State transportation agencies have engaged in driveway regulation for decades. These programs have traditionally governed construction activity within the right-of-way of a state highway and have addressed issues such as drainage, installation of culverts, and construction of driveways. Until recently, most state transportation agencies stopped short of applying their police power for more extensive control of state highway access.

With metropolitan expansion and the correspondent growth in traffic demand and congestion, agencies are looking for better methods to manage arterial safety and efficiency. Many state transportation agencies are looking to overhaul traditional right-of-way encroachment permitting to more effectively address the cumulative adverse impacts of driveway access on arterial safety and efficiency. A growing number of local agencies have also expanded their driveway regulation policies in recent years.

To address the changing state of current practice in driveway regulation, CUTR was selected by the Transportation Research Board to prepare NCHRP Synthesis Report 304: Driveway Regulation Practices. The study involved a review of the literature and surveys of state transportation agencies and selected local governments. Specific objectives were to:

- summarize driveway permitting practices of state and local agencies;

Continued on next page
provide case examples of state and local driveway regulation programs;

- identify impacts of driveway regulation practices; and

- identify issues in current practice and lessons learned.

The study found that driveway regulation practices vary widely from state to state, with objectives ranging from comprehensive access management to basic location and design considerations. In general, the more contemporary driveway regulation programs were oriented toward comprehensive access management. These programs systematically regulated all highway access locations, including driveways, street connections, median openings, signals, turn lanes and interchanges. They also included access classification systems for major roadways, traffic impact assessment procedures and criteria, and impact mitigation requirements for larger developments.

Many contemporary programs included separate permit categories and analysis requirements for small and large developments, with a concept review and preapplication process—particularly for larger or more complex developments. Several agencies also reported thresholds, whereby redevelopment projects must conform fully or partially to agency driveway or access standards. Most respondents did not report separate permitting procedures or requirements for redevelopment versus new development, although many allowed for flexibility and waivers to address retrofitting constraints. Some agencies also imposed conditions in driveway permits on the use of the access. Exceeding such conditions would invalidate the permit and require a new permit.

The majority of state and local agencies encourage driveway consolidation and shared access, although most note that it is difficult to force the issue. Given the broader land development powers of local governments, several states encourage shared access through coordination with local governments. Yet the local respondents noted similar constraints as the states, and tended to promote shared access in an opportunistic manner that relies on property owner cooperation. Some agencies require construction of the driveway at the property line or use conditional permits to promote driveway consolidation in the future.

Responses clearly indicated that politics is a significant factor in driveway regulation. Half of the state respondents indicated that political interference and the lack of understanding by affected businesses are current problems in their driveway regulation program. About one-third of the state respondents were also experiencing problems with inconsistent decisions and lack of intergovernmental coordination with local agencies.

Lack of consistency in variance decisions can make any regulatory program legally vulnerable. Therefore, procedures and criteria for considering deviations from standards are important aspects of effective driveway regulation programs. Nonetheless, 50 percent of the state transportation agencies responding to the survey had no formal procedure for handling deviations from
driveway standards. This undoubtedly contributed to the problems state transportation agencies reported with regard to inconsistent decisions.

A frequently mentioned problem was the difficulty of implementing driveway regulations, given limited staff and resources. State transportation agencies, in particular, noted a lack of sufficient trained staff and inadequate agency resources for permitting, inspection and enforcement. Related problems included inadequate fees to help cover administrative costs and the additional time needed to handle complex applications. Some states are responding to this challenge by transferring inspection or permitting functions to local agencies or the private sector. Yet, as one respondent noted, private sector oversight of inspection functions can lead to conflicts of interest.

Weaknesses in current practice identified by respondents included the need to expand existing regulatory powers and statutory authority, as well as inadequate or outdated standards. For example, several agencies said they were unable to require developer mitigation and offsite improvements. Many also noted a lack of authority to deny access or require alternative access under certain conditions and the lack of adequate enforcement penalties for noncompliance.

Generally, most respondents believe their driveway regulation efforts greatly benefit their state, county, or municipality. Benefits frequently noted by state respondents were improved vehicular safety and crash reduction (93%), improved roadway level of service (86%), and improved driveway design (64%). Local respondents were most likely to identify improved site design as a positive impact of their driveway permitting process (94%), followed by improved vehicular safety and crash reduction (82%) and improved roadway level of service (59%).

The review of current practice reveals that driveway regulation practices are in transition. State transportation agencies and local governments are expanding the scope of traditional driveway regulation programs to address a broader range of access and development issues. These contemporary programs are addressing the more complex and comprehensive objectives of access management and developer mitigation. To facilitate the transition, respondents noted the need for national access management guidelines from professional transportation organizations, as well as better education of politicians, developers and the public about the importance and value of access management.

NCHRP Synthesis 304 can be accessed on the TRB website at www.trb.org (Cooperative Research Programs).

For further information, contact Kristine Williams, AICP, Program Director, Planning and Corridor Management, at (813) 974-9807, kwilliams@cutr.usf.edu.
Tough times result in more lessons learned in transit efficiencies

Transit agencies around the country are reporting that the weakened national economy has caused significant budgetary constraints due to reduced sales tax revenues and declining ridership. To deal with the reduction in operating revenue, many transit systems are contemplating service reductions in the range of 15 to 25 percent, as well as increasing fares to as high as $2.00 for a one-way trip.

The National Center for Transit Research (NCTR) at CUTR has produced a report that might not bail out struggling transit systems from their current budget squeezes, but it is bound to help ease the pain a bit. “Lessons Learned in Transit Efficiencies, Revenue Generation, and Cost Reductions: Second Edition” identifies more than 250 non-traditional ways transit agencies have earned new revenues or cut their costs. Joel Volinski, Director of NCTR and author of the report, wanted to find ways to help transit agencies with their budget constraints that did not involve raising fares or reducing service.

“The passengers should not be the first target when times get tough for transit systems,” said Volinski. “Fortunately, there are innovative thinkers from over 80 transit agencies who were willing to share their money-making or money-saving ideas.”

The original “Lessons Learned in Transit Efficiencies” report was published in 1997 and was well received by the transit industry. This update incorporates nearly 100 additional examples of how transit systems have identified ways to deal with tight budgets. A few of the techniques discovered through this project are summarized below into six different categories.

Positive Opportunism
Transit agencies have for years sold space they control, such as bus shelter panels and the interiors and exteriors of their buses, for revenue-generating advertising. The report includes further examples of this entrepreneurial practice. Some transit agencies now advertise on their buildings, bus and rail schedules, fare media, trash receptacles, and even employee pay stubs. A number of transit agencies sell newspapers on their buses, and others rent cell phone access on their trains. Transit systems in Orlando and Milwaukee have executed agreements whereby private companies have installed 13-inch flat screen video monitors in their buses, broadcasting news, weather, and sports as well as announcing next bus stops, at no cost to the transit agency and sharing the advertising revenue.

The Greater Cleveland Regional Transit Authority sought competitive bids from soft drink companies to allow exclusive rights to sell their product at the RTA’s train stations and major bus park and ride centers. The amount of revenue the agency receives is a function of total sales, with the agency receiving $.50 for each

HARTline in Tampa has generated hundreds of thousands of dollars in new revenues each year by selling exclusive naming rights to its new streetcars, stations, and streetcar system.
$1.00 bottle of soft drink sold. When the soft drink dispensers are placed in all 50 planned locations, the agency anticipates collecting more than $100,000 from this program.

Following a trend made famous by sports stadiums throughout the country, HARTline (Tampa) is generating significant revenue from the sale of naming rights to its new electric streetcar line that runs from downtown to Ybor City, the city’s historic district. Tampa Electric Company paid $1 million for naming rights to the system. Private companies pay $250,000 per car for exclusive sponsorship of a single trolley car for a 10-year term. Similar opportunities are available to sponsors of individual trolley system stations, paying $100,000 for exclusive naming rights.

An example of turning a liability into an asset was discovered in the Chicago area. PACE transferred the liability for all workers’ compensation and auto liability claims that occurred from 1984 through 1998 to an insurance company through a competitive proposal process. PACE paid Hartford Insurance approximately $5.4 million to accept the liability and was able to reduce the claims reserve by $7.1 million, generating a one-time income of $1.9 million.

**Partnerships**

Transit agencies have long operated in the spirit of partnership with federal and state governments for transit operating and capital assistance. Transit systems now also are teaming with military bases, universities, major employers, hospitals, cities, downtown development authorities, and other non-traditional partners to reduce the costs of providing new or existing service. Skagit Transit (SKAT in Burlington, Washington) and the Skagit County jail created a program to have jail inmates wash buses, saving SKAT $96,000 a year.

The mass transit system and the parking authority in Cedar Rapids, Iowa, were combined, creating the Five Seasons Transportation and Parking Authority. This resulted in parking revenues that are used for transit, a new 1,000+ space park-and-ride lot that increases transit ridership, and a joint development intermodal facility with a new hotel, daycare, and senior citizen center. The agency estimates that the combination of parking and transit functions has saved the citizens of the area over $1,180,000 in local taxes.

Fredericksburg (Virginia) Regional Transit offers a Partnership Program for public or private organizations to join. Public/private organizations contributing $50,000 or more annually toward FRED operations are members at the “Platinum Level,” those contributing $25,000 to $49,999 are members at the “Gold Level,” and those contributing $7,500 to $24,999 are members at the “Silver Level.” Members enjoy a variety of benefits, including welcome packets to new employees, schedules and schedule holders, advertising on the FRED bus, fare cards for free FRED rides, t-shirts and other giveaways, a position on FRED’s Public Transit Advisory Board, employee surveys of transit needs, and one-time special transportation services requested by the partner.

About two-thirds of Tri-Met’s 851 bus stops are being cared for by community groups through the SOLV/Tri-Met partnership program “Adopt-a-Stop.” Tri-Met has determined that this voluntary program saved $657,973.

**Cooperation**

Transit agencies throughout the country also have found ways to more efficiently provide services in which they are already engaged by cooperating with other public or private entities.

In cooperation with Southern California Edison, SunLine Transit found a way to illuminate its bus shelters and bus stops with batteries powered by solar energy. This solar energy provides inexpensive light that increases rider security, lets advertisers’ messages be seen all night, and saves approximately $10 per month per location in utility costs.

The Metropolitan Tulsa Transit Authority serves as the broker for all Medicaid
transportation provided throughout the entire state of Oklahoma, on behalf of the Department of Health Care. An “800” number has been established that allows anyone in the state to call Tulsa Transit’s Call Center. Personnel at the Call Center then determine which of the 20 providers throughout the state will serve the caller. Approximately 300,000 trips per year are brokered in this fashion. The State allows Tulsa Transit to fully charge for all expenses associated with brokering such trips, including the cost of two statewide field inspectors, plus a five percent “profit,” which generates approximately $400,000 per year in extra revenue that is used to help pay for Tulsa Transit’s fixed route and paratransit services.

Transit agencies in Illinois can take advantage of “The Illinois Funds” established by the Illinois General Assembly to provide an investment alternative for public treasurers across the state to earn a competitive rate of return on fully guaranteed investments, while maintaining access to invested funds. While rates of return are not high at the moment, transit agencies can still realize some return on their dollars while having the same access offered by a personal checking account.

**Service Planning, Marketing, or Delivery Methods**

The York County (Pennsylvania) Transportation Authority changed its operating name from “Community Transit” to “Rabbit Transit” and created an entirely new marketing approach around the “Rabbit” theme. This included painting the buses with images of rabbits on the move, and cottontails on the rear of some of the smaller buses. All printed and electronic materials and advertisements use this new theme as well (“Hop on the bus,” etc.). All anecdotal evidence points to the value that this branding effort has had in increasing ridership on the system by 17 percent.

San Diego Transit carefully reviewed its scheduling and runcutting practices to determine if efficiencies could be found. They discovered that many runs were assembled based on “folklore” more so than work rules or provisions of the labor agreement. Savings associated with modifying the runs in accordance with actual work rules and labor agreement provisions will save San Diego Transit over $1 million annually.

Taltran (Tallahassee, Florida) entered into an agreement with the Leon County School System to allow students to ride Taltran buses at no cost to the students on a 24/7 basis. The school system paid Taltran $10,000 per month through this partnership. During the five months of this State-grant-funded program, Taltran transported almost twice the number of students previously carried when they paid cash. The pre-paid revenue from the school system represented a 20 percent increase in revenues to the transit system, and the additional passengers help Taltran receive more dollars through the Florida Transit Block Grant program.

**Maximizing Capital Budgets**

Strategic use of capital funds can reduce operating costs while increasing productivity, and sometimes results in profits. The Ann Arbor (Michigan) Transportation Authority purchased GIF Trim units and eliminated the need for paper punch transfers. The automated transfer helps eliminate disputes regarding the validity of fares and helps prevent fare abuse such as roundtrips that had previously been made with transfers. These machines help reduce the expense associated with the printing of transfers and also make the bus operator’s job easier while helping buses keep schedules by reducing the time and effort associated with issuing transfers.

Bus shelters featuring art may be less likely to become targets of vandalism, so transit maintenance officials in Portland, Oregon, have begun placing artwork in areas likely to be targeted with graffiti or the like. Each year, approximately 750 glass panels in shelters are so severely scratched by vandals that they must be replaced at a cost of about $200 each. Tri-Met’s art office now removes vandalized panels, sandblasts them with motifs designed by artists, and reinstallts them at a cost of
under $20, which is expected to save Tri-Met at least $100,000 annually.

Metro Transit in Minnesota earned $90,000 in rebates from the local power company for energy-savings measures built into their new bus storage and maintenance facility. The rebate was largely due to efficient boilers and using natural day-lighting design and sensor-operated light fixtures in little used rooms.

**Improved Management of Resources**

METROLink is an Internet subscription service created by Houston METRO that provides up-to-date route and schedule information via email as well as METRO news, detour, and special event shuttle information. Part of the intent of creating METROLink was to reduce the agency’s costs in terms of schedule printing and maintaining schedule racks on private property. After the first distribution of marketing materials through METROLink, METRO was able to remove 50 public guide racks from non-METRO facilities such as major office buildings and medical complexes. These racks cost METRO $1,100 each to maintain on an annual basis. Within a year they were able to remove almost 100 racks throughout the service area for a savings of more than $100,000 annually. In addition, the agency saved approximately $90,000 a year in printing costs by reducing the number of bus schedules from 17 million to 13 million. After two years of operation, METROLink has almost 10,000 users.

“Lessons Learned: Second Edition” contains hundreds of other examples that can help transit agencies deal with their tightened budgets. This report is another example of how NCTR is fulfilling its goals of “enhancing the performance and relevance of public transportation” through practical research that can be used by transit systems immediately.

For more information on this project, contact Joel Volinski at (813) 974-9847, volinski@cutr.usf.edu.

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**Spring 2004 transportation classes**

CUTR and the USF College of Engineering are offering the following transportation classes in the Spring 2004 semester:

- Graduate Transportation Seminar (TTE6930), Mondays, 11:00-11:50am, Dr. Pendyala
- Transportation Engineering II (TTE4005), Mondays, 3:00-5:50pm, Dr. Lu
- Capstone Transportation Design (CEG4850), Mondays, 6:00-8:50pm, Dr. Jory
- Transportation & Society (CGN4933), Tuesdays/Thursdays, 6:00-6:15pm, Drs. Wambalaba and Ward
- Transportation Safety (TTE6930), Tuesdays, 5:00-7:50pm, Dr. Lu
- Advanced Geometric Design (CGN6933), Wednesdays, 5:00-7:50pm, Dr. Al Kaisy
- Access Management (CGN6933), Thursdays, 5:00-7:50pm, Ms. Williams
- Discrete Choice Methods (TTE6505), Fridays, 3:00-5:50pm, Dr. Pendyala

For further information, contact the USF Department of Civil and Environmental Engineering at 813/974-2275.
In its continuing efforts to serve as a transportation information resource for Florida, CUTR will soon release the 2003 edition of the Florida Transportation Almanac. This publication is the third edition of the Almanac and follows the original publication produced in 1995, the Florida Transportation Almanac and Atlas on CD-ROM produced in 1996, and the Florida Transportation Almanac produced in 1998.

The Almanac contains data from existing data sources throughout Florida and the United States. A range of transportation topics is covered, and, to the extent possible, statistical data are for the most recent year available as of May 2003.

Although most of the information provided in the Almanac is available directly from the respective agencies that compiled or collected the information, the ability to access this information from a single source offers significant advantages to the transportation community.

The 2003 edition of the Almanac covers numerous transportation-related topics:

**Demographics** provides information such as worker, household, vehicle, driver, and population growth rates; ethnic origin; age distribution; labor force participation; and household income for the U.S., Florida, and the 67 counties in the state.

**Travel Behavior Characteristics** summarizes travel behavior characteristics and trends in Florida and the U.S. for journey-to-work travel and personal travel, such as average vehicle trips, vehicle miles, and trip by length; average person travel time by purpose and mode; average departure time to work; and other journey-to-work trends and characteristics. Summary statistics are provided for all personal travel in the U.S., in Florida, and in Florida’s counties, as well as for the aggregated metropolitan regions.

**Statistics** includes maps and information on highways, aviation, public transportation, rail, seaports, transportation demand management (TDM), intelligent transportation systems (ITS), and imports and exports.

**Tourism** focuses on tourism statistics for the state, including number of visitors by air and auto; trip destinations; hotel and motel occupancy rates; and tourist tax collections.

**Transportation Financing** presents information on Florida’s transportation tax and fee sources and transportation costs associated with the construction and operation of various facilities.

**Transportation Education and Research** presents an overview of the transportation education programs available at the state’s universities and colleges and a summary of the activities of the state’s transportation research organizations.

**Directory** includes personnel and contact information for various transportation-related organizations in Florida, including the Florida DOT, U.S. congressional and Florida legislative transportation committees, the Florida Transportation Commission, airports, transit agencies, and others.

The 2003 Florida Transportation Almanac also will be available on CD-ROM and on CUTR’s web site. To obtain a copy, call CUTR (813) 974-3120 or email Michael Baltes at baltes@cutr.usf.edu.
Florida Transportation Indicators website introduced

The Florida Department of Transportation (FDOT), in conjunction with CUTR, has developed the Florida Transportation Indicators Website, http://www.indicators.cutr.usf.edu. This site, developed by the Policy Planning office of FDOT, is intended to fulfill the need for reliable, up-to-the-minute information on statewide transportation trends. The site’s primary purpose is to aid the public and policy makers in gathering current information regarding transportation trends. The site provides a wide-ranging array of transportation-centered records, facts, and figures in a highly accessible, user-directed search and retrieve medium.

The transportation indicators included on this site include Florida population, monthly airline activity, monthly vehicle miles of travel, monthly fuel sales and fuel prices, freight activity, annual Amtrak ridership, monthly transit boardings, highway safety, licensed drivers, highway lane miles, and monthly cruise ridership. Over time, additional indicators maybe considered and added to the website.

Each indicator consists of the main page graphic with links to source or background information, detailed data tables, and links to other web pages that relate to the specific indicator.

For example, the indicator for population is shown as a dynamic counter on the main page. The counter is based upon data from the U.S. Census Bureau and is an estimate based on the 2000 census and the current growth rate for population in Florida. The counter updates each time the page is refreshed.

The detailed data sheets contain historic annual data for Florida’s population and the data growth rates the population counter is based on. Clicking the tabs at the bottom of the page can access the other tables. The source for all information is presented in comments in the spreadsheets and in the Source section for each indicator.

Another example is the Florida Transit Boardings. For this indicator, an estimated monthly total fixed route ridership is shown on the main page graphic. This estimation is based on a sample of the 11 largest transit agencies in Florida and includes Pinellas, Broward, Gainesville, East Volusia, Miami-Dade, Orange-Seminole-Osceola, Taltran, Palm Beach, Jacksonville, Hillsborough, and Tri-Rail. The detailed data tables contain graphs of the monthly and annual trends, as well as spreadsheets of these values for the listed properties and Florida totals when available. A final spreadsheet page uses APTA data for the monthly United States transit ridership.

The detailed data for each indicator are updated regularly, depending on the availability of data. All monthly indicators are updated each month, with between one and three months lag time. Other data, such as population estimates, Amtrak ridership, highway lane miles, or the annual data for monthly indicators, are updated less frequently and typically follow an annual update schedule. Specific updating schedules for each indicator are available in the Source sections of the web page.

The FDOT Office of Policy Planning is supporting the test operation of this website to determine the merits of retaining it as an ongoing resource for the public, transportation professionals, and decision makers.

For further information, contact Steve Polzin, Program Director, Mobility Research, polzin@cutr.usf.edu, (813) 974-9849.
FPTA workshop attracts 150 Florida transit professionals

The 2003 FPTA/CUTR Professional Development Workshop, held June 17-19, 2003, in Tampa showcased some of the best and brightest in the transit industry. Designed for public transportation professionals, the workshop offered relevant training classes as well as networking opportunities. Participants learned from experts in the transit industry, acquired knowledge from hands-on activities, and gained skills to help with the challenges transportation professionals face in the transit environment every day.

A total of 25 local, national, and international facilitators presented 20 transit-related courses to more than 150 participants. Class topics included public transportation planning, marketing, and operations, as well as sessions that provided opportunities for professional development. Additionally, several computer labs were available for training on the latest in transit performance software, GIS software, transit simulator software, and multimedia design.

“The goal of the workshop was to provide training and discussion that is relevant to the needs of Florida’s transit agencies,” stated CUTR Research Associate Amber Reep, who developed the program with CUTR Transit Training and Technical Assistance Program Director Lisa Staes. “This year’s workshop, following on the heels of the first one held last year, has proven to be an excellent and well-received opportunity for transit agency professionals to learn and share.”

For more information, or to suggest training topics/subjects for the next year’s workshop, contact Amber Reep, reep@cutr.usf.edu, (813) 974-9823.
$2 million federal grant awarded to CUTR

CUTR recently received a grant for $2,048,375 to further its continuing research in urban transportation planning. Jennifer Dorn, administrator for the Federal Transit Administration, presented the check to USF President Judy Genshaft in a ceremony at CUTR headquarters on the USF-Tampa campus.

In praising the relationship between the FTA and CUTR, Dorn said, “Transportation is the engine of economic growth,” and noted that CUTR’s research will continue to contribute to FTA’s mission to serve people and communities in terms of economic growth and transportation safety.

“Ours is a terrific partnership,” said Dorn. “We are pleased to be affiliated with CUTR, a center that continues to make an important national contribution.”

Dorn cited the parallels between FTA’s community service goals and CUTR research, noting that, since its establishment in 1988, CUTR’s practical research, its programs to train the next generation of transportation planning professionals, and its willingness to share its research with the transportation industry have made an important contribution to people, their safety, and their transportation needs. “You’ve helped improve the safety and security of the riding public,” said Dorn.

2003 transportation scholarship awarded

The 2003 Georgia Brosch Memorial Transportation Scholarship has been awarded to Mr. Srikalyan Challa. Mr. Challa, who will receive a master’s degree in Civil and Environmental Engineering in fall 2003, holds a bachelor’s degree in Civil Engineering from the Indian Institute of Technology in Madras. He was a USF Graduate Research Assistant for Dr. Ram Pendyala, participating in the development of the Year 2000 Statewide Model Network in a GIS environment for the Florida DOT and development of an extensive survey methodology to obtain travel patterns of seasonal residents in the Tampa Bay region.

Mr. Challa served as President of the USF Student Chapter of the Institute of Transportation Engineers in 2002/03 and has been invited to become a member of Tau Beta Pi, the Engineering Honor Society. He currently is working as a transportation engineer with Sprinkle Consulting, Inc., in Tampa and plans to pursue a Ph.D at USF.

The scholarship was formally presented to Mr. Challa at the First Annual CUTR Transportation Achievement Award Dinner on October 22, 2003.
Longtime state transportation advocate and activist Don Crane has been selected to receive the First Annual CUTR Transportation Achievement Award.

Crane, a graduate of the University of North Carolina and former president of Floridians for Better Transportation, has been tireless in his efforts to improve transportation in Florida for four decades, serving five governors and in the Florida House of Representative for two terms (1972 and 1974). He has served on and chaired numerous transportation committees and boards over the years, and recently was recognized by the American Road and Transportation Builders Association (ARTBA) as one of the “Top Public Officials of the 20th Century.”

During his tenure with FBT, Crane led statewide coalition campaigns to sell bonds to buy right-of-way, increase the gas tax, and increase the bonding capacity of Florida’s turnpike. He also served on the Environmental Land Management Study Committee, which recommended the 5-cent local option gas tax and developed a report that led to the passage of Mobility 2000, which advanced $3 billion in road projects, and recently served on Governor Bush’s Growth Management Study Committee.

The award dinner, held on October 22, was attended by more than 200 transportation professionals from around the state, and featured a tribute to Crane and an address by FDOT Secretary José Abreu.