

Alternative Funding for Mobility in Florida

Karen E. Seggerman, AICP

Center for Urban Transportation Research, University of South Florida

4202 E. Fowler Ave., CUT100, Tampa, Florida 33620

Phone: (813) 974-5723, E-mail: seggerman@cutr.usf.edu

Kristine M. Williams, AICP

Center for Urban Transportation Research, University of South Florida

4202 E. Fowler Ave., CUT100, Tampa, Florida 33620

Phone: (813) 974-9807, E-mail: kwilliams@cutr.usf.edu

Arthur C. Nelson, Ph.D., FAICP

Presidential Professor and Director of Metropolitan Research

University of Utah

375 S 1530 E, Salt Lake City, Utah 84112-0370

Phone: (801) 581-8253, E-mail: acnelson@utah.edu

James C. Nicholas, Ph.D.

Emeritus Professor of Law and Urban and Regional Planning

University of Florida

126 SW 165 Street, Newberry, FL 32669

Phone: (352) 472-4045, E-mail: jcnicholas@msn.com

Pei-Sung Lin, Ph.D., P.E., PTOE

Center for Urban Transportation Research

University of South Florida

4202 E. Fowler Ave., CUT100, Tampa, Florida 33620

Phone: (813) 974-4910, E-mail: lin@cutr.usf.edu

Aldo Fabregas

Center for Urban Transportation Research

University of South Florida

4202 E. Fowler Ave., CUT100, Tampa, Florida 33620

Phone: (813) 974-3296, E-mail: fabregas@cutr.usf.edu

ABSTRACT

During Florida's 2008 legislative session, considerable interest was expressed in the concept of a mobility fee, yet varying interpretations surrounded the nature and composition of such a fee. In June 2009, the Florida Legislature enacted the Community Renewal Act, requiring the State of Florida to evaluate and consider implementation of a mobility fee to replace the transportation concurrency system and setting forth certain objectives for the fee. This paper reports on research conducted for the Florida Department of Community Affairs and the Florida Department of Transportation in support of this legislative directive. It explores

two approaches for a mobility fee that advanced the legislative criteria and discusses practical implications of implementing a mobility fee in Florida.

One approach was the concept of a modified impact fee that is sensitive to vehicle miles of travel (VMT) and is based upon improvements in an adopted mobility plan that includes all modes of transportation. Florida has considerable experience with impact fees, making this approach a potentially viable enhancement to existing planning and growth management systems. A fee with increased sensitivity to VMT could discourage urban sprawl more effectively than existing growth management systems by rewarding mixed-use and other development near or within activity centers.

Another approach, which could complement the modified impact fee, is an expanded transportation utility fee (TUF). The idea of TUFs is not new, but their design and application has heretofore been limited in terms of the categories of expenses covered, geographic scope, and comprehensiveness of assessment. The proposed model expands on these traditional applications so TUFs could serve as an ongoing revenue source for broader transportation system needs, including transit operating costs. Finally, the paper will present a conceptual mobility planning and implementation framework for a mobility fee.

INTRODUCTION

During Florida's 2008 legislative session, considerable interest was expressed in the concept of a mobility fee for transportation. The concept of a statewide flat fee was proposed for this purpose, but concerns were raised as to the accuracy and basis of a single flat fee in light of the variation in system needs and costs across the state. It soon became clear that the nature and composition of such a fee was subject to a variety of interpretations. Most envisioned it as a per trip fee on new development and a possible alternative to transportation concurrency – a growth management strategy for ensuring that transportation facilities needed to serve new development are available concurrent with the impacts of that development. These views reflected widespread dissatisfaction with the inherent inequity of existing transportation concurrency systems, which required payment only where level of service standards had been exceeded. By rewarding development in outlying areas where system capacity is available, concurrency systems were also inconsistent with growth management objectives to reduce urban sprawl.

Discussions of the mobility fee, however, continued to raise numerous questions as to the role of such a fee and how it might be administered. For example, should it be applied only to new development, or could it also be applied to users of the system, property owners, or some combination of these groups? What would be the cost basis for such a fee? Could it be structured to reinforce compact urban growth and to fund transportation needs, including transit operating costs? How might it be administered - particularly in smaller or rural communities that lack modeling expertise or resources? And how might the fee affect other fees and planning or growth management processes in Florida, which required significant state, regional and local investment to establish.

With so many policy, institutional, and technical questions surrounding development and implementation of a mobility fee in Florida, it was clear that further research was needed. In June 2009, the Florida Legislature enacted the Community Renewal Act, requiring the State of Florida to evaluate and consider implementation of a mobility fee to replace the transportation concurrency system. The legislation stated that the mobility fee

“should be designed to provide for mobility needs, ensure that development mitigates its impacts on the [transportation] system in approximate proportionality to those impacts, fairly distribute the fee among the governmental entities responsible for maintaining the impacted roadways, and promote compact, mixed-use, and energy-efficient development.”

This paper reports on research conducted for the Florida Department of Transportation and the Florida Department of Community Affairs in response to the legislation. It describes two approaches for a mobility fee that could achieve the defined objectives. One approach is based upon improvements in an adopted mobility plan that are funded in part by a modified impact fee sensitive to vehicle miles of travel (VMT). Through sensitivity to VMT, the modified impact fee may help to discourage urban sprawl and reward mixed-use development and other development near or within existing activity centers. The other approach is an expanded transportation utility fee (TUF) concept, which goes beyond traditional applications of TUFs to advance a model that could serve as an ongoing source of revenue for broader transportation system needs, including transit operating expenses. Finally, the paper presents a conceptual mobility planning framework and discusses practical considerations for implementing a mobility fee in Florida.

MODIFIED IMPACT FEE APPROACH

A popular concept for the mobility fee among stakeholders in Florida was that of a charge on new development designed to resolve the deficiencies of existing transportation concurrency systems. As a charge on new development, the fee would by definition have characteristics of an impact fee. Florida has considerable experience with impact fees, making this approach a potentially viable enhancement to existing planning and growth management systems. This also meant that the mobility fee could involve adherence to certain legal tenets established in Florida case law for impact fees, potentially limiting its application. Among these tenets is the dual rational nexus test that requires there be: 1) a reasonable connection between the anticipated need for transportation system improvements and the growth generated by new development; and, 2) a reasonable connection between expenditure of fees collected and the benefit to the development.

Other legal principles gleaned from the impact fee literature and considered in the development of the mobility fee approach included:

1. Impact fees should not exceed the cost of needed facilities;
2. Fees should be proportional to the demand generated by the development;
3. New development should not be required to pay for a higher level of service than existing development; and
4. New development should not have to pay twice for the same level of service both through impact fees and through other taxes or fees.

These principles make impact fees an equitable approach to development mitigation and were carefully considered in tailoring the mobility fee approach. Yet certain applications of the mobility fee would need to differ from conventional impact fee practice and diverge from traditional legal tenets. For example, legal guidelines typically limit the use of impact fees to capital expenditures. To meet mobility needs, the mobility fee should provide for more flexible application, including system-wide operational enhancements, congestion management strategies, and transit operating expenses. In addition, many areas administer impact fees in relatively small service areas and avoid impact fee expenditures for alternative modes of

transportation due in part to challenges in demonstrating adherence to the dual rational nexus test.

Transportation impact fee practices have evolved considerably over the years and continue to evolve in response to public policy directions (Nelson, Nicholas, Jurgensmeyer 2009). Therefore, the study emphasized the importance of conducting a legal analysis to clarify the limitations on the mobility fee approach under current law and identify how those limitations may be addressed. It noted that the legislature may need to enact special provisions for the mobility fee to overcome these identified limitations in order to achieve its public policy goals.

To differentiate this mobility fee concept from the typical impact fee it needed to be more clearly defined. The mobility fee was defined in the study as a transportation system charge to recoup the proportionate cost of transportation demand generated by all new development. The study also suggested that the fee structure include two tiers – countywide (or multi-county) and local – with the option for additional tiers. The local tier of the fee could address localized transportation improvement priorities identified in local mobility plans, thereby benefitting local needs and priorities. Examples might include collector roadways, local transit routes or circulators, and bicycle and pedestrian facilities.

The fee for the countywide tier could address transportation improvement priorities of countywide or multi-county benefit, as identified through intergovernmental agreements. Each jurisdiction within the county or multi-county agreement would charge the same mobility fee rate for this tier. Priorities might include improvements on the state highway system, county and local arterial roadway system, regional transit corridors, intermodal hubs, and system-wide operational enhancements, such as signal coordination systems. While the fee may not be sufficient to improve fixed rail transit systems, it could assist in funding supportive local transit networks. Both tiers of the fee would be assessed on new development, based on its impacts to both local and countywide transportation facilities and services. Therefore, the mobility fee for a new development would be the sum of both tiers as shown below:

$$\text{Mobility fee} = \text{countywide or multi-county tier fee} + \text{local tier fee}$$

To avoid the potential for double-charging and the complexity of competing fee systems, the study recommended that the local tier of the mobility fee fully replace existing local transportation impact fees and concurrency systems. Nonetheless, additional mitigation may still be necessary and appropriate in areas not designated for growth in the planning horizon. To be consistent with legal principles and to respond to travel patterns, each countywide or multi-county area may also need to be divided into service areas for the purpose of assessing and expending fees. Service areas for the countywide or multi-county tier must also be reasonably large to enable the expenditure of mobility fees on transportation service according to travel demand, regardless of jurisdiction. Local service areas may be local jurisdictional boundaries or some other logical subarea based upon local planning objectives.

To adhere to legal tenets and advance planning goals, service areas should be defined based on sound planning criteria (e.g. cross-jurisdictional travel patterns for the countywide tier). Fees collected in a service area must be spent on improvements in that service area. An exception may be where agreements are established across service area boundaries to address cross-jurisdictional transportation impacts. In addition, major urban employment and/or activity centers should be able to receive mobility fees collected from any service area, where it is shown that travel into these areas flows from outlying regions and benefits from additional transportation service (mobility) within these centers.

Calculating the Fee

Two basic methods were proposed to calculate the mobility fee – consumption-based and improvements-based. The consumption-based method charges each new development the value of the increment of transportation facilities or services needed to serve that development. The value of each increment is determined based on recent transportation improvements and is typically reflected as an average cost per unit of transportation service (e.g. a lane mile of roadway, unit of transit service). The improvements-based method charges each new development its proportionate share of the cost of a specific set of improvements deemed necessary to accommodate future growth at an adopted quality of service.

Either method is acceptable and can be designed to result in fees that avoid double-charging and are proportionate to development impact. In both cases, costs are adjusted to account for existing deficiencies and the mobility fee makes up only that portion of funding not provided through other funding sources. The primary difference is that one is a cost per person miles of travel (PMT) or vehicle miles of travel (VMT) based on the incremental value of the facility or service used; the other is a cost per PMT or VMT based on a specific list of improvements. Local governments shifting their local improvement priorities from roadways to transit may find the improvements-based method more practical. A consumption-based method may be more appropriate for calculating the fee for major regional transportation improvements.

The PMT or VMT used in calculating the fee can be determined based upon typical average trip lengths in specified planning areas such as urban, suburban fringe, transitional, and rural preservation, and conservation areas. Longer trip lengths in transitional and rural areas will generally result in a somewhat higher fee for a development located in these areas compared to the same development within an urban area. Two accepted methods for determining average trip lengths are available regardless of which mobility fee calculation approach is used. One method uses a travel demand model which, in Florida, is the Florida Standard Urban Transportation Model Structure (FSUTMS). The other method uses travel survey data.

Trip lengths to determine vehicle miles of travel may be obtained by running travel demand models for the planning area. Several land use scenarios may be run to generate average trip lengths within designated planning areas. Average trips lengths per land use may be compiled in tables for use in estimating trip length for a proposed development. Trip length tables simplify administration of the fee by minimizing the need to use the travel demand model for estimating development VMT and would need to be updated at least every five years. Trip length may also be determined from travel surveys of the population in the planning area. It is important that the data analysis methodology be clearly specified and valid for these estimates to be accepted.

Consumption Based Fee Example. Below is one example of how a consumption based mobility fee might be calculated for roadway impacts. Additional examples of consumption based fee calculations, including those for transit, are provided in the final study report (Seggerman *et. al.* Nov. 2009).

1. Determine the cost per vehicle mile of travel (CPVMT)
 - 1.1. Establish the cost per lane-mile (CPLM) of adding one lane-mile of capacity
Establish the average cost (including design, engineering, right-of-way, and construction) of one lane mile of road using one or more representative roadway(s)

that reflect the characteristics of planned road improvements. These characteristics include quality/level of service standards and type of road.

- 1.2. Establish the new capacity of roadways in terms of vehicles per day (VPD) per lane
Establish the new capacity of each type of roadway based on adopted quality/level of service standards.

- 1.3. Calculate the cost per vehicle mile of travel (CPVMT)

$$\text{Cost per VMT (CPVMT)} = \frac{\text{Cost per lane mile (C)}}{\text{Vehicles per day (V)}}$$

Note: This calculation results in the cost per vehicle mile of travel (CPVMT) for roadways which becomes a portion of the mobility fee charged to each new development for the VMT it is estimated to generate.

2. Calculating the consumption-based roadway mobility fee for a new development

- 2.1. Calculate the development's projected vehicle miles of travel (PVMT)

$$PVMT = \frac{1}{2}(TGR \times NTF \times ATL \times MS_A)$$

Where,

PVMT: Projected vehicle miles of travel

TGR: Trip generation rate (per latest edition of ITE Trip Generation)

NTF: New travel factor. Percentage of a development's net new travel excluding pass-by trips and internal capture

ATL: Average trip length by planning area

MS_{Auto}: Modal split. Percentage of vehicle trips

Note: Multiplying by ½ divides the trip between each end resulting in net new one-way trips thus allocating responsibility to the development at each end. For ATL, include travel on the freeway system. Although impact fee calculations often exclude travel on the freeway system from this value, an accurate estimation of all new development VMT is essential to the mobility fee program and fees collected from freeway travel may be spent on reliever projects.

- 2.2. Calculate credits per vehicle mile of travel (DPVMT)

Interviews with impact fee practitioners indicate that credits per vehicle mile of travel for motor fuel taxes and other fees for transportation typically represent about 20-30% of the fee.

$$DPVMT = GT/MPG \times 365 \times N.$$

Where,

GT: Gas tax. Capacity-expanding funding for roads per gallon of motor fuel consumed (include all other fees collected for transportation such as sales tax, license fees, etc.)

MPG: Average fuel efficiency (miles per gallon)

365: Factor to convert daily VMT in annual VMT

NPVF: Net present value factor representing the life cycle for a road expansion project

- 2.3. Calculate mobility fee (MF) for road consumption

The fee rate is determined by subtracting the cost of providing transportation facilities and services minus credits the new development is expected to produce through existing revenue sources.

$$\text{Road consumption mobility fee rate} = \text{Costs} - \text{Credits}$$

This equation may be expressed as:

$$MF_{Auto} = (PVMT \times CPVMT) - (PVMT \times DPV)$$

Where,

MF_{Auto}: Mobility fee rate for road consumption (auto use)

PVMT: Project vehicle miles of travel

CPVMT: Cost per vehicle mile of travel

DPVMT: Credit per vehicle mile of travel

Using equations from the previous steps, the resulting equation follows:

$$MF_{Auto} = \frac{1}{2}(TGR \times NTF \times ATL \times MS_{Auto}) \times \left[\frac{CPLM}{VPD} - \frac{GT}{MPG} \times 365 \times NF \right]$$

Where,

MF_{Auto}: Mobility fee rate for road consumption (auto use)

TGR: Trip generation rate (per ITE Trip Generation)

NTF: New travel factor. Percentage of a development's net new travel excluding pass-by trips and internal capture

ATL: Average trip length by planning area, including travel on the freeway system

MS_{Auto}: Modal split. Percentage of vehicle trips

CPLM: Cost of adding one lane mile of capacity

VPD: Vehicles per day

GT: Gas tax. Capacity-expanding funding for roads per gallon of motor fuel consumed (include all other fees collected for transportation facilities such as sales tax, license fees, etc.)

MPG: Average fuel efficiency (miles per gallon)

NPVF: Net present value factor representing the life cycle for a road expansion project

3. Optional: Calculate mobility fee for road consumption by planning areas

Planning areas may have different quality/level of service standards for transportation facilities and services. In this case, the fee rate may vary by planning area. In this case, the projected VMT would be split by the percentages of vehicle miles of travel in each planning area. This may be determined by individual travel demand model runs for each development or estimated in a table using model averages. The mobility fee (before credits) would be calculated as follows:

$$Cost = PVMT(CPVMT_{PA1} \times \%VMT_{PA1} + CPVMT_{PA2} \times \%VMT_{PA2} + \dots + CPVMT_{PA_n} \times \%VMT_{PA_n})$$

Where,

PVMT: Projected vehicle miles of travel

CPVMT: Cost per vehicle mile of travel

PA: Planning area

VMT: Vehicle miles of travel

Improvements-based Fee Example. The improvements-based method pro-rates the cost of planned improvements in the countywide and local mobility plans across development anticipated during the planning period. To ensure that development provides mitigation (mobility fee) for its impacts on the transportation in approximate proportionality to those impacts, the fee should not exceed the amount that would be charged for a consumption-based fee. Planned improvements in adopted mobility plans that address all modes of transportation serve as the cost basis for the fee. Below are steps for calculating the fee under the improvements-based approach.

1. Calculate the target funding level (TFL) for the mobility fee

The target funding level (TFL) is the amount of funding that the fee will need to generate to fund planned mobility improvements unfunded by other committed revenue sources. These include motor fuels taxes, local option taxes, development agreements, and general revenue. The portion of planned projects that will address existing backlogs, rather than new capacity, should be treated separately to remove concerns that new development is being charged for existing backlogs. The target funding level is calculated using the following equation:

$$\text{Target Mobility Fee Funding Level (TFL)} \\ = \text{Cost of Mobility Plan (excluding backlog capacity)} - \text{Committed Revenue}$$

Where

Committed revenue = gas tax revenue, revenue from pre-existing development agreements, etc.

2. Estimate VMT growth

Estimate the expected growth in vehicle miles of travel within the planning area between the base year and the planning horizon year using a travel demand model (FSUTMS/CUBE). This application of FSUTMS/CUBE can be readily accomplished in areas that have an established travel demand model and corresponding long range transportation plan (LRTP). The difference between VMT estimates for the planning horizon and the base year represents the growth in VMT. A correction factor is applied to account for growth in background traffic and pass-by trips. This number may be from 20-40% of the estimated VMT growth.

$$\text{New VMT}_{\text{Growth}} = (\text{VMT}_{\text{Horizon Year}} - \text{VMT}_{\text{Base Year}}) \times \text{CF}$$

Where,

New VMT Growth = Increased VMT within the planning horizon attributable to new development

VMT_{Horizon Year} = Estimated vehicle miles of travel in the planning horizon year

VMT_{Base Year} = Estimated vehicle miles of travel in the base year

CF = Correction factor in percent VMT attributable to new development discounts background traffic and pass-by trips

3. Establish the mobility fee rate

The target funding level (TFL) and the new growth in vehicle miles of travel (VMT) are used to calculate the average mobility fee rate. Because it is closely tied to the planned land use scenario and corresponding transportation system, the mobility fee rate should be recalculated every time mobility plans are amended or updated.

This mobility fee rate is a fixed rate that relies solely on vehicle miles of travel as the controlling factor. The same rate is charged for each estimated vehicle mile of travel regardless of the development's location. The rate is calculated by dividing the target funding level (TFL) by total VMT growth within the planning horizon as follows:

$$\text{Mobility Fee Rate} = \text{TFL} \div \text{New VMT}_{\text{Growth}}$$

Where,

New VMT Growth = Increased VMT within the planning horizon attributable to new development

TFL = Target mobility fee funding level

4. Determine the improvements-based mobility fee for a new development

To determine the mobility fee for a new development, the mobility fee rate is multiplied by the estimated vehicle miles traveled of a proposed new development.

$$\text{Mobility fee} = \text{Mobility fee rate} \times \text{VMT}$$

ADAPTED TRANSPORTATION UTILITY FEE APPROACH

Another approach considered in the study is an adapted transportation utility fee aimed at all users within a specified district. This type of fee (sometimes known as a street maintenance fee or street utility fee) is similar to other types of utility fees and may be used for capital facilities, maintenance, operations, and administration. Like other utility fees, all property within an established district is assessed a fee in accordance with estimated use of the utility which, in this case is the transportation system. Fees are determined by land use and placed in an enterprise fund.

This fee could be adapted for application as a mobility fee through the use of service areas similar to impact fee districts. Fees could be developed using an adopted mobility plan for each service area. This fee also provides two ways to consider facility demand – VMT and functional population. The VMT-based method would use property tax assessor records and land use codes to determine the appropriate fee for each property based on the VMT associated with that land use. The functional population method establishes a fee based on the estimated number of people occupying the service area within the course of a day and the plan for alternative modes, as explained further below.

The adapted transportation utility fee offers a new approach to funding transportation mobility by treating transportation as a utility and providing revenue to address maintenance and operation, as well as capital improvement needs. The result is a stable, ongoing revenue stream that may be used to fund all aspects of transportation mobility. Application through a rate scale tied to transportation facility use is equitable to all fee payers. Implementation of the fee may be somewhat complex, particularly initial studies and system set-up through the property tax assessor's office. Administration beyond that point would involve routine invoicing, collection, and distribution of revenue. This type of fee is expected to have some impact on reducing VMT and fostering compact, mixed use development by increasing modal alternatives within urban centers.

Although popular in some states, such as Oregon, the transportation utility fee is not currently used in Florida. The City of Orlando considered the approach a number of years ago and Port Orange, Florida adopted a TUF in the early 1990's that was later struck down by the Florida Supreme Court (*State of Florida, v. The City of Port Orange, Florida*, 650 So.2d 1, 19 FLW S563, 1994 Fla. SCt 8286). The Court found the fee to be a tax not authorized by general law. Enactment of such a fee would therefore require legislation defining transportation facilities as a utility or otherwise addressing this concern.

Calculating the Adapted Utility Fee

The adapted transportation utility fee program for mobility fees could have two principal elements: capital and operations (including maintenance and administration). Because the nature of demand for transportation facilities varies by facility, facility demand would be calculated in different ways. Two approaches are recommended to calculate demand: VMT or functional

population. VMT calculations are commonly used to apportion road capital costs among different land uses. Florida is a national leader in developing and applying these kinds of methodologies. A generalized approach using this method is shown in Table 1. Here, the costs are apportioned to a service area, which may for this purpose be called an assessment district. Where impact fees are used to generate revenue for transportation it may be advisable to use those service area boundaries.

TABLE 1 VMT-Based Utility Fee Approach for Mobility Fees

Expenditure	Amount
Capital Costs (<i>net of nonlocal, impact fee, and other dedicated revenue</i>)	\$1,000,000
Operating Costs (<i>net of nonlocal and other dedicated revenue</i>)	\$2,000,000
Total Expenditure	\$3,000,000

Land-Use Apportionment

	Impact Units	VT/Unit	Total VMT^a	VMT Share^b	Land Use Financial Share^c	Annual TMF Per Impact Unit^d
Residential						
Single Family (dwellings)	10,000	50	500,000	74.07%	\$2,222,222	\$222.22
Apartments (dwellings)	5,000	30	150,000	22.22%	\$666,667	\$133.33
Nonresidential						
Office (<i>1k sq. ft.</i>)	500	10	5,000	0.74%	\$22,222	\$44.44
Warehouse (<i>1k sq. ft.</i>)	200	5	1,000	0.15%	\$4,444	\$22.22
Retail (<i>1k sq.ft.</i>)	500	30	15,000	2.22%	\$66,667	\$133.33
Institutional(<i>1k sq.ft.</i>)	400	10	4,000	0.59%	\$17,778	\$44.44
Total	61,600		675,000	100.00%	\$3,000,000	\$180.72^e

Notes:

- Impact units times VMT/Unit
- Total VMT for a given land use divided by total VMT for all uses summed
- VMT Share times Total Expenditure
- Land Use Financial Share divided by Impact Units
- Average annual TMF per impact unit.

The fee would be calculated similarly to the property tax in that the projected budget would be the numerator and current land use impacts would be the denominator:

$$\frac{\text{Budgeted Capital + Operating Costs}}{\text{VMT Generated by Existing Uses}} = \frac{\$3,000,000}{2,024,000 \text{ VMT}} = \$1.48 \text{ per VMT}$$

Capital costs would include routine repairs and rehabilitation, debt service (bond) payments, and expenses associated with future capital investment such as right-of-way acquisition, engineering, legal, planning and so forth. Capital costs would be net of nonlocal revenues (such as from state or federal agencies), impact fees assessed on new development to be used for facilities included in the fee calculation, and other dedicated revenue (e.g., may be pledged from community improvement districts, special assessments, and the like). Operating costs include routine operations and maintenance apportioned to the service area, as well as the proportionate share of administrative and other overhead costs. These costs would be net of nonlocal and other revenue for this purpose (such as special assessments).

Calculating a VMT-based mobility fee of this type would build upon impact fee methodologies used throughout Florida. Local governments could apply any number of such methodologies to their situation, with one important adjustment. The VMT-based mobility fee must be adapted to assessor records. Doing so may require aligning road impact fee schedules, customarily based on Institute of Transportation Engineers' land use codes, with assessor codes and calculating VMT for each assessor record. Although tedious initially, once done it need only be updated annually. Furthermore, because assessor records include the size of structures, VMT for each assessor code can be estimated on a per square-foot basis and multiplied by the size of a structure, thereby providing a proportionate-share relationship between land use, VMT production, and demand on road facilities.

TABLE 2 Functional Population-Based Utility Fee Approach for Mobility Fees

Expenditure							Amount
Capital Costs (<i>net of nonlocal, impact fee, and other dedicated revenue</i>)							\$250,000
O&M Costs (<i>net of nonlocal and other dedicated revenue</i>)							\$500,000
Total Expenditure							\$750,000
Land-Use Apportionment							
Residential	Impact Units	FP/Unit^a	Total FP	VMT Share	Land Use Financial Share	Annual TMF Per Impact Unit	
Single Family	10,000	1.50	15,000	60.24%	\$451,807	\$45.18	
Apartments	5,000	1.00	5,000	20.08%	\$150,602	\$30.12	
Nonresidential							
Office	500	2.00	1,000	4.02%	\$30,120	\$60.24	
Warehouse	200	0.50	100	0.40%	\$3,012	\$15.06	
Retail	500	6.00	3,000	12.05%	\$90,361	\$180.72	
Institutional	400	2.00	800	3.21%	\$24,096	\$60.24	
Total	16,600		24,900	100.00%	\$750,000	\$45.18 ^b	

Notes:

- a. Illustrative functional population (FP) per unit. For residential, this would assume that a person effectively occupies their home 60% of a typical day: for an average household of 2.5 persons, the functional population for the average unit is $0.60 \times 2.5 = 1.50$.
- b. Represents an average annual TMF per impact unit (not a total).

This approach to the VMT-based mobility fee may not be appropriate for other transportation functions, such as sidewalks, bicycle pathways, transit, and so forth. Fortunately, an alternative approach exists, based on work pioneered by Dr. James C. Nicholas for Aventura, Florida. Nicholas applied a “functional population” concept to calculate a one-time mitigation fee on all new development that would be used to help fund the operations and maintenance of the City’s transit system. Functional population is the effective population served over the course of a day. For example, if 100,000 people live and work in a community, and another 60,000 commute into the community to work an 8-hour (one-third day), the functional population is $[100,000 + (60,000 \times 1/3) = 120,000]$. Florida may lead the nation in the use of functional population to calculate impact fees. An example of its potential application to non-VMT facilities is provided in Table 2. Using assessor records for functional population-based mobility fees can be accomplished using the same approach described above for the VMT-based mobility fee. Because they relate demand based on common units of impact across all land uses, the two approaches may be combined into a master mobility fee assessment, as shown in Table 3.

TABLE 3 Total Mobility Fee Assessment

Expenditure	Amount
Annualized Capital Costs	\$1,250,000
Annual O&M Costs	\$2,500,000
Total Expenditure	\$3,750,000

Land-Use Apportionment

Residential	Impact Units	Annual TMF Per Impact Unit	Monthly
Single Family	10,000	\$267.40	\$22.28
Apartments	5,000	\$163.45	\$13.62
Nonresidential			
Office	500	\$104.69	\$8.72
Warehouse	200	\$37.28	\$3.11
Retail	500	\$314.06	\$26.17
Institutional	400	\$104.69	\$8.72
Total	16,600	\$225.90 ^a	\$18.83 ^a

a. Average cost.

MOBILITY PLANNING FRAMEWORK

The concept of a modified impact fee for mobility relies on effective transportation and land use planning by each local government and the adoption of a mobility plan within the transportation and land use elements of each local government’s comprehensive plan. Such plans designate areas where growth is desired or planned and areas not planned for urban development. For purposes of the concept, the following scenario is proposed:

1. The plan defines planning areas such as urban centers, urban reserve, and rural areas, recognizing the dynamics of development and the different needs of each area.
2. Mobility improvement needs and a list of improvement priorities are identified within and across the various areas.
3. Mobility fees are determined based upon the improvement priorities and revenue expectations in the financially feasible long term capital improvement program.
4. Local governments are provided an option to enact a transportation utility fee in urban centers to address backlogs and ongoing system maintenance and operations needs.

The institutional structure for implementing the mobility fee may be existing local governments; however, a regional form of governance is ideal for implementing a mobility fee for a number of reasons. Vehicle miles traveled, congestion, and the related growth of greenhouse gas emissions are regional issues that require regional solutions. Such solutions cannot be accomplished without intergovernmental cooperation across a common economic region. In addition, transportation system users are unconcerned with jurisdictional boundaries. The user's main concern is accessibility to destinations, primarily in terms of cost (including time). Peak-hour commuting places the greatest demand on the system. Because most commuter travel occurs on a regional basis, the logical governance structure for the mobility fee is regional.

A regional approach offers a variety of land use benefits, as well. A regional mobility fee may:

- Reduce leapfrog development associated with sprawl by reducing the cost benefit of building further out. (Leapfrog development is development that bypasses existing vacant land within urban service area boundaries in favor of property further out that may cost less and be subject to fewer restrictions.);
- Establish a forum for local governments to cooperatively plan and fund regional mobility improvements, which are key to economic growth;
- Standardize fees across local governments within a common economic region, thereby eliminating the fee as a basis for tax base competition; and
- Lend itself to implementing a regional development plan and tiered fee structures with progressively higher fees for development farther away from urban centers and fee reductions for planning strategies known to reduce VMT.

Florida has considerable experience in managing water on a regional basis. Water management districts were created along water basins and sheds giving the district a geographic scope to view water issues in their entirety. To meet mobility needs of urbanized areas, a similar approach will be needed for transportation. Transportation or commuter "sheds" could establish the geographic and economic basis for addressing mobility issues. Regional structures could be relatively small, such as those involving a county and its municipalities, or they could represent multi-county regions. Existing organizations for accomplishing a regional mobility fee in Florida include regional transportation authorities, planning collaboratives, and metropolitan planning organizations (MPOs). Local governments and other agencies may also choose to work together through interlocal agreements. For example, three Nevada jurisdictions - Washoe County, the City of Sparks, and the City of Reno - entered into an Interlocal Cooperation Agreement to

establish and collect transportation impact fees. These fees are based largely on vehicle miles traveled, with a lower cost factor applied in areas served by transit.

Achieving Cross-Jurisdictional Coordination

Mobility between jurisdictions requires intergovernmental coordination in the planning and funding of major roadways or transit systems that serve the broader region. The mobility fee approach envisions a countywide or multi-county coordination process that would provide a framework for cross-jurisdictional mobility planning. A prioritization process would also be needed to establish priorities for the countywide or regional transportation system.

Many areas of Florida are already engaged in developing conceptual plans for mobility through regional visioning or land use scenario planning for metropolitan planning organization (MPO) long range transportation plans, as a means to coordinate future land use decisions and transportation system investments. These planning efforts could be a means to coordinate local mobility planning in some areas. Areas without a scenario plan could be encouraged to develop one on at least a countywide basis.

Some local governments and established transportation planning agencies may hesitate to embrace the cross-jurisdictional elements of this approach. The benefit of such cooperation is an improved ability to address mobility needs across a common economic region – an issue essential to the economic vitality of every community in the area. Other clear benefits include improved ability of local governments and MPOs in planning for reduction of greenhouse gas emissions and promotion of more energy efficient development. The rise in regional visioning initiatives in Florida and legislation establishing regional transportation authorities reflect a growing recognition of the need for increased regional coordination on land use and transportation planning efforts.

The following are considerations for achieving cross-jurisdictional mobility in the planning process that could be appropriate for statute or rule.

1. The prevailing principles to be considered in advancing cross-jurisdictional mobility are:
 - a. Establishing and implementing a multimodal transportation system and supporting land uses that improve travel choices to ensure mobility;
 - b. Incorporating the plans of participating agencies, jurisdictions, and modal providers;
 - c. Coordinating the multimodal transportation system across jurisdictions through the execution of an interlocal agreement; and
 - d. Integrating transportation and land use strategies to ensure sustainable and energy-efficient development patterns, reduce the growth of vehicle miles of travel, and reduce greenhouse gas emissions.
2. Steps in the process would include the following.
 - a. Identify transportation facilities that serve countywide or regional mobility functions, including, but not limited to, major roadways, airports, seaports, high-speed and/or commuter rail systems, transit systems, and intermodal or multimodal terminals.

- b. Identify transportation-related facilities that support the countywide network including, park and ride lots and multi-use trails.
- c. Identify existing and planned land use densities, building intensities and development types consistent with the planned countywide or multi-county transportation system and reasonable growth estimates.
- d. Identify corridors to encourage population densities sufficient to support transit and identify density guidelines along the designated corridors.
- e. Identify desired land use types, growth and development patterns that promote compact, mixed use and energy efficient development, such as transit oriented development or employment-based development in rural areas of economic concern, consistent with the planned countywide or multi-county transportation system.
- f. Identify performance or quality of service measures to be used to evaluate transportation system performance and guide improvement planning.
- g. Identify and prioritize transportation projects, programs, and strategies that will advance the planned countywide or multi-county transportation system.
- h. Coordinate with the mobility plans of adjacent counties.
- i. Prepare a financial strategy that demonstrates how the improvement priorities can be implemented, including public and private resources reasonably expected to be available, and any additional financing strategies (including the mobility fee) for needed projects and programs. Prepare a capital improvements program including a short-term financially feasible schedule (five year); a mid-term (6-10 year) schedule of improvements; and a long-term (20 year) vision for incorporation into local government comprehensive plan.
- j. Establish guidelines and procedures for updating and amending the countywide or multi-county transportation improvement priorities.

Determining transportation projects to accommodate planned growth areas will require a balance between mobility plan performance/quality of service standards and available transportation funding to achieve a financially-feasible plan. To do so, the amount of funding anticipated from mobility fees must be determined. If transportation revenues are less than projected, then the transportation project schedule of each mobility plan will need to be amended. Procedures for such amendments should be addressed in interlocal agreements establishing the mobility plan priorities. Certain projects may need to be redefined or dropped entirely, to ensure the planned transportation improvements can be achieved. Alternatively, the schedule of improvements may need to be extended to reflect the slower revenue stream. Delays in authorization of federal funding can be particularly problematic as federal funds may comprise a large portion of the committed revenue anticipated in the improvement plan. Such changes may require adjustments to future land use plans along affected corridors.

Administering the Fee

Each local government could administer the mobility fee during the development permitting process, as is the case with current impact fee or concurrency mitigation. The collected fees would be placed in special accounts to be expended in accordance with the procedures identified in the interlocal agreements. The payment process for phased development would be similar to that for payment of impact fees. Mobility fees would typically be assessed separately for each phase of a proposed development at the time of the development application. A local government and developer may agree to a single up-front payment for several phases in accordance with a development agreement. In such cases, monitoring agreements will be needed to ensure that each phase is completed in accordance with the agreement.

The mobility fee legislation specified that the fee must be “fairly distributed among the entities responsible for maintaining the impacted roadways.” (NOTE: Although the legislation referred to “impacted roadways”, it also indicated that the current system “is too focused on roadways to the detriment of desired land use patterns and transportation alternatives...” Therefore, the study considers all modes of transportation in the methodology.) A variety of approaches are available to accomplish fair distribution of the fee on countywide or multi-county priorities in the context of interlocal agreements. One way may be to expend fees on transportation projects within service areas in order of priority.

Another way may be to proportionately distribute collected fees to agencies responsible for maintaining the facilities based on the amount of travel demand anticipated (e.g., % state, % county, % transit agency). Typically, for example, vehicle travel in Florida occurs 40-70% on state roads, 15-20% on county roads, and 8-10% on local roads. The fees could then be spent on each agency’s relative priorities established in the interlocal agreement. The process should also provide for improvements that benefit state roads to be made off of the state system.

CONCLUSION

The mobility fee approach presented in this paper was designed to address goals of the Florida legislature expressed in the Florida Community Renewal Act. Yet the features of the approach, including its emphasis on all modes of transportation, reducing vehicle miles of travel, and coordinating land use and transportation planning, offer promise to any area seeking to advance these goals. Because the mobility fee is designed to charge development only for the transportation service it will consume, it ensures “that development provides mitigation for its impacts on the transportation system in approximate proportionality to those impacts.” Therefore, it offers a more equitable and predictable alternative to traditional “fair-share” mitigation programs. It also provides more flexibility to invest in systemwide mobility needs attributable to new development than conventional impact fee approaches.

The approach relies on the development of a countywide mobility plan that coordinates future land use plans with the provision of transportation facilities and services. Although the approach involves certain challenges, such as achieving countywide or multi-county coordination on mobility planning and improvement priorities, greater regional coordination will be critical in meeting mobility needs. Clearly, transportation mobility needs do not end at jurisdictional borders. Improved coordination on these issues will also result in a simpler and more streamlined development review and approval process. This benefits both local government and the development community. In sum, the approach moves Florida closer toward its goals for improved land use and transportation coordination and a more sustainable transportation system.

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