CITY COUNCIL WORK SESSION
MAY 6, 2013
6:00 P.M.
NEWBERG PUBLIC SAFETY BUILDING
401 EAST THIRD STREET

WORK SESSIONS ARE INTENDED FOR DISCUSSION. NO ACTION WILL BE TAKEN ON THE AGENDA ITEMS AND NO DECISIONS WILL BE MADE. NO ORAL OR WRITTEN TESTIMONY WILL BE HEARD OR RECEIVED FROM THE PUBLIC.

I. CALL MEETING TO ORDER

II. ROLL CALL

III. REVIEW OF COUNCIL AGENDA AND MEETING

Presentation from the Engineering Department regarding the State of City Streets.

IV. COUNCIL HOUSEKEEPING ITEMS

V. ADJOURNMENT

ACCOMMODATION OF PHYSICAL IMPAIRMENTS:
In order to accommodate persons with physical impairments, please notify the City Recorder's Office of any special physical accommodations you may need as far in advance of the meeting as possible and no later than 48 business hours prior to the meeting. To request these arrangements, please contact the city recorder at (503) 537-1283. For TTY service please dial 711.

MEMORANDUM

ENGINEERING SERVICES DEPARTMENT

To: **Newberg City Council**

From: **Jay Harris, City Engineer**

cc:

Subject: **State of Our Streets Presentation, May 6, 2013.**

Date: **April 17, 2013**

Council:

The Engineering Services Department has completed a PowerPoint presentation to be discussed at the May 6, 2013, Council Work Session regarding the State of Our Streets. The presentation includes a discussion of the following:

1. Current state of our street system which includes the pavement, curbs, sidewalks, street trees, and ADA ramps.

2. The estimated maintenance cost to improve the pavement surfaces in the City to reverse the rate of decomposition of the asset.

3. The existing available revenue sources for right of way maintenance activities.

4. Potential revenue sources to fund needed repairs to existing street facilities, and funding for the construction of new sidewalk, ADA, and street tree improvements within the street rights of way around the City.

Please do not hesitate to contact me if you have any questions regarding the presentation.

Thanks,

James (Jay) O. Harris
City Engineer
City of Newberg
503-537-1211, Fax 503-537-1277
jay.harris@newbergoregon.gov

City of Newberg

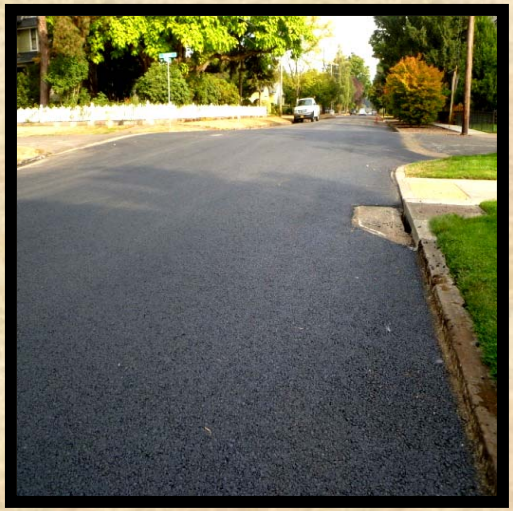
The State of Our Street System:

(Pavement, Curbs, Sidewalks, ADA Ramps, and Street Trees)

College St. (Before)

College St. (After)

Edwards St. (Before)



Edwards St. (After)

Background

Streets: 65.5 miles of paved streets (or 131 lane miles)
4.6 miles of gravel roadways.

Sidewalks: 79.5 miles of sidewalks. Approximately 1/3rd of sidewalks are missing and/or in disrepair.

Curbs: 100 miles of concrete curbs,
Approximately 25% of curbing is missing and/or in disrepair.

ADA Ramps: 850 existing ADA ramps. A large percentage of ADA ramps are missing and are not constructed to standard.

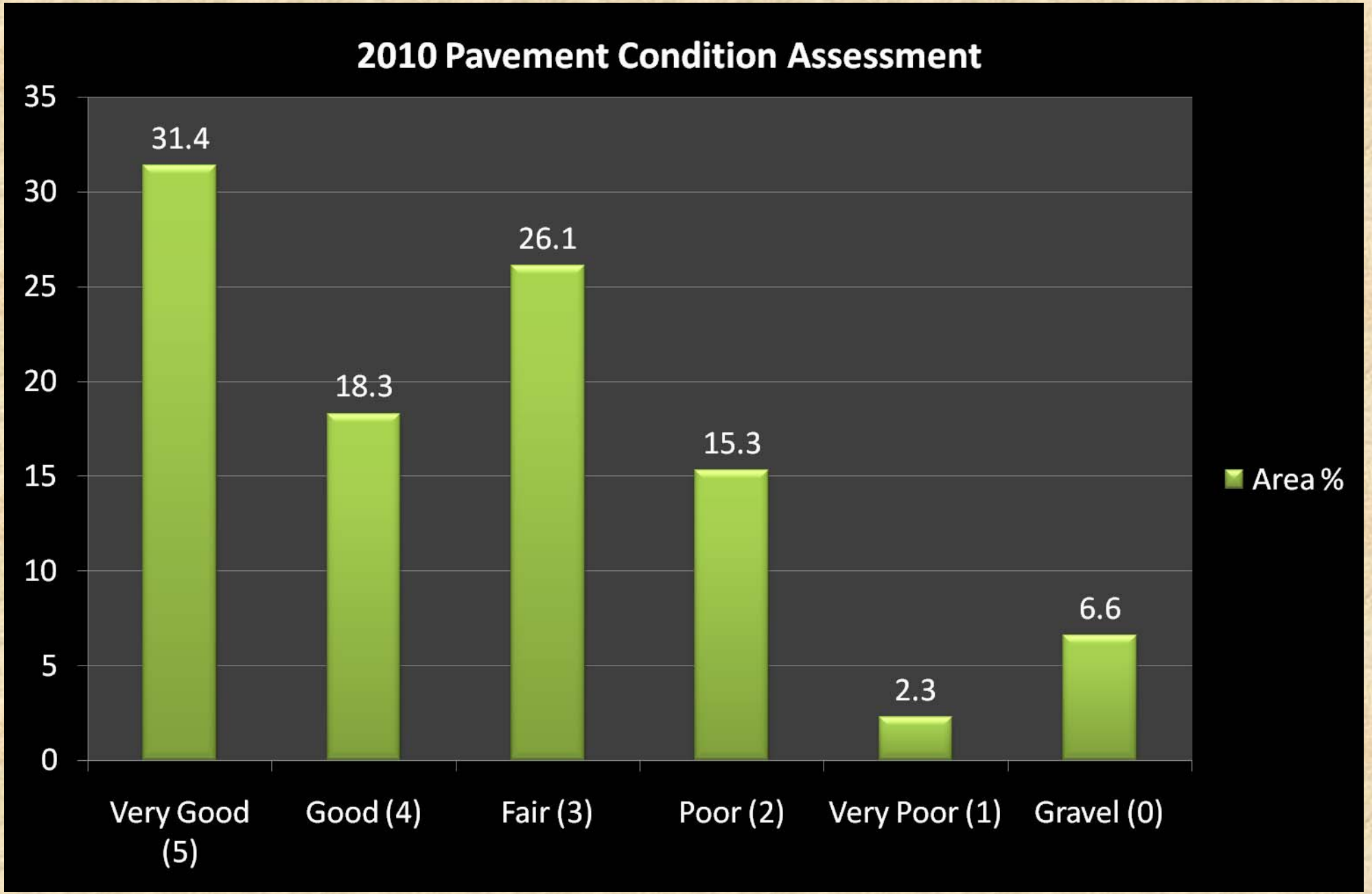
Street Trees: Estimated at 9100 trees.
Many street trees are missing, or are not a proper street tree species, or at end of life.

The replacement value of the street system in the City of Newberg is approximately $150 million.

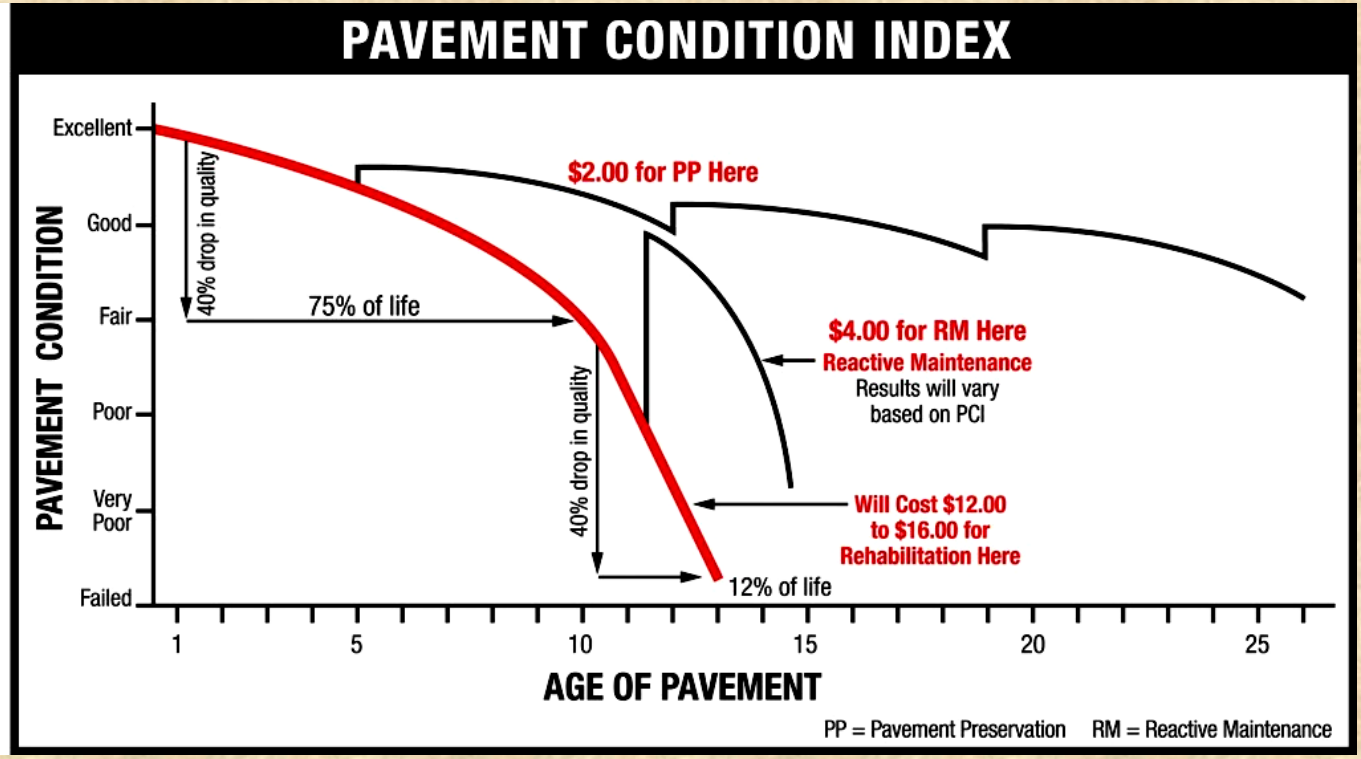
2010 Pavement Conditions

Pavement Rating	PCI Rating	LF	Miles	Area %	Description of Pavement Condition
Very Good	5	116,212	22	31.4	The pavement is new or almost new and will not require significant improvement for some time, but may require localized minor repairs. The pavement is structurally sound and has very little or no roughness.
Good	4	67,813	12.8	18.3	The pavement is in good shape but has some surface defects indicating the need for routine maintenance. It is generally structurally sound and has only minor roughness.
Fair	3	96,939	18.4	26.1	The pavement has a fair number of defects such as cracking, material loss, depressions, etc. indicating the need for maintenance or repair. It is beginning to become structurally deficient and may have noticeable roughness.
Poor	2	56,544	10.7	15.3	The pavement has significant defects such as major cracking, significant surface distortions and material loss indicating a need for rehabilitation (i.e. structural improvement). It has noticeable roughness and structural deficiencies.
Very Poor	1	8,204	1.6	2.3	The pavement has major defects indicating the need for major rehabilitation or reconstruction. The pavement is structurally inadequate.
0	0	24,422	4.6	6.6	Gravel roads; no pavement
Totals		370,134	70.1	100.0	

2010 Pavement Condition Graph



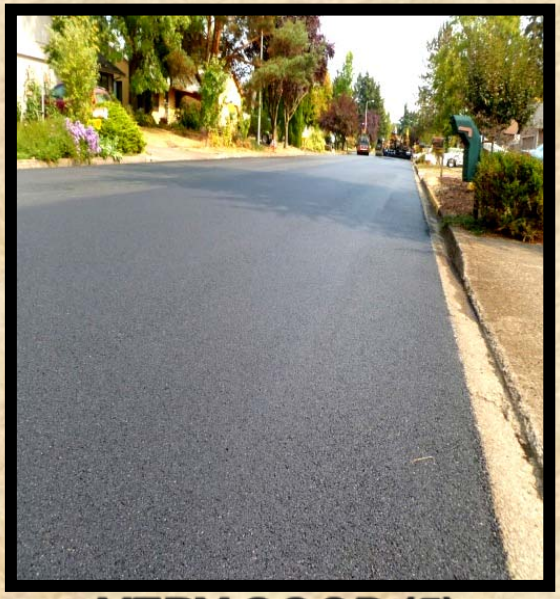
Pavement Condition Analysis (cont'd.)



Notes:

1. A pavement condition analysis was done City-wide in 2010, the next evaluation is scheduled for 2014.
2. As shown above, asphalt pavement quality degrades very quickly in years 10 to 13.
3. Repairing the 'poor' and 'fair' pavements to a 'good' condition will cost approximately $2.8 million.
4. Repairing the 'very poor' pavement to a 'good condition' will cost approximately $1 million.
5. Reconstruction of the gravel roads to a very good/new condition will cost approximately $7.5 million

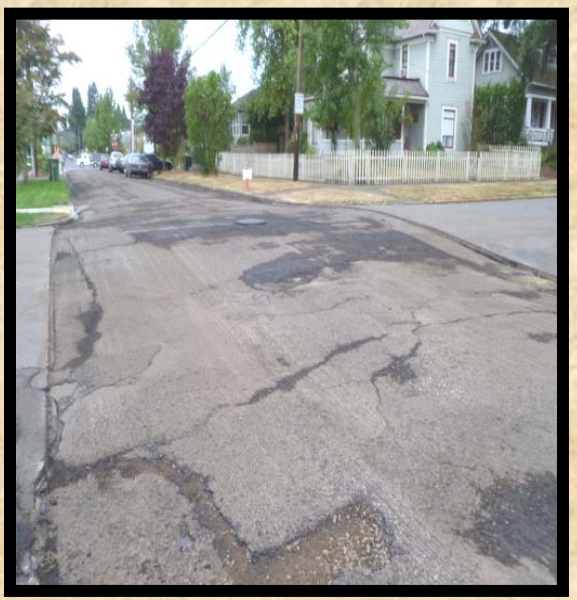
Examples of Pavement Conditions



VERY GOOD (5)

GOOD (4)

FAIR (3)



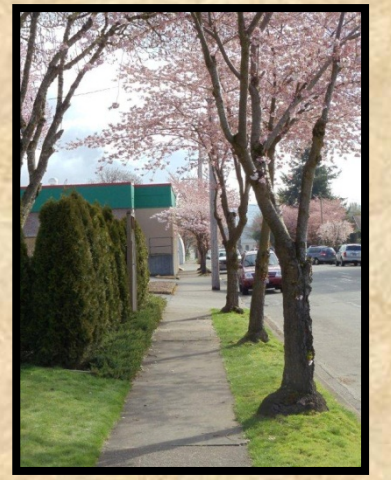
POOR (2)

VERY POOR (1)

GRAVEL (0)

Examples of Sidewalk & Street Tree Conditions

Good Sidewalk & Trees (small)



Fair Sidewalk Good Trees

Fair Sidewalk Good Trees

Good Sidewalk No Street Trees

Good Sidewalk No Street Trees

Poor/Missing Sidewalk & Trees

No Sidewalk & No Street Trees

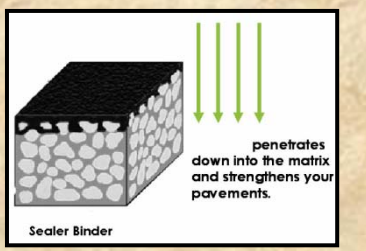
Poor Sidewalk Missing Trees

Poor Sidewalk Improper Tree

Fair Sidewalk Improper Tree

Types of Pavement Maintenance

1) Crack sealing: The least expensive treatment. Crack sealing is needed as it prevents the majority of moisture from entering the underlying aggregate baserock.



2) Fog Seal: Fog sealing rejuvenate the oils within the top layer of asphalt and fills small gaps between the aggregate in the pavement reducing the deterioration of the pavement surface.

3) Slurry seal: a mixture of asphalt emulsion, fine aggregate and water. This mixture is spread over the entire pavement surface and is about 3/8" thick protecting the pavement from water damage and provides a new wearing surface.

4) Pavement overlay: Thin lift overlays (or micro paving) are now common place and have a thicknesses of 1-inch. The City completed a thin lift overlay on a portion of Pinehurst Street last summer.

5) Pavement grinding and inlay: Grind and inlay of pavement surfaces is used on severely distressed pavements. The City completed a grind and inlay project on a portion of Blaine Street last summer.

General Pavement Maintenance Guidelines

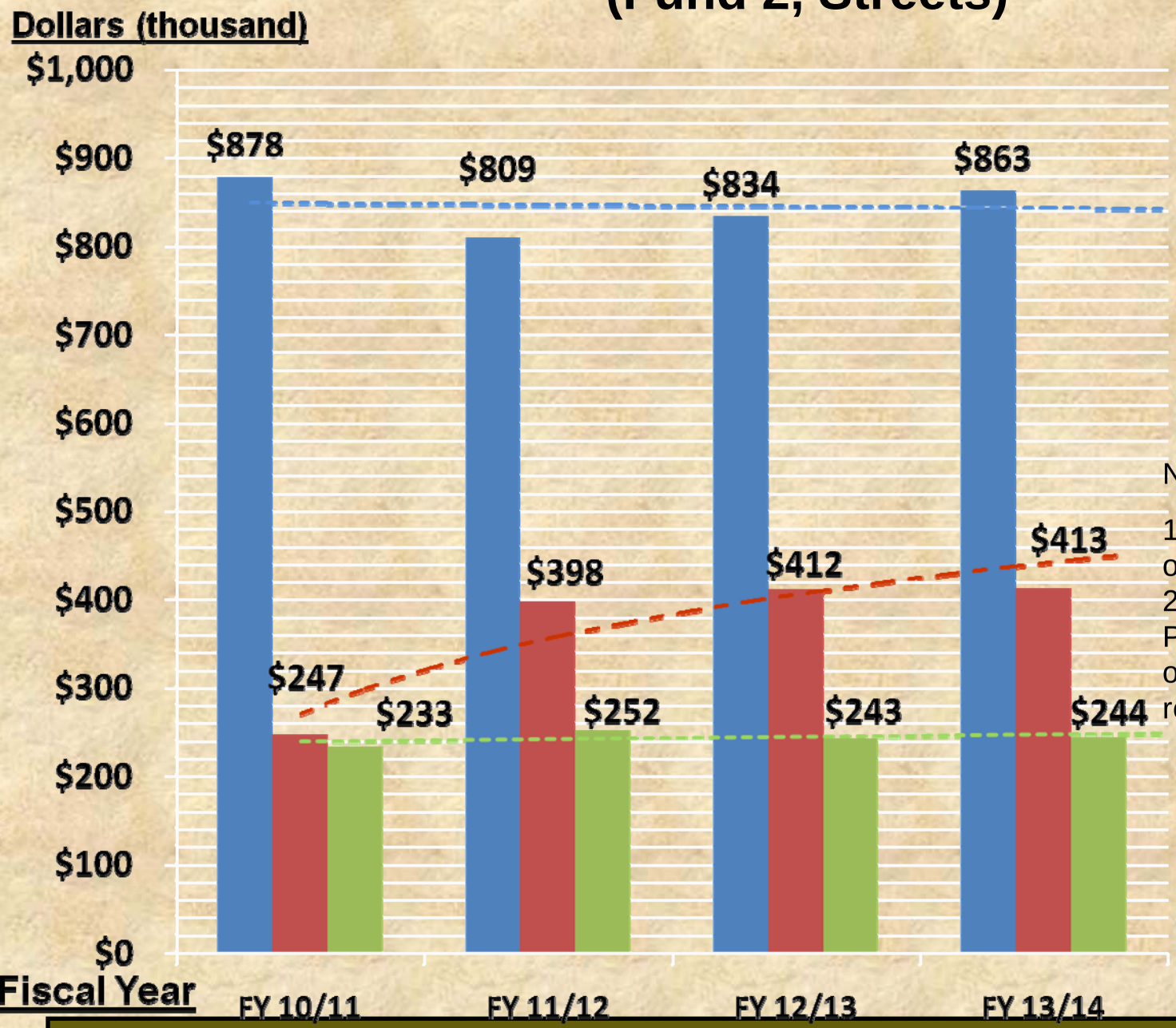
- Over time, every pavement surface eventually needs to be overlaid or completely reconstructed.
- Full removal of roadway pavement and base-rock section is needed when the pavement surface is highly fractured and the underlying base-rock section is inadequate or at the end of its service life.
- Replacement of the full roadway pavement section provides the longest service life for the roadway but is the most expensive to complete.
- Pavement crack sealing is needed every 3 to 4 years
- A fog or slurry seal coat should be applied at regular intervals, usually every 5 to 7 years. After several intervals of seal coats, an overlay is typically required to address the structural and drivability issues.
- The intervals between overlays and reconstruction depends upon the road classification as well as the original design life of the pavement structure.
- Major roads that have higher traffic volumes, speeds, and loads, require higher level of service and maintenance intervals.

Past Pavement Rehabilitation Projects

Year	Description of Work	Pvmt. Index (before)	Pvmt. Index (after)	Cost	Quantity
2010/11	Pvmt. overlays	1 to 2 (very poor)	5 (very good)	$45,000	1,800 lf
	ADA improvements	n/a	n/a	$1,200	
	Crack sealing	n/a	n/a	$30,000	25,000 lf
			10/11 Total	**$77,000**	
2011/12	Pvmt. overlays	1 to 2 (very poor)	5 (very good)	$39,000	1,400 lf
	ADA & Bikeway	n/a	n/a	$24,000	
	Crack sealing	n/a	n/a	$34,000	29,000 lf
			11/12 Total	**$97,000**	
2012/13	Pvmt. Inlay/overlay	2 (poor)	5 (very good)	$384,000	7,000 lf
	ADA & Bikeway	n/a	n/a	$25,000	
	Crack Sealing	n/a	n/a	$24,000	19,500 lf
			12/13 Total	**$433,000**	
2013/14 (estimated)	Pvmt. Inlay/overlay	2 (poor)	5 (very good)	$100,000	
	ADA & Bikeway	n/a	n/a	$24,000	
	Fog/Slurry sealing	2 to 3 (poor/fair)	4 (good)	$340,000	
			13/14 Total	**$464,000**	

Existing Revenue Sources:

(Fund 2, Streets)



Notes:

1.FY13/14 Projected by League of Oregon Cities
2.STP, Surface Transportation Program Federal Funds, can only be used on new or road reconstruction projects.

Discussion

1. Gas tax revenues are not increasing due to higher fuel efficiencies in automobiles, and a reduction in miles driven each year due to the economy, as shown on the prior slide.

2. Payments of approximately $141,000 to ODOT for the Bypass begin in 2014/15.

3. 41%of the pavement in the City is classified as fair to poor condition. Proper maintenance of the surfaces now will reduce the need for costly future overlays.

4. A dedicated/stable funding source is needed for the maintenance of pavement, sidewalks, ADA ramps, and street trees, preserving the largest asset of the City.

5. Proactive maintenance of the street system reduces the everyday reactive maintenance material and personnel costs.

6. Improved/enhanced streetscapes define and our community and lead to increased property values.

7. Property owners are responsible for the maintenance sidewalks and street trees, a new funding source will allow the City to partner and share in the cost of future projects.

Potential Supplemental Funding Options

1. **Street Utility Fee:**

A fee is included with the monthly water bill for street improvements. Neighboring Cities have adopted similar programs. For every $1 collected in a street utility fee, the revenue generated is approximately $80,000 per year.

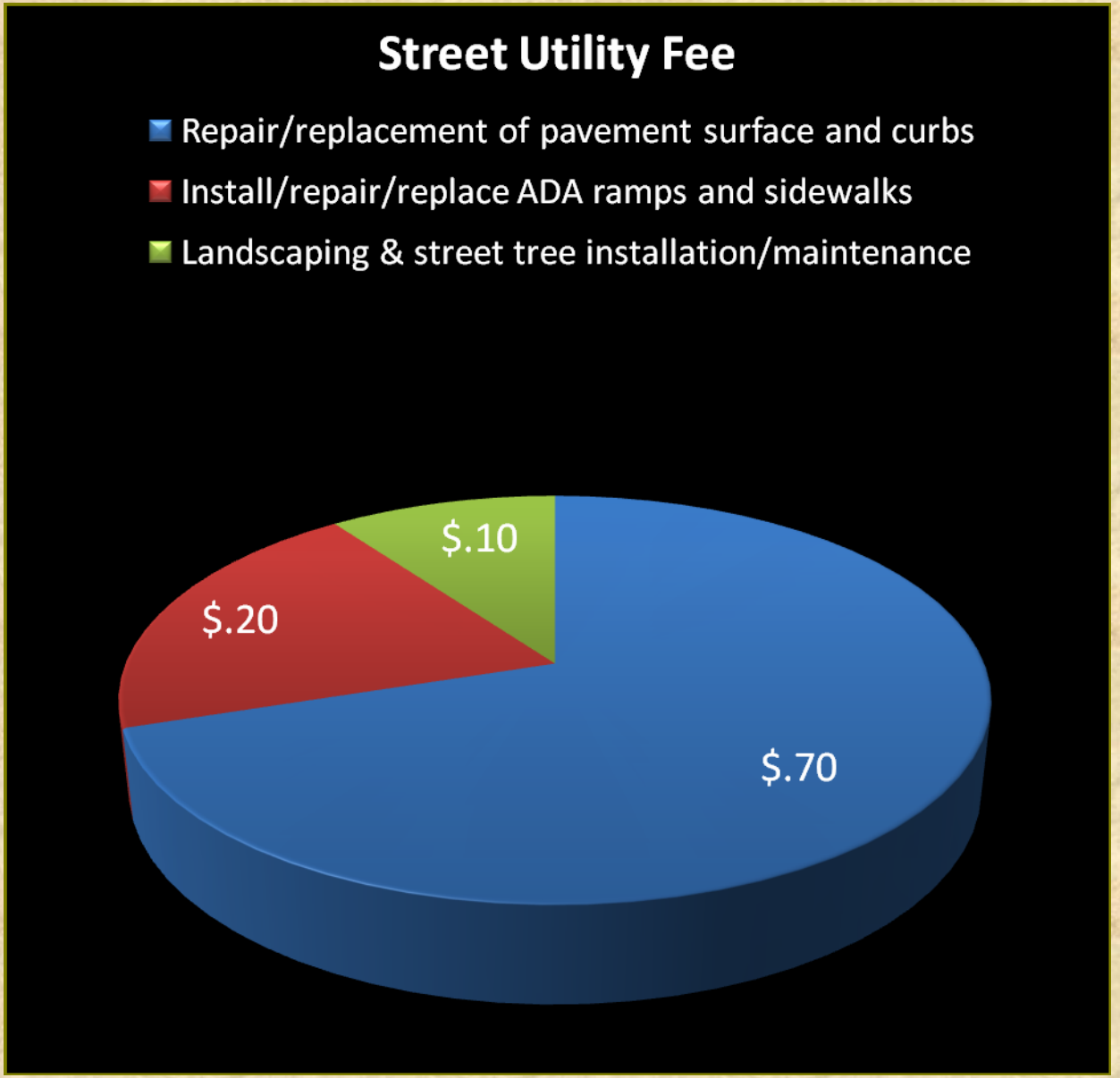
2. **General Obligation Bond:**

Council would approve a ballot measure for voter approval that authorizes the issuance of a general obligation bond to fund the needed street system repairs.

A $1.0 million general obligation debt at 3% interest for a term of 10 years requires $130k annually to fund the debt payments ($0.085 per thousand of AV).

A property with an assessed value of $225k would pay about $19 annually.

Potential Future Funding Allocations



3rd Funding Option:

2035: Streets are no longer needed as new modes of transportation are now available.

Next Steps:

1.Is Council interested in continuing the discussion of developing additional funding source(s) for roadway related projects?

2.With additional funds, then what type of projects should be considered, such as:
a)Maintenance: Pavement, sidewalk, ADA, and street trees.
b)New construction: Sidewalks, ADA, street trees, and gravel roadway upgrades.