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*Final Report*

## WESTCHESTER COMMUTER CENTRAL CASE STUDY

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# Preface

This case study on the Westchester Commuter Central operational field test is one of six performed in response to a Volpe National Transportation Systems Center technical task directive (TTD) to Science Applications International Corporation (SAIC) entitled, "IVHS Institutional Issues and Case Studies." Other case studies were performed on the following projects: ADVANCE; Advantage I-75; TRANSCOM/TRANSMIT; TravTek; and HELP/Crescent. SAIC conducted interviews and case studies of the ADVANCE, HELP/Crescent, TRANSCOM/TRANSMIT, and Westchester Commuter Central projects, and is leading the production of a separate "Analysis and Lessons Learned" report that synthesizes results from all six case studies. Cambridge Systematics, Incorporated (CSI), SAIC's primary subcontractor for this TTD, assisted with interviews of ADVANCE personnel and independently conducted interviews and case studies for the Advantage I-75 and TravTek programs. CSI is also assisting with production of the Analysis and Lessons Learned Report.

"Intelligent Vehicle-Highway Systems" (IVHS) is part of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 that formed the basis for the Department of Transportation's (DOT) initiative to solicit proposals for operational field tests of IVHS products and services. The goals of the DOT IVHS Program are:

1. To improve the safety of surface transportation.
2. To increase the capacity and operational efficiency of the surface transportation system.
3. To enhance personal mobility and the convenience and comfort of the surface transportation system.
4. To reduce the environmental and energy impacts of surface transportation.
5. To enhance the present and future productivity of individuals, organizations, and the economy as a whole.
6. To create an environment in which the development and deployment of IVHS can flourish. (DOT, 1992)

In response to the ISTEA's emphasis upon meeting both the technical and non-technical challenges toward achieving the above goals, the Federal Highway Administration developed the "1992 Intelligent Vehicle Highway Systems Institutional Issues (Non-technical Constraints)

Program." As part of this program, the Volpe Center TTD has initiated the performance of six case studies with the primary purpose of answering four questions:

1. What institutional and legal impediments were encountered establishing partnerships and deploying IVHS services and products during the operational test?
2. Where in the life cycle of the operational test did these impediments occur?
3. How were these impediments overcome?
4. What lessons were learned in dealing with these impediments that can be applied to future deployments of IVHS products and services?

The secondary purpose of the case studies is to describe the operational test and document its history.

Information to support the development of the case studies included available documents on each program as well as interview notes and summaries based on an interview protocol especially created for this contract. A detailed description of the standardized procedures and methods followed during the conduct of the interviews is documented within a "Detailed Field Guide," produced as a separate deliverable of this TTD. A list of agencies interviewed is provided as Appendix A, and a bibliography of key references to the project being studied is provided as Appendix B.

Unlike many case studies where projects have been deployed and positive and negative lessons were learned after the total success of the system could be assessed, this case study report is on a project that is only in the initial stages of commercial deployment. Therefore, interviews represent a snapshot in time during the progress of the project, and issues identified at the time of the interviews may only be temporary.

Interviews for this case study were performed during the summer of 1993 and attempted to provide a balanced presentation of the issues as portrayed by those interviewed. An attempt was made to use corroborating stories as evidence of the accuracy and/or significance of issues raised. However, as with any report heavily dependent upon interviews, the accuracy and completeness are only as good as the accuracy and completeness of personal accounts told to and recorded by the interviewers. To help ensure accuracy and a balanced view of the issues, the Westchester Commuter Central program manager received a draft of the case study report for his project and was given the opportunity to comment. These comments were received and the author has responded to them in this version. Nevertheless, the author takes sole responsibility for the accounts portrayed in the case study reports.

As with any case study or lessons learned report, authors are subject to criticism that their evaluations either seek out the negative aspects with little emphasis on positive lessons, or are incorrect, biased, or lay blame. It is with great sensitivity to these issues that this case study report was written. Postured to identify issues, the authors acknowledge the fact that interviews were oriented toward finding problems; however, an attempt to identify positive lessons was also made, and the results are reported. The intent of the authors was to avoid inaccuracies, bias, or blame, and to provide helpful hints to others who are about to embark on similar

initiatives.

Separate from this case study, the "Analysis and Lessons Learned Report" will provide conclusions and observations about the institutional issues identified across the six case studies. It will also provide lessons that can be applied to the deployment of IVHS products and services and recommendations regarding: new procedures and programs; the relative magnitude of barriers and respective priorities for their amelioration; and, training requirements for those entering into IVHS programs.

## **Acknowledgements**

Of special note is the expert consultation and review provided to this effort by a specially formed, "Institutional Barriers Advisory Group." This group, chaired by Mr. John Mason of SAIC, consisted of Dr. Christopher J. Hill of Castle Rock Consultants, Mr. Lance Grenzeback of Cambridge Systematics, and Mr. Kenneth Orski of Urban Mobility Corporation. The contributions of this group added greatly to the insight of the interviewers and writers.

The authors would gratefully like to acknowledge the assistance rendered by the Westchester Commuter Central field test program manager and the Westchester Commuter Central public and private sector partners. Also, special thanks go to all of those who participated in the interview process and contributed such thoughtful insights which can be valued by others facing similar tasks. Finally, many thanks go to Mr. Allan DeBlasio from the Volpe Center for his guidance, understanding, and support.

# 1.0 Summary

Although the Westchester Commuter Central (WCC) project is an Advanced Traveler Information System (ATIS) deployment, it was not part of the Department of Transportation's IVHS operational field test program. The WCC project was initiated by the Department of Public Works, Westchester County, NY, in 1991, with FHWA support and encouragement but without federal financial assistance. After an open solicitation, the contract was awarded to the private sector participant who proposed to establish and operate the communications center at no-cost to the government. The joint agreement provides the private sector participant a charter to gather County-wide real-time traffic and transit information and to disseminate it to public and private users. For its sponsorship and access to the information sources within County agencies, the County is to receive free traffic information and share in WCC profits; however, all start-up operations and maintenance costs are to be absorbed by the private sector participant. The WCC project is approaching the end of its first year of operation. All interviewees expressed some degree of disappointment that the project was not further along in deployment. Currently, it is operating in the red and still is considered to be in "start-up." The national economic downturn together with a number of institutional issues were identified as contributing factors. Notwithstanding, there have been some recent positive business developments. Four local corporations have agreed to participate in a three month voice mail trial, starting January 1994, to provide traffic and mobility information to employees.

Interviews with a number of key personnel were conducted in order to understand the institutional issues encountered in the WCC project as well as the project's history, milestones, and accomplishments. The interviewees were selected using an approach which identified those participants most often recommended by WCC project staff. Final selection of the eight interviewees was made to gain a representative sample of interviewees across dimensions such as public versus private sector participation, length of involvement in the program, role in the program, etc.

The bulk of the interviews were scheduled and conducted over a five day period and followed a semi-structured protocol. Data collected from the interviewees were summarized, integrated, and interpreted. These data are the source of the opinions, perceptions, and views that form the body of this report. For the most part, the interviewees were the leaders and initiators of the WCC project. Their various roles have included the county's past and current WCC program managers (PM), and individuals responsible for the day-to-day operations of WCC.

All interviewees expressed some degree of disappointment that the WCC project was still in a "start-up" phase of deployment. These interviewees saw the economic downturn in the region

and a few institutional issues as being the principal reasons for not being further along in schedule. Briefly, the major issues and remedial strategies were:

? County's lack of leverage

Issue: Since the County contributes no funding to the project, it is difficult to pressure or penalize the private sector participant for lack of progress.

Strategy: The County has two options: 1) Terminate the agreement with the private sector participant upon ten (10) days written notification, 2) Resolve differences through regularly scheduled progress meetings. The County chose the second course of action and views the cancellation option as a course of last resort.

? Change in senior management in both the public and private sectors

Issue: Lack of continuity in project management during project planning and development activities resulted in schedule slippage. The change in private sector management is viewed as having a greater impact because it delayed critical path development activities, such as locating facilities and hiring staff.

Strategy: Continuity in County management was provided by a deputy until a qualified replacement for the senior management position was found. The County recognized that resolving the management problem with the private sector participant would take time; hence, the strategy was to allow the necessary time while maintaining pressure to demonstrate progress.

? Public/private sector participants' objectives are not congruent.

Issue: The County's primary objective is to make traffic information readily available to the general public, and the private sector participant's objective is to make a profit. Since the private sector participant derives its revenue to support the project from user fees, the County's desire to get the information out to the public is constrained, because up to this time the general public has not been willing to pay for it.

Strategy: Recognizing that achievement of its objective is inextricably linked to that of the private sector participant making a profit, the County has assumed a business development role for WCC.

? Lack of a definitive marketable product(s) based on project goals and objectives

Issue: Existing documentation (i.e. RFP, joint agreement, business plan) did not identify the specific type and form of product(s) marketable to area businesses.

Strategy: The County asked the private sector participant to define and package its product lines for subsequent discussions with prospective clients.

Based on the findings of this effort, five broad lessons learned were identified:

- 1) A joint agreement should document goals, objectives, responsibilities, and performance schedule.
- 2) Start-up operations for marketing of transportation management projects to the private sector tend to be more complex, time consuming, and resource demanding than originally planned.
- 3) Successful deployment of the system requires continual efforts to gain public acceptance with constant communication with the private sector to focus on a system to benefit their transportation needs and improve employee relations.
- 4) Continual efforts need to be made to secure funding for innovative IVHS technology so that the center remains a viable entity in the traffic management of the region.
- 5) In order to ensure public visibility to the program and government leverage over the contractor, the government should consider locating the operations in a government furnished facility.

## 2.0 Project Description

### 2.1 Project Background

Westchester County has long outgrown its image as the "bedroom community" of New York City. The County of Westchester, located immediately North of the City of New York, covers a land area of approximately 450 square miles with a resident population of approximately 875,000. Travellers to, from, and within the County have available within the County four major interstate highways, seven limited access parkways, and an extensive system of state, county, city, town, and village roads and streets. The road system is policed and maintained in varying degrees by the State of New York, Westchester County, and each of the 43 municipalities within the county.

#### Early History

Over the last thirty years, Westchester County witnessed a phenomenal growth of business. As a result, rates of recurring traffic congestion, incident-related congestion, and construction delays increased, and transit requirements outgrew the existing infrastructure. Planned roadway and bridge construction were insufficient in the face of these challenges.

In March 1991, the Westchester County Department of Public Works submitted a Traffic Safety Board Feasibility Study to the County Executive for the establishment of a public/private sector, county-wide communications center. The study proposed a solution to a perceived transportation problem--the lack of a broadly ranged, centralized communication of real-time road conditions and transportation information in Westchester County and neighboring communities.

The study envisioned a communication center that would coordinate and interact with existing services while gathering previously untapped real-time traffic and transit data. The information would then be disseminated to users, both public and private, using available technology. Furthermore, this communications center would be managed within a fee structure to generate operating funds for the center.

The study outlined how a communications center could relieve government agencies of certain costly and time consuming functions relating to the dissemination of mass transit information, highway condition data provided by individual police departments, etc. The county also proposed that centralized incident management and transportation systems management could operate from the communications center utilizing public/private participants.

By establishing a communications center, the study showed how government could enhance the

operation of its highways, improve the capacities of overloaded facilities, and relieve overburdened police communication centers. Equally as important, the study suggested that the private sector market traffic information as a profitable and marketable function to a broad area of users in homes, automobiles, buses, trains, offices, shopping centers, malls, government facilities, schools, etc. The study proposed that the communications center eventually would be operated on income derived from marketing its services, with initial funding for start-up costs derived from public sources.

## Goals and Objectives

The communications center would serve not only to disseminate real-time traffic and transit information, but together with the appropriate governmental participation, would also:

- ? Coordinate incident management and the response to major highway closures, construction delays, events, etc.
- ? Activate variable message sign systems advising motorists of travel constraints and rerouting where necessary
- ? Provide mass transit information on bus and train travel
- ? Monitor surveillance systems and take appropriate action when necessary
- ? Coordinate with transportation agencies, and
- ? Insure a state-of-the-art response to the information needs of the County.

The study highlighted numerous potential sources of traffic information that could be used by a communications center to gather and disseminate relevant data. The study emphasized that a primary source of roadway condition information and construction schedules could be supplied by governmental agencies. In exchange, the communications center would provide traffic information to Westchester County free of charge to support traffic management responsibilities.

The study also earmarked potential paying customers. In addition to traditional radio and television mass media, potential clients and dissemination means included: shopping malls via kiosks, corporate offices using electronic voice mail, and local travelers supported by a cellular phone system.

## **A 2.2 Project Description**

In September of 1991, Westchester County issued a request for proposal (RFP) "To Establish and Operate a Public/Private Communications Center." The winning contractor, a private sector traffic reporting company, was selected in November of 1991 to team with the county to operate a real-time mobility traffic information center. The contractor proposed to establish and operate the WCC facility at no-cost to the County.

### **Funding**

For its sponsorship and access to the information sources within County agencies, the County is to receive free traffic information and share in WCC profits; however, all start-up operations and maintenance costs are to be absorbed by the private sector participant. Based on the joint agreement, the County is to receive the following percentages of the annual net distributable income resulting from the operation of WCC facilities:

<u>Amount</u>	<u>Percentage</u>
Up to \$1,000,000	20%
\$1,000,001 to \$3,000,000	30% .....
\$3,000,001 to \$5,000,000	40%
over \$5,000,000	50%

### **How WCC Works**

On 29 April 1992, Westchester County and the contractor entered into a five-year contract to establish a comprehensive facility for the collection and dissemination of highway traffic and transit data for the use of travelers and official agencies in and around Westchester County. The traffic and transportation information facility, Westchester County Commuter Central (WCC), represents a cooperative effort that merges the resources of the public and private sectors into a single-source transportation information distribution system. The joint agreement provides for the county to receive traffic information at no cost to the county, as well as to share in net revenues generated by the sale of information to customers in the private sector.

While the WCC Business Plan envisions that the facility will be staffed seven days a week, 24 hours per day, it currently operates from 5:30 AM to 9:00 PM Monday through Friday with off-hour calls forwarded to the contractor's 24 hour New York City operation. WCC, however, will be opened within 30 minutes in event of an after-hours emergency traffic situation. Currently, the contractor staffs the center with three full-time and one part-time employees with the goal to staff up to eight full-time employees for around-the-clock operations. Principal WCC sources of traffic data include: CB radio and cellular phone contacts (verified through local police), 40

police and fire frequencies in municipalities throughout Westchester, Samarantania service people, construction information provided by the county, and reports received from TRANSCOM and the contractor's headquarters in New York City.

Information is disseminated to the contractor's headquarters in New York City, Westchester County Departments of Public Works and Transportation/Beeline Bus System, and TRANSCOM (for major incidents only), who distributes the data on a pager system to various subscribers including state DOTs and media representatives. Consistent with the joint agreement, WCC will provide traffic reports to any government office, providing that the user provides the necessary terminal equipment. This service has not been requested, principally due to the cost. The price tag for the terminal equipment is about \$3,000, plus the cost of operations and maintenance services. Currently, two area radio stations utilize WCC's reporting services four times an hour during the weekday peak periods of 6:00 AM - 9:00 AM and 4:00 PM - 7:00 PM.

## **Management Structure**

The Westchester County Department of Public Works, as WCC sponsor, also is responsible for management oversight. Both the County and private sector participant established a two-level management structure, with a manager responsible for day-to-day operations and a program manager responsible for policy matters. On the private sector side, the Operations Director is responsible for all operational aspects of the center, including gathering and distributing mobility information, management of operations staff, and coordinating with the County on day-to-day operational matters. The Operations Director reports to a non-resident corporate regional manager who also serves as the WCC PM. For the County, the Director of Traffic Engineering and Safety serves as PM, while a senior engineer technician oversees day-to-day activities. Management oversight is accomplished by the County by using standard contract reporting procedures and by holding regularly scheduled progress meetings.

## **Risks and Benefits for Project Participants**

The project was viewed by both participants as a win-win situation. From Westchester County's perspective, it would get the information needed for its traffic management program and area commuters could obtain accurate and timely information, all at no-cost to the County. Under a best case scenario, the County could make money on the arrangement. From the private sector participant's perspective, the project provided the opportunity to test the market beyond radio and television, with support of Westchester County government. The risks of failure were viewed in terms of reputation. The County may have had less to lose than the private participant because, even if WCC failed to generate a profit, the County would still get free traffic management information.

## 3.0 Past and Present Institutional Issues

The focus of this section is on identifying past and present issues. For the WCC project, such issues apply to the planning and design/development activities of deployment. The next section (Section 4.0) synthesizes opinions and projections regarding future impediments with particular consideration to user acceptance/market uncertainty.

All interviewees expressed some degree of disappointment that the project was not further along in deployment. An economic downturn in the area combined with a number of institutional issues were identified as contributing factors. The institutional issues that have contributed to the problem are summarized below.

### **A** 3.1 Organizational Issues and Findings

#### **Public Participant Lacks Leverage Over the Contract Relationship**

Concerning the participants' relationship, the joint agreement is quite clear:

"The County and (the contractor) shall in no event be deemed hereby to be co-ventures or partners, nor shall (the contractor) be deemed an agent of the County. Neither party shall have the authority to bind or commit the other and each shall indemnify and hold harmless the other for and from obligations or liabilities resulting from actions taken beyond the above described authority."

The joint agreement defines in detail each sides' performance responsibilities in the project and the basis for contract termination. It makes it quite clear what each side "shall and shall not" do in establishing the WCC. A weakness of the joint agreement, however, is that it does not establish a performance milestone schedule, nor is one contained in the supporting business plan.

The contract was awarded to the private participant on the strength of its no-cost to the County proposal to establish and operate the WCC facility, with the provision to provide the County free traffic information. Since the County contributes no funding and is getting free traffic information, it is difficult for the County to pressure or penalize the private sector participant for lack of progress. In the words of one interviewee, "the terms of the contract put the County in an all-or-nothing situation." Currently, the County is getting something for nothing--traffic information at no cost to the government. If the County is dissatisfied with progress, it has two

options; 1) Cancel and recompete the existing contract, or 2) Work with the contractor to resolve problems. The County chose the latter course and wants to give the program "time to nurture."

The County's strategy for resolving differences is through the forum of progress meetings. At these progress meetings, the private sector participant briefs accomplishments and plans for the next six months. From the County's perspective, these progress meetings have proved productive by getting each side's management together "behind closed doors" to assess progress and set bench marks for the future.

## **Participants' Objectives are Not Congruent**

The County's primary goal for the WCC program is to provide timely and accurate traffic information to the public, whereas, the private sector participant's goal is to make a profit. The County's disappointment with progress is principally driven by the fact that traveler information, while being collected, is not being disseminated to the public. While the County gets free traffic information, it can not provide it to the general public. The joint agreement is quite specific: the County can only use the traffic information it receives from WCC for traffic management purposes. Now, each side has a clear understanding of its goals and priorities. Interviewees stated, however, that this was not always the case.

During deployment planning, County community leaders in both the public and business sectors had high expectations for the WCC project. The WCC project was given considerable publicity in the region. Due to the economic downturn at the time, all County programs, particularly new initiatives, were being subjected to close scrutiny. County employees were charged to look for ways to cut costs. One creative employee suggested that the County should share in profits generated by WCC. This profit sharing concept was factored into the County's budget submission and added to the list of requirements for negotiation into the joint agreement. Interviewees had a difference of opinion concerning the extent to which the County's cost sharing objective impacted schedule. One interviewee suggested it had little to no effect because both sides recognized "it was a gimmick to help push the project through the County legislature." A countervailing view was that the cost sharing requirement contributed to a long drawn-out contract negotiation period. The joint agreement was scheduled to be signed January 1992, but it was not signed until April 1992, because of legal language disagreements between the respective attorneys.

County dissatisfaction with progress can be attributed to the fact that the County's goal to provide traffic information to the public has been at odds with the private sector participant's goal to make a profit. With the view of making traffic information available to the general public, the County recommended several options which were rejected by the private sector participant. These options together with rejection rationale are:

- ? Option 1: Publish a telephone number that the general public could use to call and obtain traffic information. Rejection rationale: Additional staff personnel would be required to answer the phones.

- ? Option 2: The County will provide the staff to answer the phones. Rejection rationale: If WCC provides the information for free, no one will pay for it.
- ? Option 3: Install a 900 telephone number. Rejection rationale: It was tried at another location and it did not work.

The County recognizes that its goal to get traffic information out to the public was inextricably linked to WCC generating a profit for its private sector participant. Toward this end, the County has worked closely with its private sector participant in marketing WCC traffic information products.

## **A 3.2 Human Resource Issues and Findings**

### **Change in Senior Management Adversely Affected Progress**

Both the public and private sector participants had to cope with a change in senior management during the critical planning and early development stages causing schedule slippage. The change in private sector management is viewed as having greater impact because it delayed critical path development activities, such as locating facilities and hiring staff.

The concept for a public/private sector county-wide communications center is the brainchild of the former Director of Operations for the County's Department of Public Works. This senior civil servant, a recognized expert on regional transportation matters, retired December 1991, just after a contract to operate WCC was awarded to the private sector participant. During the concept development phase, the Director of Operations personally marketed the project, obtained endorsements from business groups, and sold the concept to senior county decision makers.

Encouraged by a New York State early retirement initiative, several senior county employees retired along with the initiator of the WCC project. The county lost its Chief of Operations, Supervisor of Construction, and Director of Highway Design. One of the stipulations of the state's early retirement program, a cost saving initiative, was that the county could not refill the vacated positions. The county's practical response was to restructure and promote/recruit against vacancies. During this six month period, continuity in County WCC program management was provided by a deputy who had assisted in WCC concept development. Once the newly created position (Director of Traffic Engineering and Highway Safety) was filled in May 1992, this person assumed program management responsibilities for WCC. This occurred soon after the joint agreement was signed.

Coincidentally, the private sector participant changed senior management just after the joint agreement was signed. The new manager was burdened with the responsibility of having to learn the dynamics of his new organization as well as assume start-up responsibilities for WCC. The fact that the private sector participant was not prepared to commence operations at contract

award contributed to the problem. Time was spent locating a suitable facility that would meet specific requirements, such as an antenna installation, security, 24-hour access to facility, and reasonable office rent. Hiring staff with the requisite staff skills was also time consuming. Although the contract was awarded in December 1991 and a joint agreement was signed in April 1992, WCC did not commence operations until November 1992, six months later.

## **A 3.3 Financial Issues and Findings**

### **Lack of Federal Funding**

During the concept development phase, the project initiator considered the advantages and disadvantages of federal funding. While the county wanted a federal grant to obtain additional traffic management equipment (e.g., variable message signs (VMS) and closed circuit TV), it chose not to pursue federal cost sharing assistance for the communications center. This decision was driven by the following considerations: 1) federal funds were not perceived as critical to program success; 2) federal funds might mitigate against obtaining local private financial support; and 3) the county and communications center would be subjected to federal regulations, oversight, and paperwork. Of the three, the latter (federal regulations) was the most critical concern, because, at the time, the county was exploring some innovative funding concepts with the local business community (e.g., putting advertisements on VMS). The concern was that federal regulations would limit the options which could be pursued.

It became apparent to the County that obtaining funds would enable the center to explore innovative options. This view is motivated by the realities of the situation. In order for WCC to meet expectations, Westchester County has sought federal assistance through state channels of communication. In the Transportation Improvement Program (TIP) update, the County was able to secure \$300K of funding for two WCC enhancement projects.

## 4.0 ISSUES FOR FUTURE PROGRAM PHASES

Since WCC is a commercial deployment of an IVHS system, this section discusses issues anticipated in the ensuing months of deployment. Based on interviews, the only issue identified was a financial one. This is discussed below.

### **Lack of a Definitive Marketable Product**

During the concept development phase, the economy in Westchester was doing well and the initial business community support for the concept was encouraging. During interviews, it was suggested that several factors may have combined over the past three years to impact the program adversely:

- 1) There has been a significant economic downturn recently in the region. Potential clients, such as IBM corporate headquarters, are downsizing and cutting operating costs.
- 2) Due to marketing difficulties some earlier supporters may have lost interest.
- 3) There is a perceived lack of a definitive marketable product(s) based on project goals and objectives.

Existing documentation (i.e., RFP, joint agreement, business plan) did not identify the specific type and form of product(s) marketable to area businesses. Thus, WCC needed to quantify the type and packaging on its product line through discussions with prospective clients. This deficiency was recognized and is being corrected. The private sector participant hired a full-time business manager for WCC and has developed a product line. Using County-provided entry points into the Westchester County Business Association, the public participant is now actively marketing a WCC product line.

There are some recent positive marketing developments. With a view toward increasing visibility and improving cooperation from local police departments, the County has scheduled and conducted tours of the WCC facility. Most importantly, however, there are ongoing negotiations with potential clients. Recently, an agreement was finalized with one corporation to provide employees with traffic and weather conditions. Four corporations have also agreed to participate in a three-month voice mail trial to provide traffic and mobility information to employees. The system will operate Monday through Friday and utilize an internal voice mail system to provide traffic and mobility updates. At the conclusion of this trial, the corporations will continue to be offered the traffic information for a fee. Current radio station contracts will also continue into next year.

## **5.0 Lessons Learned**

Based on the interviewees' comments, five broad findings were derived:

- 1) A joint agreement should document goals, objectives, responsibilities, and performance schedule.
- 2) Start-up operations for marketing of transportation management projects to the private sector tend to be more complex, time consuming, and resource demanding than originally planned.
- 3) Successful deployment of the system requires continual efforts to gain public acceptance with constant communication with the private sector to focus on a system to benefit their transportation needs and improve employee relations.
- 4) Continual efforts need to be made to secure funding for innovative IVHS technologies so that the center remains a viable entity in the traffic management of the region.
- 5) In order to ensure public visibility to the program and government leverage over the contractor, the government should consider locating the operating center in a government furnished facility.

## 6.0 References

Intermodal Surface Transportation Efficiency Act of 1991. U.S. Public Law 102-240.

IVHS Institutional Issues and Case Studies: Field Guide. (June 1993). (Science Applications International Corporation, Contract No. DTRS-57-89-D-00090, RA 3078) Volpe National Transportation Systems Center (unpublished).

IVHS Strategic Plan: Report to Congress. (1992). U.S. Department of Transportation.

# **Appendix A**

## **Organizations Interviewed**

Federal Highway Administration  
Operations Contractor  
Westchester County, NY  
- Department of Public Works

# Appendix B

## Bibliography

Agreement: County of Westchester, New York and operations contractor. April 29, 1992.

Countywide Communications Center. Traffic Safety Board, Westchester County, Department of Public Works. March 6, 1991.

Request for Proposal (RFP) to Establish and Operate a Public/Private Communications Center. County of Westchester.

Operations contractor corporate literature. September 1992.

Contractor's business plan for Westchester County Communication Center.