

NCHRP Web Document 21

(Project 8-32[4])

Volume II: Case Studies

Volume II

Case Studies of Multimodal Partnerships

FINAL REPORT

Prepared for the
National Cooperative Highway Research Program
Transportation Research Board
National Research Council

Prepared by:
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Raleigh, North Carolina

June 1997

ACKNOWLEDGMENT

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This report has not been edited by TRB.

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Dr. Edd Hauser, P.E., was the Principal Investigator on this project for Kimley-Horn. A number of individuals at each of the firms involved were involved in the research. Those that specifically contributed to this volume, the Case Studies, included Dr. Hauser; Dr. Steve A. Martin and two associates of his firm: Mr. Thomas J. Harrelson, former Secretary of Transportation in North Carolina and Mr. J. Timothy Welch, J.D.; Mr. Tom Humphrey, consultant; and Mr. Larry Meisner, P.E., AICP and Ms. Amy R. Breese of Kimley-Horn. All work was supervised by Dr. Hauser and work by those other than Kimley-Horn personnel was conducted under subcontract or consultant agreements with Kimley-Horn. Investigators or co-investigators who were responsible for the case study interviews and reports were Dr. Hauser, Secretary Harrelson, and Dr. Claude Barnes of North Carolina A&T.

ABSTRACT

These case studies of multimodal transportation projects were the result of several days of on-site work in twelve different projects scattered throughout the country. The 12 resulted from a review and assessment of some 60 nominations made by more than 100 organizations and 20 TRB committees with an interest in, and responsibility for, some phase of multimodal planning and development. The case studies were conducted in the summer of 1995.

Each case study includes an executive summary, including a sketch map of the area or location; a background description of the multimodal project; a description of the partnership involved, and status of the partnership; an evaluation of the partnership; list of individuals interviewed; and finally, supplemental data and documents that were secured during the course of the interviews. The documents shown in this volume are brief examples of a large volume of material that was collected during more several days of on-site investigation.

Each case study was evaluated on its own individual merits but no attempt was made, nor was it considered appropriate, to evaluate one partnership versus another. Rather, lessons learned from each in turn was documented in a consistent format and then analyzed individually and as a data set. The results of the analysis are contained in the "guidelines" document, Volume I of this series, entitled "Guidelines for Developing and Maintaining Multimodal Transportation Partnerships."

EXECUTIVE SUMMARY

This document is the companion volume to Volume *I, Guidelines for Developing and Maintaining Successful Partnerships for Multimodal Transportation Projects*. This collection of case study reports form the more extensive data base that was used in developing the Guidelines. The material contained in this set of case studies was also used to develop the recommendations and conclusions that are contained in the research report that was submitted to the NCHRP.

The information in each case study report represents interviews of one to four hours spent with each individual interviewed. In addition, a considerable amount of field reconnaissance work was spent in touring multimodal project sites and obtaining other documentation. Respondents were very forthcoming about the partnership in which they were a participant. They provided many helpful insights into how partnerships are formed and what makes them successful. At the same time, a number of important findings from interviews came from those areas of partnership development or maintenance that still are in need of improvement. Many of these ideas came from the respondents; other ideas came from the review and further analysis of the research team.

The reported findings in each case study are not written to represent any one individual's specific assessment of a partnership's success or lack thereof. Rather, the case study "trip reports" are a cumulative impression and interpretation by the interviewers of all data, written and verbal, that were obtained. All individuals interviewed, however, were given an opportunity to review a draft of the original interview notes to determine if the interpretation by the researchers was a correct assessment of what the members of the partnership intended to convey. More than half of those interviewed provided additional comments, corrections, additions and deletions that were incorporated into this final document.

The case studies presented a wide range of project types, and each partnership represented a project that was at a some different stage of development from the others. They all represent multimodal projects, however, although many of the findings would be common to transportation projects involving partnerships that focus on a single mode as well. For the most part, the findings reported on each partnership represents a unique story in itself, since there are at least subtle differences in every project and every organization represented. The authors have attempted to provide a fair, comprehensive, hopefully insightful, overall assessment of each partnership included in the study. The overall summary of the case studies in the sense of general "lessons learned," however, are illustrated throughout the Volume **I *Guidelines*** document.

Finally, the interpretation and presentation of the material in these case studies rests with the authors. It is hoped that these individual reports will be both interesting and useful in themselves, and will complement the guidelines of Volume I.

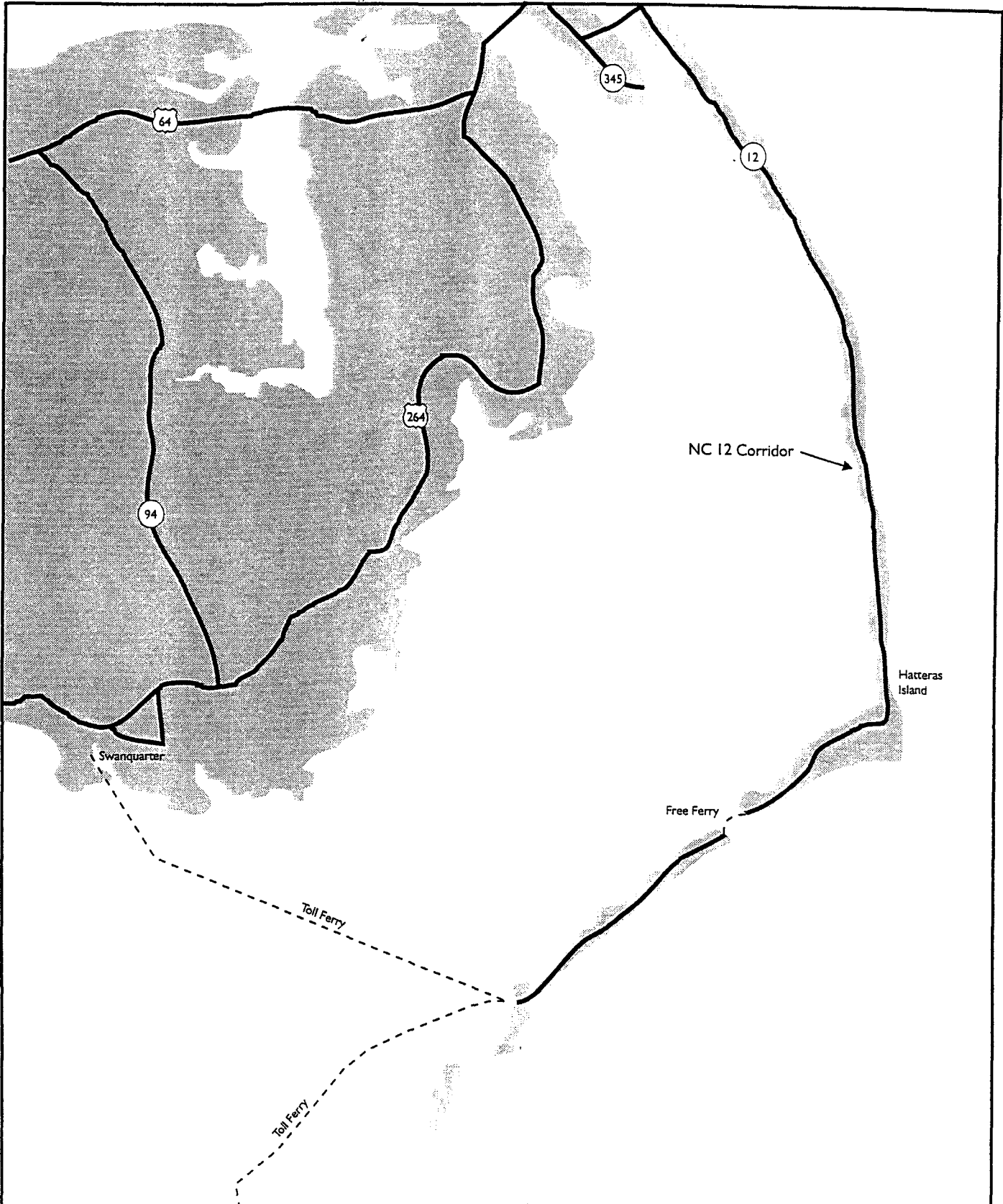
Case Study of Outer Banks Multimodal Transportation Study

Executive Summary

The Outer Banks Task Force is an entirely public sector partnership created among seven state and federal agencies in 1993 to address the long-range transportation corridor improvements needed on North Carolina's Outer Banks between Whalebone and Ocracoke. This planning project involves highway and ferry service along an 80-mile corridor that serves over 3 million annual visitors to the Cape Hatteras National Seashore and the Pea Island National Wildlife Refuge.

This partnership, which operates under the guidelines of a mutually-developed Memorandum of Understanding, consists of an approximately 15-member working group and a single representative of each of the seven agencies that serve on an Executive Committee.

Key elements that have contributed to the success of this partnership to this point include (1) the use of a two-level committee structure; (2) the inclusion of the right individuals from the right agencies in the working group and the Executive Committee; (3) an unbiased and neutral facilitator of the working group and Executive Committee that helped guide the partnership through its formative stage, and (4) the continuity of the members of the Task Force. Studies that are laying the scientific baseline for the protection of this environmentally sensitive area are currently underway.



Kimley-Horn
and Associates, Inc.

Outer Banks Multimodal Transportation Study

NC 12 Corridor

I. Project Information

A. Project Description

North Carolina's Outer Banks are a fragile ecological barrier between the ocean and the inner sounds. Part of the Outer Banks, including Pea Island, Hatteras Island, and Ocracoke Island, make up the Cape Hatteras National Seashore and Recreation Area. The fragility of the islands is dramatized by the fact that Pea Island and Hatteras Island were joined together when the inlet was filled due to storm surge from a 1956 hurricane.

North Carolina Highway 12 runs the length of Cape Hatteras National Seashore from Whalebone Junction on Bodie Island (north of Pea Island) to the Village of Ocracoke at the south end of Ocracoke Island. Bodie Island and Pea Island are joined by the 3.7 mile Herbert C. Bonner Bridge across the Oregon Inlet. The transportation service between Hatteras Island and Ocracoke Island is provided by the North Carolina State Ferry Division.

NC 12 is one of the few state-maintained highways that provides access and circulation within a National Park. Issues affecting transportation services in coastal environments are typical of those found on North Carolina's Outer Banks. Similarly, issues affecting National Parks and Recreation Areas, National Forests, and other recreational areas are typical of those found in this project area.

Over the six-year period (1986-1992), the North Carolina Department of Transportation (NCDOT) spent approximately \$50 million maintaining NC 12 from Whalebone Junction to Ocracoke, including the Bonner Bridge. These expenditures included some extraordinary expenses such as the replacement of a span of the bridge when it was taken out by a loose barge in a hurricane. However, the majority of these expenditures were incurred as a result of ongoing and usually annual storm damage by high winds and waves. This includes damage from fall hurricanes, as well as winter-time nor'easters.

As in most states, the NCDOT does not have a routine planning process that applies to rural highways. Improvements are usually programmed as part of state-wide Transportation Improvement Programs (TIP's). As maintenance, repair, and improvement projects are developed, they go through an extensive state and federal environmental review process. In 1993, recognizing that long-term improvements were needed, the NCDOT, Federal Highway Administration (FHWA), and several state and federal

environmental agencies and the resource managers of the Cape Hatteras National Seashore formed a public-agency partnership. The charge is to develop a strategic plan for this 80-mile section of highway, bridge, and interconnected ferry service.

B. Modes Included

- highway/bridge
- ferry
- ferry terminals

C. Total Cost of Project/Cost-Sharing Arrangements

The approximate total cost is \$8 million for the development of a long-range strategic plan.

D. Current Status of the Project

Currently, the study is in the budgetary process with the NCDOT and FHWA having committed its 50% funding share. The remaining funds are expected to be drawn from federal (non-highway) funding sources. Until the study is fully funded, work on the strategic plan is being carried out by the interagency Outer Banks Task Force. With current funding of the U.S. Department of the Interior (DOI) being reduced, the matching federal share is a problem.

E. Future Plans for the Project

When federal matching funds are available, it is anticipated that the long-range plan will take three years. In the meantime, using available state funds, a database to build essential environmental information is being developed. These current activities include a seismic side-scan analysis of the ocean bottom off the Outer Banks and an analysis of borrow areas in the sound in order to determine sources of sand for beach restoration and highway repair projects.

II. Partnership Description

A. Steps in Developing the Partnership

This project, as is typical with many other projects, grew out of long-standing working relationships among professional staff and decision-

makers in various agencies. Specific steps in developing the partnership are as follows:

1. March 1993 - An issue identification session was held in Atlanta, involving most of the potential parties to the partnership.
2. April 1993 - A verbal agreement in principle was reached by top management of the respective federal, state, and local government agencies.
3. August 1993 - A partnering workshop was held in Wilmington to establish the working relationships needed to develop a unified strategic plan; an informal partnering agreement was signed by the involved agencies.
4. September 1993 - A formal Memorandum of Understanding (MOU) was signed by the state and federal participants in the partnership.
5. September 1993 - Two committees were appointed by the state and federal agencies: the Outer Banks Task Force (OBTF) and Executive Committee (EC).
6. October 1993 - The appointed members of the OBTF began a series of monthly planning sessions, with periodic meetings of the EC scheduled as needed.

B. Partners: Roles and Responsibilities

The following were signatory members of the September 1993 MOU:

- NCDOT - Formation of partnership, development of agreements and management of the partnering workshop, partial funding for the study.
- FHWA - Provided funding and federal highway program guidelines.
- NC Department of Environment, Health, and Natural Resources (DEHNR) - Enforcement of state environmental regulations and provision of environmental database for the state.

Outer Banks Multimodal Transportation Study

- US Army Corps of Engineers (Corps) - Providing planning and technical assistance under the Water Resources Recovery and Conservation Act; involvement in federal environmental review process.
- US Fish and Wildlife Service (USFWS) - Protection of environmental resources in the Pea Island National Wildlife Refuge, involved in the environmental review process.
- National Parks Service (NPS) - Maintenance and operation of Cape Hatteras National Seashore and involvement in the environmental review process.
- National Marine Fisheries Service (NMFS) - Protection of offshore marine fisheries and involvement in the environmental review process.

It should be noted that all federal agencies came into the partnership as potential funding sources of the federal share for the study.

C. Person/Organization Most Responsible for Development of the Partnership

- Garland Garrett, Deputy Secretary, NCDOT (Secretary effective 8-16-95)
- Suzette Kimball, PhD, Chief Science Officer, NPS, Southeast Region

D. Person/Organization Most Responsible for Maintenance of Partnership

When the partnership was established, the NCDOT and NPS were selected by the member agencies as co-chairs. The intent was to secure equal funding for the \$8 million planning studies from the NCDOT and federal sources. With the results of the November 1994 elections, and funding reductions in all federal agencies, it has been determined that there is uncertainty about funding commitments from the USDOJ, National Oceanographic and Atmospheric Administration (NOAA), and the Department of Defense. (NOAA is the parent agency for the NMFS and USDOJ is the parent agency for the NPS and USFWS). Therefore, continued maintenance of the partnership appears to rest solely with the State of North Carolina.

E. Organizations Indirectly Involved In the Partnership

The following is a list of organizations which are indirectly involved in the partnership:

- Governor's Office, State of North Carolina
- Offices of US Congressmen affected by the project
- Dare County, NC
- Environmental Groups (e.g., Sierra Club)
- North Carolina State University

F. Organizations That Should Be Officially Involved

The following organizations should be officially involved in the project:

- Dare County and the Outer Banks communities were initially invited to participate, but they declined; in the very near future, they need to be brought back into the partnership.
- Environmental groups should be more involved at a later stage, although peripheral involvement at present appears to be working.
- Along with Dare County, Hyde County should be involved in the partnership within the next year.
- The State Ferry Division should be involved with the emergency planning activities of the partnership.

III. Partnership Evaluation

A. Motivation Behind Formation of the Partnership

There were several key motives in forming the partnership, including the following:

- Necessity for the environmental protection and long-range resource planning for the Cape Hatteras National Seashore and the Pea Island National Wildlife Refuge.
- Complexity and magnitude of the problem.

- Conclusion reached by involved agencies that no other approach would work.
- Increased efficiency needed for NCDOT to deal with resource management and environmental review agencies. [Then State Highway Administrator William G. Marley recognized the potential for modifying the environmental review process based on a revised process in Virginia (see MOA on the Virginia DOT, Appendix)].

B. Goals of the Partnership

The following are the goals of the partnership:

- Increase a common understanding of issues affecting natural resource management and transportation programs.
- Establish clear commitments/roles for each agency.
- Find workable solutions to short-term operational problems and a long-term transportation solution for an extremely sensitive environment.
- Get all members of the partnership involved at the outset of the planning process, rather than each agency developing their own plans (and **then** trying to resolve differences).
- Produce a good, comprehensive Environmental Assessment (EA) for the long-range project by identifying and evaluating **real** alternatives.

C. Success in Achieving Goals

The partnership has experienced some successes at this point, including the following:

- Understanding and agreement among the partners has increased.
- There is increased recognition that optimal solutions may not be possible.
- There is broad representation by member agencies on the task force.

- The partnership anticipates a major decision point in the planning process to occur in February 1996; at that time, the seismic side-scan and core sample study results are anticipated.

D. Legal Issues

None were identified.

E. Technical Issues

The following are technical issues that were encountered in the partnership:

- Identify a dependable travel corridor along the barrier islands for public utilization by tourists and residents.
- Minimize the environmental impacts of both short- and long-term projects on the surrounding environment.
- Develop alternative solutions to bridge and roadway relocation projects, including ferry service.
- All alternatives involve a number of complex technical issues, and therefore will take time to develop.
- Determine the cost-effectiveness of alternative solutions.
- Population growth on the Outer Banks continues to increase pressure on the natural environment.

F. Institutional Issues

The following is a list of institutional issues encountered in the partnership:

- Since the National Seashore was created in 1952, there have been long-standing working relationships between the resource agencies and all levels of government (state, counties, and communities); they have had levels ranging from highly interactive to almost non-existent.
- There is a singular basic conflict between the NCDOT mission to maintain the road and the resource managers' mission to maintain a pristine environment.

- Every agency involved has a different mission, and sometimes they conflict.
- Due to the radically changing organizational aspects of several of the agencies involved, levels of interrelating are also changing.
- Political support will be needed from state and local governments to implement the recommendations of the planning study.

G. Barriers to Forming and Maintaining the Partnership That Were Overcome

There was mistrust among participants because of hidden agendas, which has been greatly improved.

H. Barriers That Were Not Overcome

The following lists the barriers that have not been overcome during the partnership:

- In the beginning, there was a delay in action due to reluctance of any one agency to take a unilateral initiative to begin the planning process.
- A method has not yet been found to minimize the effects of political interference.
- Time constraints on individual members continue to be a problem since this is an adjunct duty.
- A major barrier both in the formation and continued maintenance of the partnership is the lack of federal funding commitment for the project.
- There is concern from each agency about the level and number of representatives.

I. Favorable Outcomes of the Project

The following describes the favorable outcomes of the project:

- The NCDOT provided funding for the initial scientific studies, which would likely have not occurred without the partnership's existence. NCDOT will support Coastal Management on the operational aspects

of the project because the Task Force has been working together so well.

- Protocols are being developed for dealing with emergency and other short-term maintenance and repair projects.
- All participants now have a common understanding that the sounds cannot serve as sources of sand for construction and beach nourishment projects.
- Enhanced understanding of what is involved in this kind of major project.
- Issues, needs, and interests of each agency are out in the open for a common discussion forum.
- The partnership dynamics forced each agency to become more introspective.
- There is better interaction among all participants in the partnership.
- NCDOT Secretary Garland Garrett stated that "despite each agency's own agendas, we'll work through them easier than we would have if we did not have the partnership in place."
- The partnering process has helped establish a plan for solving problems and answering questions: Technical and institutional issues have been identified and the working group has prioritized the issues.

J. Unfavorable Outcomes of the Project

None were identified.

K. Changes in Partnership Arrangement

The following is a listing of changes that would have increased favorable outcomes in the partnership:

- NCDOT should have dealt with the USDOJ directly.

- With such a large number of agencies represented on the task force, tasks should have been assigned to smaller working groups from the beginning.

L. Applications of Techniques/Elements of Partnership Arrangement

The following describes how elements of the partnership may serve as examples for other projects:

- The Federal Coastal Zone Management Act contains provisions for special-area management planning studies that are meant to address extremely sensitive environments; this partnership effort will serve as an example for other special-area management plans in North Carolina.
- This project and partnership is intended to act as a model for other transportation and environmental agencies throughout the country.
- This partnership has demonstrated that the arrangement will be effective on future projects.

M. Keys to the Success of this Partnership

The following are keys to the success of the partnership:

- The right individuals from the right agencies got involved in the partnership.
- There was continuity in the membership of the partnership.
- An unbiased and neutral facilitator for the partnership working group was seen as important; this facilitator encouraged active participation by all members of the partnership.
- The creation and continued involvement of an executive oversight committee to set broad goals and set task force recommendations is seen as a major benefit.
- There is a high sense of urgency for all participants to find an acceptable solution.

- A higher degree of cooperation is being experienced due to the recognition that there is no time or money available for fighting battles.
- There was a previously existing working relationship among participants prior to the formation of the partnership for this project.
- The way most business is conducted in this region of the country makes it easier for the agencies to work together.
- The agencies came together **before** any plans were developed, instead of after.

IV. Follow-up Information

A. Continuing or One-Time Partnership Arrangement

Continuing.

B. Documentation

- Outer Banks Task Force Report, Executive Summary, NCDOT, March 1994.
- Mission Statement and Guiding Principles of the OBTF, October 1993.
- Memorandum of Agreement between participating organizations, October 1993.
- Memorandum of Agreement for the Review of Highway Projects undertaken by the Virginia DOT, July 1991.

C. Key Contact

Garland B. Garrett, Jr., Secretary, North Carolina Department of Transportation, 1 South Wilmington Street, Raleigh, North Carolina 27611; (919) 733-2520, FAX (919) 733-9150

NCHRP Project 8-32(4)

Case Study Report

Project: Outer Banks Multimodal Transportation Study
North Carolina

File: 30

Type of Partnership: public-public

Interviewer(s): Dr. Edd Hauser
Ms. Amy Breese

Interviewees: Jim Johnson
Refuge Supervisor
Pea Island National Wildlife Refuge
US Fish & Wildlife Service
West Raleigh Road
Manteo, NC 27954
Date: 8-1-95

Russ Berry, Superintendent
Ries Collier
Cape Hatteras National Seashore Recreational Area
Route 1, Box 675
Manteo, NC 27954
Date: 8-2-95

Preston Pate, Regional Director
Division of Coastal Management
Anne Arundell Street
Morehead City, NC 28557
Date: 8-4-95

Phone interviewees:

Garland Garrett
Secretary, North Carolina Department of Transportation
Post Office Box 252-01
Raleigh, North Carolina 27611
919-733-2520
919-733-9150 (Fax)
Date: 8-16-95

Linda Rimer
Assistant Secretary for Environmental Protection
Archdale Building
512 North Salisbury Street
Raleigh, North Carolina 27604-1148
919-715-4141
919-715-3060 (fax)
Date: 8-16-95

Larry Hardy
Branch Chief
National Marine Fisheries Service
Habitat Conservation Division
101 Pivers Island Road
Beaufort, North Carolina 28516
(919) 728-5090
(919) 728-8796 (fax)
Date: 8-16-95

Mr. B. J. (Barney) O'Quinn
Assistant Branch Chief
Planning and Environmental Branch
North Carolina Department of Transportation
P. O. Box 25201
Raleigh, North Carolina 27611
(919) 733-3141
Date: 9-29-95

Suzette Kimball
Associate Regional Administrator- Southeast Region
National Park Service
75 Spring Street, SW
Atlanta, Georgia 30303
(404) 331-4916
(404) 331-4943 (fax)
Date: 11-8-95

L. K. (Mike) Gantt. Supervisor
Ecological Services Division
U. S. Fish and Wildlife Service
551 Pylon Drive
Raleigh, NC 27606
(919) 856-4520
Date: 11-8-95

Ron Fascher
Planning Division
U. S. Army Corps of Engineers- Wilmington District
P.O. Box 1890
Wilmington, NC 28402-1890
(910) 251-4511
(910) 251-4653 (fax)
Date: 11-8-95

Note: This case study report was prepared based on personal interviews with the persons indicated. Although it is intended to represent their ideas and opinions, responsibility for how those ideas and opinions have been interpreted and recorded remains solely with the authors.

MISSION STATEMENT AND GUIDING PRINCIPLES FOR
THE INTERAGENCY TASK FORCE ON THE TRANSPORTATION SYSTEM ON
NORTH CAROLINA'S OUTER BANKS

MISSION STATEMENT

DEVELOP THE LONG RANGE PROTECTION AND MAINTENANCE
PLAN FOR THE TRANSPORTATION SYSTEM ON THE OUTER BANKS

GUIDING PRINCIPLES

1. Establish a Partnering Process and set of Procedures for interagency cooperation and collaboration that will assure, within acknowledged human, technological, and funding limitations, that the natural barrier island system on Hatteras/Pea Island and Ocracoke Island is preserved and subjected to minimal impact from human-induced actions.
2. Incorporate within this process and procedures, the development of a Long-Range Action Plan in order to maintain access to and on the islands so that the transportation system is safe, efficient, and causes minimal environmental impact.
3. Incorporate within this process and procedures, provisions for Short-Term or Interim Actions to meet emergencies such as storms and other events that interrupt transportation services.
4. Incorporate within this process and procedures, assurances that all actions undertaken by the Task Force shall not interfere with the fulfillment of the obligations and rights of each Partner to carry out their statutory and regulatory responsibilities to manage transportation systems, lands, and programs administered by each respective agency.

MEMORANDUM OF AGREEMENT BETWEEN
STATE OF NORTH CAROLINA, U.S. FISH AND WILDLIFE SERVICE,
NATIONAL PARK SERVICE, NATIONAL MARINE FISHERIES
SERVICE
AND
THE DEPARTMENT OF THE ARMY
LONG-RANGE PROTECTION AND MAINTENANCE PLAN FOR THE
TRANSPORTATION SYSTEM ON
THE NORTH CAROLINA OUTER BANKS FROM OREGON INLET TO
OCRACOKE INLET

This Memorandum of Agreement (hereinafter referred to as "MOA"), made and entered into this 13 day of October 1994, by and between the STATE OF NORTH CAROLINA, acting by and through the State Highway Administrator, North Carolina Department of Transportation, Division of Highways; the U.S. FISH AND WILDLIFE SERVICE; NATIONAL PARK SERVICE; and the NATIONAL MARINE FISHERIES SERVICE (these four parties will hereinafter be referred to as the "OTHER PARTIES") and THE DEPARTMENT OF THE ARMY, acting by and through the District Engineer, Wilmington District, U.S. Army Corps of Engineers (hereinafter referred to as the "CORPS"),

WITNESSETH, THAT:

WHEREAS, the OTHER PARTIES have requested through this MOA that the Corps provide services necessary to support the Outer Banks Task Force's (OBTF's) development of a long-range protection and maintenance plan for the transportation system on the North Carolina Outer Banks from Oregon Inlet to Ocracoke Inlet; and

WHEREAS, NC Highway 12, a vital transportation link in Dare and Hyde Counties south of Oregon Inlet, is threatened by accelerated erosion from northeasterly storms; and

WHEREAS, the Corps possesses particular technical expertise in the area of coastal planning, environmental resources, and engineering and has provided similar services for its own use; and

WHEREAS, the CORPS is authorized to accept funds and perform the work requested by the OTHER PARTIES pursuant to the Intergovernmental Cooperation Act (31 U.S.C. 6505); and

NOW, THEREFORE, in consideration of the foregoing, the OTHER PARTIES and the CORPS mutually agree as follows:

ARTICLE I - STATEMENT OF WORK

The work to be done is the development of a long-range protection and maintenance plan for the transportation system on the North Carolina Outer Banks from Oregon Inlet to Ocracoke Inlet as specified in the Scope of Study Report prepared by the OBTF.

A. The OTHER PARTIES shall:

1. Subject to the availability of appropriated funds, each of the parties that comprise the OTHER PARTIES, shall, as requested by the CORPS, provide the CORPS either the funds designated on Attachment 1 for each of the tasks for which said party is designated the party responsible, or shall perform said task. The decision whether to provide funds or perform tasks shall lie with the responsible party; however, such decision and performance shall be made in a timely manner. Each of the tasks designated on Attachment 1 has been identified and is further described in the Scope of Study Report for the Long-Range Protection and Maintenance Plan for the Transportation System on the North Carolina Outer Banks prepared by the OBTF.

2. If there are any changes in available funding from the anticipated levels listed on Attachment 1, the OTHER PARTIES will notify the CORPS as soon as possible so that the study schedule can be modified to reflect these funding changes. The CORPS will then provide the revised schedule to the OTHER PARTIES for approval.

B. The CORPS shall:

1. Provide services necessary to support the OBTF's development of a long-range protection and maintenance plan for the transportation system on the Outer Banks, from Oregon Inlet to Ocracoke Inlet. These services shall consist of the implementation of certain:

- (a) Engineering studies
- (b) Environmental studies
- (c) Economic and social studies
- (d) Cultural studies
- (e) Transportation analysis
- (f) Plan formulation
- (g) Impact analysis

- (h) Public involvement
- (i) Report preparation and other required documentation
- (j) study management.

ARTICLE II - Term of Agreement

This Memorandum of Agreement shall be effective on the date hereinabove first written, and shall terminate 60 days after final acceptance of the completed plan by the OTHER PARTIES, or until terminated under Article V. It may be renewed after review and reassessment by the signatory parties. Note: It is currently estimated that the CORPS will provide the completed plan to the OTHER PARTIES on 30 September 1999.

ARTICLE III - KEY OFFICIALS

State Highway Administrator
N.C. Department of Transportation

Regional Director
U.S. Fish and Wildlife Service

Regional Director
National Park Service

Assistant Regional Director
Southeast Regional Office
National Marine Fisheries Service

District Engineer
U.S. Army Corps of Engineers
Wilmington District

ARTICLE IV – PAYMENT

Funding for future fiscal years will be provided to the CORPS on a quarterly basis, such that funds are available for deposit 30 days prior to the start of each quarter. Quarterly funding requirements will be itemized in a subsequent letter to the OTHER PARTIES. In the event funds are not made available to the CORPS in sufficient time to provide continuity, work will cease upon exhaustion of funds and may be resumed upon receipt of proper funding. The CORPS cannot be held liable for any consequences of cessation of work due to the exhaustion of funds.

Payments shall be mailed to USAED, Wilmington, ATTN: CESAWRM-F,

P.O. Box 1890, Wilmington, NC 28402- 1890. Checks will be made payable to "F&A Officer, USAED Wilmington."

ARTICLE V - TERMINATION AND MODIFICATION

Either OTHER PARTIES acting as a unit or the CORPS may terminate this Agreement upon 60 days written notice to the other by certified mail. The OTHER PARTIES will be responsible for any obligations incurred up to the effective date of termination.

Any of the parties that comprise the OTHER PARTIES may terminate their participation in this agreement upon 30 days written notice to the CORPS by certified mail. The party will be responsible for any obligations incurred up to the effective date of termination.

This agreement (including Attachment 1) may be modified only upon the written agreement of the OTHER PARTIES and the CORPS.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the date herein below set out.

Date: <u>9/21/94</u>	Approved: <u><i>Larry R. Givide</i></u> STATE OF NORTH CAROLINA State Highway Administrator North Carolina Department of Transportation
Date: <u>10/6/94</u>	Approved: <u><i>John C. Eades - Acting</i></u> U.S. FISH AND WILDLIFE SERVICE Regional Director
Date: <u>10/7/94</u>	Approved: <u><i>James W. Bluma</i></u> NATIONAL PARK SERVICE Regional Director
Date: <u>10/13/94</u>	Approved: <u><i>Neil W. Hagen</i></u> NATIONAL MARINE FISHERIES SERVICE SOUTHEASTERN REGIONAL OFFICE Assistant Regional Director
Date: <u>13 Oct 94</u>	Approved: <u><i>[Signature]</i></u> DEPARTMENT OF THE ARMY District Engineer U.S. Army Corps of Engineers Wilmington District

MEMORANDUM OF AGREEMENT
FOR THE REVIEW OF HIGHWAY PROJECTS
UNDERTAKEN BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION

Purpose

The purpose of this agreement is to provide the basis for a balanced consideration of environmental and transportation needs during the development of highway projects undertaken by the Virginia Department of Transportation. Following early notification of project initiation and a determination of project significance (refer to Appendix II), state funded projects will be coordinated with state agencies for environmental review in accordance with the additional process described herein. Federal transportation projects will be processed in accordance with existing procedures established by the Federal Highway Administration and the U. S. Army Corps of Engineers for *proposed* projects requiring either a federal license or utilizing federal funds. The state environmental agencies are participants in the federal review process.

The intent is to provide state environmental and historic resource agencies an opportunity to review and comment on appropriate projects and categories of projects to address the environmental impact of the project; any adverse environmental rejects which cannot be avoided if the project is undertaken; the measures proposed a minimize the impact of the project any alternatives to the proposed construction and are iriversible environmental changes which would be involved in the project.

State environmental and historic agencies will be afforded the opportunity to review projects from the conceptual stage of project planning through the completion of ensure a meaningful evaluation of the potential impacts to the environment prior to final commitment to a transportation project.

The agencies participating in this process are responsible for recommending a mutually satisfactory resolution of issues. The Memorandum of Agreement establishes the Interagency Environmental Coordination Committee (IECC) as the basis for this process.

Authority

This Memorandum of Agreement is created pursuant to Code of Virginia Section 10.1-1208.

Applicability

The provisions of this agreement are binding upon the agencies within the secretariats of Transportation and Natural Resources. This group will be identified as the Interagency Environmental Coordination Committee. Other state agencies with an interest are invited to participate in the process.

- Provide qualified and consistent representation empowered to enter into agreement on individual projects.

Agency Responsibility

It shall be the responsibility of the participating agencies to implement the commitments in this agreement. All highway projects initiated on or after July 1, 1991 shall be subject to the environmental review process. Implementation of early notification and the monthly Interagency Environmental Coordination Committee meetings will be no later than October 31, 1991. Program management responsibilities are designated as *follows*:

The Virginia Department of Transportation will:

- Provide the IECC early notification of project initiation
- Provide preliminary environmental information for project review
- Conduct a monthly meeting for the Interagency Environmental Coordination Committee at a prearranged location and time to provide resource agencies an opportunity to review and comment on transportation project proposals; this process complements existing coordination meetings conducted for transportation projects requiring federal permits or utilizing federal funds
- Prepare and distribute minutes of the meetings to participating agencies
- Elevate unresolved environmental issues first to the Commissioner and subsequently to the Secretary of Transportation
- Maintain a record of consultation for the purpose of evaluating the process

The state historic and environmental resource agencies consisting of the Departments of Air Pollution Control, Chesapeake Bay Local Assistance, Game and Inland Fisheries, Conservation and Recreation, Historic Resources, and Waste Management, and the Council on the Environment, Marine Resources Commission, and State Water Control Board, will:

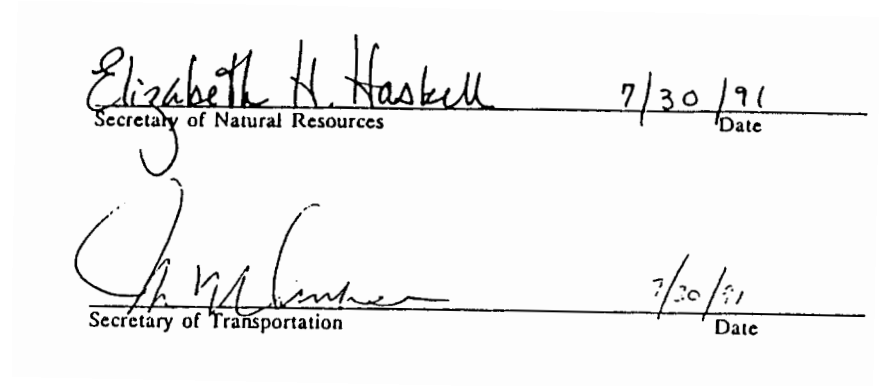
- Provide the Virginia Department of Transportation with or access to existing databases by August 15, 1991 or inventory information relevant to individual projects for impact assessment within 30 days of early notification
- Provide project comments and guidance consistent with the agencies' jurisdiction and the participants' designated area of expertise Identify specific agency concerns for early resolution
- Provide support in resolving issues directly related to an agency's area of responsibility
- Participate in the monthly, Interagency Environmental Coordination Committee meetings; provide qualified and consistent representation empowered to enter into agreement on individual projects
- Elevate unresolved environmental issues first to the agency head and subsequently to the Secretary of Natural Resources

To support the administrative process, the environmental and historic resources agencies will provide the Virginia Department of Transportation with copies of or access to their respective databases when available for use in preparing the preliminary environmental inventory. The database will be updated as appropriate to provide accurate information. If the environmental and historic resource agencies are unable to provide the Virginia Department of Transportation with database information, they will provide information for a project in response to early project notification.

The process will be evaluated annually by appointees of the secretaries to determine its benefit upon the transportation planning process and its impact to the natural, historic and human environment. This evaluation will be forwarded to the Secretary of Transportation and the Secretary of Natural Resources.

No alteration, amendment or modification in the provisions of this agreement shall be effective unless stated in writing and signed by both secretaries and attached hereto.

When this Memorandum of Agreement is signed by the Secretary of Transportation and the Secretary of Natural Resources, both parties will carry out the stipulations of the agreement.



Elizabeth H. Haskell
Secretary of Natural Resources
7/30/91
Date

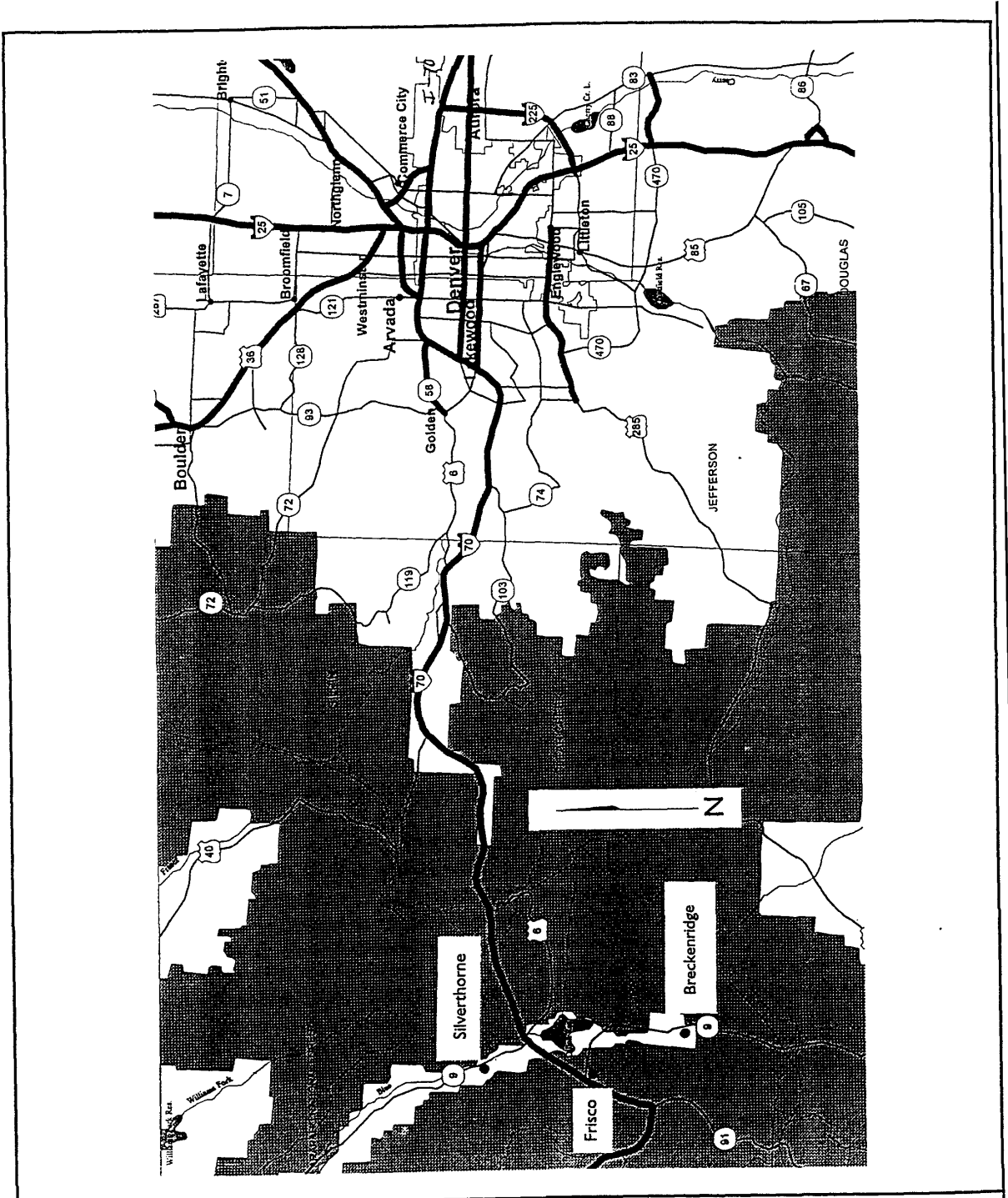
[Signature]
Secretary of Transportation
7/30/91
Date

Case Study of 1-70 Rural ITS Summit Stage Transfer Center Colorado

Executive Summary

A public-private partnership has been formed to carry out the Summit Stage Intermodal Transfer Project, which is currently in the planning process. The transfer terminal has been recognized as a public need that would allow the regional bus system to better service the area's residents and tourists. The project features an ITS component involving an Advanced Traveler Information System and an Advanced Public Transportation System.

The project's success to this point is closely related to the CDOT's support and interest gained by the partnership. Another key is the regular meetings of the members of the partnership. A current issue facing the partnership involves the conditional use of property for the transfer facility only, and is not directly tied to the functioning of the partnership itself.



 Kimley-Horn
and Associates, Inc.

I-70 Rural ITS Corridor

Colorado

1. Project Information

A. Project Description

Summit Stage, the public transportation operator for Summit County, operates a hub-and-spoke, fixed-route, year-round bus system serving the Breckenridge, Copper Mountain, and Keystone resort areas and the towns of Breckenridge, Dillon, Frisco, and Silverthorne. The service is provided to any resident or visitor to Summit County, with no fare collected. Operational costs are borne by a local option 1/2 percent sales tax.

The system offers a chance to test and evaluate the integration of an Advanced Public Transportation System (APTS) with an Advanced Traveler Information Systems (ATIS) which serves the eastern segment of the 1-70 corridor (Summit County to Denver). The project involves development of an intermodal transfer center in the Frisco area, designed to accommodate regional trips along 1-70 and local in-county trips. This facility is planned for a location near 1-70 at the entrance to Frisco.

Summit Stage is currently building a operating and maintenance facility, also near Frisco, which does not involve a partnership.

B. Modes included

- bus
- intercity bus
- express bus for ski resorts
- carpool
- vanpool
- SOV
- bicycle
- pedestrian
- park and ride
- airport shuttle

C. Total Cost of Project/Cost-Sharing Arrangements

\$1.75 million currently budgeted for the Phase I, including the following:

- \$750,000 funded entirely by local funds (1/2 percent sales tax)
- \$1 million funding through CDOT

The innovative feature was the State enabling legislation in 1990 that currently provides \$1.8 to \$2.0 million per year in operating funds from sales tax revenue.

D. Current Status of the Project

Summit Stage has just closed on the property on which the multimodal facility is currently planned. They are currently negotiating with the Town of Frisco for the necessary permits to construct the facility. The Frisco Planning Commission has recently recommended to the Town Council that a Conditional Use Permit be granted for the particular site. The Council has yet to act on the recommendation pending resubmittal of the development application.

Concurrently, the District Office of the Colorado Department of Transportation (CDOT) is interested in early implementation of the ITS component in order to use the \$1 million windfall capital funds before the expenditure deadline. CDOT and DeLeuw, Cather also see phase one of the project as an opportunity to implement ITS technologies such as a basic traveler information kiosk and GPS locators on Resort Express buses.

E. Future Plans for the Project

Summit Stage is planning to improve the overall service, based on the additional capability the multimodal facility will offer. The following examples are in the conceptual stage at this time and there are no specific plans. The center could serve as a car rental hub and intercity bus transfer point. The opportunity exists for Resort Express buses and other express bus services from Denver to use the facility. The Summit County Chamber of Commerce is also considering making the facility a visitor information center.

An evaluation program is to be developed for the ITS Operational Test. This project could include ATIS/APTS integration from Denver to Grand Junction, on the western border of Colorado, along the I-70 corridor.

Included in the technologies will be electronic information kiosks that can be accessed from commercial or passenger vehicles.

A very long range possibility would be to add passenger rail service either on an existing rail line or using the 1-70 right-of-way.

II. Partnership Description

A. Steps in Developing the Partnership

In the 1980's, Summit Stage provided access to ski resorts in the county. "Ski the Summit" was a privately funded organization funded by the resorts to develop a public relations program. The county and towns wanted the Stage to provide service to town and county residents as well as to tourists. Operational support was added when the Colorado legislature provided authority to counties and municipalities to levy the local option sales tax specifically for transit. Summit County voters approved the additional 1/2 percent tax through a referendum.

Amy Ostrander, who had experience as a manager in the Public Utilities Commission in Colorado, became director of Summit Stage in 1992. A Board of Directors ("transit board") was appointed by the County Commissioners representing the towns, the resorts, and the public. Concurrent with the formation of the transit board, CDOT District I was formulating plans for an ITS rural corridor project along the entire length of 1-70 from Denver to Grand Junction. When Summit Stage and CDOT recognized the need for a multimodal transfer facility, and the funding for operations of the system reached a level of stability, the Stage initiated the formation of a partnership to plan and build the facility.

B. Partners: Roles and Responsibilities

The following are the roles and responsibilities of the members of the partnership:

- Summit County -- County Commissioners provide political support and oversight and are the official approval authority of recommendations presented by Summit Stage. It assures that public interest is represented in the implementation of plans and programs of the Stage.

- Summit Stage -- A county agency, whose Board of Directors (11 persons, including 4 towns, 3 resorts, 3 public members, and the Summit County Manager) provide approvals of operating policies and plans and oversee funds. The Board is appointed by the County Commissioners. To the director of the system, the Board is a community coalition since it represents both public and private interests.
- CDOT Regional Transportation Office -- Interest in construction and maintenance; responsible for administration of the one-time "windfall" funds for transportation projects across the state (\$75 million statewide).
- DeLeuw, Cather and Company, a private engineering firm -- Consultant to CDOT; facilitates the partnership by assisting in the grantsmanship function for ITS funding; brings ITS technology options to the project as a future extension.
- FHWA -- Incremental funding of ITS improvements, which is seen as an important element of the future system.
- Summit County School District -- Original landowner that provided property for the development of the multimodal facility.

C. Person/Organization Most Responsible for Development of the Partnership

- Amy Ostrander, Summit Stage
- John Unbewust, CDOT Region 1 Transportation Director

D. Person/Organization Most Responsible for Maintenance of the Partnership

- Joe Sands, County Commissioner
- Barbara Schroeder, DeLeuw, Cather and Company (facilitator of the ITS component)

E. Organizations Indirectly Involved in the Partnership

The following is a list of the organizations indirectly involved in the partnership.

- Felsburg Holt & Ullebig, a private engineering firm -- Transfer Facility Evaluation and Facility Development Plan, Transportation Development Plan Update 1995 - 1999
- Private Transit Operators (Resort Express) -- Unlikely to have future direct involvement in the partnership
- Vans to Breckenridge -- have requested space in the facility.
- FTA -- Funding of projects through Section 16(b)(2)
- CDOT planning unit -- Planning responsibility for highways and transit.
- Ski/resort-area operators -- Operate their own internal transit/circulation systems; also possible future user of the multimodal facility
- Summit County Chamber of Commerce
- Denver International Airport
- Local press in Summit County -- Have provided good coverage of the project and its progress

F. Organizations That Should Be Officially Involved

Those that should be officially involved:

- All area Chambers of Commerce
- Colorado Ski Country USA
- Ski resorts
- Planning - CDOT Central Office
- Denver International Airport
- City and County of Denver
- Clear Creek, Jefferson, and Park Counties

III. Partnership Evaluation

A. Motivation Behind Formation of Partnership

The following is a list of the motivations of motivations behind the formation of the partnership.

- To build a multimodal transfer facility that would serve multiple purposes for the community and be able to operate and expand the facility
- To provide the core infrastructure investment for the Summit Stage system
- To provide an equitable service to all county residents, and all visitors (including the towns)

B. Goals of the Partnership

The following are the goals of the partnership:

- Development, funding, and operation of a rural transportation system
- Development of a multimodal transit center
- Improve the communication system
- Environmental goals, such as air quality improvement
- APTS/ATIS integration (in a later phase)
- Integration of all local transit systems
- Keep flexibility and focus for future improvements and expansions of the system
- Keep the partnership together to resolve future issues and transportation needs in the county

C. Success in achieving goals

Even with considerable problems facing the partnership in the past and present, the overall project to date is considered very successful by the Director. The Town of Frisco recognizes a public need for the facility, but has significant concerns for the project's technical issues. CDOT sees the potential of the project as being very successful in improving communications and transportation along the 1-70 corridor.

D. Legal Issues

State Legislation contains a requirement that funds must be used for project construction within a specific time frame.

E. Technical Issues

The following are the technical issues which were encountered in the partnership:

- Commercial Development Permit and Conditional Use Permit; a copy of the overall site plan showing the location of adjacent wetlands is shown in the Appendix.
- All site development components (e.g. layout, placement, phasing, ADA standards, etc.)
- Funding
- Communications system improvements
- ITS technical components
- Consideration of the intermodal transfer facility's role in the overall corridor transportation system

F. Institutional Issues

The following are institutional issues that were encountered in the partnership:

- Land use - whether to use the property for transfer facility (public use) or for commercial expansion projects, which would add to the tax base.
- A multimodal facility has been included in the town's master plan for several years, but without a specific location approved at the present time.
- The school board took 18 months to determine that the buyer of the property at the chosen location could be the County and Summit Stage (lengthy negotiations).

- CDOT is using this project as a means of improving its public image (from traditional "highway" approach to multimodal approach).

G. Barriers to Forming and Maintaining the Partnership That Were Overcome

One barrier was the traditional approach to solving the capacity problem, which is building more lanes.

H. Barriers That Were Not Overcome

The following are barriers which were not overcome in the partnership:

- CDOT feels that it is not actively involved.
- The town planner for Frisco does not consider the town a partner in the Summit Stage operation or in the development of the multimodal facility; instead, she sees Summit Stage as "another developer coming to Frisco."
- There is incomplete communication on important issues from the Town of Frisco to the Summit Stage.
- Coordination of independent carriers such as Resort Express and Vans to Vail.

I. Favorable Outcomes of the Project

The following outcomes were not anticipated but are seen as a direct result of the partnership's efforts:

- Additional \$1 million funding from CDOT as a windfall, one-time project
- Incremental funding from CDOT
- School district providing land on which to develop the facility

J. Unfavorable Outcomes of the Project

None were identified.

K. Changes Needed in the Partnership Arrangement

The following are changes in the partnership arrangement that would have increased favorable outcomes:

- The transit operator has considered some type of alternate dispute resolution process with the town and commercial interests involved.
- There should be more regular meetings for Summit Stage and CDOT.
- A more intensive campaign may have resulted in an increased understanding of the project and the benefits to the town and to local commercial interests.
- CDOT needs to have an increasingly stronger role in the partnership.

L. Applications of Techniques/Elements of the Partnership Arrangement

None were identified.

M. Keys to the Success of this Partnership

The following are keys to the success of the partnership:

- The facility is a needed public service because of the increase in tourism in the county, a reflection of growth in Summit County in general.
- An environmentally sensitive community sees the project as positive, and this helps to promote the service.
- The system is seen as a positive element in helping to relieve traffic congestion in the towns and resort areas.
- There has been a widespread acceptance of advanced technology ideas for the project. and the recognition that they do have potential to help solve the areas traffic problems.
- Expanding transit service and subsequent expected increases in ridership of the Summit Stage is seen as relieving funding pressures to widen Colorado Route 9 between Frisco and Breckenridge.

- Members of the partnership meet on a regular basis.
- There has been complete support from CDOT for the project, especially in the ITS component.

IV. Follow-up Information

A. Continuing or One-Time Partnership Arrangement

Continuing.

B. Documentation on Project

- Corridor Planning and Feasibility Analysis, by DeLeuw, Cather Company, for CDOT.
- Summit Daily News article, August 4, 1995.
- Rocky Mountain News articles, May 5, 1995.

C. Key Contacts

- Amy Ostrander, Director, Summit Stage, P. O. Box 68, Breckenridge, Colorado 80424; (790) 453-1339, FAX (790) 453-1241
- Barbara Schroeder, Business Development Manager, DeLeuw, Cather and Company, 1700 Broadway, Suite 1016, Denver, Colorado 80290; (303) 863-7900, FAX (303) 863-7110

NCHRP Project 8-32(4)

Case Study Report

Project: 1-70 Rural IVHS, Summit Stage Transfer Center
Colorado

File: 46

Type of Partnership: public-private-community

Interviewer(s): Dr. Edd Hauser
Ms. Amy Breese

Interviewees:
Amy Ostrander, Director
Richard J. Bums, Supervisor
Summit Stage
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790/453-1241 (fax)
Date: 8/9/95

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Town of Frisco
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Town Hall, 1st and Main
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(303) 668-0677 (fax)
Date: 8-10-95

Barbara Schroeder
Business Development Manager
DeLeuw, Cather, and Company
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(303) 863-7110 (fax)
Date: 8-11-95

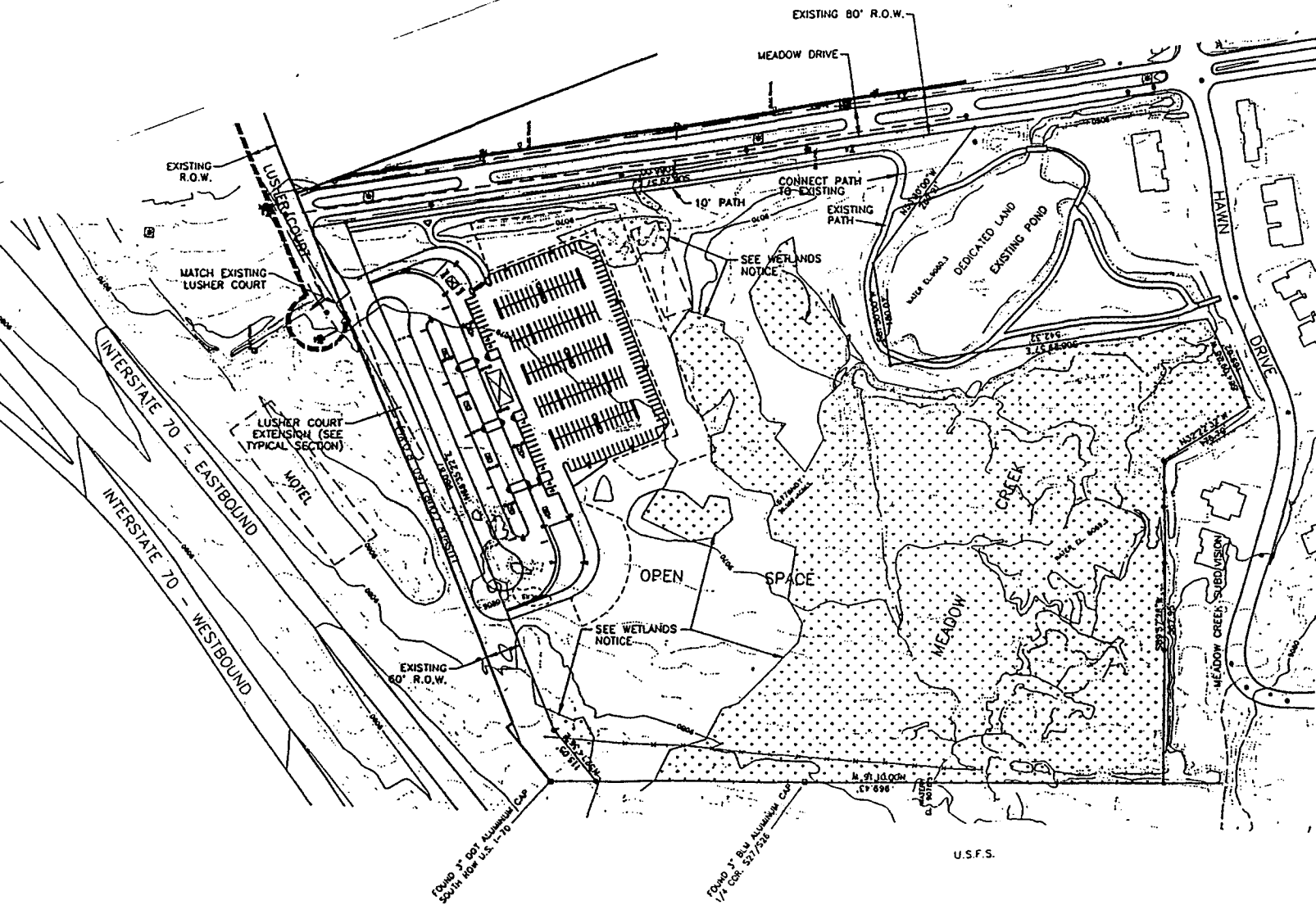
Phone interviewees:

Jay Ufer, President
Resort Express
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Silverthorne, Colorado 80498
(303) 468-0330
Date: 8-15-95

Terry Tiehen
Colorado Department of Regional Transportation
18500 Dart Colfax
Aurora, Colorado 80011
(303) 757-9651
(303)343-0596 (fax)
Date: 8-15-95

Joe Sands
County Commissioner
Post Office Box 68
Breckenridge, Colorado 80429
(970) 453-2561-352
Date: 8-18-95

Note: This case study report was prepared based on personal interviews with the persons indicated. Although it is intended to represent their ideas and opinions, responsibility for how those ideas and opinions have been interpreted and recorded remains solely with the authors.



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WETLANDS NOTICE:
 EXACT LOCATION AND LIMITS OF WETLANDS AS SHOWN SUBJECT TO FURTHER ANALYSIS.
 FINAL LOCATION AND AMOUNT TO BE SET AFTER FINAL ANALYSIS IS COMPLETE.
 ALL FEDERAL WETLANDS REGULATIONS TO BE OBSERVED.

**FELSBURG
 HOLT &
 ULLEVIG**

SUMMIT STAGE TRANSFER CENTER			
OVERALL SITE PLAN			
DATE	PROJECT NO.	DESIGNED BY: <u>SBC</u>	SHEET NO. <u>2</u>
		DRAWN BY: <u>JWJ</u>	DRAWING

Case Study of the South Anchorage Transit Center

Executive Summary

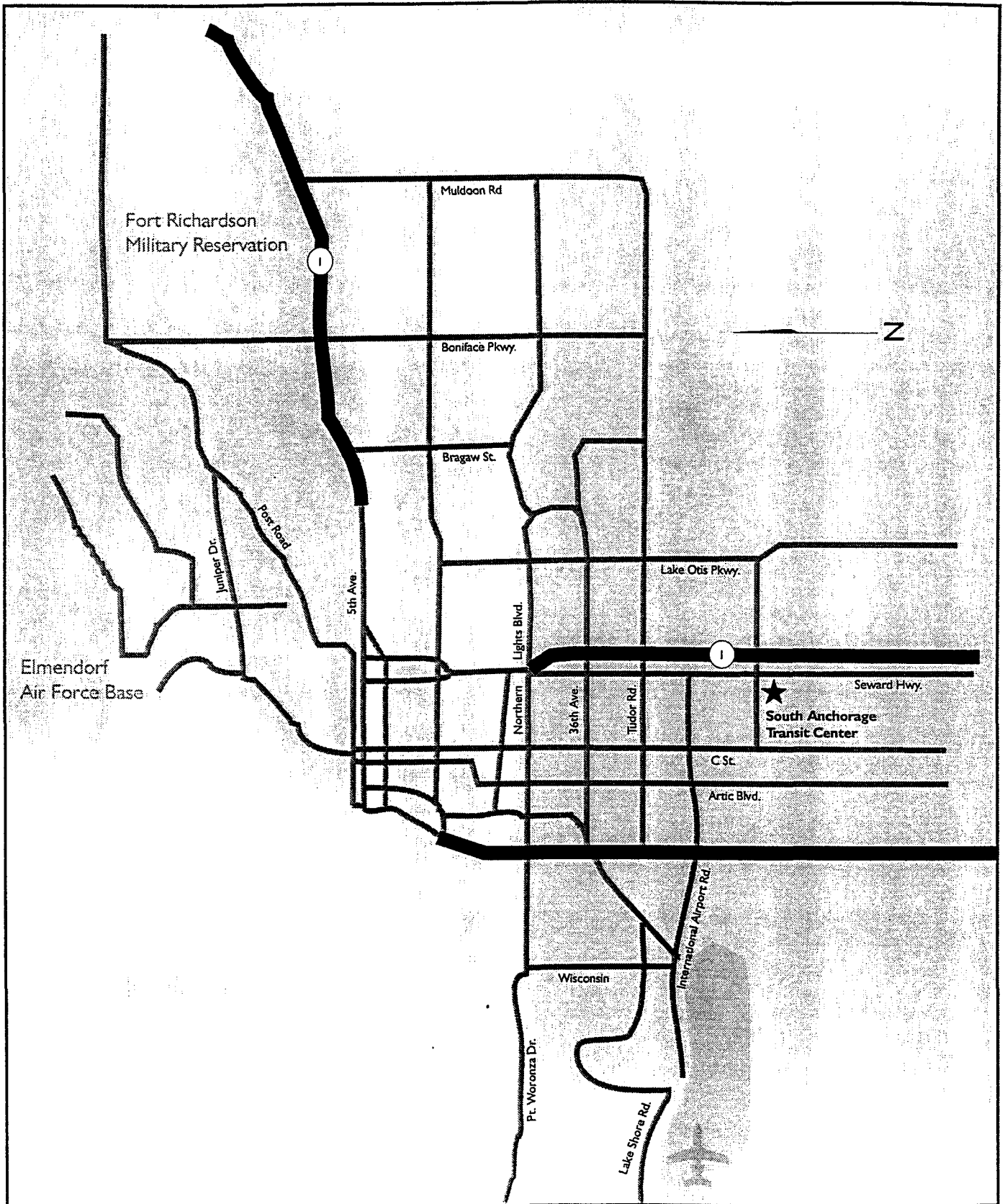
The South Anchorage Transit Center is a good example of a public-private-non-profit project in a mid-sized North American city where the principles important to successful partnerships, equity and efficiency, have been embodied in the formulation and maintenance of the partnership. The partnership was created between a private mall developer, called Dimond Center, and the municipality of Anchorage. Excellent support and cooperation and funds for the project were also received from the Alaska DOT, and from the FHWA and FTA (UMTA at the time of the project).

In addition, volunteerism played an important part in both the construction of the facility and continues to be involved in its operation and maintenance. The results have been beneficial to all concerned, and the project has yielded some unexpected dividends for the community.

Keys to the success of this partnership have included:

- excellent personal and professional relationships among all parties.
- a win-win attitude by all stakeholders from the beginning of the project.
- the development of a mixed-use facility (retail, educational, government services, etc.) in addition to the co-location of a transit transfer facility.

Lessons learned from this partnership include an increased awareness that given the right circumstances, volunteer service organizations can play a significant role in making a mixed-use facility such as the Dimond Center a successful enterprise.



Kimley-Horn
and Associates, Inc.

South Anchorage Transit Center

Major Highways

I. Project Information

A. Project Description

The South Anchorage Transit Center is an enclosed bus transit facility planned and built with federal, state, and local funds. It is located on privately-owned land leased to the municipal transit agency, near a suburban, multi-purpose mall, the Dimond Center. It serves as the hub and destination point for South Anchorage in the overall Anchorage transit system. The land is leased to the Municipality of Anchorage Transit Department (Anchorage Transit). A non-profit volunteer group, Retired and Seniors Volunteer Program (RSVP) is contracted by Anchorage Transit to operate and maintain the center.

B. Modes Included

- Metro transit buses
- Pedestrian
- Automobiles (informal park-and-ride, not encouraged by the mall owners)
- Commuter rail (mentioned as a potential in the future, planned for but not likely in the near or mid-term)

C. Total Cost of Project/Cost-Sharing Arrangements

<input type="checkbox"/> Design (local)	\$58,130
<input type="checkbox"/> Construction	571,470
Federal-Aid Urban Systems (FAUS)	522,038
Alaska Department of Transportation (match)	<u>49,432</u>
Total	\$629,600

D. Current Status of Project

Planning, design, and construction are complete. The center opened in late 1989 and is functioning well.

E. Future Plans for Project

The facility as built was designed to accommodate commuter rail. There are no immediate plans for expanding the project, although the transit agency has begun discussions with the mall management about the possibility of expanding the partnership to include day care. This is another long-term possibility, but perhaps too costly. The addition of commuter rail to serve the Girdwood/Aleyska ski resort areas is currently being discussed as a further long-term use.

II. Partnership Description

A. Steps in Developing the Partnership

The following steps were involved in the formation of the partnership:

- Pre-late 1970's: Commercial activity was largely confined to the downtown waterfront area.
- 1974: Radial transit service emanating from downtown was initiated by the municipal government.
- 1977: Dimond Center mall opened in South Anchorage with 153,000 square feet of leasable rental space. Other development was occurring in Midtown and South Anchorage.
- The transit system developed more routes with the mall as origin/destination and started a new route terminating there.
- 1982: The mall more than doubled in size, becoming the key retail center for the entire Anchorage area. New space was provided for offices, a health club, restaurants, and recreational facilities, including an ice skating rink.
- Mid 1980's: The transit managers began rethinking philosophy and devised a new route system centered around a feeder-to-hub network, with trunk routes connecting transit centers at the hubs.
- 1984: Land-use code changes made it more attractive for developers to include transit in development plans.

- 1985-87: South Anchorage planning identified Dimond Center as the best location for a transit hub in the area.
- 1985: Informal discussions began with Dimond Center about the possibility of transit center at the mall.
- 1986: The general structure of the agreement was formulated between Anchorage Transit and the Dimond Center.
- Anchorage Transit conferred with the Urban Mass Transportation Administration (now FTA) about precedents to constructing a public building on private leased land.
- December 1986: Partnership agreement was signed between the city and the developer of Dimond Center.
- Early 1988: Grant application to Federal Highway Administration (FHWA) for federal aid (Federal Aid-Urban System funding).
- November 1988: Final design was completed (paid with local funds).
- December 1988: FHWA review was completed.
- March 1989: UMTA awarded the grant on behalf of FHWA.
- May 1989: Construction began.
- October 1989: Construction was completed.

B. Partners: Roles and Responsibilities

The following were included in the original partnership:

- Dimond Center -- Provided land (1 acre) at nominal cost (20-year lease at \$1 per year).
- Anchorage Transit -- Provided funding for construction and design, secured grant, and coordinated with all parties, and secured a private firm to operate the Transit Center.
- FHWA -- Provided construction grant funding.

- UMTA -- Administered FAUS grant.
- Alaska DOT and Public Works--local match.

The operating partnership includes the following:

- Dimond Center -- Maintains lease with Anchorage Transit; responsible for snow removal and repaving on a contractual basis.
- Anchorage Transit -- Operates buses, coordinates bus schedules, manages lease agreements with Retired and Seniors Volunteer Program (RSVP).
- RSVP -- Non-profit organization that manages the center, sells tokens and passes, maintains the inside of the building and is responsible for, snow removal and outside maintenance of structure, in cooperation with Transit.

C. Person/Organization Most Responsible for Development of the Partnership

The following were prime motivators in partnership formation:

- Tom Brigham -- Anchorage Transit Director (now with Alaska Department of Transportation and Public Facilities).
- Joe Ashelocke -- Original developer of Dimond Center Management, now semi-retired.
- John Astarita -- Volunteer, non-paid project manager for the Municipality of Anchorage, assigned to Anchorage Transit for this project.

D. Person/Organization Most Responsible for Maintenance of Partnership

The following were instrumental in maintaining the partnership:

- Bob Kniefel, Director of Anchorage Transit
- Blaine Dahlgren. Director of RSVP

E. Organizations Indirectly Involved in the Partnership

The following organizations were peripherally involved in the partnership:

- The Anchorage Planning Department looked at traffic issues related to the development of the Transit Center.
- TRA/Farr Architect was involved in the preliminary and final design of the Transit Center.

III. Partnership Evaluation

A. Motivation Behind the Formation of Partnership

The original and continuing motivation from Anchorage Transit was to provide a convenient, attractive location for the transit hub in South Anchorage. For the Dimond center, continuing attraction is to increase traffic to the mall complex. In the operating partnership, the motivation of the RSVP was altruistic; it wanted to make a positive difference in the community.

B. Goals of the Partnership

The goal of the partnership was to produce a transfer center and final destination point for transit riders in South Anchorage, including planning, design, construction, funding, and operation of the facility.

C. Success in Achieving Goals

It is universally accepted that the South Anchorage Transit Center has been an unqualified success. The facility was built within budget and on time, very efficiently due in large part of the personal interest of the volunteer project manager, John Astarita. The mall management is convinced that transit ridership has helped Dimond merchants and tenants. The RSVP organization is enthusiastic about being of assistance to travelers, and helping out with troubled youth and the homeless as well. The RSVP has received favorable publicity locally. In addition, because of no labor costs, the RSVP is able to earn funds to support other programs.

D. Legal Issues

The issue of use of public funds on leased lands was resolved. The RSVP organization was concerned about the availability of liability insurance, but this issue was also resolved.

F. Technical Issues

Placement of the center and its design were very important. The partnership wanted a facility that looked at least as attractive as the mall, which was achieved. Also, special design work was necessary to remove melting snow via interior drains so that the roof slopes downward and inward. Alaska's harsh winter climate mandates this special attention. The design has worked well overall. Transit got the best location for the center under the circumstances.

With the addition of the RSVP senior citizens, some accessibility issues have been addressed such as the installation of an electric door (easier to operate than the manual security door). Parking for the volunteers is a problem during the peak holiday shopping season. One unresolved issue remains, that of traffic circulation. The problem is that the Transit Center is designed for two way traffic, but the Dimond Center can only accommodate one-way traffic at present. This is viewed by the municipal partners as an issue that will have to be addressed.

G. Institutional Issues

The funding package was very important. Local municipal funds were used for the design, and Alaska DOT supported the partnership in establishing the use of FAUS funding for a transit facility. All essential stakeholders cooperated and supported the use of highway funds for this purpose, including the mayor's office, state and federal highway agencies.

Relationships were very important in this project. While the negotiations were underway for the partnership, the developer was in a running battle with the municipality over some landscaping issues. It was important that Tom Brigham, Director of Alaska DOT, Statewide Planning, had established a personal relationship with Mr. Joe Ashelocke, the original Dimond Center developer, so that the issues could be separated and that both parties could deal with the Transit Center issue as a business proposition. The employment of the volunteer project manager, John Astarita, was important

in that he knew the construction business well and was able to keep an eye on details and schedules.

H. Barriers to Forming the Partnership That Were Overcome

The mall management had the notion that only the unemployed rode buses. Anchorage Transit was able to show that a broad representation of the citizenry use transit, and would be good potential customers at the mall. The key was building a first-class facility. A lingering concern of the mall management involves free speech issues. Demonstrations on public property such as the leased land would be more freely allowed than on the privately owned and managed mall property. There have been no problems of this nature to date.

I. Barriers That Were Not Overcome

None were identified.

J. Favorable Outcomes of the Project

The real surprise has been in the performance of the RSVP organization. The original for-profit vendor was unable to make a profit and abandoned the Center after a few months. After an outreach to volunteer community from Anchorage Transit, the RSVP organization stepped forward to take over its operation and has been an unqualified success. The organization is well received by the transit community and by the area's youth. It provides space for a student outreach to troubled and runaway young people. The Seniors have taken over virtually all the functions they can handle physically. Anchorage Transit has been very flexible in helping with any barriers to the Seniors, such as helping arrange prison labor to do heavy cleaning, snow removal, and maintenance, and some physical improvements to the facility itself. In addition, RSVP is using the Anchorage Career Education program (ACES) to have learning disabled children clean the inside. They have also availed themselves of young people to help out under JTPA.

K. Unfavorable Outcomes of the Project

None were identified, except the performance of the original vendor/operator. It is now clear that only a non-profit organization could operate this small facility in a meaningful way without public subsidy.

L. Changes in Partnership Arrangements:

Security has been of some concern since the mall does not have jurisdiction over a public facility, but now it is clear to all that local law enforcement must be involved as needed. RSVP has had state troopers and local law enforcement train the volunteers on how to survive robbery, and they have installed video cameras. The volunteers have also been trained on self-defense. Transit officials would prefer that future transit centers be adjacent to a shopping mall or other mixed-use facility rather than located as a stand-alone transit transfer facility, because of the extreme weather in Alaska.

M. Partnership Beneficial in Other Situations

Other transit centers in the state have been identified as likely candidates for this sort of partnership based on the experience in South Anchorage.

N. Keys to Success

The following are keys to the project's success:

Importance of relationships - Tom Brigham's relationship with Joe Ashelocke helped overcome what could have been "insurmountable" situations. John Astarita's relationships with contractors helped keep the construction on track. The good rapport between the RSVP organization and Anchorage Transit has enabled the operation to be both fair and efficient.

Win-win attitude - Everyone stood to gain from the partnership. Anchorage Transit was able to position its hub operation in a very desirable location. The Dimond Center got a very attractive Transit Center and increased patronage at the mall. The transit community got access to a growing office/retail/recreational/civic complex. The public also benefits from the helpful attitude of the volunteers in the Center.

Multi-use facility - The Dimond Center is more than just a retail mall. There are exercise facilities, restaurants, community college, child care, public library, post office, and other amenities. This lends itself to transit. In addition, as a transfer point, the mall provides ample opportunity for riders to utilize time productively while waiting for a bus.

Convenience of the Transit Center location - it is actually closer to the mall entrance than most people can get in an automobile.

IV. Follow Up Information

A. Documentation

Available from Alaska DOT/PF:

- "Development of the South Anchorage Transit Center: Public/Private Partnership in the Small Urban Area" by Thomas B. Brigham currently Director of Planning, Alaska DOT/PF.

Available from Anchorage Transit:

- Agreement with Dimond Center
- Rental agreement with RSVP
- Design Documents
- Environmental Impact Statement (EIS)

Available from Anchorage Planning:

- Traffic Impact Analysis (TIA)
- EIS
- Lease with Dimond Center
- Specifications and Contract Documents

B. Key Contacts

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- Michael O. Barry, Project Manager, Dimond Center, 800 E. Dimond, Suite 3-500, Anchorage, Alaska 99515; (907) 344-2581, FAX (907) 349-2411

NCHRP Project 8-32(4)

Case Study Report

Project: South Anchorage Transit Center
Anchorage, Alaska

File: 15

Type of Partnership: public-private-non-profit

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Interviewees: Mr. Thomas Brigham, Director
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Mr. Bob Kniefel, Transit Director
Ms. Jody Karcz
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Ms. Amy Young, Assistant Director
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Date: 8-10-95

Note: This case study report was prepared based on personal interviews with the persons indicated. Although it is intended to represent their ideas and opinions, responsibility for how those ideas and opinions have been interpreted and recorded remains solely with the authors.

Case Study of the Tower City Center- Cleveland, Ohio

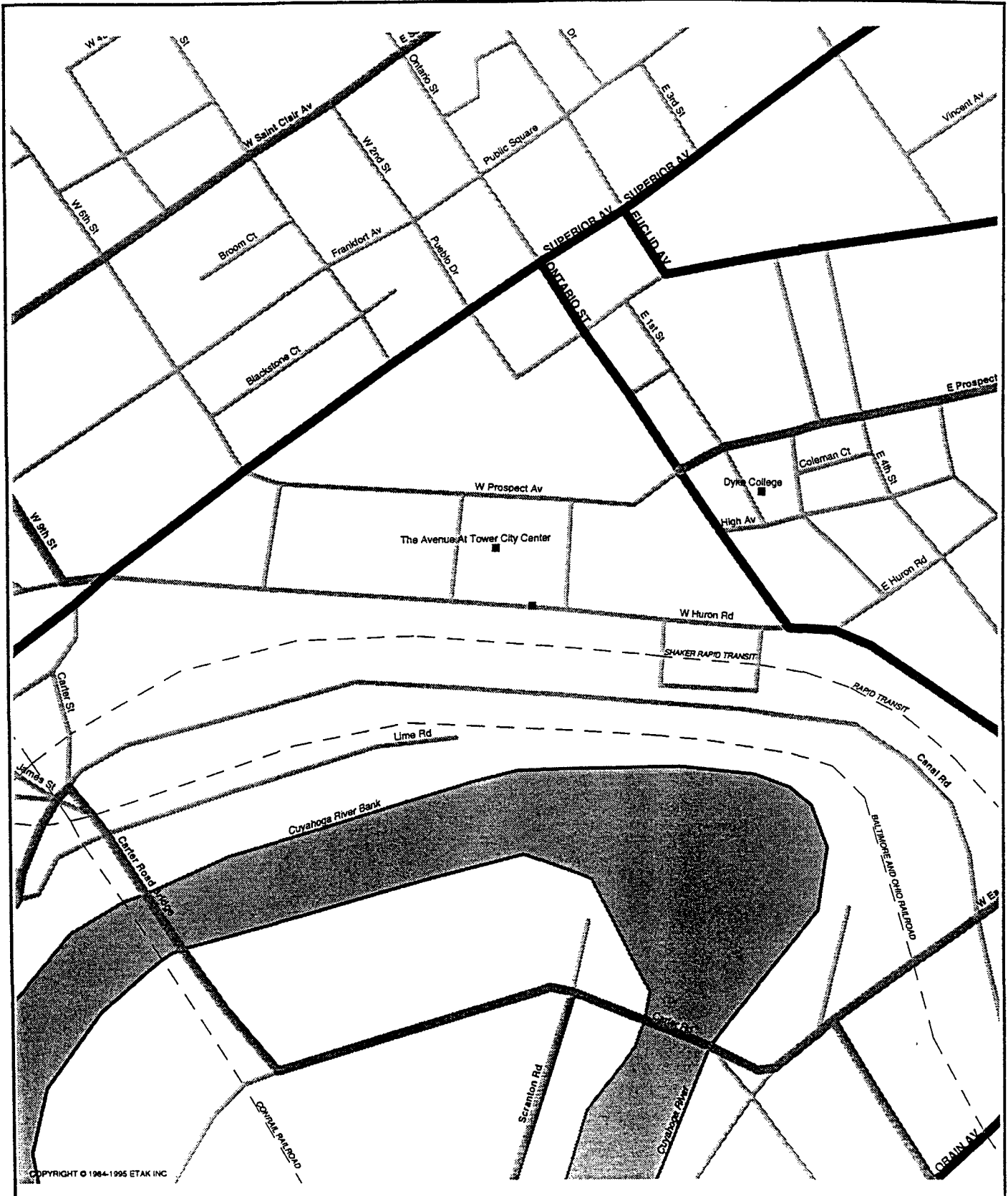
Executive Summary

This dynamic public-private partnership is an on-going relationship between a private development company, Forest City Enterprises, and its home city, Cleveland, Ohio. Over the past 15 years, several partnerships involving a number of additional partners have been formed to redevelop and restore a badly deteriorated central city multimodal transfer facility. This facility is particularly interesting in that pedestrians, buses, and taxis are accommodated at street level, with heavy rail and metro rail coming into the underground concourse.

The Terminal Tower, which is in the National Register of Historic Buildings, has been transformed into an exciting mixed-use facility, with three levels of shopping and 42 office levels over the two-levels of the transit station.

This partnership, which successfully completed the restoration of the transit terminal and the Terminal Tower in 1990, is currently extending the Greater Cleveland transit system by extending the light rail line between Tower City and the waterfront area. The Tower City multimodal project has been successful in revitalizing investment in downtown Cleveland and in saving a historically significant building.

The key element in the success of the **project** has been the high level of risk-taking assumed by the private sector partner. The key element in the **partnership** has been the building of mutual trust between the project managers of the development company and the Regional Transit Authority (RTA) over a period of years. The continuity of the same project managers over the course of project planning and development has also been significant in contributing to the project's success. The organizational and individual partnership between city and developer is expected to continue.



Kimley-Horn
and Associates, Inc.

Tower City Center

Cleveland, OH

I. Project Information

A Project Description

Forest City Enterprises, Inc., a major, vertically integrated national real estate company with headquarters in Cleveland, has been an integral part of the city's economic and business structure for two generations. The company has been involved in numerous downtown and suburban development projects throughout the country since its founding by the Ratner family. Forest City is a publicly traded company that owns approximately \$2.3 billion of properties in 19 states. Their properties include residential, shopping, and commercial office developments.

The Greater Cleveland Regional Transit Authority (RTA) is the largest public transit authority in the state of Ohio. It is a publicly-managed agency under the oversight of a board of trustees. The RTA operates two light rail transit lines, a heavy rail line, and approximately 1,000 buses providing fixed route and demand responsive and user-side subsidy service. RTA's service area includes 515 square miles with a population of over 1.6 million. A dedicated one percent local sales tax supports the service. The system has over 100 fixed route bus routes, and the total system is utilized by over 60 million annual fixed route passenger trips and approximately a half million annual demand response passengers.

The three rail transit lines plus all bus routes that converge on the CBD use the passenger terminal located in the underground and ground level of the Terminal Tower, a Cleveland landmark since it was built in the 1920's. The building is listed in the National Register of Historic Places. Commuter rail service was also provided at the Tower City Terminal until 1977, when service was discontinued.

In the late 1970's and early 1980's, Albert B. Ratner, the CEO of Forest City Enterprises, and Charles A. Ratner, President and Chief Operating Officer, along with other members of the Ratner family, embarked on a project to revitalize the centrally-located Terminal Tower Building. The project site, occupying 34 acres within a triangular, five-block section of the downtown, looks north across Public Square (a particularly important landmark). The building, which includes office space in its 52 stories, had fallen into a badly deteriorated state of repair and had a falling occupancy ratio. A particularly severe part of the deterioration was the roof structure on each side of the former train concourse. On the lower level, these structures were actually constructed as bridges which supported surface-level streets.

Recognizing the strategic potential of the Tower City Terminal, the Ratners initially worked with the City on plans to restore the building under the guidelines of the National Trust for Historic Preservation, National Park Service, and Ohio State Historic Preservation Office. Forest City bought the building in 1982 from US Realty and Cleveland Union Terminal companies and moved its corporate headquarters into the Tower City Terminal. Forest City Enterprises is the sole owner of the property.

The first step in the building redevelopment process was the repair of the five badly deteriorated bridge/roof structures. In 1983, recognizing the need to work with the RTA to revitalize transit service through the terminal, Forest City hired an international expert on multimodal terminal development/redevelopment, Doug Lund, to oversee the renovation of the property as a mixed-use facility. The building was to act as the retail, commercial, office, and multimodal transportation hub for the city. The redevelopment project was completed in mid 1990. Subsequent to the building construction, **an** underground pedestrian walkway was built, connecting the Tower City Complex with the nearby Gateway sports facilities. The complex includes **an** arena for hockey and Cavaliers' basketball and the Indians' Jacobs Field, located just south of the terminal. (See site plan and longitudinal section drawing in section .)

In summary, there have been four partnerships established in the redevelopment process. They are described in Section II.

B. Modes Included

Modes using the Tower City Terminal include the three rail transit lines on the underground concourse, buses using the street level transfer facility, taxis, an adjacent parking garage, and downtown pedestrian traffic. The Blue and Green lines provide service to the eastern communities of the Greater Cleveland area. The heavy rail (Red) line provides direct service to the west, with the western-most station located in the Cleveland Hopkins International Airport and to the east side of Cleveland terminating in the suburb of East Cleveland. There is also an underground walkway connecting the Tower City Center with the Gateway Sports Complex.

C. Total Cost of Project/Cost-Sharing Arrangements

The first phase of the project, the rebuilding and raising of five street bridges leading into the terminal, cost \$16 million. The funding was supported by a

Federal Urban Development Action Grant (UDAG), and costs were distributed as follows:

FHWA/City of Cleveland (matching funds)	\$14.3 million
Federal Transit Administration (FTA)	\$ 1.2 million
Housing & Urban Development (HUD)	\$.3 million
Tower City Development, Inc.	\$.1 million

The second phase redevelopment of the terminal facilities itself, including the rapid transit station and pedestrian walkways, cost approximately \$60 million. Funding distribution for this phase:

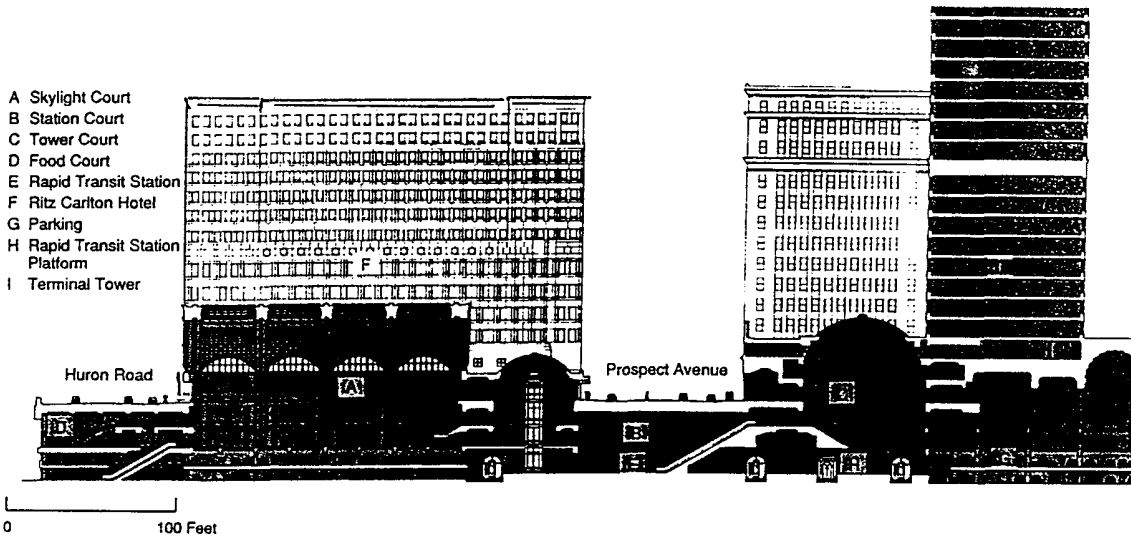
FTA	\$42.0 million
HUD/UDAG	\$ 4.5 million
Ohio Dept. of Transportation (ODOT)	\$ 6.5 million
RTA	\$ 7.0 million

The Tower City Center project had a total cost of \$388 million, including the bridge repair program, site development and construction, station reconstruction, plus engineering costs. Redevelopment of the building includes 360,000 square feet of shopping space (on three levels), an 11-screen cinema complex. 1.4 million square feet of office space, a 208-room luxury hotel, pedestrian walkways, and transit-related renovations. Also included are 3,150 parking spaces and indoor passageways linking the Center to Dillard's Department Store, the 500-room Stouffer Tower City Plaza Hotel, and two additional office buildings. A portion of the underground walkway to the Gateway Sports Complex cost was paid for by Congestion Mitigation/Air Quality (CMAQ) funds. All of these projects were completed prior to 1995.

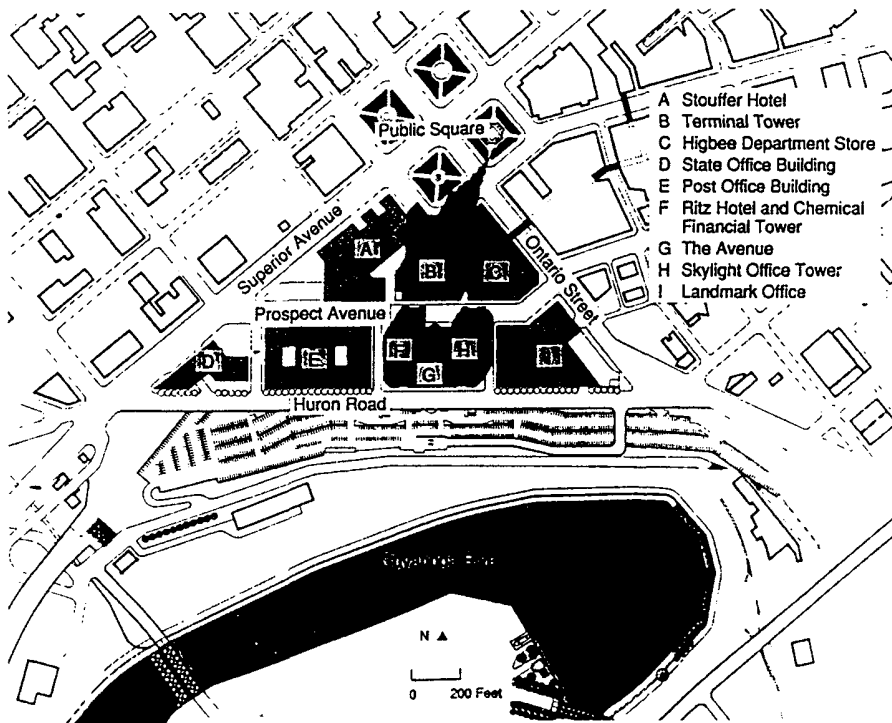
D. Current Status of the Project

Work is underway in 1995 on a new Waterfront light rail line. This development is a part of the RTA's *Transit 2010* plan. The new line will provide service to stores, offices, entertainment, and other development planned in the northern part of the downtown, between Tower City and the North Coast Harbor. The current project is being funded entirely with public (RTA and state) funds. No federal funds are being used. It is being built primarily on existing surface streets.

The Waterfront Line is projected to cost \$60 million, financed with \$11 million of State Gas Tax Funds and \$10 million from the State Capital Improvement Fund. The balance comes from local funding sources. A graphic portrait of the project is shown below, taken from a case study report by Bob Dunphy for the Urban Land Institute.



Longitudinal Section through Complex



Site Plan

DIRECTIONS

From Cleveland Internatic Airport: By car, travel north which will merge with I-91 Ontario and turn north; tu Huron Road and proceed to ect. By rapid transit, board port and exit in the project *Driving time:* 15 minutes peak traffic.

DEVELOPMENT SCH

Site Purchased: Novembe
Bridge Repairs: 1984-1986
Planning Started: October
Construction Started: July
Leasing Started: Mid-1985
Project Completed: Retail: N
Station and hotel: Decem
Skylight Office: June 199

E. Future Plans for the Project

Commuter rail and long-distance, intercity rail services are being planned as future expansions from the Tower City Terminal, along the guidelines of the *Transit 2010* plan. RTA also expects to relocate and extend its current heavy-rail red line service further west, and add additional stations downtown. Commuter rail service is planned to Medina (40 miles), Akron (50 miles), Aurora (30 miles), and Mentor (40 miles). There has also been discussion of adding high speed rail to the intercity rail lines. Included in long-range plans is an intention to relocate the AMTRAK station into the Tower City Terminal. An accessway connecting the Federal Courthouse building is currently in the conceptual stages.

II. Partnership Description

A. Steps in Developing the Partnership

This partnership between a private land development company and its home city was brought about by the strong civic responsibility ethic assumed by the owners of Forest City Enterprises. Forest City Enterprises worked closely with the Mayor of Cleveland, George Voinovich (currently governor of Ohio), to develop the project concept. A new company was formed, Tower City Development, Inc., primarily to revitalize the Tower building and adjoining buildings, but also to work with the RTA and the city to improve transit service and revitalize the entire downtown area.

The approach to the project was as a joint development effort, with commercial space located over a public transportation hub. The partnership was strengthened by the involvement of a dedicated project manager from the development company and a counterpart project manager from the RTA, Donald G. Yuratovac. These two individuals provided single points of contact for the two prime developers of the project. Several representatives of the City's Economic Development Agency were involved, none of whom are currently employed with the City.

B. Partners: Roles and Responsibilities

The initial bridge improvement partnership includes:

- Tower City Development, Inc - provided technical expertise and oversight coordination with respect to the building redevelopment

- ODOT - oversight of bridge reconstruction and funding for station
- UDAG - provided funding
- FTA - funding and consistency with overall federal transit program
- RTA - conduit for FTA funding
- FHWA - funding

The Tower City Center redevelopment partnership includes:

- Tower City Development - planning, design, and reconstruction of the Tower City Terminal
- RTA - rail station and transit-related improvements
- City of Cleveland Economic Development Department-conduit for funding

The Pedestrian Walkway partnership includes:

- ODOT - funding
- Gateway Economic Development Corporation - project planning, design and construction oversight
- Tower City Development - project planning, design, and construction oversight
- RTA -Planning, design, construction, and financing
- City of Cleveland - coordination with downtown development plans

The Waterfront Line partnership includes:

- RTA - Planning, design, construction, and financing
- City of Cleveland - Coordination with downtown development
- ODOT- Funding

C. Person/Organization Most Responsible for Development of the Partnership

The initiation of this project came from the Ratner family and Forest City Enterprises.

D. Person/Organization Most Responsible for Maintenance of Partnership

Two individuals have been primarily responsible for maintaining the day-to-day working relationships for the projects, Doug Lund with the development company and Don Yuratovac with the RTA.

E. Organizations Indirectly Involved in the Partnership

Local and contractual organizations involved include:

- RTKL Associates -- planning and architectural firm with headquarters in Dallas. contracted by the developer to provide professional design services for the terminal facilities and commercial facilities
- Western Reserve Historical Society -- input and advice to the historical preservation process (Ohio State Historic Preservation Office's Northeast Ohio regional representative was on staff at that time)
- Cleveland Landmark Commission -- reviewed design (a strong proponent)
- The Greater Cleveland Growth Association (Chamber of Commerce) -- economic development guidelines and assistance
- City of Cleveland Planning Department -- design guidelines, approvals
- Press -- good coverage of the project; public perception was good
- Fine Arts Commission -- design approval
- Planning Commission -- design approval

State organizations involved include:

- Ohio DOT District Office (Cleveland) -- planning support and construction inspection
- Ohio State Historic Preservation Office (SHPO) -- approval of design with qualifications

Federal and other national organizations involved include:

- FTA (formerly UMTA) -- funding for transit-related improvements
- FHWA -- funding for the bridges providing access to the building
- Department of Housing and Urban Development (HUD), UDAG -- funding for building renovations
- National Register of Historic Places, through the Department of the Interior Regional Offices in Philadelphia-- Final approval of design
- National Trust for Historic Preservation, a non-profit corporation--private sector involvement and collaboration with the NPS on criteria of the National Register

F Organizations That Should Be Officially Involved

According to the development company, the office that should have been more involved in maintaining the partnership, once it had been established, was the Mayor's office from the City of Cleveland. After initial discussions and agreement by the Mayor and Tower City Development that the project would be carried out by the partnership, there was no direct involvement at the project management level.

III. Partnership Evaluation

A. Motivation Behind Formation of the Partnership

Forest City Enterprises had undertaken large development projects in major cities throughout United States. Albert Ratner and the Ratner companies saw an opportunity to do something for their own City of Cleveland. They recognized the potential commercial value of a centrally located retail and recreational activity center with a built-in market of over 120,000 daily transit passengers passing through the terminal building. Forest City was the facilitator in accelerating the planning and design process.

RTA's motivation was that a renovated Terminal Tower Building would increase ridership and create a more efficient operation that would reduce operating expenses. In addition, it was anticipated that the improved visual and operational aspects of the project would increase ridership.

B. Goals of the Partnership

The following represents goals, as expressed by members of the partnership:

- To revitalize investment in downtown Cleveland and overcome the national image of Cleveland as a "dying" city.
- To save a historically significant building from eventual destruction.
- To create an effectively-utilized, dynamic mixed-use facility so that the intermodal aspects and commercial aspects will complement each other and increase each other's customer base.
- To restore civic pride in the city as a whole and highlight the downtown with a centerpiece that would attract other development.
- To make transit service, particularly rail service, more consumer-oriented and provide incentives for increased commuter rail utilization through the city center.

C. Success in Achieving Goals

The partners perceive the project as very successful in revitalizing the downtown area of Cleveland. The Tower City Center has served as the catalyst for new development (and improvements), including construction of the Gateway arena and stadium, renovation of the historic Post Office Building as the M.K. Ferguson Building, the Ritz Carlton luxury hotel, the Society Tower, and the Marriott complex.

The partnership was successful in opening the eyes of the public to the potential of revitalizing the core of the City. The opening of the Rock & Roll Hall of Fame -with much fan fare- in September 1995 is expected to create a push for more hotel space on the adjacent lakefront area, along with additional transit customers for the Waterfront Line. The nearby Technology and Science Museum, being built on the Cuyahoga River, is to be completed in mid-1996. This will generate additional demands on the Waterfront Line.

Overall, the historical significance of the Tower City Center has been preserved, which would not have been the case had it not been restored.

Most retail tenants continue to exceed their annual sales projections. The fact that retail sales now average over \$320 per square foot testifies to the project's success.

In terms of meeting the goals of the RTA, users of the system have shown satisfaction with the improved station facilities. The initial market response was an increased rail ridership by 30 percent following the opening of the new terminal in December 1990. Peak rail passenger usage rose to an average of 30,000 passengers per day. Along with the 60,000 bus rider trips at the terminal, approximately 90,000 people use the terminal daily. Despite the increased transit usage at the terminal, overall system-wide ridership has declined in recent years. This decline is not inconsistent with national ridership trends over the past decade.

According to the RTA's project manager, Don Yuratovac, the goals that were established in 1988 for the transit system resulting from the project have been achieved to the following extent:

- Improved security
- Improved transfers between rail lines
- Improved efficiency of bus-rail transfers
- Improved pedestrian and vehicle access to the station
- Improved access for the elderly and disabled
- Reduced station operating costs
- Increased system productivity

D. Legal Issues

Legal issues encountered by the partnership included the following:

- Restrictive statutory requirements - sole source contracting for professional services is prohibited by the FTA; this issue was resolved by signing an Acquisition Agreement to allow the developer to be responsible for design and construction, and the RTA to purchase the project components as they were completed.
- Arbitration process - as a result of the Acquisition Agreement issue, a dispute arose between the developer and RTA that went to arbitration; this process was only recently resolved.

- Administrative hearings and arbitration -- was resolved with a ruling against the developer and the loss of federal historical property rehabilitation tax credits.

E. Technical Issues

Technical issues encountered by the partnership include the following:

- Structural restoration and rehabilitation of downtown street bridges that form the roof of various sections of the building.
- Space requirements and limits on how historic properties can be renovated.
- The developer's need for obtaining as much public funding as possible.
- From an engineering, architectural, and financial perspective, the project was extremely complex.

F. Institutional Issues

Institutional issues encountered by the partnership include the following elements, most of which were overcome during the course of time:

- Trust -- the partnership realized from the beginning that it had to work hard to build mutual trust: the latter partnerships work much more smoothly due to the trust that was built in the early bridge and building projects.
- Scheduling -- Tower City Development had some difficulty in working with the schedules imposed by the approval process for obtaining federal funds.
- Inclusiveness -- It was expressed by the public sector that it is important to work with the business community.
- Involvement of a large number of federal agencies; this greatly increased the project length and complicated negotiations among project partners and involved organizations. For example, the FTA decided at one time that it needed to employ its own contractor to provide management and financial oversight. This took time to resolve in order to avoid a completely unworkable situation.

- Communications - Inadequate and sometimes difficult coordination and communications between the developer, city, and RTA officials. One illustration was the fact that both the developer and, subsequently, the RTA hired their own engineering firms; this was resolved by an agreement to share engineers with common functional responsibilities.
- Project management -With the divergent and sometimes conflicting interests of the two major partners (Tower City Development and RTA), project management was a complicated task.
- Inconsistency of approval guidelines of local groups for the historic preservation process - Some involved parties provided a broad perspective of the overall restoration project, whereas other parties focused on a more narrow aspect of the project; this resulted in the lack of a common vision.
- Federal requirements - conflicting objectives and requirements also occurred between FTA and the National Register of Historic Places.
- Funding coordination - Public funding from federal, state and local sources had to be carefully coordinated with the projected schedule of construction in order to maintain cash flow to the contractors.

G Barriers to Forming/Maintaining the Partnership That Were Overcome

There were several barriers that were overcome:

Midstream in the project, the RTA was required by FTA to bring in their own architectural design firm, which caused a dispute, leading to a three-month delay. The issue was resolved with a compromise of shared responsibility: RTA would be responsible for the transit-related aspects and walkways, while Tower City Development would be in charge of the commercial aspects of the building. The developer's architect was named overall coordinating architect.

Initially, a low level of civic pride and lack of confidence in the physical ability of the partnership to restore the decaying downtown hindered the political support for the project. For example, this lack of total support made the process of negotiating the acquisition of property a longer process than was necessary.

H Barriers That Were Not Overcome

Litigation potential and continued adversarial relationship between developer and public entities at local and federal levels continues to be a latent barrier in the partnership effectively working together.

It should be noted that the state agencies involved were very supportive, especially ODOT. However, the SHPO provided only a conditional approval of the project's approval as a certified renovation of a historic property eligible to receive federal tax credits; this lack of complete support was seen as a partial reason for the private developer's rejection of its claim of \$18 million in tax credits. Tower City Development understood that such credits had been awarded to similar projects in other cities.

I. Favorable Outcomes of the Project

There were several favorable outcomes of the project, including the following:

- Tower City historic building was saved
- Tower City Center served as a catalyst for downtown redevelopment
- Demonstration that there is value in the downtown CBD
- Mixed-use concept was proven effective
- A decaying central transfer center for transit riders in several modes was completely restored, resulting in increased patronage
- Enhanced image of RTA

J. Unfavorable Outcomes of the Project

Unfavorable outcomes include the following:

- Loss of Federal rehabilitation tax credits, due to the diverse interests of federal agencies.
- Operational costs of the public space associated with the retail part of the development is marginally increased; this is due to much longer, non-productive time to accommodate early and late transit schedules.

K. Changes Needed in the Partnership Arrangement

Members of the partnership expressed changes needed in the partnership that would have increased the projects success. including the following:

- There was a need for involvement of RTA officials who had more authority and provided consistency of day-to-day project management and RTA policies. During the eight years when the project was being developed, there were several upper level management changes within RTA.
- Throughout the project, numerous contracts were planned, negotiated, and executed by both the developer and RTA. Both partners strongly recommend the formation of a single, coordinated project development team. This team would include a single A&E firm, a single construction manager, and a single point of contact and coordination for each partner.
- The project partners should have had a better understanding of agreements between each other.

L. Applications of Elements of the Partnership Arrangement

This project is a showcase that can be used for similar projects around the world. It involved special features such as a common housing of retail and office space, and a major passenger transportation terminal. Also, it involved the rehabilitation of a historically significant building. The development and maintenance of this partnership should be used as an example for other projects. For example, in Red Square, Moscow, a similar project is being planned using the Tower City project and its public-private partnership as a model.

As another application, the State of Ohio sees the partnership arrangement as a continuing entity to be used for other transportation in the Cleveland area. A copy of the Memorandum of Understanding between the Greater Cleveland RTA and Tower City Properties is shown in the Appendix.

M. Keys to the Success of this Partnership

Keys to the partnership's success are listed below, representing thoughts expressed by members of the partnership.

- Risk-taking element - Forest City Enterprises made a tremendous investment of time and resources in a project that could have been a financial failure.

- Commercial development and the transportation system compliment each other:
 - quick, efficient, economic transport helps attract customers to the commercial/ retail central city development;
 - an attractive destination draws customers to use public transportation.
- Don Yuratovac, RTA's Manager of Facilities Planning and Project Development, and Doug Lund, Tower City's project manager, were involved with the project since its conception and maintained a close professional relationship throughout the eight-year development process; this provided a continuity of knowledge and experience on the job.
- The uniting of powerful, strongly motivated public and private organizations to pursue focused development objectives.
- Forest City Enterprises realized a substantial net increase in their property assets, and acquired an important catalyst for further development in the immediate downtown area.
- Timely communication among partners on important issues (e.g., before they appear in the local newspapers).
- Public agency point-person, Don Yuratovac, was instrumental in serving as an effective communication link and taking action on issues in a timely manner.
- An element of mutual trust was essential.

IV. Follow-up Information

A. Continuing or One-Time Partnership Arrangement

The development of the Tower City Center project was a unique opportunity for a large American city to work in partnership with a private development company on a major, multimodal transportation project. The development company had previously been, and is continuing, to develop public-private partnerships not only with the City of Cleveland, but with other communities and public agencies throughout the country. The developer's project manager, Doug Lund, is currently involved with other projects nationwide. The RTA's project manager, Don Yuratovac, is working overtime to complete the Waterfront line in time for Cleveland's 1996 Bicentennial.

B Documentation

Project Reference File Tower City Center, The Urban Land Institute.

"All American Public/ Private Partnership," Cleveland, Forest City Enterprises, Inc. Annual Report, 1994.

Cleveland Plain Dealer, newspaper articles, August and September 1990, April 1995.

Memorandum of Understanding between the Greater Cleveland RTA and Tower City Properties. September 5, 1985.

C. Key Contacts

- Don Yuratovac, Greater Cleveland Regional Transit Authority, 615 West Superior. Cleveland. Ohio 44113; (216) 566-5085, FAX (216) 781-4726
- Doug Lund, Consultant, 2900 Terminal Tower, Tower City Center, Cleveland. Ohio 44113; (216) 464-2860

NCHRP Project 8-32(4)

Case Study Report

Project: Tower City Center
Cleveland, Ohio

File: 29

Type of Partnership: Public-Private

Interviewers: Dr. Edd Hauser
Ms. Amy Breese

Interviewees: Doug Lund, Senior Vice President
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Date: 7-28-95

Phone interview(s):

Don Yuratovac
Greater Cleveland Regional Transit Authority
615 West Superior
Cleveland, Ohio 44113
(216)566-5085
(216)781-4726
Date: 8-15-95

Note: This case study report was prepared based on personal interviews with the persons indicated. Although it is intended to represent their ideas and opinions, responsibility for how those ideas and opinions have been interpreted and recorded remains solely with the authors.

MEMORANDUM OF UNDERSTANDING

THIS MEMORANDUM OF UNDERSTANDING is made and entered into at Cleveland, Ohio this 5th day of September, 1985, by and between THE GREATER CLEVELAND REGIONAL TRANSIT AUTHORITY, a body corporate and politic formed under the laws of the State of Ohio ("RTA"), and TOWER CITY PROPERTIES, an Ohio general partnership.

WITNESSETH:

WHEREAS, TCP has acquired from the Cleveland Union Terminals Company ("CUT") certain real property, containing approximately thirty-four (34) acres in the City of Cleveland, State of Ohio, being the so-called "Terminal Area" of CUT, constituting a portion of the real property owned by CUT, including property which is located between certain planes in the Cleveland Union Terminal (the "Concourse"), and the property purchased by TCP is hereinafter referred to as the "Premises";

WHEREAS, CUT has retained ownership of (i) certain real property abutting the Premises commonly known as the East Approach and West Approach to said Premises, as well as (ii),/an area located **below** a plane at an elevation of seventeen and one-half (17-1/2) feet above the top high rail at track level (the "Rapid Platform Property");

WHEREAS, TCP has an option to purchase the Rapid Platform Property from CUT, to date, however, such option has not been exercised;

WHEREAS, TCP has launched a comprehensive development project in and around the Premises known as the Tower City Center Project (the "TCC Project")

WHEREAS, it is contemplated that the TCC Project will include the construction of a new world-class hotel, the renovation of an office building, the construction of a fourteen (14) story office tower, and the creation of a new multi-level retail area expanded within the Concourse of the Terminal Area;

WHEREAS, RTA has succeeded to certain rights of use and control and rights of joint use of certain premises, including portions of the Concourse, as well as the Rapid Platform Property, in connection with the operation of its Rapid Transit passenger line pursuant to two (2) certain instruments, each entitled Lease and Agreement and dated May 10, 1951, by and between CUT, as lessor and the City of Cleveland and the City of Shaker Heights, respectively, as lessees, both as subsequently amended (said instruments being hereinafter referred to collectively as the "Transit Leases");

WHEREAS, pursuant to an agreement TCP has assumed the interests of CUT under the Transit Leases as to the Terminal Area only;

WHEREAS, RTA has determined to reconstruct and renovate its only downtown Rapid Transit Station located in the Terminal Area, the focal point of the TCC Project and reconstruct certain portions of the Concourse and Joint Areas within the Terminal Area, which renovation will entail combining and relocating RTA entrances in the Concourse, renovating the rapid transit loading area at track level located on the Rapid Platform Property, improving pedestrian accessways, constructing escalator and elevator access, and constructing pedestrian bridges;

WHEREAS, the parties acknowledge their inter- relationship and inter-dependence and wish to memorialize their general agreements through a Memorandum of Understanding:

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained, the parties hereto do hereby agree with each other as follows:

1. Allocation of Costs - Concourse Rehabilitation and Development.

It is agreed that TCP will waive any option or right it may have under the Transit Leases to transfer to RTA any portion of the costs associated with the rehabilitation of the Joint Use Areas in the renovated Concourse as

reflected in the previously agreed upon architectural plans and drawings; provided, however, that RTA shall pay its fair and ratable share of costs associated with future capital improvements within the Concourse, so long as those improvements are transit related.

If, however, adequate RTA sponsored or generated funding and/or financing is not available to achieve the objectives associated with transit related elements of the Concourse rehabilitation as currently reflected in the architectural plans, the parties agree to meet to determine mutually whether such plans can be revised so that transit related renovations can be achieved within the limits of available funding.

2. Tracks 11, 12 and 13.

The parties acknowledge that revised architectural plans necessitate that the passenger loading area on the Rapid Platform Property be relocated to a portion of the Premises owned by TCP, which TCP currently utilizes for parking purposes.

In order to effectuate this process, the parties agree to facilitate a substitution of the properties as follows:

(a) TCP agrees that it will exercise its option to acquire from CUT legal title to the Rapid Platform Property, thereby becoming successor in interest to CUT under the Transit Leases, solely as to the Terminal Area.

(b) Subsequent to the exercise of such option and transfer of CUT's interest to TCP, RTA and TCP will enter into an Amended Lease, which Amended Lease shall be substituted for the Transit Leases, pursuant to the terms of which RTA will release its leasehold interests in a portion of or all of the fee underlying Tracks 1 through 5 and TCP shall substitute therefor a portion or all of the fee underlying Tracks 11, 12 and 13, as of the leasehold;

(c) Inasmuch as such substitution would result in a loss of certain income producing parking spaces to TCP, and since RTA wishes to hold TCP harmless, RTA has agreed to satisfy all reasonable costs

associated with providing the maximum practicable number of parking spaces on the fee underlying Tracks 1 through 5 in a manner so that the economic value attributable to the number of substituted parking spaces as funded by RTA as to the fee underlying tracks 1 through 5 will be approximately equivalent to the economic value of the abandoned parking spaces situated upon the fee underlying tracks 11, 12 and 13. To this end, RTA will satisfy all reasonable costs associated with the construction of a vehicular access ramp, paving, striping, and if necessary, an overhead parking deck and access thereto, all in conformity with specifications and firm cost estimates supplied by TCP, so long as (i) the costs associated with the foregoing can be funded through the use of so-called business relocation funds, a component of an RTA sponsored Urban Mass Transportation Administration ("UMTA") Grant in connection with the TCC Project and (ii) the actual costs to be assumed by RTA for relocation of approximately 225 parking spaces, but in no event to exceed \$2.5 million.

If business relocation funds in the required amount are not made available by UMTA, RTA agrees to provide alternate sources of funds for this purpose.

If, however, TCP chooses to utilize any portion of the fee underlying Tracks 1 through 5 for commercial purposes, other than for parking, the parties agree that TCP shall pay to RTA an amount calculated by multiplying the appraised value of the fee underlying Tracks 1 through 5 (the "Substituted Area"), by a fraction, the numerator of which shall be that portion of the Substituted Area, measured from track level to the top of the catenary

parking purposes, and the denominator of which shall be the total area, in cubic feet, of any structure of facility constructed upon the Substituted Area designed for commercial, non-parking purposes.

3. Purchase of the Rapid Platform Property.

The parties acknowledge that RTA wishes to acquire the entire Transit Right-of-Way, as defined in the Transit Leases. A portion of the Transit Right-of-Way flows under the Terminal Area and is commonly known as the Rapid Platform Area.

Subsequent to the execution of this Memorandum of Understanding and subsequent to TCP's acquisition of the Rapid Platform Property, it is agreed that:

(a) in consideration of the payment by RTA to TCP of approximately \$7.0 million, or the appraised value of the Rapid Platform Project, subject to the receipt of an UMTA Capital Grant to satisfy the costs of acquisition thereof, TCP shall:

(i) transfer to RTA legal title to the Rapid Platform Property and upon such transfer, the provisions of the Amended Lease relating to the Terminal Area, as referred to in Section 2(b), above shall terminate, and

(ii) affirmatively waive its rights to charge or otherwise attribute to RTA any portion of maintenance expenses in connection with the renovated Concourse, as well as the Joint Use Areas therein, under the Maintenance Agreement provided in Section 4 for a period of time to be agreed upon between the Parties from the date of title transfer; or

(b) if UMTA financing is not available within 15 months of

purchase TCP's undivided one-half interest in the Rapid Platform Property purchase TCP's undivided one-half interest in the Rapid Platform Property for a purchase price of \$1.5 million; such purchase price shall be evidenced by a Promissory Note, and shall be secured by a first mortgage lien on the Rapid Platform Property in favor of TCP, and such Promissory Note shall (i) bear interest at the prime rate of Bank of America, as in effect from time to time, (ii) have a term of ten (10) years, (iii) shall amortize over thirty (30) years, and (IV) shall be subject to a so-called balloon payment upon maturity.

4. Maintenance Agreement.

It is agreed that

RTA and TCP shall enter into a Maintenance Agreement which shall relate to RTA's prorata share of costs associated with normal maintenance, repair obligations, security, and utilities for the renovated Joint Use Areas within the reconstructed Concourse. Such Maintenance Agreement shall contain adequate renewal options.

The parties hereby agree that the Base Cost for RTA's share of aggregate maintenance costs shall be the following for the years indicated:

1989 - \$450,000

1990 - \$475,000

1991 - \$500,000

Provided, however, that (a) such Base Cost for each year indicated shall escalate in the following year based upon an index, which index shall relate to the actual costs of utilities, security, and labor (the "Escalation Factor"), and it is agreed, however, that each Escalation Factor based upon the foregoing index of factors shall not exceed ten percent (10%) of the Base Cost and the Escalation Factor for the prior year and (b) for every one percent (1%)

reduction of five percent (5%) to RTA's escalation cost payable to TCP for the next ensuring year. If ridership in any year shall increase by more than 20%, RTA shall be credited with the amount of increase over 20% in the next ensuing year by crediting such increase against the cost of escalation using the same formula indicated herein.

5. Acquisition of the Transit Right-of-Way from CUT.

TCP acknowledges that RTA intends to acquire the East Approach and the West Approach of the Transit Right-of-Way, from CUT at little or no cost.

It is agreed that TCP does hereby pledge to assist and cooperate with RTA in the acquisition of such Approaches.

6. Approval.

The parties acknowledge and agree that this Maintenance Agreement is subject to the approval of and authorization of the Board of Trustees of RTA and the partners of TCP, respectively, and shall become binding upon the receipt thereof.

IN WITNESS WHEREOF, the parties have signed this Memorandum of Understanding as of the date first above written.

WITNESSES:

[Signature]
[Signature]

THE GREATER CLEVELAND REGIONAL
TRANSIT AUTHORITY

By [Signature]
Its Acting General Manager

TOWER CITY PROPERTIES
By Concourse Development, Inc.

By [Signature]
Its President

Case Study of the New York - Ontario International Border Crossing

Executive Summary

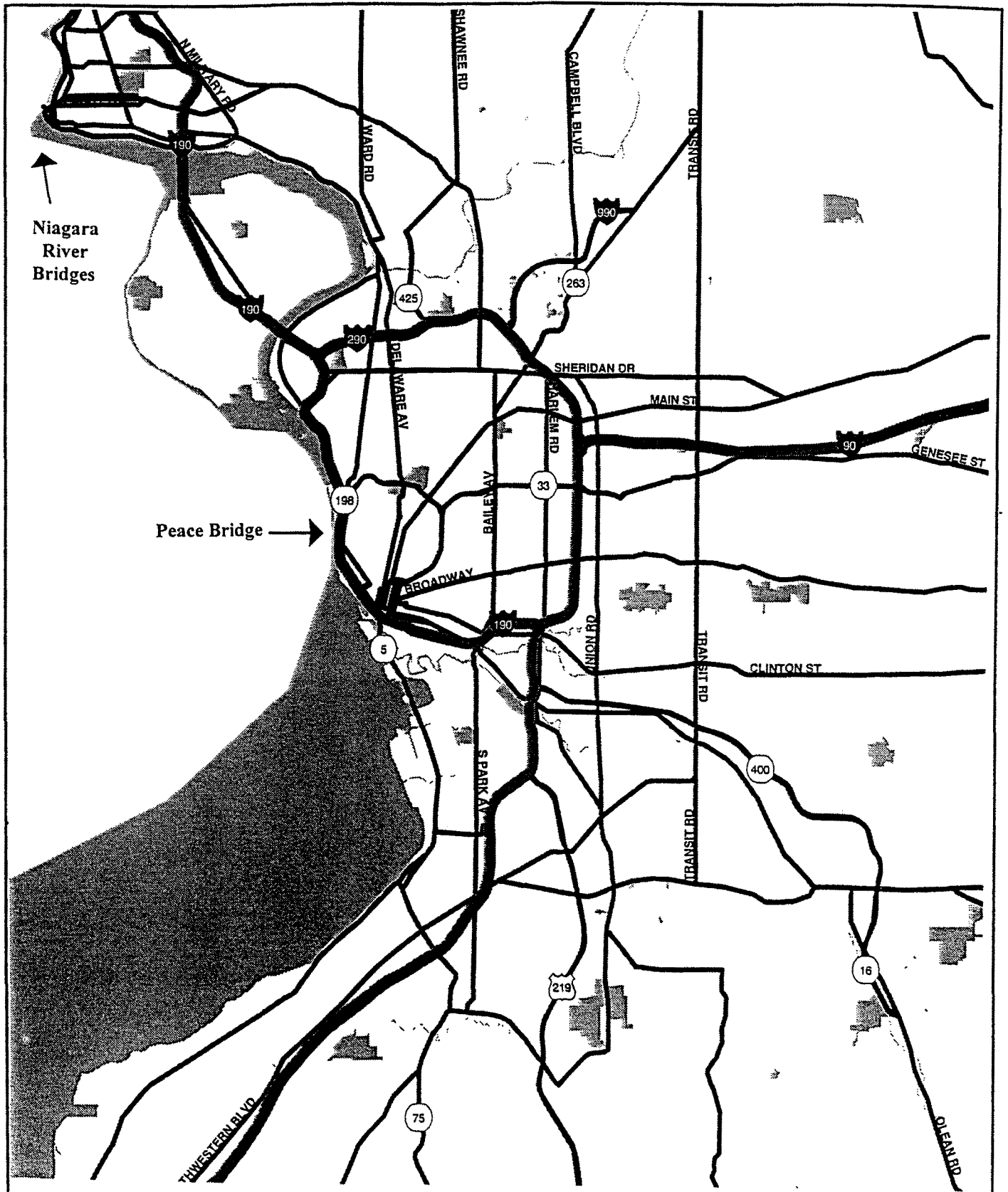
This case study report describes a partnership that exists to meet the transportation needs of the Niagara Frontier region in western New York, the Province of Ontario, and southeastern Michigan. The "partnership" in this case has grown from the interaction of an interagency traffic management and bridge operations committee involving local, state and federal transportation organizations in the region. The case study has focused on the New York - Ontario crossing.

One of the current projects underway is the planning, design, construction, and operation of an Automated Vehicle Identification (AVI) system to collect tolls and provide automated clearance of commercial and passenger vehicles through immigration and customs at the Niagara River international border crossings.

From its inception, this partnership functioned as a single, large committee of 45-50 people in 12 organizations. Recently, it has reorganized into several subcommittees, and focused on the AVI project. A recognized factor that has limited and slowed the partnership's success to date is the lack of an executive committee. Another change needed and anticipated is more involvement of local decision-makers, such as a representative of the City of Buffalo.

However, there have been notable successes. Funding was recently identified as a source for funding the operational improvements needed for the AVI system. The informal committee has organized itself as "NITTEC," the Niagara International Transportation Technology Coalition. There are several key's to the partnership's achieving some of its goals:

- An understanding among partners that continuing dialogue is needed to understand all stakeholder's perspectives.
- The cooperation between the two bridge authorities operating the four bridges crossing the Niagara River.



Kimley-Horn
and Associates, Inc.

New York - Ontario
International Border Crossing
Major Highways

I. Project Information

A. Project Description

The New York - Ontario International Border Crossing Project consists of 3 separate but integrated activities:

- 1) US/Canadian Niagara River International Bridge Study completed mid-1993:
- 2) Niagara Border Crossing ITS Technology Committee (ITS Committee) - began Feb. 1994; this committee was succeeded by:
- 3) Niagara International Transportation Technology Coalition (NITTEC) - originating May 1995.

One of the recommendations of the first activity, the border crossings planning study for Buffalo, Niagara Falls and Niagara County was the development of the NITTEC. The planning study by Parsons-Brinkerhoff was finished in mid-1993 at an approximate cost of \$2 million. Ontario and New York each paid half the cost.

NITTEC is an organization set up by the FHWA to provide a revolving loan fund for potential use on border crossings projects between New York and Ontario only. Four highway border crossings are included: Rainbow Bridge, Whirlpool Bridge (carries both highway and rail traffic), Queenston-Lewiston Bridge, and Peace Bridge. The mission of NITTEC is to improve regional and international transportation mobility, improve economic competitiveness, and minimize adverse environmental impacts of the regional transportation system. Projects include improving safety and operations, coordinating incident notification and response, reducing congestion, constructing new facilities, and deploying ITS elements. Organizations must be contributing members to be a part of NITTEC (20% match required from state and local sources to secure FHWA funding).

NITTEC consists of approximately 40-50 individuals from 25 organizations. It meets bi-monthly. It oversees a consultant, Marshall, Macklin, Monaghan, Ltd. (MMM), which is developing the preliminary system architecture for an AVI system to automatically collect tolls and provide automated clearance of trucks through immigration and customs. The interagency project committee of NITTEC perceives the main issue as an operations problem through customs and immigration more than a long-term bridge capacity problem.

B Modes Included

- Highway, passenger and freight
- Rail - included in the planning study, but no issues emerged that needed to be solved
- Bridges - three are highway only; one bridge is a stacked rail/highway bridge
- Pedestrian and bicycle traffic is accommodated on all but the stacked bridge
- Aviation -Toronto Airport congestion was examined in the planning study, and may be incorporated in future congestion management activities of the Committee
- Transit (people-mover) - existing people mover on both sides (Niagara Parks), but considering extending service across the border (tourist service)
- Passenger ferry service was given consideration as a mid-term solution for Peace Bridge to alleviate peak summer tourist traffic congestion
- Water taxi (private)

C. Total Cost of the Project/Cost-Sharing Arrangements

- Planning study - \$2 million, funded by New York State DOT (NYSDOT) and Ontario Ministry of Transport
- ITS Committee project (MMM preliminary design study) - \$ 200,000 add-on for New York, paid by NYSDOT
- ITS Committee Project (projected system implementation cost) - \$3 million, with the sources of funding yet to be determined
- NITTEC - a \$5 million project development fund (with the \$3 million system implementation cost possibly coming from this fund)

D. Current Status of the Project

The planning phase has been completed. It involved the statewide and regional office planning functions from the NYSDOT, working with the other agencies and the consultant. Preliminary design for the ITS/AVI system was scheduled for completion in October 1995. The ITS Committee is currently working on the funding package for a design-build contract. FHWA wants early deployment of ITS technologies (by December 1995). A Memorandum of Understanding (MOU) for NITTEC was signed in late summer 1995.

NITTEC includes agencies in the Niagara Frontier region of New York and Ontario, as well as from southeast Michigan. Both crossing operators, the Peace Bridge Authority and the Niagara Falls Bridge Commission, are implementing long-range plans to improve regulatory functions and meet long-term capacity needs. The NITTEC Mission and Vision statements are contained in the appendix to this case study report.

E. Future plans for the project

The ITS Committee recognizes that it must develop a complete funding package for the design-build contract. Future plans for the project include deployment of the ITS elements, which will improve traffic management and customs and immigration processing at all international crossing locations.

II. Partnership Description

A. Steps in Developing the Partnership

The ITS Committee evolved from a long-standing working relationship of New York State DOT (NYSDOT) and Michigan DOT (MDOT) with the Ministry of Transportation in Ontario (MTO). Such a relationship stems from the fact that much traffic between Minnesota, Michigan, and New York traverses Canada rather than the US, and that a great majority of trade between the US and Canada takes place at the border crossings of the Niagara Frontier.

Kick-off for the ITS Committee took place in February 1994. It was initiated after Gabe Heti, MTO, suggested to representatives in New York and Ontario that the Advantage 1-75 Corridor concept should be extended through Ontario and NY State. The Michigan/Ontario border crossings project had run into operational problems with the customs/ immigration processing functions at the Ambassador Bridge, and representatives looked to New York for help. Also, MTO wanted consistent technology at all of its border crossings. Local government and economic development interests were invited. The consultant working on the Michigan - Ontario project (MMM) received an add-on to do the preliminary design work for the NY-Ontario Border Crossing. NYSDOT reimbursed MDOT for its part of the work.

The original partnership formed to complete the planning study included the following:

- NYSDOT
- MTO
- Niagara Falls Bridge Commission (NFBC)
- Buffalo and Fort Erie Public Bridge Authority (BFEPBA)
- New York State Thruway Authority (NYSTA)

The funding partners for the ITS Committee preliminary design for New York Crossings are listed below:

- NYSDOT
- MTO (contract handled by MTO)
- FHWA
- NYSTA
- Canada Customs
- Transport Canada. the national transportation administration for Canada

B Partners: Roles and Responsibilities

The following groups are members of the ITS Committee:

- FHWA -- Funding provided for NITTEC (and possible funding for ITS Committee Project through this fund) and partial funding for ITS Committee preliminary design (MMM).
- NYSDOT -- Provided planning study funding (no contract between the two agencies), MMM preliminary design funding and has operational responsibility for mobility, safety, and compatibility among traffic control systems.
- Michigan DOT (MDOT) -- Same operational responsibilities as NYSDOT.
- MTO -- Same roles as NYSDOT.
- Buffalo and Fort Erie Public Bridge Authority, the Peace Bridge -- Traffic flow across Peace Bridge: (it should be noted that this bridge carries the heaviest volume of traffic of any international border crossing between the U.S. and Canada or the U.S. and Mexico.

New York- Ontario International Border Crossing

- Niagara Falls Bridge Commission -- Traffic flow across the three highway bridges in Niagara County (crossing the Niagara River). The two bridge authorities did not put money into the planning study, but participated and helped manage the study institutionally; the two authorities also have both a cooperative working relationship and at the same time compete to some extent for "business".
- New York State Thruway Authority -- Concerned with traffic flow across Peace Bridge, provided MMM preliminary design funding.
- Transport Canada -- Canadian agency comparable to FHWA.
- US Customs Service/Immigration Service -- Enforce customs and immigration laws of US by preventing illegal shipment and entrance into US. Customs is concerned with the goods being transported into the country, while Immigration is concerned with the people.
- Canadian Customs Service/Immigration Service -- Same role as US.

C Person/Organization Most Responsible for Development of Partnership

The following is a list of the people and organizations most responsible for the development of the partnership:

- Bob Russell, Regional Director, NYSDOT
- Gabe Heti, MTO
- Peter Baird, OTA
- Steve Mayer and Ron Lampman, BFEPPA
- Joe Tsai, MTO

D. Person/Organization Most Responsible for Maintenance of Partnership

- Rod Sechrist, NYSDOT (Traffic). is the facilitator in the partnership
- Co-chairs of the ITS committee: Jim Barnack (NYSDOT), Colin Rayman (MTO), and Kumar Rajendra (MDOT).

E. Organizations Indirectly Involved in the Partnership

The following are organizations which are indirectly involved in the partnership:

- NFTC -- designated MPO for transportation activities, maintains planning database and provides continuing planning support, attends some meetings (but not an active participant)
- Volpe Center -- under contract with FHWA to evaluate the project (documentation of all border crossings' activities)
- MMM -- consultant on ITS Committee Project
- Shippers (AIAG- Automotive Industry Action Group- Michigan, and other shippers)
- JHK -- subcontractor on ITS Committee Project
- CCL (Constance Consultants, Ltd.) -- subcontractor on ITS Committee Project
- Ontario Trucking Association (OTA)
- Northern Brokers Association
- American Trucking Association (ATA)
- NAFTA -- increase in international trade
- FDA -- participant in some planning
- New York Motor Carriers
- Canadian Trucking Association

F. Organizations That Should Be Officially Involved

The following are organizations that should be officially involved in the project:

- Niagara Frontier Transportaton Commission (NFTC)
- American Automobile Association (AAA)
- Canadian Automobile Association (CAA)
- City of Buffalo
- Town of Fort Erie
- American Trucking Associations (ATA)
- Canadian Trucking Association

III. Partnership Evaluation

A. Motivation Behind Formation of the Partnership

The motivation comes from the shared desire to make international border crossings work better, internationally *and* domestically. The ITS Committee knows there are current and future capacity deficiencies of the bridges crossing the Niagara River between New York and Ontario, and realizes that congestion is due in part to deficiencies of Customs and Immigration (along with the fact that their interests do not lie in traffic flow).

B. Goals of the Partnership

The main goal of the ITS Committee is to move more toward the concept of a seamless border crossing. It is working to solve the capacity problem of Customs and Immigration processing and improve traffic management at the New York - Ontario border crossings by implementing ITS/AVI system. Developing the complete funding package for the design-build contract is also an objective. Currently, the ITS Committee has streamlined itself into a more functional organization with an executive committee to make major decisions.

C. Success in Achieving Goals

There has been fair success as far as pulling together a representative group of stakeholders, and there has recently been success in developing an executive committee. Also, it is still working on getting everyone on board. The long-term success will come in keeping the partnership together to solve future problems.

D. Legal Issues

Legislative requirements for immigration/customs takes too much time, causing congestion. The basic mission of the customs and immigration services is simply divergent with the rapid processing of traffic through a congested facility.

E. Technical Issues

Educating all stakeholders on how to set up and manage a design-build contract is a technical issue.

F Institutional Issues

Within the ITS Committee there are different perspectives and competing interests, even within the agencies themselves. For example, Customs is interested in *what goods* are crossing the border, while Immigration is interested in *who* is entering (not a steady traffic flow). This field of interests needs to be weaved together and integrated to result in a process that satisfies, to some extent, the needs of each stakeholder. Also, the consultant needs better direction, commonly known among committee members (this is expected to improve now that the executive committee has been formed).

G. Barriers That Were Not Overcome

There has still been some trouble pulling all the right players onto the committee. Those participating have been successful to an extent, but recognize that a higher level of management with more authority to make funding commitments have been, and are currently needed to be involved. In addition, there is a little difficulty working with stakeholders other than the original partners in the border crossing planning study.

H. Favorable Outcomes of the Project

There are several favorable outcomes of the project. First, it has been considered a success in getting so many groups together to discuss their unique issues and interests. The ITS Committee has been able to prioritize these issues to some degree. The members then go back to their respective organizations and share the committee's accomplishments and discussions, which keeps the project going (providing support including people, time, funds).

Finally, the Committee has been successful in identifying a potential funding source for the AVI project, by forming the Coalition called NITTEC. In the future, traffic management and Customs/Immigration processing will be improved at the New York - Ontario border crossings. These favorable outcomes directly result from the work of the partnership.

J. Unfavorable Outcomes of the Project

There has been limited if any public information disseminated on the project to date. The public is generally unaware at this point. The partners see no need for publicity until something tangible is completed, but recognize the need for a public involvement plan.

K. Changes needed in the Partnership Arrangement

There is an understanding by the partnership that local elected officials (i.e., City of Buffalo; Niagara Falls, New York and Niagara Falls, Canada; the Town of Fort Erie, Niagara County) are stakeholders, but they apparently do not actively participate in any partnership meetings. The Committee wants to make policy makers aware of the project and folded into the partnership by the NYSDOT and MTO.

An executive committee has recently been appointed, but should have been done from the start to eliminate some of the conflict and confusion resulting from such a diverse group. There is hope among the stakeholders that this committee will provide strong leadership from the transportation agencies.

The project needs higher visibility, and it would be beneficial to have a US Congressman involved. Another suggestion is to create a subcommittee under FHWA to report to appropriate authorities on the project. Publications such as the Peace Bridge Authority's "Gateways" (see Appendix) could also be used to publicize the NITTEC projects, in addition to local news media.

The committee needs a measurable success. The key question that is driving this partnership concerns what types of goods are being transported across the bridges, which is the responsibility of customs. This information, which is protected by law, would be very valuable to the FHWA in deciding where funding priorities for infrastructure improvements are most needed. This information could be used productively toward the border crossings projects if it could be synthesized and if proper confidentiality could be maintained.

L. Applications of Techniques/Elements of Partnership Arrangement

The general approach to forming a partnership for international border crossing projects will apply to the upcoming projects on the US/Mexican Border and the upstate NY-Canada Border Crossings. The FHWA is using

this activity as a model for the US-Mexican border crossing projects in California and Arizona. The main lesson learned is that an empowered executive committee needs to be established from the beginning in order to move projects along more quickly and easily.

The FHWA does **not** play a central role in this partnership as compared with Mexican border crossing projects, where FHWA has a strong liaison role in interpreting NAFTA and implementing the studies. It has been noted that Mexican authorities at all levels recognize and prefer dealing with U.S. *federales* rather than state and local agencies from U.S. border states.

M. Keys to the Success of this Partnership

The following aspects have been expressed as the keys to this partnership's success:

- Exemplary communications between Albany and Buffalo, according to members of the partnership in the Niagara Region
- Long-standing professional *and* personal relationships that have evolved over a long period of time
- Commitment and persistence of original partners
- Continuous attempt to get the right people on board (with the authority to make decisions)
- Commitment of resources, including funds, people, and time
- Good cooperation between the four highway agencies
- Good cooperation between the two bridge authorities
- Ability to get involved with NAFTA
- National attention from FHWA, rather than a purely state/province/local project
- Strong support from FHWA, NYSDOT, and NYSTA
- Understanding among committee members that some dialogue is needed to express interests and grasp other perspectives
- Continual monitoring and evaluation after implementation
- NFTC staff capability to conduct regional traffic simulation

IV. Follow-up Information

A Continuing or One-Time Partnership Arrangement

Continuing. Representatives interviewed conveyed that there will never again be anything done regarding international border crossing improvements without multiple players being involved in a partnership arrangement.

B. Documentation

- Report Summary, US - Canada Niagara River International Bridge Study, December 1992, for NYSDOT MTO Ontario Ministry of Transportation, NYS Thruway Authority, Transport Canada, By Parsons Brinckerhoff Quade & Douglas.
- NITTEC Mission Statement
- Draft Vision Statement, ITS/AVI Project
- Project Steering Committee Communication: Endorsement No. 2, June 1995
- "Gateways", November 1993 Edition of the newsletter of the Peace Bridge, the Buffalo and Ft. Erie Public Bridge Authority.

C. Key Contacts

- Rod Sechrist, Traffic Engineering and Safety Division, New York State DOT, Region 5, Gen. William J. Donovan State Office Building, 125 Main Street, Buffalo, New York 14203; (716) 847-3268, FAX (716) 847-3815
- Stephen F. Mayer, P.E., Operations Manager, Buffalo and Fort Erie Public Bridge Authority, Peace Bridge Plaza, Buffalo, New York 14213; (716) 457-6438. FAX (716) 457-1780

NCHRP Project 8-32(4)

Case Study Report

Project: New York - Ontario Intermodal Border Crossing

File: 51

Type of Partnership: Public-Public

Interviewers: Dr. Edd Hauser
Ms. Amy Breese

Interviewees:

Louis A. Rossi, Director
Planning Division
New York State DOT
1220 Washington Avenue
Albany, NY 12232
(518) 457-1965
(518) 457-8317 (fax)
Date: July 10, 1995

Tom Sorel, Technology Development Engineer
Stephanie Popiel, ITS Engineer
FHWA - Division Office
Leo O'Brien Federal Bldg., 9th Floor
Clinton Ave. and N. Pearl St.
Albany, NY 12207
(518) 431-4129
(518) 431-4121 (fax)
Date: July 10, 1995

Rod Sechrist, Traffic Engineering & Safety Division
New York State DOT, Region 5
Gen. William. J. Donovan State Office Building
125 Main Street
Buffalo, NY 14203-3088
(716) 847-3268
(716) 847-3815 (fax)
Date: July 13, 1995

Stephen F. Mayer, P.E., Operations Manager
Buffalo and Fort Erie Public Bridge Authority
Peace Bridge Plaza
Buffalo, NY 14213
(716) 884-6744
(716) 884-2089 (fax)
Date: 7-14-95

Phone interviewees:

Ed Roberts, P.E., IVHS Coordinator
Traffic Engineering and Safety Division
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(518) 457-1780 (fax)
Date: 7-5-95

Note: This case study report was prepared based on personal interviews with the persons indicated. Although it is intended to represent their ideas and opinions, responsibility for how those ideas and opinions have been interpreted and recorded remains solely with the authors.

NITTEC MISSION

Niagara International Transportation Technology Coalition (NITTEC) is an organization of agencies in the Niagara Frontier of New York and the Niagara Region of Ontario. Its mission is to improve regional, and thereby international transportation mobility, promote economic competitiveness, and minimize adverse environmental effects related to the regional transportation system, including the four highway border crossings between Canada and the United States, by improving safety and operations, and reducing congestion on the transportation network by coordinating transportation incident notification and response, construction projects, and deployment of Intelligent Transportation System (ITS) elements.

NITTEC VISION

We envision an automated system, primarily paperless, using the latest technology to enhance expedient border crossing by commercial and private vehicles. This system will incorporate Intelligent Vehicle Highway System (IVHS)/Automatic Vehicle Identification (AVI) technology to allow for automated toll collection at bridges, automated clearance of regular cross-border drivers through immigration as well as automated customs clearance of cargo. In addition, pre-screened *tourists/travellers* may be cleared immediately through the customs and immigration portions of the border crossing. Under this scenario, the pre-screened commercial shipments and pre-screened *tourists/travellers* will cross the border conveniently and speedily unless random enforcement checks are performed by border crossing agencies. To ensure this, we envision that adequate geometric design and electronic devices will be in place so that instrumented and preferred customers will not be delayed due to laneage constrictions.

Imagine a seamless transparent border crossing *system* for most *tourists/travellers*, except the suspect or the dangerous to either nation from the other. Imagine further that toll collections and border crossing commercial transactions will be coinless and paperless so that automatic debiting and automatic transfers are made using the latest in IVHS/AVI technology.

Also, imagine that the economic advantages of all countries in North America are exploited to the fullest and not hindered by what essentially will be a transparent border in the world of tomorrow.

GATEWAYS

PUBLISHED BY THE BUFFALO AND FORT ERIE PUBLIC BRIDGE AUTHORITY • VOLUME 1 • NOVEMBER 1993

Projects creating free flowing traffic

A more efficient Peace Bridge is a link to the future. A future of increased trade from Canada to the United States and increased recreational travel from Buffalo to Fort Erie. The Peace Bridge is making plans to make that international travel substantially easier.

The Peace Bridge is the second busiest Canada-U.S. cross-border link. Almost one million commercial vehicles carrying billions of dollars worth of goods cross the span yearly.

And the bridge is getting

busier because more people and goods are moving between the two countries. In fact, commercial traffic numbers are expected to quadruple during the next 30 years.

Even today U.S.-bound trucks frequently back up from Buffalo right across the bridge and into Canada. This has the effect of turning the three-lane bridge into a two-lane bridge, which isn't enough to handle traffic volume. This is particularly frustrating for

U.S. patrons of the Fort Erie Race Track and Fort Erie bingo who are often delayed on the bridge.

That international trade means hundreds of jobs to Fort Erie and thousands of jobs to people in both countries whose businesses rely on export trade.

But, the bridge is almost 70 years old and while it is in excellent condition, the traffic it carries is more than what the original bridge builders ever envisioned.

That's why the Peace Bridge

is spending more than \$80 million to improve the flow of traffic into both the United States and Canada.

Easing cross-border trade and travel with innovative traffic systems

The bridge authority is planning improvements to both sides of the bridge which together are called the Gateway Project. To be completed during the next 10 years, Gateways includes:

- Construction of a new Canada Customs, commercial office facility in Fort Erie for Canada-bound commercial traffic.
- Upgrading of the traffic plaza at the Buffalo terminus of the bridge which will include a reconfigured plaza providing improved access to major highways and downtown.
- A commercial vehicle processing centre in Fort Erie for U.S.-bound commercial vehicles.

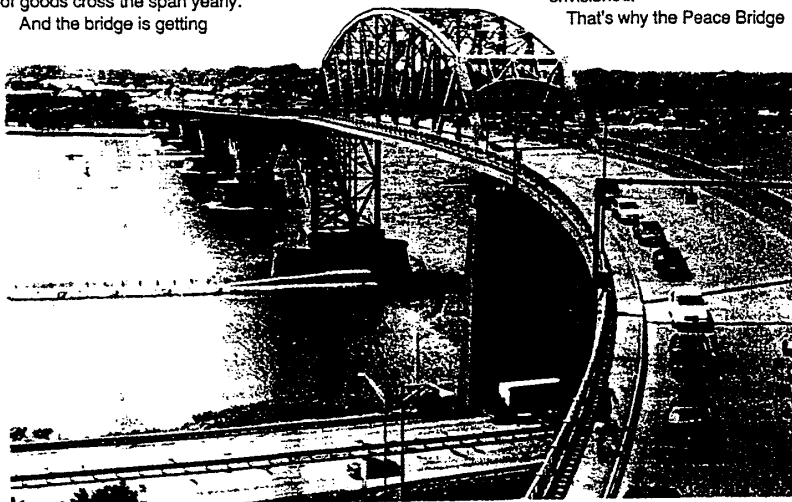
The Canada-bound commercial traffic centre is now well under way. Preliminary designs are now being completed.

Work on the Buffalo Plaza is still in the early stages and potential designs are not expected until March of 1994.

In the meantime, the PBA is directing much of its focus on the Commercial Vehicle Processing Centre in Fort Erie for U.S.-bound trucks," says Peace Bridge's Secretary-Treasurer Ron Lampman.

"Changes to international trade regulations make it easier for about 60 per cent of our

(Please turn to page



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- Bridge projects will create new jobs Pg. 3
- Peace Bridge is green Pg. 3
- Questions and Answers about our projects Pg. 4

LET'S TALK

Welcome to the first edition of *Gateways* - a new publication to be produced regularly by the Buffalo and Fort Erie Public Bridge Authority to keep our neighbours in Fort Erie informed about planned improvements to commercial and personal traffic flow between the U.S. and Canada.

This is no doubt the busiest time in the history of the bridge since construction began more than 67 years ago. But it's an exciting time as we work together to keep traffic moving efficiently between our two great countries . . . and watch our economies flourish in the process.

Look for an update on our plans in the December edition of *Gateways*.



Case Study of Norfolk Southern Intermodal Terminal Project

Executive Summary

This private sector partnership was formed by the Norfolk Southern Corporation with VASCOR (Value Added Service Corporation) to develop and operate an intermodal transfer facility for incoming parts and material, and for shipping out fully assembled automobiles at the Toyota Motor Corporation plant at Georgetown, Kentucky. Several partnerships have been formed between VASCOR and its parent company and its operating partners at the intermodal facility.

Key strengths of the partnership between VASCOR and Norfolk Southern, which has been operating the facility since mid-1988, are (1) the on-site working relationships between the VASCOR and Norfolk Southern managers; and (2) the progressive management style of VASCOR top and middle management. At higher levels of management, however, VASCOR managers feel that increased operational efficiency would result from an increased level of communications and perhaps joint training programs on topics such as teamwork, quality improvement, and daily process management.



Norfolk Southern Intermodal
Terminal Project
Georgetown, Kentucky



Kimley-Horn
and Associates, Inc.

I. Project Information

A. Project Description

Toyota Motor Corporation (TMC), in a partnership with American President Lines (APL), and Fujiki Kaiun Kaisha, Ltd. (Fujiki), announced the development of a Toyota assembly plant in Scott County, near Georgetown, Kentucky in 1986. This initial partnership for the development of the site and plant was formed in cooperation with the Office of the Governor of the Commonwealth of Kentucky. The cost of the initial investment was approximately \$800 million with an additional economic incentive package of approximately \$147 million.

The Toyota assembly plant initially employed approximately 3000 persons and added an annual (1992) payroll of approximately \$400 million. Included in the Toyota site development process was an adjacent intermodal transfer facility to provide both offloading and onloading of material and parts into the plant and shipment of assembled automobiles from the plant. This facility is Norfolk Southern's 3rd or 4th largest intermodal facility. The ground breaking for the complete facility was May 1986, with construction completed in May 1988. Volume production began in July 1988. Approximately 80% of the incoming parts and materials are shipped by rail to the Georgetown intermodal facility. The remaining 20% are shipped to the Cincinnati intermodal facility, and then by truck to Georgetown.

The intermodal facility is operated by VASCOR, Ltd. VASCOR is jointly owned by APL, Fujiki, and Toyota Tsusho America, Inc. (a fully-owned subsidiary of TMC). The auto assembly company Toyota Motor Manufacturing (TMM) is not involved with ownership or management of the intermodal facility.

B. Modes Included

The Norfolk Southern intermodal transfer facility involves truck and heavy rail. Parts and materials arrive in containers either by rail or truck. Assembled units are shipped on triple stack rail cars.

C. Total Cost of Project/Cost-Sharing Arrangements

The project cost is not currently known.

D. Current Status of Project

The intermodal terminal has been in operation since late 1987.

E. Future Plans for Project

Norfolk Southern wants to continue to expand the operation of the intermodal terminal for additional customers and for growth of the Toyota plant.

II. Partnership Description

A. Partnerships: Roles and Responsibilities

The following describes four different partnerships formed to carry out operations at the intermodal facility:

1) VASCOR (Value Added Service Corporation) partnership-

APL: owns 80%; a subsidiary of American President Companies, which provides support for Just-in-Time (JIT) transportation logistics management services; provides the personnel and physical facilities and equipment for the daily operation of all VASCOR services; provides continuous quality improvement training for VASCOR employees.

Fujiki owns 10%; a Japan-based company, specializing in the ocean and truck transportation of Toyota inventory parts and finished automobiles, both in Japan and internationally; provides VASCOR with knowledge of Toyota's physical distribution system and understanding of Toyota's logistics management requirements.

Toyota Tsusho America, Inc. (TAI): owns 10%; the Toyota trading division with a widespread North American network; provides VASCOR with understanding of Toyota's logistics management requirements and provides support through facilities and the steel coil operation.

- 2) VASCOR - Toyota: one-year renewable contract to provide logistics for Toyota -(VASCOR has administrative roles only).
- 3) VASCOR- Norfolk Southern (NS): one-year renewable contract for NS to provide a facility and on-time rail service.

- 4) VASCOR - Trucking company: private company contracted to provide outside labor for VASCOR; Phoenix Transportation, originally a trucking company, is the current contractor (since July); American President Trucking was the previous contractor (subsidiary of APL) until APL sold it.

B. Steps in Developing the Partnership

A Fujiki manager, George Hyosha, had a close relationship with APL management. He had knowledge that Toyota planned to build a North American plant and wanted to help the development process. Fujiki served in an intermediary capacity with the Governor's office in Kentucky. Toyota Tsusho became a third partner forming VASCOR.

NS was contracted by VASCOR to help provide service to Toyota. This arrangement has existed since the Toyota plant began operations.

C. Person/Organization Most Responsible for Development of the Partnership

George Hyosha was instrumental in forming the VASCOR partnership.

D. Person/Organization Most Responsible for Maintenance of the Partnership

VASCOR is responsible for maintenance of the partnership.

E. Organizations Indirectly Involved in the Partnership

The following are organizations which are indirectly involved in the partnership:

- Kentucky Transportation Cabinet (KYDOT) - Initially provided funding and construction improvements for access; currently its involvement is limited to enforcing state regulations dealing with shipment of heavy loads by truck.
- City of Cincinnati - Owns railroad right-of-way through the facility.
- Four trucking companies responsible for overseas materials and parts transhipment: APL, Sealand, Kline, and NYK; the latter handling

shipments that come through the intermodal facility at Cincinnati and transport by truck to Georgetown.

- Three trucking companies are responsible for North American materials and parts shipments: USA Trucking, Super Service, KC Transportation.
- Three companies are involved in bi-weekly traffic meetings with Norfolk Southern: Leaseway, J.B. Hunt, and Ryder.
- Vehicle Processing, Inc.

F. Organizations That Should Be Officially Involved

None were identified.

III. Partnership Evaluation

The following sections describe the partnership between VASCOR and Norfolk Southern:

A. Motivation Behind Formation of the Partnership

One motivation for forming the partnership was economic incentive. NS has a major strength in the long-haul rail business, and VASCOR was formed specifically to provide intermodal terminal services; the partnership was intended to build on the strengths and profitability of the two organizations.

The second motivating factor for the VASCOR-NS partnership was Toyota's desire to not be involved in the transportation and logistics business.

Norfolk Southern, by establishing a strong customer base with a large corporation such as Toyota, would be in a stronger position to provide efficient and profitable rail services to other customers in the region.

B. Goals of the Partnership

The goal of the partnership is to keep the Toyota assembly plant operating at 100 percent production with JIT delivery service. The VASCOR philosophy includes the following values:

- quality
- reliability

- dedicated commitment
- teamwork
- flexibility
- long-term relationship

The current operational goal of VASCOR is improving the two-way communications between the partners. Both companies strive for maximum profitability.

C. Success in Achieving Goals

Although operation has been profitable for NS and VASCOR, there has been about 80 percent efficiency in communications between VASCOR and NS. This is seen as a deterrent in the overall operation of the facility.

The operation is successful in achieving on-time service for Toyota and keeping it operating at 100% production; evidence of the success of the partnership, for example, is reflected in the fact that Toyota has renewed its contract with VASCOR each year since the plant began operating.

D. Legal Issues

Special permitting is required from KYDOT to transport more than 20,000 pounds on six axles or less for more than 30 miles of travel from the plant.

E. Technical Issues

Technical issues encountered by the partnership include the following:

- The inspection and audit of containers are not performed to Toyota's satisfaction; the reason for this is that the right tools and procedures are unavailable to VASCOR. * The partnership has recently initiated a study of damage incurred on vehicles during shipment.
- For the Kentucky Transportation Cabinet, as in other locations with significant industry-use of JIT delivery, an issue arises concerning the overuse of rest areas and other roadside facilities.

F. Institutional Issues

Institutional issues encountered by the partnership include the following:

- Norfolk Southern's Assistant Train Master recently moved from Lexington to the transfer yard because it works better if his office is actually located on the grounds of the intermodal transfer facility.
- It has been expressed that more interaction and communication is needed between VASCOR management and NS management.
- More communications and interaction is perceived as needed between levels of management within NS.
- The desire of VASCOR is to develop more of a partnership relationship rather than what is currently a strict contractor-client relationship.

G. Barriers in Forming and Maintaining the Partnership That Were Overcome

Service requirements and customer expectations for service, quality, and costs were met.

H. Barriers Not Overcome

Lack of complete communications between partners at the corporate management level continues to be a barrier in management of the intermodal facility.

I. Favorable Outcomes of the Project

- The partnership that manages the intermodal facility and transportation system at the Georgetown Toyota plant has helped NS maintain its overall profitability (in 1994 NS was the second most profitable railroad in the country).
- Toyota has some control over the operation without having to deal with the day-to-day management problems; this allows the plant to concentrate on producing quality automobiles.
- VASCOR, founded to serve only the Georgetown Toyota plant through NS, has expanded to also serve other TMC subsidiaries (e.g. Toyota Motor Sales), along with other industries.

J. Changes Needed in the Partnership Arrangement

Changes needed in the partnership include the following:

- Communications can be improved at all levels.
- There is a need for a formal review process; currently there is none, but the partnership is beginning to work on the criteria to be used.
- A joint training program needs to be put into place for all partnership employees; VASCOR employees participate in APL's courses on teamwork (TMT), quality improvement, and daily process management.

K. Applications of Techniques/Elements of the Partnership Arrangement

The following describes how elements of the partnership may serve as examples for other projects:

- Norfolk Southern Traffic meetings, bi weekly - includes representatives from NS, Toyota Logistics Service, trucking companies (J.B. Hunt, Ryder, and Leesway), and a VASCOR inspector; purpose is briefing and discussing problems.
- Norfolk Southern quality meetings, bi-weekly - includes representatives from NS, and a VASCOR inspector; used as a management tool.
- Quality training programs are provided by API for VASCOR employees.

Norfolk Southern Intermodal Terminal

L. Keys to the Success of this Partnership

Keys to the partnership's success are listed below:

- Communication between the on-site NS and VASCOR managers; in the current operating environment, the working relationship between on-site managers appears to be excellent.
- Progressive management approach and philosophy of VASCOR top management; this management philosophy has permeated the entire VASCOR organization.
- The profit margin of each partner and their contribution of Toyota's profit margin.

IV. Follow-up Information

A. Continuing or One-Time Partnership Arrangement

Continuing.

B. Documentation

Executive Briefing, VASCOR, August 1995.

C. Key Contact

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NCHRP Project 8-32(4)

Case Study Report

Project: Norfolk Southern Intermodal Terminal
Georgetown, Kentucky

File: 32

Type of Partnership: Private-Private

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Note: This case study report was prepared based on personal interviews with the persons indicated. Although it is intended to represent their ideas and opinions, responsibility for how those ideas and opinions have been interpreted and recorded remains solely with the authors.