

TRANSPORTATION  
UTILITY FORMATION  
Final Report

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# SECTION I: INTRODUCTION

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This section describes the context and project scope upon which the body of this report is based.

## A. BACKGROUND

In December 2014, the City of Madras (City) contracted with Financial Consulting Solutions Group, Inc. (FCS GROUP) to evaluate funding needs and new options for cost recovery related to the City's transportation system needs.

The City's transportation system is primarily supported by State gas tax revenues and franchise fees imposed on telecommunication, garbage, and natural gas service providers in the City. As the cost of maintaining the transportation system has increased, the City's State Highway Fund allocation has not increased commensurately. The Oregon Department of Transportation estimates that vehicle efficiency has increased dramatically while miles per driver have remained steady. The result is that, for each mile driven on the City's roadways, State gas taxes have actually declined while service needs and maintenance costs have increased.

With this study, the City desired to review its options for funding ongoing local transportation needs. In addition to the ongoing cost of operating and maintaining the City's transportation infrastructure, the City is facing a growing repair and replacement backlog.

## B. SCOPE OF SERVICES

The City's general objectives for the study were (1) to ensure reliable, ongoing funding and proper maintenance for the City's transportation infrastructure, and (2) to recover costs in a way that is equitable among users (rate equity). The scope of services is summarized below.

- ◆ **Project Initiation and Coordination.** This task included preparing a data request, and meeting with City staff to kick-off the study, collect & review data, and identify key policy / technical issues.
- ◆ **Develop Utility Policy Framework.** This task included writing issue papers / technical memoranda (up to six) defining key issues, describing alternatives, and providing recommendations – for discussion and agreement with City staff and the citizens committee established for this project.
- ◆ **Prepare Baseline Street Utility Costs.** This task included refining available transportation capital project lists with staff input to derive the list of capital and associated costs to be included in the fee basis. It further included using planning information and staff input to develop / refine a maintenance program and associated budget for operations.

- ◆ **Prepare Financial Analysis.** This task included projecting street fund revenue requirements and forecasting rates needed to meet street fund financial obligations, including proposed capital (if applicable), O&M, administration, and other costs. This task also included meetings with the citizens committee and the City Council, as well as development of the study report.
- ◆ **Provide Implementation Assistance.** This task included drafting a utility implementing ordinance, and list of “frequently asked questions” and answers for use by utility staff.

Section II discusses the key policy issues that were reviewed. In Section III, the financial analysis is summarized.

## SECTION II: POLICY FRAMEWORK

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This section summarizes the policy issues considered and the resulting recommendations made by the Citizens Advisory Committee to the City Council.

### A. CITIZENS ADVISORY COMMITTEE

The Citizens Advisory Committee (CAC) was made up of representatives of Madras residential and non-residential interests. The purpose of the CAC was to provide the citizens, businesses, and interest groups of the City of Madras with an avenue to affect the design of City policies for transportation funding.

The CAC met monthly to review and discuss issue papers and other materials distributed in advance of the scheduled meeting dates. The CAC performed the following tasks: (1) collected and reviewed information regarding transportation funding, (2) reviewed project team analyses, and (3) assessed impacts on affected stakeholders. The CAC considered and provided recommendations on the following policy issues:

- ◆ Local Transportation Funding Options
- ◆ Rate Structure Options
- ◆ Eligible Costs for Recovery
- ◆ Local Gas Tax

As stated previously, the policy discussions and recommendations were supported by issue papers (included in **Appendix A**). The following is a summary of the issues and recommendations.

### B. POLICY ISSUES AND RECOMMENDATIONS

#### B.1 Local Transportation Funding Options

The funding options most relevant to City transportation programs in Oregon are listed below:

- ◆ State Highway Fund (SHF)
- ◆ General fund
- ◆ Franchise fees
- ◆ Transportation utility fee
- ◆ Local gas tax
- ◆ System development charges
- ◆ Local improvement districts
- ◆ Urban renewal districts
- ◆ Special programs
- ◆ Debt

We recommended that the City consider establishing a transportation utility to recover those transportation costs that exceed distributions from the SHF and the franchise fee allocation. We further recommend the City use its existing utility billing system and schedule to collect the transportation utility fee.

In those communities where it has been implemented, a transportation utility provides a reliable source of dedicated funding available for street maintenance. Most other available sources noted are restricted to capital projects.

While transportation utility funding source does not require voter approval, we recommend a vigorous campaign of public engagement before implementing any new City fees.

We also recommend that the City consider a local gas tax, which would require a vote of the people, as an additional funding option because of its ability to capture revenue from those non-residents who use the City's infrastructure but would not be subject to a utility fee.

It is important to note that the CAC ultimately agreed that three sources of funding would be needed to meet the desired level of service, which included pavement maintenance at a sustaining level, and some paving of unimproved streets. The CAC agreed that the recommended funding solution would include revenue from the following sources:

- Transportation utility fee
- Local gas tax
- Franchise fee (extended to all utilities operating in the City of Madras)

## B.2 Rate Structure Options

To the extent that the City's transportation utility relies on rates charged to users of the system, the City must determine the structure of those rates. A rate structure is the basis by which the revenue requirement of the entire system is allocated to individual customers.

In Oregon, the choice of a defensible rate structure is especially important. If a court deems a fee to be insufficiently related to the service being provided, the fee may be treated as a property tax, which is subject to Measure 5 limits.

The following three approaches to structuring a transportation utility fee were considered by the CAC:

- ◆ Trip generation
- ◆ Parking spaces
- ◆ Flat fee

We recommended a rate structure based on the number of average daily trip ends net of pass-by and diverted linked trips. We recommend the City obtain this data for a subset of specific land uses from the Institute of Transportation Engineers (ITE) Trip Generation Manual, and adjust the data to incorporate other modes of transportation. Further, we recommend the City use the data by land use without further grouping of land uses into broader categories.

The Committee agreed that the trip generation approach is the most equitable of the three presented because it demonstrates the clearest nexus between usage of the system and fee imposed. The parking spaces approach serves as a proxy for usage, but parking spaces do not fully represent the demand a land use places on the transportation system. The flat fee approach does not provide a nexus between usage and fee.

Charging based on average daily trip ends is more equitable than peak hour weekday trip ends because it reflects the total usage of a road. Additionally, adjusting for pass-by and linked trips avoids penalizing retail-oriented businesses for trips that would have happened regardless.

### B.3 Eligible Costs for Recovery

A transportation utility would fund some or all of the costs of local transportation operations, maintenance, and/or capital construction through monthly bills to City residents and businesses. The nexus, or linkage, between the amount charged and the services received strengthens the rate.

There are many costs that may be considered for recovery through a transportation utility rate:

- ◆ Pavement treatments
- ◆ Roadway/traffic operations
- ◆ Pedestrian and bike facilities/safety
- ◆ Planning or design
- ◆ Capital construction
- ◆ Administration (including indirect cost allocation transfers to other funds)

Currently, the Transportation Operations Fund budget includes the operation, maintenance, and preservation of City streets, multi-use trails, street greenways, and street/trail lighting.

In general, the utility fee should be usable for anything that is eligible for State Highway Fund spending. More specifically, in order to provide the strongest nexus between the fee basis and the activities funded, we recommend that the following costs, to the extent that it benefits existing users and not growth, be prioritized in the transportation utility rate:

- ◆ Pavement treatments,
- ◆ Roadway/traffic operations,
- ◆ Pedestrian and bike facilities/safety, and
- ◆ Capital construction.

We recommended that the transportation utility fee exclude the cost of capacity-increasing improvements that serve future users. Those costs can be included in the City's transportation system development charge, which is paid by new development.

### B.4 Local Gas Tax

The CAC requested additional evaluation of the local gas tax option. State law governs both the imposition of local gas taxes and the expenditure of their revenue. A city council must draft an ordinance establishing a local gas tax at a specific tax rate and then refer that ordinance to voters. If voters approve the ordinance, the city council may then enact it. Expenditure of local gas tax revenue is subject to the same legal requirements as expenditure of the state gas tax.

Based on this estimated yield, a local fuel tax imposed at the statewide average rate of three cents per gallon would yield approximately \$195,000 in fiscal year 2015-16 after deduction of ODOT's administrative fee.

We recommended that the City consider a local gas tax as one additional revenue source because of its ability to capture revenue from those non-residents who use the City's infrastructure but would not be subject to a utility fee. However, because (1) a local gas tax is a declining (rather than escalating) revenue source and (2) a local gas tax can be initially adopted and subsequently changed only by a vote of electors, we further recommend that the City also pursue a transportation utility fee as an additional revenue source.

## SECTION III: REVENUE REQUIREMENT

This section describes the revenue requirement based on the Citizen Advisory Committee’s recommendations, apportions the revenue requirement by funding mechanism, and documents the proposed utility rate structure.

### A. CURRENT FINANCIAL STATUS

**Exhibit 3.1** illustrates the past and current financial condition of the street fund. The primary sources of ongoing funding are the State Highway Fund allocation (shown as State Gas Funds) and City franchise fees. Franchise fees are currently imposed only on certain utilities operating in the City right-of-way and revenues are split with the general fund. The City also receives revenue for transportation from Federal Surface Transportation Program (STP) fund allocations for cities and State liquor tax revenue sharing to cities, shown as STP Allotment Funds and State Revenue Sharing, respectively. Other sources are either immaterial (LID revenue, Use of Money & Property), were earmarked for specific past projects, or were one-time transfers.

Of expenditures, the Materials and Services line item includes existing street maintenance. The capital construction shown in past years was largely grant-funded. As shown by the consumption of fund balance, even the current level of service is unsustainable, and that service level has been found to be insufficient.

**Exhibit 3.1: Street Fund Financial Summary**

Fiscal Year Ending 6/30:	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Adopted 2014	Adopted 2015
<b>Beginning Fund Balance</b>	\$146,286	\$100,280	\$271,970	\$227,179	\$226,007	\$54,298
<b>Revenues</b>						
Franchise Fees	\$270,072	\$326,029	\$395,579	\$385,311	\$374,400	\$375,900
State Gas Funds	275,924	319,364	338,682	341,531	343,000	349,132
State Revenue Sharing	60,523	61,732	52,044	67,730	53,000	65,000
STP Allotment Funds	126,028	0	72,655	61,798	68,634	66,640
Grants	172,938	523,346	298,264	260,972	146,000	0
Charges for Services	23,488	132,863	35,417	530	1,500	1,500
L.I.D. Revenues	316	664	638	527	269	269
Use of Money & Property	512	195	412	272	200	200
Interfund Transfers - In	0	40,000	40,000	159,049	0	0
<b>Total Revenues</b>	<b>\$929,801</b>	<b>\$1,404,193</b>	<b>\$1,233,691</b>	<b>\$1,277,720</b>	<b>\$987,003</b>	<b>\$858,641</b>
<b>Expenditures</b>						
Materials and Services	\$569,760	\$534,808	\$648,502	\$687,524	\$725,385	\$727,060
Capital Construction	268,047	697,695	467,980	493,268	291,327	76,000
Interfund Transfers - Out	138,000	-	162,000	98,100	142,000	15,000
<b>Total Expenditures</b>	<b>\$975,807</b>	<b>\$1,232,503</b>	<b>\$1,278,482</b>	<b>\$1,278,892</b>	<b>\$1,158,712</b>	<b>\$818,060</b>
<b>Ending Fund Balance</b>	<b>\$100,280</b>	<b>\$271,970</b>	<b>\$227,179</b>	<b>\$226,007</b>	<b>\$54,298</b>	<b>\$94,879</b>
<b>Yearly Surplus/(Deficiency)</b>	<b>-\$46,006</b>	<b>\$171,690</b>	<b>-\$44,791</b>	<b>-\$1,172</b>	<b>-\$171,709</b>	<b>\$40,581</b>

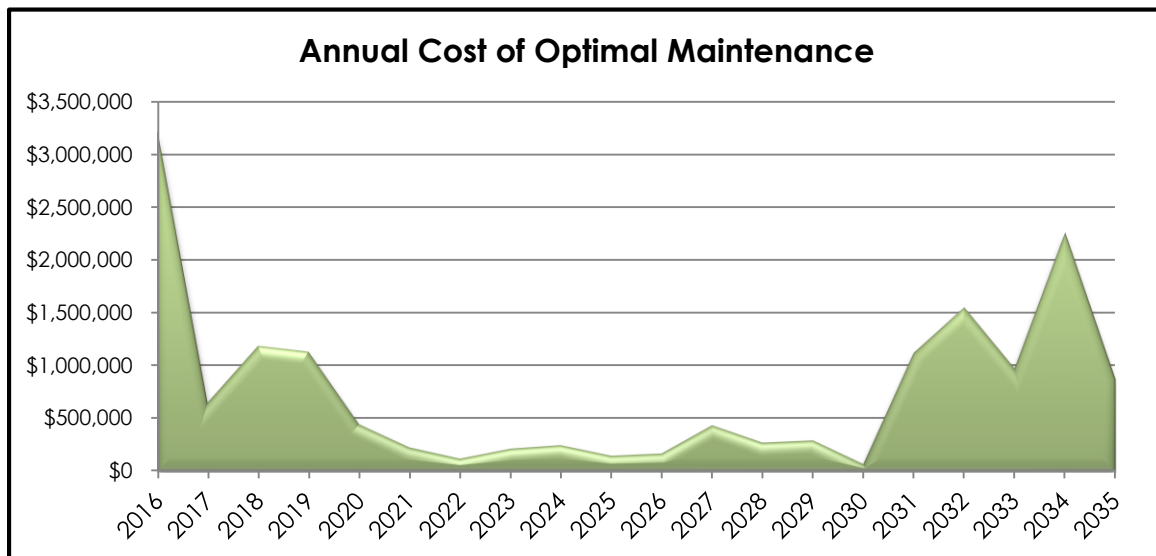


## B. ADDITIONAL ROAD NEEDS

To determine the needed level of street maintenance, the City contracted with Capitol Asset and Pavement Services, Inc. to derive additional maintenance funding levels based on target pavement condition indexes (PCI). The PCI measures the quality of streets, with 100 being the most favorable. The City currently has an overall PCI of 69. As PCI decreases, repair costs increase exponentially. In order to avoid the substantial costs associated with street reconstruction, it is important that the City maintain or improve its PCI.

The report presented several scenarios to meet differing City objectives. The first scenario set annual additional maintenance spending at \$325,000 per year. In this scenario, the PCI would be stable at 69 for five years and then decrease in the following 15 years to a PCI of 49 at the end of the period. The second scenario set annual additional maintenance spending at \$600,000 per year. This scenario modestly increases PCI in the first five years, returning to a PCI of 70 by the end of the 20-year period. The final scenario set annual additional maintenance spending at \$1,130,000 per year. This scenario increases the PCI to 82, the level at which maintenance is effective at very low costs, and maintains that PCI through the end of the 20-year period.

It is important to note that annual maintenance spending of \$1,130,000, as defined in the final scenario, would actually over-fund needed maintenance in years six through fifteen, due to the cyclical treatment schedule. The following chart illustrates projected annual costs at an unconstrained funding level.



Additionally, City staff examined the costs of paving the 9.5 miles of unimproved roadways presently in the City. Staff developed an estimate to pave the roadways to full City standards including curbs, gutters, and other amenities, equal to \$24.7 million. Staff also developed an estimate to pave the roads, but not fully to City standards with curbs and gutters, equal to \$13.3 million.

Recognizing that full implementation of desired service levels for street maintenance and paving unimproved roads would likely be deemed infeasible, we created five optional service level packages for consideration by the CAC and the City Council (see **Exhibit 3.2**).

<b>Exhibit 3.2: Levels of Service</b>			
<b>Name</b>	<b>Pavement Maintenance</b>	<b>Paving Unimproved Roads</b>	<b>Total</b>
<b>Minimal</b>	5-year PCI (2019): 69 20-year PCI (2034): 49 Maintains PCI short term but not sufficient in long run \$325,000/yr	No unimproved roads get paved \$0/yr	\$325,000/yr
<b>Sustaining</b>	5-year PCI: 74 20-year PCI: 70 Maintains/slightly improves current PCI for future \$600,000/yr	No unimproved roads get paved \$0/yr	\$600,000/yr
<b>Sustaining + Paving</b>	5-year PCI: 74 20-year PCI: 70 Maintains/slightly improves current PCI for future \$600,000/yr	Unimproved roads get paved, but not fully to city standards \$667,128/yr	\$1,267,128/yr
<b>Improving + Paving</b>	5-year PCI: 82 Improves/sustains PCI to optimal levels \$1,130,000/yr	Unimproved roads get paved, but not fully to city standards \$667,128/yr	\$1,797,128/yr
<b>Improving + Enhanced Paving</b>	5-year PCI: 82 Improves/sustains PCI to optimal levels \$1,130,000/yr	Unimproved roads get paved to city standards \$1,233,936/yr	\$2,363,936/yr

**Source:** City of Madras, compiled by FCS GROUP.

## C. RECOMMENDED SERVICE LEVEL

The CAC recommended an annual additional funding level of \$750,000 for maintenance and paving. This funding level sustains the PCI in the long-term with \$600,000 annually allocated to road maintenance. The remaining \$150,000 will be allocated to paving unimproved roads.

In order to meet this proposed funding level, it is recommended that the City pursue funding through all three of the following sources, further described below:

- ◆ Franchise Fee
- ◆ Local Gas Tax
- ◆ Transportation Utility Fee

It is important to note that while the recommended service level only partially addresses the estimated cost of paving unimproved streets, that City investment could be used to leverage the participation of property owners on unimproved streets in funding total paving costs on a street by street basis through local assessments or other means.

### C.1 Franchise Fee

The City currently collects franchise fees from specific non-City owned services and distributes incoming revenue evenly between the police department and the transportation operating fund. The City does not extend franchise fees to its own utilities or to the other water provider for the City, the Deschutes Valley Water district. Note that franchise fees can only be applied to utility revenue generated from in-City customers.

It is recommended that the City implement a seven percent franchise fee on water and sewer utility revenues to cover a portion of road maintenance costs. We project total water and sewer revenue in FY 2014-15 to equal \$3.5 million, resulting in total franchise fee revenue of \$245,000.

## C.2 Local Gas Tax

A local gas tax would function similarly to the state and federal gas taxes which are collected on each gallon of gas sold within the City. This is particularly advantageous for Madras, which is located on a highway with significant pass-through traffic and relatively few surrounding communities in close proximity. Oregon state law requires that local gas taxes must receive voter approval before implementation.

It is recommended that the City place a \$0.05 per gallon gas tax on the ballot to cover a portion of road maintenance costs. Based on our analysis of other communities in Oregon implementing a gas tax, we expect that the annual average revenue per penny of gas tax will be about \$65,000 in Madras. After assuming ODOT's \$5,000 administrative fee, the City would net approximately \$60,000 per \$.01 of tax per year. Based on this estimate, the City will receive approximately \$300,000 annually in local gas tax revenue from a \$.05 gas tax.

## C.3 Transportation Utility Fee

Like a water or sewer utility, a transportation utility recovers a specific set of transportation costs by charging a fee to users. A transportation utility can be formed by the City Council without voter approval. In those communities where it has been implemented, a transportation utility provides a reliable source of dedicated funding available for street maintenance.

The Committee recommended the utility fee cover the remainder of maintenance costs not covered by the franchise fee and the local gas tax. Based on the estimated funding levels for the franchise fee and local gas tax above, the utility fee is expected to cover approximately \$205,000.

### C.3.a Customer Base

As noted previously, average daily trips (ADTs) are the recommended basis for recovering the cost of maintaining the City's transportation system. Estimates of trip generation, as reported in the ITE *Trip Generation Manual*, vary by the type of land use and the size of the development as measured in terms that are relevant to the type of land use (for example, building square footage for an office building, students for a high school, or fueling positions for a gas station).

In order to estimate ADTs for Madras, the City provided a list of all developed parcels within the City limits and associated square footage from the County Assessor's database. The parcels were then classified by ITE land use type and combined with square footage, where applicable, to estimate trip generation. The result is a number of ADTs by customer type, summarized for residential and non-residential trip generation in **Exhibit 3.3**.

<b>Exhibit 3.3: Trips by Customer Class</b>	
	<b>ADTs</b>
<b>Residential</b>	19,492
<b>Non-Residential</b>	33,668

**Source:** Jefferson County Assessor, City of Madras, compiled by FCS GROUP.

### C.3.b Cost Allocation

The proposed rate approach is based on the additional assumption that non-residential land uses will pay for maintenance on all collectors, estimated to be approximately 37.5 percent of the total costs

over a 20-year period, and residential customers will pay for maintenance of local streets and remaining costs (62.5 percent of total costs). Complete calculations are provided in **Appendix B.1**.

### C.3.c Recommended Utility Fee

The resulting utility fee is expressed as a dollar amount per ADT. Under this approach, the rate calculation is thus: annual program costs, or the rate revenue requirement, are allocated between residential and non-residential responsibility, and then divided by the total number of residential and non-residential ADTs, respectively. The results are further divided by twelve to convert it to a monthly rate. **Exhibit 3.4** summarizes the rate calculation.

<b>Exhibit 3.4: Rate Calculation</b>		
	<b>Residential</b>	<b>Non-residential</b>
<b>Revenue Requirement per Model</b>		\$205,216
<b>Revenue Requirement Allocated Customer Class</b>	62.50%	37.50%
<b>Average Daily Trips</b>	19,492	33,668
<b>Required Monthly Rate per ADT</b>	\$0.55	\$0.19

**Source:** Previous tables, compiled by FCS GROUP.

**Exhibit 3.5** shows the fee per unit for each ITE land use code.

Exhibit 3.5: ITE Trips by Land Use		Trip Categories							
ITE Code	Land Use	ADTs	Primary	Pass By	Diverted Linked	Adjusted ADTs	Residential or Non-Residential?	Fee per Unit	Unit
21	Commercial Airport	123.11	100%			<b>123.11</b>	Non-Residential	<b>\$23.40</b>	CFD
30	Intermodal Truck Terminal	62.51	100%			<b>62.51</b>	Non-Residential	<b>\$11.88</b>	Acre
110	General Light Industrial	5.26	100%			<b>5.26</b>	Non-Residential	<b>\$1.00</b>	1,000 SFGFA
130	Industrial Park	5.34	100%			<b>5.34</b>	Non-Residential	<b>\$1.01</b>	1,000 SFGFA
140	Manufacturing	3.03	100%			<b>3.03</b>	Non-Residential	<b>\$0.58</b>	1,000 SFGFA
151	Mini-Warehouse	2.37	100%			<b>2.37</b>	Non-Residential	<b>\$0.45</b>	1,000 SFGFA
160	Data Center	0.99	100%			<b>0.99</b>	Non-Residential	<b>\$0.19</b>	1,000 SFGFA
210	Single-Family Detached Housing	9.45	100%			<b>9.45</b>	Residential	<b>\$5.19</b>	Dwelling unit
220	Apartment	6.50	100%			<b>6.50</b>	Residential	<b>\$3.57</b>	Dwelling unit
230	Residential Condominium/Townhouse	5.65	100%			<b>5.65</b>	Residential	<b>\$3.10</b>	Dwelling unit
240	Mobile Home Park	4.90	100%			<b>4.90</b>	Residential	<b>\$2.69</b>	ODU
254	Assisted Living	2.56	100%			<b>2.56</b>	Non-Residential	<b>\$0.49</b>	Bed
310	Hotel	7.86	100%			<b>7.86</b>	Non-Residential	<b>\$1.49</b>	Room
320	Motel	5.63	100%			<b>5.63</b>	Non-Residential	<b>\$1.07</b>	Room
411	City Park	6.13	100%			<b>6.13</b>	Non-Residential	<b>\$1.17</b>	Acre
417	Regional Park	4.99	100%			<b>4.99</b>	Non-Residential	<b>\$0.95</b>	Acre
430	Golf Course	5.27	100%			<b>5.27</b>	Non-Residential	<b>\$1.00</b>	Acre
444	Movie Theater with Matinee	387.03	100%			<b>387.03</b>	Non-Residential	<b>\$73.55</b>	Movie screen
492	Health/Fitness Club	30.32	100%			<b>30.32</b>	Non-Residential	<b>\$5.76</b>	1,000 SFGFA
495	Recreational Community Center	27.40	100%			<b>27.40</b>	Non-Residential	<b>\$5.21</b>	1,000 SFGFA
520	Elementary School	12.07	59%	41%		<b>7.12</b>	Non-Residential	<b>\$1.35</b>	1,000 SFGFA
522	Middle School/Junior High School	10.78	59%	41%		<b>6.36</b>	Non-Residential	<b>\$1.21</b>	1,000 SFGFA
530	High School	10.09	59%	41%		<b>5.95</b>	Non-Residential	<b>\$1.13</b>	1,000 SFGFA
540	Junior/Community College	21.41	100%			<b>21.41</b>	Non-Residential	<b>\$4.07</b>	1,000 SFGFA
560	Church	13.22	100%			<b>13.22</b>	Non-Residential	<b>\$2.51</b>	1,000 SFGFA
565	Day Care Center	54.62	33%	67%		<b>18.02</b>	Non-Residential	<b>\$3.43</b>	1,000 SFGFA
590	Library	50.46	100%			<b>50.46</b>	Non-Residential	<b>\$9.59</b>	1,000 SFGFA
610	Hospital	12.17	100%			<b>12.17</b>	Non-Residential	<b>\$2.31</b>	1,000 SFGFA
620	Nursing Home	7.21	100%			<b>7.21</b>	Non-Residential	<b>\$1.37</b>	1,000 SFGFA

Exhibit 3.5: ITE Trips by Land Use		Trip Categories							
ITE Code	Land Use	ADTs	Primary	Pass By	Diverted Linked	Adjusted ADTs	Residential or Non-Residential?	Fee per Unit	Unit
710	General Office Building	8.38	100%			<b>8.38</b>	Non-Residential	<b>\$1.59</b>	1,000 SFGFA
720	Medical-Dental Office Building	27.31	100%			<b>27.31</b>	Non-Residential	<b>\$5.19</b>	1,000 SFGFA
731	State Motor Vehicles Department	120.90	100%			<b>120.90</b>	Non-Residential	<b>\$22.97</b>	1,000 SFGFA
732	United States Post Office	88.35	100%			<b>88.35</b>	Non-Residential	<b>\$16.79</b>	1,000 SFGFA
750	Office Park	8.50	100%			<b>8.50</b>	Non-Residential	<b>\$1.62</b>	1,000 SFGFA
760	Research and Development Center	6.22	100%			<b>6.22</b>	Non-Residential	<b>\$1.18</b>	1,000 SFGFA
770	Business Park	9.44	100%			<b>9.44</b>	Non-Residential	<b>\$1.79</b>	1,000 SFGFA
812	Building Materials and Lumber Store	43.13	100%			<b>43.13</b>	Non-Residential	<b>\$8.20</b>	1,000 SFGFA
813	Free-Standing Discount Superstore	53.42	72%	28%		<b>38.46</b>	Non-Residential	<b>\$7.31</b>	1,000 SFGFA
814	Variety Store	64.03	48%	17%	35%	<b>30.57</b>	Non-Residential	<b>\$5.81</b>	1,000 SFGFA
815	Free-Standing Discount Store	59.09	48%	17%	35%	<b>28.22</b>	Non-Residential	<b>\$5.36</b>	1,000 SFGFA
816	Hardware/Paint Store	58.23	45%	26%	30%	<b>25.91</b>	Non-Residential	<b>\$4.92</b>	1,000 SFGFA
817	Nursery (Garden Center)	82.86	100%			<b>82.86</b>	Non-Residential	<b>\$15.75</b>	1,000 SFGFA
820	Shopping Center	41.24	50%	34%	16%	<b>20.68</b>	Non-Residential	<b>\$3.93</b>	1,000 SFGLA
826	Specialty Retail Center	40.58	100%			<b>40.58</b>	Non-Residential	<b>\$7.71</b>	1,000 SFGLA
841	Automobile Sales	29.27	100%			<b>29.27</b>	Non-Residential	<b>\$5.56</b>	1,000 SFGFA
843	Automobile Parts Sales	61.91	44%	43%	13%	<b>27.24</b>	Non-Residential	<b>\$5.18</b>	1,000 SFGFA
848	Tire Store	24.87	69%	28%	3%	<b>17.08</b>	Non-Residential	<b>\$3.25</b>	1,000 SFGFA
850	Supermarket	122.18	39%	36%	25%	<b>47.34</b>	Non-Residential	<b>\$9.00</b>	1,000 SFGFA
851	Convenience Market (24 Hours)	758.79	33%	61%	6%	<b>246.81</b>	Non-Residential	<b>\$46.90</b>	1,000 SFGFA
857	Discount Club	42.35	100%			<b>42.35</b>	Non-Residential	<b>\$8.05</b>	1,000 SFGFA
862	Home Improvement Superstore	38.03	44%	48%	8%	<b>16.73</b>	Non-Residential	<b>\$3.18</b>	1,000 SFGFA
880	Pharmacy/Drugstore w/out Drive-Thru	90.06	42%	53%	5%	<b>38.13</b>	Non-Residential	<b>\$7.24</b>	1,000 SFGFA
881	Pharmacy/Drugstore w/ Drive-Thru	96.91	38%	49%	13%	<b>36.83</b>	Non-Residential	<b>\$7.00</b>	1,000 SFGFA
890	Furniture Store	4.98	37%	53%	10%	<b>1.83</b>	Non-Residential	<b>\$0.35</b>	1,000 SFGFA
912	Drive-in Bank	122.71	27%	47%	26%	<b>33.54</b>	Non-Residential	<b>\$6.37</b>	1,000 SFGFA
931	Quality Restaurant	88.04	43%	44%	14%	<b>37.42</b>	Non-Residential	<b>\$7.11</b>	1,000 SFGFA
932	High-Turnover (Sit-Down) Restaurant	132.28	40%	43%	17%	<b>52.58</b>	Non-Residential	<b>\$9.99</b>	1,000 SFGFA
934	Fast-Food Restaurant w/ Drive-Thru	535.05	41%	50%	9%	<b>219.07</b>	Non-Residential	<b>\$41.63</b>	1,000 SFGFA

Exhibit 3.5: ITE Trips by Land Use		Trip Categories							
ITE Code	Land Use	ADTs	Primary	Pass By	Diverted Linked	Adjusted ADTs	Residential or Non-Residential?	Fee per Unit	Unit
937	Coffee/Donut Shop w/ Drive-Thru	818.58	41%	50%	9%	<b>335.16</b>	Non-Residential	<b>\$63.69</b>	1,000 SFGFA
938	Coffee/Donut Kiosk	1,800.00	17%	83%		<b>306.00</b>	Non-Residential	<b>\$58.15</b>	1,000 SFGFA
944	Gas/Service Station	168.56	35%	42%	23%	<b>59.00</b>	Non-Residential	<b>\$11.21</b>	VFP
945	Gas/Service Station w/ Convenience Market	162.78	13%	56%	31%	<b>20.80</b>	Non-Residential	<b>\$3.95</b>	VFP
946	Gas/Service Station w/ Car Wash	152.84	24%	49%	27%	<b>36.51</b>	Non-Residential	<b>\$6.94</b>	VFP

**Source:** ITE Transportation Manual, 9th Edition, compiled by FCS GROUP.

Abbreviations

CFD - commercial flights per day

ODU - occupied dwelling unit

SFGFA - square feet of gross floor area

SFGLA - square feet of gross leasable area

VFP - vehicle fueling position

# APPENDIX A: ISSUE PAPERS

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## ISSUE PAPER #1

# LOCAL TRANSPORTATION FUNDING OPTIONS

### Issue

The City of Madras (“City”) is reviewing its options for recovering the costs of local transportation needs. This paper analyzes funding options for city transportation programs in Oregon and provides a recommendation based on that analysis.

### Alternatives

Funding options that are most relevant to City transportation programs in Oregon are listed below:

- ◆ State Highway Fund
- ◆ General fund
- ◆ Franchise Fees
- ◆ Transportation utility fee
- ◆ Local gas tax
- ◆ System development charges
- ◆ Local improvement districts
- ◆ Urban renewal districts
- ◆ Special programs
- ◆ Debt

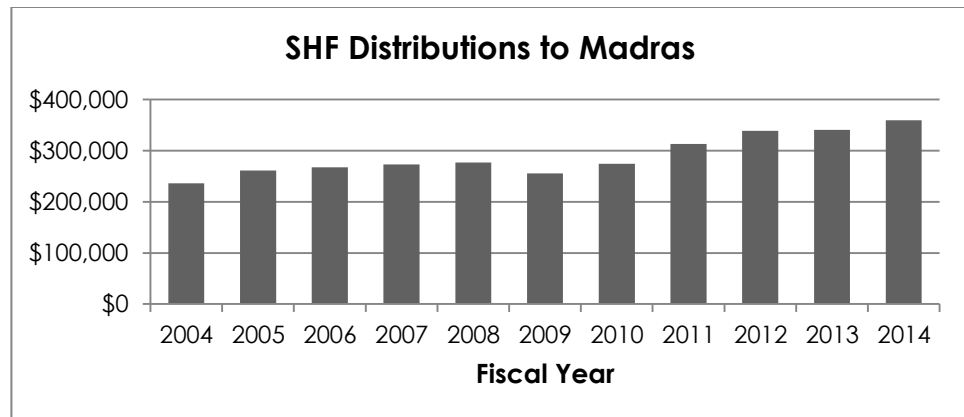
We briefly analyze these options below. [It should be noted that the City also receives revenue for transportation from Federal Surface Transportation Program (STP) fund allocations for cities and State liquor tax revenue sharing to cities.]

### Analysis

#### State Highway Fund

For cities and counties in Oregon, distributions from the State Highway Fund (SHF) are a primary source of revenue for transportation needs. These distributions, based on population, represent each local government’s share of the State’s fuel tax, weight-mile tax, and vehicle registration fees.

According to the Oregon Department of Transportation (ODOT), the SHF distributed \$359,487 to the City during fiscal year (FY) 2013-14. As shown in the chart below, the City’s share of distributions has grown every year. The increase in FY 2010-11 is largely due to an increase in the State’s fuel tax, which had been constant since 1993.



### General Fund

At the discretion of the City Council, the City can allocate general fund (GF) revenues to pay for any portion of its transportation needs. However, because GF monies are discretionary, they compete with a broad range of community priorities and are scarce. In fact, the City by policy allocates general fund balances 95% to public safety and 5% to parks. The City has not regularly provided GF monies on street operations in the past several years.

### Franchise Fees

The City currently collects franchise fees from specific non-City owned services and distributes incoming revenue evenly between the police department and transportation operating fund. In order to increase transportation funding for needs under current franchise fee charges, the City can raise franchise fees, which would be passed on to customers, or raise the allocation of fee revenue toward the transportation operating fund.

In addition to raising current franchise fees, the City can also extend franchise fees to its own utilities. The water utility is expected to generate just over \$450,000 in rate revenue in FY 2015 and the sewer utility just over \$2.6 million in rate revenue in FY 2015. The City could impose a franchise fee on those revenues, effectively increasing water and sewer rates to fund transportation needs. Note that franchise fees can only be applied to utility revenue generated from in-City customers.

According to a League of Oregon Cities survey in 2012 about franchise fees, cities levy a fee of between 3 percent and 10 percent of revenue, with an average of about 5 percent. We recommend the City obtain legal advice about what maxima might apply in its specific situation.

### Transportation Utility Fee

Like a water or sewer utility, a transportation utility recovers a specific set of operating and/or capital costs by charging a fee to users. Since the same set of residences and businesses typically use the water, sewer, and transportation systems, the transportation utility fee is usually added to an existing utility bill.

A transportation utility can be formed by the City Council without voter

approval. Fees generated by the utility can finance operating and capital costs directly, as well as secure revenue bond debt that is used to finance capital costs. To date, more than 20 Oregon cities have created a utility to provide dedicated revenue for transportation needs.

## Local Gas Tax

According to ODOT, 14 Oregon cities and two counties have adopted local gas taxes that are administered by ODOT. These taxes range from \$0.01 per gallon (three jurisdictions) to \$0.05 per gallon (Eugene). Eleven cities and Multnomah County impose a tax of \$0.03 per gallon.

A local gas tax can be particularly advantageous to cities on highways with significant pass-through traffic. Such a tax is an effective way of recovering costs from those who use the City’s infrastructure but do not reside within the city limits.

ORS 319.950 states that local gas taxes may be imposed or raised only with voter approval.

## System Development Charges

ORS 223.297 to 223.314 authorizes local governments to impose system development charges (SDCs) for capital improvements related to transportation. SDCs are one-time fees imposed on new development or certain types of major redevelopment. They are intended to recover a fair share of the costs of existing and planned facilities that provide capacity to serve growth. Consequently, SDC revenues may only be used as a funding source for capital projects and cannot be used for operation or routine maintenance. The City currently imposes a transportation fee of \$3,355 per peak-hour trip.

## Local Improvement Districts

ORS 223.387 to 223.401 authorizes local governments to establish local improvement districts (LIDs) and levy special assessments on benefited property to pay for capital improvements. The City currently has a LID in place for transportation improvements on I & Marshall Street.

## Urban Renewal Areas

ORS Chapter 457 authorizes cities and counties to establish urban renewal areas (URAs) in which a dedicated revenue stream is created for capital improvements. This revenue stream is known in statutory language as “division of taxes.” When a URA is formed, the assessed value within the area’s boundaries is frozen for the incumbent taxing jurisdictions. To the extent that the assessed value rises above that frozen base, the URA receives the property tax revenue that all overlapping jurisdictions would have otherwise received.

Revenues generated in this manner can be substantial but by no means quick. For that reason, capital improvements within a URA are typically financed with debt, and the tax increment is used to service that debt.

## Special Programs

The following special programs are funding sources that use a competitive process. Note that each of these programs are intended for capital improvements and cannot assist with operations and maintenance.

- ◆ **Oregon Transportation Investment Act (OTIA).** The goal of OTIA is to provide a boost to the state's economy, ensure efficient delivery routes for products and services, and help solve City and county transportation challenges. More than half of the \$2.46 billion included in OTIA III, signed into law in July 2003, is designated for repairing or replacing bridges. However, \$361 million has been reserved for county and City maintenance and preservation over 10 years. Funds are distributed by a formula: 40 percent to cities and 60 percent to counties. Local governments will select individual projects for City and county roads.
- ◆ **TGM Planning Grants.** The State of Oregon TGM Grant Program provides grants for the planning costs related to transportation improvements. Under Category 1 of the program, projects can include system modeling to determine needs, planning for arterials and collectors, bicycle and pedestrian plans, and public transportation plans. Category 2 includes grants for integrated land use and transportation planning projects. This category includes corridor plans, specific development plans, and redevelopment plans for urban redevelopment districts. However, TGM funds cannot be used for actual construction costs or for ongoing maintenance costs.
- ◆ **Oregon Transportation Alternatives Program.** Through the Oregon Transportation Alternatives Program, communities can obtain funds to carry out a variety of pedestrian, bicycle, streetscape and other improvements that promote alternative transportation or environmental mitigation.
- ◆ **Federal programs.** The federal government offers a variety of grant and loan programs for transportation-related capital projects. As with all special assistance programs provided by the state and federal governments, funding for specific projects is highly competitive. Two programs currently offered are the Transportation Investment Generating Economic Recovery Program, which provides grants for eligible projects, and the Transportation Infrastructure Finance and Innovation Act, which provides loans and other forms of credit assistance for projects.

### **Debt**

Finally, debt financing can be used to mitigate the immediate impacts of significant capital improvement projects and spread costs over the useful life of a project. Though interest costs are incurred, the use of debt financing can serve not only as a practical means of funding major improvements but also as an equitable funding strategy that spreads the burden of repayment over existing users as well as future users who will benefit from the projects.

- ◆ **General obligation bonds.** Subject to voter approval, the City can issue general obligation (GO) bonds to finance capital improvements. Debt service for GO bonds is provided by a bond levy that increases property

taxes outside the limitations of Measure 5. Depending on the criticality of the planned projects and the willingness of the electorate to accept increased taxation for transportation improvements, voter-approved GO bonds may be a feasible funding option for specific projects. Proceeds may not be used for ongoing maintenance.

- ◆ **Revenue bonds.** Revenue bonds are a capital financing option if the City enacts a charge, such as a transportation utility fee, that produces a reliable revenue stream. Revenue bonds do not require voter approval, but they do require adherence to covenants such as minimum debt service coverage ratios. Revenue bonds are slightly riskier for investors than GO bonds and therefore require a modestly higher yield.

## Recommendation

We recommend the City consider establishing a transportation utility to recover those transportation costs that exceed distributions from the SHF and the franchise fee allocation. We further recommend the City use its existing utility billing system and schedule to collect the transportation utility fee.

In those communities where it has been implemented, a transportation utility provides a reliable source of dedicated funding available for street maintenance. Most other available sources noted are restricted to capital projects.

While transportation utility funding source does not require voter approval, we recommend a vigorous campaign of public engagement before implementing any new City fees.

We also recommend that the City consider a local gas tax as an additional funding option because of its ability to capture revenue from those non-residents who use the City's infrastructure but would not be subject to a utility fee.

## ISSUE PAPER #2

# RATE STRUCTURE OPTIONS

### Issue

To the extent that the City's transportation utility relies on rates charged to users of the system, the City must determine the structure of those rates. A rate structure is the basis by which the revenue requirement of the entire system is allocated to individual customers.

In Oregon, the choice of a defensible rate structure is especially important. If a court deems a fee to be insufficiently related to the service being provided, the fee may be treated as a property tax, which is subject to Measure 5 limits.

This paper identifies and analyzes several rate structure options and then provides a recommendation based on that analysis.

### Alternatives

Below are the three approaches to structuring a transportation utility fee:

- ◆ Trip generation
- ◆ Parking spaces
- ◆ Flat fee

We briefly analyze the major variants of these approaches below.

### Analysis

#### Trip Generation

Under the trip generation approach, customers pay a rate that is proportionate to the number of trip ends that their land use generates. This is the approach with the clearest nexus between usage of the system and fee imposed. We examine several ways in which trip generation can be used as the basis for a utility fee.

- ◆ **Average vs. Peak.** Should costs be allocated to customers based on the number of trip ends during an average day or a peak weekday hour? Average daily trip ends better capture customers' total use of the transportation system. Peak weekday hour trip ends, by contrast, reflect infrastructure needs because streets are sized, and costs incurred, based on peak demand. Whereas average day better represents maintenance costs for a transportation system, peak weekday hour better reflects infrastructure capital needs. Both average and peak-day trip generation can be adjusted to incorporate trips generated by other modes of transportation, such as bicycle and pedestrian.
- ◆ **Number vs. Length.** Should costs be allocated to customers based on the number of trip ends or the total length of the trips generated? Total length of trips is a very accurate measure of customers' total use of the transportation system. However, the City would have to produce data as there is not a widely accepted source of data for trip length. The number of trips represents the impact of a land use on the transportation system, though it cannot fully account for length of trips. There is also a widely accepted data source for the number of trip ends of a given land use.
- ◆ **Primary Trips vs. Pass-by and Diverted Linked Trips.** How, if at all, should the total trip generation count be adjusted for pass-by and linked

trips? For example, someone commuting from work to home might stop at a fast food restaurant to pick up dinner. Nominally, that represents two trips, one coming and one going, for the restaurant. However, the trip from work to home would have happened even if the restaurant did not exist. Therefore, a downward adjustment in the trip generation of the restaurant can be justified. Adjusting for pass-by and linked trips applies mostly to retail land uses. A downward adjustment in the trip count for a retail land use is often justified when a trip to a given land use is part of a larger trip that would have happened anyway.

- ◆ **Individual Land Uses vs. Grouped Land Uses.** Should customers be charged a customized rate based on trip generation for their specific land use or a rate based on average trip generation for a class of land uses? A more specific rate is a more equitable rate because it better reflects the trip generation characteristics of a particular land use. On the other hand, many transportation utilities group the hundreds of land uses into a small set of categories. Grouping can reduce the impact of the fee on outlier customers and reduce the expectation that trip estimates are always representative of the actual land use. Grouping land uses can also effectively cap the number of trips to be charged for the highest tri-generating land uses.

## Parking Spaces

Some transportation utilities base their non-residential rates on the number of off-street parking spaces required by the development code for a particular land use. The parking space requirement is used as a proxy for the impact of the land use on the transportation system. Data for this approach are objective and readily available. However, the number of parking spaces is not necessarily a good proxy for impact on the transportation system.

Tigard is the only city in Oregon of which we are aware that charges a fee based on required parking spaces. The current fee is \$1.38 per month per required parking space.

## Flat Fee

As the name implies, all types of customers are charged the same transportation utility fee. While this is the simplest form of fee to administer, there is a weak nexus between usage of the system and fee imposed.

Dufur is the only city in Oregon of which we are aware that charges a flat fee to residential and commercial customers alike. The current fee is \$5.00 per month per customer.

## Tradeoffs

Each of these approaches represents a different set of tradeoffs between the three desirable characteristics of a rate structure:

- ◆ Equity (nexus between usage of the system and fee imposed)
- ◆ Simplicity (low cost of administration)

◆ Affordability

Equity and simplicity compete most directly with each other. The most equitable rate structures capture the most variation between customers and therefore tend to be the most complex to understand and administer. To the extent that a rate structure identifies particularly heavy users of the system, equity can also compete with affordability for those heavy users.

**Recommendation**

The trip generation approach is the most equitable of the three presented because it demonstrates the clearest nexus between usage of the system and fee imposed. The parking spaces approach serves as a proxy for usage, but parking spaces do not fully represent the demand a land use places on the transportation system. The flat fee approach does not provide a nexus between usage and fee.

Charging based on average daily trip ends is more equitable than peak hour weekday trip ends because it reflects the total usage of a road. Adjusted for multi-modal trips, this approach would allow the City to provide service on the whole transportation system – including alternate modes. Charging based on trip length, while potentially a better proxy for road usage than number of trips, relies on City supplied data and could be potentially costly. Further, the relevance of trip length is questionable in a smaller city like Madras. Additionally, adjusting for pass-by and linked trips avoids penalizing retail-oriented businesses for trips that would have happened regardless.

We recommend a rate structure based on the number of average day trip ends net of pass-by and diverted linked trips. We recommend the City obtain this data for a subset of specific land uses from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, and adjust the data to incorporate other modes of transportation. Further, we recommend the City use the data by land use without further grouping of land uses into broader categories.



## ISSUE PAPER #3

# ELIGIBLE COSTS FOR RECOVERY

### Issue

The City of Madras is reviewing its options for funding ongoing local transportation needs. One funding option that is being considered is a transportation utility. Such a utility would fund some or all of the costs of local transportation operations, maintenance, and/or capital construction through monthly bills to City residents and businesses. This issue paper will evaluate the costs to be recovered through a utility rate.

### Alternatives

There are many costs that may be considered for recovery through a transportation utility rate:

- ◆ Pavement treatments
- ◆ Roadway/traffic operations
- ◆ Pedestrian and bike facilities/safety
- ◆ Planning or design
- ◆ Capital construction
- ◆ Administration (including indirect cost allocation transfers to other funds)

Currently, the Transportation Operations Fund budget includes the operation, maintenance, and preservation of City streets, multi-use trails, street greenways, and street/trail lighting.

### Analysis

In general, the stronger the nexus between the costs to be funded and the basis of charging, the more legally defensible the fee. In assessing the strength of nexus, three criteria may be applied to each potential type of cost funded by a transportation utility:

- ◆ Does the activity have a direct and perceived benefit?
- ◆ Does the activity serve the general road user?
- ◆ Does the level of activity required vary with the volume of usage?

For analytical purposes we scored the types of costs that can be recovered through transportation utility on their strength of nexus. We used a three-point scale, with three being the most relevant, against the criteria above to develop a scoring or ranking for each service.

Activity	Direct Benefit	Serves General Road User	Varies by User Volume	Total Scoring
Pavement Treatments	3	3	3	9
Roadway/Traffic Operations	3	3	2	8
Pedestrian and Bicycle Facilities/Safety	3	2	3	8
Capital Construction	3	2	3	8
Planning or Design	0	1	1	2
Administration	0	1	0	1

Source: FCS GROUP.

As shown in the above table, pavement treatments have a strong nexus between costs and a utility charge. Other activities with a strong nexus between a user charge and costs are with roadway/traffic operations, pedestrian and bike facilities/safety, and capital construction.

Of the transportation utilities in Oregon of which we are aware, all are used to fund maintenance repair, and other operating expenditures. Only a few are used to fund major capital construction as well.

### **Recommendation**

In general, the utility fee should be usable for anything that is eligible for State Highway Fund spending. More specifically, in order to provide the strongest nexus between the fee basis and the activities funded, we recommend that the following costs, to the extent that it benefits existing users and not growth, be prioritized in the transportation utility rate:

- ◆ Pavement treatments,
- ◆ Roadway/traffic operations,
- ◆ Pedestrian and bike facilities/safety, and
- ◆ Capital construction.

We do not recommend that the transportation utility fee include the cost of capacity-increasing improvements that serve future users. Those costs can be included in the City's transportation system development charge, which is paid by new development.

# ISSUE PAPER #4

## LOCAL GAS TAX

### Issue

The City of Madras (“City”) is reviewing its options for recovering the costs of local transportation needs. One of the options mentioned in Issue Paper #1 was a local gas tax. This paper provides further analysis of a local gas tax and the revenue that may be derived therefrom.

### Analysis

#### Legal Requirements

State law governs both the imposition of local gas taxes and the expenditure of their revenue.

ORS 319.950 governs the imposition of a local gas tax:

**319.950 Local tax on fuel for motor vehicles.** A city, county or other local government may enact or amend any charter provision, ordinance, resolution or other provision taxing fuel for motor vehicles after submitting the proposed tax to the electors of the local government for their approval.

This means that the city council must draft an ordinance establishing a local gas tax at a specific tax rate and then refer that ordinance to voters. If voters approve the ordinance, the city council may then enact it. Furthermore, we believe that this statute precludes local governments from enacting an automatic escalation of its tax rate. Any change in tax rate—even a downward change—must be submitted to voters.

An ordinance to establish a local gas tax should specify which fuel(s) are to be taxed. Most cities with a local gas tax include both gasoline and diesel. However, a city can choose to tax only one of these fuels. If a city chooses to tax diesel, tax can be collected even on sales to vehicles that are exempt from the state use fuel tax because they pay the weight-mile tax. Payment of the state weight-mile tax does not exempt the fuel from local taxation.

Expenditure of local gas tax revenue is subject to the same legal requirements as expenditure of the state gas tax. These requirements are found in Article IX, Section 3a of the Oregon Constitution:

**Section 3a. Use of revenue from taxes on motor vehicle use and fuel; legislative review of allocation of taxes between vehicle classes.** (1) Except as provided in subsection (2) of this section, revenue from the following shall be used exclusively for the construction, reconstruction, improvement, repair, maintenance, operation and use of public highways, roads, streets and roadside rest areas in this state:

- (a) Any tax levied on, with respect to, or measured by the storage, withdrawal, use, sale, distribution, importation or receipt of motor vehicle fuel or any other product used for the propulsion of motor vehicles; and

- (b) Any tax or excise levied on the ownership, operation or use of motor vehicles.
- (2) Revenues described in subsection (1) of this section:
  - (a) May also be used for the cost of administration and any refunds or credits authorized by law.
  - (b) May also be used for the retirement of bonds for which such revenues have been pledged.
  - (c) If from levies under paragraph (b) of subsection (1) of this section on campers, motor homes, travel trailers, snowmobiles, or like vehicles, may also be used for the acquisition, development, maintenance or care of parks or recreation areas.
  - (d) If from levies under paragraph (b) of subsection (1) of this section on vehicles used or held out for use for commercial purposes, may also be used for enforcement of commercial vehicle weight, size, load, conformation and equipment regulation.

Because the expenditure restrictions for a local gas tax are identical to those for distributions from the State Highway Fund, revenues from both sources can be safely commingled in the same fund.

### Cost-Effective Collection

As shown in the table below, 20 cities in Oregon have a local gas tax. Of these, only six cities administer their own tax. The other 14 cities contract with ODOT for tax collection.

Cities That Contract with ODOT		Cities That Administer Their Own Tax
Astoria	Milwaukie	Dundee
Canby	Newport	Oakridge
Coburg	Springfield	Sandy
Coquille	Tigard	Stanfield
Cottage Grove	Veneta	The Dalles
Eugene	Warrenton	Tillamook
Hood River	Woodburn	

Source: ODOT, <http://www.oregon.gov/ODOT/CS/>.

The Fuels Tax Group at ODOT offers cities the ability to use its existing tax-collection infrastructure for the collection of their own fuel taxes. In return, cities agree to have a fee withheld from their remittances that represents the time spent by ODOT employees administering the local tax. Based on our conversation with a representative of the Fuels Tax Group, we estimate that ODOT’s fee would be approximately \$5,000 per year for Madras. We assume that the City would be hard-pressed to develop its own tax-collection infrastructure at a similar cost.

### Comparative Data and Revenue Estimate

The table below summarizes the most recently available data for cities with an ODOT-administered local gas tax. All of these local gas taxes were established before voter approval became a requirement.

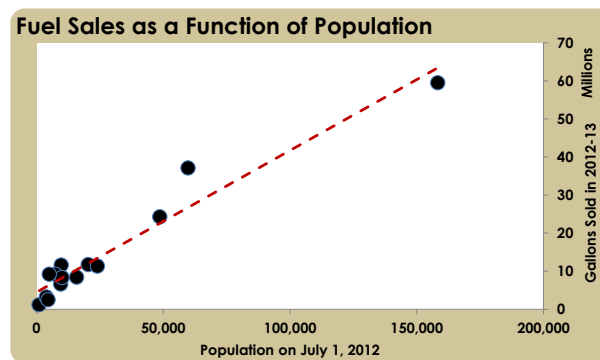
Cities with a Local Gas Tax	Gallons Sold in 2012-13	Population on July 1, 2012	Gallons Sold per Capita	Current Tax Rate per Gallon
Astoria	6,598,960	9,555	691	\$0.03
Canby	8,391,087	15,865	529	\$0.03
Coburg	1,125,432	1,045	1,077	\$0.03
Coquille	3,181,358	3,870	822	\$0.03
Cottage Grove	11,568,077	9,770	1,184	\$0.03
Eugene	59,480,556	158,335	376	\$0.05
Hood River	9,146,002	7,375	1,240	\$0.03
Milwaukie	11,689,464	20,435	572	\$0.02
Newport	8,312,416	10,150	819	Seasonal
Springfield	37,101,862	59,840	620	\$0.03
Tigard	24,261,498	48,695	498	\$0.03
Veneta	2,457,062	4,610	533	\$0.03
Warrenton	9,167,003	5,090	1,801	\$0.03
Woodburn	11,289,895	24,090	469	\$0.01

**Source:** ODOT, Fuels Tax Group; Portland State University, Population Research Center.

**Note:** Coburg does not tax diesel. All other cities do.

To estimate the amount of revenue that a local gas tax would raise, we must first estimate the number of gallons of fuel that will be sold. Ideally, we would base this estimate on the historical volume of fuel sales in Madras. Unfortunately, sales data are available only for jurisdictions that have a gas tax.

Instead, we must estimate volume in Madras based on the experience of cities with an ODOT-administered tax. Using the data above, we developed a regression model in which the independent (x) variable is population on July 1, 2012, and the dependent (y) variable is the number of gallons sold in fiscal year 2012-13. We present this model graphically below:



We use this model to estimate that, based on Madras’s population of 6,260 on July 1, 2012, dealers sold 6.8 million gallons of gasoline and diesel in Madras during fiscal year 2012-13. This estimate is equivalent to 1,089 gallons per capita, which would make Madras most similar to Coburg and Cottage Grove on a per-capita basis.

In addition to this base-year volume estimate, we must also estimate how

sales volume will change each year. Based on the five years of statewide data shown below, we estimate that sales volume will decline by 0.74 percent each year:

Statewide Gasoline Consumption	Gallons
2008-09	1,509,324,369
2009-10	1,528,877,617
2010-11	1,510,927,969
2011-12	1,478,619,114
2012-13	1,465,243,756

Source: ODOT, Fuels Tax Group.

This (negative) growth rate allows us to estimate sales volume and tax yield for any future year, as shown below:

Estimated Tax Yield in Madras	Gallons Sold	Revenue per Penny of Tax
2015-16	6,665,802	\$ 66,658
2016-17	6,616,475	\$ 66,165
2017-18	6,567,513	\$ 65,675
2018-19	6,518,913	\$ 65,189
2019-20	6,470,673	\$ 64,707
2020-21	6,422,790	\$ 64,228
2021-22	6,375,262	\$ 63,753
2022-23	6,328,085	\$ 63,281

Source: FCS Group.

Based on this estimated yield, a local fuel tax imposed at the statewide average rate of three cents per gallon would yield \$194,974 in fiscal year 2015-16 after deduction of ODOT’s administrative fee.

### Recommendation

We recommend that the City consider a local gas tax as one additional revenue source because of its ability to capture revenue from those non-residents who use the City’s infrastructure but would not be subject to a utility fee. However, because (1) a local gas tax is a declining (rather than escalating) revenue source and (2) a local gas tax can be initially adopted and subsequently changed only by a vote of electors, we further recommend that the City also pursue a transportation utility fee as an additional revenue source.

## APPENDIX B: ANALYSIS

### B.1 Project Cost by Functional Class – Pavement Management Program Budget Options Report

Summary of Scenario 4; \$600,000 per year for 20 years (maintain PCI long term)			
Functional Class	Rehabilitation	Preventative Maintenance	Percent of Total
Residential/Local	\$6,432,345	\$58,956	62.15%
Other (Trails)	\$34,029	\$1,925	0.34%
Collector	\$3,865,240	\$51,737	37.50%
<b>Total</b>	<b>\$10,331,614</b>	<b>\$112,618</b>	<b>100.00%</b>

Source: City of Madras and Capitol Asset Pavement Services, compiled by FCS GROUP.

### B.2 Model Calculation – Revenue Requirement by Funding Tool

ENTER Amount of Money to be Funded	\$750,000			
ENTER the Desired:	Percent of Revenue	Cents Per Gallon	Per ADT per year	
	7%	\$0.05		
OR Enter Percent to be Recovered From Tool			27%	
Transportation Funding Option	Franchise Fee	Local Gas Tax	Transportation Utility Fee	Total
			Varied Rate per ADT by Customer Class	
Description of Basis	Projected Water and Sewer Revenue, FY 2014-15	Average Estimated Net Revenue per Penny of Gas Tax Revenue	Total City ADTs	
Amount	\$3,500,000	\$59,957	53,160	
Cost Recovered from Tool	\$245,000	\$299,784	\$205,216	\$750,000
Percent Recovered from Tool	33%	40%	27%	100%
Unit	Percent of Revenue	Per Gallon of Gas	Per ADT / Month	
Result	7.00%	\$0.05		
Residential Rate			\$0.55	
Non-Residential Rate			\$0.19	

# APPENDIX C: UPDATED COUNCIL MATERIALS

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# City of Madras



## Transportation Utility Formation Study

Updated from June 23 and August 25, 2015

**John Ghilarducci**



# How We Got Here

October 28, 2014  
Council Work  
Session

February 9, 2015  
CAC Meeting  
#1

April 6, 2015  
CAC Meeting  
#3

August 25, 2015  
Council Work  
Session

December 1,  
2014  
Public Meeting

March 2, 2015  
CAC Meeting  
#2

June 23, 2015  
Council Work  
Session

## **Citizen Participants:**

Louise Muir

Chris Wolfe

Tim Wuest

Cliff Reynolds

Joe Krenowicz

Stan Nowakowski

Maura Schwartz

Rob Hastings

Darryl Smith

Doesha Jacobs

Chuck Schmidt

Royce Embanks

Loren Dunten



## **CAC Makeup and Process**

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**“The purpose of the Citizen Advisory Committee (CAC) is to provide the citizens, businesses, and interest groups of the City of Madras with an avenue to affect the design of City policies for transportation funding.”**

- ◆ Three regular monthly meetings
- ◆ Provided key citizen input on transportation funding for Madras
- ◆ FCS GROUP provided issue papers and analysis, and solicited feedback from CAC
- ◆ Committee reached consensus on key recommendations



# Background: Street Infrastructure

## ◆ Centerline Miles of Infrastructure

- Collectors Roads: 15.92 mi.
- Local Roads: 25.20 mi.
- Pave Multiuse Trail: 5.5 mi.
- Unimproved Centerline Miles of Infrastructure: 9.45 mi.

## ◆ Total Miles of Infrastructure to Maintain

- 56 mi. (49.4 mi. in 2007)

## ◆ Pavement Condition Index of roads

- Good: 69.2%
  - (Approx. 35 miles)
- Fair: 14.4%
  - (Approx. 7 miles)
- Poor: 12.5%
  - (Approx. 6 miles)
- Very Poor: 3.9%
  - (Approx. 2 miles)







# Background: Unimproved Roads

- ◆ 9.5 Miles of Unimproved Roadways





# Background: Street Needs

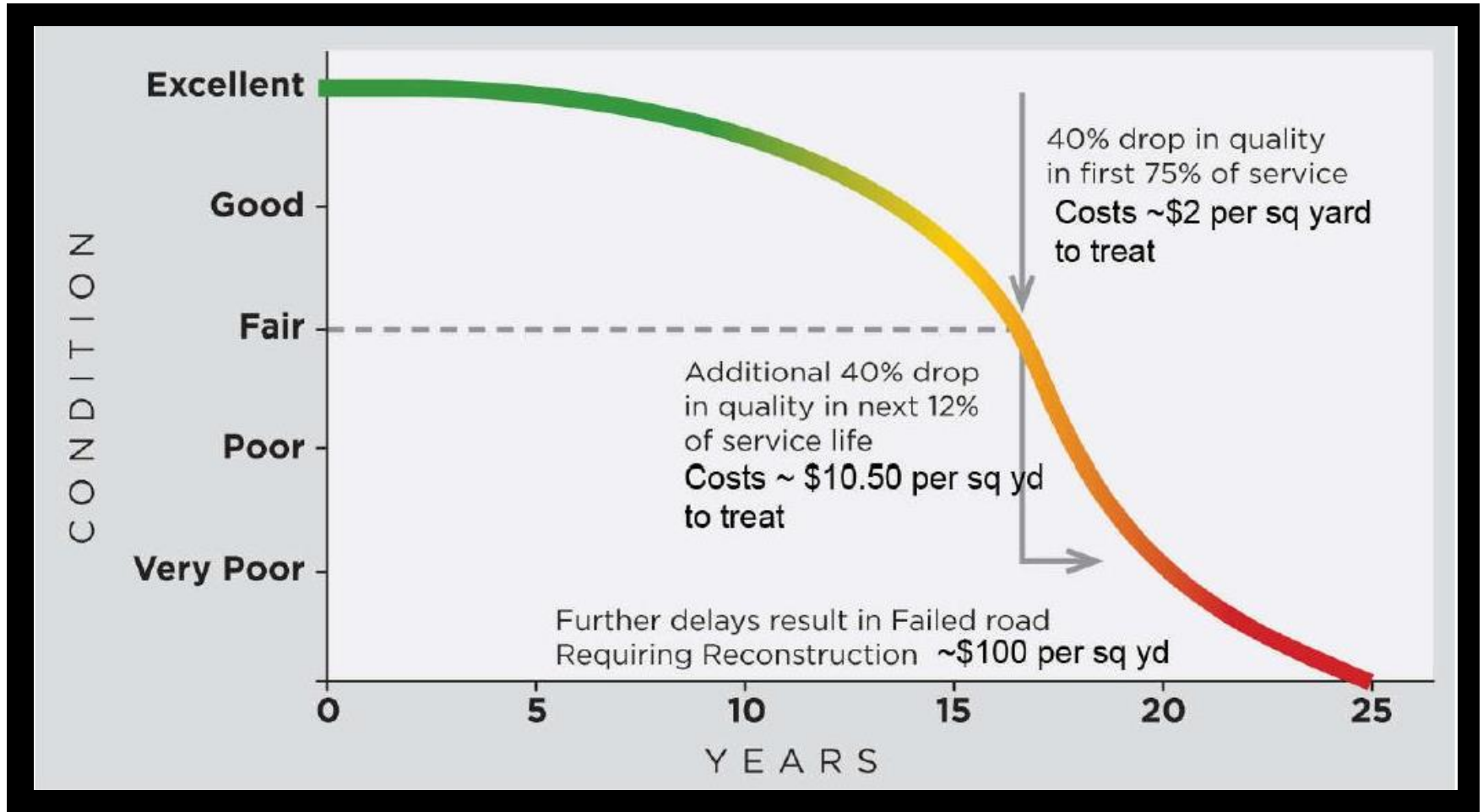
- ◆ Many roads in need of repair







# Why Pavement Condition Matters



Source: Pavement Management Program Budget Options Report, Capitol Asset and Pavement Services.



# Background: Street Fund

- ◆ Less revenue means less capital spending.

	Actual	Actual	Actual	Actual	Adopted	Adopted
Fiscal Year Ending 6/30:	2010	2011	2012	2013	2014	2015
Beginning Fund Balance	\$ 146,286	\$ 100,280	\$ 271,970	\$ 227,179	\$ 226,007	\$ 54,298
Revenues						
Franchise Fees	\$ 270,072	\$ 326,029	\$ 395,579	\$ 385,311	\$ 374,400	\$ 375,900
State Gas Funds	275,924	319,364	338,682	341,531	343,000	349,132
State Revenue Sharing	60,523	61,732	52,044	67,730	53,000	65,000
STP Allotment Funds	126,028	-	72,655	61,798	68,634	66,640
Grants	172,938	523,346	298,264	260,972	146,000	-
Charges for Services	23,488	132,863	35,417	530	1,500	1,500
L.I.D. Revenues	316	664	638	527	269	269
Use of Money & Property	512	195	412	272	200	200
Interfund Transfers - In	-	40,000	40,000	159,049	-	-
<b>Total Revenues</b>	<b>\$ 929,801</b>	<b>\$ 1,404,193</b>	<b>\$ 1,233,691</b>	<b>\$ 1,277,720</b>	<b>\$ 987,003</b>	<b>\$ 858,641</b>
Expenditures						
Materials and Services	\$ 569,760	\$ 534,808	\$ 648,502	\$ 687,524	\$ 725,385	\$ 727,060
<b>Capital Outlay</b>	<b>268,047</b>	<b>697,695</b>	<b>467,980</b>	<b>493,268</b>	<b>291,327</b>	<b>76,000</b>
Interfund Transfers - Out	138,000	-	162,000	98,100	142,000	15,000
<b>Total Expenditures</b>	<b>\$ 975,807</b>	<b>\$ 1,232,503</b>	<b>\$ 1,278,482</b>	<b>\$ 1,278,892</b>	<b>\$ 1,158,712</b>	<b>\$ 818,060</b>
Ending Fund Balance	\$ 100,280	\$ 271,970	\$ 227,179	\$ 226,007	\$ 54,298	\$ 94,879
Yearly Surplus/(Deficiency)	\$ (46,006)	\$ 171,690	\$ (44,791)	\$ (1,172)	\$ (171,709)	\$ 40,581

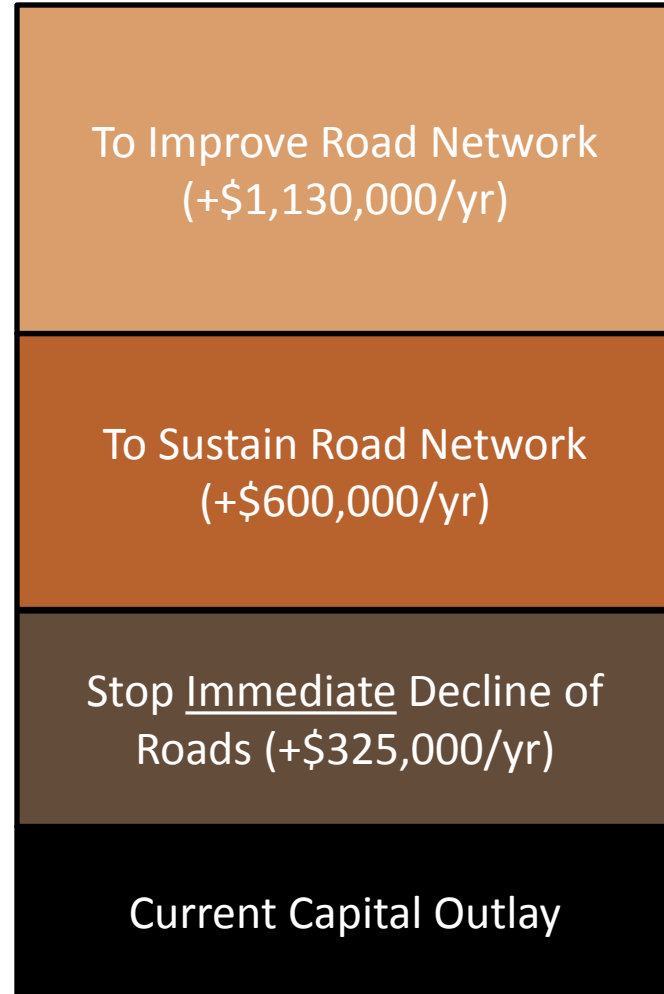




# Additional Needs

## Pavement Maintenance

- ◆ **To stop the immediate decline of road network:**
  - annual additional \$325,000\* over current
- ◆ **To sustain the road network:**
  - annual additional \$600,000\* over current
- ◆ **To improve the road network:**
  - annual additional \$1,130,000\* over current

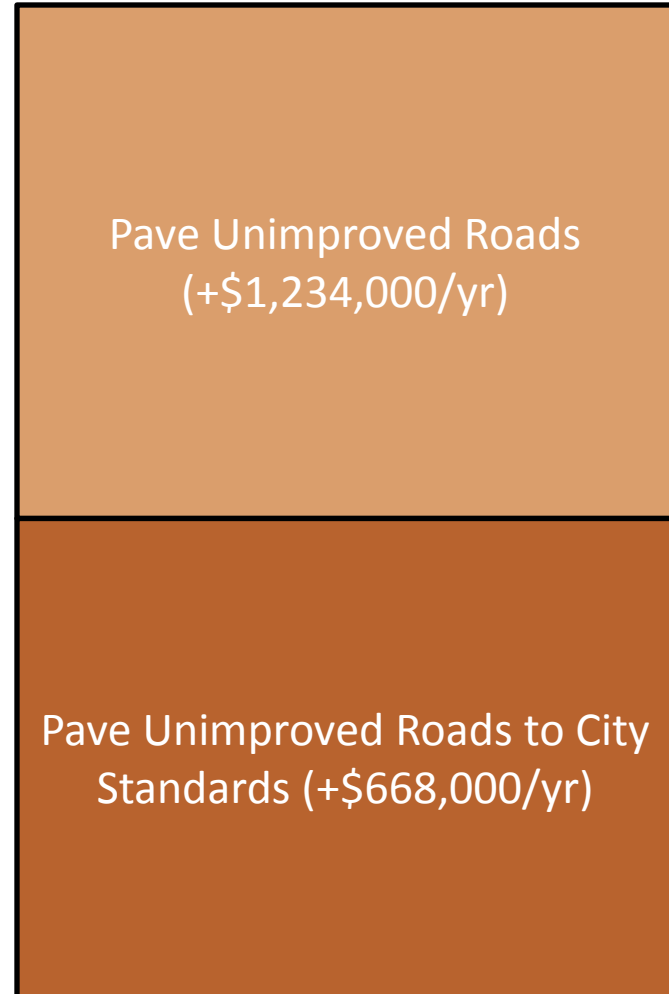




# Additional Needs

## Paving Unimproved Roads

- ◆ **To pave unimproved roads (20 yrs):**
  - annual additional \$668,000\* over current
- ◆ **To pave unimproved roads to City standards (20 yrs):**
  - annual additional \$1,234,000\* over current





# Funding Options

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- ◆ **State Highway Fund**
  - State transportation funds based on population
- ◆ **General Fund**
  - City currently gives 50% of franchise fee revenue to transportation
- ◆ **Franchise Fee**
  - Existing fee on private utilities operating within the city
  - Can include public utilities (owned by the city and/or Deschutes Valley Water District)
- ◆ **Transportation Utility Fee**
  - A utility fee based on trip usage per land use type
- ◆ **Local Gas Tax**
  - Tax on all gas pumped within the city
  - Public vote required
- ◆ **System Development Charge**
  - Revenue from new development for growth capital only
- ◆ **Urban Renewal District**
  - Typically used for debt financing and specific areas
- ◆ **Special Programs**
  - State/federal funding (generally only for capital improvements)
- ◆ **Debt**
  - Used for capital improvements





# Funding Options Evaluation

The project team evaluated funding options based on several key criteria

<b>Criterion:</b>	<b>Equity</b>	<b>Revenue Sufficiency</b>	<b>Ease of Administration</b>	<b>Ease of Implementation</b>	<b>Others Pay</b>	<b>Total</b>
<b>Weight:</b>	30%	20%	10%	10%	30%	100%
<b>Utility fee</b>	5	5	3	2	1	3.30
<b>Local gas tax</b>	3	4	5	1	3	3.20
<b>Franchise fee</b>	2	5	5	4	1	2.80

## Service Level and Cost Options

Level of Service	Pavement Maintenance	Paving Unimproved Roads	Total
<b>Minimal</b>	Maintains PCI short term but not sufficient in long run 5-year PCI (2019): 69 20-year PCI (2034): 49 \$325,000/yr	No paving of unimproved roads  \$0/yr	\$325,000/yr
<b>Sustaining</b>	Maintains/slightly improves current PCI for future 5-year PCI: 74 20-year PCI: 70 \$600,000/yr	No paving of unimproved roads  \$0/yr	\$600,000/yr
<b>Sustaining + Paving</b>	Maintains/slightly improves current PCI for future 5-year PCI: 74 20-year PCI: 70 \$600,000/yr	Unimproved roads get paved, but not fully to city standards  \$667,128/yr	\$1,267,128/yr
<b>Improving + Paving</b>	Improves/sustains PCI to optimal levels 5-year PCI: 82 \$1,130,000/yr	Unimproved roads get paved, but not fully to city standards  \$667,128/yr	\$1,797,128/yr
<b>Improving + Enhanced Paving</b>	Improves/sustains PCI to optimal levels 5-year PCI: 82 \$1,130,000/yr	Unimproved roads get paved to city standards  \$1,233,936/yr	\$2,363,936/yr



# Recommended Approach

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## **CAC Recommendation: Fund additional \$750,000 /yr**

**Sustain current road PCI and pave small amounts of unpaved roads**

**Use combination of funding sources:**

- ◆ **7% Franchise fee on water and sewer revenue**
  - Est. annual revenue: \$245,000
  - Will be on utility users bills
- ◆ **\$0.05 per gallon local gas tax**
  - Est. net annual revenue: \$300,000
  - Will be based on gas purchased in city
- ◆ **Transportation Utility Fee: \$0.322 per average daily trip per month**
  - Est. annual revenue: \$205,000
  - New item on utility bill



# Effect of Recommended Approach

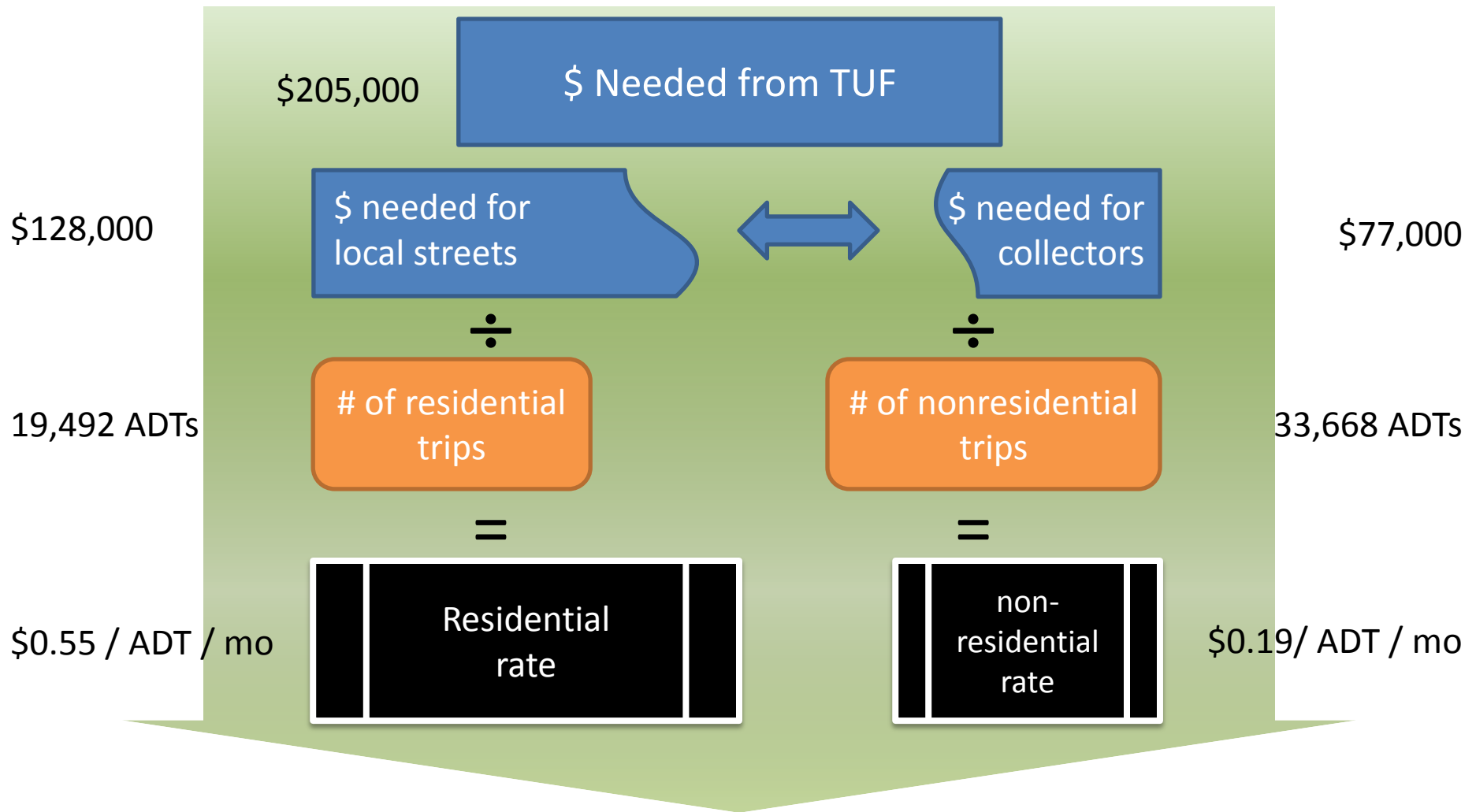
Avg. Impact on Single Family Home		
	Monthly	Annually
Franchise Fee	\$5.68	\$68.17
Gas Tax	\$2.67	\$32.09
Transportation Utility Fee	\$3.04	\$36.48
<b>Total</b>	<b>\$11.39</b>	<b>\$136.74</b>

- ◆ **Average annual impact on a single family home: \$136.74**
- ◆ **Effects of recommended approach vary by land use and resource usage (see below)**

Summary for Example Land Uses	Unit Charge /Units	Number of Units	Monthly TUF
Single Family Residential	\$3.04 /DU	1	\$3.04
Multi-Family (per apartment)	\$2.09 /DU	1	\$2.09
Assisted Living Facilities (Ex. Ashley Care Center)	\$0.82 /Bed	15	\$12.37
Motel (ex. Sonny's Motel)	\$1.81 /Room	44	\$79.69
Churches (ex. Madras Assembly of God)	\$4.25 /1,000 SFGFA	10.54	\$44.84
Repair Shop (ex. Wolfe Truck and Equipment)	\$8.76 /1,000 SFGFA	9.49	\$83.16
Sit-Down Restaurant (ex. Black Bear Diner)	\$16.92 /1,000 SFGFA	3.92	\$66.27
Fast Food Restaurant (ex. Burger King)	\$70.47 /1,000 SFGFA	3.87	\$272.52



# Alternate TUF Option







# Effect of Alternate TUF Option

Avg. Impact on Single Family Home		
	Monthly	Annually
Franchise Fee	\$5.68	\$68.17
Gas Tax	\$2.67	\$32.09
Transportation Utility Fee	\$5.19	\$62.25
<b>Total</b>	<b>\$13.54</b>	<b>\$162.51</b>

- ◆ **Average annual impact on a single family home: \$162.51**
- ◆ **Effects of recommended approach vary by land use and resource usage (see below)**

Summary for Example Land Uses	Unit Charge /Units	Number of Units	Monthly TUF
Single Family Residential	\$5.19 /DU	1	\$5.19
Multi-Family (per apartment)	\$3.57 /DU	1	\$3.57
Assisted Living Facilities (Ex. Ashley Care Center)	\$0.49 /Bed	15	\$7.31
Motel (ex. Sonny's Motel, now Motel 6)	\$1.07 /Room	44	\$47.07
Churches (ex. Madras Assembly of God)	\$2.51 /1,000 SFGFA	10.54	\$26.49
Repair Shop (ex. Wolfe Truck and Equipment)	\$5.18 /1,000 SFGFA	9.49	\$49.12
Sit-Down Restaurant (ex. Black Bear Diner)	\$9.99 /1,000 SFGFA	3.92	\$39.15
Fast Food Restaurant (ex. Burger King)	\$41.63 /1,000 SFGFA	3.87	\$160.98



# Implementation Options

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- 1. Implement full recommendations as soon as possible**
  - Council adoption of franchise fee and TUF
  - Spring public vote on gas tax
- 2. Stagger (phase) implementation of funding mechanisms**
  - a) Gas tax vote, then Council adoption of franchise fee and TUF
    - \$300,000 (if voters pass), followed by \$450,000
    - Timing up to Council
  - b) Council adoption of franchise fee and TUF, then gas tax vote
    - \$450,000, followed by \$300,000 (if voters pass)
    - Timing up to Council



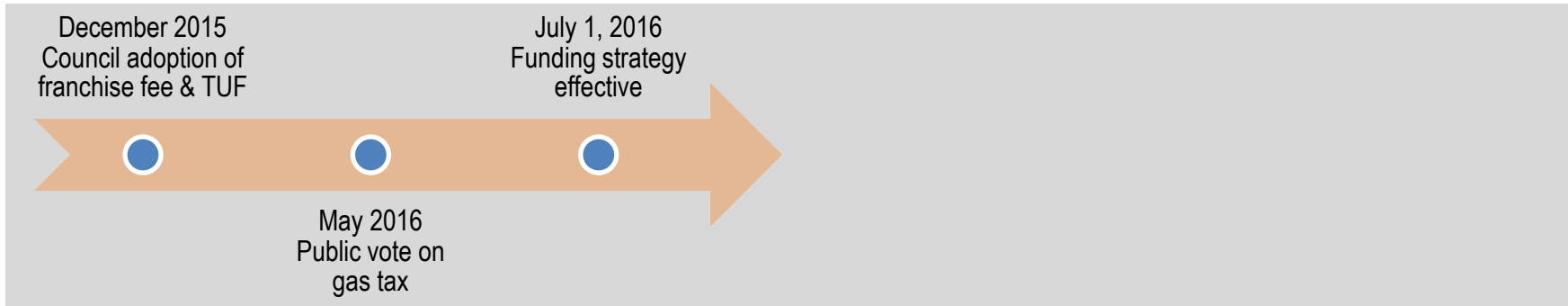
# Options Evaluation

Option	Certainty of Revenue	Sufficiency of Revenue	Political Palatability	Ease of Implementation
1. Immediate implementation of all 3 mechanisms	5	5	1	1
2.a. Voted gas tax followed by franchise fee and TUF	3	2	3	2
2.b. Franchise fee and TUF followed by voted gas tax	5	3	2	3

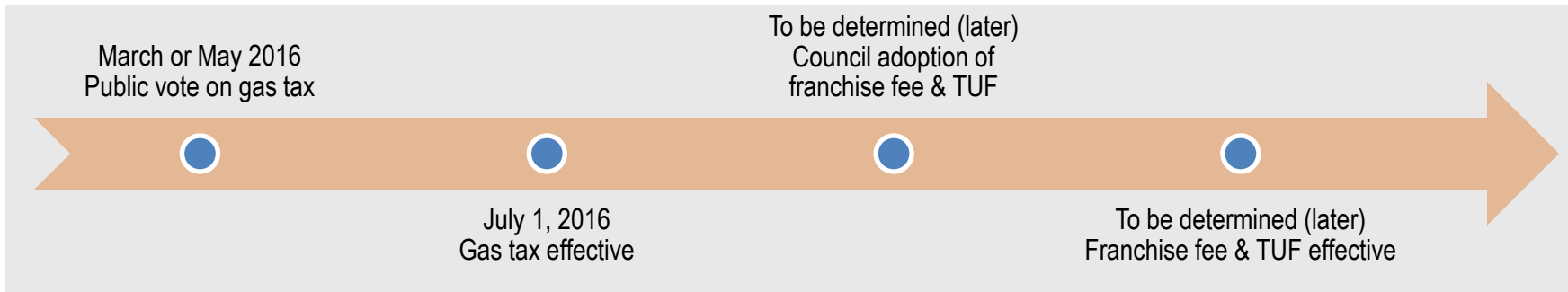


# Phasing Options

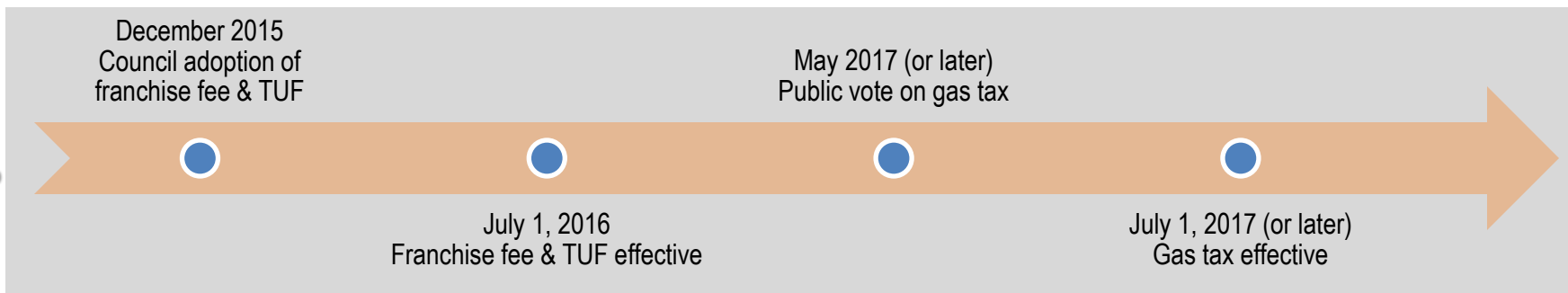
1.



2.a.



2.b.



# Preliminary Direction

- ◆ **CAC input**
- ◆ **Preferred implementation option**

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- ◆ **Preferred phasing schedule**

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