



Evaluation of Current Methodology to Determine Traffic Concurrency

Executive Summary
February 2013

IMPORTANCE OF CONCURRENCY

Transportation concurrency requires local governments to define what traffic conditions constitute adequate Level of Service (LOS) for transportation systems (traditionally, roadways), and to estimate whether the needs posed by a new development will be satisfied by existing capacity and planned improvements.

Concurrency is important for the following reasons:

1. It establishes a public nexus between new projects and infrastructure;
2. It ensures adequate infrastructure is in place to support new development; and
3. It informs project planning/budgeting.

PURPOSE OF THIS STUDY

This study provides Miami-Dade County with an assessment of its current transportation concurrency system and recommends professionally accepted methodologies to improve it within the context of recent Florida growth management legislation and a multimodal transportation system. The full report can be found on the MPO's website at www.miamidade.gov/mpo.

Florida's transportation concurrency requirements have significantly evolved over the past decade. Since its establishment, transportation concurrency has been the subject of extensive review and debate. While concurrency has helped to coordinate the timing of development with the availability of transportation facilities, it also has its limitations. The difficulty and complexity of its administration; lack of predictability in mitigation costs, inequitable "last-in pays" approach; and the assertion that the system is too focused on roadways instead of overall mobility (i.e., a mix of transportation systems available to users) are some of its limitations.

The main purpose of this study was to evaluate and propose an alternative approach to overcome the limitations of the current Miami-Dade County transportation concurrency program. The study involved research of concurrency programs in other areas, scenario analysis, and evaluation of positive and negative impacts in order to develop a recommended alternative approach to the existing program.



STUDY ROAD MAP

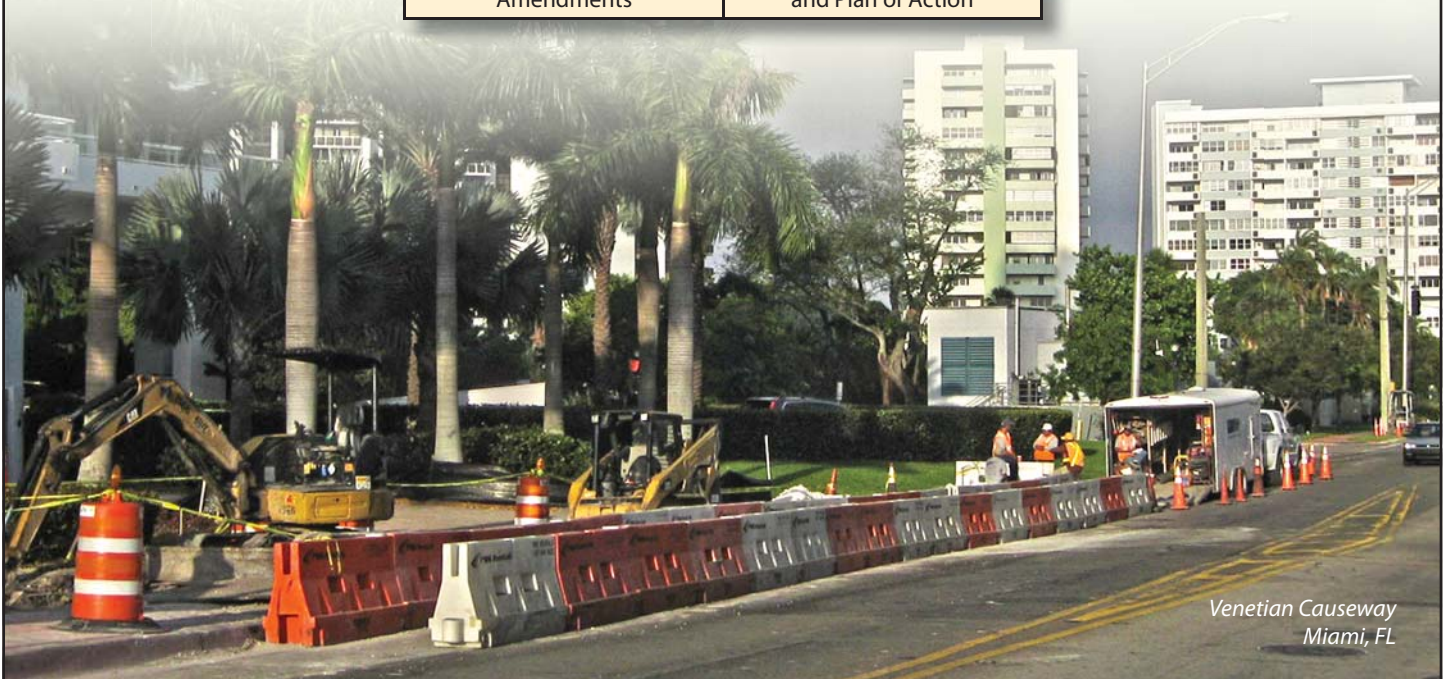
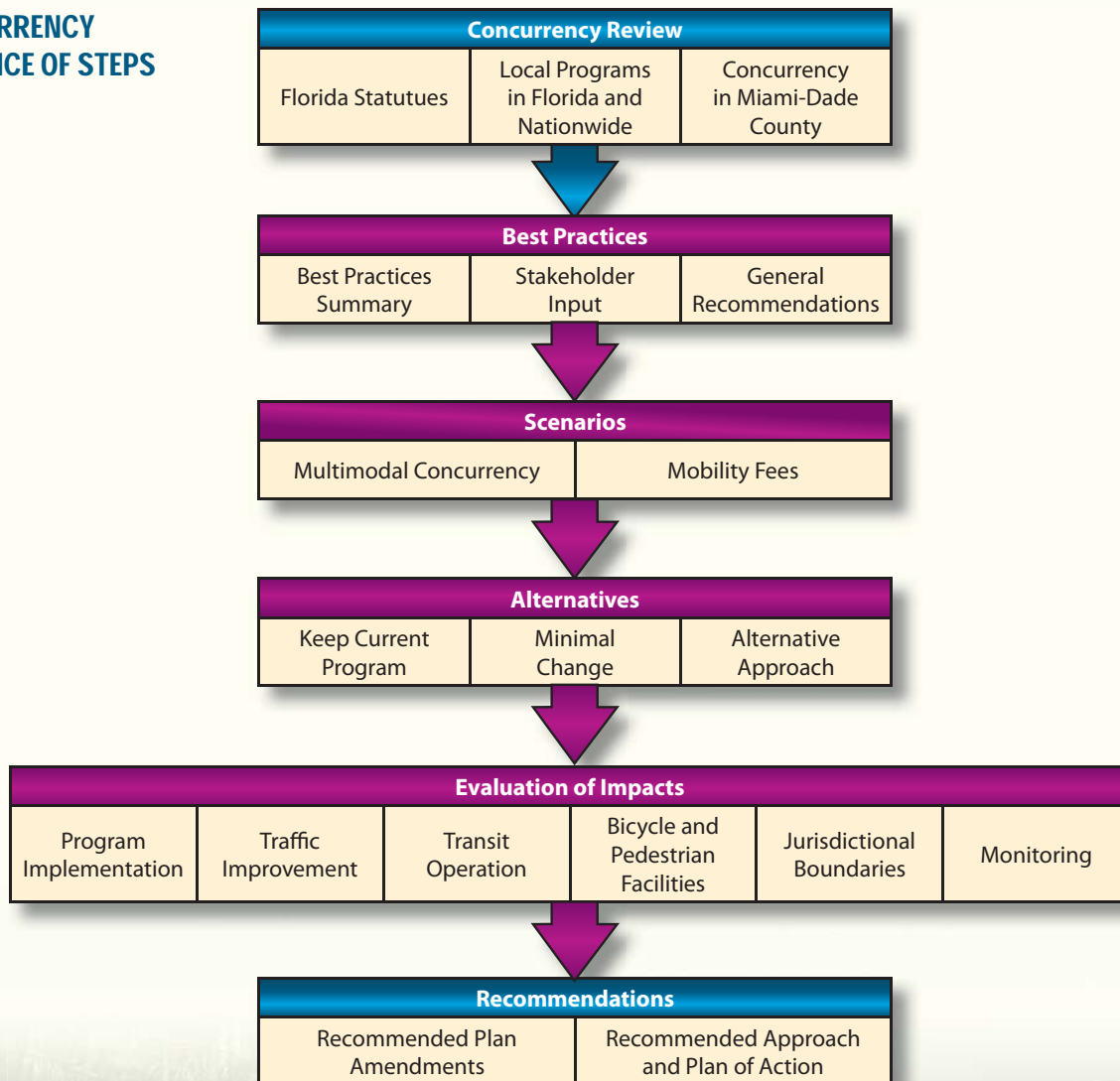
The diagram shown on the next page illustrates the sequence of steps undertaken during this study:

1. **Concurrency Review:** Concurrency programs utilized by local jurisdictions in Florida and nationwide were reviewed, as well as Florida Statutes pertaining to concurrency. A complete review and assessment of Miami-Dade County's concurrency system was also conducted.
2. **Best Practices:** Based on the literature review and stakeholder input, best practices were summarized, and general recommendations of an effective transportation concurrency program were developed.
3. **Scenarios:** Through the assessment of best practices, multimodal concurrency and mobility fees were selected for scenario analysis, to demonstrate their applicability to Miami-Dade's system.
4. **Alternatives:** Based on steps 1-3, three alternatives were developed for further evaluation - "keeping the current program", "minimal changes" and "alternative approach".
5. **Evaluation of Impacts:** The three alternatives were evaluated for their positive and negative impacts from the perspective of seven key factors - program implementation, traffic improvement, transit operation, implementation of bicycle and pedestrian facilities, jurisdictional boundaries, and monitoring.
6. **Recommendations:** Plan amendments were recommended based on the three alternatives. A plan of action was also developed for the "alternative approach", which based on step 5, was found to be the most beneficial.



Bayside View - Downtown Miami, FL

CONCURRENCY SEQUENCE OF STEPS



CONCURRENCY REVIEW

Florida Statutes

Florida's transportation concurrency requirements have significantly evolved since the Growth Management Act of 1985, which required local governments to establish a process to ensure that new development does not occur unless adequate infrastructure is in place to support the growth. Recent changes in transportation concurrency in Florida, enacted through the 2011 Community Planning Act (HB 7207), substantially amended Chapter 163, F.S., and focused the State's role in the growth management process to one of protecting important State resources and facilities, and provided local governments with greater local control over planning decisions that affect the growth of their communities.

Most notably, the Act removed the state-mandated requirement for transportation concurrency, and allowed local governments the option of continuing to apply transportation concurrency locally within their jurisdictional boundaries. The Act also requires local governments to allow applicants for development orders, including rezoning, developments of regional impact, or other land use development permits, to satisfy local transportation concurrency requirements through the payment or construction of its proportionate share of required improvements.

Proportionate Share Calculation —The Act revised the methodology used to calculate the proportionate-share contribution. The applicant is not held responsible for the additional cost of reducing or eliminating existing deficiencies and is required to pay for or construct those portions of the improvement that are directly attributable to the traffic generated by their proposed development.

BEST PRACTICES REVIEW

Local Concurrency Programs in Florida & Nationwide

A review of local transportation concurrency programs in Florida and other areas nationwide was conducted. Concurrency programs were reviewed for all the Cities incorporated in Miami-Dade County. While some counties in Florida such as Orange County designate concurrency-exception areas, others such as Pasco County have replaced impact fees with mobility fees. Innovative programs used in other areas include the City of Bellingham's multimodal approach to concurrency, and the City of Redmond's mobility fee program.

FLORIDA CITIES			COUNTIES
Miami Gardens	Adventura	Hialeah	Alachua County, FL
Miami Lakes	Jacksonville	Kissimmee	Pasco County, FL
Miami Shores Village	Miami	Tarpon Springs	Orange County, FL
North Miami	Homestead	Miami Beach	Miami-Dade County, FL
WASHINGTON STATE CITIES			
Bellingham	Redmond		King County, WA

Downtown Bellingham, WA



Miami-Dade County's Concurrency Management Program

In Miami-Dade County, the Comprehensive Development Master Plan (CDMP), Administrative Order No. 4-85, and Chapter 33-G, Service Concurrency Management Program of the Code of Miami-Dade County, establish concurrency standards and criteria for the County. The CDMP establishes and monitors Level of Service (LOS) standards and relates concurrency requirements to the Long-Range Transportation Plan (LRTP). Administrative Order 4-85 identifies methods and criteria to be utilized by concurrency review agencies when evaluating development order applications and impacts on level-of-service standards. Chapter 33-G identifies the agencies responsible for concurrency review, and states specific development types that are exempt from meeting concurrency. While it is a well established program, the current concurrency methodology employed by Miami-Dade County has several limitations:

- It is focused on roadway networks, rather than a multimodal approach.
- The current approach does not link new development impacts to land use patterns, density and intensity.
- Greater coordination between agencies and processes should be maintained to enhance development strategies and monitor service standards.
- Impact fees could be replaced with mobility fees to reflect all transportation modes based on all land use types, and to fund transit operations.

BEST PRACTICES

Best Practices Summary

Concurrency programs in other areas in Florida were reviewed, to identify alternative approaches that could potentially be applied to Miami-Dade County's concurrency program. Alachua County utilizes a Multimodal Transportation Mitigation (MTM) program that establishes multimodal LOS standards, and is tied to the County's mobility plan and comprehensive plan. Orange County's multimodal approach to concurrency utilizes Alternative Mobility Areas (AMA) within the urban core and Multimodal Transportation Districts (MTD) outside of the urban center. Pasco County adopts a multimodal mobility fee program that replaces impact fees and funds infrastructure operations and maintenance costs through tax increment financing. In Miami-Dade County, the City of Miami which utilizes Transportation Concurrency Exception Areas (TCEAs) to promote development in Urban Infill Areas (UIA). The City of Hialeah also promotes multimodal development through its concurrency program.

A nationwide review of best practices for concurrency revealed that the City of Bellingham in Washington utilizes an award-winning multimodal concurrency program that establishes multimodal thresholds through person-trip credits. The program designates Concurrency Service Areas (CSAs) that are classified into three land use patterns and vary by density and intensity. In King County, Washington, LOS thresholds are dependent on land use patterns and roadway classifications. The City of Redmond in Washington adopted a mobility fee approach, where concurrency is calculated based on the available supply of existing and planned infrastructure and is compared to the expected infrastructure demand. Montgomery County in Maryland utilizes its adequate public facilities ordinance to establish LOS standards and apply concurrency.

Based on the best practices summary, the transportation concurrency programs used in the Cities of Bellingham, Washington and Redmond, Washington were chosen for further evaluation and scenario analysis. The City of Bellingham utilizes a multimodal approach that accounts for all travel modes and land use types. The City of Redmond adopted mobility fees in lieu of impact fees, allowing for a multimodal, stratified fee model that can be used to fund transit operations.



Stakeholder Input

A Study Advisory Committee (SAC) was created to assist throughout the course of the study. Meetings and presentations were held to communicate research results, develop alternative scenarios and prepare recommendations. Consensus was attained on key items, including developing a multimodal analysis approach to concurrency; funding transit operations through concurrency if possible; taking regional planning into consideration; promoting high density development through concurrency; fostering economic development; and ensuring the program's alignment with future land use and transportation goals.

General Recommendations

The literature review revealed that while transportation concurrency programs vary from one place to another, there are certain characteristics that effective concurrency management systems share. Eleven principles were identified as being desirable in a concurrency management system. The principles were used to evaluate and score the current system against the chosen Bellingham and Redmond approaches. The Miami-Dade County concurrency program scored lower than the other two approaches, primarily with principles pertaining to multimodal concurrency, equitability, and compatibility across local jurisdictions. Specific recommendations were provided to enhance Miami-Dade County's score for each principle.

Principle	Current System	Bellingham Approach	Mobility Fee Approach
Comprehensive Plan-based and supportive of anticipated infill	2	3	3
Is multi-modal	2	3	3
Ties revenue generation to planning objectives	1	3	3
Receptive to transportation demand management strategies	2	3	1
County-wide and compatible with municipal strategies	1	2	3
Based on accepted transportation planning and engineering principles and Florida law	2	3	3
Understandable for local development project evaluation	2	1	2
Does not require significant additional data collection	3	2	2
Is equitable	0	3	3
Ease of implementation or update	3	1	2
Readily explainable to elected officials and public	2	1	1
Total	20	25	26
<i>Scale: 0 = Does not meet principle and 3 = Completely meets principle</i>			

Redmond Town Center, WA



SCENARIOS

Since the Bellingham and Redmond concurrency programs were selected as exemplary approaches, scenarios were developed to demonstrate their applicability to Miami-Dade County's concurrency system.

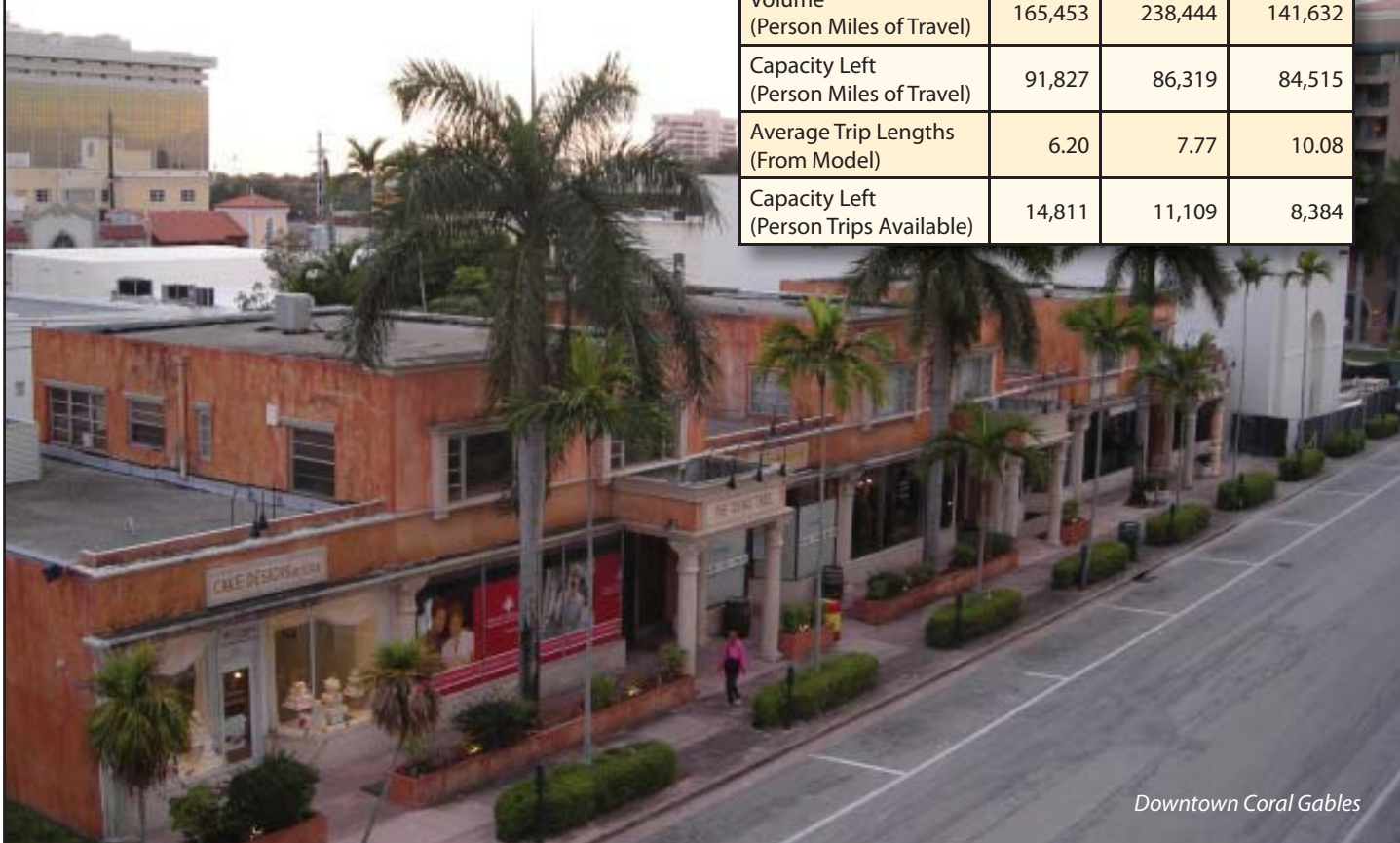
Multimodal Concurrency Model

The City of Bellingham was awarded Washington's transportation planning award in 2009 for their multimodal concurrency program, which includes multimodal LOS and new multimodal performance measures. To demonstrate the applicability of the Bellingham program to Miami-Dade County, the City of Coral Gables was selected as a sample area within the County. Concurrency service areas (CSAs) were developed to emulate the CSAs applied in Bellingham. These areas correspond to the distinct land use and transportation plans and policies within. The CSAs included three main land use patterns, derived from the regional travel demand model. These categories are: **Urban Area**, which includes the Central Business District (CBD) and high density areas outside of the CBD; **Transition Area**, which includes medium density areas outside the CBD; and **Rural Area**, which are low and very low density areas outside the CBD.

The transportation networks for each mode and their available capacity were identified and mapped over the CSAs. The capacity for each mode was then converted to person-trips. The final step was to determine the total number of person-trips available in each land use category by dividing the capacity by the average trip length.

The application of this scenario shows that using person-trips as the unit for transportation concurrency is sensitive to travel modes, vehicle occupancy and travel distance. Thus, areas that are supportive of multimodal transportation can be awarded more development before concurrency is tripped. This approach also provides a clear basis for adjusting impact fees to reflect the actual cost of providing infrastructure since land use types and trip length data are incorporated. It provides a rational for urban fees to be 25% lower than in the transitioning area, and for rural area fees to be 30% higher than those in the transitioning area.

	Area Type		
	Urban	Transition	Rural
Area (square miles)	2.40	5.23	10.79
Peak Hour Capacity (Person Miles of Travel)	257,279	324,763	226,147
Volume (Person Miles of Travel)	165,453	238,444	141,632
Capacity Left (Person Miles of Travel)	91,827	86,319	84,515
Average Trip Lengths (From Model)	6.20	7.77	10.08
Capacity Left (Person Trips Available)	14,811	11,109	8,384



Downtown Coral Gables

Mobility Fee Model

The Mobility Fee Model reflects the costs of development on the transportation system within Miami-Dade County for all development, regardless of location, with incentives or disincentives based on the distance to each modal network. In this scenario, all new development is subject to a fee calculation. A "base cost" (per unit cost) is established for each housing type and is applied regardless of location. The base cost fee is then allocated into one of the three different "locations" (Outer Edge, Transition, Urban). Next, an analysis is conducted to account for proximity to respective modal networks, key items are checked off, and the fee is automatically adjusted up if few/no modal choice or down significant modal choice.

In certain scenarios, incentives (fee credits) could potentially eliminate all fees to the development. The idea behind this concept is that some locations (and location decision-making) should be highly encouraged because they generate more overall benefit to the economy and quality-of-life improvements to a neighborhood, municipality, and/or County, than other locations. This benefit is generated through support for neighborhood businesses/Main Streets that increase local sales tax dollars or through the increased use of public transit.

This scenario was developed as a spreadsheet to allow for the inputting of information relevant to a particular development, such as the number of units, type of units, and location to particular facilities, resulting in a formula for mobility fees. The "base costs" (per unit costs) of housing units that remain the same regardless of location were determined from the existing impact fee ordinance unit fees.

Proposed Development:

50 Townhouses in the Transition Zone

Step 1: 50 (Townhouses) x \$2,943.37 (Townhouse/Duplex/Triplex "base cost")	\$ 147,168.50
Step 2: Calculate Incentives/Disincentives (per unit)	
Moderate distance to a major collector (roadway)	\$ 150.00
Near Bus Stop	\$ 1,500.00
Moderate to Rail Station	\$ 250.00
Far from Bike Facilities	- \$ 50.00
Moderate to Pedestrian Facilities	\$ 100.00
Total Incentive/Disincentive Costs	\$ 1,950.00
Step 3: Calculate Final Cost	
Per Unit Mobility Costs	\$ 1,950.00
Total Mobility Costs: (\$ 1,950 x 50 units)	\$ 97,500.00
Total Fee Due (\$147,168.50 - \$ 97,500)	\$ 49,688.50

Miami, FL



ALTERNATIVES

The best practices, stakeholder input, and scenario analysis conducted led to proposing three alternatives to Miami-Dade County's current transportation concurrency program:

1. **Keep the Current Program:** Except for updating the current program to match new legislation, the Miami-Dade County transportation concurrency system is maintained.
2. **Minimal Changes:** Minor changes, such as expanding the impact area, incentivizing development near transit, and computing capacity based on peak directional travel, are incorporated into the existing system.
3. **Alternative Approach:** This approach involves a hybrid of the multimodal concurrency program and the mobility fee model, with the most changes to the current system. This approach addresses most of the shortcomings of the current system, however.

EVALUATING IMPACTS OF ALTERNATIVES

An analysis was conducted to evaluate the impacts of implementing each of the three approaches from the following aspects: program implementation and methodology; traffic improvement; transit operations; implementation of bicycle and pedestrian facilities;

capital, maintenance and operating costs; jurisdictional boundaries; and monitoring. Short- and long-term impacts were evaluated and scored from the perspective of the community, developers, and agencies involved. A scale of -1 to 1 was used for the evaluation, to reflect both positive and negative impacts.

Taking all the evaluative factors into consideration, keeping the current program has overall negative net impacts, particularly to the community and agencies involved. The current program is not multimodal, equitable, or compatible with local jurisdictions across the County. While integrating minor changes to the current program would improve certain elements of the current program, overall, the net impact is zero, as the minimal changes do not address the major limitations of the program. In comparison, the alternative approach would yield the most positive impacts; incorporating a hybrid model of multimodal concurrency and mobility fees, thus addressing many of the current program's limitations, including accounting for land use patterns and funding transit operations and maintenance costs. While the evaluation methodology is based on qualitative measures, it was found that the impacts anticipated by the alternative approach would not have prohibitive impacts on the County's current concurrency program.

Summary	Average Impact to the Community	Average Impact to the Developer	Average Impact to the Agency	Average Impact by Factor
Average Score by Stakeholder for Keep Current Program	-1	0	-1	-1
Average Score by Stakeholder for Minimal Change	0	0	0	0
Average Score by Stakeholder for Alternative Approach	1	0	1	1
Scoring: -1 = negative impact, 0 = no impact, 1 = positive impact				



South Beach, Miami, FL

RECOMMENDATIONS

Recommended Plan Amendments

If any of the three approaches is adopted, changes would need to be made to elements relevant to concurrency in Miami-Dade's Comprehensive Development Master Plan (CDMP), Administrative Order No. 4-85, and Chapter 33-G, Service Concurrency Management Program of the Code of Miami-Dade County. Proposed changes are recommended to affected goals, strategies and policies in these governing documents. Legislative changes would need to be incorporated into all of the proposed alternatives. The alternative approach would involve the most changes.

Recommended Plan of Action for the Alternative Approach

Through the analysis conducted in this study, the alternative approach was found to yield the most positive impacts, encompassing a multimodal concurrency management program and establishing mobility fees. The following plan of action is recommended for adopting the alternative approach:

- Step 1:** Determine Concurrency Service Areas (CSA) and Mobility Fee Zones, which should have the same geographical boundaries based on land use type and travel characteristics.
- Step 2:** Identify the multimodal transportation facilities to be included and calculate the person trip capacity of each facility, utilizing a methodology similar to that employed in Bellingham, WA.

Step 3: Calculate the person trips available for each CSA/ Mobility Fee Zone.

Step 4: Calculate Mobility Fees for each CSA/zone.

Step 5: Develop prioritization strategies for expenditure of funds.

Step 6: Incorporate the proposed changes into the Comprehensive Development Master Plan and the land development regulations.

It is recommended that a technical committee comprised of planners, transportation professionals, and others currently involved in the implementation of concurrency be formed and consulted throughout the process. Public meetings and workshops to inform the general public and elected officials should also be conducted at key points of the process.

NEXT STEPS

This study provided a framework for modifying the County's concurrency management program. Prior to implementing any of the recommendations, additional consideration should be given to institutional issues, the costs and efforts required to implement the recommended changes, and involving the development community in the discussion.



Downtown Miami, FL

The Miami-Dade MPO has set a policy that assures that no person shall on the basis of race, color, national origin, sex, age, disability, family, or religious status, as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and the Florida Civil Rights Act of 1992 be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination or retaliation under any program or activity. It is the policy of Miami Dade County to comply with all of the requirements of the Americans with Disabilities Act. To request this document in accessible format please call (305) 375-1881. If you are interested in participating in the transportation planning process, please contact the Miami-Dade MPO at (305) 375-4507 or mpo@miamidade.gov, or visit www.miamidade.gov/mpo.



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