CITY OF HILLSBORO

Report to the Transportation Committee
Proposed Hillsboro Transportation Utility

Issued by:

Ad Hoc Committee on Transportation Finance

Angelo Planning Group
921 SW Washington, Suite 468
Portland, Oregon 97205

DKS Associates
TRANSPORTATION SOLUTIONS

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Special acknowledgement is offered to the following individuals and groups for their contribution to the development of this report:

City of Hillsboro Transportation Committee

Ed Dennis 2001 – present
Aron Carleson 2006 – present
Olga Acuña 2008 – present
Joe Keizur 2001 – 2008
Mike Castillo 2003 – 2006

Advisory Committee Members

Chuck Cooney, Lexington Village HOA
Carlos Perez, Hillsboro School District
Darlene Morgan, Pacific University
Deanna Palm, Chamber of Commerce
Jim Frost, South Hillsboro/Edwards Meadow HOA
Darlene Greene, Hillsboro Budget Committee
Jon Williams, Intel Corporation
Steve Krautscheid, Tuality Healthcare
Tammy La Beck, Sewell Station HOA

City Project Support Staff

Tom Arnold, P.E. Project Manager
Tina Bailey, P.E, Street Maintenance Program Manager
Teresa Gibson, P.E., Project Engineer
Jeannie Little, Engineering Technician

Rob Dixon, Assistant City Manager
Jess Stewart-Maize, City Administration
Brian Kennedy, Finance Department
Don Odermott, Planning Department
Karla Antonini, Planning Department
Barbara Simon, Public Affairs Manager

Project Consultants/Support

DJ Heffernan, Angelo Planning Group
Shayna Rehberg, Angelo Planning Group
Carl Springer, DKS Associates

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Executive Summary

The City of Hillsboro has been investigating new ways to pay for street maintenance and for improving substandard city streets. New revenue is needed because the state gas tax has not been increased since 1993. Hillsboro's share of state and local gas taxes is not enough to keep pace with its growing maintenance responsibilities. The city currently has a $9.1 million dollar street maintenance backlog and that problem is growing by almost $1 million every year. Additionally, many city streets in the vicinity of schools and transit stations are substandard but state law and local rules do not permit the city to fix them using the County's Transportation Impact Fee (TIF) program. Safety improvements to these streets may only be financed using local revenue sources.

After looking at options to address these problems, the Hillsboro City Council directed the Public Works Department to develop a transportation utility and to consult with stakeholders about the utility. An Ad Hoc Transportation Finance Advisory Committee was appointed in 2007 to consider staff recommendation regarding the feasibility of instituting a transportation utility fee similar to what is being done in other cities in Oregon. Over the course of nine meetings, the committee considered input from staff and the consultant on how much revenue the utility should raise; how the burden for funding road maintenance should be divided between residential and non-residential customers; options for calculating monthly service fees; the availability of waivers, credits, and incentives; how rate increases are handled; program oversight and other issues. The Committee, after nine two-hour sessions in which all aspects of the proposed utility fee were dissected and discussed, offers the following recommendations to the Hillsboro Transportation Committee and City Council.

- Hillsboro should adopt a city-wide Transportation Utility Fee (TUF) to finance maintenance and operating costs related to the city's street transportation system. All developed property should pay a monthly fee that is roughly proportional to the benefit that each property gets from the transportation system. Benefit should be measured by the average weekday traffic that developed properties generate.

- The revenue target for the utility should be set high enough to gradually eliminate the backlog of deferred maintenance needs. Utility revenue should be used to replace gas tax revenue for street maintenance temporarily. The 2008 revenue target is **$2,832,000**.

- The city should use a portion of its gas tax funds to improve substandard streets near local schools and transit stations, including the addition of sidewalks and bikeways. After those capital improvements are made, gas tax revenue should again be used for maintenance.

- All residential properties should pay the same amount for each dwelling unit. The initial residential rate is $3.10/month, which will raise 52% of the program's revenue.

- Non-residential properties should raise 48% of the program's revenue. Each developed property should pay a monthly fee that varies depending upon how much traffic they generate. To simplify the billing process non-residential developed properties are grouped by land-use categories and the amount each customer in a given category pays will vary by the size of their development. The method is similar in approach to the method used in other Oregon cities. The trip formulas should use the Institute of Traffic Engineers (ITE) Trip Manual. Traffic caps are recommended for Categories 6 and 7 to reduce the impact on some high-traffic uses, like gas stations. Table ES 1 shows the proposed rate structure for non-residential customers.

Table ES 1 –TUF Rate Structure for Non Residential Customers

Category	TRIPS/1000 ft.^{2}	MONTHLY FEE
1	<7	$0.60/ 1000 Ft.^{2}
2	7-<21	$1.46/ 1000 Ft.^{2}
3	21-<53	$4.87/ 1000 Ft.^{2}
4	53-<151	$10.19/ 1000 Ft.^{2}
5	151-<400	$27.81/ 1000 Ft.^{2}
6	>=400	$50.30/ 1000 Ft.^{2}
7	OTHER	$0.13/DAILY TRIP

- Recognizing variations in customer circumstances and behavior, several waivers, credits, incentives, and assistance measures are recommended including:
  - Develop a waiver program for vacant developed properties (e.g. properties an inactive water account or stores fronts that are vacant for more than 30 days);
  - Reduce the monthly fee by up to 30% for residential customers that do not have a registered vehicle and/or own an annual TriMet Pass;
  - Offer a variety of discounts to non-residential customers that take steps to help reduce their daily traffic. E.G. - subsidizing transit passes for their employees; offering customer parking for daily transit users, investing in improvements that make it convenient for employees, customers, students, etc. to commute/shop by bike; implementing demand management programs (car pool, van pools, etc) and other trip reduction programs.
  - Provide financial hardship assistance for low income customers and seniors on fixed incomes. For example, the city should increase its contribution to the Salvation Army to provide temporary assistance to city utility customers that have difficulty making utility payments.

- The City Council should assign oversight responsibility for the program to the Hillsboro Transportation Committee (TC). The Council also should appoint a Transportation Advisory Committee (TAC) to advise the TC about rate increases and use of TUF proceeds. TAC membership should represent the utility's customer base.

- The City may wish to index the TUF rates but an index should not be imposed for at least one year.

- The City should reduce or eliminate the program if dedicated revenue from state, federal, or regional sources become available for street maintenance.

- Conduct public education and outreach about the program for all customers.

I. Advisory Committee Purpose and Deliberation Summary

Background

In 1999, the City of Hillsboro began investigating alternative means for funding its street maintenance program and for financing improvements to substandard city streets. The city found that state and county shared gas tax revenues were inadequate to keep pace with its growing maintenance backlog. A combination of factors contributed to the problem, including the growing inventory of city streets through new development and jurisdiction transfers, the declining value of gas tax revenue resulting from inflation, the failure of the state and Washington County to raise gas taxes to keep pace with costs, and public attitudes opposed to tax increases of any kind.

In addition, a survey of the public found that Hillsboro residents rated improving the city's transportation system at the top of their list of investments to be made using public resources. In particular, citizens cited the need for better pedestrian and bike facilities. As a result, a transportation advisory task force was formed to examine this need more carefully. The task force identified a series of capital improvement needs in existing neighborhoods to improve pedestrian and bicycle safety in school walk zones (within 1 mile of public schools), near transit stations (1/4 mile of transit stations or stops) and on older roads that do not adhere to current city standards.

The city hired ECO Northwest Consultant, Inc. to study how to finance these programs. Their analysis determined there were no significant efficiency gains or untapped revenues that could be used to address these unmet needs. They recommended the city take steps to develop new sources of revenue. The report analyzed alternative solutions including a transportation utility program, implementing a local gas tax, and several borrowing options. The transportation utility program was considered the best option however no action was taken at that time.

By 2005, the maintenance situation was much worse. The unfunded backlog was growing by around a million dollars a year and no significant progress had been made to address the pedestrian and bicycle safety problems on substandard streets. The City hired Angelo Planning Group to help develop solutions to address these unmet needs. The Transportation Committee took a favorable view toward adopting a transportation utility and authorized formation of an Ad Hoc Transportation Finance Advisory Committee that included representatives from various community interest groups and stakeholders to study how the utility should be structured.

Ad Hoc Committee Meetings and Deliberations

Members of the Advisory Committee were appointed by the City Council. Members are listed on the acknowledge page of this report. Representation included:

- Members from three neighborhood homeowner associations
- Two representatives from large institutional organizations
- Three representatives from commercial and industrial interests
- City staff from public works, finance, and administration departments (supporting roles)
- the consultant (supporting role) and local press (observers)

The committee met seven (7) times over a period of 18 months. Meetings were organized around issue papers to provide a framework for formulating recommendations. The issue papers are summarized in Section III of this report and are attached in Appendix A. The recommendations

forwarded in this report represent the consensus view of committee members. In cases where the Committee's views were divided on an issue, the recommendation is followed by a discussion of an alternative recommendation.

II. TRANSPORTATION FINANCE RECOMMENDATIONS

Gas Tax Program

Early in the process, the Committee considered whether or not to supplement or replace gas tax revenues for the purpose of financing the street maintenance program. The Committee decided that for the next ten (10) years, the city should devote all gas tax receipts to capital projects to address street upgrades and bicycle/pedestrian system improvements for which there are no alternative sources of revenue. During this period, street maintenance and repair functions, currently funded with the gas tax, should be financed with a new street utility fee. After 2018, when the city will see a significant increase in maintenance needs associated with street system expansion from the development surge that began in the mid 1990's, gas tax revenue should be gradually returned to the street maintenance and operations program to offset cost increases associated with growing maintenance needs. This will help to hold down street utility rate increases.

Transportation Utility Fee Program

The Committee recommends that the City of Hillsboro adopt a Transportation Utility Program whose primary function is to finance street maintenance and operations. The utility should collect a monthly service fee from all developed property in the City that contributes to wear and tear of city streets, whether directly or indirectly. The amount of the fee should be based on the actual cost to maintain City streets in good condition based on standards established by the City. The utility should also recover sufficient revenue to work-off the current $9 million backlog of deferred maintenance projects. For 2008, the revenue requirement for the utility is estimated as follows.

- Construction $2,400,000
- Design/Inspection (14%) 336,000
- Administration (4%) 96,000
- **Total** **$2,832,000**

The Committee recommends that utility customers be divided into two groups, residential and non-residential. Residential customers include all owners of dwelling units that are intended for occupancy as a primary place of residence, including but not limited to single family homes, apartments, mobile homes, and condominiums. Non-residential customers include all other developed properties. Group quarter facilities, such as college dormitories, assisted living facilities, hospitals, and other facilities, where persons may reside temporarily, should be included in the non-residential category.

The recommended cost burden, to be borne by the customer groups, is proportional to the amount of daily traffic generated by these groups. Furthermore, utility rates for non-residential customers should be structured so that industries, businesses, and institutions pay fees relatively proportional to the amount of traffic they generate. Details of the recommended rate structure are presented in the next section. The revenue requirement for the program beginning in July of 2008 is shown below for the two customer groups. Given limitations with the current municipal utility billing system and planned upgrades to that system, it is recommended that collections not begin until January 1, 2009

when the upgraded financial system comes online.

Residential	$1,472,600	52%
Non-Residential	$1,359,400	48%
Total Revenue Target	$2,832,000	

Transportation Utility Fee (TUF) Rate Structure

The Committee recommends the following rate structure be adopted for the new Transportation Utility:

Customer Group and Benefit Share Percentages

Percentages are based on Metro Regional Traffic Model information for Hillsboro that apportions trip-origins for daily weekday traffic on various types of city streets (arterials, collectors, and locals). The trip distribution was found to be: residential – 52 %, non-residential – 48%.

Residential Rate

All residential dwellings should be assessed the same monthly fee. That amount, calibrated to recover the residential share of the 2008 revenue target, is $3.10 per month.

Non-Residential Rate

Non-residential customers should pay a monthly fee based on the relative amount of traffic they generate for each 1000 ft^2 of developed and occupied building area. Table 1 below shows how the rate is structured. Most customers fall into one of six (6) categories. The categories are scaled based on traffic generation rates; categories are assigned to customers that have traffic generating characteristics that fall within the a particular range. For example, Cat. 1 includes all non-residential customers that generate less than seven (7) daily trips per 1000 ft^2 of occupied space while Cat. 2 includes all businesses that generate between 7 and 21 daily trips per 1000 ft^2. Each category also has its own cost per trip rate that is calibrated to generate a target revenue amount that corresponds with the relative traffic contribution for all customers in that category. The monthly amount a customer pays is calculated by multiplying the customer's building area times the associated rate/1000 ft^2 for that category. National data published in the Institute of Traffic Engineers (ITE) Trip Manual were used to assign average daily trip rates and traffic volumes for all customers.

Table 1 – Non-Residential Rate Structure and Trip Rates

	EXAMPLE LAND USES IN BIN	TRIP RATE per 1000 SQ.FT.	BUILDING SQ.FT.	COST/ MONTH
Cat. 1	GENERAL INDUSTRIAL, INDUSTRIAL PARK, WAREHOUSING, RECREATIONAL FACILITY, NURSING HOME, WHOLESALE MARKET, FURNITURE STORE	<7	1000	$ 0.60
			10,000	$ 5.99
			100,000	$ 59.94
Cat. 2	PUBLIC/PRIVTE SCHOOLS (K-12), CHURCH, HOSPITAL, GENERAL OFFICE BUILDING, OFFICE PARK, R&D CENTER, BUSINESS PARK.	7-21	1000	$ 1.46
			10,000	$ 14.56
			100,000	$ 145.63
Cat. 3	BOWLING ALLEY, HEALTH/FITNESS CLUB, MEDICAL/DENTAL OFFICE, GOVERNMENT OFFICE COMPLEX, SHOPING CENTER, HARDWARE/ PAINT/ LUMBER STORE, NURSERY, CAR SALES/REPAIR.	21-53	1000	$ 4.87
			10,000	$ 48.65
			100,000	$ 486.51
Cat. 4	MOVIE THEATER W/O MATINEE, DAY CARE CENTER, LIBRARY, UNITED STATES POST OFFICE, DISCOUNT STORE, AUTOMOBILE PARTS SALES, SUPERMARKET, SIT DOWN RESTAURANT, BAR/ PUB	53-151	1000	$ 10.19
			10,000	$ 101.92
			100,000	$1019.22
Cat. 5	VIDEO RENTAL STORE, WALK IN BANK, DRIVE IN BANK	151-400	1000	$ 27.81
			10,000	$ 278.09
Cat. 6	CONVENIENCE MARKET (OPEN 24 HOURS), FAST FOOD RESTAURANT	>400 *	1000	$ 50.30
			10,000	$ 502.97
Cat. 7	GAS STATION, MOTEL/HOTEL, CITY PARK, TRANSIT STATION, CEMETARY, UNIVERSITY, MULTIPLEX MOVIE COMPLEX, UTILITY STATION	OTHER *	DOES NOT APPLY	VARIES WITH USE AND SIZE

* Bin 6 is capped at 400 trips/1000 sq. ft.; Bin 7 is capped at 1500 daily trips.

Not all customers have a published trip rate per 1000 ft^2. For example, the average daily trip rates for gas stations are based on the number fueling stations at a particular station. Category 7 was established for customers with atypical trip generating measures. Monthly bills for these customers are calculated by estimating the number of daily trips for that particular customer. The revenue target for Category 7 was used to establish a cost per daily trip for Category 7 customers. Each customer pays a monthly fee in proportion to the amount of traffic they contribution relative to the total daily trips in Category 7.

Caps are recommended for Categories 6 and 7. The recommended Category 6 cap is 400 trips while the Category 7 cap is 1500 trips per day. The cap means that regardless of the trip generating rate for a particular customer, no one customer is assessed a trip rate higher than 400 trips per 1000 ft^2 in Category 6, or 1500 trips per day in Category 7. The caps result in shifting a small percentage of the revenue requirement from Categories 6 and 7 to the other five categories. This results in a slight rise the monthly fee in categories 1 – 5 and significantly reduces the monthly fee for customers that have very high trip generating characteristics. Gas stations in particular benefit from this policy.

The rational for this policy recommendation is:

- The cost increase resulting from this policy is relatively small for most customers but results in significant savings for high trip generating land uses;
- Gas stations contribute a service to the city by collecting gas taxes and should receive a fee reduction in recognition of that service;
- On average, the monthly fee increase to customers in the first five bins is a few cents a month while gas station owners realize savings of several hundred dollars a month;
- The net cost to benefit of the policy seems fair given the collection service that gas station owners provide to the city.

Waivers, Incentives, and Financial Hardship Assistance

It is recommended that the city adopt policies that provide relief for customers that have no impact on the system, that take steps to reduce their impact on the system, or that may experience difficulty making their monthly payment because of financial hardship.

The monthly fee should be waived for customers that impose no demand on the transportation system. This would include customers whose property is not developed or is vacated. Evidence of the later condition could be property whose water is turned off. Non-residential customers with multiple tenants that share a common water service may request a partial waiver by presenting documentation that part of their property is vacated. Waiver relief may be granted on a month to month basis. Properties without water service are presumed to be undeveloped unless they have water service from a non-municipal source or operate a business that requires no water service.

The rate structure should provide incentives for customers to reduce their impact on the street system by reducing vehicle miles traveled. Fee reductions are one way to do this but they should not result in a fee waiver because even a customer that does not drive benefits from the transportation system and should contribute to its maintenance. For example, a residential customer that does not own a car and uses public transportation may ride busses that cause wear on city streets, or use bike lanes maintained by the city, or purchase goods and services delivered by cars and trucks that use city streets. There also is a general benefit from keeping the road system in good repair from weather

related deterioration. For these reasons the incentive credits should be capped at 30%. Recommended credits may include but should not be limited to the following items.

- The maximum TUF discount for any customer should be capped at 30%.
- Residential customers that have no vehicle registered at their address should be granted a 20% credit; they would be eligible for another 10% credit if they also have an annual transit pass.
- Non-residential customers that subsidize employees who purchase a monthly Tri Met transit pass (documented in DEQ Energy Report) should be granted a TUF discount.
- Non-residential customers that promote biking and walking to work by employees and customers and provide changing facilities, secure bike parking, healthy living programs, and other measures that promote the use of alternative transportation modes should be granted a TUF discount.
- Non-residential customers that participate in Regional Transportation Plan (RTP) sanctioned traffic management programs, such as van pools, car pools, flexible shifts, telecommute policies, offering up parking near transit stops for use by transit riders, and other programs that reduce employee commuter trips should be granted a TUF discount.
- Non-residential customers that are not within ¼ mile of transit service but can document daily trip reduction by promoting alternative modes to students, employees, and customers should be granted a TUF discount.

While the amount of the fee has been fairly allocated to all customers and kept as low as possible while meeting program objectives, it may still pose a financial hardship for some. The City makes an annual contribution to the Salvation Army to provide financial hardship assistance paying water utility bills on a temporary basis. It is recommended that the City increase that contribution at the same ratio it currently makes relative to water revenues; i.e. proportional to the increase in revenue it expects to raise through the TUF. The city also should explore offering discounts to seniors and families on fixed incomes for whom the new fee could pose a financial hardship.

Program Oversight

The Committee feels strongly that there needs to be accountability of the collection and use of the new TUF. The following recommendations are made to ensure rate payers that accountability.

- Oversight for the TUF program should be assigned to the Hillsboro Transportation Committee (TC) with advisory consultation provided by a Transportation Advisory Committee (TAC).
- Membership to the TAC should include representation by stakeholders broadly representative of transportation system users and customers.
- Recommendations for capital outlays and improvements using TUF and gas tax revenues should be reviewed by the TC after consultation with the TAC prior to making recommendations to the Budget Committee and City Council.
- TUF rate increases and decreases should be carefully balanced against revenue requirements, progress toward meeting maintenance backlog reduction goals, and the availability of other resources.
- Given the current backlog of maintenance needs, it is unlikely the program will generate surpluses or build reserves. To avoid significant rate increases, however, the TC should work with Engineering staff to establish annual program caps that provide assurance to rate payers that

annual costs do not accelerate beyond target backlog reduction goals.

- When capital needs for retrofitting streets in transit and school walk zones, intended to provide safe bike and pedestrian facilities, are met, gas tax revenue should be redirected to the maintenance program and limit or eliminate the need for rate increases. In the event alternate revenues become available, for example from a state or regional gas tax increase, the TUF should be reduced proportionately.
- Should the Transportation Committee elect to index the TUF program, no adjustment using the index formula should be implemented for at least one-year. This will provide time to determine how actual vs. estimated revenues have accrued and to assess the accuracy of the proposed index compared to documented cost increases for street maintenance services. The committee supports regular rate adjustments to keep pace with inflationary trends and avoid infrequent, but very large, rate adjustments.

II. Issue Paper Decision Summaries

This section summarizes the issue papers that members of the Ad Hoc Transportation Advisory Committee used to focus their discussion of topics related to the formation of the new utility and to develop their recommendations. The issue papers are attached to this report in Appendix A.

1. Service Needs and Funding Strategies

This issue paper reviewed the problems that the city faces, including forecasts for the growth in deferred maintenance and city streets that are not constructed to city standards. The paper reviewed alternative solutions that the Transportation Committee and City Council had explored and the purpose and options available to the Ad Hoc Transportation Finance Committee.

2. Transportation Utility Program Cost Basis

This issue paper reviewed city data concerning the cost to maintain city streets, including administrative, engineering, and construction services. It also reviewed the unfunded street maintenance backlog and the importance of eliminating the backlog by 2018 when streets constructed in the 1990 growth boom would begin requiring maintenance. Questions were raised about how administrative costs were calculated for the program with the intent to make sure that overhead costs were only new costs and did not include costs already covered from existing sources.

3. Customer Benefit Analysis

This issue paper reviews the analysis used to determine the benefit that owners of different types of developed property derive from the street maintenance program. The direct benefit is well maintained streets so the question raised in the paper is which groups are contributing most to street wear and tear. Traffic volume by trip origin was used to measure that benefit. Metro traffic research data for Hillsboro was used to conduct the analysis because it is based on surveys in Hillsboro. The analysis examined trip origin data for arterial, collector, and neighborhood streets and used a weighted-average formula to assign benefit to residential and non-residential properties. The committee discussed whether or not to make an adjustment for truck traffic. It concluded that because most truck traffic in the city uses state and county maintained arterials, no adjustment should be made.

A number of other issues were raised in this discussion, including the need for credits to individuals and businesses that take steps to reduce auto traffic, the cumulative affect of fee increases on businesses, the effect on schools and other taxing districts, and whether the city should collect the fee from developed properties where there are many business tenants. The group decided to "keep it simple" and not take on too much responsibility for balancing equity interests because that would add significant administrative cost to the program.

4. Cost Allocation Methodology

This issue paper used the information generated earlier and combined it into a rate calculation methodology. The analysis looked at how much money the city needs to spend to maintain its local, collector, and arterial streets taking into consideration that collector and arterial streets require maintenance more frequently than local streets. This investment analysis by street classification was used in conjunction with the origin of traffic on various city streets to determine what percentage of the maintenance program's costs should be collected from residential and non-residential customers. The bottom line is that 52% of the maintenance program benefits residential customers and 48% benefits non-residential customers.

Using that distribution, a revenue target was calculated for residential and non-residential accounts using the FY 2007-08 estimated revenue requirement for the program. Most of the discussion on this issue paper centered on clarifying the formulas and assumptions used in the calculations. Members found the analysis approach sound but wanted to see the results for individual customers. They directed the team to use this data combined with ITE trip generating data to estimate the affect on individual customers.

5. Utility Customer Rate Structure

This issue paper, written in September 2007, outlines the method used to calculate the monthly fee charged to residential customers. Two approaches were considered. One used different ITE Manual trip rates for dwelling types and calculated different fees for single family detached homes and for multi-family homes. The monthly service charge was $3.26/month for single family dwellings and $2.15/month for multi-family dwellings. An alternative analysis was performed that calculated a common charge for all residential customers. That amount was $2.85/month.

Since then, staff updated the revenue requirement to match FY 2008-09 taking into account the increase in unfunded backlog, the increase in construction costs, and a reduced amount of time available to work off the backlog. Those factors increased the revenue target by 8.8%. In addition, the AC deliberated the single vs. split residential rate structure. For simplicity sake, and to account for the fact that as a suburban community Hillsboro likely has less difference in single family and multi-family trip patterns than national data suggest, the AC recommends using only one residential fee for all residential customers at $3.10/month. That rate is forecast to recover 52% of the 2008-09 revenue target.

For non-residential customers, the analysis was delayed five months, until the spring of 2008, when city staff conducted field surveys for all non-residential properties in the city. Based on that inventory, a seven-bin rate structure was developed. The bins are scaled so that non-residential customers that generate a small amount of traffic for each 1000 ft^2 of developed building area are

grouped in Bin 1 (i.e. <7/1000 ft^2), and customers that generate large numbers of trips per 1000 ft^2 of developed building area in Bin 6 (i.e. > 400 trips/1000 ft^2). The four bins in between are grouped in ranges. For each bin, we calculated a cost rate/1000 ft^2 that was designed to recover the percentage of revenue allocated to that particular bin. We also developed a 7th bin for customers that ITE does not calculate trip generation based on building square footage. For example, movie theater trip rates are based on the number of screens in the movie complex. Gas station trip rates are based on the number of pumps. All the customers with atypical trip generation factors were grouped in Bin 7. Bin 6 was capped at 400 trips/1000 ft^2. Bin 7 customers were capped at 1500 trips per day.

A revenue target was developed for each bin. It was determined based on the total amount of traffic that all customers in that bin generate as a percentage of all non-residential customers. That percentage then was multiplied times the revenue requirement of all non-residential customers. This assures that each bin contributes its fair share of revenue and that the sum of revenue from all the bins is matched to the revenue requirement for non-residential customers. The monthly charge for a particular customer is calculated for Bin 1 through Bin 6 customers by multiplying the rate per 1000 ft^2 for the customer's bin times the size of their business. Almost 50% of all non-residential customers pay less than $20/month and many pay less than the monthly residential rate. When the monthly cost is considered on a lease basis rather than an owner-account basis, over 60% of non-residential customers would pay less than $20/month.

AC members raised concerns about the complexity of this system. Some were reassured that Tualatin uses the same rate structure. Business representatives again raised concerns about the cumulative effect of rising fees. The caps on Bin 6 and Bin 7 help by redistributing the burden to other bins and provides significant relief to the highest trip generators. It also was noted that gas stations, in particular, receives a significant fee break using cap. One member suggested phasing in the fees. Staff reminded the group that the fee would not be collected until January 2009. That is when the city's new financial management system will be in place. They also noted that customers have the ability to reduce their monthly charge by promoting alternative modes of transportation that reduce wear and tear on city streets.

6. Public Information

This information reviewed proposed methods for informing customers about the new fee. Options included using utility billing inserts, the city newsletter, the city's web site, and staff informational meetings with stakeholders and customer groups.

7. Implementation

This issue paper reviewed the steps that need to be taken to implement the program. Actions include adopting the ordinance establishing the utility, adopting the rate structure by resolution, adopting administrative procedures for proposed waivers and credits, passage of the amended city charter (this occurred in November, 2007), activating the new billing system and preparing to answer customer questions.

8. Waivers, Credits, and Incentives

This issue paper reviewed policies and methods for offering waivers and incentives for customers that do not place as much demand on the street maintenance system. A waiver is proposed for any developed property that is vacated. The TUF would be waived for any city water customer whose account is not active.

Residential customers that do not own a car, posses a current annual TriMet pass, or are seniors age 65 or older are eligible for a 30% credit. Non-residential customers that place very little demand on the street system also would be eligible for a significant credit. These credits would only be granted for so long as the credit condition exists. Customers should be required to apply for the credit through an administrative review process.

An incentive program should be established to reward customers that take steps to reduce their transportation impact. The amount of the incentive credits still needs to be determined but actions for which credits should be offered include buying transit passes for employees; making improvements that make it easier for employees and customers to commute by bike; and businesses that adopt demand management programs, like van pools, car pools, and bike/ped incentives.

9. Program Oversight and Rate Adjustments

This issue paper reviews options for indexing the rate structure and for local oversight of the utility. Indexing may help avoid large rate increases following years where rates are not adjusted. Oversight options included several local options but settled on the Transportation Committee. The discussion agreed with these assessments but recommended that indexing not occur for at least a year until the city has had a chance to see how the program performs. Members also recommended that the Transportation Committee seek input from stakeholders from a Transportation Advisory Committee prior to recommending rate adjustments. The committee also discussed the possibility of eliminating the utility if other federal, state or regional resources become available for street maintenance.

APPENDIX A – ISSUE PAPERS

Issue Paper # 1

Date: April 25, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, Tina Bailey, Brian Kennedy

From: DJ Heffernan, Project Manager

Re: City of Hillsboro Transportation Utility - Services and Strategies

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Problem Statement

The City of Hillsboro is in the process of establishing a municipal street utility to finance unmet transportation system needs. There are two significant transportation needs that revenue forecasts show cannot be met with existing resources. The first is financing the preservation, maintenance and operation of the city street system. The city street system includes paved public streets for which the City holds jurisdictional authority and the related traffic control devices for these streets, such as street signs and traffic signals. The street system also includes some multi-use trails. The City is not responsible for maintaining streets that are under the jurisdiction of Washington County or the state of Oregon.

The second unmet transportation need is the reconstruction of older city collector streets that are not built to city standards. Most do not have sidewalks or bike lanes and many also have capacity constraints. This need is identified in City of Hillsboro Transportation System Plan, DKS Associates, 2003 (TSP). Because the majority of these streets are located in developed neighborhoods, improving them with Washington County transportation impact fees (TIF) is not allowed. The city needs to find an alternative funding strategy to rebuild these streets.

After considering a number of options for financing these unmet needs, including local improvement districts, a local gas tax, and general obligation bonds, the Hillsboro Transportation Committee directed staff to explore the development of a transportation utility. The Ad Hoc Transportation Finance Committee (TFC) is responsible for evaluating options concerning the formation of the utility and forwarding a recommendation to the Transportation Committee. Transportation utilities can provide a variety of services that are supported by a monthly service charge. The service charge is collected from all benefiting properties, just like a water or sewer utility. The transportation utility may only collect the amount of

money needed to provide its defined service and the amount charged an individual customer needs to be proportional to the benefit or use of the service.

Future issue papers will discuss ways to calculate utility costs and benefit. . The following discussion provides additional information about the unmet transportation needs that the utility could finance either directly or indirectly.

Hillsboro Street Maintenance

As in most Oregon cities, Hillsboro relies on state and county gas tax revenue to pay for street maintenance. Each year, Hillsboro receives a share of state and county gas tax revenue based on a formula. The revenue comes into the City's general fund and the City Council decides how the revenue is spent. In addition to pavement repairs, funding street signs, traffic signals, roadway striping, street lighting fixtures and other operating costs have been funded with gas tax revenue.

The City has consistently funded street maintenance at a sustainable level based on gas tax revenues. The City also has funded street construction projects and other transportation services such as engineering and street lighting from this source. In the 1990's the city purchased a pavement management program (PMP) that uses pavement inspection and testing data to estimate the remaining service life for a particular street. The system tracks the pavement condition for all city streets and generates a schedule of needed repairs, ranging from relatively inexpensive crack sealing to more expensive but longer lasting, asphalt overlays or street reconstruction. The system is designed to help engineering staff select an optimal maintenance program for achieving a defined pavement condition goal. Hillsboro's system is designed to maintain the average pavement condition for city streets at or above 80% of their expected service life.

When the PMP was put in place, it showed that street maintenance was falling behind. The main contributor to this problem was a significant increase in maintenance on streets constructed in the boom years of the 1980s and 1990s. When first constructed, these streets required no maintenance but as they aged they began contributing to maintenance needs. The historic level of investment was not keeping pace with this growing need. The passage of the Oregon Transportation Investment Act III (OTIA) allowed the City to increase the amount of funding for street maintenance.

It should be noted that Hillsboro's gas tax revenues have been increasing but at a declining rate and they are not keeping pace with the increase in street maintenance and operating costs. Gas tax revenue has been increasing at about 1.5% per year (less than the rate of inflation) while maintenance costs have been increasing at 10% or more per year. Without the OTIA revenue, the city would not have been able to keep pace with maintenance costs. Even with the added OTIA revenue, however, the maintenance program will not keep pace with growing maintenance costs unless additional revenue is found.

Table 1.1 includes information generated from the PMP. It shows projected street maintenance needs for the next decade and the consequences for two investment scenarios: one with investment keeping pace with the need and one with investment held constant. It shows that if the city is able to increase revenue for street maintenance by 6% per year, the backlog of maintenance needs will gradually decline to around one-half million dollars by 2016. If the city holds the level of street maintenance constant, the backlog balloons to almost $9.5 million. In addition, the table does not show the affect that is likely to result from deferred maintenance. When maintenance is deferred, the average maintenance cost per mile increases. This happens because relatively inexpensive short term repairs that are deferred lead to more expensive repairs in the future. A delay of even a few years can result in double the cost of a maintenance project. This finding has been borne out in studies of road maintenance programs across the U.S. and around the world. So the actual unfunded backlog is likely to be much higher that the PMP forecast.

Table 1.1 – Hillsboro Street Maintenance Needs: 2006 - 2016

Year	Annual Need (from PMP)	Revenue Target (6% annual rate)	Backlog Meeting Revenue Target	Backlog @ 2006 Revenue Level*
2006	$ 6,135,561	$ 1,800,000 *	$ 5,036,666	$ 5,036,666
2007	$ 1,723,549	$ 1,908,000	$ 4,338,565	$ 4,746,593
2008	$ 1,945,229	$ 2,022,480	$ 4,393,456	$ 4,734,580
2009	$ 2,128,479	$ 2,143,829	$ 4,175,681	$ 4,864,859
2010	$ 1,745,917	$ 2,272,459	$ 4,433,868	$ 5,625,186
2011	$ 1,918,237	$ 2,408,806	$ 4,428,105	$ 6,336,061
2012	$ 1,248,466	$ 2,553,334	$ 3,882,585	$ 6,677,540
2013	$ 1,689,154	$ 2,706,534	$ 3,626,806	$ 7,589,344
2014	$ 1,522,501	$ 2,868,927	$ 2,682,628	$ 8,045,556
2015	$ 2,459,608	$ 3,041,062	$ 2,226,263	$ 8,995,057
2016	$ 3,296,486	$ 3,223,526	$ 596,234	$ 9,457,720

In addition to this near-term funding concern, the PMP shows very large increases in the maintenance backlog beginning around 2020 because many newer roads

constructed in the 1990's will begin to require more substantive maintenance. Without new revenues, the neglected backlog "explodes" to over $50 million by the end of the next decade. While the cost estimates for long-term spending are somewhat speculative at this point, the affect of the 1990's building boom on the city's maintenance obligations is not and action is needed to find a long-term financing source to address that need.

City Street System Improvements

In addition to "plugging" the deferred maintenance need, there are a number of unfunded city street improvement projects that cannot be financed with development fees. These projects largely remedy design deficiencies on collector streets in developed neighborhoods. In addition to street design deficiencies, a number of streets and intersections will need improvements between now and 2023 to handle the anticipated growth in city traffic. Some intersections need turn lanes or to be realigned to function correctly. Others need traffic signals. A summary of the cost for these improvements, which are itemized in the Hillsboro 2003 Transportation System Plan, is shown in Table 1.2.

The $80 million shortfall in Table 1.2, if spread over 20 years, represents an annual investment of about $4 million. That likely is more than the city can reasonably afford because there are other unfunded transportation needs but some level of investment in these local network projects is necessary to keep pace with growth and to remedy existing deficiencies. A formal recommendation for prioritizing the City's unfunded TSP projects is being developed by a separate advisory committee.

Table 1.2 - Hillsboro Unfunded "High Priority" Transportation Improvement Projects - Bicycle/Pedestrian Projects and Capacity Enhancement Projects

Location	Description	Cost	TSP Priority
2nd, 3rd, 4th, 5th Ave. - Downtown	Convert to 2-way operation	$800,000	II
Collector Reconstruction	Various locations not TIF eligible	$43,000,000	II
Intersection Improvements	Various locations not TIF eligible	$31,800,000	II
Traffic Signals	Various locations not TIF eligible	$4,500,000	II
Total		$80,100,000	

Source: City of Hillsboro 2003 Transportation System Plan, Table 1-4

Some of these needs may be addressed indirectly by the street utility if the City elects to replace gas tax revenue that is spent on street maintenance with transportation utility revenue. This would free up gas tax money for capital projects. For example, if the utility were set up to finance all street maintenance costs for some period of time it would provide around $1.8 million per year for capital improvement projects. Over time, as

maintenance costs rise and the backlog of capital projects is reduced, gas tax revenue could be shifted back to the maintenance program. This would help offset transportation utility rate increases while providing revenue for capital projects in the near term.

Other allocation options are possible and a final decision does not need to be made at this time. The Ad Hoc Transportation Finance Committee may simply wish to make an initial recommendation to the City Council regarding a funding strategy with the understanding that the City Council will revisit this issue every year when it deliberates budget allocations.

Next Steps

There are a number of decisions that need to be made regarding how to structure a transportation utility for Hillsboro. The sequence of decisions is "iterative" and it is possible to revisit assumptions and preferences before a final recommendation is made. To guide the decision process, the consultant will present a series of issue papers to the TFC each accompanied by one or more decisions concerning the financial assumptions to carry forward in the analysis. The issue paper topics are summarized below. It is important that the committee decide how it wants to take decisions on these issues: formal votes, consensus deliberation, or some other process. At the end of the process, the committee may wish to present a single recommendation to the Transportation Committee or a majority recommendation with accompanying minority reports that present alternative views.

Future committee meetings will focus on the following topics:

- Utility Function and Services – the range of services financed by the utility
- Revenue Requirement – the amount of revenue to be generated each year
- Benefit Analysis – methods for measuring how customers benefit from the utility
- Rate Structure – the formulas for calculating how costs are allocated to customers
- Public Review – the process for soliciting public comment on the proposed utility
- Recommendation – the formal recommendation to the Transportation Committee
- Enabling Ordinances – the Committee may elect not to involve itself in this step

Issue Paper # 2

Date: May 11, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, P..E.

From: DJ Heffernan, Project Manager

Re: Hillsboro Transportation Utility Fee - Cost Basis

The Cost Basis for the transportation utility is the amount of revenue that needs to be generated from the utility each year to underwrite the city's entire street maintenance program. This objective includes meeting annual needs as well as eliminating the current backlog of maintenance projects. Eliminating the backlog is expected to take ten years. After ten years, the objective will be to keep the maintenance program current. The revenue requirement also needs to cover overhead costs for engineering and contract services, and for the cost to administer the utility. Estimates for these cost factors are presented below.

Street Maintenance Costs

The city's pavement management program (PMP) provides an estimate for the amount of money needed to maintain city streets. Table 2.1 shows the revenue required to meet that need for the next ten years. The estimate includes funding to address the existing backlog of maintenance needs, which stands at approximately $5.037 million.

Table 2.1 – Street Maintenance Program Costs

Year	Revenue Target[1]	Maintenance Backlog
2006	$ 1,800,000	$ 5,036,666
2007	$ 1,908,000	$ 4,338,565
2008	$ 2,022,480	$ 4,393,456
2009	$ 2,143,829	$ 4,175,681
2010	$ 2,272,459	$ 4,433,868

[1] Source: Hillsboro Public Works – Pavement Management Program, Assumes 6% annual growth in revenues.

2011	$ 2,408,806	$ 4,428,105
2012	$ 2,553,334	$ 3,882,585
2013	$ 2,706,534	$ 3,626,806
2014	$ 2,868,927	$ 2,682,628
2015	$ 3,041,062	$ 2,226,263
2016	$ 3,223,526	$ 596,234
Total	$25,148,957	

Engineering and Contract Management Services

The City uses in-house staff to develop and prepare the City's annual street maintenance projects. This work includes the selection of specific streets to receive maintenance and the type of maintenance to be applied. Projects are sorted into three categories: crack sealing, slurry sealing, asphalt overlay and reconstruction. The projects are then organized into a construction bid document, also completed by in-house staff, and contractor bids are sought for the construction of the work program. After the contract is awarded, the city monitors the work using city inspectors to ensure the work is performed according to specification.

In addition to construction services, city staff also manages the pavement management program (PMP) that is used to test and assess the condition of city streets and identify what streets require maintenance in the next fiscal year. Annually City staff inspects the condition of major streets (collectors and arterials) and one third of the local streets that are under its jurisdiction. This information is used to update the pavement condition database which in turn is used to update the City's maintenance needs. Since the PMP is used to project future needs, analysis results must also be verified to ensure the PMP is tuned correctly for work in future years. Additionally, a staff support is required to map the results of the PMP. The annual cost to perform these essential support functions for the 2006-07 fiscal year is $270,000, which is roughly equivalent to three full-time staff.

Administrative and Utility Overhead Costs

The city estimates that it requires $0.04 for every dollar of revenue it collects through its utility systems to cover administrative and overhead charges. These charges include the cost to set up and track utility accounts, print and send utility invoices, respond to appeals, prepare budget and accounting reports, and provide other administrative services. A portion of the utility revenue finances improvements to the City's utility billing and accounting systems.

Using the estimated service costs from the previous sections, the revenue requirement for the TUF for the 2007-08 fiscal year may be calculated as follows:

Street Maintenance	$1,908,000
Design and Inspection	270,000

Overhead (@ 4%)	87,000 (est.)
Total Cost Basis	**$ 2,265,000**

Discussion Summary:

Jim Frost expressed concern that the administrative cost attached to the new utility should only cover marginal cost increases and not include costs that are already funded from other sources. The team agreed to review the estimate and adjust it accordingly prior to setting the final rates.

Committee members echoed findings in a recent countywide survey that concluded area residents would be willing to pay fees to improve transportation facilities (see May 17 Hillsboro Finance Advisory Committee meeting minutes).

Decision Summary:

Use the cost information in Issue Paper #2 as a basis for preparing a preliminary cost of a service and recovery program.

Issue Paper # 3

Date: July 26, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, P.E., Mary Gruss,

From: DJ Heffernan, Project Manager

Re: Hillsboro Transportation Utility Fee – Customer Benefit Analysis

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In this Issue Paper, we ask committee members to consider three topics that relate to the methodology: how to measure benefit for users of the city's street system, how to account for disproportional wear and tear by some users (e.g. heavy trucks), and how to group customers for billing purposes, including how to treat public and semi-public entities.

The answers will influence the utility cost recovery methodology, which is a set of formulas that fixes the wear and tear contribution each customer is responsible for and sets associated costs to offset that benefit. The bottom line: more benefit equates to a higher fee. The formulas for calculating the fee needs to be tailored to local conditions. The following discussion asks questions about how to approach these benefit/cost allocation issues in Hillsboro.

Traffic Data Proxy

We know the number of street miles the City maintains and the "functional classification" (residential, collector, arterial) of those streets. We do not have direct information that measures how many miles each resident or retail delivery vehicle or business employee drives on city streets. We have data from Metro's traffic model that provides estimates for travel behavior on various types of streets. Metro also has traffic volume estimates for collector and arterial streets and highways, including through trips (i.e. traffic that does not originate or stop in Hillsboro). For example, an analysis of traffic patterns on Hillsboro's collector streets shows that approximately 50% of the traffic originates from households, 35% from commercial businesses, and 15% from industrial land uses. We can use this information to estimate the wear and tear on city streets that is related to traffic from these customer groups. In the absence of direct measurements, we propose to use this information as a proxy for

estimating the contribution to wear and tear on the city street system by various groups.

The Metro Model does not include information for trips related to civic uses (e.g. schools, parks, and governments offices) or quasi-public uses like churches and fraternal organizations. In order to make sure these uses are represented in the analysis, we diverted 5% of the trips attributed to commercial uses to this customer category. The Metro Model also does not include data for local streets. Further research is underway to establish a basis for setting that distribution. In the final utility methodology, a traffic based wear and tear distribution will be included for local streets. The following table shows a simplified model for how traffic information may be used to represent the contribution to street wear and tear by customer groups.

Table 3.1 – Traffic based Cost Allocation Model

Street Type	Local	Collector	Arterial
Residential		50%	45% share
Commercial		30%	35% share
Industrial		15%	15% share
Public/Quasi-public		5 %	5% share

Source: Metro Traffic Model

Heavy Vehicles

Another factor to consider in the analysis is that not all traffic causes the same amount of wear and tear. Traffic and pavement engineering studies have demonstrated that heavier vehicles cause more damage to the pavement than lighter vehicles. Estimates have been made that a fully loaded tractor-trailer rig has the wear equivalency of between 5,000 and 10,000 cars, depending on the pavement design. One approach for allocating costs, then, would be to establish an auto-based wear equivalency standard and then assign additional wear units to land uses that generate trips by heavy vehicles. This approach is similar to a technique used in many system development fee methodologies where benefit is measured on a household equivalency basis.

The problem with this approach is that it ignores the fact that households, where most of the car traffic originates, create the demand for the truck deliveries to businesses and especially to retail businesses. Households indirectly benefit from the truck wear by having goods delivered to retail outlets in their community. An auto-unit approach oversimplifies an extremely complex measurement problem. If trucks pay more, should we differentiate between smaller delivery trucks and long-haul trucks? Should households that own vans and pickups pay more than households that own compact cars? What about households that use studded-tires in the winter? What about households that exclusively use alternative transportation modes? At some point, the complexity and cost associated with ensuring equity in the rate structure becomes too complex and expensive to administer effectively.

These complexities enter into every rate setting process. The question is how to deal with them in a manner that seems fair. For trucks, should an effort be made to adjust maintenance cost allocation factors to account for the disproportionate wear and tear they cause or just use a simple trip-based allocation formula like the one in Table 3.1?

Customer Groups

It is common in most municipal utilities to group customers into classes. For example, the city could charge all single-family residential properties the same street utility rate. Similarly, businesses may be grouped together so that companies with similar traffic characteristics pay the same amount. This approach has the advantage of simplifying billing and collection steps. The alternative is to prepare a custom bill for each user.

The International Traffic Engineers Society (ITE) publishes a manual that provides estimates for how many trips, on average, are generated by the different types of land uses. This information may be used to develop traffic information for customer invoices. Assuming the city uses the ITE manual for traffic generation, Hillsboro must then decide whether to prepare a unique invoice for each customer or group customers into classes where all users in a class pay the same amount. The decision is affected by the sophistication of the city's billing system and the available resources in the accounting department. City staff should weigh in on this question regarding limitation of the billing system and its future capabilities.

A related question to the customer grouping issue is how to calculate bills for public and semi-public entities. These entities include schools, churches, fraternal organizations, and public buildings like city hall, libraries, and county offices. Because the TUF is being developed as a fee for service, these users may not be exempted from the fee. The methodology, however, may recognize unique characteristics of these entities. It may be appropriate to invoice them on an annual basis, for example, or to recognize offsetting contributions they make to the city transportation system. A discussion on how to treat these customers will be helpful to our work on the allocation formulas, which we will presented at our next meeting.

Discussion Summary:

- The measurement needs to be simple and easy to explain or people will not trust it – follow the KISS principal.

- Metro's traffic data has been called into question in the past and found not to be reliable, especially at the micro level. Does the City have more current data that could be used to verify the Metro data?

- There are a growing number of home-based businesses; is it possible to adjust the rate to reflect the fact that these businesses generate more traffic than typical homes?

- Trucks cause a disproportionate amount of damage to streets. Truck deliveries are increasingly being made using "line-haul" vehicles rather than smaller delivery vehicles, even in local neighborhoods, and they do a lot of damage to local streets that are not designed for heavy loads. It was agreed, however, that out of town trucking companies won't pay because they are not city utility customers.

- Is it possible to develop a rate structure with and without a "truck surcharge" so the committee can see the affect?

- Utility credits are available for customers that reduce consumption. E.G., stormwater customers that reduce off-site discharge can earn a credit. Is it possible to offer something similar for the street utility? Is there a way to offer credits using performance-based monitoring for industrial and commercial customers that are able to demonstrate reductions in traffic levels? Some SDC methodologies provide credits for promoting alternative modes but the customer must document the trip reduction is real. Who keeps track of the credits and monitors actual performance?

- Concerns were expressed about the cumulative impact of fee increases on businesses and schools. Schools just took a big hit on water rates as did businesses. They saw a cost shift from residential users to institutional and commercial users because usage data showed residential customers had been subsidizing other customer groups.

- It is hard to know how to evaluate the relative fairness of these cost/benefit measures in the absence of information about individual customer costs. City staff shared that a preliminary analysis developed last year concluded that it would cost the average residential customer about $2.75 per month in order for the city to raise $1 million. Based on national traffic studies, a single family residence contributes around 10 average daily trips (ADT) so the equivalent cost per daily trip would be: $2.75/9 = $0.31/ADT. Assuming residences pay half the cost of the utility, which is the residential share in Wilsonville, then commercial and industrial customers would be charged a similar cost/trip factor. Some commercial customers would pay monthly fees similar to residential customers. For example a small 1,000 sq. ft. law office may not generate more daily trips than a residence. Customers with businesses that generate a lot of trips, however, face much larger fees.

- Property managers of commercial centers with multiple tenants will need to deal with how to allocate a single utility fee to their commercial tenants. For example, a highway strip mall that has one city water and sewer account will be treated as one street utility account. Their monthly TUF would be based on the cumulative trip characteristics of their tenants. They in turn will need to allocate costs to tenants. If all the tenants have similar traffic generating characteristics, then the cost allocation will be easy but that is rarely the case. The city may wish

to provide technical assistance to property managers to help them sort out how to fairly assess fees between tenants.

Decision Summary:

- Use Metro's "traffic loading" data for various land use categories for estimating benefits to customer groups for different types of streets.
- Use ITE traffic generation rates as a proxy for measuring customer benefit.
- Develop fixed rate categories for groups of customers to simplify the rate setting and billing process. For example, develop three or four "bins" for commercial customers like Lake Oswego and Wilsonville do.
- Use actual maintenance cost information to allocated costs between different classes of city streets.
- Provide credit incentives for businesses that take action to reduce traffic. Some customers may need to have their bills customized to do this.

Issue Paper # 4

Date: August 16, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, P.E., Mary Gruss, Don Odermott

From: DJ Heffernan

Re: Hillsboro Transportation Utility Fee Methodology

Methodology Explanation

The methodology for allocating costs to utility customers involves a series of steps. The process is not complicated and involves no higher-order mathematics. The following chart depicts how the monthly utility fees will be developed.

Step Sequence		Description	Source(s)
1	Unit Cost Calculation	Used to estimate the cost to maintain a square yard of pavement for each type of street classification.	City of Hillsboro Public Works
2	Benefit Analysis by Customer Class	Estimate of the benefit that each customer class derives from each type of street based on travel behavior.	Metro Regional Traffic Model
3	Cost Share Allocation	Calculation using estimated benefit for each class of customer times the annual program maintenance cost.	City of Hillsboro Public Works
4	Cost per Trip Analysis	Calculation using cost allocated to each customer group divided by estimated system trips for that group.	Metro Traffic Model
5	Customer Grouping by Class	Analysis that groups various utility customers into groups based on common traffic use characteristics. EG. All single family residences are treated as one group.	Hillsboro Land Use Inventory; International Traffic Engineer Manual
6	Residential Customer Accounts	Calculation that applies the cost per trip factor to the estimated daily trips for each group of residential customers.	City of Hillsboro Finance; Hillsboro Community Development

Step Sequence		Description	Source(s)
7	Commercial Customer Accounts	Calculation that applies the cost per trip factor to the estimated daily trips for each group of commercial customers.	City of Hillsboro Finance; Hillsboro Community Development
8	Industrial Customer Accounts	Calculation that applies the cost per trip factor to the estimated daily trips for each group of industrial customers.	City of Hillsboro Finance; Hillsboro Community Development
9	Institutional Customer Accounts	Calculation that applies the cost per trip factor to the estimated daily trips for each group of institutional customers.	City of Hillsboro Finance; Hillsboro Community Development
10	Administrative Procedures	Documentation for invoicing, collecting, spending, and monitoring utility revenue and also an appeals procedure for reviewing individual customer fees.	City of Hillsboro Finance

Maintenance Program Investment by Street Classification

The cost to maintain various types of city streets varies depending on the attributes of the street. For example, lane widths are different on residential streets and collector streets. Some streets have parking, some have center left turn lanes, and some have bike lanes. In addition, the type of treatment used to maintain a street varies depending on its operational demands. Arterial and collector streets require thicker and more frequent overlays than residential streets. Finally, the length of time that an overlay lasts varies from street to street. Once the street reaches a certain level of decay, it is no longer feasible to repair it and it must be rebuilt. For residential streets, that life expectancy is roughly 40 years. For higher volume streets, the duration is less.

Table 4.1 - Cost Distribution by Street Classification: Life-Cycle Cost Basis

Street Class	Lane Miles	Pave Area (in sq. ft.)	Sq. Yards	Cost/Yd	Cost	Distribution
Arterials	17.73	1,541,177	171241.889	20.9	$ 3,578,955	36.5%
Collectors	112.26	1,183,083	131453.667	20.9	$ 2,747,382	28.1%
Neighborhood Routes	51.23	427,627	47514.1111	13.45	$ 639,065	6.5%
Local Streets	262.2	1,892,591	210287.889	13.45	$ 2,828,372	28.9%
Totals	443.42		560497.556		$	100.0%

	5,044,478	9,793,774

Comments: Lane miles represent travel lane not center lane miles.
Pavement areas include parking, center turn lanes, and bike lanes.
Costs represent idealized management program with no deferred or emergency repairs.

Source: City of Hillsboro, Public Works

Table 4.1 shows an analysis of the level of investment the city would make under ideal conditions if all city streets were brand new and were maintained according to an ideal maintenance schedule. This was done to provide an apples-to-apples comparison of the relative level of investment that the city makes in maintaining the various types of streets over time; the estimate covers a 40-year horizon. This ensured all residential streets would go through at least one rebuild cycle. The number of lane miles represents that actual amount of pavement the city maintains segregated in four categories: local, neighborhood route (a local street that carries more traffic), collector, and arterial. For each street type, a maintenance cost per square yard of pavement was developed using expected treatments over a 40-year time horizon. This average cost was multiplied times the total amount of pavement being maintained today. Those costs were then totaled and a percentage distribution was developed that represents how much investment the city will need to make to maintain the various categories of streets. In the end, the average cost to maintain local streets and neighborhood routes were estimated to be the same. In later calculations, these street categories are combined, but in this table they are separated to show how the investment percentages were calculated.

Maintenance Program Benefit Analysis

The benefit analysis attributes street use by customer classes with system benefit. In this analysis, we used Metro's estimated daily traffic use for different land use categories as a proxy measure for the benefit each customer group derives from using the street system. DKS Associates took data developed from origin destination traffic surveys that is represented in the Metro traffic model for Hillsboro. Those data are reported for three land use categories: residential, commercial, and industrial. They were compiled for all road links in the regional traffic model, which includes all freeways, arterials and collector road links throughout the city. An explanation of the analysis method they used to extract and compile these data is attached.

The Metro model does not report trips attributed to other types of land uses. These uses include schools, parks, government offices, fraternal organizations, etc. We elected to allocate 5% of trips from the Commercial customer group to this customer group. This assumption will be verified later in the process when the team develops account information for these customers. We will compare the trip distribution that results from that work with the percentage estimate used here and make adjustments if necessary.

The Metro traffic model does not include local streets so there are no Metro data for customer use on the local street network. There is limited data for traffic on Neighborhood Routes, which function as local collectors to funnel traffic from

neighborhood to higher-order streets. That distribution is similar to the distribution for arterials: 45% residential, 40% Commercial, 15% Industrial.

We assumed that traffic use on local streets includes a significant number of residential to residential trip ends. On that assumption, we developed the following estimated distribution for local streets: 60% residential uses; 25% Commercial; 10% Industrial; 5% Other.

The following table shows the result of this analysis. By multiplying the distribution of use factors that emerge from the Metro traffic model times the distribution of benefit factors from Table 4.1 above, we derived a cost allocation percentage for each customer group. For example, 36.5% of maintenance investment is expected to be on arterial roads (per Table 4.1), and 45% of arterial road use is attributed to residential customers. Multiplying these factors, the resulting value represents the percentage of arterial road maintenance costs that should be paid by residential customers. By adding the sum of all those interacting factors, a benefit/cost distribution emerges.

The aggregate benefit calculation is shown in the bottom part of the table. In total, the resulting distribution of costs by customer group is as follows: Residential – 62%; Commercial – 23%; Industrial – 10%; Public/Quasi-public – 5%.

Table 4.2 - Benefit Distribution by Street Classification

			Travel Patterns by Land Use Origin *				
Street Class	**Lane Miles**	**Cost Share**	**Residential**	**Commercial**	**Industrial**	**Public/ Quasi**	
Arterial	17.73	36.5%	0.45	0.35	0.15	0.05	1.00
Collector	112.26	28.1%	0.50	0.30	0.15	0.05	1.00
Local **	313.43	35.4%	0.60	0.25	0.10	0.05	1.00
	443.42	100.0%					

Weighted Average Benefit Allocation	**Residential**	**Commercial**	**Industrial**	**Other**	
Arterial	16.4%	12.8%	5.5%	1.8%	36.5%
Collector	14.0%	8.4%	4.2%	1.4%	28.1%
Local	21.2%	8.9%	3.5%	1.8%	35.4%
Benefit Share	51.7%	30.1%	13.2%	5.0%	100.0%

* - Source: Metro Regional Traffic Model
** - Includes the cost share for Neighborhood Routes

Annual Revenue Allocation

On an annual basis, the cost to maintain city streets needs to be recovered from each customer group in proportion to the benefit that group realizes through its use of the street system. In Issue Paper #2, we estimated the street maintenance program cost for

the 2007-2008 fiscal year would be $2,265,000. This figure may need to be adjusted to account for administrative costs that are already funded. A separate analysis is being performed to assess that issue but the outcome at most will alter the program cost by around ½ of 1%, so for estimating purposes, no adjustment to the draft revenue requirement is made here.

We applied the benefit distribution from Table 4.2 to the 2007-08 revenue requirement and established a revenue contribution target for each customer group. The revenue contribution analysis is shown in the Table 4.3.

Table 4.3 –Estimated Revenue Contribution by Customer Group

Customer Class	Residential	Commercial	Industrial	Other	Total
Cost/ Benefit Allocation	51.7%	30.1%	13.2%	5.0%	100.0%
2007-08 Revenue Target	$ 1,171,306	$ 680,790	$ 299,654	$ 113,250	$ 2,265,000

Sources: Metro Traffic Model, DKS Associates, Angelo Planning Group

Next Steps

The next steps in the process will be to verify the revenue contribution target assigned to the "Other" category (institutional customers), and to establish rates for invoicing customers in each group. An important finishing step in the analysis will be to test the rate for utility customers to make sure the amount charged is in line with the revenue contribution assigned to each customer group.

Discussion/Decision Summary

- The committee directed the project team to revise the memorandum and methodology so that the Metro Traffic Model is not combined with ITE Manual data to develop cost per trip rates.
- The committee approved of the weighted average benefit allocation calculated for user groups in this memorandum, and the revenue contribution made by each user group determined based on the weighted average benefit allocation.
- The committee approved of the next steps to be taken in the analysis, including presenting trip rate analysis in the next issue paper.

Issue Paper # 5

Date: September 20, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, P.E., Mary Gruss, Don Odermott

From: DJ Heffernan

Re: Hillsboro Transportation Utility Rate Structure

Overview

The methodology for allocating general utility costs to customer groups was addressed in Issue Paper #4. This issue paper establishes "customer groups" and cost recovery rates for those groups. It also reviews options for fee discounts, incentives and for recovering extraordinary maintenance costs from customers that generate significant truck traffic.

It would be very expensive and complicated to calculate individual utility bills for every street utility customer using metering data for each customer. The city would need to invest in metering devices attached to all cars and trucks registered in the city, and monitor those devices every month.

To our knowledge, the technology for doing this is not readily available like it is for a water use meter. Moreover, many residents would oppose the collection of information about their personal driving habits as overly intrusive. Instead, the Committee elected to use land use information and group customers into "bins" that have similar traffic generating characteristics. The following discussion explains how we calculated monthly service rates for each customer group.

Customer Groups

Hillsboro's Transportation Utility should recover street maintenance costs from three customer groups. The customer groups are as follows.

- Residential – land uses that primarily function as a residence for an individual or family. The group is subdivided into "single family" (includes detached houses, duplexes, tri-plexes, and manufactured homes on individual lots) and "multi-family" (includes apartments, town homes, manufactured homes in mobile home parks, and condominiums).
- Non-residential – land uses that are predominantly associated with employment uses including wholesale or retail trade, professional offices, manufacturing,

warehousing, mining and/or the distribution of mined materials, and other non-residential activities whose traffic generating characteristics are measured in the most current version of the International Traffic Engineers (ITE) Trip Manual.

- Other – A special non-residential category for land uses whose traffic characteristics are not well represented in the ITE Trip Manual or that include a blend of uses and therefore need to calculate their utility fee using special traffic studies or direct observable evidence.

An alternative approach would be to model the city's rate structure after the adopted Washington County TIF trip generation rates. This approach would link the city's utility to an already established trip rate mechanism. There would be minor shifts in the trip generation categories. For example, duplexes and triplexes would fall into the multi-family (R-2) bin rather then the Single Family (R-1) bin. At the margin, the rate implications would be small, but this would bring the monthly rates for the R-1 and R-2 bins (see Table 5.1 below) closer together.

Residential Cost Recovery Formula

The basis for recovering the cost to maintain city streets from residential customers uses a cost per trip rate that is calculated by dividing the revenue requirement allocated to residential customers divided by the average number of daily trips on the system for residential customers. We estimated the average daily trips (ADT) for residential land uses using daily trip generation factors from the International Transportation Engineers (ITE) Traffic Manual, 7th Edition. Table 1 shows the estimated number of daily vehicular trips for Residential customers. The trip estimates were developed using land use information compiled for all properties within Hillsboro. For residential customers, we estimated total trips using dwelling unit counts maintained by the City of Hillsboro Planning Department. We applied the ITE trip code for each type of dwelling, (e.g. single family, duplex, apartment, mobile home, etc.), and summed the result.

Table 1 also shows the trip recovery rate calculation for residential customers. We grouped residential customers into two bins based on average trip rates for different types of dwellings. The R-1 Bin includes most housing that occupies a single residential tax lot, but also includes duplexes. These dwellings tend to produce more daily trips than attached dwellings in larger structures. Bin R-2 includes apartments, town homes, condominiums, and detached housing with accessory dwellings. It also includes manufactured homes within mobile home parks, whose trip characteristics are more like apartments than like single family homes.

Using the trip counts for these two bins, we apportioned the Residential cost share between them (see Issue Paper #4). We divided the annual cost share by the average daily trips for the bin and divided that number by 12 to establish a daily trip rate for each bin. We then multiplied that rate times the average daily trip rate for the bin to establish the monthly service charge for each bin.

An alternative approach would be to establish a single residential rate using the same method outlined above but applying it to all residential trips and costs. Taking the

Residential revenue-requirement, which is $1,171,300, and dividing it by all daily residential trips (299,260) and divided that result by 12, which yields a daily trip rate of $0.33. We then multiply that rate times the average number of residential trips for all dwellings in Hillsboro, which is 8.6. This results in a general residential service rate of around $2.85 per month.

Table 5.1 – Residential Average Daily Trip Estimate

R-1 Bin	Dwellings	ADT *	Trips/day	Percent	Annual Cost Share	Bin Trip Rate	Fee/ Month
Detached Housing	18,571	10	185,710				
Duplex/Triplex**	1,385	9	12,465				
Manufactured	454	8	3,632				
Subtotal	20,410	9.89	201,807	67%	$789,900	$ 0.33	$3.26

R-2 Bin	Dwellings	ADT *	Trips/day	Percent	Cost Share	Bin Trip Rate	Fee/ Month
Multifamily	10,568	7	73,976				
Town Homes	1,839	6	11,034				
Accessory Units	44	6	264				
Condos	2,030	6	12,180				
Subtotal	14,481	6.73	97,454	33%	$381,400	$ 0.32	$2.15

* - ITE Manual, 7th Edition, rounded to nearest trip

** - if the City elects to use the TIF rate structure, these housing types will move to multi-family

Non-Residential Cost per Trip Formula

For non-residential uses, we applied ITE Manual land use trip factors to Hillsboro businesses by cross referencing business license information maintained by the Hillsboro Planning Department. The sum of those land use trip counts is shown in Table 5.2. For institutional uses, including schools, government uses, churches, and group-quarter living facilities, we assumed that these uses comprise 5% of total trips. The total trip estimate for the city, therefore, may be calculated by dividing the sum of residential and employment related trips by 0.95. Verification of this assumption will be conducted before the final non-residential trip rate factor is established.

Table 5.2 also shows the monthly average cost/trip for the non-residential group. We estimated this rate by dividing the fair share cost allocation (see Issue Paper #4) by 12, and then divided that amount by the estimated daily trips for the group. The result of this analysis is shown below.

Table 5.2 – Non-Residential Average Daily Trip Estimates

Customer Group	Non-Residential			
	Commercial	**Industrial**	**Other**	**Sub-Total**
Estimated Daily Trips				
Cost Allocation				
Average Daily Trip Rate				

Source: City of Hillsboro; ITE Manual, 7th Edition

The purpose of this average non-residential rate is to provide a basis for testing the general fairness of customer fees and for calculating fees for customers that do not readily fall into a well defined ITE Trip Category. Examples might include highly automated industrial faculties, university complexes, or residential mixed use complexes.

Non-Residential Service Fee Formula

Travel behavior for commercial customers is much more variable than for residential customers. Trip generation not only varies by the type of use but also by the size of the enterprise. For example, a 5000 square foot convenience grocery store may generate more trips per square foot than a large grocery store, but because of their size difference the convenience store generates fewer overall trips.

To account for this variety, we grouped non-residential uses into six bins with each bin covering a trip generating range per 1,000 square feet of developed area. Developed area in this case only includes areas within a building, not surface parking or other ancillary site improvements. Under this system, all customers with similar traffic generating characteristics pay the same trip rate per 1,000 sq. ft. of building area, but their monthly service fee varies based on the size of the business. The ITE Manual provides a basis for making this calculation (ITE Manual, 7th Edition).

For example, consider two professional businesses that have similar trip characteristics, but Company A is twice the size of Company B. Under the proposed rate structure, the monthly charge for Company A would be twice that of Company B (assuming the buildings they occupy are proportional to their size difference). The ordinance would be written in a way that gives the City Engineer or Utility Manager the authority to establish which trip rate is most appropriate for each commercial or industrial customer. Information on the size of business establishment is available from the city's business license database; validation of the outcome of this analysis needs to be performed for businesses with missing square footage information and for businesses that challenge the information in the database. That analysis is not yet complete but will be before the rate structure is imposed.

We tested this rate structure using trip rates established for the City of Tualatin. That analysis determined that the utility would generate between $1.1 million and $1.5 million in Hillsboro. This amount is higher than the fair share target assigned to Hillsboro's commercial and industrial customers ($981,000). If after more thorough testing the revenue projection remains high, we will adjust the bin rates to ensure commercial and industrial customers are not overcharged.

Table 5.3 shows the preliminary rates for commercial and industrial customers and example fees that customers would be charged.

Table 5.3 - Commercial/ Industrial Groups

Group	Trip Range	Rate/1,000 Sq. Ft.	Customer Example	Category	Size (ft^2)	Est. Fee ($)
1	< 7	0.75	Printing Plant	Light Manufacturing	10,000	8
			Warehouse	Warehouse	200,000	150
			Silicon Wafer Plant *	Manufacturing	1,000,000	750
2	7 - 21	1.66	Insurance Office	General Office	5,000	8
			Industrial Research Lab	R&D	50,000	83
3	21 - 53	4.39	Book Store/Kitchen Store	Specialty Retail	1,500	7
4	53 - 151	11.08	24hr Diner (no drive thru)	High Turn-over Rest.	5,000	55
			Safeway, Albertsons, etc.	Super Market	50,000	554
5	151 - 400	29.51	Gas Station w/ market	Fueling Positions	3,000	148
6	> 400	72.73	Wendy's, McDonalds, Burger King, Dairy Queen	Fast Food Rest. w/drive-through	2,000	218
7	TBD	TBD	Special Customer	TBD	TBD	TBD

* - likely would fall into Class 7

Note that the rate structure caps the trip rate for businesses that generate more than 400 trips per day. This is well below the rate generated by some businesses. For example, a drive-through fast food restaurant with no indoor seating has a trip generation rate of 1,400 daily trips per 1,000 sq. ft. The proposed rate structure, however, would cap the cost for that use at around one-third of the actual trip rate.

Other Uses

Class 7 is reserved for special customers whose land use is not easily characterized. A hospital, for example, houses functions that fall into many land use categories. Some Intel plants may house a variety of functions and rely on processes that are housed in large buildings but are almost entirely automated so they generate very little traffic. Other manufacturing facilities may have location and work force characteristics that place very little impact on the city street network. A provision is made to work with these customers to establish a fee outside the formula rate structure, but this option is intended to be used on rare occasions and it will be up to the customer to demonstrate that a non-formula based rate is appropriate.

Heavy Vehicles

Three options are possible for dealing with trucks and other heavy vehicles. Option one is to not treat these vehicles differently and recover all costs using the same rate structure for all customers. Under this approach, the rate structure outlined above would be used as presented because the cost basis fully capitalizes the annual revenue requirement for the utility.

A second option would be to identify users that generate significant truck or heavy vehicle traffic that have a direct maintenance impact on a city road segment that serves that user. For example, a mining operation or school bus yard where the maintenance requirement on one or more streets in the immediate vicinity of that customer is extraordinary and can be linked to that user. In these cases, which would be infrequent, the user would be required to pay a surcharge for the extraordinary maintenance associated with those streets.

The surcharge for this extraordinary wear and tear would be collected through a special Category 7 invoicing process separate from the customer's regular fee. Depending on the amount of surcharges revenue collected, an adjustment may need to be made to the general rate structure as an offset against surcharge revenue. A significance threshold of between 3% and 5% would be established to determine when surcharge revenue requires a rate adjustment.

The third option would be to embed a heavy vehicle surcharge into the rate structure as the City of Wilsonville has done. Wilsonville's non-residential rate structure is similar to the one described for Hillsboro in that it has an intensity provision (trip generation) and a magnitude provision (building size) but it also includes another component for truck traffic serving the customer. Customers are granted "amnesty" for a fixed number of daily truck visits (e.g. 5) but after that, they must pay a surcharge for trucks. It appears the truck visit rate uses a percentage of estimated city-wide trip ends made by trucks divided by a portion of the maintenance program cost that is expected to be recovered from truck visits. So, for example, if 100 truck trip-ends are expected to recover $1200 of maintenance cost, each daily truck visit above the "amnesty" level would cost the customer $1/month.

While elegant in its simplicity, we are not aware of a secondary source that provides truck visit information. The City of Wilsonville staff assigned truck visits to individual customers based on "field observations". They said they would send us the data they collected to back up their truck surcharges. To date, no Wilsonville customer has appealed his truck traffic assignment, which suggests the truck traffic estimates and related cost is relatively low. In addition to data about numbers and sizes of trucks, there also is an "equity" issue in Hillsboro regarding the City's limited maintenance responsibility for the arterial network, which is where most truck traffic occurs.

User Incentives and Discounts

Table 5.4 below outlines a set of incentives and discounts that may be worked into the rate structure. Care needs to be taken in granting discounts and incentives that they do not undermine the utility's ability to raise sufficient revenue to meet its maintenance obligation.

Table 5.4 – Incentives and Discounts

Incentive	Benefit	Measurement	Revenue Impact
Residential: Low Income /Elderly	Reduces fee for people with low income or on fixed incomes	Means based	Minor to moderate: some administrative impact
Residential: Bike-Ped-Transit	Reduces the fee for those who do not own a car	ODOT Records	Minor – assess partial fee: some administrative impact
Non-Residential: Bike-Ped-Transit	Reduces fee for companies that promote/realize alternative mode use	Performance monitoring	Moderate Potential: w/high administrative impact
All: capital offset (e.g. building a sidewalk)	Private financing for desired capital improvements	Performance	Minor: most capital projects too expensive but may help with sidewalks

Discussion Summary:

At the August 23, 2007 meeting:
The committee was comfortable using either the ITE Manual trip rates or, as some Staff members suggested, using the adopted County TIF rate structure, which has been in place for 17 years and is programmed into the City's accounting system. Some members expressed a concern that residential bins for different types of housing seem somewhat arbitrary. Some people that live in single family homes drive very little while some people in condominiums drive a lot. These members favored keeping the rate structure as simple as possible. They argued that a single residential rate would be much easier to explain to people and the difference in the rate for the two bins - around $1/month - hardly seems worth all the trouble. The team agreed to modify the Issue Paper to include a single residential rate alternative for consideration.

There was a lengthy discussion about the implications of the Tualatin rate structure for various customers in Hillsboro. Note was taken of the high monthly charge that would be imposed on gas stations because it is based on the number of pumps in each station. The amount they would be charged, however, is less than gas stations would need to collect if the city passed a gas tax. Some wanted to know how much a typical grocery store currently pays in other cities that have a traffic utility fee. For the present, the committee agreed with the approach with the understanding that staff would test the outcome for

consistency with the non-residential revenue requirement and adjust the rates accordingly.

There was discussion about the "Other" category – Non-residential Bin 7. Speculating about businesses that could fall into this category were Intel Corporation, whose mix of R&D with highly automated chip processing facilities would make it difficult to fit under one ITE category. The hospital also was mentioned as an example. The committee agreed that there needs to be a non-conventional method for handling unusual customers provided that the customer was truly an exceptional case.

In the discussion on a heavy or truck vehicles surcharge it was generally agreed that a truck traffic factor would not be appropriate because Hillsboro does not experience that much truck traffic on city streets. In addition, Hillsboro does not have the same amount of warehouse and distribution centers like they have in Wilsonville, so the burden seems different. Members liked the suggestion to include authority in the enabling ordinance that would let the City impose a surcharge for street damage in a specific location if, for example, one business was causing an unusual amount of damage to a particular city road.

The committee discussed discounts and incentives. Most members looked unfavorably on residential discounts using means-based or DMV registration data because of the administrative burden and relatively low cost of the utility fee. Members were uneasy about offering incentives for businesses that promote the use of alternative modes, especially if the outcome could result in the city not meeting the revenue goal for the program. Members were more inclined to let customers take utility credits in exchange for building capital improvements, but the viability of this approach was questioned. Who would build a sidewalk improvement amortized by the avoided cost of their utility fee if it would take a very long time to recover the cost? But members saw no harm in offering it as an option.

At the September 20, 2007 meeting:
Regarding residential trip rates, the committee discussed the perceived difference in trip rates between single-family residences and multi-family residences. While the ITE manual has found lower trip rates for multi-family than for single-family on average, committee members reported that there are cases in which multi-family residences in Hillsboro appear to be generating many more trips than single-family residences. This was countered with cases in which single-family residents own several more vehicles than multi-family residents, which sometimes may own no vehicles at all.

In general, the discussion acknowledged a difference in trip rates between the two types of residences. DJ emphasized that most other jurisdictions' TUF programs have a two-tier system for residential rates, which recognize differences in trip rates between single- and multi-family residences documented in the ITE manual and have been legally defensible. Based on a November 2006 City revenue target, he estimated that a single-family residential fee in Hillsboro would be about $3.26 monthly and a multi-family residential rate about $2.15 per unit monthly. A committee member advised that the

committee should limit the time it devoted to this issue given the small relative difference in these two estimated fees.

Regarding non-residential uses, DJ offered a sample of City of Tualatin fees for a Fred Meyer ($1,884 for 170,000 sq. ft.), Safeway ($526 for 47,000 sq. ft.), and a small church ($8). The committee asked about schools that operate in conjunction with churches, and it was explained that the school would be billed separately. Gas stations were discussed as a special use. Normally they are charged per pump, and committee members expressed concern about the increase in their costs the TUF may lead to, that the stations may then lose customers to stations in neighboring communities, and be threatened with going out of business. Local and federal gas taxes are also prospects for gas station, which would serve as alternatives to the TUF.

There is not necessarily a way proposed to capture fees from businesses that are outside Hillsboro but impact roads in the city (e.g. TriMet buses, school buses, rock quarry trucks). DJ acknowledged that some of these businesses do contribute to city coffers through franchise fees. Other special uses (proposed for the Bin #7 category of non-residential uses) include universities, parks, and hospitals (although the ITE manual does identify trip rates per hospital bed).

The committee discussed incentives or discounts for residences or businesses encouraging and using alternative transportation modes. (This can also be applied to the summary for Issue Paper 8.) Regarding how to gather data about businesses supporting alternative modes, TriMet has survey information about business' programs to reduce single-occupancy-vehicle (SOV) travel. Some committee members felt it was important to include provisions in the TUF program that promote use of alternative modes since it directly translates into less use and wear on the roads. Pacific University was highlighted as achieving high rates of transit ridership. One obstacle in promoting alternative modes in Hillsboro is TriMet's limited service in the city aside from MAX light rail. Further, a drawback of offering these kinds of incentives and discounts in the TUF program is that they will collect less revenue for the program, which will make the program fall short of its revenue target to some extent.

Decision Summary:

At the August 23, 2007 meeting:

- The committee approved of using either the ITE Manual trip rates or the adopted County TIF rate structure.
- The committee directed the project team to include a single residential rate alternative – instead of dual rate – for consideration.
- The committee wanted to further discuss and deliberate about fees that gas stations would need to pay.
- Staff has been directed to test outcomes of the suggested rate structure for consistency with the non-residential revenue requirement and adjust the rates accordingly.

- The committee agreed that there needs to be an "exceptional" method for calculating the fee for exceptional customers (e.g. Intel and Tuality Hospital).
- The committee supported including provisions in the TUF ordinance that would give the City authority to impose an additional fee on a business that for causing street damage in a specific location.
- The committee did not necessarily support residential discounts based on residents' means or vehicle registration because of the amount of administrative burden it creates relative to the cost of the residential fee.
- The committee did not necessarily approve of discounts for businesses that actively support alternatives to single-occupancy vehicles (SOVs) because committee members were concerned that this might prevent the City from meeting revenue goals for the TUF program.
- The committee generally supported granting TUF credits to customers that build capital improvements.

At the September 20, 2008 meeting:

- The general conclusion that the committee expressed about residential trip rates was that the simpler and less controversial that the fee structure is, the better. While a single residential fee would be the simplest structure, acknowledging differences in trip generation rates between single- and multi-family residences that are documented in the ITE manual may be less controversial and more legally defensible.
- Many issues related to non-residential uses and trip rates were discussed at the September meeting but not decided.
- An overall finding was that legal and other issues would need to be researched before making final decisions and recommendations.

Issue Paper # 6

Date: September 20, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, Mary Gruss, Don Odermott

From: DJ Heffernan

Re: Hillsboro TUF Public Information and Outreach

This issue paper reviews proposed public information and outreach efforts that the Transportation Finance Committee recommends the City of Hillsboro undertake to inform citizens about the need for the TUF, the implications for rate payers, and opportunities for public comment.

- Public Hearings – The public should be actively engaged throughout the process of developing a TUF. Public hearings at the time of adoption alone are probably inadequate to engage public interests in a meaningful way about the need and structure for the fee. But they are required as part of the process for enacting the fee. Hearings are required when the ordinance enacting the fee is considered by the City Council. Prior to that, however, the city should take other steps to ensure the public knows about and has the opportunity to comment on the proposed fee.
- Stakeholder Meetings and Presentations – A series of presentations to civic and community groups should take place in the fall of 2007. These groups include the Chamber of Commerce, the Downtown Business Association, the local grocers, gasoline station owners, and also to civic groups like Rotary and Kiwanis. A special presentation to representatives from other local governments and institutional entities including Clean Water Services, Washington County, Hillsboro Schools, the Port of Portland, Oregon Health Sciences University, Pacific University, and Tuality Hospital. City staff should lead these presentations.
- Utility Billing Inserts – The City should use its every-other-month billing process to notify utility customers about the need for the new utility and timing for its implementation. A draft utility insert, which can be printed on standard letter size paper, is attached. There are possibly two billing cycles between now and when the fee would be implemented. Inserts should be included in both mailings.
- Newsletter Insert – The City of Hillsboro newsletter provides another opportunity to disseminate information about the proposed fee to as wide an audience as

possible. Attached is an example of a newsletter insert that the City of Portland recently used to inform its residents about this same issue. The city should develop a similar piece for inclusion with the city's November newsletter.

- Media Information – The City may wish to consider meeting with the Hillsboro Argus editorial board to discuss the fee with the local newspaper. Help from the city's public information office should be enlisted to get correct information to other media outlets, including both print and electronic media.
- Hillsboro On-line – The City website should be used to present information about the need for the utility and the work that has gone into developing the fee.

Discussion Summary:

At the September 20, 2007 meeting:

- The committee generally discussed the competition with other financial measure being raised at the County level that the TUF program will have to compete with if its implementation is delayed past spring 2008.
- DJ reported that the City of Tualatin, in its outreach to residential customers, did not experience much feedback or resistance because the rates were so low (about $1.50 monthly). Even if it is a higher fee (in the $3-$4 range), Hillsboro may have a similarly easy time sharing the TUF program proposal with residential customers because it is still a relatively low cost. He recommended inserting the program proposal into another utility bill.
- DJ recommended an insert to the City's newsletter providing a description of the TUF program, ranges of rates and fees, examples from other communities, and information on upcoming meetings and feedback opportunities. There are examples of these inserts from the City of Portland and Tualatin. The committee brainstormed some ideas of how to best argue the need for the program. This insert should be used to build community support for the program (as is being done in Portland), not just inform customers of the program once it is adopted.
- Tina pointed out that all the program information to date is available on the City's web site.
- There are issues regarding the City's utility billing system (the existing system could not handle a seven-bin non-residential fee structure and the new system is not due to come online until January 2009) and the City's charter (it will need to be determined whether the existing charter allows transportation utility fee programs and, if not, how it will need to be amended to allow them).
- The committee was invited to ask questions of the City's Transportation Committee at their October and November meetings.
- Much of the land use information (square footage) needed for determining non-residential fees is missing and will need to be collected, an intensive process.

Decision Summary:

At the September 20, 2007 meeting:

- The committee recommends holding off on sending a description of the TUF program in residential customer utility bills until the committee and Council has made recommendations and decisions and rates are settled.
- The project team agreed to come to the next meeting with a draft newsletter insert, more legal information, and more outreach information.
- The City will be presenting at the Chamber of Commerce meeting (about 30 minutes including Q&A).

Issue Paper # 7

Date: September 20, 2007

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, Mary Gruss, Don Odermott

From: DJ Heffernan

Re: Transportation Utility Fee (TUF) Implementation

This issue paper reviews steps that need to be taken to implement the TUF. The purpose is primarily informational, but there is a decision that needs to be taken regarding how non-residential customers should be invoiced the first year the utility is in place.

- City Charter: A legal review is needed to make sure the city has authority under its home rule charter to impose the TUF. It is conceivable that without such authority, a charter amendment may be needed to move ahead with the fee.
- Public Hearings: Legislative hearings are required to enact an ordinance that sets forth how the fee would be calculated and collected, appeal procedures, penalties for failing to remit the fee, identifying the fund where revenues and expenditures are accounted, and other program procedures. Enacting the TUF is not a land use action so no hearings are required by the City Planning Commission. There is a placeholder for the fee in the existing city budget so budget amendments hearings are not required.
- Billing Procedures – Residential Customers: The City will need to revise its utility billing system software to invoice customers. There is room in the existing utility bill under the city Water Utility to invoice the amount related to the TUF. This may cause come confusion with customers until the city updates its financial management information and computer system. The update is beginning trials and will be running next fiscal year but for a fairly significant length of time – roughly 6 to 8 billing cycles - the fee will be collected under the existing system.
- Billing Procedures – Non-residential Customers: Collecting the TUF from non-residential presents a technical challenge because the existing system does not have flexibility to invoice customers using six separate rate structures, which are what the six non-residential bins represent. Alternatively, the city could phase in the non-residential portion of the utility by creating two customer classes initially and expanding to six when the new system is up and running. This could be accomplished by setting the first year's commercial rates at the two lowest rate

tiers - NR-1 and NR-2. Once the new MIS is up, the full rate structure would be initiated. There may be legal issues that prevent the city from taking this phased approach because some utility customers would be treated differently than others. Legal advise is needed on this question.

Discussion and Decision Summary:

- This memorandum identifies invoicing methods for non-residential customers during the first year of the utility fee implementation as an issue for discussion and decision. However, this issue has not yet been discussed or decided. (It was not discussed or decided at the committee's August or September 2007 meetings.)

Issue Paper #8

Date: February 22, 2008

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, Public Works

From: DJ Heffernan, Project Manager, and Shayna Rehberg, Planner

Re: Transportation Utility Fee (TUF) Program Discounts and Exemptions

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Transportation utility fee (TUF) programs in Oregon and elsewhere offer discounts and/or exemptions. These discounts and exemptions advance policy objectives such as:

- Fiscal equity – properties or uses that generate few or no trips (based on trip counts, traffic studies, or no vehicle registration) should pay a lower fee.
- Social equity – those less able to pay (including low-income or some elderly residents or tenants) should pay a reduced fee.
- Conservation – ratepayers that promote use of alternative transportation modes, which results in less wear and tear on roads, should be rewarded with lower fees.
- Public interest – government and special-district property and facilities that serve the public, like parks and open spaces, schools, and other uses that provide access to public services, should be subject to lower fees than properties serving private interests.

This paper discusses the discounts and exemptions offered by TUF programs in Oregon and other states. Most program examples in this memorandum hail from Oregon because programs in this state have not undergone the kinds of legal challenges as elsewhere in the country, and Oregon TUF program ordinances are easily found on-line. New programs continue to be developed and adopted in Oregon.

Discounts to Transportation Utility Fees (TUFs)

Discounts in Adopted Programs

The League of Oregon Cities (LOC) published *Transportation Utility Fee Ordinances; Policy Considerations and Examples from Oregon Cities* in August 2001. The LOC

website provides information updated since the publication of the 2001 research report. The website includes links to the TUF ordinances of 16 cities; two other cities – Clatskanie and Dufur – are reported to have ordinances but they are not available on-line. The research report generally identifies conditions for discounts as those for elderly and low-income ratepayers and whoever else qualifies for reductions in other utility fees. Discounts may also be granted for properties that are vacant and have water service but the service is unused.

The University of Wisconsin also published a comprehensive report on TUF programs, including a brief survey of TUF program elements nationwide, entitled *Transportation Utility Fees: Possibilities for the City of Milwaukee* (2007). The report adds the following qualifying conditions to the list of discounts identified by the LOC report:

- Disabled persons
- Households without vehicles
- Properties with atypical (low) traffic volumes; and
- Properties lacking water service.

Table 1 summarizes the conditions that the cities in Oregon, Colorado, and Texas have established for discounts.

Table 1. Conditions for Discounts of City Transportation Utility Fees

Jurisdiction	Monthly TUF Rate	Conditions for Discount
Oregon		
Ashland	**$5.71-$7.49 for residential uses $1.02/100 sq ft for retail store $2.68 per required parking space for institutional uses**	• **Means-based: discounts offered to low-income elderly ratepayers (same discount as for other utilities)**
Grants Pass	**Unknown (City's rate table was not on-line)**	• **Discount for vacant properties, defined as unoccupied for 30 days (*amount of discount not specified*)** • **50% discount for residences with no registered vehicles**
Hubbard	**$4.25 per dwelling unit**	• **Means-based: discounts offered to low-income elderly ratepayers (same discount as for other utilities)**
Klamath Falls (street lighting fee)	**$2.00**	• **50% discount (reduced to $1) for residences that have no registered vehicles**
North Plains	**2.51 - 9.57 trips per day for residential uses 28.7 -191.4 trips per day for commercial uses**	• **50% discount for parcels where there are no cars or drivers**

Jurisdiction	Monthly TUF Rate	Conditions for Discount
	Trip rate times base cost rate determines the fee (cost rate not on-line)	
Phoenix	**$.08-$.39 per unit for residential uses $1.07-$3.53 per 1,000 sq ft for commercial uses $0.03-$0.04 per student for schools**	• **Means-based: discounts offered to low-income elderly ratepayers (same discount as for other utilities)** • **Residences without registered vehicles discounted to senior housing rates ($0.08 per unit per month)**
Colorado		
Fort Collins	**Fee based on property frontage length and trip generation. (rates not available on-line)**	• **Means-based: discounts offered to low-income and all elderly ratepayers but % not specified**
Texas		
Austin	**Monthly per acre cost rate multiplied by daily trips per acre (16 to 200) or, for residential uses, by density. 200 daily trips per acre maximum; 40 daily trips per acre for colleges. Different residential and non-residential cost rates. (Rate ordinance/resolution not available on-line)**	• **Discount for uses with measured traffic below assigned traffic level; measured trip rate is used in the formula for that customer.**
Beaumont	**Flat fee for different uses; non-residential uses pay higher fee than residential. (Rate ordinance/resolution not available on-line)**	• **Elderly residents**

Source: League of Oregon Cities website; Cities of Ashland, Grants Pass, Hubbard, Klamath Falls, North Plains, and Phoenix websites; and Transportation Utility Fees: Possibilities for the City of Milwaukee (2007).

Some jurisdictions, such as Bay City, Oregon, explicitly state there are no discounts to the TUF. Most ordinances allow adjustments to TUFs through an appeals process. Administrative appeal procedures are available to contest the assigned land use category trip rates, or size coefficients used in the fee formula.

Discounts in Emerging TUF Programs

The City of Portland is developing a new fee program similar to a TUF called the Street Maintenance and Safety Fee (SMSF). The current SMSF proposal calls for a $4.54

monthly fee for a single-family home and $3.32 monthly per unit for a multi-family home. Non-residential fees are calculated based on the type of use and building size (there is a web-based calculator that customers can use to develop an estimate of their fee). For example, a 30,000 square foot retail complex has an estimated fee of $392 per month.

Two types of discounts are proposed: low-income discounts and "green" discounts. "Green" discounts are modeled after the Clean River Rewards program, which reduces stormwater utility fees for customers that manage stormwater on-site. Similarly, customer behavior that reduces trips can earn SMSF discounts. "Green" discounts would range from 10%-30% and ratepayers would have to apply for them. The current proposal would allow residential ratepayers the following fee reductions, capping the potential reduction at 30%.

- 20% for having no cars registered at your residence;
- 10% for having a TriMet monthly or annual pass; or
- 10% for owning of one of the Environmental Protection Agency's top 10 highest-rated vehicles for fuel economy.

Non-residential ratepayers could apply for the following fee reductions, also capping the discount at 30%.

- 10% on the first 10,000 trips per month for businesses located within 300 feet of a transit route;
- 10% if the company provides a reimbursement of at least $30/month per employee for transit use, bicycling, carpooling or walking; or
- 20% if the company provides a reimbursement of at least $60/month per employee for transit use, bicycling, carpooling or walking.

(Source: Portland Office of Transportation website.)

The proposed SMSF program also offers means-based discounts to low-income residences that already qualify for discounts on their water and sewer bill. The maximum total discount of the fee is 30%. The SMSF program has not yet been adopted by Portland City Council.

Exemptions in Transportation Utility Fees (TUFs)

Exemptions in Adopted Programs

The LOC research report reviews the following general exemptions from TUFs:

- Properties that are of public interest
- Undeveloped properties
- Vacant properties
- Properties without water or sewer service.

These and other conditions are found in TUF programs across the country. An overview of conditions used for granting exemptions is provided in Table 2.

Table 2. Conditions for Exemptions of City Transportation Utility Fees

Jurisdiction	Conditions for Exemption
Oregon	
Ashland	• **Request for city council determination of a "necessary public interest" or "insignificant traffic contribution"**
Bay City	• **City-owned property** • **City council determination of necessary public interest**
Corvallis	• **City-owned parking lots** • **Public parks, open spaces, and greenways without off-street parking** • **Railroads and public rights-of-way** • **Undeveloped property** • **Vacant property (unoccupied for 30 days)**
Grants Pass	• **City council determination of necessary public interest or insignificant contribution** • **School district, County government, City government, and special district facilities used for public/government purposes**
Hubbard	• **Property that is vacant, unoccupied, unused, and with discontinued water service** • **City council determination of necessary public interest or insignificant contribution**
Lake Oswego	• **City-owned parking lots** • **TriMet-owned parking lots (park-and-ride)** • **Public parks, open spaces, and greenways without off-street parking** • **Railroad and public rights-of-way**
Milwaukie	• **Property that is vacant (unoccupied for 30 days) and water service is discontinued** • **Ratepayers/residents enrolled in low-income utility program** • **City-owned parking lots** • **Public parks, open spaces, and greenways without off-street parking** • **Railroad and public rights-of-way**
North Plains	• **Undeveloped property that generates no trips**
Phoenix	• **City council determination of necessary public interest or insignificant contribution**
Tigard	• **Vacant property (unoccupied for 30 days)** • **Public parks, open spaces, and greenways without off-street parking**

Jurisdiction	Conditions for Exemption
	• **Railroad and public rights-of-way**
Tualatin	• **Property that is vacant, unoccupied (for 30 days), unused, and water service is discontinued** • **City-owned parking lots** • **TriMet-owned parking lots (park-and-ride)** • **Public parks, open spaces, and greenways without off-street parking** • **Railroad and public rights-of-way**
Colorado	
Fort Collins	• **Undeveloped property**
Texas	
Austin	• **Undeveloped property** • **Public property** • **Vacant residences** • **Residences without registered vehicles** • **Elderly**
Beaumont	• **Undeveloped property** • **Disabled ratepayers** • **Low-income renter**

Source: League of Oregon Cities website; Cities of Ashland, Bay City, Corvallis, Grants Pass, Hubbard, Klamath Falls, Lake Oswego, Milwaukie North Plains, Phoenix, Tigard, and Tualatin websites; and Transportation Utility Fees: Possibilities for the City of Milwaukee (2007).

Conclusion

Discounts and exemptions in TUF programs tend to support policy objectives related to fairness and sustainability. Criteria that some jurisdictions use for discounts are used for exemptions in other jurisdictions. The TUF programs surveyed impose fees that are relatively low for residential customers and uses when compared to non-residential customers. Therefore, discounts and exemptions may not be as important for residential ratepayers as for non-residential ratepayers.

Table 3 presents a summary of the criteria and conditions used in jurisdictions researched for this memorandum.

Table 3. Summary of Surveyed Customer Discounts and Exemptions for Transportation Utility Fees

Criterion/Condition	Discounts	Exemptions
Low-income	✓	✓

Criterion/Condition	Discounts	Exemptions
Elderly	✓	✓
Disabled persons		✓
Properties or residences without vehicles or registered drivers	✓	✓
Low trip generation (or lower than assigned)	✓	
Single-family (Beaumont)	✓	
Transit passes and access	✓	
Workplaces that offer reimbursements for carpooling, walking, biking, and taking transit	✓	
Residences where fuel efficient vehicles are registered	✓	
Vacant or undeveloped properties	✓	✓
Property of public interest		✓
Property with little or no trip generation		✓
Local government or special district facilities		✓
City or transit parking lots		✓
Parks and open spaces without off-street parking		✓
Rights-of-way		✓

Discussion Summary:

- Members felt it important to offer discounts and credits out of fairness and to provide incentives.
- Discounts should not be complicated to obtain but since they are based on certain conditions, there needs to be some demonstration of performance in order to receive the credit or waiver.
- Offer fee waiver when water is turned off provided the utility account for the customer is up to date.
- Offer credits similar to those proposed by Portland for people that do not drive (e.g. no motor vehicle registered). Offer transit credit to residential customers that also work in Hillsboro.
- Offer credit to businesses that provide transit passes to their employees;
- Offer credit to residential care facilities whose residents impose few demands on street network (e.g. end of life care, Alzheimer's care).
- Offer exemptions to parking facilities and city parks but not schools or governmental offices/employment facilities.

Decision Summary:

Recommend limited use of credits and waivers per discussion above.

Issue Paper #9

Date: February 22, 2008

To: City of Hillsboro Ad-Hoc Transportation Finance Committee

cc: Tom Arnold, Public Works

From: DJ Heffernan, Project Manager

Re: Transportation Utility Fee (TUF) - Program Oversight and Rate Indexing

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This memorandum reviews two issues related to the management of a Transportation Utility Fee. These issues are:

- Program responsibility and accountability, especially for adjusting rates; and
- Whether or not to adjust rates using an index formula?

Program Oversight

Ultimate responsibility for adjusting the TUF utility rates would rest with the City Council. The ordinance establishing the TUF allows the city to adjust rates by council resolution. But oversight responsibility for monitoring whether or not the utility is generating sufficient revenue to meet its service obligations may rest with a separate body. We explore three options. Two options would keep oversight responsibility for rate adjustments in city hands, either with the city's Utility Commission or with the Transportation Committee. A third option would contract monitoring responsibility with a third-party, for example with the Oregon Public Utility Commission, to ensure rate reviews are conducted impartially. The following table lists pros and cons with these approaches.

Table 1 – Program Oversight Options

Review Factors:	Hillsboro Utility Commission	Transportation Committee	Oregon PUC
Expertise	High – the members regularly deal with cost recovery and rate issues	Moderate – Members have budget experience but maybe not rate setting experience	High – the entity would be selected based on professional qualifications
	Hillsboro Utility	**Transportation**	**Oregon PUC**

Review Factors:	Commission	Committee	
Impartiality	High	High	High
Standing	Limited – May require a charter amendment to enable oversight, which is no limited to water	Clear – The enabling ordinance could designate this oversight role to the Transportation Committee	Clear – The enabling ordinance could designate this oversight role to a third party
Staff Cost	Moderate/high – Additional staff time required to develop and present utility reports and recommendations to Council and Budget Committee	Moderate/high - Additional staff time required to develop and present utility reports and recommendations to Council and Budget Committee	Moderate – Staff time required to manage contractor and coordinate meetings with Council and Budget Committee
City Governance Time Impact	Moderate – Would add another duty to Commission agenda; likely to increase required meetings	Moderate – Would add another duty to Committee's agenda; likely to increase required meetings	Low – No additional city meetings other than presentations to Council that also occur with other options.

Recommendation: Keep the rate setting function in Hillsboro and assign oversight responsibility to the Transportation Committee.

Rate Indexing

Indexing is a method for adjusting fees, salaries, wage rates, and other monetary values using a formula that approximates a cost change over time. Perhaps the best known index that often is used for this purpose is the US Department of Commerce's Consumer Price Index (CPI), which measures average changes in the cost to purchase goods and services related to daily living expenses in the US. But there are many other indices used by public and private entities to monitor changes in the cost of goods and services.

For a utility, the benefit of indexing the rate structure is that it helps ensure rates keep pace with inflationary trends so that revenues stay in balance with the cost to deliver services. Indexing is never perfect because the index measure is only a proxy for the actual cost of services. Periodically, the utility will need to conduct a cost of service analysis to ensure the index adjustments have been in line with actual costs. Indexing also helps insure against large jarring increases in utility rates that often become necessary when rates are not indexed and adjustments are deferred for long periods of time. These adjustments are unpopular with rate payers.

We considered four indexing options for Hillsboro's TUF. We did not consider the CPI because the cost to overlay or rebuild streets has nothing in common with the cost to buy

bread, butter, and milk. The four indices are described in the following table; ENR stands for Engineers News Record – an industry publication.

Table 2 – Indexing Options

Comparison Factor	ENR Seattle, WA Construction Cost Index	ENR US 20-City Construction Cost Index	ODOT Four-Quarter Moving Average Construction Cost Index	Washington County Transportation Engineering Cost Index
Comparison for 3rd QTR-'07 (annual change)	+ 0.5%	+ 2.7%	+ 4.1%	
Local Sensitivity	Low - Moderate	Moderate	High	High
Transportation Sensitivity	Moderate	Moderate	High	High
Timeliness	High	High	Moderate (1 QTR Lag)	Low
Accessibility	High	High	High	Moderate
Credibility	High	High	High	Moderate

Recommendation: Use ODOT 4-quarter moving average because of its accessibility and sensitivity to local roadway construction conditions.

Discussion Summary:

- The city has not had enough experience with the utility to know if it will need to raise rates every year. The city should wait at least one year before indexing the rate.
- The ODOT index seems appropriate given the utility is all about road construction, not general construction, but in the absence of information for how well city cost increases compare with ODOT cost increases, it is difficult to recommend that index.
- There needs to be accountability and an opportunity for people to comment on proposed rate increases and the use of revenue.
- Rather than impose rate increases automatically, require that the Transportation Committee should consider the need for an increase and it should obtain comments from interested parties before increasing rates.
- Add more business representative to the Transportation Advisory Committee so that the committee's composition is generally representative of the customer base.

Decision Summary:

- Include a provision in the ordinance that places responsibility for utility oversight with the Transportation Committee;
- The ordinance should require that the Transportation Committee seek input from the Transportation Advisory Committee and review the capital program and utility rate increases prior to council adoption.
- Members agreed that if state, federal, or local resources for street maintenance become available the city should reduce or eliminate the TUF.

APPENDIX B – MAINTENANCE NEEDS AND CIP PRIORITIES

- Five Year Maintenance Program Map
- Five Year CIP Project List
- Map of Projects