,500 lineal feet (approximately 15 miles) of proposed street maintenance. PEI’s fee equates to \$1.69 per lineal foot.

21<sup>st</sup> Street between Vine and Spring Streets has a PCI of 28 (see Plan B List of Streets). Staff is recommending that the City Council use sales tax revenue to extend improvements from Spring Street west to Vine Street. Action to award this work as a change order is presented as a separate agenda item for consideration.

**POLICY**

**REFERENCE:** Pavement Management Plan

**FISCAL**

**IMPACT:** Two funding models are presented:

- The first uses revenue from HUTA and sales tax as it is received.
- A second would advance money from borrowing. This might allow more work to be completed sooner.

Five Year Loan	Ten Year Loan
\$11,000,000 Loan amount	\$11,000,000 Loan amount
Monthly Payment @ 4% interest - \$202,581.74	Monthly Payment @ 4% interest - \$111,369.65
Estimated quarterly tax collected - \$875,000	Estimated quarterly tax collected - \$875,000
Estimated quarterly payment for loan - \$607,745.22	Estimated quarterly payment for loan - \$334,108.95
Positive Street maintenance fund for qtr - \$267,254.78	Positive Street maintenance fund for qtr \$540,891.05
Total Loan Interest for five years - \$1,154,904.56	Total Loan Interest for ten years - \$2,364,358.24

- A loan may allow the City to start more repairs sooner as the need to wait for sales tax to accumulate is eliminated (in the early years).
- However, it would not be practical to have all roads in construction at the same time, creating frustration to the driving community, so work will still have to be phased over time.
- A portion of sales tax proceeds would be lost to interest payments.
- In the latter years of the temporary tax, there would be less money for maintenance.

**OPTIONS:**

A. Council directs staff to:

1. Implement Maintenance Plan A or **Plan B.**
2. Use funds as collected or borrow money.
3. **Direct staff to use Budget No. 103-910-5452-334 (Sales Tax Revenue Fund) to track costs**
4. **Direct staff to engage the services of Pavement Engineering Inc. to collect field data deflection testing and coring for a not-to-exceed fee of \$136,145 with a \$13,855 contingency for a total of \$150,000.**

B. Amend, reject etc.

Prepared by: Ditas Esperanza, P.E., Capital Projects Engineer

Attachments: 2008 Plan  
List of streets that “function” as collectors

## 2008 STREET MAINTENANCE PLAN

NOTE: Funding Source for the City's Annual Street Maintenance is Gas Tax received from the State of California. Approximately \$400,000 to \$450,000 is currently received annually. It is hoped that the City will receive more in future years.

Classification	Street	From	To	PCI	Proposed Action
Collector	21st	Riverside	Spring	28	Heavy Overlay
Collector	10th	Riverside	Spring	45	Light Overlay
Arterial	Sherwood	Creston	Fontana	45	Light Overlay
Residential	12th	Vine	Olive	46	Light Overlay
Residential	12th	Olive	Fresno	38	Light Overlay
Residential	12th	Fresno	Merryhill	35	Light Overlay
Collector	Oak	1st	10th	51	Light Overlay
Residential	Highland	17th	South end	38	Light Overlay
Residential	Glen Ct	Highland	17th	42	Light Overlay
Residential	Piedmont Pl	Highland	East end	40	Light Overlay
Residential	Samantha	Nanette	Patricia	13	Re-construct
Residential	Fairview Ln	Vine	Lake Nac. Dr	26	Heavy Overlay
Residential	Sunset Dr	Fairview	Panorama	51	Cape Seal
Residential	Panorama	East end	West end	41	Light Overlay
Residential	Crestline	Fairview	Glencrest	44	Light Overlay
Residential	Glencrest	Crestline	24th	42	Light Overlay
Arterial	13th	Vine	Chestnut	53	Light Overlay
Residential	Dorothy	Lana	Melody	16	Re-construct
Residential	Lana	Creston	Melody	34	Heavy Overlay
Arterial	Spring	18th	30th	54	Light Overlay
Residential	Palm Ct	Shannon Hill	End	11	Re-construct
Collector	Scott	Creston	Via Ramona	37	Heavy Overlay
Collector	Scott	Via Ramona	Westfield	48	Light Overlay
Collector	Scott	Westfield	Airport	47	Light Overlay
Residential	Scott	Airport	East end	56	Cape Seal
Arterial	Spring	6th	12th	56	Light Overlay
Arterial	Spring	12th	18th	59	Light Overlay
Arterial	Rolling Hills	Creston	Golden Hill	40	Heavy Overlay

**STREETS LABELED AS "RESIDENTIAL" BUT FUNCTION LIKE "COLLECTOR" DUE TO  
ACCESS TO SCHOOLS OR BUSINESSES OR AS "CUT-THROUGH"**

<b>STREET</b>	<b>FROM</b>	<b>TO</b>	<b>2005 PCI</b>
Walnut	Union	Creston	21
Shannon Hill	Jackson	Creston	27
28th Street	Spring	Vine	30
12th	Vine	Fresno	37
Nicklaus	Niblick	Rambouillet	38
Jackson	Union	Shannon Hill	39
Driftwood	Scott	Larkfield	50
Lana	Melody	Creston	50
17th Street	Spring	Chestnut	55
Navajo	Crazy Horse	South River	60
Cedarwood	Creston	Driftwood	62
18th Street	Spring	Vine	63
Oriole	Meadowlark	Larkfield	73
Larkfield	Driftwood	Sycamore Canyon	76
Beechwood	Meadowlark	Creston	77
Crazy Horse	Nickerson	Navajo	82
Schoolhouse Circle	River Oaks	Clubhouse	86
34th Street	Spring	Oak	89
Country Club	Niblick	Golf Course Parking Lot	42