

**NATIONAL CENTER FOR  
TRANSIT RESEARCH  
at CUTR**

**Strategic Plan  
(1998-2001)**

**Revised  
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## Contents

	<b>Page</b>
<b>Section I Program Overview</b> .....	3
A. Glossary .....	3
B. Center Theme .....	4
C. NCTR Director's Summary .....	5
<b>Section II Program Activities</b> .....	6
A. Education .....	6
B. Human Resources .....	9
C. Diversity .....	11
D. Research Selection .....	12
E. Research Performance .....	19
F. Technology Transfer .....	20
<b>Section III Management Approach</b> .....	23
A. Institutional Resources .....	23
B. Center Director .....	24
C. Center Faculty and Staff .....	25
D. Multiparty Arrangements .....	25
E. Matching Funds .....	25
<b>Section IV Budget</b> .....	27
<b>Appendix A Supporting Materials</b> .....	28
NCTR Project Solicitation Letter .....	29
NCTR Idea or Problem Statement Submission Form .....	30
NCTR Research & Administrative Faculty .....	31
FDOT Partnership Letters .....	33
<b>Appendix B Baseline Measures for NCTR</b> .....	36
1. Education .....	36
2. Human Resources .....	36
3. Diversity .....	37
4. Research Selection .....	38
5. Research Performance .....	38
6. Technology Transfer .....	39

## Section I

### PROGRAM OVERVIEW

Section 5505(b) of TEA 21 provides for the funding of university transportation research. It authorizes the Secretary of the U.S. Department of Transportation (USDOT) to make grants to nonprofit institutions of higher learning to establish and operate University Transportation Centers to address transportation management, research, and development matters, with special attention to increasing the number of highly skilled individuals entering the field of transportation. Each university receiving a grant under this provision of TEA 21 must conduct the following program activities:

1. basic and applied research, the products of which are judged by peers or other experts in the field to advance the body of knowledge in transportation;
2. an education program that includes multidisciplinary course work and participation in research; and
3. an ongoing program of technology transfer that makes research results available to potential users in a form that can be implemented, utilized, or otherwise applied.

The University of South Florida (USF) was designated in TEA 21 as one of nine University Transportation Centers (UTCs) in "Group C" to receive \$750,000 a year for four years (FY 1998 through FY 2001). USF must compete with the 17 UTCs in "Groups B and C" to be eligible to be one of 10 UTCs that will receive funding at a level of \$1 million a year in FY 2002 and FY 2003. USF will conduct its transportation research through the **National Center for Transit Research (NCTR)** at the Center for Urban Transportation Research (CUTR).

#### I. A Glossary

AASHTO	American Association of State Highway Transportation Officials
ACT	Association for Commuter Transportation
AI	Artificial Intelligence
APTA	American Public Transit Association
APTS	Advanced Public Transportation Systems
AVI	Automatic Vehicle Identification
AVL	Automatic Vehicle Location
CAA	Clean Air Act
CER	Community of European Railways
CML	Consortium Member Leader
Consortium	FAMU, FIU, FSU, USF
CTPP	Census Transportation Planning Package
CUTR	Center for Urban Transportation Research
DOT	United States Department of Transportation
DSS	Decision Support Systems
ETTM	Electronic Toll and Traffic Management

FAMU	Florida A & M University
FDOT	Florida Department of Transportation
FIU	Florida International University
FPL	Florida Planning Laboratory
FSU	Florida State University
FTA	Federal Transit Administration
GIS	Geographic Information System
HOV	High Occupancy Vehicle
HSGT	High Speed Ground Transportation
HSR	High Speed Rail
Institute	National Urban Transit Institute
ISTEA	Intermodal Surface Transportation Efficiency Act
ITAC	International Telework Association and Council
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
JPL	Joint Project Leader
JTW	Journey-to-Work
LUMS	Land Use Management Survey
MIS	Management Information Systems
MPO	Metropolitan Planning Organization
NPTS	Nationwide Personal Transportation Survey
NTIS	National Technical Information Service
NCTR	National Center for Transit Research
NUTI	National Urban Transit Institute
PI	Principal Investigator
PUMS	Public Use Micro Sample
RSPA	Research and Special Programs Administration
TCRP	Transit Cooperative Research Program
TDM	Transportation Demand Management
TEA 21	Transportation Equity Act for the 21 <sup>st</sup> Century
TMA	Transportation Management Association
TMI	The Marketing Institute
TPMC	Transportation Promotional Materials Clearinghouse
TRB	Transportation Research Board
URIP	University Research Institutes Program
USDOT	United States Department of Transportation
USF	University of South Florida
UTC	University Transportation Centers
VMT	Vehicle Miles Traveled

## **I. B Center Theme**

The theme of NCTR is to enhance the performance and relevance of public transportation and alternative forms of transportation in urban areas. NCTR will focus on these modes to help promote USDOT's strategic goals of safety, mobility, economic growth, and community sustainability. Virtually all of the projects undertaken at NCTR will be dedicated to improving operating agencies' (e.g., transit authorities, commuter assistance programs, transportation management associations, etc.) abilities to provide their services in a manner that is more efficient, productive, and attractive to the traveling public and in a manner that adds value to the communities they serve.

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## **I. C NCTR Director's Summary**

It is the vision of the director that NCTR will be the preeminent university-based transit and alternative-transportation research institute in the nation by the year 2001. It will be the university of choice for those students wishing to gain comprehensive knowledge of operational and policy issues faced by transit and alternative transportation managers. It is our goal to be recognized and appreciated as the first institution contacted by transit mobility managers when seeking ways to enhance their agency's performance on behalf of the traveling public.

The principal focus will be on public transportation. Public transportation, broadly defined as alternatives to the single occupant vehicle, includes modes such as carpool and vanpool, paratransit, bus, and guideway transit technologies. In addition, the research activities will focus on the interface of public transit with other modes such as auto, walk, bike, and intercity modes as well as the integration of public transit considerations in general transportation and land use planning tools and procedures. ISTEA and TEA-21 each reinforced the growing awareness of the importance of multimodal thinking and increasing investment in public transportation. Public transportation remains an area of critical national interest as evidenced by funding commitments and its obvious tie to national and local goals regarding the environment, mobility for the population, safety, economic competitiveness and opportunity, congestion relief, and quality of life. In choosing to focus on public transit, NCTR will leverage the experience and staff expertise of the University of South Florida's Center for Urban Transportation Research, and focus on a topical area that is acknowledged as a critical component in our transportation system.

NCTR's theme melds the respective missions of CUTR with the goals of the UTC program and the USDOT, the mobility needs of the public, and the research and training needs of the public transportation industry. The near-term mechanisms to facilitate this are various studies of specific problems and issues of relevance to the industry coupled with providing knowledge to the professionals and policy makers in the form of resource materials and training opportunities. The longer-term contributions will be realized through developing new knowledge and talent based on these studies to ensure that current and future professionals and decision-makers have adequate skills and knowledge via technology transfer and educational programs.

Being housed at CUTR, NCTR will have the enormous advantage of being a part of a relatively large and extremely active research institute. The faculty and students at the Center will represent the largest concentration of transit researchers in a single university in the country. This concentration of talent and research will provide opportunities for education and professional capacity building within the Center. The Center will take steps to ensure that all faculty and students will be aware, and share the results of, the research being conducted. Structuring this internal sharing of information will serve as a prelude to the more extensive technology transfer activities that will ensure that research results will be available to potential users in a form that can be implemented, utilized, or otherwise applied.

## Section II

### PROGRAM ACTIVITIES

#### II. A Education

**Education Goal:** a multidisciplinary program of course work and experiential learning that reinforces the transportation theme of the Center.

##### 1. Baseline Measures

Baseline measures are provided in Appendix B.

##### 2. Education Program Outcomes

NCTR will direct participation in the education programs of the university via teaching courses, sponsoring student seminars, and recruiting and supporting students. At a minimum, USF will offer a Graduate Interdisciplinary Transportation Program that includes six core courses in civil engineering, public administration, and economics. This program will broaden the focus of entry-level transportation professionals who must be prepared for a variety of public policy issues as they deal in an increasingly flexible and multimodal transportation environment. It is anticipated that a Master's degree in Transportation might be offered by the year 2001. Students earning this degree will enroll in courses offered through various departments including Civil Engineering, Public Administration, Economics, and possibly Geography and Anthropology.

##### 3. Planned Activities

Historically, CUTR's development has differed from that of many transportation research centers. Typically, research centers are outgrowths or initiatives of teaching faculty who are looking to collaborate on transportation research and find value in establishing a center. These centers have a strong focus on the teaching mission of the university, and the faculty are usually intimately involved in teaching. CUTR's evolution differed in that it was created by the State legislature to ensure that Florida had a research and policy advisory capacity to provide assistance as it faced transportation and land use issues. Thus, the original focus of CUTR was on policy guidance and multidisciplinary research.

Over the past 11 years, CUTR has become increasingly involved in the educational mission of the University of South Florida. While it has retained the client focus and "real world" problem solving mission, it has increasingly embraced the educational mission, both as a natural complement to its mission and as a result of the logical opportunity to contribute in the area of education. Involvement has grown from adjunct teaching and collaborative research to being a substantial employer of graduate research assistants and providing advisory faculty for student chapters of the Institute of Transportation Engineers, ITS America, and the Society of Automotive Engineers to more recent commitments to provide teaching and explore transportation education opportunities and needs in the context of possible degree program additions at USF.

The sections below outline the initiatives that are elements of CUTR's educational program in which NCTR will be involved or have significant responsibility. Following the discussions, Table 1 presents a tabular summary of the role of NCTR in pursuing these initiatives.

#### The Graduate Interdisciplinary Transportation Program

As noted above, the Graduate Interdisciplinary Transportation Program (GITP) is offered and administered by CUTR. Eighteen semester hours of core courses are offered in this certificate program to provide a firm grounding in transportation and to meet degree requirements within the respective departments. Participants are exposed to a multidisciplinary perspective on transportation and develop a rich perspective and appreciation for the nature of transportation policy. The program is evaluated on an ongoing basis, with initiatives targeted toward modifying content, increasing marketing, and involving additional departments. NCTR projects will provide employment opportunities for interdisciplinary program students, and the NCTR student funding initiative (described in Section II, Human Resources) will include GITP students. This interdisciplinary program provides an opportunity to involve and support non-engineering students pursuing transportation emphasis in their educational program. Public transportation is an integral part of the course material and an appropriate area to which students should be exposed. Public administrators for example, while perhaps not pursuing a career within the public transit industry, will inevitably have opportunities to be involved in public transportation policy issues in their career.

#### Exploration of the Feasibility of a Transportation Degree

The human resource needs of the transportation profession are increasingly recognized as requiring more than just traditional engineering programs. The industry needs to attract a diversity of skills to transportation to function effectively in our complex economic and political environment. One means of meeting this need is to develop alternative strategies for providing transportation course content to a broader group of potential future transportation professionals. The Board of Regents of the State University System of Florida has authorized the exploration of a graduate-level transportation degree program based at CUTR. The exploration will include a review of what programs are being offered around the country and how they are being received, as well as an assessment of the needs of the industry and the interests and perceptions of potential students. This exploration is a positive first step; however, the ultimate decision will be dependent on a variety of considerations including the available resources and the market for such a degree. A small amount of NCTR funds has been budgeted to help in the evaluation of the industry and student interest in such a program. This will complement other university resources. After that initial step, a report to USF will determine subsequent actions. Options may include a College of Business transportation degree, a restructuring of a more aggressive certificate program, or a new transportation degree.

#### University-Funded Instruction by CUTR Faculty

USF provides direct financial support to CUTR to enable the research-based faculty to teach transportation courses. This new source of funding enables CUTR to fund faculty involvement in teaching beyond the previous adjunct activity. Courses that will be taught include Public Transportation, Transportation and Land Use, and Access Management. Courses under development include a second graduate level course in public transportation as well as courses in Analytical Methods and Transportation Policy, GIS Applications in Transportation, and Transportation Planning and Economics. It is anticipated that the frequency of these course offerings will be increased, and modularized instruction will be explored that will incorporate more of the specialized



expertise of the substantial public transit-focused research faculty. In addition, NCTR proposals directed to enhancing transportation education will be encouraged.

### Curriculum Development

USF has offered a graduate-level course in public transportation on an annual or semi-annual basis. A single course does not have adequate time to address myriad contemporary issues or provide design or planning experiences for the students. A second course would offer the opportunity for a more in-depth look at key issues. Such a course would be of interest to professionals who are interested in transit industry employment and would be attractive to mid-career transit professionals. In the third year of the NCTR work program, resources have been programmed for the development of a second public transit course. The initiative will include developing a course outline, gathering and developing reading materials, designing experiential learning exercises, developing materials to facilitate distance-based or web-assisted learning, and packaging materials in notebook or CD form. The course content will be reviewed by practitioners. When completed, the course will be scheduled for an initial delivery. The prospect of using the taped presentation as a self-taught or independent study course will be explored.

### Professional Development Activities

Part of a successful education program involves providing students with exposure to a full range of experiences that will help them in their professional careers. One element of this is to foster participation in professional development via forums such as student chapters of professional organizations. CUTR faculty will continue to serve as faculty advisors for several such initiatives, including the student chapters of the Institute of Transportation Engineers (ITE), ITS America, and the Society of Automotive Engineers. These complementary forums provide important peer networks, opportunities for enhancing personal interaction skills, forums for learning more about real world transportation issues, and social opportunities that can increase professional satisfaction. NCTR and the resources it brings to CUTR can support the enhancement of these activities by attracting and supporting the faculty and staff required to make these programs work.

### Student Participation in Research

NCTR will provide opportunities for students to be involved in the extensive transit research funded by NCTR or through other research being conducted by CUTR. These opportunities are more fully described in the Human Resources section of this Strategic Plan.

### Special Initiatives

In planning meetings for NCTR, a variety of other strategies and activities were considered as part of the educational program. While no firm commitments to these activities have been made to date, it is anticipated that a number of them may come to fruition over the next several years. The prospect of each is partially influenced by opportunities that may arise as well as by initiatives that might be made by NCTR. Resources are set aside to partially fund one or more of these initiatives, starting in the second year of NCTR. Examples include:

Transportation Summer Camp: Florida Agricultural and Mechanical University (FAMU), a Historically Black College, has regularly provided a summer camp for high school students to expose them to engineering careers. This type of activity targeted to transportation may be an

effective way to expose students to transportation careers. NCTR will be exploring the prospect of supporting such a program through one or more of the Florida universities.

**Industrial Professorships:** One opportunity to enhance the learning experience for students and faculty is to involve outside practitioners in the educational program. There may be opportunities to involve transit and planning industry professionals in an adjunct capacity at the NCTR. This capacity might include guest lecturers, adjunct faculty, thesis or dissertation committee members, or research project participants. In the past, CUTR has been able to take advantage of such opportunities and we will seek more in the future.

**Visiting Sabbatic Faculty:** Similar to Industrial professors, CUTR/NCTR will explore hosting visiting sabbatic faculty, thus leveraging the research environment of the university to enable someone to conduct collaborative research in a different environment.

**Transportation Intern Program:** As part of an educational program, it is often desirable to offer internships for students at various high profile employment locations. Examples include placing students in positions with the USDOT, Florida DOT, or selected transit agencies for a summer or semester. Some degree programs require this type of internship as a condition of graduation. While this is not a degree requirement at USF, CUTR has provided interns to various agencies in the past. This type of initiative requires the right set of conditions for the client agency, the student, and the program. The possibility of initiating this type of relationship by placing a student interested in public transportation in an oversight agency or with a transit operator will be investigated.

**Recognition Award:** NCTR will develop selection criteria to recognize an outstanding student each year. This student will receive a \$1,000 award and an expense-paid trip to attend an award ceremony in Washington, D.C., during the annual winter meeting of the TRB.

#### **4. Performance Indicators**

Data on student activity in the various undergraduate and graduate courses in transportation offered by the College of Engineering are obtained from Dr. Ram Pendyala, who oversees the USF College of Engineering Transportation Program, using information provided by the Advising Office of the Department of Civil & Environmental Engineering. Data on student activity in graduate courses offered through the Interdisciplinary Program are obtained from Dr. F. Ron Jones, who oversees the Graduate Interdisciplinary Transportation Program at CUTR, using information provided by the Advising Offices of the USF departments of Public Administration and Economics. Other activities that enhance the development and continuous education of professionals already in the field will be recorded by the NCTR Director.

### **II. B Human Resources**

**Human Resources Goal:** an increased number of students, faculty, and staff who are attracted to and substantively involved in the undergraduate, graduate, and professional programs of the Center.

#### **1. Baseline Measures**

Baseline measures are provided in Appendix B.

## **2. Human Resources Program Outcome**

It is the intent of NCTR to attract at least four additional faculty members to its current roster of 22 who are engaged in transit-related research at CUTR. These faculty will be involved in new transit research and the mentoring of additional students. They also will be encouraged to participate in a team-teaching approach for two new classes at USF or in other forms of instruction to enhance professional development in public transit. The number of faculty engaging in teaching/instruction will increase from five to as many as 13. The establishment of NCTR also will bring a new emphasis to the need for research faculty to embrace the education principles of the Center by including students in virtually all of the research projects undertaken through NCTR or CUTR. To this end, NCTR will increase the number of students participating in transit research at any one time from 9 to a minimum of 14. The courses to be taught by NCTR-related faculty also will contribute toward the possible establishment of a transportation degree to be offered by the year 2001.

## **3. Planned Activities**

### **New Research Faculty**

CUTR's most significant contributions to the advancement of the transportation industry are through leveraging its research skills and "real world" experience to develop innovative solutions and provide the knowledge, resources, and trained professionals to enable public transportation to better meet the evolving needs of our citizens. While CUTR's faculty is strongly inclined toward research over teaching, NCTR will contribute significantly to the development of the next generation of mobility managers in the field of public transit. Indeed, as the theme of the Center notes, it is expected that USF will become the educational institution of choice for those who wish to become public transportation mobility managers.

Funding for NCTR will provide the resources to hire additional faculty with skills and experience that will complement existing CUTR faculty and be useful to public transportation agencies. NCTR will determine the new skills necessary through internal discussion among current faculty and feedback from mobility managers. All faculty (new and current) will be encouraged to use and to mentor students on virtually every project they undertake. The close association and working relationship between faculty researchers and student research assistants helps prepare the students for myriad circumstances they will face as mobility managers in the future. This working experience, coupled with course work in transportation, will provide students with an outstanding ability to help enhance the performance and relevance of public transportation as they enter the transportation industry.

### **NCTR Transit Research Assistants**

CUTR has an established history of student involvement and providing student educational support. Annually, as many as 25 undergraduate and graduate research assistants work on a variety of transportation-related projects, with as many as nine working on public transportation projects throughout the year. This workforce has consisted of predominately graduate students who work with research faculty on one or more of the approximately 80 research projects under way at any given time at CUTR. NUTI project selection explicitly took into account graduate research opportunities, and NCTR will continue the program of extensive student involvement. A new aspect of that involvement will be the advanced commitment of resources for student support to enable the advanced commitment necessary to attract new students to the program. In addition to employment funding, additional funds will be made available for students to attend two transit-related conferences each year.

## Graduate Student Research Assistant Appointments

NCTR will emphasize graduate research assistantship involvement on projects. Work scopes will be reviewed for research assistantship opportunities and principal investigators will be strongly encouraged to use research assistants on their projects. The nature of the specific project will impact the opportunity to involve students. Given the number of transit projects carried out annually by CUTR, it is anticipated that the involvement of research assistants, beyond the NCTR Transit Research Assistants mentioned above, will continue and grow by more than 50% of current levels. These assistants will be funded through specific project budgets rather than being itemized in the NCTR budget.

### 4. Performance Indicators

The College of Engineering, through the Department of Civil and Environmental Engineering, the Center for Urban Transportation Research, and the Graduate Interdisciplinary Transportation Program, maintains an extensive database on former and current undergraduate and graduate students enrolled in transportation courses at the University of South Florida. The database compiles statistics for courses offered by semester and instructor, programs of study, financial aid, ethnicity and gender, and graduation dates. In addition, the University of South Florida maintains a database which compiles demographic and employment information on any student who has graduated from USF at the graduate and undergraduate level. CUTR compiles statistics for transportation research it conducts, excluding transportation research conducted by Engineering and other departments.

## II. C Diversity

**Diversity Goal:** students, faculty, and staff who reflect the growing diversity of the U.S. workforce and are substantively involved in the undergraduate, graduate, and professional programs of the Center.

### 1. Baseline Measures

Baseline measures are provided in Appendix B.

### 2. Diversity Program Outcome

In 1998, USF adopted a Vision Statement as part of the development of its Strategic Plan, which reads, in part, as follows:

The University of South Florida is committed to being the university of first choice for those seeking a nationally recognized learning community. We will be the first choice for those seeking a creative and innovative environment, characterized by openness and built on mutual respect and recognition of the strength that results from an inclusive student body, faculty, and staff.

In addition, CUTR includes within its vision, mission, and values the following guiding principle:

We value a diverse staff and provide equal opportunities for employment, professional development, and advancement.

It is envisioned that NCTR will include students, faculty, and staff that will reflect the growing diversity of the U.S. workforce. Such a representation will add to the credibility and attractiveness of the Center among all potential participants and among the public who will utilize the research being conducted at NCTR. These outcomes are consistent with the visions, values, and guiding principles that have been adopted by USF and CUTR.

### **3. Planned Activities**

While USF's and CUTR's commitment to diversity is broad and inclusive, there is primary emphasis on the recruitment, retention, and advancement of women, Blacks, Hispanics, Asians, and other minorities. CUTR has always strived for diversity among its student assistants and faculty. Of the students employed in 1998-99, 11 were women, two were Black, two were Asian, and one was Hispanic. Of the faculty in 1998-99, fourteen were women, two were Black, three were Hispanic, and one was Asian. Professional activity opportunities, such as funded attendance at seminars, conferences, and professional meetings, and professional development, such as funded continuing education, are encouraged for all students and faculty, and proactive recruitment efforts, such as advertisement in minority professional publications and websites, are conducted to seek minority applicants.

One of the greatest strengths of NUTI has been its ability to involve an extremely diverse group of participants. Projects conducted in cooperation with FAMU, a Historically Black College, and FIU, which graduates the largest number of Hispanic engineers of any U.S. school, help provide a broad base of minority participation in the program. CUTR itself has conducted several projects of special interest to minority groups, including three African-American Mobility symposia and studies on minorities in transit and the changing travel behavior of African-Americans. Research results from NUTI-sponsored projects have been presented by CUTR researchers at the Congressional Black Caucus Annual Transportation Brain Trust Meeting.

NCTR will continue to coordinate with minority universities on the development and conduct of research and projects that will involve professionals and students who represent the diversity of the nation's population. As noted earlier, NCTR will take advantage of FAMU's access to African-American candidates for transportation careers through activities including transportation summer camps and internship programs with FDOT. The same opportunities for Hispanic students will be explored with FIU. NCTR representatives will meet with undergraduate students at both FAMU and FIU to provide information on NCTR's activities to further interest them in transportation careers. Including working with CUTR and NCTR. In addition, NCTR will enlist the support of the Conference of Minority Transportation Officials (COMTO) and the Women's Transportation Seminar when seeking applicants for faculty positions.

### **4. Performance Indicators**

The Equal Opportunity Affairs Department at USF will assist the College of Engineering and NCTR program managers with monitoring and recording the diversity achievements obtained through transportation degrees.

## **II. D Research Selection**

**Research Selection Goal:** an objective process for selecting and reviewing research that balances the multiple objectives of the program.

## **1. Baseline Measures**

Baseline measures are indicated in Appendix B.

## **2. Research Selection Program Outcome**

The project solicitation/selection process planned for NCTR builds on experiences with NUTI and incorporates changes to reflect the interests of the U.S. DOT and the Florida Department of Transportation, which is providing the match funding for the Center.

The Research Selection Program will involve an Advisory Committee consisting of representatives from local operating transit agencies, FDOT, USDOT, APTA, TCRP, ACT, ITAC, and NCTR, a broad representation appropriate for a national center. The Advisory Committee will not only help identify the projects of greatest interest to the transit community but will also help ensure objectivity and prevent duplication of other research efforts with which they are familiar. NCTR envisions that this selection program outcome will result in research that is completed relatively quickly while still ensuring objective selection and high-quality research results.

## **3. Planned Activities**

The Project Selection Process

In addition to supporting the attainment of the overall program goals outlined in the following, the project selection process is designed to provide an expedient and efficient means of identifying and selecting projects.

The vast majority of NCTR's program dollars will be dedicated to research. It is anticipated that the Center will fund and commence between 15 and 20 projects each year, with an average completion time of 12 months from the time of notice to proceed. This rate of productivity will result in relatively quick responses to issues that have been identified as high priority by those very familiar with the research needs of the transit industry.

A project Advisory Committee will be utilized to help identify the projects to be undertaken. The committee will be composed of 13 individuals who are knowledgeable in the area of transit research and public transportation planning and operations. Overall program design and identification of research priorities will be the primary purposes of the Committee. The Committee also will review the basic goals of NCTR and offer guidance as appropriate.

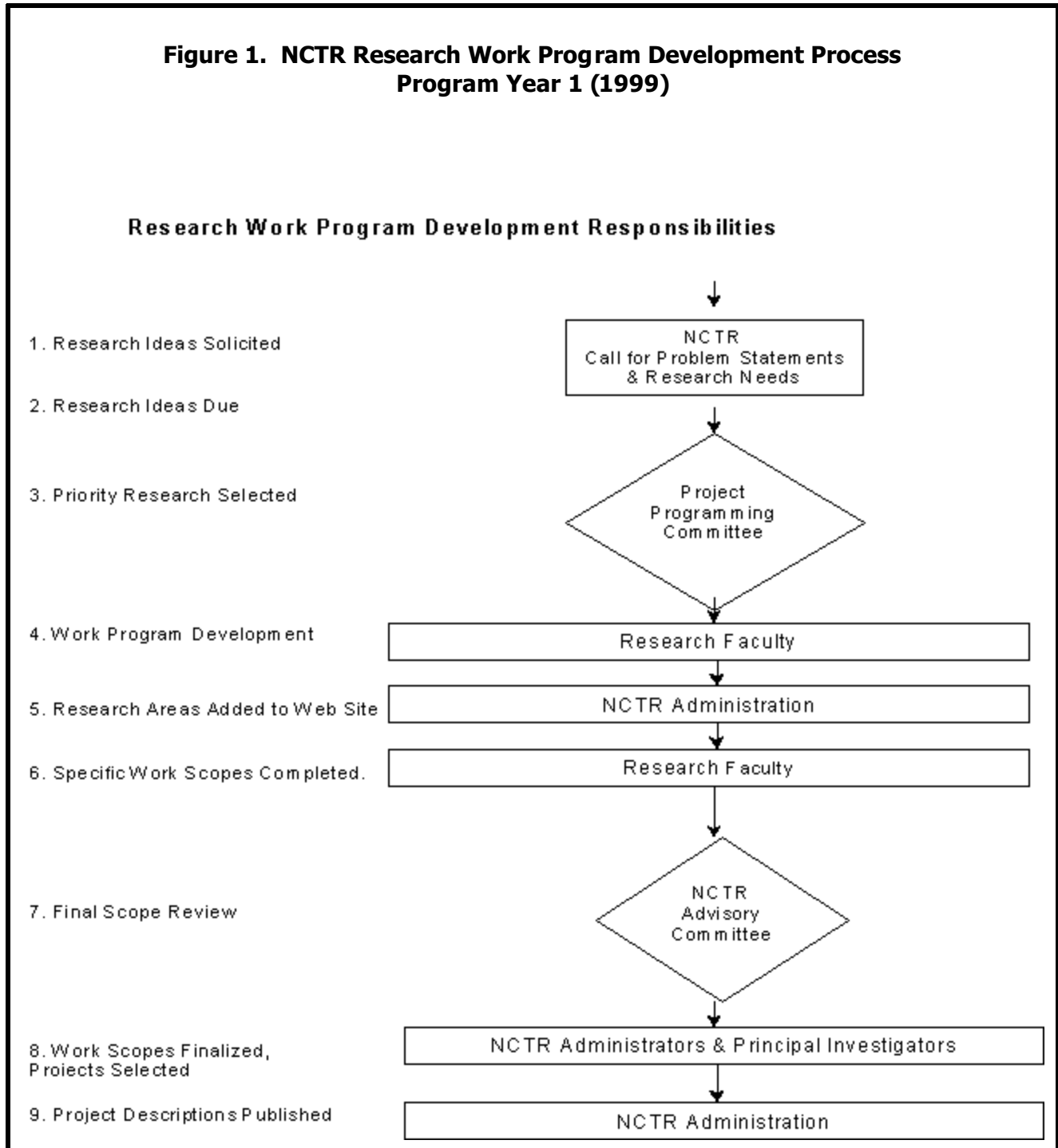
Proposed members of the NCTR Advisory Committee include:

- Gary L. Brosch, Director, CUTR; Chairman of NCTR
- Joel Volinski, Deputy Director, CUTR; Director of NCTR
- Wendell Joyce, Director, ITAC
- Louis Clopton, designated liaison, Office of Research, Federal Transit Administration
- Louis Sanders, Director of Research and Technology, APTA
- Steve Anderle, TCRP Director, Transportation Research Board
- Executive Director, General Manager, or Deputy Director, large urban area transit agency
- Executive Director, General Manager, or Deputy Director, small- to medium-size transit agency
- Eric Schreffler, Director of Research, TDM Institute, ACT
- Ed Coven, State Transit Office Manager, Florida DOT

- Ysela Llort, Director of Transportation Planning, Florida DOT
- Richard C. Long, Director, Office of Research, Florida DOT
- Designee, Metropolitan Planning Organization Advisory Council

Development of the first year's work program is being initiated concurrently with the development of the strategic plan for NCTR, and project selection by NCTR administrators is expected to be completed in mid-1999. Starting in 1999, the work program project solicitation will be initiated in the third quarter of the year, with project selection anticipated in the fourth quarter and research scheduled to start in the first quarter of the following year. The overall set of steps is outlined in Figure 1. Timelines and steps for project solicitation are shown in Table 1 and are detailed in the subsequent discussion.

**Figure 1. NCTR Research Work Program Development Process  
Program Year 1 (1999)**





<b>Table 1. NCTR Research Work Program Development Schedule</b>													
Month	J	A	S	O	N	D	J	F	M	A	M	J	
1. Research Ideas Solicited						X							
2. Research Ideas Due							X						
3. Priority Research Areas Selected								X					
4. Work Program Development									X				
5. Research Topics Added to NCTR Web Site									X				
6. Specific Work Scopes Completed										X			
7. Final Scopes Reviewed, Projects Selected by NCTR Administrators											X		
8. Scopes Finalized, Notice to Proceed to PI's												X	
9. Final Project Descriptions Added to NCTR Web Site	X												

#### Basic Research Work Program Assumptions

- Each year an overall program budget will include a significant research program. Resources for administration, technology transfer, the Journal of Public Transportation, and education/professional development initiatives will be budgeted separately.
- The project selection process will have two major steps: (1) solicitation of problem or research needs statements—this step is designed to identify potential research areas, and (2) designing a process for developing specific work programs for conducting the highest priority research—this process will ensure that the highest priority projects are selected and that strong researchers or research teams are assigned to carry out the research. The process is similar to that used by TRB and other research organizations.
- Each year's research program will be funded from that year's funding with deliverables scheduled based on the length of time anticipated to carry out the project. Each supported research project will have a deliverable offering value to users within the funded project scope. Subsequent work, if any, will compete with other projects in future years.
- The problem statements seeking funding and the work scope proposals will each be designed to provide the reviewers the information needed to evaluate how well the research will address the program goals for NCTR.

### **a. Research Ideas Solicited**

The NCTR Director will provide oversight of research being carried out to address the research needs of the transit industry. Throughout the course of the year, the NCTR Director and other staff will participate in a number of forums allowing them to keep abreast of research priorities. This will include following the research initiatives of FTA, APTA, TRB, ACT, ITAC, other centers, and other forums. Strategic plans, research plans, and goals of the entities active in public transit research will be collected and reviewed regularly.

In the solicitation of ideas for research projects to be funded, information will be compiled regarding the current set of research goals and projects under way by the major players in public transit research. Sources of this information will be NCTR staff, faculty at affiliated Florida universities, FTA, APTA, ACT, ITAC, and TRB. This background information will be provided to NCTR staff, the NCTR Advisory Committee (individuals representing the public transportation industry), and all parties that will be encouraged to submit proposals for research funding. The solicitation also will be broadly distributed within Florida to a variety of constituencies including Florida transit operators, contract public transit service providers, MPOs, Regional Planning Councils, the Florida Department of Transportation (central and district offices), the Florida Commission for the Transportation Disadvantaged, Community Transportation Coordinators, the Florida Transit Association, and other groups involved in multimodal or public transportation planning or service delivery.

### **b. Research Ideas Due**

Proactive solicitations of research ideas will be initiated on a regular annual cycle, as shown in Table 1. However, ideas can be submitted at any time for consideration during the next cycle of project selection. Idea statements will generally be due in December for research ideas that may be initiated in July of the following year. Not all research resources will necessarily be programmed at the beginning of the year, thus enabling funds available to be responsive to new research needs that evolve during the year.

### **c. Priority Research Selected**

Ideas received from the referenced sources and ideas generated internally within NCTR will be assembled in a standardized format for review and prioritization. The prioritization will rely heavily on the comments received from the NCTR Advisory Committee. In all matters requiring votes of the committee related to projects funded by the Florida Department of Transportation, the representatives of the FDOT will be accorded weighted votes (each FDOT representatives vote will be counted twice), given that agency's substantial interest in, and financial commitment to, the program. This committee, composed of individuals representing critical interests in the public transportation industry, will be tasked with assisting in the identification of project statements that will be further developed.

### **d. Work Program Development**

Having prioritized the research needs, NCTR will develop specific work scopes for conducting research efforts in each of the targeted subject areas. Work scopes will include information that enables the reviewers to address the extent to which the proposed research will address the problem statement and will accomplish the goals and objectives of the research

program. The format for the work scopes is designed to incorporate the information prescribed by USDOT as being necessary for the project descriptions.

Work scopes to carry out the research for the priority projects identified will be solicited. The solicitation may be competitive among staff at CUTR or may involve solicitation from other Florida universities. The development of proposals may involve communications/coordination with the party who initially identified the problem and perhaps the peer review team that will subsequently oversee the conduct of the research. The NCTR Director will work with the scope authors to ensure that the scope addresses the issues identified by the Advisory Committee and addresses each of the program goals laid out by USDOT.

**e. Research Area Added to NCTR Web Site**

Topic areas selected for research will be added to the NCTR web site. This will enable other researchers across the country and beyond to be aware of research plans.

**f. Specific Work Scopes Completed**

Completed research scopes in the prescribed format will be due for final review. The scopes will contain the project description as called for by RSPA and will serve as the work scope for subsequent task orders between NCTR and the Principal Investigator(s). Refined scopes will be the basis for the final selection of projects and resource programming.

**g. Final Work Scopes Reviewed, Projects Selected**

The final work scopes and an overall research work program budget will be compiled. This will be provided to the NCTR Advisory Committee for final review and comment, and a final selection will be made by NCTR administrators, who will ultimately be responsible for the success of the program.

**h. Work Scopes Finalized, Notice to Proceed to PI's**

The development of final work scopes should respond to feedback or guidance received from the project selection procedure and may involve communications/coordination with the party who initially identified the problem and perhaps the peer review team that will subsequently oversee the conduct of the research. Final work scopes will be used for project descriptions and for contract or task order statements of work.

**i. Project Descriptions Added to NCTR Web Site**

Final project descriptions based on the work scopes will be added to the NCTR Web site by NCTR staff.

**4. Performance Indicators**

NCTR Administrators will monitor all projects selected and record this information in its semi-annual reports to RSPA.

## **II. E Research Performance**

**Research Performance Goal:** an ongoing program of basic and applied research, the products of which are judged by peers or other experts in the field to advance the body of knowledge in transportation.

### **1. Baseline Measures**

Baseline measures are indicated in Appendix B.

### **2. Research Performance Program Outcome**

By the end of FY 2001, NCTR is expected to be the single greatest resource of information on transit performance enhancement in one institution (public or private) in the country. While TCRP funds more research on an annual basis, its research is conducted by a great variety of consultants from offices located around the country. At NCTR, the advantage will be in having a significant amount of research on a great variety of transit issues done at one institution. This "critical mass" will attract professional talent and students who wish to work as mobility managers. Each research effort can be strengthened by its awareness of the status of other ongoing research and the sharing of information and ideas among principal investigators and student research assistants. The research can be more effectively coordinated, conducted, summarized, and shared with the profession.

### **3. Planned Activities**

All research will be peer reviewed while being conducted. This review will help ensure research that is relevant and objective and of high quality and utility to the transit industry. The proposal format for each new research project will include a section to identify intended peer review activities. All final scopes for projects will include the specific peer review activity that must be a part of each research project. The semi-annual reporting will include documentation of overall peer review activities as well as technical report peer review activities.

The progress of each research effort will be monitored. The fact that the bulk of the research will be done by researchers in one institution will facilitate NCTR's ability to monitor the compliance of all principal investigators to comply with time, budget, and scope requirements.

While the specific projects to be undertaken each year will not be known until the transit industry responds to the requests for research proposals, NCTR, when seeking research proposal topics, will emphasize its interest in ensuring that each project undertaken will help enhance the performance and relevance of the transit industry. The projects will deal with issues that will lead to greater safety, mobility, economic growth, and more livable communities through improved transit performance.

### **4. Performance Indicators**

NCTR will report the status of all of the research being conducted on an annual basis. A portion of the administrative funds allocated in the budget for NCTR is dedicated to monitoring and recording the substantial amount of research that will be conducted on a regular basis. Guidelines will be developed for each principal investigator to follow in the reporting of the status of research. The peer review will help ensure the quality of each research report.

## **II. F Technology Transfer**

**Technology Transfer Goal:** availability of the research results to potential users in a form that can be directly implemented, utilized, or otherwise applied.

### **1. Baseline Measures**

Baseline measures are indicated in Appendix B.

### **2. Technology Transfer Program Outcome**

Excellent research is of limited value if the results are not made available to as many parties as possible who might use the findings. Extensive technology transfer is a key determinant of NCTR's value. This technology transfer (information sharing) will take many forms, as described below in the Planned Activities section. Every reasonable effort will be made to ensure that those who might want to access the results of NCTR's research will be able to do so inexpensively and thoroughly. NCTR will use appropriate combinations of electronic, print, and personal communication media that are reasonably available to disseminate the results of its research activities.

### **3. Planned Activities**

#### Internal and External Marketing

While the primary technology transfer objective of NCTR is to promote its activities to an external market, and a number of activities will be undertaken to ensure that occurs, it is equally important that faculty and students within the Center are aware of those activities and committed to information-sharing outside the organization. To achieve this, principal investigators will make presentations to or provide CUTR faculty and students with summarized information on their research projects in an effort to maximize the visibility of NCTR projects. In addition, principal investigators will be required to include in each project proposal how the results and findings of the project will be distributed to those who might implement them. PIs also will be encouraged to include in their project budgets funds to allow them to travel to at least one national conference to present the findings of their research.

#### NCTR on the Web

Information on research projects, researchers, students, and events and all final research reports will be available on a Web site that will be continually updated to provide maximum exposure in an electronic medium.

#### Printed Materials

Information on NCTR will be disseminated by mail or distribution at conferences and other appropriate forums to transportation professionals in Florida and the U.S. throughout the year. This will be accomplished by producing (1) the Journal of Public Transportation, a quarterly, peer-reviewed academic journal dedicated solely to public transportation, which was established as part of the National Urban Transit Institute and which now has more than 1200 subscribers in the U.S. and abroad; (2) a quarterly or semi-annual newsletter reporting the goals, research methodologies, and results of research projects; (3) brochures describing NCTR and its activities and accomplishments; (4) placement of articles in print media of other organizations, such as Passenger

Transport, TDM Review, etc.; (5) papers published as part of the compendia of conferences at which results of NCTR research projects are presented; and (6) copies of final reports provided upon request to individuals, agencies, and organizations.

#### Technical Assistance

One relatively unique aspect of NCTR's technology transfer activities will be accomplished by providing technical assistance upon request to transit systems. Representatives of NCTR will visit systems to determine what issues are of greatest concern to transit operators and, at the same, share the results of their research. While this activity is designed to interact with transit agencies in Florida, it is anticipated that visits can be made to transit systems outside the state as well. In addition, the NCTR Director has been selected to serve as a "TRIP Ambassador" for the TRCP program and will be attending out-of-state conferences and visiting transit agencies to help disseminate information on TRCP. While carrying out these responsibilities, he will also be able to share information on the activities of NCTR.

#### Video Teleconferencing

CUTR has the facilities, equipment, and capabilities for downlinking video teleconferences and providing on-site participation via two-way interactive audio from locations around the U.S. This allows researchers and students to participate in conferences that they otherwise might not have the time or funding to travel to. Additionally, USF has excellent facilities that allow uplinking of teleconferences, whereby expert panels can be convened and their programs telecast via satellite. It is anticipated that, after the first year, NCTR will develop and produce such uplinked video teleconferences, thus increasing the national exposure for issues being researched by NCTR.

#### Distance Learning

For several years, Florida's State University System has offered a distance learning program known as the Florida Engineering Educational Delivery System, or "FEEDS." This enables, for example, a Tri-County Commuter Rail Authority employee 200 miles away in Ft. Lauderdale to take a public transit course being offered on the FEEDS network, transmitted from Tampa. Distance learning offers the opportunity to provide more narrowly-focused educational materials than might normally be offered by virtue of the fact that one can solicit an audience from a larger area. Other transportation courses will be offered via the FEEDS network in the near future. The initial focus will be on making available courses of relevance to the transit professionals at the 21 fixed-route systems in Florida as well as to the Florida paratransit providers. A web-based course on telework also is planned for implementation by the end of 1999. In discussions with Mr. Bill Millar, Executive Director of APTA, it was apparent that there are a number of niche training needs within the transit industry that might be filled with what is referred to as narrowcast capabilities such as satellite downlink or web-based broadcasting.

NCTR's priority will be on working with the USF Department of Civil Engineering and the FEEDS program to ensure that courses or seminars relevant to the public transit industry are offered. The goal for 1999 and 2000 will be to have one course offered annually and widely advertised to the transit planning and operations community, growing to two courses per year in 2001 and 2002. In addition, NCTR will explore the possibility of hosting a series of seminars on niche topics to allow in-depth examination of these issues in a manner that can be broadcast or taped at USF and provided to public transportation agencies throughout the country.

## Other Technology Transfer Activities

In addition to producing and disseminating research reports, newsletters, brochures, and other print media; publishing articles and papers; making presentations at national conferences; maintaining a Web site; and organizing and participating in conferences, a number of additional technology transfer activities may be conducted as appropriate to each project, including, but not limited to conducting faculty exchanges and intellectual interchanges; presenting lectures; utilizing computer networks, software exchanges, and other electronic media communications; conducting visitor programs at NCTR-related facilities; providing bibliographies and literature searches for fellow researchers and practitioners; developing audiovisual packages and other atypical media materials; publishing monographs; writing and disseminating press releases and interacting with news media; and conducting personnel exchanges with industry and local, state, and federal agencies and organizations.

### **4. Performance Indicators**

NCTR program managers will develop formats to record the technology transfer activities that have been undertaken, which will include the best estimates of how many parties have received the information developed by the Center. These formats will be based on the items included in Section 6 of Appendix B, and will be supplemented by information on other activities not included in the baseline measure as the program matures. Each Principal Investigator will be made aware of the need to track the information required to report on these measures.

## **Section III**

### **MANAGEMENT APPROACH**

#### **III. A Institutional Resources**

CUTR is in the fortunate position of having available a wealth of resources to facilitate carrying out the mission of the Center. With a total staff of 80 dedicated employees, a new building with 26,000 square feet of state-of-the-art space, and warm sunshine that makes it possible to attract staff, visitors, and conference venues, CUTR offers a breadth of resources.

The physical location is an important asset. The University of South Florida is located in a rapidly growing urban area in the fourth largest and one of the fastest growing states with more than 15 million residents. The state hosts 45 million tourists annually and has an age profile matching the U.S. in 2015. Florida has seven metropolitan areas with more than 1 million population and is an international hub for air and sea transportation. In the context of NCTR, these features offer a number of benefits. Florida is a good research environment.

Critical issues in Florida include economic development, accommodating travel needs of an aging population, accommodating travel growth, environmental concerns over air and water quality, growth management and land use control, and mobility preservation and enhancement. While Florida does not have the public transit volumes of some of the older and larger metropolitan areas, the issues critical to transit in Florida are those issues that will govern the success of public transit across the country in the years ahead. There has been very rapid growth in transportation demand and the required need to address this demand. Florida has a high degree of sensitivity to preserving the environment, particularly the coastal and wetland areas. Florida has a very large senior citizen population with corresponding transportation needs and challenges. As a major national and international tourist market, Florida has a variety of intermodal transportation challenges in integrating services among airlines, cruise ports, intercity rail, public transportation, and the auto modes. The elderly, tourists, and new immigrants all create challenges necessitating the effective design and marketing of public transportation services.

The challenges of sprawl and meeting dispersed travel needs, including developing effective public transportation for development patterns designed primarily with the auto in mind, are shared by Florida and the majority of urban America. High speed rail, maglev, peplemovers, intelligent transportation systems, transportation demand management, growth management, transportation disadvantaged services, and coordinated transportation/land use planning are among the critical topics in transportation in Florida that have a parallel national interest. Florida has more active light rail studies than any other state, a full complement of existing modes from commuter rail to extensive paratransit services and 25 urban areas that provide or are studying the provision of fixed route transit services. These conditions provide a great natural laboratory for many issues of interest in public transit research. The state is also positioned to be a large consumer of transportation professionals and producer of young people who will compose our future work force.

The University of South Florida (USF) is among the largest universities in the United States and a member of the State University System of Florida. Founded in 1956, USF opened its doors in 1960 to 2,000 students. Today, the University serves almost 34,000 students, with nearly 200 programs at the undergraduate, Master's, specialty, and doctoral levels (including M.D.). USF now includes nine colleges and a network of regional campuses in Tampa, St. Petersburg, Sarasota, and



Lakeland, with more than 2,000 faculty. With a growing academic reputation and a dedicated faculty, including 62 Fulbright Scholars, 35 Endowed Chairs, and 14 Endowed Professorships, USF is fast becoming a model urban research university for the 21st century. The University has surpassed the \$100 million mark in sponsored research for four consecutive years, now totaling nearly \$135 million annually. USF's libraries contain some 2.3 million volumes, as well as vast computer links to hundreds of library data bases and the World Wide Web.

	Male	Female	Total
African-American	1,086	2,046	3,132
American Indian	61	73	134
Asian/ Pacific Islander	785	847	1,632
Caucasian	10,366	14,686	25,052
Hispanic	1,252	1,744	2,996
Non-resident Alien Students	542	338	880
<b>TOTAL</b>	<b>14,092</b>	<b>19,734</b>	<b>33,826</b>

As a member of Florida's State University System, CUTR has ready access to the resources of the several other universities in the system. CUTR has worked closely with several of those universities including Florida State University, Florida A & M University, and Florida International University, our partners in the NUTI initiative. As discussed subsequently, NCTR anticipates ongoing collaboration with these and other universities as appropriate to accomplish the program objectives of the Centers Program and the NCTR Strategic Plan.

NCTR will be housed within USF's Center for Urban Transportation Research, a legislatively-established research center that is part of the USF's College of Engineering. CUTR is unique in a number of respects that have enabled it to move rapidly to be recognized as a significant national resource in transportation research, education, and technology transfer. Established 11 years ago, CUTR has moved to the forefront of transportation research centers and has earned a reputation for conducting cutting-edge research on a wide variety of transportation policy issues. Unlike many centers, CUTR was not created as a forum for Civil Engineering faculty to collaborate on research initiatives but rather was created by the Florida legislature in recognition of the value that an in-state transportation-policy-focused capability could provide. CUTR has multi-disciplinary capabilities among its own research faculty in transportation engineering and planning, urban planning, economics, finance, public and business administration, anthropology, geography, public policy analysis, statistics, and survey research.

### **III. B Center Director**

Joel Volinski, Deputy Director for Transit at CUTR, has been designated Director of NCTR. He is

responsible for the development and, if necessary, modifications to the Center's Strategic Plan. He is also responsible for ensuring compliance with all other UTC Program requirements. As noted earlier, the vast majority of the work being done through NCTR will be performed at CUTR, which will facilitate the monitoring of all projects. The work to be performed will be undertaken by faculty researchers who report to the Deputy Director for Transit Research. The Director will be assisted by Dennis Hinebaugh, Transit Research Program Director at CUTR, who will assist in the monitoring of all project budgets and schedules and help produce the semi-annual reports. Mr. Volinski will represent NCTR at external meetings, including the two annual meetings held by DOT with the directors of all the University Transportation Centers. Mr. Volinski is a former transit agency executive director, an author of nationally published reports on transit performance, a member of Leadership APTA, a TRIP Ambassador, a member of numerous APTA and TRB committees, a frequent panelist at state and national transit conferences, and served as the chairman of the advisory board for the development of the State Transit Strategic Plan.

### **III. C Center Faculty and Staff**

NCTR will be staffed by several full-time research and administrative faculty, as indicated in the table in Appendix A. Both Mr. Volinski and Mr. Hinebaugh will dedicate 50% of their time to NCTR administration and research. Patricia Baptiste, Transit Program Assistant, will dedicate 50% of her time to project administration activities. In addition, NCTR will provide employment for approximately 25 graduate and undergraduate research assistants and 15 support staff.

### **III. D Multiparty Arrangements**

CUTR will be responsible for all aspects of the work program of NCTR. Unlike in NUTI, working relationships with other universities will be based on project specific needs and capabilities. It is anticipated that CUTR will continue to work on a subcontractual basis with other universities in the Florida system. These relationships may change by project and over time but we anticipate that several NCTR projects will be subcontracted on a regular basis. In light of this relationship, supporting documents for partners have not been included here, and the activities of other universities have not been included in our base statistics.

### **III. E Matching Funds**

In accordance with program guidelines, NCTR will have matching funds at or in excess of the full amount of federal funding. A commitment has been received from the Florida DOT to provide matching funds in an amount equal to federal funding subject to the availability of State funds. A letter outlining this agreement is attached in Appendix A. To date, the multiyear master agreement under which project specific work orders will be drafted, has been completed, reviewed and signed. NCTR is currently working with FDOT to define projects that will be carried out under this four-year agreement, which is capped at \$750,000 per year, the TEA-21 authorization level for NCTR.

Beyond the State commitment, it is the intention of NCTR to seek partnerships and financial participation of other entities as the program is carried out. Specifically, funds have been reserved to match other agencies in the pursuit of projects of mutual interest. A series of solicitation letters

was sent to a select group of transit properties inquiring if they had any projects that would be of national and local interest that they would be willing to provide match funds to support.

It is NCTR's intention to move ahead with the stated project strategy in the first and subsequent years, adjusting the level of effort according to demand and resource availability. This initiative, coupled with the FDOT match commitment, will ensure that the total program match is comfortably over the required program match levels and meets all the maintenance of effort requirements.

The commitment of match resources by the State acknowledges the importance of transit to Florida and speaks to its appreciation of the value of having the NCTR program at USF. FDOT is fully aware of NCTR's program goals, as laid out in the guidelines and contractual documents from USDOT, and acknowledges the program requirements that will apply to projects funded with FDOT funds. Similarly, FDOT has identified specific requirements that are conditions of FDOT funding. As spelled out in other sections of this report, the overall program of activities has been designed to accomplish the goals of all the partners by programming resources in a way that focuses on the respective goals. The significant change that is brought on by having another partner with a very substantial stake in the conduct and outcome of this research, training, and technology transfer program will result in some changes in how some aspects, such as project selection, are conducted but also provides the opportunity to increase the impact of the program.

## Section 4

### BUDGET

University of South Florida		
National Center for Transit Research (NCTR)		
July 1, 1999, through June 30, 2000		
Categories	Budget Amount	Explanatory Notes
Center Director Salary	\$76,808	Development of Strategic Plan and 1 year Director cost
Faculty Salaries	\$616,632	See staffing table on pp. 32-33
Administrative Staff Salaries	\$23,436	See staffing table on pp. 32-33
Other Staff Salaries	\$0	
Student Salaries	\$82,565	7 students @ avg. \$10/hr, 20 hrs/wk
Staff Benefits	\$230,110	31.0% for Faculty and Staff, 9.0% for Students
<b>Total Salaries and Benefits</b>	<b>\$1,029,551</b>	
Scholarships	\$0	
Permanent Equipment	\$1,500	
Expendable Property/Supplies	\$78,249	Telephone, fax, mail, copying, binding, etc.
Domestic Travel	\$79,255	Tech transfer, data gathering, diversity/recruitment
Foreign Travel	\$0	
Other Direct Costs	\$0	
<b>Total Direct Costs</b>	<b>\$1,188,555</b>	
Indirect Costs	\$263,195	45.0% OH for Federal, 5.0% OH for State DOT Match
<b>Total Costs</b>	<b>\$1,451,750</b>	
Federal Share	\$686,000	
Matching Share	\$765,750	

# **APPENDIX A**

## **Supporting Materials**

(NCTR PROJECT SOLICITATION LETTER)

XXX 1999

RE: NCTR Transit Research Idea Solicitation Package

Dear Colleague:

The National Center for Transit Research (NCTR) at the Center for Urban Transportation Research (CUTR) is soliciting statements of problems or research needs whose resolution would make a substantial contribution to the body of knowledge regarding how public transportation can help address the transportation needs in the U.S. This initiative is a result of the TEA-21 designation of CUTR as a member of the University Transportation Centers program. The topical focus area of this research initiative is any aspect of how public transportation is planned and provided.

Specifically, we are requesting that persons like yourself with a knowledge and interest in public transportation provide us input on important problems or research needs. These problem statements will be prioritized and those selected will be developed into work scopes for subsequent study. We have attached a form for idea submissions that outlines the information we will need to evaluate the idea. Proposals are due to NCTR by xxx for consideration in this year's research program. Subsequent submissions will be considered for future work programs. The attached forms provide additional information regarding the submission of ideas.

We are very excited to be able to carry out this new initiative and look forward to your help in ensuring that we address issues of value to the public transportation community. This initiative recognizes the importance that research and professional capacity-building will have in helping enable public transportation to contribute to meeting the growing travel needs and quality of life goals we place on our transportation systems.

We look forward to reviewing your ideas.

Sincerely,

Joel Volinski, Director  
National Center for Transit Research at CUTR

JV:pb

Enclosures

## NCTR Idea or Problem Statement Submission Form

**Idea or Problem Title:** \_\_\_\_\_

**Submitted by:**

Name & Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

Phone/Fax/E-Mail: \_\_\_\_\_

**Statement of Issue or Problem:**

**Potential Benefits of the Project (Please include project sponsors, if any):**

**Proposed Technology Transfer Activities:**

**Information Sources and Proposed Peer Reviewers (optional):**

**Approximate Cost for Research (optional):**

**Submit to:**

**Joel Volinski, Director, National Center for Transit Research**

Center for Urban Transportation Research, University of South Florida

4202 Fowler Avenue, CUT 100, Tampa, FL 33620-5375

Phone: (813) 974-9847, Fax: (813) 974-5168, E-mail: volinski@cutr.eng.usf.edu

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B.S., Economics, Univ. South Florida

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- **DENNIS P. HINEBAUGH**

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● **BEVERLY G. WARD**

Program Director, ETS

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B.A., Psychology, Film/Drama, Vassar

● **KRISTINE M. WILLIAMS, AICP**

Senior Research Associate

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B.A., Cultural Anthropology, Michigan State Univ.

(FDOT partnership letter 1)

FDOT letter 2

# **APPENDIX B**

## **Baseline Measures for National Center for Transit Research (NCTR)**

## 1. Education

**1a:** List of undergraduate and graduate courses offered by the institution[s] comprising NCTR that are considered to be part of a transportation curriculum.

### Baseline Course List

Access Management	Traffic Systems Engineering
Intelligent Transportation Systems	Transportation Engineering I
Public Transportation	Transportation Engineering II
Transportation Project Evaluation	Transportation and Land Use
Traffic Flow Engineering	Traffic Safety

**1b:** NCTR transportation education program for the academic year 1997-1998:

Transportation Education	Undergraduate	Graduate	Total
1b.1 # courses offered	3	7	10
1b.2 # academic departments offering	1	3	3
1b.3 # students completing above courses	130	126	256
1b.4 # students involved in transp. research projects	2	35	37

\*Does not track individual students. 1 student completing 3 courses or involved in 3 research projects counts as 3 students.

## 2. Human Resources

**2a:** List of advanced degrees offered:

- M.S. in Civil and Environmental Engineering
- Ph.D. Civil and Environmental Engineering
- M.S. in Public Administration (Transportation emphasis) (through Graduate Interdisciplinary Transportation Program)
- M.S. in Economics (Transportation emphasis) (through Graduate Interdisciplinary Transportation Program)

**2b:** NCTR's transportation education program for the academic year 1997-1998.

Advanced Transportation Students	Transportation-Related Degree Programs		
	Master's	Doctorate	Total
2b.1 #students* enrolled	46	7	53
2b.2 # students* receiving degrees	15	1	16

\*individual students—one student pursuing or receiving a dual degree counts as one student.

**3. Diversity**

Data for students receiving transportation-related advanced degrees (as shown in Performance Indicator 2b.2) and for all students receiving any advanced degree awarded by the institution[s] comprising NCTR.

Diversity of Those Receiving Advanced Degrees	Transportation-Related Advanced Degrees Only		All Advanced Degrees	
	#	%	#	%
3.1 Non-Hispanic White	4	25.0	1,351	77.9
3.2 Hispanic	2	12.5	120	6.9
3.3 African-American	0	0	84	4.8
3.4 Asian/Pacific Islander	9	56.3	59	3.4
3.5 Native American	0	0	10	5.8
3.6 Other	1	6.3	111	6.4
Total	16*	-	1,735	-
3.7 Male	10	62.5	675	38.9
3.8 Female	6	37.5	1,060	61.1
Total	16*	-	1,735	-
3.9 U.S. Citizens and Permanent Residents	5	31.3	1,624	93.6
3.10 Non-U.S. Citizens	11	68.7	111	6.4
Total	16*	-	1,735	-

\*This number must match the total number provided as Baseline 2b.2.

#### 4. Research Selection

Information about NCTR's transportation research during the academic year 1997-1998:

Transportation Research Selection		1997-98
4.1	Number of transportation research projects conducted	35
4.2	Total budgeted costs for those projects	\$1,371,900
4.3	Number of individuals listed as principal investigators* in those projects	17

\*Count individual P.I.s. 1 P.I. overseeing several projects is counted as 1 P.I.

#### 5. Research Performance

Information about NCTR's transportation research performance during the academic year 1997-1998.

Transportation Research Performance		1997-98
5.1	Number of peer-reviewed transportation research reports and books published	15
5.2	Number of transportation research papers accepted for presentation at academic/professional meetings	14
5.3	Number of external awards received for transportation research	1

## 6. Technology Transfer

Information about NCTR's technology transfer and outreach efforts during the academic year 1997-1998.

Transportation Technology Transfer and Outreach, 1997-98		
6.1	Number of visitors to transportation center website	10,000
6.2	Number of peer-reviewed transportation research publications available on website	8
6.3	Number of transportation outreach events conducted for pre-college students	1
6.4	Number of pre-college students participating in those events	500
6.5	Number of transportation seminars, symposia, distance learning classes, etc., conducted for practicing professionals	18
6.6	Number of practicing professionals participating in those events	340
6.7	Number of newsletters and other transportation periodicals published	4
6.8	Number of issues produced	13
6.9	Total circulation	8,000
6.10	Number of transportation technology products deployed	0