

# Alternative Funding Strategies for Improving Transportation Facilities





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**A Review of Public Private Partnerships and Regulatory Methods**

**Prepared for:**



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# Introduction

Transportation agencies seem to be paying more and more for less and less. Project costs are outpacing budget estimates in many areas, while growth in demand continues to strain available capacity. Right of way costs in particular are consuming a growing amount of project funding, as are construction costs spurred by spikes in global demand for materials. These issues, along with public opposition to taxes and inadequate local measures for managing the transportation needs of new development, are contributing to transportation funding shortfalls and stalled projects in many states.

Keeping pace with transportation demand is particularly challenging in high growth areas of states, like North Carolina, that maintain an extensive statewide network of roads and highways. As a result, many states are looking to encourage public private partnerships and to obtain developer contributions toward needed transportation improvements. This trend, however, has raised a variety of equity concerns. A major concern is how to achieve equity of contributions among private developers and how to assure that the public continues to pay its fair share toward transportation improvement needs.

To address these issues, the North Carolina Department of Transportation (NCDOT) retained the Center for Urban Transportation Research (CUTR) to assist the Department with exploring alternative funding strategies for improving transportation facilities. The study considered a variety of possibilities, including certain public private partnerships, alternative financing strategies, and regulatory methods. Specific topics examined were transportation corporations, transportation improvement districts, tax increment financing, impact fees, transportation concurrency and state programs for achieving fair share mitigation of transportation impacts. This report presents findings of this exploratory research effort.



# Transportation Corporations

A few states, such as Texas, Missouri and Florida, allow private individuals and local governments to form non-profit corporations for the planning and development of transportation projects. These corporations primarily focus on achieving or expediting major transportation projects and are governed by a board of directors, under the oversight of a state transportation commission. Below are some of the operating characteristics of transportation corporations as established in the various state laws.

## Missouri Transportation Corporations

Growing traffic congestion, limited state funds, and limited availability of roadways in many areas of the state, led the Missouri legislature to authorize the formation of transportation corporations in August of 2005. This recent legislation builds on those laws enacted in Texas and Florida and as such provides a good model of how such legislation might be structured. Roles of transportation corporations noted in the legislation include (§238.305.1):

- to secure and obtain rights-of-way for urgently needed transportation systems and to assist in the planning and design of such systems;
- to perform many functions normally undertaken by the state transportation commission and its staff, and thus reducing the burdens and demands on limited funds available to the commission; and,
- to promote and develop public transportation facilities and systems and thereby promoting economic development in the state.

In addition to purchasing land or receiving contributions of land and cash for project right-of-way, transportation corporations may also be authorized to (§238.332):

- limit and control access from adjacent property to a corporation project; and
- sell and convey excess right-of-way for fair market value to any person or entity.

The legislation emphasizes that transportation corporations “will not act as the agent or instrumentality of any private interests even though many private interests may be benefited by the transportation corporations, as will the general public.” Three or more registered voters in the state may form a transportation corporation by filing an application with the commission, along with preliminary plans and specifications for a project within the designated area of the corporation. The application must also include a proposed financing plan for the project. The transportation corporations are governed by a board of directors and advisory directors who are not compensated.

When considering the creation of a corporation, the commission is directed to hold a public hearing, and to notify the general public, as well as all impacted property owners and jurisdictions in the designated area. The governing body of each impacted county, city, town and/or village must approve the proposed project and the formation of the corporation by the commission. The commission must also find that the project is a necessary or desirable extension or improvement of the state transportation system and that the proposed corporation will have adequate funds to finance the proposed project. The commission may also require revisions to the plans and specifications and may authorize creation of one or more corporations to act within the same designated area, pursuant to specific stated public purposes.

A corporation may use any number of funding methods authorized under state law. It may issue bonds, notes and other obligations, and may secure these obligations by mortgage, pledge, or deed of trust of any or all of the property and income of the corporation, subject to state restrictions. They may establish and impose fees for services provided. They may also contract to provide project revenues to the commission who would apply those revenues to project costs, including debt service on revenue bonds or refunding bonds.

Corporations may also create toll facilities to pay project costs or operation and anticipated future maintenance costs, and enforce toll collection in partnership with other agencies. To construct a toll facility, a corporation may relocate an existing state highway subject to approval by the commission or an existing local public street or road subject to approval by the local jurisdiction or transportation authority. They are, however, prohibited from incorporating “an existing free public street, road, or highway into a corporation project that will be subject to tolls.” (§238.325.1(3)2.)

A corporation may at any time authorize or issue revenue bonds for all or part of the project cost. These bonds must mature within a period not to exceed 40 years and be payable out of the property and revenues of the corporation. They may also be further secured by other property of a special road district, “which may be pledged, assigned, mortgaged, or a security interest granted for such payment, without preference or priority of the first bonds issued, subject to any agreement with the holders of any other bonds pledging any specified property or revenues.” (§238.330.1)

Outstanding bonds may be refunded at any time by the corporation “in such amount as the district may deem necessary.” (§238.330.2) Bonds issued by the corporation are exclusively the responsibility of the corporation – a statement must be included in the bonds that the State of Missouri and its political subdivisions assume no liability for this debt. In addition, the bonds and any proceeds from the bonds are exempt from taxation except for the state estate tax.

Any condemnation of land for the project is subject to commission approval and must comply with state and federal procedures, including the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. The commission would

act for the corporation to condemn property. Should a corporation later become insolvent, individuals may reacquire their property by paying the corporation the total amount of the condemnation award for that parcel, plus simple interest from the date of the taking. The legislation also sets forth procedures for the dissolution of corporations and transferring maintenance of projects to the state.

## **Texas Transportation Corporations**

The Texas Transportation Corporation Act of 1995 authorized the creation of non-profit entities with broad powers to plan, develop, and maintain transportation facilities that are part of the federal or state highway system. Stated purposes of transportation corporations in the State of Texas are:<sup>1</sup>

1. “the promotion and development of public transportation facilities and systems by new and alternative means;
2. the expansion and improvement of transportation facilities and systems;
3. the creation of corporations to secure and obtain rights-of-way for urgently needed transportation systems and to assist in the planning and design of those systems;
4. the reduction of burdens and demands on the limited funds available to the commission and an increase in the effectiveness and efficiency of the commission; and,
5. the promotion and development of transportation facilities and systems that are public, not private, in nature, although these facilities and systems may benefit private interests as well as the public.”

A corporation may work directly with property owners, local and state governmental agencies, and elected officials to promote and develop a transportation facility or system. Corporations may accept donations, issue bonds or notes, and otherwise borrow money for operating or project-related expenses. The legislation specifically authorizes corporations to receive contributions of real property for needed right-of-way and/or cash donations for purchase of right-of-way, and to establish a formula to determine the amount of cash donations from affected property owners and others necessary to cover the cost of services performed by the corporation or its consultants.

To create a corporation, three or more individuals who are qualified voters may file an application with the Texas Transportation Commission (Commission). The designated area may include more than one jurisdiction and the Commission may authorize more than one corporation to act within the same area. A resolution authorizing each corporation must be enacted that specifies the public purpose of that corporation. The Commission must also approve the proposed articles of incorporation and issue a certificate of incorporation. They are defined as a “public charity” and, as such, are exempted from the franchise tax.

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<sup>1</sup> Texas Transportation Corporation Act, Chapter 431, Texas Transportation Code, 1995.

Each corporation must establish a board of directors consisting of three or more individuals, appointed for up to six years. The Commission may remove a director with or without cause. The board of directors may appoint any number of non-voting advisory directors to assist in promoting and developing transportation projects. Members of the board and advisory directors are not compensated (although approved expenses of board members may be reimbursed).

Other aspects of the corporation are the authority to:

- Employ administrative staff and retain consultants to provide legal, public relations, and engineering services (e.g. preparation of an exhibit, right-of-way document, environmental report, schematic, or preliminary or final engineering plan);
- Conduct presentations to the state and other affected agencies or groups and issue press releases or other promotional materials on their projects;
- Contract with the Commission to construct or improve a transportation project designated by the Commission and sell the project or improvement to the Commission.

For a transportation project constructed by a corporation, the corporation may contract with the Commission who would then supervise the construction or provide construction management services. The legislation also provides that: “A corporation and a county, a home-rule municipality, a county road district created under Chapter 257, or a road utility district created under Chapter 441 may contract to pay jointly the cost of a transportation project designated by the commission. The contract may obligate the corporation to design, construct, or improve the transportation project.”

Local governments may also form a transportation corporation under the legislation. A local government corporation may act on behalf of one or more local governments to accomplish any governmental purpose of those local governments, as well as the other powers authorized above. A local government creating a corporation may also receive any income earned by the corporation that is not needed to pay the corporation's expenses or obligations. The legislation specifies that any such earnings of a local government corporation may not benefit a private interest.

A state agency, including the Commission, or a political subdivision of the state may contract with a local government corporation to accomplish a governmental purpose in the same way it may contract with any other transportation corporation. A local government may also contract with a corporation to accomplish the purposes of the sponsoring local government.

## Florida Transportation Corporations

Florida transportation finance and planning law provides for the creation of transportation corporations (339.401, F.S.). These nonprofit corporations are authorized to act on behalf of the Florida Department of Transportation to assist with project planning and design, assemble right of way and financial support, and generally promote projects. “Project” is defined as any improvement to an *existing* highway that is included in an adopted work program. Among the specific activities of transportation corporations authorized under Florida statute are:

- acquiring, holding, investing and administering property and transferring title to the FDOT for project development;
- performing preliminary and final alignment studies;
- receiving contributions of land for right-of-way, and cash donations to be applied to the purchase of right-of-way or design and construction projects; and,
- making official presentations to groups concerning the project and issuing press releases and promotional materials.

Unlike other states, transportation corporations in Florida cannot issue bonds and are not empowered to enter into construction contracts or to undertake construction. They are enabled to otherwise borrow money or accept donations to help defray expenses or needs associated with the corporation of the transportation project.<sup>2</sup> Presumably, this lack of funding flexibility is why no transportation corporations appear to have been formed in Florida to date.

## Pros and Cons

### Pros

- Flexibility of funding
- Ability to solicit and accept donations and tax revenues
- Expedites publicly supported projects where public funding is a constraint
- Risk of debt liability is assumed by the corporation
- Provides an effective process, with state oversight, for public/private partnering to advance a project desired by the public.

### Cons

- Requires political champions
- Limited in application, works best in areas with clearly defined and widely accepted projects.
- Requires state enabling legislation

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<sup>2</sup> Florida Transportation Corporation Act, Sections 339.401-421, Florida Statutes, 1988.

## Case Examples

### ■ HIGHWAY 63 TRANSPORTATION CORPORATION (MISSOURI)

When funding constraints forced the Missouri Department of Transportation (MoDOT) to delay a much needed improvement to Highway 63 until 2020, residents of Kirksville, Missouri decided to form their own transportation corporation. MoDOT and the Missouri Transportation Commission were receptive to moving the project forward if supplemental funding from local sources could be found. The Highway 63 Transportation Corporation contracted with private-sector businesses to move ahead with expanding the highway from two to four lanes. After selecting a contractor, they developed a plan to not only design, expand, and construct the improvement, but also to maintain the roadway. With that plan, the corporation suggested a one-half cent increase in the sales tax from the citizens of Kirksville, which would provide up to 30 percent of the project's total cost. The Kirksville City Council placed the question on an April 2, 2002 ballot, and it passed with 78 percent in favor.

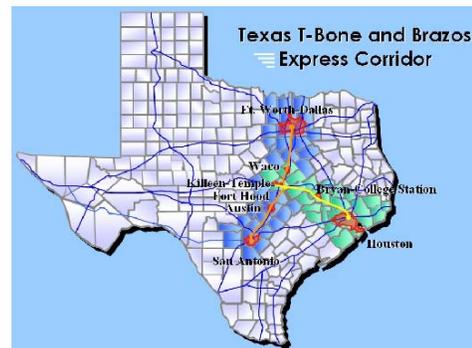


**Source:** The National Council for Public-Private Partnerships, Case Studies: The Highway 63 Transportation Corporation, <http://ncppp.org/cases/hwy63.html>

**Contact:** Elsie Gaber, Tel: (660) 626-2832

### ■ TEXAS HIGH SPEED RAIL AND TRANSPORTATION CORPORATION

In 2002, a group of transportation experts and elected officials formed the Texas High Speed Rail and Transportation Corporation, hoping to spur the development of a high-speed rail passenger system and a multi-modal corridor named the “Texas T-Bone.”<sup>3</sup> The Texas T-Bone area comprises nearly 78 percent of the state's population; so within its boundaries come many residential, commercial and industrial customers. One of the goals of the group is to change legislation to include the Brazos Express Corridor route as a nationally recognized high speed rail corridor. The group continues to search for multi-modal partnerships and funding and has discovered that commercial revenues alone from the state's numerous cargo shipments across the US and with Mexico could fund nearly 42 percent of the heavily traveled corridor.<sup>4</sup>



<sup>3</sup> Texas High Speed Rail & Transportation Corp. website. <http://www.thsrc.com>.

<sup>4</sup> *FastForward*, The Monthly Newsletter for the Texas High Speed Rail and Transportation Corporation. May 2006, Issue 26, Page 8. Available online: <http://www.thsrc.com>.

**Source:** THSRTC Website, <http://www.thsrtc.com/>

**Contact:** Dennis Christiansen, Deputy Director, Texas Transportation Institute, Tel: (979) 845-1713; Fax: (979) 845-9356; Email: [dennis-c@tamu.edu](mailto:dennis-c@tamu.edu)

### ■ FORT BEND PARKWAY ASSOCIATION AND FORT BEND COUNTY TOLL ROAD AUTHORITY

The Fort Bend Parkway Association consists of a five-member board and was formed as a transportation corporation in the early 1990s to address consistent delays in developing a toll road along the heavily traveled north/south corridor of State Highway 6 to U.S. 90A. The association conducts feasibility and alignment studies specifically for the Texas Department of Transportation.

The costs of the association, such as consulting firm fees, are funded by Fort Bend County from a special fund. “The Fort Bend Parkway Association essentially oversees the efforts and makes recommendations to the county engineer, to the county attorney, and to the Commissioner's Court to pay the invoices of the consultants,” according to boardmember Robert Randolph.<sup>5</sup>

With its toll road powers, the association supported the development of the Fort Bend Parkway. Separate from the association, is a similar local government corporation known as the Fort Bend County Toll Road Authority (FBCTRA). The Fort Bend County Commissioner’s Court later created the FBCTRA with powers to aid the county and act on its behalf as well as oversee its toll road projects. After citizens approved a \$140 million bond, the FBCTRA began construction on these two long-awaited toll road projects: the Fort Bend Parkway Toll Road and the Fort Bend Westpark, opening to the public in 2004 and 2005, respectively.



**Source:** Bob Randolph, Fort Bend Transportation Corporation or Parkway Association, Minutes of the Texas Transportation Commission, Thursday, May 28, 1998. <http://www.corridorwatch.org/ttc/19980528.htm>

**Contact:** The Fort Bend County Toll Road Authority, (281) 242-9740; Email: [info@fbctra.com](mailto:info@fbctra.com)

<sup>5</sup> Robert Randolph with the Fort Bend Transportation Corporation or Parkway Association addressing the Texas Transportation Commission on May 28, 1998.

## **Resources**

1. Missouri Revised Statutes, Chapter 238, Transportation Districts and Transportation Corporations, Missouri Transportation Corporation Act, Sections 238.300 to 238.367, 2005.
2. Texas Revised Statutes, Transportation Code, Subtitle I. Transportation Corporations. Chapter 431. Texas Transportation Corporation Act, 1995.
3. Florida Statutes, Florida Transportation Corporation Act, Sections 339.401-421, 1988.

# Transportation Improvement Districts

A transportation improvement district (TID) is a special funding district for improving transportation infrastructure and services in a specific area. Known in some states as transportation development districts (TDD), they provide a forum for achieving cooperation among local governments and other governmental agencies on a common purpose of improving the transportation system in a designated area. A scan of the internet revealed active TIDs or TDDs in Ohio, Virginia, Missouri, and New Jersey.

## How it Works

State law varies as to their nature and authority, but generally they function as a separate governmental entity with authority to levy taxes or special assessments, issue revenue bonds, and enter into contracts for transportation improvements and related purposes. Some districts require new development projects with traffic impacts to pay for improvements based on a dollar cost per vehicle trip generated.

A local government body, typically a county commission, acts as the lead entity in forming the district. The district must also have a development plan that is consistent with adopted land use and development plans. Zoning and build-out projections by each municipality form the basis for the infrastructure improvements required for the district.

## Ohio Transportation Improvement Districts

In Ohio, transportation improvement districts were first authorized in 1993 under Ohio Revised Code Section 5540, Transportation Improvement Districts. The Ohio TID is described as “a jointly governed organization — both corporate and politic — given the powers to finance, construct, maintain, repair, and operate transportation systems.”<sup>6</sup> At the discretion of the County Commission, a TID may be governed by a Board of Trustees.

The Board of Trustees annually appoints the Chair of the Board from the existing Board members. The Chair is charged with the responsibility of presiding at all Board meetings and acting as chief legislative officer of the TID. An Executive Director of the TID, also appointed by the Board of Trustees, is charged with the responsibility of serving as chief executive officer of the TID as prescribed by the Board of Trustees.

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<sup>6</sup> Transportation Improvement District of Butler County, Comprehensive Annual Finance Report for the year 2001. <http://www.bctid.org/news/2001CAFR.pdf>

The TID may initiate a variety of innovative funding measures to leverage resources and expedite road projects and may also seek support from state and federal sources. Property owners, local governments, and businesses that benefit from the project may all help to finance construction of the road improvements. For example, the TID board may award contracts or enter into a lease agreement for construction of qualifying improvements. It may also accept donations and issue notes, bonds, revenue anticipatory instruments, or other approved obligations to finance the improvements. All or a part of the costs and expenses of the improvement may be paid by special assessments levied against lots and parcels in the area deemed by the board to generally or specifically benefit from the improvement.

The legislation sets forth a process for determining special assessments. TID special assessments may be levied only once annually per lot or parcel at an amount not to exceed ten percent of the assessable value of the lot or parcel assessed pursuant to a statutory method for determining fair market value. The board must determine the fair market value of the assessed property in the calendar year that the area is designated a TID. Next that amount is multiplied by the average rate of appreciation of the lot or parcel since that calendar year. The assessable value of the lot or parcel is the current fair market value of the lot or parcel minus the amount reflecting the average rate of appreciation.

The board may adjust the assessable value where sale of the property results in appreciation in excess of its previously determined average rate of appreciation. Complaints regarding assessments may be made to the county board of revision in the same manner as complaints relating to the valuation and assessment of real property. Property owners may also be granted a credit against their assessment equal to the value of TID-approved contributions they make toward the transportation improvement.

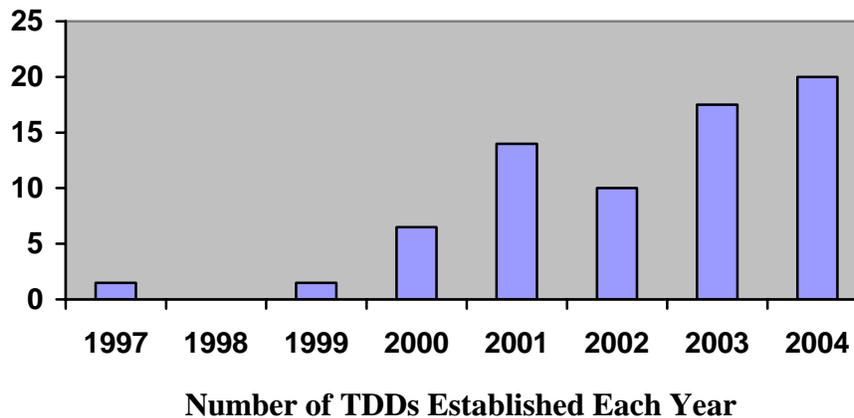
Discussions with those involved in establishing TIDs in Ohio indicated that the special assessment process in legislation is less effective than that otherwise available to local governments.<sup>7</sup> As a result, it has not been widely used and instead a variety of other methods have been used to structure financial packages for projects. In addition, the TIDs have enabled the use of innovative construction methods that have resulted in cost savings. Examples include ability to purchase excess property around locally funded interchanges that can be sold to offset project costs, advance acquisition or right-of-way, and lease agreements with ODOT that served as a credit stream for bond payments.

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<sup>7</sup> Telephone conversation with Attorney Rusty Schuermann, Keglars, Brown, Hill and Ritter, 614-462-5440, December 1, 2006.

## Missouri Transportation Development Districts

Missouri authorized transportation development districts in 1990.<sup>8</sup> The first TDD was established in Missouri in 1997 and as of December 31<sup>st</sup> 2004, 69 TDDs had been established (see Figure 1). An additional 18 TDDs were recorded in 2005 alone, making Missouri one of the more active states in applying this technique. The following figure, reproduced from the state auditor's website shows the annual activity in formation of TDDs in Missouri.<sup>9</sup>



In Missouri, a TDD project may be funded through the creation of District-wide special assessments or property or sales taxes with a required majority vote and petition approval.<sup>10</sup> Except for the sales tax, which generally must be submitted by the Board upon creation of the District, a proposed funding mechanism for a project may be submitted or resubmitted at any time to the District's qualified voters for approval. The property tax to be levied is 10 cents/\$100 assessed valuation and the sales tax cannot exceed 1%.<sup>11</sup> Tolls or fees for the use of project can also be levied pursuant to majority vote. TDDs may also borrow funds or enter into lease-purchase arrangements or issue bonds or notes as revenue bonds and secure them by pledging district property or income.

The district may develop, improve, maintain or operate any number of transportation projects relative to the transportation needs of the benefit area. This may include streets and highways, railroads or urban light rail, aviation, bus or other mass transit, river port, ferry or any other conveyance and related infrastructures.

<sup>8</sup> Revised State Statutes of Missouri, §§ 238.200 to 238.275

<sup>9</sup> State Auditor Claire McCaskill, Transportation Development Districts, Report No 2006-12, March 2006. <http://www.auditor.mo.gov/press/2006-12.pdf>

<sup>10</sup> Missouri State Business and Community Services Website: <http://ded.mo.gov/>

<sup>11</sup> Missouri Department of Transportation, "A Guide to Financing Successful Partnerships with Missouri Department of Transportation," [www.modot.org/services/community/documents/programguide.pdf](http://www.modot.org/services/community/documents/programguide.pdf).

The TDD is governed by a board of directors that generally ranges from 5 to 15 members. It is established by first filing a petition to the circuit court of the county by a specified number of registered voters, real property owners or by one or more local transportation authority(s). A local transportation authority includes a county, city, special road district, or any other local public authority having jurisdiction over transportation projects and services. A public hearing may be held, but is not required. The court can question the district's creation, project development and funding if the petition is filed by registered voters or by local government, but not if it is organized and filed by a majority of property owners.

The district must transfer the proposed projects for maintenance to the state highway commission or for non-state projects, a local transportation authority. A TDD can be abolished if the board of directors determines the projects cannot be completed due to lack of funding or for any other reason. The board of directors must submit the question to abolish the district to a vote of the registered voters or all of the property owners in the TDD, if there are no registered voters.

### **New Jersey Transportation Development Districts**

The New Jersey Transportation Act of 1966, intended for finding solutions to transportation problems in the state, allows for intergovernmental coordination and the creation of public authorities. It was under this authority that the New Jersey Transportation Development District (TDD) Act of 1989 was created.<sup>12</sup> The TDD is thought of as the foundation for a public-private partnership to meet state transportation needs. To keep up with growth in the state and to fund needed transportation improvements, the creation of special financing districts was necessary, and now possible.

The Act also allows an assessment of special fees on developments responsible for adding transportation burdens to existing infrastructure. According to the Act:

“Any of these assessments of special fees should be assessed under a statutory plan which recognizes that: (1) the fees supplement, but do not replace, the public investment needed in the transportation system, (2) the costs of remedying existing problems cannot be charged to a new development, (3) the fee charged to any particular development must be reasonably related, within the context of a practicable scheme for assessing fees within a district, to the added burden attributable to that development, and (4) the maximum amount of fees charged to any development by the State or county or municipality for off-site transportation improvements pursuant to this act or any other law shall not exceed the property owner's fair share of such improvement costs. In determining the reasonableness of a fee assessed in accordance with the provisions of this act, it must be recognized that government must have the

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<sup>12</sup> *Regional Intergovernmental Transportation Coordinating Study Commission (RITCSC) Interim Report*, July 13, 2000. Prepared by, the Transportation Policy Institute, New Jersey.

flexibility necessary to deal realistically with questions not susceptible of exact measurement. It is furthermore necessary to recognize that precise mathematical exactitude in the establishment of fees is neither feasible nor constitutionally vital.”<sup>13</sup>

The governing body of any county where the TDD is to be established is to submit an application to the commissioner which contains the proposed boundaries, justification of creation of the TDD and a description of the transportation needs of the county. The commissioner has the right to approve or disapprove the district as the appropriate case, in the case of disapproval; the governing body has the right to resubmit the application. The statute directs the commissioner to adopt standards to guide the determination of whether there is sufficient evidence of growth in an area to justify creation of a transportation development district under the act.

## Pros and Cons

### Pros

- Broad authority and flexibility in achieving funding for a transportation project.
- Equitable – both public and private sector contribute in the designated area and smaller developments pay their fair share as well.
- Encourages collaboration across local governments in a region to achieve projects that could not be done individually.
- Not limited to roadway improvements, could fund transit improvements and support transit oriented development around stations.
- Can help “cut through” bureaucracy and accelerate transportation projects
- Allows for greater innovation by contractors with regard to design and construction than may be allowed under state specifications.

### Cons

- Growth may not occur as planned; difficulty matching assessed revenues to project costs. Special assessments have been problematic in some areas.
- Growth may occur at a higher density or intensity than desired by the local community
- Cumbersome to form and administer.
- Limited to high growth areas
- Public may not be adequately involved

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<sup>13</sup> Transportation Development District Act, Title 27, 1C-4, Highways. Subtitle 1A. Department of Transportation. Ch. 1C-L. June 26, 1989. New Jersey State Statute.

## Case Examples

### ■ CLERMONT COUNTY, OHIO TID

Clermont County created a Transportation Improvement District “to help it work with other agencies on transportation-related projects.”<sup>14</sup> The TID was approved by the county commission, who also created a board to oversee the district. County Administrator David Spinney called the TID, “a valuable tool that will enable the county to have greater flexibility in approaching transportation projects. It is designed for increased collaboration with other government entities and will serve to advance work on the Eastern Corridor multimodal project, among others.” The Eastern Corridor project would include road improvements, rail transit and bike paths.

### ■ BUTLER COUNTY, OHIO TID

A Transportation Improvement District (TID) was established in Butler County, Ohio by resolution of the Butler County Commission in 1993.<sup>15</sup> The TID is governed by an eighteen member Board of Trustees, thirteen of whom are voting members and five of whom are non-voting members. The TID also has three elected officers—the Chair, Vice-Chair and Secretary-Treasurer—with each officer serving a one-year term.



TID Board members are appointed by the member governments of Butler County, the City of Hamilton, the City of Fairfield, Fairfield Township, Liberty Township, West Chester Township, the State of Ohio, and the Ohio Kentucky Indiana Regional Council of Governments. The Butler County Engineer is designated by law as a member. Non-voting members include Ohio-Kentucky-Indiana Regional Council of Governments and area State Legislators.

The TID operates from four financial sources: a state bi-annual operating grant, interest revenue on investments, local government contributions, and a three percent administration charge on construction projects managed by the TID. The Butler County Commission has initiated the passage of a one half percent increase in the sales tax which would fund additional capital improvement projects. The TID would receive several of those earmarked improvement projects.

<sup>14</sup> Cincinnati Business Courier, “Clermont creates Transportation Improvement District,” June 22, 2006. <http://bizjournalshire.com/cincinnati/stories/2006/06/19/daily41.html>

<sup>15</sup> Transportation Improvement District of Butler County, Comprehensive Annual Finance Report, for the year 2001. Prepared by Sean Fraunfelter, CPA, Director of Finance and Administration. Website:- <http://www.bctid.org/news/2001CAFR.pdf>.

The TID is advancing several projects in the designated area, including the following projects as described in the Butler County TID Annual Report:

- “The Princeton Road at State Route 4 Bypass project, initiated by Fairfield Township to improve infrastructure to service this developing area. Even before construction was started on the project, a Home Depot was built and construction of a Wal-Mart was underway.
- The Union Centre Boulevard Extension was opened for traffic in 2001. Funding was initially estimated at \$13 million dollars, but the total cost was less at slightly over \$8 million due to right-of-way donations and a lower than estimated contract price.
- One of the larger projects was the construction of a 10.7 mile highway, called the Michael A. Fox Highway. Construction began in May 1998 and was opened to public in October 1999. The 2001 annual report indicated that economic development continues throughout the County since the highway opened.”

**Source:** <http://www.bceo.org/funding.html>

**Contact:** John Fonner, Executive Director, Butler County TID, Office Location: 315 High Street, Hamilton, Ohio 45011; Tel: (513) 785-5800.

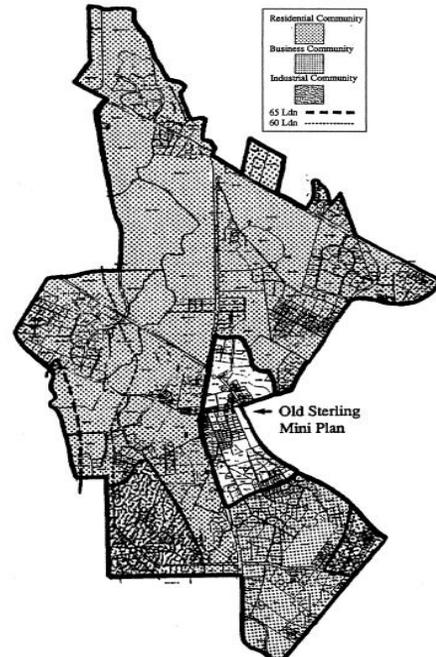
#### ■ ROUTE 28 TRANSPORTATION IMPROVEMENT DISTRICT, VIRGINIA

Loudoun County, in partnership with Fairfax County, formed the Route 28 Highway Transportation Improvement District on December 21, 1987. The district covers approximately 3,000 acres and connects State Route 7 in eastern Loudoun County to U.S. Route 50 and Interstate Highway 66 in western Fairfax County.

The TID was formed upon landowner petition to accelerate this planned state highway improvement. It is administered by a Board of Directors from both Loudon and Fairfax Counties. It may subject industrial and commercial property within the District to a maximum additional tax assessment of 20 cents per \$100 of assessed value. These funds are used for road improvements and debt service on bonds along with funds received through the State Primary Road Fund allocation formula. Section 15.1-1372.7 of the Virginia Code also requires property owners to pay the county a lump sum of the tax obligation on the rezoned property from the time it is rezoned through the entire life of the taxing district.<sup>16</sup>

<sup>16</sup> K. M. Williams and M. Marshall, *Managing Corridor Development: A Municipal Handbook*. Center for Urban Transportation, October 1996.

NOTE: The Commonwealth of Virginia issued \$138.5 million in revenue bonds for the Route 28 project in September 1988. Initially, tax collections at the maximum amount were not sufficient to pay the debt obligation in full. Consequently, the difference has been made up from the Northern Virginia State Highway allocation. In addition, Loudoun County and Fairfax County entered into a contract with the District on September 1, 1988, and agreed to levy additional tax assessments as requested by the District, collect the tax and pay all tax revenues to the Commonwealth Transportation Board. The contract specified that: (1) the County Administrator shall include in the budget all amounts to be paid by the county under the district contract for the fiscal year; (2) the county shall provide by February of each year the total assessed fair market value of the district as of January 1 of that year; and (3) the district in turn shall notify the county of the required payment and request a rate sufficient to collect that amount, up to a maximum of 20 cents per \$100 of assessed value.



In 2002, the County entered into an agreement with the State and Fairfax County to refund the existing debt and issue new bonds to construct six additional interchanges. The total cost of this additional project is estimated at \$190 million. For FY 07, the Route 28 Transportation Improvement District is projected to generate \$8,200,000 in current and delinquent tax revenue to offset its estimated \$8,200,000 in expenditures.

**Source:** Loudoun County, Virginia, FY 2007 Adopted Fiscal Plan, Route 28 Transportation Improvement District, <http://inetdocs.loudoun.gov>.

**Contact:** Route 28 Corridor Improvements, LLC. 22894 Pacific Boulevard, Suite 104, Dulles, Virginia 20166. Tel: (703) 668-0288; Email: [28\\_freeway@28freeway.com](mailto:28_freeway@28freeway.com)

#### ■ MERCER COUNTY TRANSPORTATION DEVELOPMENT DISTRICT, NEW JERSEY

The I-95/295 Corridor in Mercer County, New Jersey was designated a Transportation Development District in 1990. The District encompasses parts of the Townships of Ewing, Lawrence and Hopewell. The TDD designation allows the County to assess development fees for transportation improvements in high growth areas. According to a 2000 study, only four counties in New Jersey have established a Transportation

Development District and only the Mercer County TDD is currently operational under the provisions of the legislation.<sup>17</sup>

Mercer County initiated a comprehensive land use/transportation study designed to determine the appropriate development densities and infrastructure needs for its I-95/295 corridor within each of the municipalities. The study process involved a cooperative effort among the county, municipalities and land owners. Government and private-sector representatives took part in a joint planning process to determine a fee structure, identify needed transportation improvements, and identify available public resources.

The adopted TDD plan identifies transportation infrastructure improvements within the designated district to support anticipated development. The TDD Plan was approved by NJ DOT in 1992 and approved a month later by the Mercer County Board of Chosen Freeholders.

The transportation goals of the TDD are to maintain acceptable traffic flow, protect quality of life for existing residents and make alternatives to single-occupancy automobiles more attractive. The TDD plan describes how these goals will be achieved, prioritizes improvements, and allocates a public and private sector share of the improvement costs. It also established a trip-based fee to be collected. The result, according to County officials, is that both the public and the development community have been sharing equally in the costs of needed improvements. Developers can meet their obligation by paying into a trust fund, donating right of way or constructing improvements.

**Source:** Martin A. Bierbaum. *Mercer Crossings Implementation Strategies: A Sequel to the ULI Advisory Services Panel Report*, August 2004.

**Contact:** Donna M. Lewis, AICP/PP, Mercer County Planning Director, Trenton, NJ 08650-0068. Tel: 609- 989-6545; Email: [dlewis@mercercounty.org](mailto:dlewis@mercercounty.org)

## Resources

1. James E. Mello, Robert D. Dlahr, and Armstrong Teasdale. "Summary of the Missouri Transportation Development District Act." St. Louis, Missouri: September 2003.
2. Transportation Development District Act, Title 27, 1C-4, Highways. Subtitle 1A. Department of Transportation. Ch. 1C-L. June 26, 1989. New Jersey State Statutes.
3. Ohio Revised Code Section 5540, Transportation Improvement Districts.

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<sup>17</sup> Regional Intergovernmental Transportation Coordinating Study Commission Interim Report, The Transportation Policy Institute, New Jersey, July 13 2000.



# Tax Increment Financing

Tax increment financing provides money for transportation improvements from anticipated growth in property tax revenues resulting from a redevelopment plan. Transportation can benefit from this strategy, through targeted investment in infrastructure such as street construction, expansion, traffic control, bridges, curbs and sidewalks, and even parking structures within the TIF districts. Currently, 49 states have enacted legislation enabling tax increment financing.<sup>18</sup> In 2003, North Carolina passed the Project Development Financing Act, allowing tax increment financing for certain types of redevelopment.<sup>19</sup> The application of the technique is limited by the requirements and definitions of state law.

## How it Works

Tax increment financing is generally used to encourage developers to redevelop economically depressed areas of a community, and to help local governments pay for needed infrastructure improvements. Any future incremental growth in general tax revenue from redevelopment and improvement of the area is reinvested back into the district.<sup>20</sup> The assumption is that this will stimulate redevelopment and property values will rise as commercial activity increases, augmenting tax revenues.<sup>21</sup> A revenue bond can then be secured from this incremental growth in tax revenues to fund needed improvements. Generally, the life of the TIF district is determined by the life of the bond that funds the improvement.

In some areas, rather than using bonds, developer pay the costs of the infrastructure improvements and are reimbursed as tax increments become available. This approach is commonly known as “pay as you go” financing, and is widely used in Minnesota. The agency may also advance money to the developer from another fund for this purpose and then be reimbursed with the increments. In some cases, an agency may offer low or no interest on these cash advances to help further reduce the costs of private investment in the district.

Authority is given by the state to local governing bodies to designate and create tax increment financing districts. TIF districts may be governed by local governments or

<sup>18</sup> Council of Development Finance Agencies. “Tax Increment Financing State Statutes.” Available online: <http://www.cdfa.net/cdfa/cdfaweb.nsf/pages/tifstatestatutes.html>.

<sup>19</sup> North Carolina General Statutes. Project Development Financing Act. Chapter 159. Article 6. Available online: [http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByChapter/Chapter\\_159.html](http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/ByChapter/Chapter_159.html).

<sup>20</sup> Samis B. White, Richard d. Bingham, and Edward W. Hill. *Financing Economic Development in the 21<sup>st</sup> Century*. M.E. Sharpe: Armonk, New York; London, England, 2003.

<sup>21</sup> “The U.S. Experience with Tax Increment Financing (TIF), A Survey of Selected U.S. Cities,” March 2005. [http://www.calgary.ca/docgallery/bu/corporateproperties/final\\_report\\_tif.pdf](http://www.calgary.ca/docgallery/bu/corporateproperties/final_report_tif.pdf).

quasi-governmental agencies, such as community redevelopment agencies. For an area to qualify as a TIF, it must first typically meet the statutory definition of “blight”. Local officials will need to show that the boundaries under consideration meet the definition, usually by compiling an economic impact study, detailing demographics and failing conditions of the area. A redevelopment plan is then created in conjunction with any private developers, and local officials typically need to show that revitalization of the area can only occur if it is designated as a TIF district. A public notice; public hearing; and development of a local ordinance reflecting the redevelopment plan may also be required.

After TIF district designation is granted, the base property values can then be “frozen” for the duration of the project (usually the length of the bond), and any growth in value can be redirected to pay off bonds.<sup>22</sup> The process begins with the county auditor certifying the original tax rate and current tax capacity of properties in the district. The tax rate includes that imposed by all local governing bodies that levy taxes (city, county, school district, and special taxing districts). The tax increment for the district is determined by multiplying the original tax rate by the increase in taxable value resulting from redevelopment.<sup>23</sup>

It is necessary to consult with professionals when developing an economic impact plan specific to the TIF district for forecasting residential, commercial and transportation demands in the area, as well as barriers. Plans will take into account the demographics that are expected, such as household size and income ratios to balance resources and ensure build out meets the unique needs and goals of the communities.

### **North Carolina’s Project Development Financing Act**

In North Carolina, cities and counties have authority to use tax increment financing (TIF) under the Project Development Financing Act, enacted in 2003.<sup>24</sup> Local governments can partner with private entities and define a “development financing district,” using project development financing bonds if the property in the targeted district is either:

- (1) blighted, deteriorating or undeveloped,
- (2) appropriate for rehabilitation or conservation activities, or
- (3) appropriate for economic development of the community.

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<sup>22</sup> Sammis B. White, Richard D. Bingham, and Edward W. Hill, et. al. *Financing Economic Development in the 21<sup>st</sup> Century* M.E. Sharpe, Inc., Armonk, NY. 2003. pp. 54-55.

<sup>23</sup> Minnesota House of Representatives House Research. “How do the mechanics of TIF work?” Available online: <http://www.house.leg.state.mn.us/hrd/issinfo/tifmech.htm>.

<sup>24</sup> W. Rivenbark and S. Denning, “Project Development Financing: Combating Blight and Promoting Economic Development Through Tax Increment Funding,” UNC School of Government, Local Finance Bulletin, Number 35, October 2006.

Local governments may not designate more than 5% of their land area for this purpose. After an area is defined as such, all parties must work together to formulate a “development financing plan” which includes the following characteristics:

- (1) the boundaries of the district,
- (2) the proposed public and private development of the district,
- (3) the costs of the proposed public activities,
- (4) the sources and amounts of funds to pay for the public activities,
- (5) the base valuation of the district,
- (6) the projected incremental increase in property valuation of the land located within the district after completion of the improvements,
- (7) how the proposed development of the district will benefit the residents and business owners of the district in terms of jobs, affordable housing or services, and,
- (8) any action which will be undertaken if the proposed project has a negative impact on residents or business owners of the district in terms of jobs, affordable housing, services or displacement.

With a development financing plan in place that meets the above standards, the board of county commissioners has 28 days to approve the plan. If manufacturing operations are included in a portion of the plan, then the Department of Commerce and the Department of Environment and Natural Resources must also review the project. A notice of the plan must be published in the local newspaper and property owners in the district must be notified. A public hearing must also take place before the local government’s board can adopt the plan.

An application which includes statement of facts, financial condition, establishment of district, and projected incremental tax revenues must be submitted to the Local Government Commission (LGC). The LGC will then determine the whether the following standards are met:

- (1) Adoption of a development financing plan;
- (2) proposed projects are feasible;
- (3) proposed project development financing is necessary to secure significant new project development for a district;
- (4) private development forecast in the development financing plan would not be likely to occur without the public projects to be financed by the project development financing;
- (5) incremental tax revenues accruing to the district, together with any other revenues pledged by the unit, will be sufficient to pay the proposed project development financing debt; and,
- (6) proposed project development financing debt can be marketed at reasonable interest cost to the unit

After the LGC has approved the financing, the county tax assessor must be notified to determine the base valuation of the district. Each year thereafter, the county tax assessor will determine the current assessed value and compute the difference between the current value and the base valuation. Any money in excess of the base value is placed in a “revenue increment fund” to be used for financing capital expenditures. Local government officials should note that each unit that establishes a “development financing district” will need to create a separate revenue increment fund.

## Pros and Cons

### Pros

- Provides dedicated funds for transportation infrastructure improvements, with no increase in taxes or fees.
- Incentive for private developers to build in economically depressed areas.
- Loans can be provided to help reduce the financing gap for developers attempting to redevelop substandard buildings in an urbanized area.
- Brings economic opportunities and increased property values to areas experiencing economic decline.
- Financing flexibility for developer, “reduces amount of equity investment required of the developer.”<sup>25</sup>
- Can accommodate major capital improvements in areas where sufficient redevelopment is anticipated.

### Cons

- Loss of taxes to the local school districts, special taxing districts and county, where in a municipality can be contentious; some states allow school districts to “opt out” for this reason.
- Limited in application – area typically must meet statutory definitions of blight or clearly provide an economic benefit, such as job creation.
- Anticipated redevelopment must take place or TIF strategy could fail.
- Potential tensions between redevelopment efforts and perceived benefits to low and moderate income residents; may be perceived as public subsidy of private development
- Requires technical financial expertise to administer bonds, which can be costly
- Business owners may watch for TIF designation and relocate to that area, causing vacancies in other areas of city

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<sup>25</sup> White, Bingham, Hill. Financing Economic Development in the 21<sup>st</sup> Century.. 2003. pg. 58

## Case Examples

### ■ CITY OF CHICAGO, ILLINOIS

With over 130 TIF-defined districts, the City of Chicago has extensive experience implementing the TIF approach. TIF-defined districts comprise almost 30% of Chicago and are established for a 23-year period. TIF revenue is generated from property taxes on residential, commercial, and industrial properties. In Chicago, the eight local taxing bodies include the city, public schools, the park district, and Cook County.<sup>26</sup> Revenue generated in excess of the base equalized assessed value (EAV) is diverted to the TIF fund.

TIF funds may be applied to infrastructure and transit projects, under certain limitations. Expenditures allowed under the law include constructing bus shelters and transit-oriented development in and around public transportation stations. Costs related to the construction of “L” stations, such as land acquisition, building demolition, and legal fees, are also permissible under the law.<sup>27</sup>

Three transportation projects in central Chicago were funded by this strategy. These projects include the Randolph/Washington station, the Dearborn subway, and various transit projects within central Chicago’s “Loop.” The City allocated \$42.4 million in TIF revenue to the Randolph/Washington station. In the capital improvements element, \$13.5 million of TIF revenue has been funded for this project. The Randolph/Washington station project was implemented through an intergovernmental agreement on infrastructures expenses, such as track and tunnel connection.

TIF generated funds are also used on industrial, commercial, and residential infrastructure improvements in the Chicago area. Common infrastructure improvement projects include streetscaping, road improvements, and sidewalk repair. Viaduct clearance and industrial street improvements are two main types of industrial infrastructure funded by TIFs. These improvements direct commercial and traffic onto industrial corridors and away from residential areas. To date, \$113 million of TIF generated revenue has been allocated to infrastructure improvements, with an estimated \$1.92 billion set aside for future use.<sup>28</sup>

To address the city’s concerns over a diminution of affordable housing for low-income residents, the tax increment financing approach was also used in combination with tax credits to promote a redevelopment plan for a “blighted” area known as the Liberty Square Development.<sup>29</sup> The City acquired property from the Chicago Transit Authority

<sup>26</sup> <http://www.ncbg.org/tifs/tifs.htm>

<sup>27</sup> The “L” is a rapid transit system that serves the Chicago urban area and is operated by the Chicago Transit Authority (CTA).

<sup>28</sup> [http://www.ncbg.org/tifs/public\\_works.htm](http://www.ncbg.org/tifs/public_works.htm)

<sup>29</sup> City of Chicago.org. “City passes Liberty Square Ordinance.” Available online: <http://egov.cityofchicago.org> .

for the sole purpose of selling it to the private general contractor (H.I.C.A., Inc.) at a fair market value of \$800,000 (\$1.00 per parcel), with the intention of “donating the remaining appraised fair market value of the property.” The developer, in turn, committed to construct 66 affordable dwelling units.

The City of Chicago has also developed a streamlined TIF program that grants commercial, retail or residential mixed-use property developers monetary assistance of 25 percent towards “renovation, expansion or redevelopment costs.”<sup>30</sup> The program awards grants ranging from \$25,000 to \$1 million. The TIF grants cover expenses such as land acquisition and clearance, environmental remediation, street and public infrastructure improvements, and professional fees related to redevelopment projects.

**Source:** <http://www.ncbg.org/tifs/tifs.htm>

**Contact:** Travis Stein, Neighborhood Capital Budget Group; Tel: (312) 939-7198 x3870; Email: [tstein@ncbg.org](mailto:tstein@ncbg.org)

## ■ PORTLAND, OREGON

As a long-time user of TIF district plans, Portland, Oregon has had success implementing and carrying out several high-cost revitalization projects. According to the Portland Development Commission (PDC), the city spends TIF district funds on “bricks and mortar development, not programmatic or operational expenses.”<sup>31</sup>

One example is the PDC’s efforts to revitalize Portland’s Gateway community by designating it as a TIF district in June 2001. The plan reflects \$164 million budget to span over 20 years. Both private and public developers, including the PDC and TriMet and Parametrix, will complete projects including a new transit center, a new medical building, low and moderate income housing, realignment of dangerous intersections, and widen sidewalks, increase pedestrian lighting and other infrastructure improvements.

The Interstate Corridor is another area designated as a TIF district for the purposes of revitalizing neighborhoods affected by the new Interstate MAX light rail line. Approved in August 2000, the Interstate Corridor TIF district covers ten neighborhoods. An economic development implementation strategy was developed as a guiding policy document for the Interstate Corridor Urban Renewal Plan. The document recommended leveraging tax increment financing to seek an optimal return on investment. To achieve this, an effort was made to coordinate TIF expenditures with private and public investments in the district.<sup>32</sup> Partners involved in the Interstate

<sup>30</sup> City of Chicago.org. “Streamlined Tax Increment Financing Program.” Available online: <http://egov.cityofchicago.org/city/>.

<sup>31</sup> Portland Development Commission. “Economic Development Implementation Strategy.” Available online: [http://www.pdc.us/ura/interstate/strategy/econdev/03\\_purpose\\_and\\_function.html](http://www.pdc.us/ura/interstate/strategy/econdev/03_purpose_and_function.html).

<sup>32</sup> Interstate Corridor Urban Renewal Plan. Available online: <http://www.pdc.us/ura/interstate/strategy/index.html>

Corridor TIF district include the City of Portland, Multnomah County, Tri-Met, and the Oregon Department of Transportation.

The City of Portland developed a direct TIF loan program as an incentive for businesses in the area. The program assists new and existing small businesses in the designated areas.<sup>33</sup> The program was designed to finance gaps that occur between project costs and private financing. Loan amounts under the program vary according to available resources in the urban renewal area; however, the program encourages the creation of at least one job per \$25,000 loaned for a project. To be eligible for loans under the program, borrowers must provide a minimum of 10% of the project cost.

### Sources and Contacts:

Gateway projects:

Phase I Redevelopment-Jill Sherman or Patrick Wilde at (503) 299-6000

Gateway Transit Center- Sara King at (503) 823-3468.

<http://www.pdc.us/ura/gateway.asp>

Interstate Corridor project:

Lois Cortell (Project Manager) Portland Development Commission

Phone: (503) 823-3303

<http://www.pdc.us/ura/interstate/strategy/index.html>

Portland Development Commission Direct TIF Loan Program

Alan Stubbs, Portland Development Commission

Phone: (503) 823-3321

[http://www.pdc.us/bus\\_serv/finance-pgms-detail/direct-tif.asp](http://www.pdc.us/bus_serv/finance-pgms-detail/direct-tif.asp)

## Resources

1. Sam Casella. *Tax Increment Financing: Part I. What Is TIF?* Part 2. T. John Kim, Clyde W. Forrest, and Karen A. Przepyszny. *Determining Potential Gains and Losses of TIF*. December 1984.
2. "The U.S. Experience with Tax Increment Financing (TIF), A Survey of Selected U.S. Cities," March 2005. Available online: [http://www.calgary.ca/docgallery/bu/corporateproperties/final\\_report\\_tif.pdf](http://www.calgary.ca/docgallery/bu/corporateproperties/final_report_tif.pdf).
3. The Regional Economic Development Organization for Southeastern North Carolina. Telephone: (910) 862-8511. Available online: <http://www.ncse.org/amend.php>.
4. White, Sammis B., Bingham, Richard D. and Hill, Edward W. *Financing Economic Development in the 21st Century*. M.E. Sharpe: New York, 2003.

<sup>33</sup> Portland Direct TIF Loan Program. Available online: [http://www.pdc.us/bus\\_serv/finance-pgms-detail/direct-tif.asp](http://www.pdc.us/bus_serv/finance-pgms-detail/direct-tif.asp)



# Fair Share Mitigation

State transportation agencies and local governments may have the authority to require developers to mitigate the transportation impacts of their development projects through a traffic impact assessment process. The goal is to maintain a desired level of service and safety on a roadway by ensuring that new development contributes its fair share for those improvements that are made necessary by the added traffic attributable to the developments. Information from a traffic impact study (TIS) is needed to establish that the required mitigation is “roughly proportionate” to the proposed development’s impact, as required by law.<sup>34</sup> The required contribution may be in the form of land for right-of-way, money (or fees), construction of an improvement, or some combination. In addition to fair share mitigation of development impacts, the agency may also negotiate with a developer for other infrastructure improvements aimed at overcoming existing deficiencies.

State transportation agencies and local governments have varying authority to require developer mitigation. For example, most states may require mitigation for clear safety reasons, whereas state authority to require mitigation of capacity impacts varies. The following review focuses on state practices in states, such as Florida and New Jersey, with clear authority to engage in the development review and mitigation process (*see also* Transportation Concurrency).

## When it is Required

For state transportation agencies, development review and fair share assessment is generally triggered by a request for an access connection permit to a state highway. A traffic impact study (TIS) may be required based on the size or complexity of the development, pursuant to agency guidelines or standards. The type of analysis depends on the size, impact, or complexity of the development. The larger the development, as measured by the number of trips generated, the larger the area that may experience measurable traffic impact due to the development. Generally, those developments that the TIS shows will cause a level of service (LOS) violation on impacted roadways or intersections are subject to mitigation.

Some states also apply fair share assessment to large developments above a certain size threshold regardless of access location. In Florida, for example, transportation impacts of a proposed development deemed to be of regional impact under state thresholds (DRI) are evaluated by FDOT and other impacted agencies and local governments.

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<sup>34</sup> See *Dolan v. City of Tigard*, 512US 374 (1994)

## How it Works

Fair share mitigation can be determined in many ways, depending on guidelines or mandates issued by the state transportation agency. Generally, the applicant is first required to conduct a traffic impact study (TIS) according to a methodology established in coordination with the state transportation agency. The traffic impact study (TIS) assesses the effects a proposed development will have on the surrounding transportation network, the ability to get traffic on and off the site, and the need for off-site mitigation. General components of a TIS include:<sup>35</sup>

- (a) A description of the proposed development and its access routes;
- (b) Details of existing and probable future traffic conditions;
- (c) An estimation of the traffic likely to be generated by the development as proposed;
- (d) Traffic impact and capacity analysis;
- (e) Recommendations on improvements to mitigate the impact;

The TIS process involves identifying a traffic impact area based upon some threshold of magnitude by assigning new development trips to the transportation network. In Florida, for example, developments of regional impact must include in their impact analysis any location where their trips would consume 5% or more of the maximum level of service capacity. (Planned roadway improvements in the first three to five years of an adopted work program may be included as “available capacity” for this determination, depending on the type of facility.) Any deficiency caused by development trips within that impact area must be mitigated, with the amount of mitigation most fairly determined based only on that proportion of new trips that trigger the deficiency.<sup>36</sup>

Because such review requires highly skilled technical staff, fees may also be charged to help cover costs of administering the program. Fee structures vary in complexity, with some states charging a flat fee and others using a fee structure based on variables such as intensity of land use, number of trips generated, need for a traffic impact study, and/or roadway functional classification. For example, Colorado DOT charges a \$50 fee for a standard single driveway, \$100 for high volume driveways where an evaluation is required and \$300 for driveways where road improvements are necessary.<sup>37</sup> In New Jersey, fees are broken down according to type of use and separate fees are assessed for applications, permits, and permit renewals (Table 1)

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<sup>35</sup> Kazunori Hokao and Shihana Sulaiha Mohamed. “Traffic Impact Mitigation For New Developments: A Way To Reduce Traffic Congestion In Major Cities”. June 2002.

<sup>36</sup> Some agencies require mitigation of all trip impacts, rather than isolating only those trips that cause the LOS violation.

<sup>37</sup> K. Williams, *NCHRP Synthesis of Highway Practice 304: Driveway Regulation Practices*, Transportation Research Board, National Academy Press: Washington, DC, 2002.

**Table 1**  
**New Jersey Department of Transportation Application and Permit Processing Fees**

Type	Application Fee Each Lot	Permit Fee Each Lot	Renewal Fee Each Lot
Single Family Residential Driveway	\$ 35.00	\$ 15.00	\$ 15.00
Residence & Business Driveway	75.00	25.00	25.00
Government Driveway	150.00	500.00	250.00
Minor	265.00	85.00	85.00
Major	3,750.00	1,250.00	250.00
Major with Planning Review	9,000.00	3,000.00	250.00
Concept Reviews	500.00	-	-
Street Intersection	150.00	500.00	250.00
Street Improvement	5.00	25.00	25.00
Lot Subdivision or Consolidation	200.00	50.00	-
Temporary Access Permit	200.00	50.00	-

**Source:** K. Williams, *NCHRP Synthesis of Highway Practice 304: Driveway Regulation Practices*, Transportation Research Board, National Academy Press: Washington, DC, 2002.

Authority to require such contributions varies from state to state, as does the nature of the process. Most states rely on TIA guidelines and case-by-case negotiations, which makes consistent treatment a challenge – particularly where administration is decentralized into districts or regional offices. Others have systematic programs with standardized requirements and procedures that are applied uniformly. This latter group tends to provide a more consistent and equitable process for the applicant. However, the complexity of the TIA process and the potential for manipulation on both sides makes fair share exactions sometimes inequitable and generally cumbersome to administer.

## Pros and Cons

### Pros

- Provides a process for ensuring that new development pays its fair share of improvement needs that are needed to accommodate the added traffic from the development
- Systematic guidelines and administrative procedures help to standardize administration, improve equity of contributions, and reduce miscalculation. This also provides predictability for developers.
- Isolating only that development traffic that exceeds level of service helps to increase fairness and proportionality of contribution. In New Jersey, only the halfway points of these trips are included to avoid double-charging for cross traffic between developments.

## Cons

- Inequitable - some consume “free capacity” or pay less on roads that others have invested in, while others must pay to mitigate.
- For state, generally limited to development on state highways, thereby not accounting for off-system development impacts; coordination challenges with local governments.
- Disproportionate depending on timing and size of development; later developments pay more as more trips are likely to trigger a deficiency, and larger developments will trigger a greater number of deficiencies on more links.
- Complex and data intensive; TIS can be easily manipulated to show more or less impact, increasing administrative costs for the agency and consultant costs for the applicant.
- Requires highly trained staff to produce and to administer
- Potential to double-charge for cross traffic between two developments on deficient segments, if not accounted for in the calculations.
- Requires clear statutory authority and systematic procedures and requirements; case-by-case negotiations produce inconsistent and inequitable results.

## Case Examples

NOTE: See sections on Transportation Impact Fees and Transportation Concurrency for how local governments have administered fair share contributions and agreements.

### ■ NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT)

NJDOT has a system for fair share exactions that was designed to provide a more systematic, consistent and equitable process for the development community. NJDOT addresses fair share exactions under its Access Code, which implements the 1989 State Highway Access Management Act. According to the Act, NJDOT:

- has a public trust responsibility to effectively manage and maintain each highway within the State highway system;
- must ensure that the State highway system is not adversely impacted through unrestricted access; and
- should not impose needless burdens on property owners in implementing access management policies.

Through the Access Code, fair share is determined based on the results of a TIS, which is required as part of the highway access permit application. NJDOT has developed a mandatory TIS process to reduce the chance of miscalculations and provide equality in how an applicant’s fair share is determined. NJDOT specifies that for any development generating 200 or more peak-hour vehicle trips that directly access the state highway, the applicant is required to conduct a TIS. The TIS is comprised of three main

sections—Scope of Study, Traffic Analysis/Mitigation, and Fair Share Cost Determination.<sup>38</sup>

The following identifies certain unique aspects of the process in New Jersey:

- After removing trips that are not to be considered from the study (i.e. pass-by, alternative access, and existing site trips), the halfway points of the remaining trips are calculated. This is done to avoid double-counting trips.
- NJDOT applies two criteria to determine if a location needs to be analyzed (i.e. impact area). “Any location where there are at least 100 peak-hour site trips *and* (emphasis added) at least 10 percent of the anticipated daily traffic is a location that must be analyzed.”
- Traffic mitigation is considered twice during the process—once when mitigation options are considered based on the impact analysis, and again after the fair share is calculated. Upon reviewing the options, NJDOT and the developer agree to those options that equal the calculated fair share.

NJDOT chose to establish a fair share cost determination method that differed from those traditionally used by various jurisdictions within the state. The typical approach fails to exclude existing traffic in the calculation of a developer’s fair share, as shown below:

$$\text{Applicant } \$ = [(Total \$)(Applicant traffic)] / (Applicant traffic + Before traffic)$$

Where:

- Before traffic = Number of existing vehicles in the peak hour at a location
- Applicant traffic = Number of vehicles added in the peak hour from the development
- Total \$ = Cost of added capacity

The inequity caused by including existing traffic in a calculation can be compounded with each subsequent development. To counter this problem, NJDOT devised six steps to reach the fair share cost.

**Step 1** takes the vehicle trips that are analyzed as part of the study (after removing those not to be included) and separates them into two categories. The first consists of site trips that can be accommodated by the capacity currently available at each analysis site. The second consists of site trips that cause a violation of each analysis site’s adopted level of service (LOS) standard. The applicant is responsible for mitigating the effects of those trips that cause the LOS violation.

$$\text{Site Traffic} = \text{Acceptable Component} + \text{LOS Violation Component}$$

<sup>38</sup> Arthur Eisdorfer and Sandra Goslin. “Equitable Traffic Impact Assessments”. 1998 National Conference on Access Management, Session 9, page 180.

**Step 2** ascertains the total capacity of each location after a proposed mitigation option is applied. The capacity must bring the location to an LOS of E. Additionally, the proposed mitigation must be compatible with highway plans anticipated at each location.

$$\text{Capacity Increase} = \text{Capacity After Mitigation} - \text{Existing Capacity}$$

**Step 3** derives the fair share proportion that is the applicant's responsibility.

$$\text{Fair Share Proportion} = \text{LOS Violation Component} / \text{Capacity Increase}$$

**Step 4** calculates the total mitigation costs. This value reflects the amount NJDOT would pay if it were to provide the traffic mitigation. The mitigation elements considered in this step are as follows

- Design of the mitigation
- Right-of-way appraisal and acquisition
- Construction of the mitigation
- Management of the construction
- Environmental cleanup, environmental mitigation, and permits

$$\text{Mitigation Cost} = \text{Sum of the mitigation elements}^{39}$$

**Steps 5 and 6** compute the fair share for each location and sum the total, respectively.

$$\text{Fair Share} = \text{Fair Share Proportion} \times \text{Mitigation Cost}$$

$$\text{Total Fair Share} = \text{Sum of the fair share amount at each study location}$$

The NJ Access Code requires that background traffic in a TIA include traffic from developments that were issued an access permit by the department, but have not yet been constructed. This allocates capacity to the development so long as the access permit is valid - a period of two years. If two years elapses and the applicant does not construct their access connection, the permit expires and the capacity is freed back to the system. The Code also addresses concurrent applications and establishes that the department will apportion responsibility between two or more applicants who submit permit applications that impact the same section of highway.

To provide consistency in administration, NJDOT also enacted 12 rules that govern and clarify the determination of fair share contributions, as follows.<sup>40</sup>

<sup>39</sup> Utility relocation costs are not factored into the total mitigation cost.

<sup>40</sup> Arthur Eisdorfer and Sandra Goslin. "Equitable Traffic Impact Assessments". 1998 National Conference on Access Management, Session 9, page 185.

**Rule 1:** NJDOT can only require fair share contributions towards the cost of constructing capacity improvements to the State highway system.

**Rule 2:** The site traffic to be considered must directly ingress or egress the State highway from the applicant's property. Traffic going to or from a State highway via someone else's lot or via a side street is not considered in a fair share determination.

**Rule 3:** The highway improvements may include, but are not limited to, roadway and structure widening, frontage roads, intersection improvements, structures, reverse frontage roads, and alternative access.

**Rule 4:** Improvements that benefit only the applicant are entirely the applicant's responsibility and are not considered in the fair share determination. Examples of this are acceleration and deceleration lanes for a site driveway, and left turn slots which only provide access to a site.

**Rule 5:** NJDOT may either have the applicant pay money, in an amount equal to the fair share to NJDOT, or NJDOT may permit the applicant to construct the improvement at the applicant's expense and under NJDOT supervision.

**Rule 6:** If the NJDOT elects that the applicant pay fair share money, but NJDOT does not anticipate that the mitigation identified for a location will be implemented within 15 years of the date of the permit, then the applicant has no fair share responsibility at that location.

**Rule 7:** If NJDOT permits the applicant to construct mitigation, then these improvements are to be at one or all of the locations where level of service violations would occur. NJDOT considers the needs of the applicant and the public, when determining the highway improvements to be constructed.

**Rule 8:** NJDOT must hold all fair share money it receives in a designated account and identify the fair share amount for each location.

**Rule 9:** Fair share money held by NJDOT may be expended on any of the mitigation elements listed in Step 4 above and at any of the locations for which the funds were collected.

**Rule 10:** NJDOT must refund any fair share money and accrued interest applicable to the mitigation at a location, if the improvement is not implemented within 15 years. The refund will be made to the owner of the lot at the end of the 15 years.

**Rule 11:** If NJDOT accepts a right-of-way dedication, the value of the dedicated land is a credit against the applicant's fair share.

**Rule 12:** NJDOT may release fair share money and accrued interest, or any portion thereof, to any federal, state, regional, or local entity, or to any person or private entity for implementing highway improvements at the identified locations.

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#### ■ **FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)**

The Florida Department of Transportation (FDOT) administers traffic impact studies and requires developer mitigation in the context of its site impact assessment program. A site impact assessment is applied primarily during FDOT review of very large projects designated as developments of regional impact (DRI), comprehensive plan amendments, and other large-scale developments that may impact the state transportation system. DRI review allows the FDOT and other agencies and impacted local governments an opportunity to identify and address the multijurisdictional impacts of major developments, as defined by state density/intensity thresholds.

Site impact assessment is conducted by site impact coordinators in FDOT's eight district offices. Guidelines employed at the district level for reviewing transportation impacts on the state highway system are contained in the FDOT Site Impact Handbook (Handbook). Impacts to the state transportation system are analyzed in terms of the maximum service volume (MSV) or capacity of each facility in accordance with the adopted level of service (LOS) standard. Rule 14-94 F.A.C. establishes LOS standards for facilities on Florida's major statewide highways, which are designated as part of the Florida Strategic Intermodal System (SIS) and Florida Intrastate Highway System (FIHS), as well as significant regional highways identified for funding under the new Transportation Regional Incentive Program (TRIP).

MSVs for roadways are established in the Florida Department of Transportation's (FDOT) 2002 Quality/LOS Handbook's (Handbook) Generalized Level of Service Tables (FDOT Generalized LOS Tables). Local governments also use these tables to establish the MSV for other state and local roads. Rule 14-94 F.A.C. also requires that that LOS calculations and evaluations "be based on the methodology contained in Transportation Research Board's *Highway Capacity* Manual 2000, the Department's 2002 *Quality/Level of Service Handbook*, or a methodology determined by the Department to be of comparable reliability." The most current software tool for performing more detailed LOS evaluations is LOSPLAN.

Florida law also provides a proportionate fair share mitigation process for multi-use developments of regional impact. Under the process, only those road locations that are estimated to fail and on which development traffic reaches a minimum threshold of magnitude – defined as 5 percent of existing roadway service capacity – are included in the computation. The cost of an applicant's fair share contribution is determined using the following formula:

$$[\text{DRI trips}/(\text{SV increase})] \times \text{Cost} = \$ \text{Proportionate Share}$$

DRI Trips = cumulative number of trips from the proposed development expected to reach the roadway during peak hour from the complete buildout of a stage or phase being approved.

SV Increase = the change in peak hour maximum service volume of the roadway resulting from construction of the improvement necessary to maintain the adopted LOS.

Cost = cost of construction, at the time of development payment, of an improvement necessary to maintain the adopted LOS. Construction cost includes all improvement associated costs, including engineering design, right-of-way acquisition, planning, engineering, inspection and other associated physical development costs directly required and associated with the construction of the improvement, as determined by the governmental agency having maintenance authority over the roadway.

Table 2 provides an overview of recent mitigation from multi-use DRIs in FDOT District 2, which includes the Jacksonville, Florida metropolitan area. The mitigation may be in the form of land, money or construction of the necessary improvement. Monetary contributions are processed by the local government and any mitigation for impacts on the state highway system is coordinated between the local government and district offices.

NOTE: In 2005, changes to Florida's growth management legislation extended application of the proportionate fair share formula to "sub-DRI" developments that trigger a local government concurrency violation (*see also* Transportation Concurrency). Although local governments will be administering the process, FDOT must concur with any proposed mitigation on the SIS. Given statewide variation in impact study methodologies and outcomes, FDOT recently initiated a research project to clarify the process and parameters used in the evaluation of LOS on important state and regional highways and to define FDOT concurrence on mitigation of transportation impacts. A goal of the project is to provide a standard methodology for use by the development community that clarifies the FDOT requirements for transportation impact analysis. The results of this research to be conducted by CUTR will be of value to NCDOT as it explores alternative methods for developer mitigation through traffic impact studies.

**Table 2**  
**Transportation Mitigation Dollars from DRIs in 2000-2006**

<b>DRI phases 2000-2020</b>	<b>Dwelling Units</b>	<b>Transportation Mitigation</b>	<b>Amount per DU</b>	<b>Daily Trips</b>	<b>Amount per daily trip</b>
<b>St. Johns County</b>					
Nocatee	12,579	\$99,700,000	\$7,926/DU	95,000	\$1,049/AADT
RiverTown	4,500	\$34,000,000	\$7,929/DU	45,000	\$755/AADT
Durbin Crossing	2,498	\$18,000,000	\$7,206/DU	29,500	\$610/AADT
Aberdeen	2,018	\$16,000,000	\$7,556/DU	20,500	\$780/AADT
Twin Creeks	5,000	\$70,300,000	\$14,060/DU	75,000	\$937/AADT
Ashford Mills	2,633	\$20,600,000	\$7,823/DU	32,000	\$645/AADT
SilverLeaf	10,700	\$138,700,000	\$12,962/DU	91,500	\$1,516/AADT
Cordova/Lemberg N	1,700	\$55,320,106	.....	31,624	pending approval
<b>Nassau County</b>					
Three Rivers	3,200	\$12,500,000	\$3,900/DU	44,686	\$280/AADT
<b>Putnam County</b>					
Mariposa	3,230	\$30,732,000	\$9,515/DU	31,250	\$983/AADT
<b>Duval County</b>					
Thomas Creek	10,000	\$157,000,000	.....		pending approval
<b>Clay County</b>					
Saratoga	4,434	\$70,045,621	\$15,797/DU	46,157	\$1,518/AADT
<b>Baker County</b>					
Cedar Creek	6,000	\$146,176,157	.....	50,373	pending approval

**Source:** Lea Gabbay, Site Impact Coordinator, FDOT District 2, September 2006.

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Email: [pete.tyndall@dot.state.fl.us](mailto:pete.tyndall@dot.state.fl.us)

## Resources

1. Arthur Eisdorfer and Sandra Goslin. "Equitable Traffic Impact Assessments". Proceedings of the 1998 National Conference on Access Management, Session 9.
2. Florida Department of Transportation, "Site Impact Handbook." April 1997.
3. Institute of Transportation Engineers. "Transportation Impact Analyses for Site Developments: An ITE Recommended Practice." Washington, DC, 2005.
4. R. Pazooki and D Hurter, "Improvements to Washington State Department of Transportation's Development Review Process," prepared for WSDOT, May 27, 2005.

# Transportation Impact Fees

Impact fees are defined as “a monetary charge imposed by local government on new development to recoup or offset a proportionate share of public capital costs required to accommodate such development with necessary public facilities.”<sup>41</sup> They may be assessed for a variety of capital improvement needs, including transportation, and are most often used in high growth areas to offset infrastructure cost increases attributable to rapid growth. Transportation impact fees are levied to offset the cost of improvements needed to accommodate the additional demands on transportation facilities by new development.

Impact fees are growing in popularity due to inadequate local government revenue sources for transportation improvements. A 2006 review of impact fees in Florida by an appointed Impact Fee Review Task Force, for example, concluded that:

1. Impact fees are a growing source of revenue for infrastructure in Florida.
2. Local governments in Florida do not have adequate revenue generating resources with which to meet the demand for infrastructure within their jurisdictions.
3. Without impact fees, Florida’s growth, vitality and levels of service would be seriously compromised.

## How it Works

The basic process for determining impact fees involves establishing a facility service area, defining the adequacy of existing facilities, measuring and pricing unit impacts, and establishing an administrative system for handling revenues and expenditures. Transportation impact fee programs may be demand driven (most prevalent), facility driven (less prevalent), or some combination of the two (least prevalent).<sup>42</sup> Demand-driven approaches translate new auto trips into a per-trip fee, typically based on average trip lengths of the proposed land use and the cost to improve a mile of roadway. Improvement-driven approaches arrive at the fee based on each development’s estimated fair share of the road improvement budget for a particular project or set of projects in an adopted capital improvements program (see Leawood, Kansas example).

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<sup>41</sup> Nicholas, James C. and Arthur Nelson. “Determining the Appropriate Development Impact Fee Using the Rational Nexus Test.” *Journal of the American Planning Association*. Chicago: Winter 1988, Vol. 54, Iss. 1, pp. 56-67.

<sup>42</sup> Cooper, Connie B. *Transportation Impact Fees and Excise Taxes: A Survey of 16 Jurisdictions*. PAS Report No. 493, American Planning Association, July 2000.

Some form of credit or “offset” is also provided for various types of developer-initiated improvements or in-kind contributions. The “Model Impact Fee Authorization Statute” defines offsets as:<sup>43</sup>

“...the amount by which impact fees should be reduced to fairly reflect the value of land dedications or other physical improvements provided by a developer pursuant to any local requirements. Such offsets shall apply only to external or off-site improvements or dedications.”

Some key considerations with regard to impact fee programs include:

- The agency must act as a “bank” and maintain appropriate accounting of impact fee revenues and expenditures; fees must be separated from the general fund and applied to purposes for which the fee is established.
- Impact fees must be expended in a reasonable timeframe and provisions must be made for refunds for projects that are not constructed.
- Impact fees cannot be used to address existing deficiencies, maintenance, or operations; they are to be dedicated to addressing the capacity needs of new development.
- Some benefit must accrue to the development as a result of paying the fee.
- Impact fees are typically administered by a local government in the context of development approvals. They may be administered across two or more local governments under an intergovernmental agreement.

## Impact Fee Methodology

A generalized overview of a recommended process for determining transportation impact fees is explained below, based on a summary prepared by Tindale Oliver & Associates:<sup>44</sup>

1. Determine the *unit demand* (the amount of road system used) for travel placed on the roadway facility system by each land use included in the impact cost schedule, using the following units of measure:
  - Number of trips generated (Trip Rate, typically P.M peak hour trips);
  - Length of the trips (Average Trip Length); and
  - Proportion of travel that is new travel (% New Trips), rather than travel that might have already been on the road system.
2. Determine the *unit cost* for all aspects involved in the addition of one lane mile of roadway capacity for city and private projects.

<sup>43</sup> James C. Nicholas, *A Practitioner’s Guide to Development Impact Fees*. Chicago: American Planning Association, 1991.

<sup>44</sup> Tindale-Oliver and Associates, *Impact Fee Consultant Methodology Summaries*, City of Albuquerque, City Council, October 29, 2004, pp 7-8.

3. Determine the *offset to the calculated cost component*, or the cost of annual non-impact fee revenues (e.g. fuel taxes) generated by a new development that are allocated to roadway construction or facilities expansion.
4. Assess and quantify other variables required for the roadway facilities impact cost equation, such as facility life, interest rate, fuel efficiency, effective days per year, and average daily capacity added per lane mile of roadway constructed.
5. Set the legal maximum roadway facilities impact fee using the formula, (Unit Demand  $\times$  Unit Cost) - Offsets = Net Impact Cost; where the Net Impact Cost represents an "up front" payment for a portion of the cost to replace the roadway facilities consumed by a development.

Simply stated, the TIF formula can be characterized as follows:<sup>45</sup>

*Cost to build 1 vehicle-mile of capacity x vehicle-miles of travel generated by development-credits for other revenues generated by the development for transportation capacity.*

## **Oregon's System Development Charges**

System development charges are one-time fees levied on new development or some types of redevelopment to help pay for infrastructure needs resulting from growth. Under state law, system development charges can be used only for certain capital improvements and not for ongoing maintenance or operations. Transportation, water, sewer and parks may be supported in part by SDCs. A benefit of Oregon's legislation is that it directly authorizes local governments to recoup the value of existing available capacity through "reimbursement fees".

Specifically, SDCs may be comprised of reimbursement fees, improvement fees, or a combination of the two (ORS 223.304). Reimbursement fees may be charged to recoup the value of unused transportation system capacity available to future system users or the cost of the existing facilities, as determined by adopted level of service standards. These fees may be designed to reflect prior contributions by existing users. Improvement fees may be charged to reflect the project fair share cost to each development of new system capacity provided to accommodate new growth.

Credits against the improvement fee must be provided for construction of a transportation improvement which is required as a condition of development approval, identified in an adopted capital improvement plan and is either off-site or if on-site, provides capacity beyond that needed for the development in question. When an

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<sup>45</sup> Bill Oliver, PE, PTOE. "Traffic Impact Assessment Financial Considerations – A White Paper," prepared for the Model Proportionate Share Ordinance Technical Advisory Committee. Tindale Oliver & Associates, September 9, 2005.

improvement is constructed that results in a credit of greater value than the improvement fee, this credit can be applied against improvement fees for future phases of the development. In addition, the law specifies that local governments may also allow for the transfer of impact fee credits to other locations, allowing credits for facilities not in the capital improvement program, or providing a share of the cost by some other means. A maximum time limit of ten years is established for the use of such credits.

## Pros and Cons

### Pros

- Applies only to new development, helping to ensure that new growth pays its fair share of transportation improvement costs.
- Provides revenue exclusively earmarked for transportation improvements to help augment public revenue stream; improves solvency of transportation improvement programs.
- Impact fee credit accounts and related methods can be used to reimburse developers for excess contributions.
- Equitable in that costs are allocated proportionately across new developments, including smaller projects that may not otherwise be required to contribute.
- More consistent and predictable for development community than negotiated exactions; costs can be addressed up front in development financing.
- Paid by those most likely to benefit from the facility improvements.
- Credits or offsets can be provided for contributions that advance desired transportation improvements.
- Impact fee credits allow local governments to acquire land for right-of-way without incurring “out of pocket” costs.

### Cons

- Formulas often include discount factors to reduce political opposition, and therefore do not assess true costs of development.
- Requires sophisticated capital facilities planning and skilled technical staff and therefore may be beyond the administrative and technical capacity of many areas.
- May be viewed as a liability in the competition for tax base and development among jurisdictions with and without impact fees.
- Controversial; often opposed due to concerns that high impact fees will stymie economic development or be passed on to consumers, making housing less affordable.
- Development often impacts roadways maintained by the state or another jurisdiction; some form of fee-sharing mechanism should be employed to

ensure that local governments do not apply fees only to locally maintained system.

- Inequity within metropolitan areas across local governments that do charge fees and improve roads and those that do not, while continuing to approve development and incur impacts.

## Impact Fees versus Fair Share Mitigation

A white paper on fair share mitigation identified the following specific benefits of a traffic impact fee over fair share mitigation:<sup>46</sup>

- Unlike fair share mitigation, the traffic impact fee credits developments for other revenue that it generates and that will be applied to providing roadway capacity,
- The traffic impact fee charges all developments for all travel on all roads, whereas fair share exactions only occur on a hit or miss basis where development traffic happens to trigger a future deficiency,
- The traffic impact fee can be structured to divide responsibility for impacts between developments at each end of the trip, fair share programs can be structured in this way but typically are not,
- Fair share analysis is linked to the policies and assumptions in a traffic impact study, which can be easily manipulated; the traffic impact fee can be structured as a simple, consumption-based fee.
- The traffic impact fee can be sensitive to roadway funding strategies and tied more closely to an adopted local transportation plan.

## Case Examples

### ■ LEAWOOD, KANSAS – 135<sup>TH</sup> STREET CORRIDOR

Impact fees in the South Leawood and the 135<sup>th</sup> Street Corridor (formerly known as K-150 Highway Corridor) are based on the arterial improvements needed to serve development in a defined area. The fees are one mechanism for implementing a corridor access management plan for the corridor that was adopted by abutting jurisdictions a decade or more ago. The plan includes a system of parallel access roads and side street connections along 135<sup>th</sup> Street, along with ½ mile full movement (signalized) access spacing and ¼ mile right-in/out access. The impact fee program includes fees charged in South Leawood for development not directly within the 135<sup>th</sup> Street corridor, as well as a separate fee structure for development abutting 135<sup>th</sup> Street.

In South Leawood, an impact fee rate of \$625 per gross acre was established based on the following formula:

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<sup>46</sup> Bill Oliver, PE, PTOE. "Traffic Impact Assessment Financial Considerations op cit.

*[(per-square-mile cost of arterial transportation improvements) – (cost of collectors)] divided by [(the number of dwelling units projected in a square mile area) x (per-acre dwelling unit density)]*

Fees are computed according to the following formula:

*(impact fee rate) x (gross acres of the development) x (applicable impact fee coefficient)*

The “impact fee coefficient” is determined based on the travel distance from the development’s primary point of access to a north/south arterial to the point at which that arterial intersects with 135<sup>th</sup> Street. When the principal access is to an east/west arterial, the distance is measured from the east/west arterial’s intersection with 135<sup>th</sup> Street. The coefficient is reflected in the following formula:

*(gross acres) x (\$625) x (the respective travel distance to K-150)*

Development in the South Leawood area is exempt from the impact fee if: (1) it has access via a continuous improved arterial; (2) if the developer constructs the required improvements or places the construction funds in escrow; or (3) if an improvement district is created to fund the improvement. In addition to impact fees developers are required to dedicate the necessary right-of-way and improve one-half of the abutting arterial or collector street to collector street standards or pay the city \$130 per front foot. Developers receive an impact fee credit for construction of improvements, funds escrowed with the city, or for participation in an improvement district to construct an abutting arterial to a secondary arterial street standard. The amount of the credit is the difference in the improvement between a collector and a secondary arterial front-foot cost.

Along 135<sup>th</sup> Street, impact fees are based on the formula:

*(total cost of the improvement to 135<sup>th</sup> Street) divided by (the total number of trips projected to be generated by land uses abutting the corridor)*

This formula provides a per-trip cost that is then used as a multiplier for the trip generation characteristics of specific land uses. The cost to improve 135<sup>th</sup> Street is the cost of improving it from two lanes to four lanes road, and at some time in the future to a six-lane arterial. Although formerly a state highway (K-150 highway), this corridor was transferred to local maintenance and the improvements are being conducted in cooperation with the neighboring cities of Olathe and Overland Park. In addition to paying the impact fee, developers are required to dedicate the right-of-way and construct the additional lane of highway and receive no impact fee credit for these contributions. Payments may be secured by a letter of credit and where an impact fee is being appealed, the project may proceed pursuant to providing the city with a bond or other surety equal to the impact fee amount.

- Source:** Adapted from Connie B. Cooper. “Transportation Impact Fees and Excise Taxes: A Survey of 16 Jurisdictions”, *Planning Advisory Service, Report Number 493*. American Planning Association, July 2000, pages 29-30.
- Contact:** Scott Lambers, City Administrator, Tel: (913) 339-6700 x102;  
Email: [scottl@leawood.org](mailto:scottl@leawood.org)

#### ■ CARY, NORTH CAROLINA

The State Assembly of North Carolina authorized impact fees in 1987 with adoption of Bill 684.<sup>47</sup> The Town of Cary commissioned a road impact fee study in 1988 and adopted a transportation development fee ordinance in 1989, as amended. Fees are used to address improvements shown on the Thoroughfare Plan, right-of-way acquisition and local portions of state routes. The methodology uses peak-hour trip rates at a Level of Service D, and trip length data from NCDOT and the MPO model. A traffic impact study is also conducted for projects that exceed 1,000 trips per day or 100 peak-hour trips. All fees must be paid before the issuance of a building permit.

No developments are exempted from the impact fee. Offsets are provided for contributions of arterial rights-of-way or construction costs in excess of that required for a collector road, and to certain developments where a developer has made capacity improvements prior to the adoption of the ordinance but has yet to receive building permits. Any transportation impact fees not expended by the City within six years of their collection must be refunded with interest to the record owner of the property upon request. In addition the City sets aside 25% of each year’s revenues to reimburse developers for excess contributions beyond impact fee credits for their projects.

- Source:** Connie B. Cooper. “Transportation Impact Fees and Excise Taxes: A Survey of 16 Jurisdictions”, *Planning Advisory Service, Report Number 493*. American Planning Association, July 2000.
- Contact:** Tim Bailey, Engineering Director, Cary, NC. Tel: (919) 469-4030; Email: [tim.bailey@townofcary.org](mailto:tim.bailey@townofcary.org); <http://www.townofcary.org>

#### ■ PALO ALTO, CALIFORNIA

Palo Alto uses an improvements-driven approach to impact fees. The recommended transportation impact fee is based on charging new development for 7.6% of the cost of the transportation expenditure plan. This represents the proportion of 2025 vehicle trips that are expected to be generated by development subject to the TIF. In an effort to reduce new vehicle trips, the City of Palo Alto, California is implementing a strategy to provide effective alternatives to automobile travel. The impact fee expenditure plan

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<sup>47</sup> Case example adapted from Connie B. Cooper. “Transportation Impact Fees and Excise Taxes: A Survey of 16 Jurisdictions”, *Planning Advisory Service, Report Number 493*. American Planning Association, July 2000.

includes citywide transportation demand management, expanded shuttle service, bicycle facilities, and computerized traffic management.

**Source:** Nelson\Nygaard Consulting Associates. *City of Palo Alto, Transportation Impact Fee Nexus Study, Revised Draft Final Report*. Nelson\Nygaard Consulting Associates, April 2004.

**Contact:** Joe Kott, Chief Transportation Official, Tel: (650) 329-2520

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6. National Impact Fee Roundtable, [www.impactfee.org](http://www.impactfee.org).
7. Florida Impact Fee Review Task Force, [www.floridalcir.gov/taskforce.html](http://www.floridalcir.gov/taskforce.html)
8. Clancy Mullen, Duncan Associates. *Impact Fees and Growth Management*, Chicago: American Planning Association National Conference, 14 April 2002.

# T

## ransportation Concurrency

Concurrency is a growth management policy intended to ensure that the necessary public facilities and services are available concurrent with the impacts of development. To carry out transportation concurrency, local governments must define what constitutes an adequate level of service and measure whether the service needs of a new development exceed existing capacity and any scheduled improvements in the capital improvements program. If adequate capacity is not available, then the developer must provide the necessary facility or service improvements to proceed, provide a monetary contribution toward such improvements, or wait until government provides the necessary improvements. Such programs are administered under a concurrency or adequate public facilities ordinance.

### How it Works

Concurrency in Florida, where it is mandated statewide, is tied to provisions in the state growth management act requiring local governments to adopt level of service standards, eliminate existing service deficiencies, and provide infrastructure to accommodate new growth reflected in the comprehensive plan.

What constitutes “concurrency” is guided by definitions and provisions of state statutes and rules. In Florida, for example, transportation facilities needed to serve new development must be “in place or under construction within 3 years after the local government approves a building permit or its functional equivalent that results in traffic generation.”

Concurrency is administered by local governments through adoption of an ordinance and concurrency management system (CMS). The CMS includes a concurrency tracking system for major transportation facilities (arterials and collectors) and a transportation concurrency application process. Each local government establishes LOS standards and develops service volumes for each transportation facility, incorporating any additional capacity from planned improvements. Florida law, for example, allows local governments to include the first three years of planned capacity improvements in an adopted capital improvement program in the capacity determination. Local governments, at their option, may still choose to apply concurrency at an earlier stage.

As part of the local government development approval process, applicants undergo a transportation concurrency review. The purpose of the review is to determine if there is adequate capacity on each of the impacted transportation facilities to accommodate the proposed new development trips. Available capacity is generally determined by subtracting existing traffic volume, future traffic growth, and approved development trips from the service volume on transportation facilities in the concurrency network.

The analysis accounts for existing traffic volume and previously approved development trips at or above the adopted LOS standard. In most cases, project impact is determined by the applicant subject to local government review; however, in some cases, the local government determines the project impact.

Florida law exempts some developments from concurrency where the trips are considered de minimis or having only minor impact. If the trips are de minimis, the application is processed and receives a certificate of concurrency. If not, the applicant determines the impact of the development using the local government's traffic impact methodology for trip generation, traffic impact area, and trip distribution. [Note: 2005 amendments to Florida's growth management act now require local governments to track and account for the cumulative impacts of de minimis trips.]

Next, the resulting impact of development trips on facilities in the concurrency network is compared to the available capacity. If all impacted facilities have adequate capacity, then a certificate of concurrency may be issued. If there is not adequate capacity on one or more of the concurrency facilities, the applicant may be required to perform an operational analysis on the deficient road link in accordance with the local government's traffic impact methodology.

If the analysis results in a revised service volume with enough additional capacity to accommodate the proposed development trips, a certificate of concurrency may be issued. If not, the applicant may reduce the size of the development project such that capacity will be adequate, or the local government and the applicant may reach an agreement on improvements to mitigate the impact of the development trips. In this case a certificate of concurrency may be issued, pursuant to a binding development agreement. If adequate capacity is not available and no improvements are scheduled, and no agreement can be reached on mitigation of the impact, the application for transportation concurrency will be denied.

Fiscal planning is an important part of concurrency management. Local governments should determine the financial feasibility of carrying out the capital improvements program and maintaining a desired level of service in view of competing resource demands. This analysis should include an inventory of existing facility deficiencies, repair and replacement needs, estimates of useful life (when available), and minimum costs of replacement.

## **Pros and Cons**

### **Pros**

- Is an indicator of network condition and serves as an advance warning system for deficiencies.

- Allows for orderly expansion of transportation facilities as development occurs, helping local governments maintain a desired level of service.
- Pushes local governments to work toward financially feasible land use and capital improvement plans and development decisions.
- Shifts some of the costs of improvements needed to serve new development to the developer.
- Helps discourage development in rural areas that lack the necessary urban infrastructure and services.

## Cons

- Early developers are allowed to use available capacity; future developers that trigger a “concurrency deficiency” must bear the burden of improvement needs necessitated in part by “free riders”.
- Administered on a link-by-link basis, which tends to result in incremental improvements; rather than comprehensive solutions for efficient operation of the overall transportation system.<sup>48</sup>
- Traditional level of service analysis (volume to capacity ratios) causes emphasis on road widening solutions to maintain roadway capacity and detracts from transit or multimodal solutions.
- Assumes financially feasible transportation improvements plans; impeded by significant project backlogs at state and local level and lack of adequate transportation revenue sources. This creates potential for development moratoria in some areas until backlogs can be resolved.

## Case Examples

### ■ US 301 FAIR SHARE AGREEMENT, HILLSBOROUGH COUNTY, FLORIDA

An application of fair share contributions in the context of transportation concurrency can also be seen on the US 301 Fair Share Program. Hillsborough County entered a public-private partnership with developers along US 301 (a state highway) aimed at coordinating transportation concurrency mitigation projects across several major developments with vested status along the corridor. A stimulus for the program was the fact that each development was widening the corridor along impacted segments, resulting in variations in laneage and corresponding safety problems. Because these segments needed to be tapered, and then later would need to be reconstructed, there were cost savings to all of the developers to pool their resources and coordinate on the overall road widening project needed to serve their developments.

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<sup>48</sup> This issue has been documented in numerous reports including: CUTR, *Transportation & Growth Management: A Planning & Policy Agenda*, State Transportation Policy Initiative, 1994. R. Steiner and J. Waterman, *The Impact of Concurrency Management and the Florida Growth Management Act on Transportation Investments*, Florida Department of Transportation, 1999.

Costs were estimated using FDOT's Long Range Estimating (LRE) model for the desired cross section based on new average daily trips generated by the development and inflated to 2008 values. The Model works as follows:

“FDOT estimators modify the models to reflect the characteristics of a project. LRE generates the cost estimates of the project (i.e., items, quantities, and prices) based on the physical characteristics of the typical sections as coded, for the indicated roadway length and current construction price trends. LRE(s) are updated annually, when design scope is prepared and at Phase I (30%) & Phase II (60%) plans development.”<sup>49</sup>

Each developer was required to pay their fair share into an account that was earmarked for this purpose, and the resulting fees are reproduced in the table below. Participating developers were also allowed to construct their share of the improvement as an alternative to paying into the account. The account allowed the County to make loans to FDOT, who then paid back the loans in the 4th or 5th year of their budget, thereby moving the project up 10 years in the FDOT work program.

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<sup>49</sup> American Association of State and Highway Transportation Officials and Federal Highway Administration. “Statewide Multimodal Transportation Planning Proceedings” 2004 Peer Exchange held in Park City, Utah on July 27–28, 2004, Transportation Research Circular Number E-C082. Transportation Research Board. December 2005, page 32.

**Table 3**  
**US 301 Widening Funding Contribution, February 16, 2005**

Funding Source	Entitlements	Daily Trips	Pond Site (Acres)	Pond Value (\$)	Monetary Contribution (\$)
Hillsborough County			0	0	5,700,000
FDOT			0	0	10,700,000
Summerfield DRI (1)	Development Order	N/A	0	0	5,000,000
DG Farms DRI	Development Order	N/A	0	0	5,000,000
Deihl Farms	1660 Single Family Units 600 Townhomes 10,000 SF Student Day Care Center 32,000 SF Shopping Center 80,000 SF Mini Storage	19,648	5	1,000,000	4,486,130 (4,000,939 DU/Day Care) (485,191 Commercial/Mini Warehouse)
Highland Estates	1660 Dwelling Units 54,500 SF Shopping Center 87,000 SF Office Park	16,441	0	0	4,590,669
Big Box Commercial	280,000 SF Commercial	9,415	0	0	1,314,292
South Fork	1,137 SF Dwelling Units 81 Townhomes	10,270	0	0	2,867,597
Metro Creek	463 SF Dwelling Units 140 Townhomes	5,113	2	400,000	1,027,656
Sunshine Village	1362 SF Dwelling Units 306 Elderly Attached 705 Elderly Detached 448 Townhomes 184,500 SF Commercial	27,813	0	0	7,765,968
KB Homes—Medford Lakes	100 Dwelling Units	1,040	2	400,000	-109,661
Burcaw Development Shady Lane (1) Shady Trail (2) Shady West (3) Grande Reserve (4)	68 Dwelling Units (1) 87 Dwelling Units (2) 49 Dwelling Units (3) 67 Dwelling Units (4)	2,905	0	0	811,134
Shady Creek Preserve	156 Dwelling Units	1,565	0	0	436,981

**Contact:** Ned Baier, Manager, Transportation Division Planning & Growth Management Department, Tel: (813) 272-5849; Fax: (813) 276-8417; Email: [BaierE@hillsboroughcounty.org](mailto:BaierE@hillsboroughcounty.org)

**■ US 19 FAIR SHARE PROGRAM, PASCO COUNTY, FL**

Property in unincorporated Pasco County that is directly adjacent to US 19 or connects to US 19 via a private roadway must obtain a transportation concurrency certificate pursuant to special fair share rules. This certificate will only be issued under two conditions:

- 1) The developer is able to prove that the development will not degrade the LOS of any section of US 19 below the adopted LOS specified in the Comprehensive Plan (this will usually require a traffic impact study), or
- 2) The developer has mitigated any concurrency impacts caused by the development.

This mitigation can take the form of either paying the applicable fair share fee for the development (basically an impact fee), or building the facilities necessary to restore the adopted LOS (the county may also accept a combination of both methods). The fair share fee was established in addition to the transportation impact fee to address capacity needs and congestion problems on a segment of US 19 in the urbanized areas of Port Richey and New Port Richey.

The methodology for establishing the fee was detailed by the project consultant as follows, in a technical support document to the County.<sup>50</sup> The typical transportation impact fee in the County is based on the costs of the road system improvement projects that will be implemented throughout the County in the next 20 years and the total amount of new travel generated by development that will consume system capacity. The US 19 fair share fee reflects the higher improvement costs of this highway, particularly with regard to ROW and construction costs. The costs are higher than countywide averages due to the intensive development along the highway and the higher construction standards.

The fair share fee is the amount of cost beyond the impact fee and other revenues generated by the development for transportation system expansion. Only a portion of the travel on US 19 from a development was applied to the higher costs for the fair share fee. The cost of improving US 19 was based on two additional lanes and improvements to 12 key intersections, and costs were obtained from recent projects conducted by FDOT and tax assessor's valuations of property on US 19. A generalized estimate of \$3 million per intersection improvement was assumed. The resulting cost per lane mile was \$2,392,576, which was 28% higher than the cost per lane mile calculated for the County's 2004 transportation impact fee.

Trip length adjustments were made based on the proportion of travel estimated from each development to travel on US 19 based on a development's location relative to US 19 and the average length of trips generated by the development. Traffic assignments

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<sup>50</sup> Tindale-Oliver and Associates, Inc., *US 19 Concurrency Fair Share Fee Technical Support Document*, prepared for Pasco County, FL, February 2004.

were conducted using the regional model for 15 different traffic analysis zones in four subareas of US 19 and for various types of land uses. It was found that depending on location along the corridor and access to US 19, land uses will place varying percentages of traffic on the corridor. These and other findings relative to trip length were used to adjust the relative fees for various land uses based on the percentage of travel they would generate on US 19. Below is an abbreviated example of the US 19 fair share fee schedule set forth by Pasco County’s concurrency management system.

Any concurrency mitigation requirements beyond the payment of the fair share fee are specified in a development agreement between the county and the developer. Default of this agreement by any party other than the county can result in the invalidation of both the development order and the certificate of concurrency.

**U.S. 19 FAIR SHARE FEE SCHEDULE**

ITE LUC	Land Use	Unit	On U.S. 19*	Within Redevelopment/ Concurrency Area of U.S. 19
<b>RESIDENTIAL:</b>				
220	Single-Family Detached	du	\$1,083	\$819
221	Multifamily	du	\$995	\$752
230	Condominium/Townhouse (3 to 9 stories)	du	\$751	\$567
232	High-Rise Condominium (10 or more stories)	du	\$631	\$477
<b>RECREATION:</b>				
420	Marina	berth	\$402	\$304
430	Golf Course	hole	\$4,859	\$3,673
443	Movie Theaters w/Matinee	screen	\$4,957	\$2,509
473	Racquet Club/Health Club/Spa/Dance Studio	1,000 SF	\$2,434	\$1,840
494	Bowling Alley	1,000 SF	\$4,732	\$3,577
495	Community Center	1,000 SF	\$3,009	\$2,175
710	50,000 SF or less	1,000 SF	\$2,206	\$1,440
710	50,001-100,000 SF	1,000 SF	\$1,710	\$1,116
710	100,001-200,000 SF	1,000 SF	\$1,456	\$950
710	200,001-400,000 SF	1,000 SF	\$1,240	\$809
710	greater than 400,000 SF	1,000 SF	\$1,056	\$689
720	Medical Office/Clinic	1,000 SF	\$4,086	\$2,667
N/A	Veterinarian Clinic	1,000 SF	\$1,372	\$673
<b>RETAIL:</b>				
814	Specialty Retail, including Bar/Taverns	1,000 SF	\$3,369	\$1,898
820	Under 50,000 GSF	1,000 SF	\$3,782	\$1,876
820	50,000 to 200,000 GSF	1,000 SF	\$2,927	\$1,502
820	200,001 to 400,000 GSF	1,000 SF	\$2,719	\$1,439
820	400,001 to 600,000 GSF	1,000 SF	\$2,593	\$1,395
820	600,001 to 800,000 GSF	1,000 SF	\$2,463	\$1,338

**Contact:** Bill Oliver, Tindale-Oliver & Associates, Tel: (813) 224-8862;  
 Fax: (813) 226-2106; Email: [boliver@tindaleoliver.com](mailto:boliver@tindaleoliver.com)

**■ FLORIDA PROPORTIONATE FAIR SHARE PROGRAM FOR CONCURRENCY**

In 2005, amendments to Florida’s growth management legislation directed local governments to allow “proportionate share” contributions from developers toward meeting concurrency requirements by December 1, 2006 (§163.3180(16)). The intent of the proportionate fair-share option is to provide applicants for development an opportunity to proceed under certain conditions, notwithstanding the failure of transportation concurrency, by contributing their share of the cost of improving the impacted transportation facility.

A developer has the right to use this “pay and go” process if the transportation facilities needed to mitigate the development’s traffic impacts are identified for funding in the local government’s five-year capital improvements schedule or in an adopted long-term concurrency management system.<sup>51</sup> Otherwise, the local government may still allow a development to “pay and go” if the local government adds the necessary transportation improvement project to their five-year capital improvements schedule in the next annual update. If the local government does not have sufficient funds to fully fund construction of a transportation improvement, it may still enter into a binding agreement with the developer authorizing the developer to proceed by contributing toward one or more improvements that will “significantly benefit the impacted transportation system.”

Proportionate fair-share contributions as outlined in Florida law differ from transportation impact fees. The proportionate fair-share payment for concurrency is intended to address a specific road segment or segments operating below the adopted level-of-service standard. Transportation impact fees are imposed on each new development to pay for that development’s impact on the entire transportation system (as addressed by the local impact fee ordinance).

Proportionate fair-share contributions should be applied toward the impacted facility. Therefore, local governments are advised to work with other affected agencies to establish a process for applying developer contributions to the impacted facilities. This could be accomplished through cooperative agreements or some other method. Contributions toward a Strategic Intermodal System highway must be approved by FDOT. A model ordinance provided to local governments for guidance on this issue also includes a model process for addressing cross jurisdictional impacts. It further suggests an optional process for reimbursing developers for excess contributions, as follows:

- (1) *Where an applicant constructs a transportation facility that exceeds the applicant’s proportionate fair-share obligation calculated under Section H, the [City/County] shall reimburse the applicant for the excess contribution using one or more of the following methods:*

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<sup>51</sup> A long term CMS is 10 to 15 year improvement plan for a deficient facility that must be financially feasible and approved by the state land planning agency.

- (a) *An impact fee credit account may be established for the applicant in the amount of the excess contribution, a portion or all of which may be assigned and reassigned under the terms and conditions acceptable to the [City/County].*
- (b) *An account may be established for the applicant for the purpose of reimbursing the applicant for the excess contribution with proportionate fair-share payments from future applicants on the facility.*
- (c) *The [City/County] may compensate the applicant for the excess contribution through payment or some combination of means acceptable to the [City/County] and the applicant.*

**Source:** “Model Ordinance for Proportionate Fair-Share Mitigation of Development Impacts on Transportation Corridors,” prepared by CUTR for FDOT, February 14, 2005.

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#### ■ FLORIDA RECOMMENDED PRACTICE FOR LOCAL TIS AND CONCURRENCY ANALYSIS

Local governments in Florida conduct traffic impact studies to determine whether mitigation will be required for concurrency. A recent report published by the Center for Urban Transportation Research provides the following guidelines for determining a recommended traffic impact area for such analysis:<sup>52</sup>

1. Include each directly impacted collector or arterial (either directly or via a network of local or private streets) and intersections, both signalized and unsignalized, at each end;
2. Include each segment where the PM peak hour project trips on the segment are greater or equal to 3% of the LOS C capacity of the segment or if project trips on the segment are greater than or equal to 75; and
3. Include each segment operating at more than 90% of the adopted LOS MSV where the PM peak hour project trips are greater or equal to 1% of the LOS C capacity of the segment ; or if project trips on the segment are greater than or equal to 25;

After using the above approach to determine a development’s traffic impact area, the second step is to conduct an initial LOS review of all roadway segments within the traffic impact area. This is done based on the local concurrency management tracking

<sup>52</sup> K. Seggerman, K. Williams, and P.S. Lin, “Transportation Concurrency Requirements and Best Practices: Guidelines for Developing and Maintaining an Effective Transportation Concurrency Management System,” Center for Urban Transportation Research, Tampa, Florida, 2006.

system (e.g., spreadsheet, computer program, generalized LOS table) to determine if capacity is available for the proposed development trips. If the segment's maximum adopted service volume will be exceeded or potentially be exceeded by adding the project trips to the existing plus background traffic volume, a segment analysis must be conducted. For concurrency purposes, the existing volume typically means peak hour volume during peak season. The background traffic volume includes approved development trips and growth (if any). For any deficient or constrained facility within the traffic impact area, a detailed analysis must be provided. Strategies must be in place to bring any deficient facility back to its adopted LOS standard.

The third step of the analysis procedure is to determine which signalized intersections must be analyzed—either based on the need to support the link analysis or specific local warrants for signalized intersection analysis within the traffic impact area. Because the segment LOS is highly dependent on the signalized intersection analysis, this analysis should be required for the intersections at both ends of the impacted link.

The fourth step is to perform a detailed analysis using HCS intersection analysis for the intersections at each end of the road segment and HCS arterial roadway analysis for the roadway segment. Pursuant to local government approval, other software, such as SYNCHRO and TRANPLAN, may also be used to perform intersection and roadway segment analysis. At least two scenarios should be analyzed for a development under consideration: (1) Existing plus vested traffic conditions; and, (2) Existing plus vested plus project traffic conditions. Depending upon state law and local policy, the capacity from committed roadway and/or intersection improvements could also be considered in the detailed analysis.

The fifth step is to determine whether transportation concurrency can be met for each roadway segment, and intersection LOS standards can be met for each intersection. This step includes the identification of any improvement required for the proposed development to meet concurrency. From the traffic impact study, transportation concurrency can be determined by comparing each segment LOS from the analysis to its adopted segment LOS within the traffic impact area. Any required improvements and mitigation can also be identified through the traffic impact study.

## Resources

1. Karen E. Seggerman, Kristine Williams, Pei-Sung Lin, “Transportation Concurrency Requirements and Best Practices,” Center for Urban Transportation Research, September 2006.
2. Kristine M. Williams, Karen E. Seggerman, et.al. “Technical Memorandum 1: Current Practices and Regulatory Concepts, Model Fair Share Ordinance for Transportation Concurrency,” Center for Urban Transportation Research, September 2005.
3. Bill Oliver, PE, PTOE. “Traffic Impact Assessment Financial Considerations – A White Paper,” prepared for the Model Proportionate Share Ordinance Technical Advisory Committee. Tindale Oliver & Associates, September 9, 2005.
4. S. Mark White, AICP. “Adequate Public Facilities Ordinances and Transportation Management.” *Planning Advisory Service Report Number 465*, American Planning Association, August 1996.



# Conclusion

The challenge of maintaining a safe and efficient transportation system that enhances economic development and local quality of life is no small challenge. It will require a variety of tools and strategies to facilitate public and private partnerships and intergovernmental collaboration. It will also require citizens to recognize their responsibility to help pay for transportation needs and services.

This report has explored a variety of methods for encouraging private sector participation in the funding and improvement of transportation facilities. It has examined public and private partnerships, such as transportation corporations, alternative financing methods, such as tax increment financing, and methods for raising revenue, such as traffic impact fee ordinances or transportation improvement districts. It has also examined regulatory methods, such as fair share mitigation and concurrency or adequate public facilities ordinances, for more systematically requiring developer contributions toward needed transportation facilities through the development review process.

All of these strategies offer some insight into tools that could be mixed and matched to help address North Carolina's transportation improvements needs. Tax increment financing, for example, can help revitalize declining areas, promote economic development, and provide a revenue source for addressing transportation needs in these areas. However, tax increment financing has certain limitations as a means for funding transportation improvements. For example, under current tax increment financing legislation in North Carolina, the area in question must be blighted or inappropriately developed, appropriate for rehabilitation because of a risk of becoming blighted, or appropriate for economic development. In addition, local governments may not designate more than 5% of their land area for this purpose. Nonetheless, tax increment financing is a tool that can be used to help fund transportation improvements in some situations.

Transportation corporations or improvement districts have the specific benefit of helping bring diverse interests and private expertise to bear on expediting public projects that have been delayed by lack of funding. These options reward local governments that enter partnerships with each other and the private sector, and therefore can help forge cooperation necessary to accomplish needed improvements. They do require legislation, as well as political champions, to get started. However, they each provide a valuable tool for encouraging jurisdictions and business leaders to cooperate for the purpose of advancing needed transportation improvements.

Transportation impact fees are a versatile and equitable tool for capturing a development's fair share of the costs of improvements needed to accommodate

development impacts. A benefit of impact fee programs is that they can be structured to allow transportation agencies to recoup some of the costs of unused capacity (as in Oregon's reimbursement fees) and to allow developers that build a major improvement to recoup the costs of their excess contribution. In North Carolina, where the majority of major roadways are maintained by the state, it will be necessary to clarify how the state transportation agency will coordinate with local governments on administration of transportation impact fees and how the facility benefit areas will be defined. Cooperation between NCDOT and local governments could take the form of an intergovernmental agreement that specifies state and local government roles and responsibilities.

An option may be a corridor based impact fee, similar to the US 19 fair share fee discussed in this report, which could be established and administered to accomplish a specified improvement in a defined corridor. Alternatively, an improvement district could be established as an organizing mechanism to coordinate impact fee collections and expenditures across one or more jurisdictions where several transportation improvements are needed. In this example, the impact fee could be determined based on the transportation improvement plan for the district, and NCDOT could have a direct role in improvement district decisions and oversight as a member of the district Board of Directors.

Fair share contributions in the context of a traffic impact assessment provide another method to require developer contributions toward needed transportation facilities through the development review process. These programs do allow state transportation agencies the ability to require larger developments to mitigate their impacts on the transportation system. However, such programs are limited in that they fail to capture the incremental impacts of smaller developments and can be inequitable depending on the timing of a development project in relation to available system capacity. Another issue is the tendency for some property owners to "tie up" available capacity while waiting to proceed with their development projects, unless the agency addresses this problem through time limits on capacity reservation and related mechanisms.

In sum, any effort to promote cost sharing for transportation improvements should strive to achieve consistency and equity of outcome – equity to prospective developers, as well as equity of contributions across the many agencies and jurisdictions responsible for maintaining transportation facilities. It should also attempt to reduce administrative burdens and provide some certainty of outcome – a potential shortcoming of fair share programs that rely on site traffic impact studies, which are costly to administer and may be manipulated with unpredictable outcomes. From this perspective, transportation improvement districts and consumption based traffic impact fees are the more equitable and predictable methods of achieving needed funding from those most likely to benefit from the improvements. Contributions achieved primarily through negotiation tend to be the least predictable and equitable.

Finally, it is important to maintain a systems view of transportation needs and a multimodal perspective, rather than reacting to improvement needs as they arise in a particular location. This means that developer contributions for transportation improvements should be solicited in the context of a short or long range transportation plan. State transportation agencies are increasingly developing corridor management plans to help identify necessary transportation improvements on a corridor basis, and to manage the system through access management strategies and the development of supporting local street networks. In this way, states can proactively partner with local governments and the development community to accomplish needed improvements and manage the system to preserve the significant public and private investment in transportation facilities.