U.S. Department
of Transportation

**Federal Highway
Administration**

CORRIDOR PRESERVATION

Case Studies and Analysis Factors in Decision-Making

Prepared for the Office of Real Estate Services

by:

Rivkin Associates
7508 Wisconsin Avenue
Bethesda, MD 20814

Notice

FOREWORD

'Preservation' of existing assets or applying strategies to assure availability of assets to support planned developments are valid objectives for public agencies. Private developers have routinely employed options to assure lands needed for assemblage of major sites would remain available until development could proceed. On occasions, public transportation developers, the State Highway Agencies (SHA's) and local public agencies (LPA's), have used various strategies to defer private development of land within defined alignments for a proposed or existing transportation facility.

Use of such strategies to preserve corridor options based on long-range system plans using a coordinated public policy has been limited. The transportation community consisting of State DOT's, urban planning organizations (MPO's), local agencies (LPA's) and special interest groups (SIG's) each have a stake in corridor preservation, and each have a unique understanding of what is possible. The potential public benefits that may be possible using preservation concepts to enhance our transportation systems will not be realized until all participants and benefactors can coordinate their efforts based on a shared understanding of the options available.

In July, 1990 the American Association of State Highway and Transportation Officials (AASHTO) Task Force on Corridor Preservation issued a report following a two-plus year study of State and local experience in forestalling private development of lands identified as necessary to support a transportation facilities. The report provided practical requirements for successfully implementing corridor preservation.

One of the fundamental factors to success of preservation initiatives is full cooperation between a wide range of participants in the transportation and land use development communities. It was recognized in the report that corridor preservation needed to be addressed early and throughout the planning process. The *Intermodal Surface Transportation Efficiency Act of 1991* (ISTEA) reflected this conclusion and the revised metropolitan and new statewide planning processes included provisions to "consider" preservation opportunities. What has not been clarified is just what "consider" entails.

The full extent of preservation opportunities available in any given locale is directly tied to local land use practices and State enabling statutes. In most cases, to identify a strategy to employ within any given jurisdiction will require an exploration of the what is legally possible. What controls are available, what funding resources are in place, and what coordination is necessary to assure that the needs of transportation are weighed against the competing demands made for land to sustain the growth and vitality of a communities development.

Volume One of this two volume set presents a range of tools or strategies that have been used to preserve highway corridors during the pre-ISTEA era. The text portion of the 1994 Report to Congress on Preservation of Transportation Corridors required by § 1017(d) of ISTEA is included in the Appendix of this volume along with the Executive Summary of the above mentioned 1990 AASHTO Report. Volume Two presents an analysis of legal and institutional barriers surrounding the acceptance and use of preservation strategies.

The sum of this material provides a foundation on which States, MPO's and local agencies can build their understanding and assist in how they "consider" and , if necessary, utilize preservation strategies to enhance development of the transportation systems serving their community.

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Executive Summary

Transportation corridor preservation is:

> . . . a concept utilizing the coordinated application of various measures to obtain control of or otherwise protect right-of-way for a planned transportation facility. Corridor preservation techniques should be applied as early as possible after the transportation corridor is identified either along a new alignment, or along an existing facility to:
>
> - prevent inconsistent development
> - minimize or avoid environmental, social and economic impacts;
> - reduce displacement;
> - prevent the foreclosure of desirable location options;
> - minimize or avoid environmental, social, and economic impacts;
> - permit orderly project development; and
> - reduce costs*

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) encourages both State Transportation Agencies (STAs) and Metropolitan Planning Organizations (MPOs) to consider transportation corridor preservation in formulating transportation plans, identify corridors whose protection would be in the public interest, and establish strategies for protecting those corridors.

This study reviews the background of current interest in corridor preservation and examines experience in nine States engaged in preservation activities: Arizona, California, Delaware, Florida, Georgia, Nevada, North Carolina, Oregon, and Utah. It provides guidelines, based on that experience, to transportation officials who must determine priorities for corridors to preserve, allocation of resources to preservation activity, and strategies for preservation efforts.

Part One establishes the **Context for Corridor Preservation**. It discusses the long lead time between initial identification of a transportation need, delineation of an environmentally acceptable corridor, and allocation of funds for construction. It reviews the risks incurred by not protecting potential right-of-way early in the process and the attendant environmental, transportation efficiency, and increased dollar costs that may ensue. It cites the need for averting controversy, minimizing delays, and making most efficient use of transportation funds when the time comes to build a facility. **Part One** depicts this study as a follow-on to a seminal 1990 report by the American Association of State Highway and Transportation Officials (AASHTO) which analyzed the benefits of corridor preservation and identified alternative strategies that could be employed.

Part One describes the study methodology and the activities investigated in the case States. These activities vary in geographic focus from statewide programs, to programs directed towards a single metropolitan region or city, to individual projects within a metropolitan area. They also vary in respect to program type: capacity protection and access control for existing primary arterial highways; preservation of corridors for new routes whose planning began as

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* American Association of State Highway and Transportation Officials, *Report of the AASHTO Task Force on Corridor Preservation*, July 1990, Washington, D.C., pp. 1-2.

long as a generation ago and before the National Environmental Policy Act (NEPA); recently initiated, systematic strategies to make corridor preservation a priority in the transportation planning process for State agencies and local jurisdictions alike. It concludes with recognition that a variety of participants at all levels of government and landowner, business and citizen interest groups must join the transportation agency in a corridor preservation process.

Part Two presents a **Typology of Corridor Preservation**. It identifies three types of programs, outlines their basic characteristics, and provides detailed examples of experience from the case States. The three types are:

Capacity Protection of Existing Highways. Preservation activity is generated by concern that development pressures on certain key existing routes will (over a 10-20 year period) demand widenings, greater control of access, safety enhancements, and other improvements. New structures on potential right-of-way could preclude improvements or lead to increased cost of ultimate acquisition. States undertaking capacity protection have followed a three-part strategy involving close cooperation with local government. (1) Design and environmental studies to establish prototypical rights-of-way sections and intersection standards to be refined as construction is programmed. (2) Work with affected local communities to ensure that the prototypes/standards are adopted in transportation and land use plans and are used to screen development applications within the corridor. (3) Close consultation between the community and the State to select and apply protection methods — from direct acquisition to zoning controls — when individual applications affecting the corridor are submitted.

Protection of Long-Planned Corridors. There are many examples of corridors first placed on metropolitan or area transportation plans before NEPA, which were low in priority at the time because of their peripheral locations, but were essentially accepted as land use decisions by local government. Development patterns evolved around these routes, and they were incorporated in comprehensive land use plans. By the time environmental analyses were performed, the extent of surrounding development and its avoidance of environmentally sensitive areas sharply narrowed the options for consideration. The original lines, with some modification, became the preferred alternatives. Corridor preservation evolved over the years on an ad hoc or "target of opportunity" basis. Some land was acquired, by the States and/or local jurisdictions. Local communities, whose support for the alignments was often the impetus for preservation action, both utilized police power techniques to obtain additional right-of-way and negotiated agreements with developers for donations or to reserve land until it could be acquired. Local measures, sometimes imaginative, have varied widely. Examples are transfer of density from one section of the property to another not affected by the right-of-way; interim uses such as parking lots and storage areas; voluntary developer reservation, although the legal authority to compel such reservation did not exist. Local governments capitalized on landowner/developer desire that a highway ultimately be built to provide access to their properties. Peer pressure within the development community, likewise, resulted in right-of-way protection even where jurisdictions lacked authority to mandate compliance.

While most of the case studies in this section consist of highways alone, one represents a multimodal transportation corridor and encompasses light-rail transit, bikeways, and HOV lanes, as well as the highway facility.

Systems Approach to Corridor Preservation. Several States have recently initiated systematic efforts to build corridor preservation into the early phases of the transportation planning process. These early action efforts have three features in common. (1) Formal declaration of corridor preservation as public policy by the State Transportation Agency. (2) Enabling legislation by the State legislature supporting this policy. In cases where prior authority was not broad enough to provide sufficient tools, such legislation was newly enacted. (3) A thoroughgoing institutional reorientation of the STA in this field. The preservation mission has generated close collaboration in early planning stages among planning, environmental, right-of-way, and other

other STA staff and STA initiative to work closely with local government on preservation activities long before construction is scheduled. This is a major human resource commitment by the STA.

Several of these States are also experimenting with staged or "tiered" environmental assessments. These assessments bring environmental analysis into the planning process early, to aid in corridor selection and to provide a basis for corridor location approval earlier in the development schedule. Corridor preservation gains strength from special funding for right-of-way acquisition and facility construction enacted by a number of States and local jurisdictions. This provides both a financial and a political impetus to move forward with protection. One of the case studies in this section addresses a private toll facility where most right-of-way is expected to be donated by the private sector.

Part Three presents **Guidelines for Decision-Makers** based on lessons from the case studies. It describes the broad-ranging benefits and identifies beneficiaries of corridor preservation. The traveling public; State and local government agencies charged with transportation, land use, and environmental protection; businesses, community residents, and land developers in the corridor; taxpayers; and the environment itself, all stand to benefit from the certainty that corridor preservation affords. Once a corridor or strategically important parcels are preserved (such as key interchanges, locations most subject to development pressure), the costly controversies, environmental problems and delays that have characterized many projects where development has occurred on land needed for rights-of-way can be averted.

A five-item checklist along with a simplified rating system can be applied to select priority corridors from a State's long-term transportation facilities plan. The plan itself is a prerequisite. It must identify future corridors based on analysis of roadway/transit deficiencies, a needs study, a statewide planning process, and urban area plans developed by Metropolitan Planning Organizations and local jurisdictions. Potential target corridors not yet on an adopted plan will require too much study, planning, and public participation prior to selection of reasonably probable alignments to warrant early preservation action. Environmental analysis is also required in advance. Only a corridor where sufficient analysis has been accomplished to demonstrate a feasible alignment generally free of serious environmental constraints should even be considered a candidate for preservation priority.

Each corridor under consideration can be ranked on a scale of "high," "moderate," or "low" for each decision factor. **Part Three** summarizes the experiences from the case investigations and concludes that most individual routes examined would have received a "high" rating on all factors. Several exceptions are noted, however, reinforcing the conclusion that considered judgment of issues in each local context must enter into final priority-setting decisions.

The Corridor Preservation Priority Checklist

Importance of the Corridor

How important will the corridor(s) be in the system needed to serve the area's development pattern in the early years of the twenty-first century?

Immediacy of Development

How imminent is the threat of development? Will the transportation corridor or strategic parcels be lost if nothing is done to prevent development before construction funding becomes available? Are there key locations (e.g., river crossings, environmental features that must be avoided, etc.) that are critical to successful project execution?

Risk of Foreclosing Options

If development does occur in the potential alignment, what options will be foreclosed? Will the remaining options be potentially far more damaging to environmental, economic, and social values?

Opportunity to Prevent Loss of the Corridor

Is development in the corridor still sufficiently modest that early protective action can make a difference? Are tools available — other than outright early acquisition of right-of-way — that can be employed to protect the corridor?

Strength of Local Government Support

Will the affected communities do their share to help? Do they have tools at their disposal that can be employed?

Setting priorities is the prelude to establishing a preservation strategy for a State, a region, or a single facility. **Part Three** proceeds to identify another checklist or battery of steps to follow in formulating and implementing a corridor preservation strategy — again with examples from the case studies.

Steps in Strategy Formulation

- **Inventory Available Powers and Resources**
  (and initiate measures to secure needed legislation, demonstration project authority, funds, staff, etc.)
- **Evaluate and Select Techniques**
- **Organize the Transportation Agency Internally to Perform the Tasks**
- **Cement External Support for Corridor Preservation**

Inventory the Available Powers and Resources. As a first step in determining strategy, the transportation agency should inventory the legal, regulatory, and procedural authority available within its State and local communities for corridor preservation. In some States, only limited authority exists. The case States which have launched broad statewide systems approaches to preservation (Florida, North Carolina, California) began with an inventory of powers and, in certain instances, received additional enabling authority and funding from their State legislatures. A comparable inventory of available financial resources (Federal, State, and local) is also in order.

Select the Techniques. From the case study research and the AASHTO report, 20 different techniques have been identified for use singly or in combination to hold right-of-way out of development until needed for construction. Not all are equally effective, or represent equal cost or risk to the transportation agency. Nor are they universally available. Two categories of techniques are identified: *interim protection* measures and *preservation* measures.

Selecting Techniques

	Interim Protection	Preservation
Fee Simple Acquisition (Including hardships or protective buying, with or without Federal funds, and purchase of strategic parcels)		X
Development Easement Acquisition		X
Landowner Donations		X
Public/Private Partnerships (e.g., key highway links or toll facilities)		X
Options to Purchase at a Later Date	X	
Access Management and Control	X	X
Official Maps of Reservation	X	
General Plan Corridor Designations	X	
Zoning and Subdivision Controls Requiring Setbacks	X	
Zoning and Subdivision Controls Requiring Dedications/Exactions		X
Agricultural Zoning	X	
Transferable Development Rights to Other Properties or Land Swaps		X
Density Transfer Within a Single Property	X	
Interim Uses on Right-of-Way	X	
Irrevocable Offers to Dedicate	X	
Highway Right-of-Way Platting	X	
Developer Agreements (includ'g commitment to reserve)	X	
Tax Abatement	X	
Voluntary Developer Reservations	X	
Special Assessment Districts Involving Right-of-Way Dedications		X

Preservation measures definitively ensure that right-of-way is, or will be, available for an approved transportation facility when needed. They invariably involve transfer of title or other rights to a public agency or, in the case of a toll facility, to a private transportation corporation.

Interim protection measures are those which serve, or combined with other measures can help, to hold land out of development until purchase can be made or title otherwise transferred. They buy time and provide temporary assurances,without ironclad guarantees that a particular site will actually be available for transportation purposes.

Preservation measures, except for landowner donations and required dedications, may require more capital outlay in the short run, e.g., for fee simple or easement purchases. They are best used when planning and environmental reviews have reached the stage for delineating right-of-way lines with some precision and/or when key parcels such as future interchanges are under such imminent threat that only early purchase can preclude development.

Interim protection measures, on the other hand, require minimal direct cash outlays, although they should be considered a prelude to ultimate acquisition by the transportation agency. Protection measures often require considerable staff work and close coordination with local government. Local government exercises many of these through the police power, through taxing power in the case of tax abatements, or through negotiations with developers. Protection measures are frequently employed well before alignments reach definitive design stage or final environmental clearance. These are useful prior to private sector construction when developers or owners dedicate, donate, or sell property to the transportation agency; and/or before the transportation agency has sufficient funds available for acquisition of the entire right-of-way.

Access management and control may reflect elements both of preservation and interim protection depending on the methods employed. Acquisition of partial interests in property is preservation (such as denial of access along a highway or acquisition of rights-of-way for access roads that results in removal of entrances onto an adjacent highway). Policies such as restricting entrances or setting minimum spacing requirements are typically interim protection measures involving the police power.

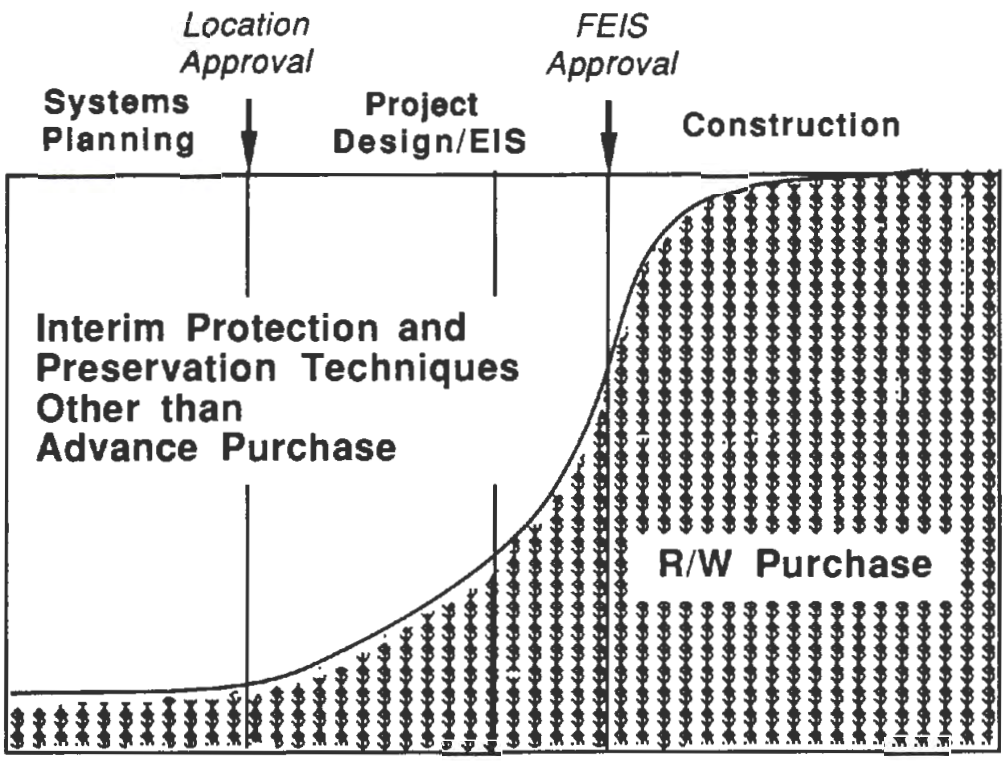
In actual practice, most case studies of individual corridors demonstrate combinations of interim protection and preservation measures used at various points in the process of facility planning and design. Moreover, each State that follows a systems approach to statewide or regional preservation advocates (and employs) combinations of interim protection and longer-term preservation techniques.

Part Three also examines the risk factor in employing these measures. Until final environmental clearance is granted (for projects involving any kind of Federal action) there is always the risk that protected or preserved right-of-way may not be used for the transportation facility. Protection or preservation, by whatever means, cannot be permitted to prejudice the Environmental Impact Statement (EIS) process under NEPA rules. Presumably, the risk that no project will occur in the corridor lessens as the stages of planning and project development progress. Which tools are better for early stages in the process and which are best used more extensively later?

One generally applicable principle is to minimize the amount of capital tied up in long-term land holdings. This would mean emphasizing interim protection-type measures and voluntary agreements in the early stages and only gradually increasing investment-type outlays as the facility clears its successive approval hurdles.

The Time Line:

Appropriate Protection/Preservation Techniques for the Corridor Planning Process



Organize the Transportation Agency Internally to Perform the Tasks. Mobilizing techniques for a preservation strategy demands appropriate internal transportation agency organization. This begins with a commitment from top management and carries over to an appropriate outlook and working style on the part of personnel involved. Corridor preservation requires a team effort within the agency. A variety of skills and disciplines must be brought to bear in such a team from the earliest stages of systems planning: planning; environmental analysis; engineering and design; legal; right-of-way procurement; property management; operations, maintenance, and access control. A mechanism for monitoring land development trends (and staff to operate it), and for monitoring land values within the designated corridors and all public decision processes affecting the corridors is also needed. Collaboration of personnel with such divergent skills is a new mode of operation for some transportation agencies that follow traditional segmented, sequential procedures. It is essential for effective corridor preservation.

Cement External Support for Corridor Preservation. The STA is the key player in formulating and executing a corridor preservation strategy, but many actors are involved — in and outside of government. Each has a role or roles to play: power, funds, or land to deploy; studies to perform or ideas to exchange; support or opposition to express. Successful corridor preservation calls for the STA to accept the mantle of leadership and cultivate a commonality of interest among the other players. The agency must become "pro-active" in its efforts. Five kinds of activities are suggested:

1. Institutional Outreach/Networking: *Transportation agencies should bring the message of corridor preservation to the other agencies of Federal, State and local government with whom they interact.*

2. Technical Assistance: *STAs can lend staff and or consultants to local government to help plan and implement corridor preservation activity. These resources are generally not available to local authorities and could spell the difference in enlisting local support.*

3. Analytic Studies: *STAs can perform or commission analytic studies of land use, development, transportation trends, and economic factors within anticipated corridors. These studies can be made broadly available to create both public and private sector receptivity for corridor protection. They can also serve to reinforce cooperative relationships between the STAs and MPOs.*

4. Public Relations and Information: *STAs can let the public know when corridor preservation becomes an agency priority. They can provide speakers for community groups, attend and participate in meetings of local councils and planning agencies, seek media coverage on the subject, and issue newsletters and information bulletins on corridor preservation. Outreach can be made to conservation and environmental groups who can become powerful allies. Early and continuous involvement with both Federal and State resource and permit agencies will be highly desirable.*

5. Advisory Task Forces: *STAs can activate advisory task forces to participate in delineating the most acceptable transportation corridors. By bringing affected interest groups into the planning process at an early stage, strong public support for corridor preservation decisions can be established.*

Of particular importance in these outreach efforts will be the MPOs charged with broadened planning responsibilities under ISTEA. In corridor preservation, along with other components of transportation planning, close links between STAs and MPOs should be sought.

Actors in Corridor Preservation

Federal:	**Federal Highway Administration** **Resource Agencies (EPA, Interior, et al)**
State:	**State Transportation Department** **Legislature** **Resource Agencies**
Local:	**Elected Councils and Supervisors,** **Mayors and Executives** **Planning and Zoning Boards** **Planning and Zoning Staff** **Transportation Departments** **Metropolitan Planning Organizations** **Economic Development Offices**
Private Sector:	**Land Owners** **Developers** **Chambers of Commerce** **Bankers**
Citizens:	**Corridor Neighbors and Civic Groups** **Umbrella Public Interest Groups** **Environmental Activists**

PART ONE:

THE CONTEXT

For

CORRIDOR PRESERVATION

INTRODUCTION

> . . . there is great economic value at risk unless a solution is found that will allow for the planned scheduled completion of SR 905 between 1995 and 2000, and SR 125 between 2000 and 2010. Furthermore, CALTRANS has said that the need for a solution is immediate because: the construction of major freeways require a 10 year or more lead time, there are no state funds available to meet the planned construction schedule, the right-of-way is not protected, pressure for developing on the right-of-way is beginning to rise, and developments next to the proposed right-of-way are creating drainage problems in the right-of-way, pushing up the ultimate cost of its construction, and compounding the problem of the existing funding shortfall.[1]

This paragraph from an economic study prepared for the California Department of Transportation (Caltrans), California's State Transportation Agency (STA), places three facets of the corridor preservation "issue" in a neat and — on the basis of this research — broadly applicable perspective.

- Given conditions in the last decade of the twentieth century, it takes a long time to plan and construct a major limited access highway.

- Public funding for transportation improvements is under such severe constraints there is no guarantee that even extended construction schedules can be met.

- Without early action to protect the options for right-of-way within the selected corridor, development pressures may result in environmentally and economically severe consequences. These consequences may adversely affect the facility's transportation purpose, drive up the public costs of completion, or preclude building the road at all.

The fact that such a situation pertains to Delaware as well as California, Utah as well as Florida, and to many other States beyond the nine explored for this study, gives the effort to preserve highway corridors a sense of urgency. Corridor preservation is far from an academic concept. Its imperative is rooted in the circumstances that now govern the construction of transportation facilities throughout the United States.

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1 San Diego Association of Governments (SANDAG), *Otay Mesa, SR-125/SR-905 Economic Study*, Prepared for Caltrans District 11 Advanced Transportation System Development Program, November 1990, p. ES-5.

Indeed, the imperative is now recognized by Congress and — with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) — corridor preservation has become an integral component of the transportation planning process to which all States and metropolitan planning organizations (MPOs) must adhere for Federal funding. Under ISTEA, the concept of transportation corridor preservation includes transit, as well as roads and multi-modal facilities.

States and MPOs are urged to identify those transportation corridors "for which action is needed to prevent destruction or loss."[2] Preservation strategies are encouraged, and FHWA will prepare a nationwide corridor preservation report on these candidate facilities and their preservation strategies. Formulation and execution of such strategies will — as this research report indicates — lead to fundamental changes in how transportation agencies conduct their activities.

The circumstances pointing to transportation corridor preservation are far different from the halcyon days of highway construction between the 1950s and the 1970s when the Federal Government was the principal source of funding, ample funds were available, and the full effects of the National Environmental Policy Act (NEPA) and the Uniform Relocation Act had not yet been felt. In those days, advance purchase of substantial portions of future right-of-way was a typical means of protecting it from the threat of development.

Numerous studies depict how these circumstances have changed and consequent effects on the highway planning and building process. The 1988 nationwide examination of infrastructure needs by the National Council on Public Works Improvement[3] documented the shortfall in capital spending, along with the extent of deteriorating highway and bridge infrastructure already in place. It highlighted the growing trend of infrastructure agencies to direct capital resources to critical maintenance and reconstruction needs of existing facilities in preference to construction of new.

A 1991 report of the Urban Land Institute went further.[4] It included the attached chart based on FHWA data which put the circumstances in a proverbial "nutshell."

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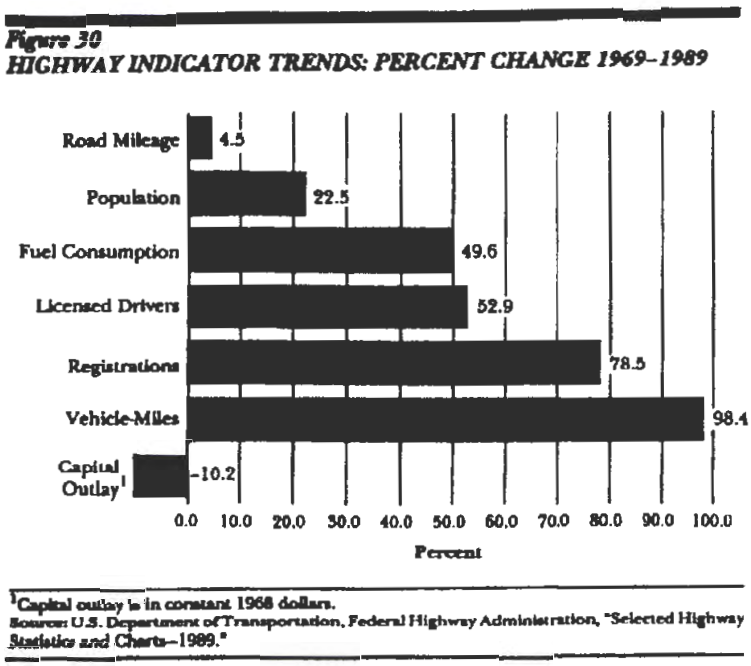
2 Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), Sec. 1025.

3 National Council on Public Works Improvement, *Fragile Foundations, a Report on America's Public Works*, February 1988.

4 Urban Land Institute, *Development Trends 1991*, p. 52.

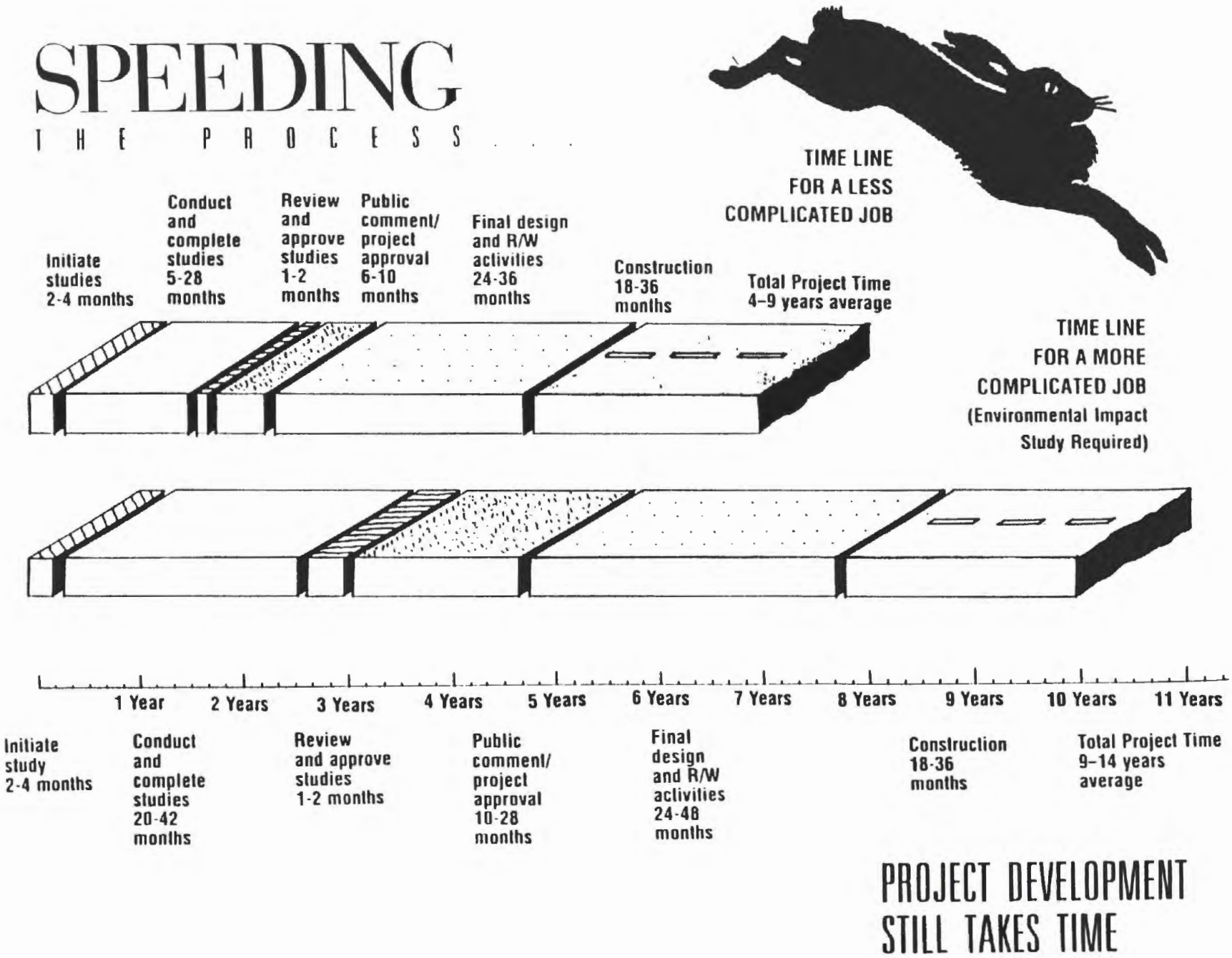
Between 1969 and 1989, road mileage increased by only 4.5 percent, while capital outlay for roads in constant dollars fell a total of 10.2 percent. Meanwhile, U.S. population increased by 22.5 percent, vehicle registrations by 78.5 percent, and Vehicle Miles Traveled by close to 100 percent.

Figure 1



I. ENVIRONMENTAL CONCERNS

It would be inappropriate to link corridor preservation to funding shortfalls alone. Environmental concerns and the need to establish transportation corridors in the most environmentally "neutral" locations are even more compelling factors. NEPA and attendant legislation at the Federal and State level have required transportation officials to consider the environmental (including social and economic) consequences of facilities siting decisions. Detailed studies at several stages of the transportation planning process are required to assess location alternatives, preferred alignments, and mitigating measures. These analyses take time, however, and as Figure 2 indicates, the time between initial identification of need and project completion can — with environmental analysis as a major component — consume a dozen years or more. In fact, one of the California projects examined in this report, a multi-modal transit and freeway facility, has recently been completed some 30 years after the need was first established.



Source: California Department of Transportation (Caltrans), *Why Does It Take So Long to Build A Road?*, Undated.

Figure 2

Regulations have placed strict limitations on the use of Federal funds for right-of-way before NEPA and the Uniform Relocation Act provisions have been satisfied. Wholesale purchase of right-of-way to protect it from development long in advance of need for construction simply cannot be done as it was in the 1960s.

Meanwhile, the land development process, particularly in high growth areas, does not wait for environmental studies to be completed, especially if local government is under no compulsion to defer development approvals. Without means of protecting a corridor (or at least to preserve options), new housing, commerce, or industry can become established on the land which is most environmentally fitting for a transportation corridor — e.g., good soils free of wetlands and steep slopes, historic structures and archaeological/cultural resources, wildlife habitat or public parks and in locations suited to filling a transportation need. Commitment of such land to development can make for socially and economically wrenching displacements, preclude a corridor entirely, or force the transportation facility into a configuration which affords less desirable service. Figure 3 illustrates what can happen in the absence of corridor protection, while Figure 4 represents the more orderly scenario made possible by protective action before development occurs.

Early action to locate and protect a facility alignment that meets transportation needs can:

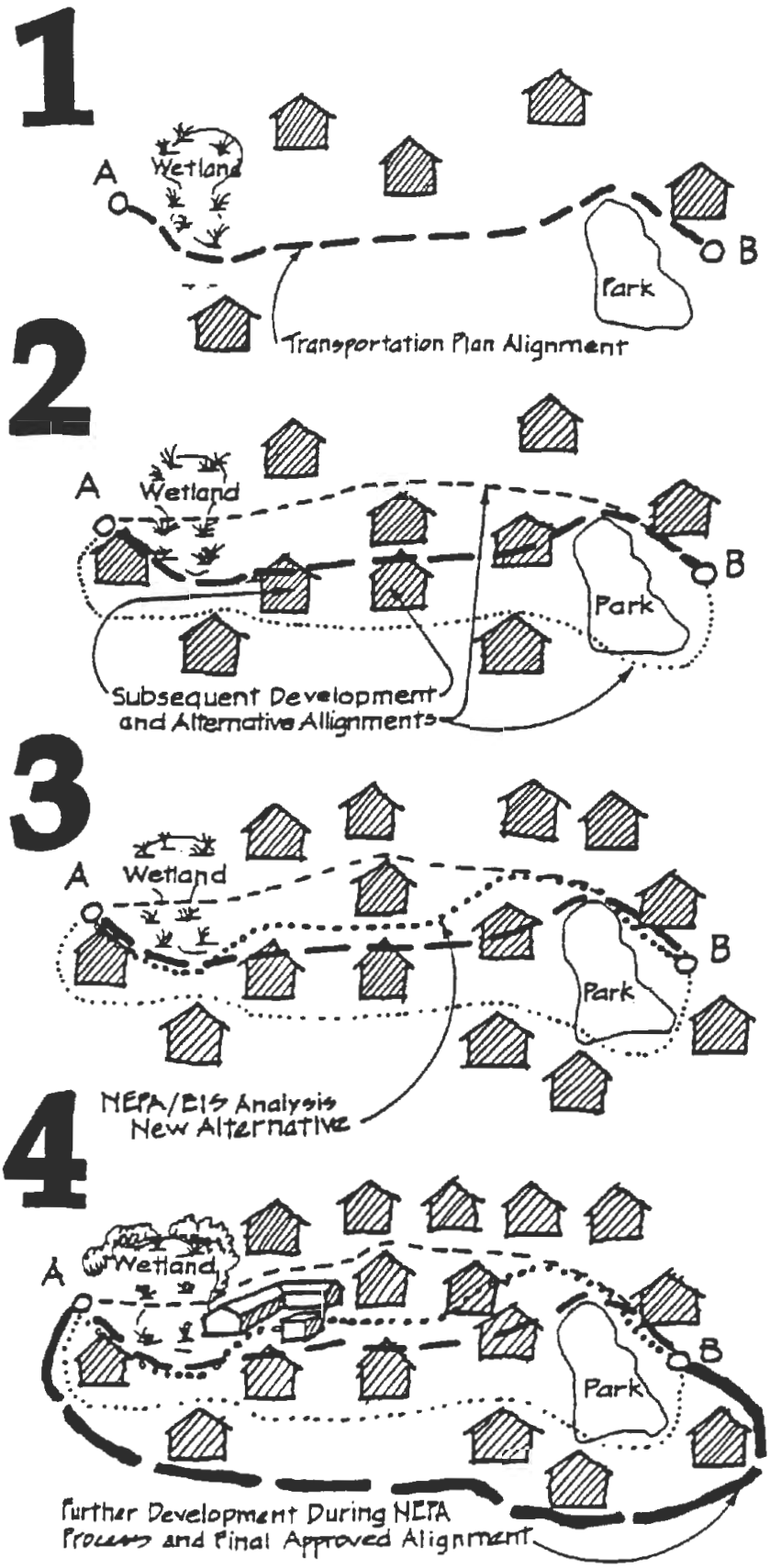
- result in selecting a route which avoids environmentally sensitive areas and permits planning long in advance of construction to mitigate any remaining adverse conditions that may result,

- minimize displacement impacts and prevent development from occurring in the right-of-way which would ultimately have to be removed, requiring compensation of owners and tenants at considerable public expense, and/or

- avert losing the opportunity to build the transportation facility when funds become available.

There is widespread desire among State and local agencies as well as FHWA to initiate corridor preservation efforts as early as possible once need for a facility has been established. Where outlay of State and local funds for early purchase of right-of-way to protect it from impending development can be made, desire is equally great to protect eligibility for Federal reimbursement of these expenditures. One approach is to accelerate Federal *corridor location* approval. This approval clears the way for "tactical" purchases of property in

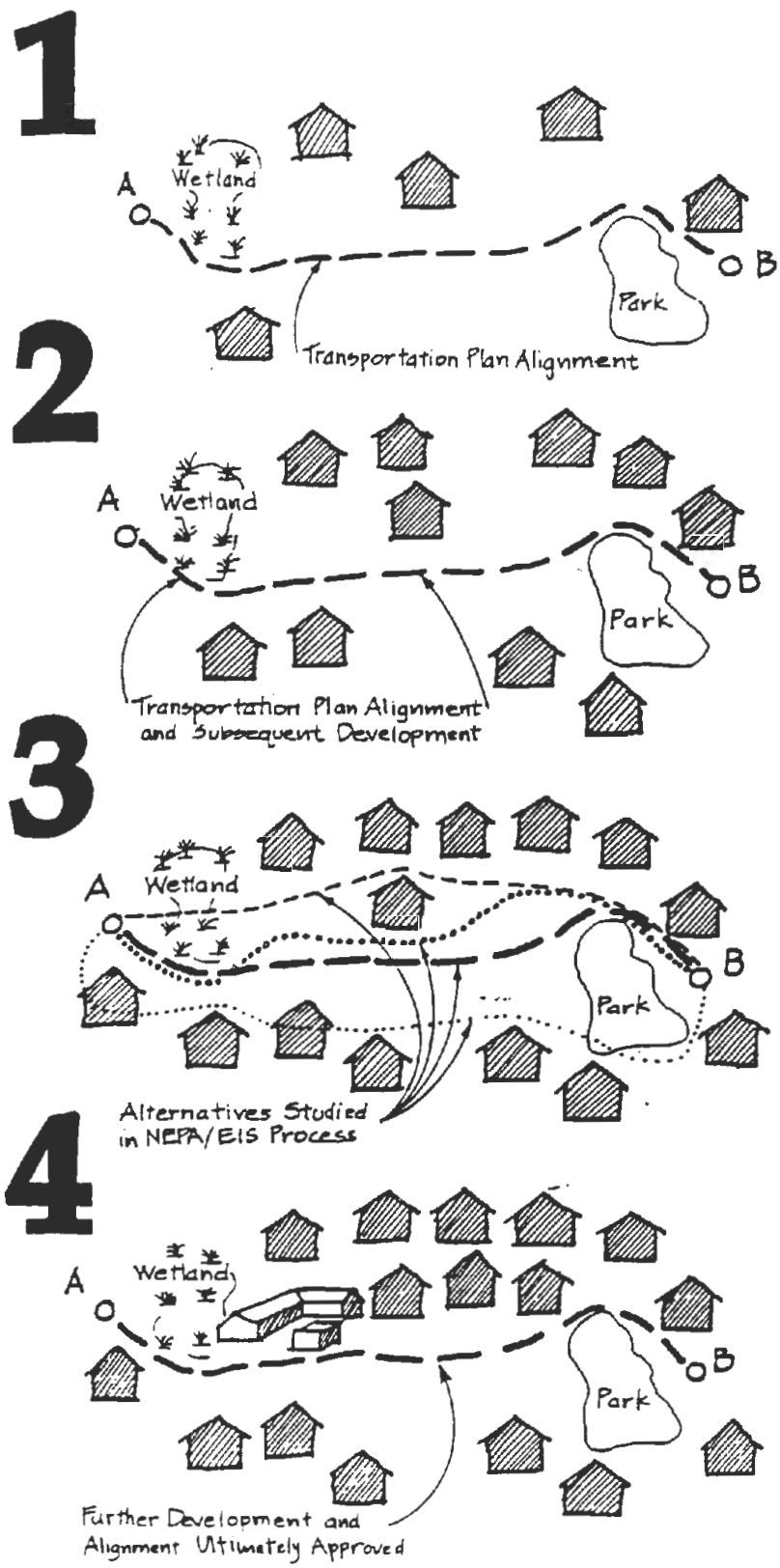
Figure 3



A not untypical sequence of events

Source: Rivkin Associates and Federal Highway Administration

Figure 4



Sequence when right-of-way is controlled

Source: Rivkin Associates and Federal Highway Administration

emergency situations of development threat and also for "strategic" acquisitions, i.e., systematically staged purchase of key parcels such as interchanges which may be considerably more extensive. Corridor location approval entails performing and documenting the requisite environmental studies according to NEPA rules and regulations. While less detailed than the work that will be required for specific project approval at a later stage, this still takes time. Even when the corridor approval process is accomplished as early as the transportation program planning stage and followed up rapidly with corridor preservation techniques, opportunities to control critical pieces of land may be lost.

Fortunately, procedures are available under 23 CFR 712.204 (d) which permit protective purchase (and purchase in situations of hardship to the owner) of a *limited* number of parcels even before the NEPA process is completed. Such limited protective or hardship purchases can often meet the criteria for Categorical Exclusion under 23 CFR 771.117 (d) (12). (See the discussion in Part Two, Chapter V.A.2.)

Sometimes an Environmental Assessment (EA) may be needed to establish that starting corridor preservation is an act without significant environmental impact. In these cases, early environmental work should be sufficient to identify an environmentally preferable corridor that serves purpose and need. Appropriately documented, this could serve as a first phase or tier of the NEPA process. Then in a subsequent stage, the impacts of project construction activities would be analyzed in more detail and plans for mitigating unavoidable impacts on resources, etc., would be developed. North Carolina outlined its own early environmental assessment protocols to eliminate the most environmentally deleterious corridor alternatives from consideration at the transportation systems planning stage.[5]

A whole battery of additional approaches to channeling development outside the right-of-way for future transportation corridors (short of major, systematic outright acquisition) has been devised and demonstrated. The pages of this study should be encouraging in that they describe numerous places and cases where the various tools and techniques of corridor preservation have proven successful.

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5 Current pilot projects are seeking ways of adapting that state's procedures to conform with NEPA's requirements so they can be incorporated as part of NEPA process instead of being duplicated later in context of a full-blown EIS.

II. A BROADENED PURPOSE

A broadened purpose for transportation corridor preservation was highlighted in a June 1990 report of the American Association of State Transportation Officials (AASHTO) that is now the accepted guidebook for corridor preservation efforts. AASHTO's definition of corridor preservation is:

> . . . a concept utilizing the coordinated application of various measures to obtain control of or otherwise protect the right-of-way for a planned transportation facility. Corridor preservation techniques should be applied as early as possible after the transportation corridor is identified either along a new alignment, or along an existing facility to:
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> - prevent inconsistent development;
> - minimize or avoid environmental, social and economic impacts;
> - reduce displacement;
> - prevent the foreclosure of desirable location options;
> - permit orderly project development; and
> - reduce costs.
>
> This may be accomplished through one or more of the following approaches:
>
> - acquisition of property and/or property rights.
> - action by State and/or local governments in the exercise of reasonable governmental regulation.
> - arrangements with property owners to preserve property in an unimproved condition.[6]

The AASHTO Report examines corridor preservation in its many aspects: administrative, financial, regulatory, and environmental. It describes a variety of techniques, and also includes results of a nationwide survey on existing practices of the various States.

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6 American Association of State Highway and Transportation Officials, *Report of the AASHTO Task Force on Corridor Preservation*, July 1990, Washington, D.C., pp. 1-2.

III. SIGNIFICANCE OF ISTEA, THE INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991

While FHWA has fostered corridor preservation for a number of years, passage of the new Transportation Act endows the concept and this research with added significance.

Until ISTEA, concern for corridor preservation was entirely optional on the part of States and MPOs. For many, grappling with the demands of short-term construction programs and maintenance funding for existing systems precluded interest in advance right-of-way protection.

The new Act alters that context by

- including corridor preservation as one of the factors to be considered in the metropolitan and statewide transportation planning process.
- requiring FHWA to prepare a report which lists transportation corridors identified during the metropolitan and statewide planning process as warranting right-of-way preservation actions. FHWA will recommend a strategy for preventing further loss of rights-of-way, including the desirability of using a land bank to preserve vital corridors.
- providing for the possible extension of the use of FHWA's revolving fund from 10 to 20 years and enabling purchases made without Federal funds to become eligible for retroactive Federal participation.

A. State and Metropolitan Area Transportation Planning

Corridor preservation is now explicitly identified as one of the factors which both States (Sec. 1025) and MPOs (Sec. 1024) should consider in preparing their transportation plans. The charge is identical in both sections:

> preservation of rights-of-way for construction of future transportation projects, including identification of unused rights-of-way which may be needed for future transportation corridors and identification of those corridors for which action is most needed to prevent destruction or loss.[7]

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7 ISTEA, Sec. 1024 and 1025.

B. The Corridor Preservation Report

ISTEA (Sec. 1017) requires FHWA to prepare, by 1993, a corridor preservation report in consultation with the States, identifying corridors recommended for protection by the States and MPOs. Over and above the listing will be cost estimates for protective action in each case. Most important, the report is to spell out an overall, nationwide preservation strategy and to analyze various funding options, including a right-of-way land bank. The report is expected to become the basis for subsequent legislative action at the national and local level.

C. The Revolving Fund

FHWA's revolving fund has been a popular device in some States for acquiring right-of-way in advance of construction. However, the length of time the land can be held prior to actual highway use has often acted as a deterrent. Under past legislation, acquired land had to be turned to transportation use (and funds repaid) within 10 years of acquisition. Some States perceived this as too short a period to permit completion of already programmed facilities. Although ISTEA permits a 20-year holding period, FHWA policy has been to stay with the 10-year limit, so that funds turn over more quickly and become available for more projects. According to FHWA officials, the revolving fund is highly competitive. For every dollar of the $42.5 million made available annually, $3 to $4 of requests are received.

ISTEA also affords the prospect that a project financed by the revolving fund can be converted to a regular Federal aid project and the fund repaid with monies allotted under any of the Federal program categories for which the project is eligible. All applicable Federal requirements in planning and implementing the project would have to be met, including the Uniform Relocation and Civil Rights Acts and the necessary NEPA compliance.[8]

Given the new prominence of corridor preservation, experience of States and communities who have been engaged in the process should be of considerable interest. Lessons from that experience can help to guide decision-makers in determining priorities and applying available techniques. That is the subject of this research.

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8 ISTEA, Sec. 1017.

IV. BACKGROUND TO THE CASE INVESTIGATIONS

As a next step following on the AASHTO report, this study provides detailed background information and policy guidance for decision-makers. Part One presents the context. Part Two examines the experience of nine States that have been doing corridor preservation. It categorizes the types of protection efforts observed, investigates relations among State transportation agencies, local government, and private sector actors and illustrates — with detailed examples — a variety of issues and opportunities arising when protective action is undertaken. Part Three distills lessons from the case investigations and is directed toward the transportation manager who must consider the merits of protective action for a given right-of-way. Part Three offers guidance on the factors a decision-maker should weigh and balance before undertaking corridor preservation and devising a preservation strategy.[9] The sequence of steps to implement a preservation strategy is outlined.

The principal investigator coordinated field visits during 1991 through the FHWA Right-Of-Way offices in each of the nine States shown on the attached map: Arizona, California, Delaware, Florida, Georgia, Nevada, North Carolina, Oregon, and Utah. All but Delaware were picked because they had used the FHWA revolving fund for advance acquisition of right-of-way. FHWA made clear, however, that the revolving fund was to be considered only one component of corridor preservation.

Delaware was chosen because the State had recently embarked on a corridor preservation effort with regular Federal aid project funding. All of the States visited had experienced some measure of population and economic growth during the 1980s.

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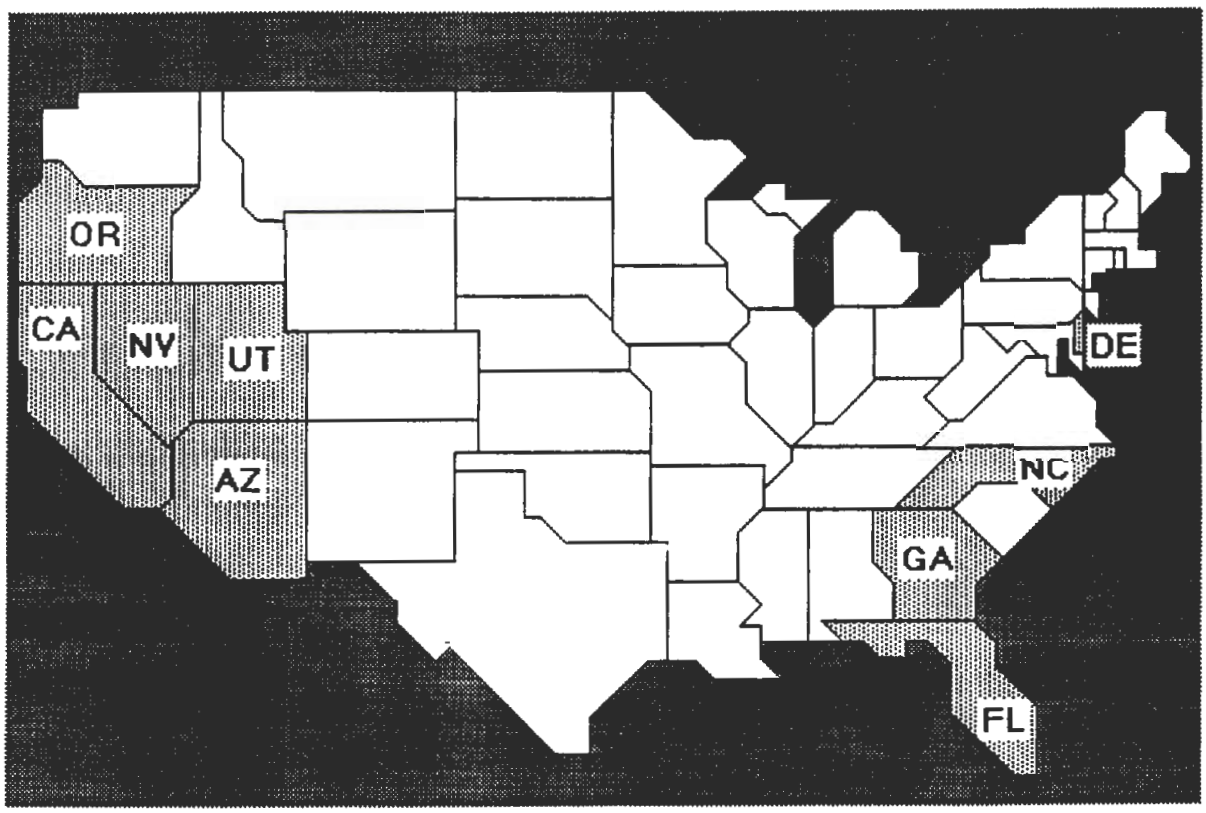
9 The investigation was aided by review of the considerable literature in this field. (See the Bibliography.) In addition to the AASHTO Report and essays and articles prepared by FHWA staff and other transportation experts, national surveys conducted by North Carolina and DelDOT as preludes to their respective corridor preservation efforts were examined.

Of particular importance were legal analyses on such subjects as right-of-way reservation and acquisition, appropriate use of the police power, and when a public action to restrict use of land becomes a *taking*. This background was important in light of Supreme Court decisions during the 1980s (*First English* and *Nollan*) which placed restrictions on municipal use of zoning and other regulations without compensation, and the Florida Supreme Court decision of June 1991 (*Joint Ventures*) which struck down that state's law permitting right-of-way reservation for up to 10 years without direct compensation to affected landowners. A significant objective of the case investigations was to explore the relative roles of direct acquisition of land and development controls under the police power in such corridor preservation activity as was occurring.

Figure 5

LOCATIONS OF CASE STATES



Right-of-way officers provided State and local contacts. Some visits were then organized by the ROW officer himself or through a combination of calls from FHWA and Rivkin Associates. In advance of the field trip, most key contacts were sent the study's work scope and/or specific questions to be addressed. Prior to the field trips, many respondents provided background materials about their programs, legislation or specific projects. Other materials such as policy papers, court opinions, environmental impact statements, newspaper articles, and project design reports were collected during the site visits, which ranged from two to five days. Follow-up field visits to Utah and California occurred in 1992.

V. A BRIEF OVERVIEW OF PROGRAMS

Protective programs in the case States vary in geographic focus and modes of corridor preservation undertaken.

The geographic scope of corridor preservation in the nine States ranges from formulation of *statewide* policies and programs, to policies and programs directed towards a system of facilities within a *single metropolitan region*, and protection/acquisition of *individual corridors* within one or more communities.

Geographic Scope of Corridor Preservation In the Case Study States

Statewide	Regional	Local
California	Arizona	Delaware
Florida		Georgia
North Carolina		Nevada
Oregon		Utah

Three types of corridor preservation are in process, and more than one may be employed in a given State. The most innovative seem to be those directed toward *capacity protection and access control* for existing primary highways, elements of transportation infrastructure under considerable pressure for expansion or renovation with little near-term prospect for funding. These represent partnerships between State agencies and local government with some Federal support.

The most successful examples to date of preserving *new* corridors are ones where *planning for the facility began many years ago*, often as far back as a generation. Corridors have been preserved, although actual facility construction may still be far from programming or completion. In these corridors, the preferred project alternative was fairly narrowly defined and local communities made land use decisions based on expectation of an eventual highway. Environmental studies for each of these corridors, long since completed, were focused on a limited range of options. Preservation has involved a variety of techniques, levels of government, and public sector/private sector cooperation. Corridor preservation has been implemented over many years on a "target of opportunity" basis. These are examples of ad hoc problem solving, spurred sometimes by State, and sometimes by local, pressure.

The most challenging efforts are those where State and local agencies, often with FHWA support, have *formally teamed* to address what they perceive to be a long-term funding shortage that will delay or prevent essential transportation improvements. Their focus is State or region-wide systems of transportation routes,[10] sometimes multi-modal in nature. Formulation of unified strategy in which each level of government, along with the private sector, must play a role is perceived as essential to get the job done.

These comprehensive strategy exercises are quite recent, and corridor preservation figures prominently in the early planning process. Some of the specific projects they address are routes for which location approval has already been granted. Others are at a stage where more than a single corridor for a given facility is under consideration, where environmental studies are not yet sufficiently advanced to permit selection, or where realistic prospects for facility construction may be 20 years or more on the horizon.

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10 One local example, however, is the city of Columbus, Georgia, and its adjacent county, which have launched a comprehensive right-of-way preservation program with State and FHWA support.

Types of Corridor Preservation
In Case States

Existing Highways		New Corridors
Capacity Protection and Access Control	Actions to Support Pre-NEPA Planning and Location Decisions	Strategies to Balance Long Term Resource Constraints
1989 to date	1960 to date	1985 to date
Arizona	Arizona	Arizona
California	California	California
Delaware	Florida	Florida
Florida	Georgia	North Carolina
Oregon	Nevada	Oregon
Utah	North Carolina	Georgia (Columbus)
	Oregon	
	Utah	

VI. PARTICIPATION BY MANY ACTORS — A KEY INGREDIENT

Much of the impetus for establishing and maintaining environmental considerations as a priority in transportation planning has come from citizen pressure. Many transportation agencies have responded by bringing the insights and energies of citizens and other interest groups into the planning process early in feasibility analysis, and to a degree that exceeds legislative requirements for public hearings and public review.

Successful corridor preservation also demands involvement and support from a wide variety of interest groups and institutions outside the transportation agency itself. As the AASHTO report suggests, local government is a key player because of its powers to control the use of land. So, too, are private landowners, whose voluntary cooperation is often essential. Neighborhood, business, and environmental groups can smooth the way for a preservation program or, conversely, prevent such measures from occurring. One of the primary lessons of the multi-state experience depicted in this study is the iron necessity for transportation agency outreach to the prospective actors early in the process.

In the 1980s, Delaware's Department of Transportation (DelDOT) conducted siting studies and environmental assessments for Relief Route 13 in full concert with citizen groups, business leaders, and environmental organizations. One objective was to select a corridor which would be environmentally sound and have minimal displacement effects. This was

one of the first major public involvement operations to occur during a corridor identification and feasibility stage. It has been elaborated upon by other transportation agencies since, and several cases discussed below demonstrate how less formal but equally significant co-operative efforts have helped protect a corridor.

Illinois, not one of the case States but nonetheless a leader in creative approaches to public involvement, is conducting a pilot project that demonstrates how wide and deep such an outreach effort can become. The Fox Valley Freeway is a potential facility in a 90-mile study corridor extending south from the Wisconsin Border.

> The Fox Valley Freeway Study is being conducted in two parts. Part I, the Corridor Feasibility Study, will evaluate the feasibility of constructing a new transportation facility on new alignment through the study corridor, and to develop an initial assessment of purpose and need. The feasibility study will analyze the initial study corridor on a broad basis to identify social, economic, and environmental concerns which would influence the ultimate location of a new transportation facility. On this basis the initial study corridor will be narrowed to a feasible project mini-corridor (and alternative mini-corridors in some locations) for more detailed engineering and environmental studies in Part II. The feasibility study is targeted for completion by the end of 1992.
>
> Part II, development of the Location/Design Report and Environmental Impact Statement, will include detailed studies to identify the best location for the proposed facility; identification of the impacts and benefits; and development of features to minimize harm. Part II will take an additional four to five years to complete. [11]

As part of the study process IDOT has created a set of Citizens Advisory Committees and interest-based Working Groups to review and exchange information with the professional study team and the Department. The composition of these advisory panels is depicted on Figure 6 and illustrates the wide range of actors who may play roles in any corridor preservation that will occur.

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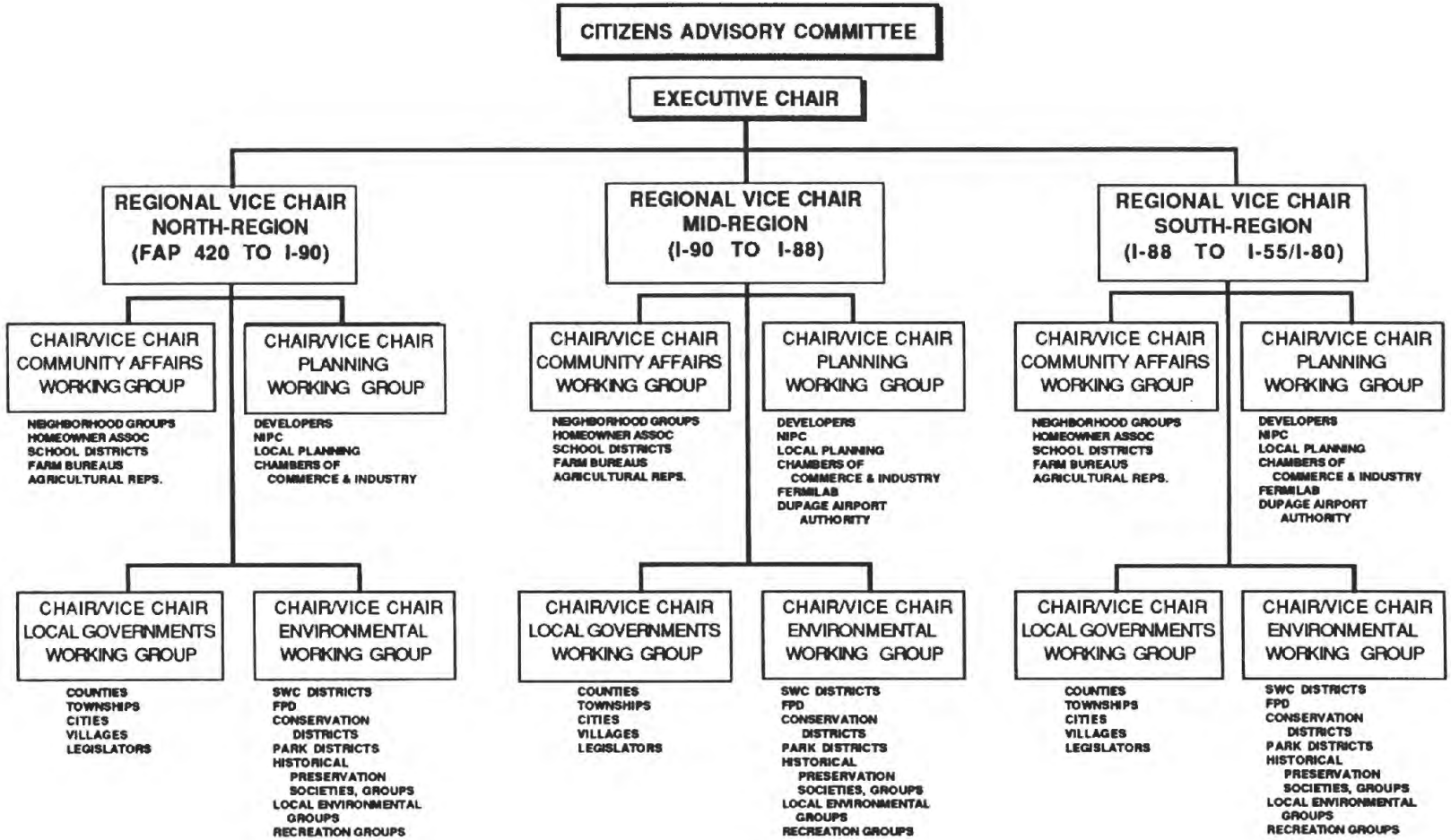
11 Illinois Department of Transportation, "Fox Valley Freeway Update," May 1992, p. 2.

FOX VALLEY FREEWAY PUBLIC INVOLVEMENT PROGRAM



Source: Illinois Department of Transportation

Figure 6

PART TWO:

THE TYPOLOGY

OF

CORRIDOR PRESERVATION:

Insights from Case Investigations

I. CAPACITY PROTECTION

While the literature has stressed preservation of new corridors, protecting capacity of existing routes and systems is certainly a major, if not equally important, planning priority for some State transportation agencies and local governments. Indeed, capacity protection has generated some of the most innovative arrangements yet undertaken between State and local bodies. It is now drawing FHWA attention as well.

Five of the case States have capacity protection priorities; three (California, Delaware, and Utah) for individual routes/projects. Oregon's main statewide systems planning thrust is based on a capacity protection strategy. Florida has taken a comprehensive approach to capacity protection. Under the 1988 State Highway Access Management Act, FDOT is empowered to set more stringent standards for access to the State system, and to work closely with local government in their implementation.

Capacity protection is eminently logical. It is driven by both the universal funding shortfall and emerging incremental physical growth patterns in many areas. Highway routes have long been known for their power to shape land use patterns by providing accessibility. In three case States the highway agency has — through its monitoring of traffic volumes and development trends — foreseen rapid growth along certain existing highways whose access is uncontrolled or liberal. Growth is occurring as extensions of current patterns, as infill between concentrations of development, or both. Within the next 10-20 years, traffic emanating from this development combined with through movements will reach levels for which relief will be required. But as one DelDOT official explained: "We can't keep building bypasses around these places, or relief routes. The money just won't be there." This view is entirely consistent with conclusions by the National Council on Public Works Improvement and others that the budget shortfalls for new facility construction will be long-term.

Each of the three example routes[12] is a primary arterial with limited right-of-way available for widening and highly permissive access control. Although the current road passes

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12 The routes and lengths of corridor are:

Delaware	Route 1, south of Dover - 30 miles
Utah	Route 89, connecting Ogden and Salt Lake City - 20 miles
California	Routes 49 and 91, the gateways to Yosemite National Park - about 50 miles.

through some settled areas, by and large abutting uses are rural and undeveloped. In each case, the STA considers ultimate reconfiguration into a freeway or controlled access route to be essential. Capital funds for such reconfiguration cannot be anticipated, however, nor can early acquisition of additional right-of-way.

None of the routes is on the State Transportation Improvement Program (STIP) for early construction, but all the transportation agencies have concluded that a long-term corridor protection strategy is essential and that maximum reliance must be placed on local government to execute the strategy in accordance with State standards. Although physical settings and administrative conditions differ, all three of the agencies have developed comparable strategies, and DelDOT's has been assisted, as a pilot project, by $1.5 million in Federal funds.

A. Three-Part Strategy

The strategy essentially has the following characteristics which mandate a close partnership between State and local government, and close involvement with private landowners and developers.

1. The STA performs the design and environmental studies. Since construction will be many years away, step one is to become sufficiently familiar with the existing facility, adjoining development patterns and terrain and local land use plans so that "prototype" highway sections and intersections can be drafted. These prototypes are designed to fit various "typical" conditions which pertain along the corridor.[13]

2. The STA recognizes that final design may ultimately require more or less right-of-way than the prototypes, but is prepared to consider this as a relatively minor adjustment to be made shortly before construction. It wants the relevant local community to adopt the prototypes (a) as part of the community transportation plan, and (b) as specific standards — center line and right-of-way boundaries — to be applied to any development application submitted for zoning or an encroachment permit or access to the existing highway.

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13 In the case of Route 89 in Utah, UDOT felt sufficiently confident of the short-term need for one intersection improvement that it went beyond the prototype to perform all the requisite environmental studies, prepare detailed design, and deploy funds for purchase of the necessary land.

So long as abutting land stays rural and undeveloped, the corridor is protected, albeit tenuously, and the STA does not need to move forward with acquisition. It is the potential conversion of vacant land that produces concern.

3. Once a proposal is made by a local landowner for a zoning change or a subdivision or access permit that may encroach on, or reduce, the ultimate right-of-way, then the State and local government act.

B. Delaware Route 1

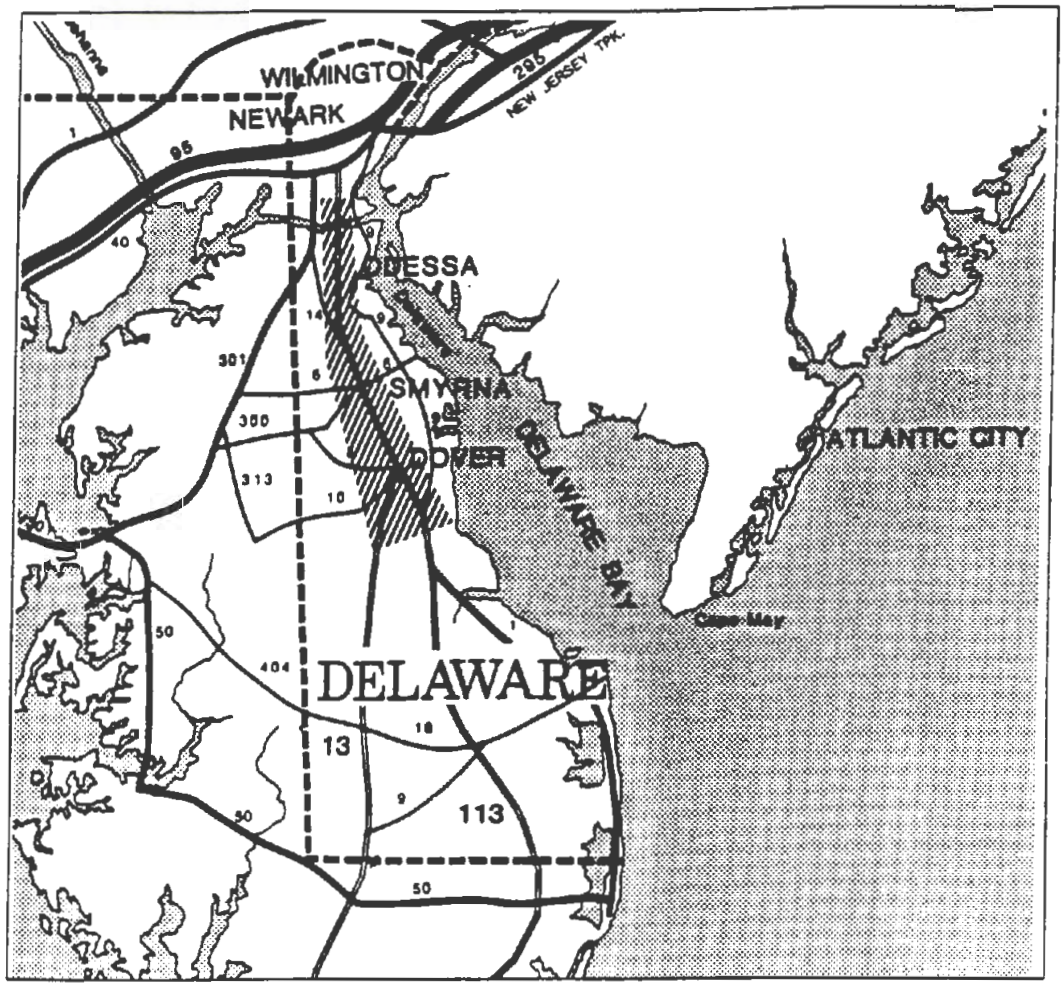
After several years of planning, public participation and environmental analysis, Delaware's Department of Transportation has begun construction of Relief Route 13, a 30-mile limited access facility between Interstate 95 and the State Capital at Dover (Figure 7). The $600 million, federally assisted investment is the largest single highway project ever undertaken in Delaware. While Relief Route 13 will accommodate transportation demands in this heavily-traveled corridor for many years to come, the new facility will connect with and discharge traffic directly into, another significant corridor for which no such improvement funding is anticipated.

The Relief Route will end at State Route 1 (Figure 8) which extends south for another 30 miles to Five Points and the Lewes-Rehoboth beach resorts, the mainstay of the State's tourist economy. Route 1 is a four-lane divided highway (but not limited or controlled access). It has a wide median, with turning lanes and paved shoulders on both sides. Right-of-way in State ownership is generally 180-200 feet, providing room for some eventual expansion or upgrading except in a handful of developed, primarily commercial areas.

Agricultural activity dominates the corridor. Almost all land use on both sides of the road is in large commercial farms with few access points. This contrasts sharply with the few developed sections (gas stations, restaurants, stores) where buildings abut the right-of-way and curb cuts abound. It is even sharper contrast with the wall-to-wall commercial pattern below Five Points where traffic congestion is common during the summer tourism peaks. Because of the generally low intensity land use pattern, Route 1 functions as a de facto limited access highway, with only four traffic signals in its 30 miles.

Figure 7

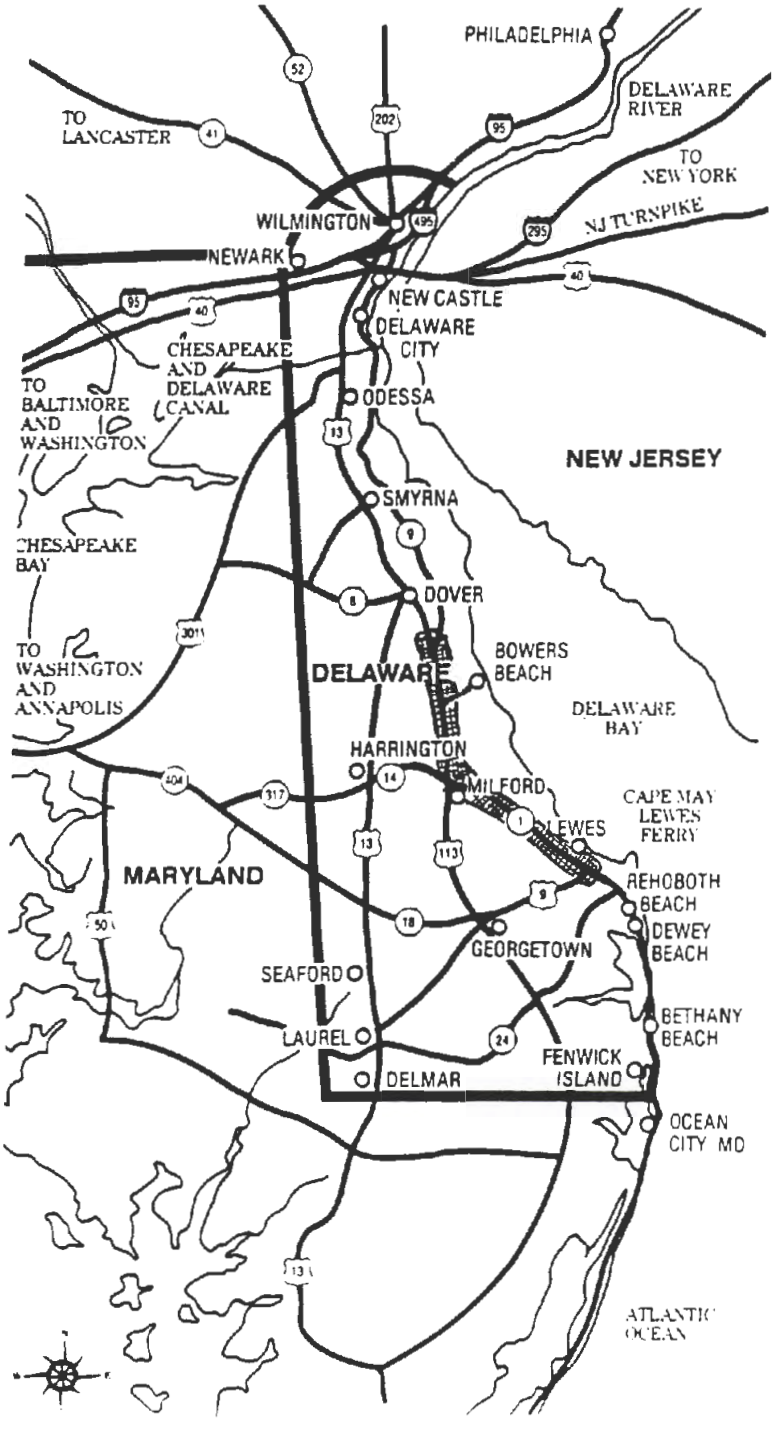
RELIEF ROUTE 13
(Route 7 to U.S. Route 113)



Sources: The Division of Highways, Department of Transportation, State of Delaware and The Federal Highway Administration, U.S. Department of Transportation

Figure 8

ROUTE 1 CAPACITY PROTECTION PROGRAM
(Relief Route 13 to the Shore)



Sources: The Division of Highways, Department of Transportation, State of Delaware and Rivkin Associates Inc.

Route 1 lies within two counties (Sussex and Kent), and Delaware law requires that all applications for rezonings and for subdivision permits at the county level be referred to DelDOT for review and approval.

DelDOT, county planners, and FHWA perceive that traffic will increase considerably along Route 1 and are particularly concerned that Relief Route 13 will, as one official stated, become a "loaded gun," severely taxing Route 1. Major capital funds for improvements comparable with Relief Route 13, alternate corridors, or bypasses for congested areas will not be available.

Thus, DelDOT, in collaboration with local government, has formulated a capacity protection strategy for the corridor, and FHWA's Delaware Division has declared this effort a Class II, environmentally neutral action, eligible for a Categorical Exclusion under NEPA. Until specific improvements are actually programmed the only "action" will be to protect capacity.

Key to the strategy has been preparation by DelDOT of a short-term Corridor Preservation Plan, utilizing prototypical rural and urban rights-of-way sections (Figures 9 and 10):

> The Corridor Preservation Plan outlines the desirable ultimate right of way required for each segment . . . indicates the functional classifications of major intersecting roads and probable locations of future intersections as well as general location of service roads where required. The plan documents existing constraints which limit the potential for right of way widening, such as current land use and zoning, environmentally sensitive areas, and known historical and archaeological resources. In addition, the plan outlines requirements for granting temporary access to adjacent land in such a way as to maintain existing capacity. The Plan will, whenever feasibly possible, provide access alternatives to minimize the occurrence of total denial of legal development of impacted properties.[14]

Control of access is as high a priority as protecting the right-of-way itself. The plan explores and establishes design criteria for various options, from service roads to combined entrances with adjacent parcels, to links with nearby streets which intersect with the highway. A system of temporary access points has also been designed which would be closed (and alternatives provided) when fully controlled access is initiated.

Armed with the plan and supportive local ordinances, but recognizing that no construction project is imminent, DelDOT's strategy is primarily reactive. Once a rezoning request or subdivision permit is filed and reviewed by local government, a special DelDOT Review

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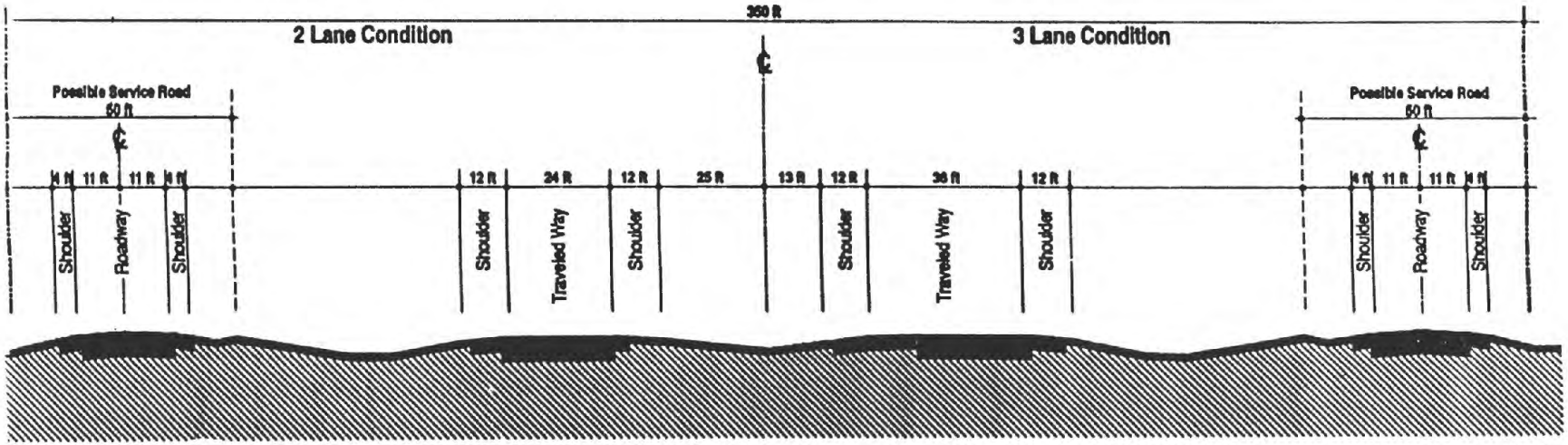
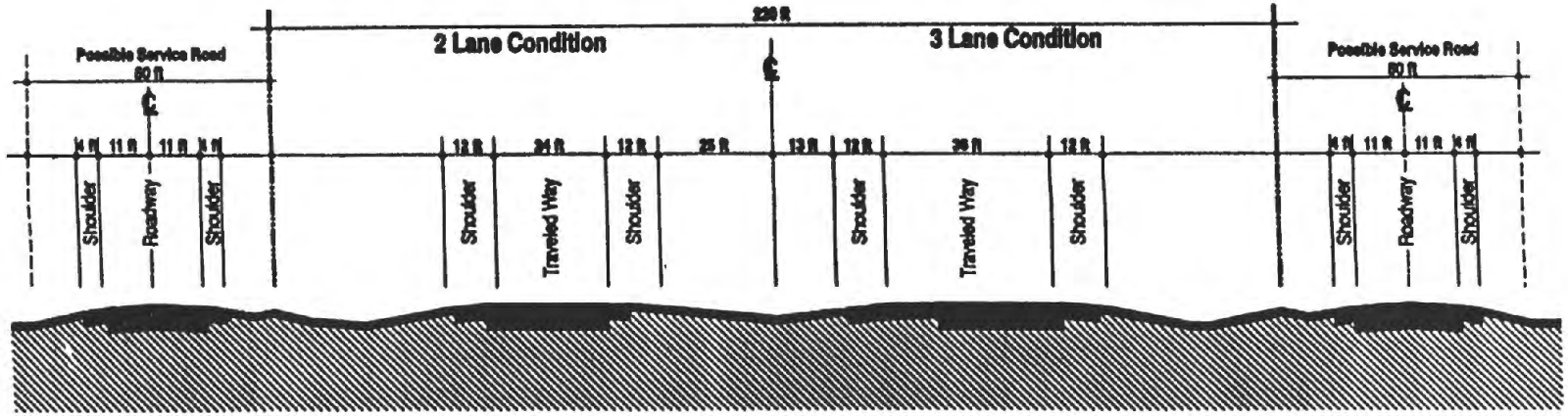
14 State of Delaware Department of Transportation, *SR 1 Corridor Preservation Plan Policy Implement*, 5/22/92.

TYPICAL RURAL SECTIONS, DELAWARE ROUTE 1



DESIRED RURAL TYPICAL SECTION

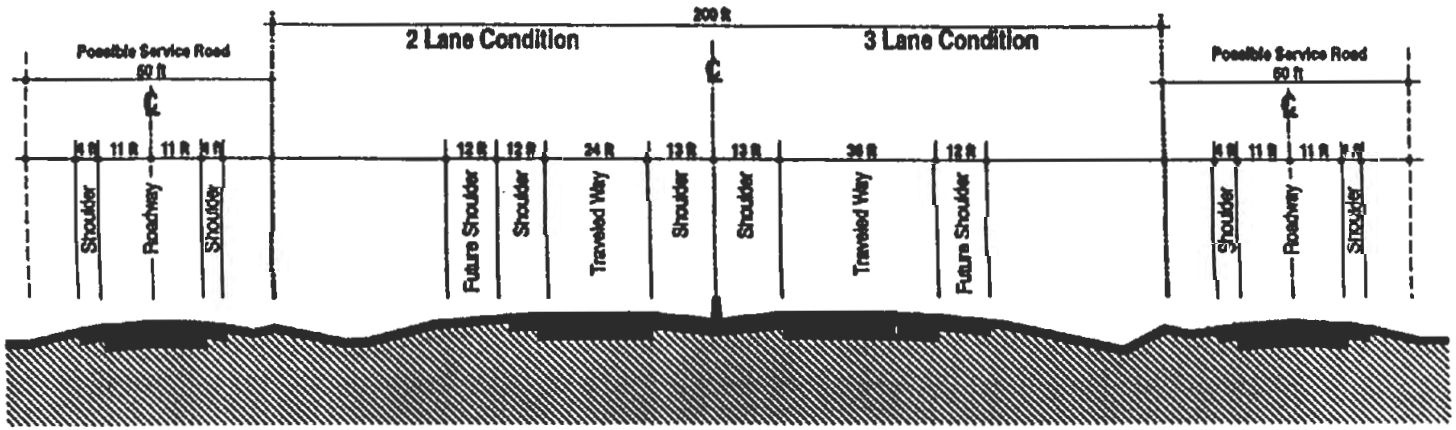


MINIMUM RURAL TYPICAL SECTION

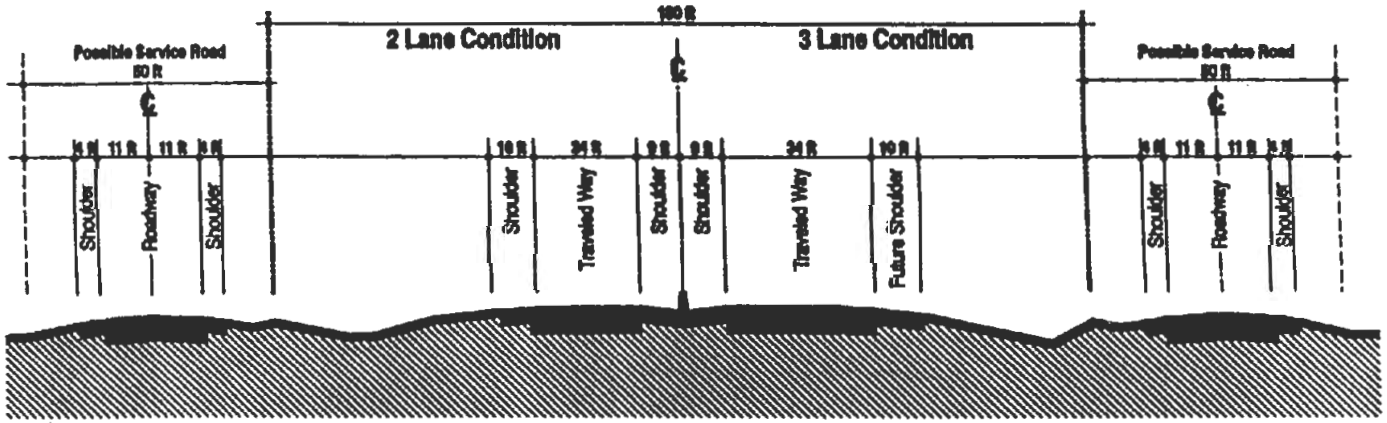
Source: The Division of Highways, Department of Transportation, State of Delaware

Figure 9

TYPICAL URBAN SECTIONS, DELAWARE ROUTE 1



DESIRED URBAN TYPICAL SECTION



MINIMUM URBAN TYPICAL SECTION

Source: The Division of Highways, Department of Transportation, State of Delaware

Figure 10

Committee will examine the proposal and attempt to reach a negotiated agreement with the landowner to reserve right-of-way and apply the design/access standards. Any proposed development which generates traffic exceeding capacity of the road will, furthermore, be required to undertake mitigation improvements and/or transportation management agreements.

Ever mindful of compensation issues, the agency is prepared to respond with land purchase or other equitable measures if problems arise:

> If proposed access location(s) are not in conformance with the Corridor Plan or if right of way and access control requirements unreasonably preclude the owner's otherwise legal use of the property, DelDOT must attempt to indemnify the owner through planning for the construction of alternative access, making financial compensation for development restrictions caused, or purchasing property interest including, where appropriate, the total property.[15]

Since it may be many years before any reserved land is actually used for highway purposes, the plan permits interim use for agriculture, landscaping, and parking, but not for structures.

Delaware's initiation of this approach to protection of Route 1 has been accompanied by considerable publicity and dialog between DelDOT and property owners. The State is stressing the benefits of a protected Route 1 to adjacent properties and promoting voluntary cooperation. Indeed, DelDOT is willing to negotiate with owners who may not be planning specific projects but want to sell either development rights or actual properties encompassed in the corridor plan.

Encouraged by local government, citizen, and landowner response thus far, the State intends to initiate full environmental impact studies in 1993, even while it conducts the application reviews and negotiates with individual landowners.

The "bottom line" for the effort will be a major transportation facility that can accommodate future expansion within the existing Route 1 corridor.

> This will result in significantly less disruption to existing businesses and homes in the future. In addition, environmental impacts will be reduced since roadway improvements will be made in already-developed areas rather than as a new roadway alignment through undisturbed areas.[16]

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15 Ibid, p. 4.

16 Delaware Department of Transportation, *Route 1 Corridor Preservation Program*, 1992, p. 4.

C. Utah Route 89

More than 2,000 miles west of Delaware, the State of Utah's Department of Transportation and eight local communities (two counties and several cities and towns) are also grappling with capacity protection for a major arterial highway. Adjacent properties, while still largely agricultural, have already experienced substantial suburban growth — residential subdivisions and shopping centers.

State Route 89 is a major connector between Salt Lake City and Ogden. It extends for some 20 miles parallel with I-15 between Farmington and the southern part of Ogden (Figure 11) and traverses the western edge of the Wasatch National Forest. Historically, the land has been a site of horse farms, some of which continue to flourish. With the growing suburbanization of both main cities, however, the access afforded by Route 89 has led to a scattering of low density subdivisions and to shopping facilities at several main intersections. Figure 12 shows the dispersed pattern of suburban streets with connections to the main road, separated by large open spaces, that is typical of the route.

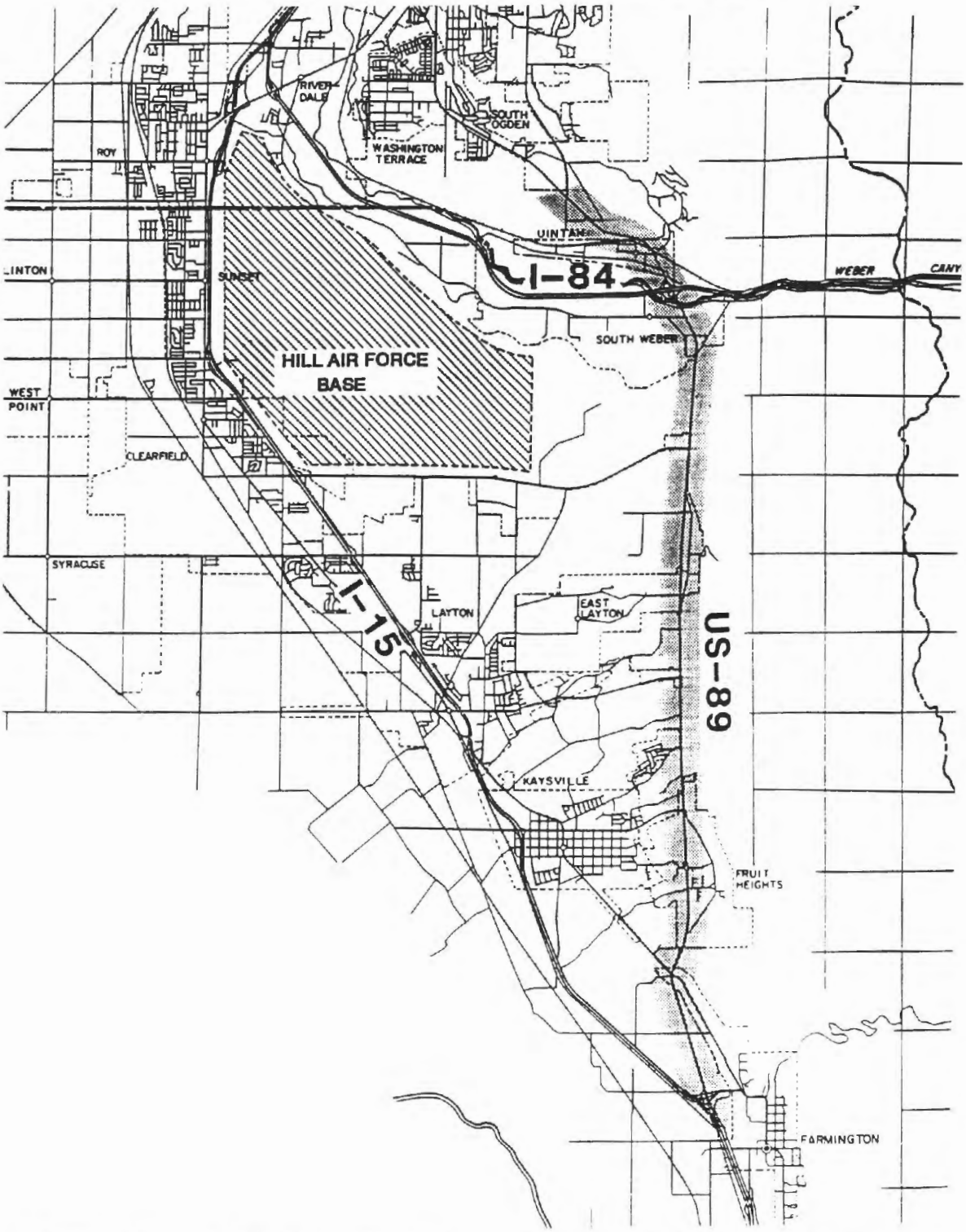
UDOT recognizes that long-term improvements to the facility will be essential but, with the exception of one major intersection, funds for reconstruction will not soon be available and development pressures to develop the large expanses of open land will accelerate.

UDOT's thrust is to establish legally binding agreements with local communities that will (a) alert the State to pending developments on land affecting the highway, and (b) provide opportunities for either the State or local government to ensure corridor preservation within the context of a comprehensive long term plan. These agreements stipulate:

> 1. The UDOT shall complete environmental studies, environmental reports, hold public hearings and complete final plans for the highway improvements to be made on US-89 within the limits specified in this Cooperative Agreement.
>
> 2. Insofar as it may lawfully do so, the (*jurisdictions*) shall preserve the rights of way within their boundaries from developments that could escalate the cost of acquisition of properties for the future highway widening and improvement work.
>
> 3. The (*jurisdictions*) shall carefully review all applications for building permits and/or zoning changes within the improvement areas shown on said "Exhibit B" to determine the economical impact that may result to the future highway costs.
>
> 4. Whenever it has been determined that a proposed building or zoning change might affect the cost of the future highway right of way, the (*jurisdictions*) shall make notification to the UDOT's District No. 1 headquarters . . .

Figure 11

LOCATION MAP, U.S. 89, SALT LAKE CITY, UTAH
(Interstate-15 to Harrison Boulevard)



Source: Versar A & E, *Environmental Impact Statement,* for the Utah Department of Transportation, Figure 1.1-1

> 5. The UDOT shall then coordinate with the (*jurisdictions*) as necessary to determine what action might be taken to mitigate the costs of said future highway rights of way.
>
> 6. As final plans are developed, the UDOT shall provide copies to the (*jurisdictions*) so that they might better determine where preservation of rights of way will be required . . .[17]

The range of anticipated measures may involve dedication and set-back requirements under local subdivision ordinances, zoning proffers, developer donations, but also outright acquisitions. As important as the measures themselves, is the municipality's "early warning" commitment to inform UDOT when an application is submitted requiring action.

UDOT initiated the program in 1990. By mid-1992, six of the eight agreements had been executed. Although its original intention was to defer full scale planning and environmental analysis, UDOT has commissioned a complete Environmental Impact Statement (EIS) which may take several years to perform. Four major alternatives are under study, ranging from the present alignment with signalized intersections, to an expressway configuration with frontage roads, and a full freeway standard. Prototypical designs have been drawn for each alternative.

Meanwhile, the early warning system appears to be working and the State is buying land from property owners seeking development approvals. For example, near an intersection in Farmington, UDOT purchased right-of-way adjoining a K-Mart when the owner applied to build a Goodyear store on a pad near the highway. At Layton, UDOT bought a service station and convenience store for which an application to expand had been filed. One applicant for subdivision approval is designing a frontage road into his plan in an effort to ensure a favorable decision.

The program has been publicized well, and people are approaching UDOT to offer properties for sale. One owner, who lost his job in the recession, requested a buy-out.

Land currently used as a nursery was also offered and, although the full extent of ultimate right-of-way needs is not yet determined, the agency has considered a total purchase.

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17 Text from proposed agreement between Utah Department of Transportation and Layton City Corporation, February 1991.

PRESENT ALIGNMENT OF U.S. 89 THROUGH DEVELOPED AREAS
(West Valley, Utah)

Figure 12

Source: Versar A & E, *Environmental Impact Statement* for the Utah Department of Transportation

According to the District official in charge of acquisition, until a final alignment is established the agency is using Alternative 2, the expressway with frontage roads, as basis for establishing taking lines.

This process in not without problems or controversy. Local communities are debating the alternative road configurations and it may be many years before consensus is reached. Local funds for right-of-way purchase were not committed and without a definitive program allocation, UDOT's own acquisition funds are limited. (Layton has, however, purchased land to widen local access roads that would connect with Route 89.) One local official commented that restraining techniques short of direct acquisition are very difficult to enforce. Once a property has been zoned for development, his city cannot deny permitted uses unless an owner is willing to comply or the State has funds available for purchase.

D. Madera County, California, Routes 49 and 41

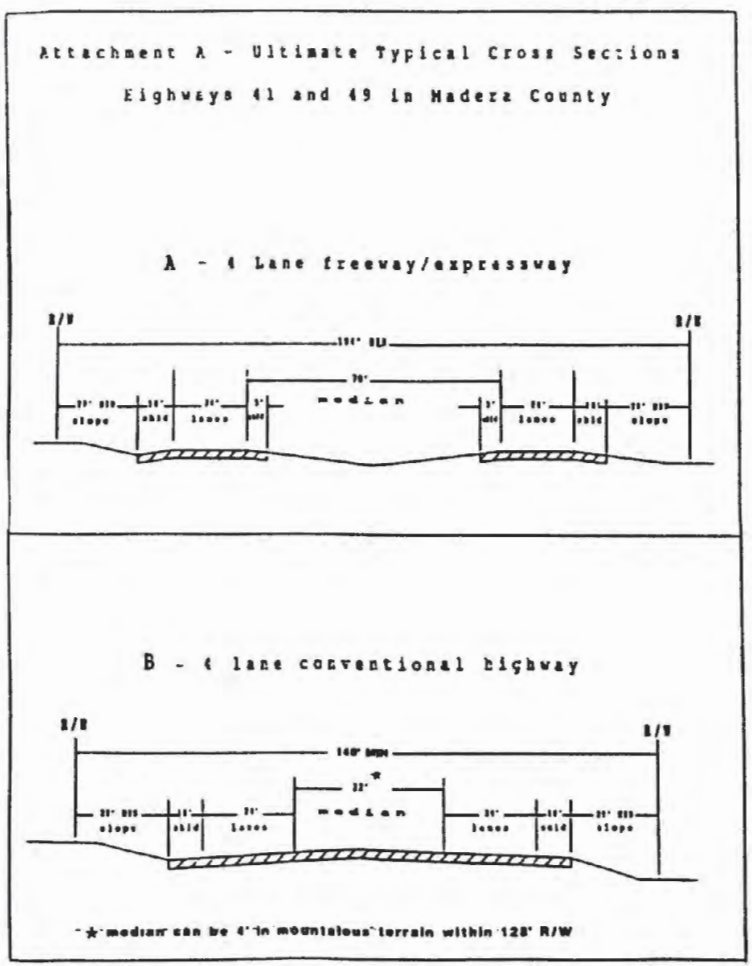
While the western portion of Madera County contains urbanizing suburbs of Fresno, the county itself is quite large, stretching eastward almost as far as Yosemite National Park. The main access road to the park, State Route 41 and its tributary, State Route 49, pass through eastern Madera County and a number of communities such as Coarsegold and Oakhurst.

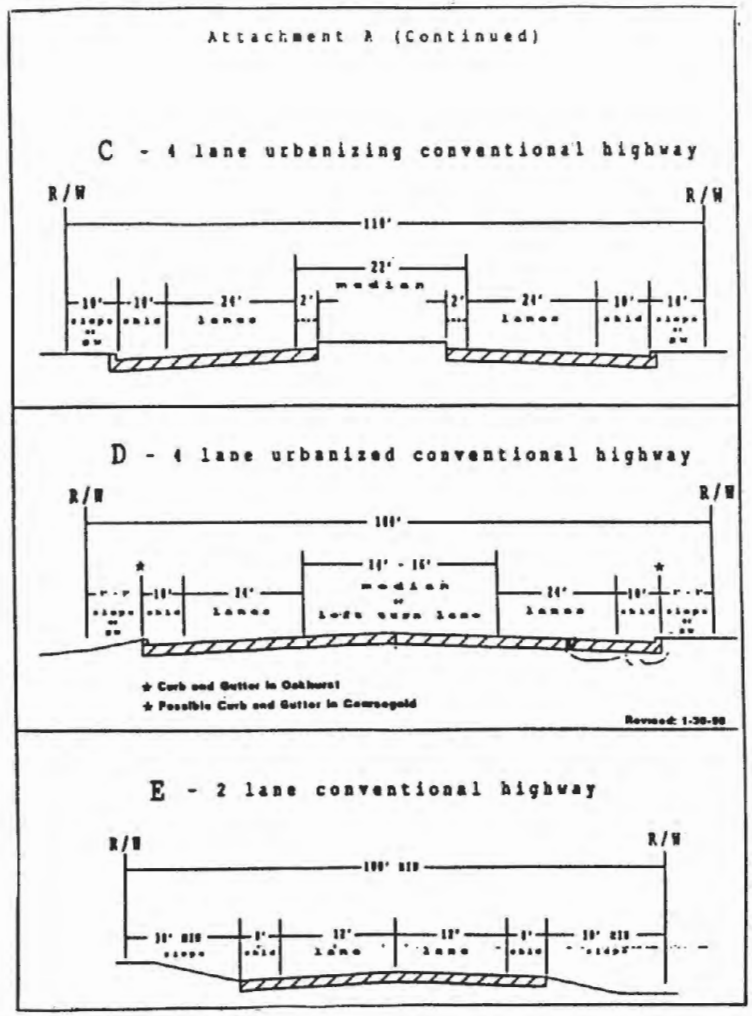
These are tiny tourist towns where the two-lane rural arterials become jammed during the peak tourist seasons. Development is intensifying in the towns, with motels, gas stations, restaurants, etc., especially because such uses are restricted within the Park. There are no major landowners or large-scale developers in this setting. Building requests within the towns and the surrounding countryside come in one at a time, parcel by parcel.

Both Caltrans and Madera County officials believe that the two roads will ultimately need to be widened to four lanes. Because they pass through a variety of undeveloped and developed areas and topography that varies from flat fields to steep mountainsides, it is not possible to set a "standard" right-of-way for their entire length.

Funds are not available for improvements, and reconstruction of the facilities is not yet programmed. It may be many years before any construction occurs, but both Madera County

Madera County, California
PLANNED HIGHWAY IMPROVEMENTS
Typical Cross-Sections





Source: Caltrans

Figure 13

and Caltrans want to protect the corridors before development precludes transportation options.

Madera County's solution was to ask Caltrans to draft an ordinance, which has now been incorporated in the county development regulations. This ordinance is specific to Routes 41 and 49 and to various generalized segments of these roads. It sets several different prototypical right-of-way standards varying from 100-194 feet. The standards relate to the projected four-lane traffic flow requirements, to the presence of existing land uses (often very close to the existing pavement), and to adjacent topographic conditions. They will be used in processing zoning and subdivision permits. The ordinance summary states:

> The County has been working with Caltrans for a considerable period of time in an attempt to set a standard for Highway 41 and Highway 49 so that parcel maps, developments, and buildings permits can be processed in a reasonable manner that will allow maximum use of the properties but still acquire or protect the right-of-way for ultimate construction that will be needed in the coming years as the area becomes more urban.[18]

So long as the improvements are not scheduled, no action will occur until or unless an abutting landowner seeks a development permit. The permit request will be reviewed and the developer will be asked to dedicate or (depending on the circumstances) to sell the right-of-way. In the meantime, the ordinance has been widely publicized and property owners are aware of the ultimate improvement requirements.

E. The Oregon Approach

In Oregon, long-term capacity protection for existing major facilities — plus protection of the few new corridors anticipated — is the major thrust for comprehensive transportation planning in that State.

There has been a clear shift in the Oregon Transportation Commission's (OTC) policy orientation, from providing access for roadside development to protecting public investment in capacity of the arterial highways serving through traffic.

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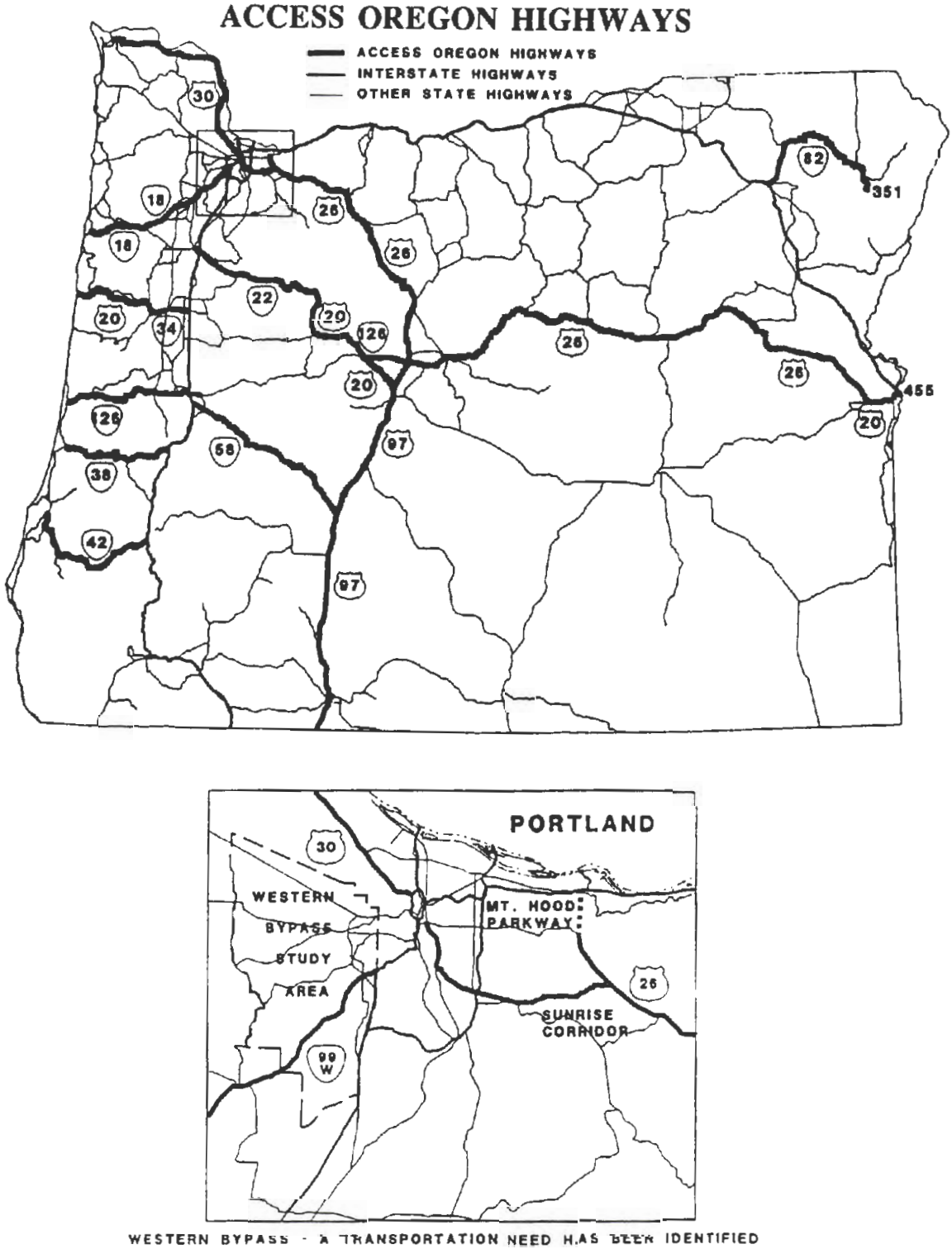
18 Memo from William H. King, Jr., Road Commissioner to the Honorable Board of Supervisors, Madera County, California, February 1, 1990.

Figure 14



Source: Oregon Department of Transportation

Oregon legislators and highway officials alike have been mindful of past projects where highway capacity was increased only to become absorbed by newly generated traffic and the multiple access points created for highway-oriented development. They recognize there will not be enough money to continue building new bypass routes for old bypasses that become congested. Major new roads are simply not in prospect.

Modernizing, preserving, and maintaining the 7,600-mile State system (which has an estimated $6 billion backlog of needed improvements) is, therefore, the primary concern. The OTC has directed that gas tax revenues be spent on projects of statewide significance, equitably distributed throughout Oregon and selected to encourage economic development. OTC has approved a program which concentrates funding on 12 existing corridors. The 12, plus three new corridors in rapidly growing parts of the Portland Metropolitan Area,[19] have been identified as the *Access Oregon Highway (AOH)* system. These priority highways form a network linking the interstate highways, State borders, ports and urbanized areas with centers of developing economic activity and major tourist or recreational areas. All carry significant volumes of general vehicular or truck traffic. The selection process involved classification of roads according to *levels of importance* and numerous public hearings held across the State in 1988.

1. The AOH Program

The AOH program calls for achieving specific standards of service (e.g., 45 or 55 mph average travel speeds, depending on the respective functions and circumstances of given highway segments), then *protecting the capacity of these arterials to serve through movement.* State policy will allow these highways to accommodate local circulation needs only to the extent that their priority function for through travel is not sacrificed. The implementation plan harnesses cooperative State and local long-range planning, strong access control measures, congestion management techniques, land use controls and construction (where cost-effective) in a *comprehensive* corridor management strategy.

ODOT makes a corridor plan for each of the AOH highways. Where projected level of service meets the desired standard now, the standard will be maintained even as anticipated

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19 The three new Portland area corridors will serve identified future needs of the most rapidly growing portions of the metropolitan area. One is a western bypass, connecting I-5 and U.S. 26. A so-called *Sunrise Corridor* is to be an eastward extension of OR 224/OR212 between OR 99E at Milwaukie and U.S. 26 at Boring; and the Mt. Hood Parkway is to provide a link between I-84 at Wood Village and U.S. 26 at Gresham.

future development generates growing travel demand. Keeping a minimum interval between points of access to the highway is a key element. ODOT will acquire existing access points that are too close together — through negotiated purchase, eminent domain, exchange of property or possibly substitution of alternative access via a local street or frontage road paralleling the highway. ODOT might even exercise eminent domain to take right-of-way from a third party, in order to provide alternative access for a landlocked property. As for new driveways or new streets, Oregon plans to make aggressive use of the police power to grant only those which meet standards for minimum distance between AOH highway access points.[20]

A similar comprehensive implementation strategy is being developed for another major highway project, the upgrading of the Coastal Road, U.S. 101. Efforts are under way to make this road a scenic highway running from Northern California through Oregon and into Washington State.

Collaboration with municipal and county governments in planning and implementation is part of ODOT's mandate under both the AOH program and the Coastal Road scheme. ODOT plans and projects must be consistent with the local jurisdictions' comprehensive plans. Indeed, ODOT cannot fund projects not reflected in the affected community's comprehensive plan. A proposed administrative ruling by the Oregon Land Conservation and Development Commission (LCDC) will require, further, that all communities revise their comprehensive plans and regulatory ordinances to make these instruments consistent with the AOH program.

2. Statewide Planning in Oregon

Oregon's statewide land use planning system relies on local governments to prepare the comprehensive plans that address how 19 specific statewide planning goals will be met in the areas under their respective jurisdictions. Statewide transportation goals and objectives

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20 In built-up areas, where existing highway conditions already, or may soon, fall short of the desired operating speeds, a combination of highway upgrading and modernization projects, systems management techniques such as continuous median barriers and left-turn pockets, congestion management measures, access controls and even land use and development regulation may be employed so that the standard is phased in over time. There may be situations where impacts on existing development of achieving the targeted operating speeds are so adverse, and opportunities for amelioration so limited or costly, that it will be better to leave the old segment of road for local access and build a segment of highway which by-passes the built-up section. The ultimate mix of measures will depend on assessment of cost-effectiveness and implementation agreements between ODOT and the local jurisdiction.

are among the 19.[21] LCDC reviews these plans, remands them for changes if they are inadequate with respect to the State goals, and formally *acknowledges* the plans when they satisfy the Commission's criteria for acceptance. The comprehensive plans, as a group, cover the entire State. Once acknowledged, they comprise a mosaic which is, in effect, the statewide plan. ODOT must respect the relevant comprehensive plans in its transportation facilities planning.

> Local government must assist the state to help protect the integrity of AOH corridors and maintain [their] primary function of serving through traffic. City and county jurisdictions must begin to accept the responsibility of planning and funding local circulation systems, arterials and frontage roads to serve commercial development. Decisions on zoning and land use must be made so as to discourage the kind of strip development so common along many state highways. In some cases, development or improvement of interchanges to serve high volume road connections should be considered over signalization, especially on rural portions of these routes.[22]

In the past, communities tended to regard the existence of, or plans for, a State highway as the focal point for locating concentrations of their most intensive uses. Now, however, legal research and consultation support a different approach to State roads and exercise of the police power with respect to those roads.

A major shift has occurred in Oregon — away from a traditional view that providing access in support of the use and development of adjoining lands is the main public purpose to be served. The current view accords far higher priority (indeed, the highest priority) to the needs of the traveling public and protection of the public investment in highways. Communities may still plan and zone for shopping malls and employment centers with good visibility from the State highway. But they can no longer assume that direct access to that highway will be available for the asking. Local jurisdictions will have to face up to the responsibility of providing the whole hierarchy of transportation facilities needed for primarily local or "intra-area" circulation.

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21 The statewide goals cover: citizen involvement; land use planning; agricultural lands; forest lands; open space, scenic and historic areas and natural resources; air, water and land resources quality; areas subject to natural disasters and hazards; recreational needs; economic development; housing; public facilities and services; transportation; energy conservation; urbanization; Willamette River Greenway; estuarine resources; coastal shorelands; beaches and dunes; and ocean resources.

22 ODOT Highway Division Planning Section, *Access Oregon Highways Corridor Studies*, February 1990.

F. Capacity Protection in Florida

A high growth State whose existing road system has become increasingly strained, Florida also has recognized the relationship between access management and preservation of capacity, efficiency, and safety. In 1988, the Florida legislature adopted the State Highway Access Management Act.

The statute is noteworthy in clearly stating that while owners of property abutting State roads have a right to *reasonable* access, they may not have a right to *direct* access.

> The right of access to a road on the State Highway System may be restricted if reasonable access may be provided pursuant to local regulations to another public road which abuts the property . . . The access rights of an owner of property abutting the State Highway System are subordinate to the public's right and interest in a safe and efficient highway system.[23]

To implement the new law, FDOT developed a comprehensive set of administrative procedures controlling access and other factors affecting road operations. These took effect February 1991, emphasizing close coordination with local jurisdictions.

Within two years (i.e., by 1993) every highway on the State system was to be classified into one of seven categories, each with specific standards for (1) connection spacing, (2) median opening spacing, and (3) traffic signal spacing. FDOT negotiates with local governments regarding the appropriate classifications for roads in their respective jurisdictions. The State DOT is also working closely with local governments to get the new access standards incorporated into local land use and subdivision regulations. Where FDOT calls for minimum 400-foot intervals between access points, for example, some local governments might still be granting permits for lots with 100-foot frontages unless they brought their regulations into conformance with the new highway access standards. Issues of this nature need to be resolved, and many existing, nonconforming driveways will be "grandfathered," i.e., allowed to remain.

Oregon's comprehensive capacity protection policy, access management in Florida, and the individual project efforts of California, Delaware, and Utah are significant because of the mesh between local and State action — in both planning and implementation. That new intimacy is the hallmark of successful corridor preservation.

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23 State of Florida, F.S. 335.181, *State Highway System Management Act*, 1988.

II. PROTECTION OF LONG-PLANNED CORRIDORS

Many of the most successful examples of corridor preservation are along highway routes first conceived in the 1960s or earlier. Although construction of some is still under way or yet to be begun, the right-of-way has been secured. Some of the corridor was acquired little by little, through a mix of Federal, State, and local funding. Other portions of the right-of-way were acquired only shortly before construction was ready to begin. This was possible with a minimum of strife, relocation and cost because creative uses of police power had occurred years earlier, and arrangements had been negotiated with many land-owners or developers to donate sites or voluntarily keep the right-of-way free of buildings until it could be purchased.

A. Pre-NEPA Initiation

Eight of the nine States have one or more examples which share a common characteristic: Planning began during the "golden years" of highway development, when the Federal Government was the financier of note, and States, metropolitan regions, and individual jurisdictions were preparing plans to serve as a regional transportation framework for well into the twenty-first century. Lines were drawn on maps well before NEPA was enacted and fundamentally altered the methodology of infrastructure planning. The corridors so designated were adopted by the local jurisdictions, although they were at the time below the first rank of priorities for funding.

If any generalization can be made about the routes themselves, they tended to be (at the time of initial planning) outer perimeter arterials or expressways, some distance from the major concentrations of suburban population but slated to support a subsequent tier of development. Examples include State Route 85 in San Jose, California; the West Valley Highway near Salt Lake City, Utah; the Carson City Bypass in Nevada; and the Kuebler Bypass in Salem, Oregon.

1. Basis for Land Use Decisions

Even though construction funding was remote, and was continually deferred, the lines served as the basis for land use planning decisions by the affected jurisdictions. They were, themselves, as much land use decisions as highway plans. Since they were

established as official local policy, many private land-owners and developers took them into consideration in deciding where and what to build.

Over the years, States or local jurisdictions acquired portions of the rights-of-way, sometimes allowing the land to be put into interim uses such as agriculture and nurseries. These actions tended to reinforce community expectations that the roads would be built and that development in their influence area would ultimately benefit from improved accessibility.

2. Environmental Studies

As the 1970s and 1980s passed, environmental analyses at various levels were made, especially when opportunity or demand for funding emerged. For some routes where Federal funds were in prospect or, in California where State environmental requirements were as procedurally demanding as Federal, full Environmental Impact Statements were prepared. By this time, however, development patterns in the influence area of the highway route had typically become so established that the range of viable alternatives the assessments could examine was really quite limited.

Almost by default, the original route — with perhaps some minor modifications — became the preferred one. Other options would displace many existing uses, would traverse parks or other protected or sensitive lands held out of development by various levels of government over the years, or would not effectively serve the basic transportation purpose. While other options, in addition to the no-build alternative, were studied in these cases, the corridors of long standing tended to emerge as those of least adverse impact.

One example where the continuity of years of public planning was reflected in the EIS is Utah's West Valley Highway.

> A Salt Lake County ordinance (on record with the County) in 1964 placed the alignment and reserved right-of-way for the West Valley Highway Alternative on an official county map. The Salt Lake Area Transportation Study (located with the Wasatch Front Regional Council) placed the facility on the Long Range System Plan. Also, the proposed facility has been an integral part of the Salt Lake County, West Jordan City, and West Valley City Transportation Master Plans. The right-of-way for the highway facility was first required to be set aside by developers in 1961 as a prerequisite for subdivision approval. Also, zoning ordinances, school attendance boundaries, and comprehensive planning activities have taken into account the future implementation of this alternative. Therefore, the West

> Valley Highway Alternative is in total conformance with the intent, goals, and policies of regional plans.[24]

A second example may be found in the alternatives examined for the Route 85 corridor in San Jose. Here, the line for a facility had been planned since the early 1960s. The State had actually acquired about 45 percent of the right-of-way. The issue was whether acquisition should continue for an as-yet unprogrammed facility or whether the State should sell off what it had bought. The Route 85 EIS in 1981 was actually one of the first "corridor" assessments made. It stated at the outset:

> There are four basic alternatives available to CALTRANS and the Federal Highway Administration that are being evaluated in this environmental document:
>
> 1. Protect the corridor - purchase land as necessary for protection and hardship purposes.
>
> 2. Abandon the corridor - sell existing state-owned right-of-way
>
> 3. Protect and/or abandon a particular segment(s) of the corridor - purchase and/or sell right of way as appropriate. Under this alternative CALTRANS is assessing the effects of retaining the 1.8 mile long segment between Stevens Creek Boulevard and Saratoga-Sunnyvale Road in Cupertino and abandoning the remainder of the corridor.
>
> 4. No action - do nothing more, retain existing state-owned right-of-way . . .
>
> No construction is being proposed on the basis of this EIS/EIR. The type of transportation facilities which might utilize the corridor right-of-way in the future is not being decided at this time. Financing for any specific transportation facility in the corridor is uncertain and at best may be several years away. For this reason, an action to resume protective right-of-way acquisition or to abandon the corridor is being evaluated independently of and without any specific transportation project proposal. It is recognized that a program decision to acquire additional right-of-way is a step toward possible future development of transportation facilities in the corridor and accordingly the indirect potential environmental impacts of such a program must be considered in the environmental process leading to that decision.[25]

Corridor preservation for all of the routes examined began in earnest only when the corridor in question had passed through sufficient levels of approval to be relatively narrowly defined. Even though construction funding might still be many years away, there was sufficient certainty that a particular alignment, subject only to minor modifications, would be implemented. That surety, in the form of local master plans and zoning ordinances, provided both public agencies and private landowners with a clear context in which acquisition could be initiated, police power exercised, and deals made.

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24 Utah Department of Transportation, *West Valley Highway Final Environmental Impact Statement*, 1986, p. IV-21.

25 California Department of Transportation, *Final Environmental Impact Statement Report, West Valley Transportation Corridor Unconstructed State Route 85, Santa Clara County*, 1981, pp. III-1-2.

B. Examples of New Corridor Protection Initiated Prior to NEPA

In the cases initiated prior to NEPA, leadership came from a variety of decision-making institutions and individuals employing a variety of preservation techniques. Each of the four short stories that follows illustrates a somewhat different interweaving of Federal, State, and local actions.

1. Carson City, Nevada, Bypass

State government was the sole significant actor, and advance acquisition of right-of-way the sole technique for protecting the highway corridor in only one case examined for this report, the 9.9-mile Carson City Bypass (Figure 15).

Although the route had been studied since 1959, Carson City adopted the alignment in its master plan only after a final EIS was prepared by Nevada DOT in 1984. Acquisition is occurring exclusively through NDOT's use of the FHWA revolving fund. Exercise of zoning and subdivision powers to obtain land for public use is vigorously opposed by State and local government. One subdivision in the planned right-of-way had been approved by 1991 and will need to be acquired.

The prospect that the alignment would be soon lost to development has been a major factor in the State's decision to accelerate acquisition using the "Q fund" resource. Development pressures have become so intense, along with the demand for traffic relief, that NDOT now plans to construct an interim two-lane road in the freeway alignment pending full freeway construction after the year 2000.

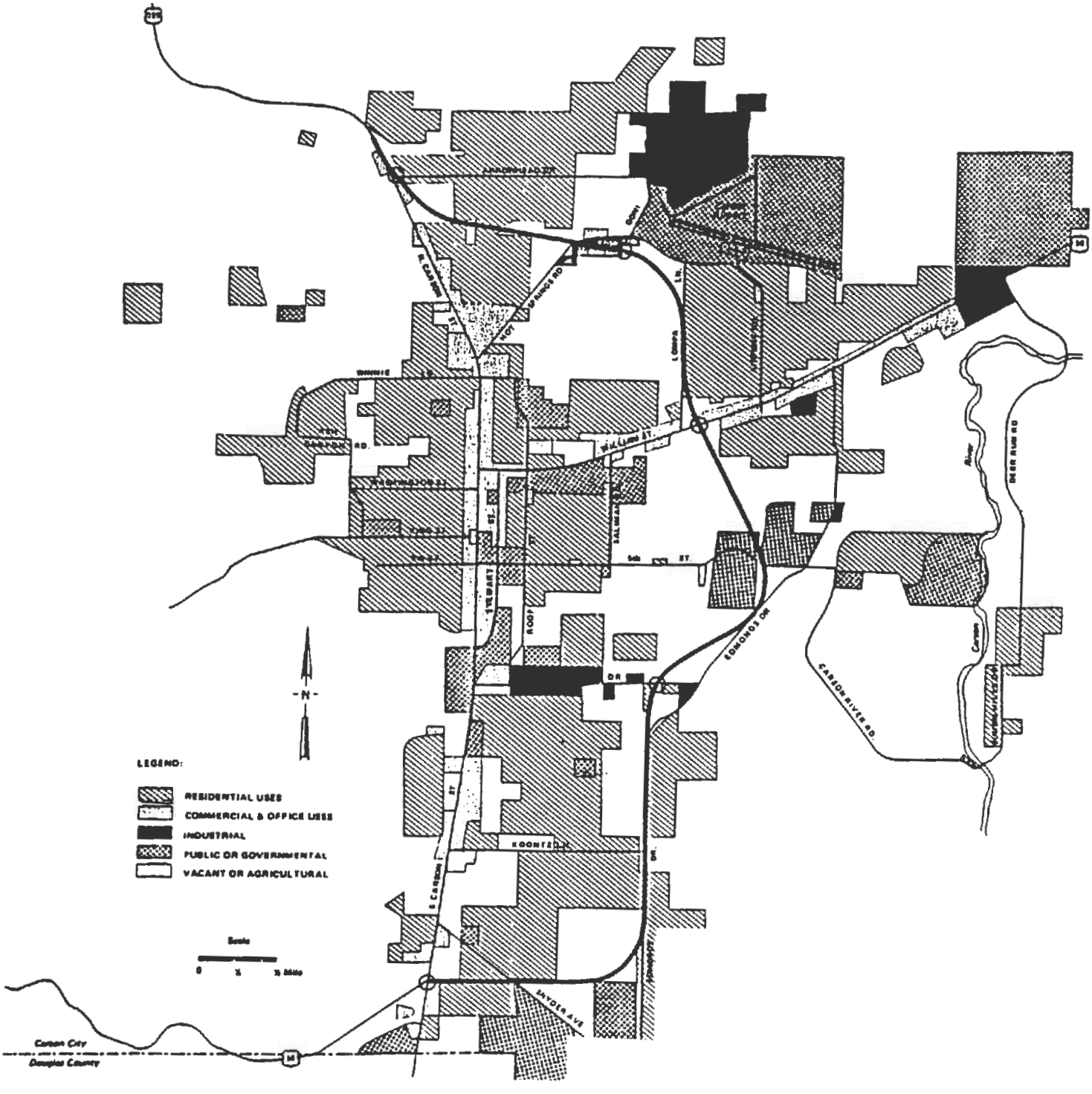
2. Salem, Oregon, Kuebler Bypass

The Salem Bypass presents an excellent example of how local government proceeded over time to plan and acquire the right-of-way for a major transportation facility, using local powers and funds. Only late in the process did State and Federal sources enter to help finish the job.

The story began with the 1968 Salem Area Transportation Study, a first generation *3-C*, multi-agency planning exercise. That study identified needs based on traffic projections to the year 1982. Included among its recommendations was a beltway around the edge of the

Figure 15

U.S. 395 BYPASS CORRIDOR and GENERALIZED LAND USES Carson City, Nevada



Source: Nevada Department of Transportation

then-developed area, to serve as a bypass and link between the arms of a basically radial urban road pattern. The southern segment of the proposed circumferential corridor coincided with an existing two-lane county road bordered by agricultural land. In the limited area where some development had already occurred, the new corridor was to pass through farmland behind existing uses, leaving the old two-lane road for local access.

Although the transportation study satisfied the Federal requirement for comprehensive planning, the area jurisdictions did not adopt the plans at the time. By January 1970, however, the city of Salem found development pressure in the southwestern sector was making demand for east-west travel both greater and more imminent than the areawide transportation study had anticipated. Salem ordered preliminary alignment surveys and selected a preferred route for the bypass. Envisioned was a four-lane limited access boulevard, essentially residential in character, in a 120-foot right-of-way. To achieve the desired speed limits in the range of 40-50 mph, minimum distance between intersections would be 1,200 feet and no private or commercial driveways would be allowed. The boulevard would have a broad landscaped median with provision for left-turn pockets, landscaping on both sides and, where consistent with abutting future development, sidewalks and bicycle paths.[26]

a. The City Acts. In 1973, a major land use planning effort for the Salem area was completed. The resulting comprehensive plan showed the proposed Kuebler Boulevard along with recommended extensions to east and west. It also placed an *urban growth boundary* for the Salem area[27] in a position such that the Kuebler corridor was just a little more than half-way between the center of town and the southern edge of the future urbanized area. Now the project was no longer to be a bypass at the urban fringe but directly in the path of, and a focus for, development. The updated and amended 1974 version of the area-wide transportation plan also reflected the Kuebler Boulevard facility.

From 1970 on, pace of development in southwest Salem intensified, peaking in 1976-78. This sector of Salem absorbed more than 40 percent of the city's 1970-80 population

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26 Since the first few sections of the project would be financed entirely through local funds, city and county officials thought that the right-of-way might be partially dedicated by developers. Dedication of the entire right-of-way could not be exacted because the configuration exceeded usual subdivision standards. Staging the project was thought to be a way around this constraint. A two-way, two-lane section on developer-dedicated right-of-way could be built first. Later, land for the remaining lanes and landscaping could be bought when money might become available from State or Federal sources. As it turned out, the limited access nature of the facility precluded any requirement that abutting developers dedicate right-of-way.

27 Salem's *urban growth boundary* was the first such growth management measure in the State. Shortly thereafter, Oregon established a requirement that all local jurisdictions make comprehensive plans and determine urban growth boundaries.

increase. By 1983, virtually the entire area around the Kuebler Boulevard portion of the beltline corridor was built up.

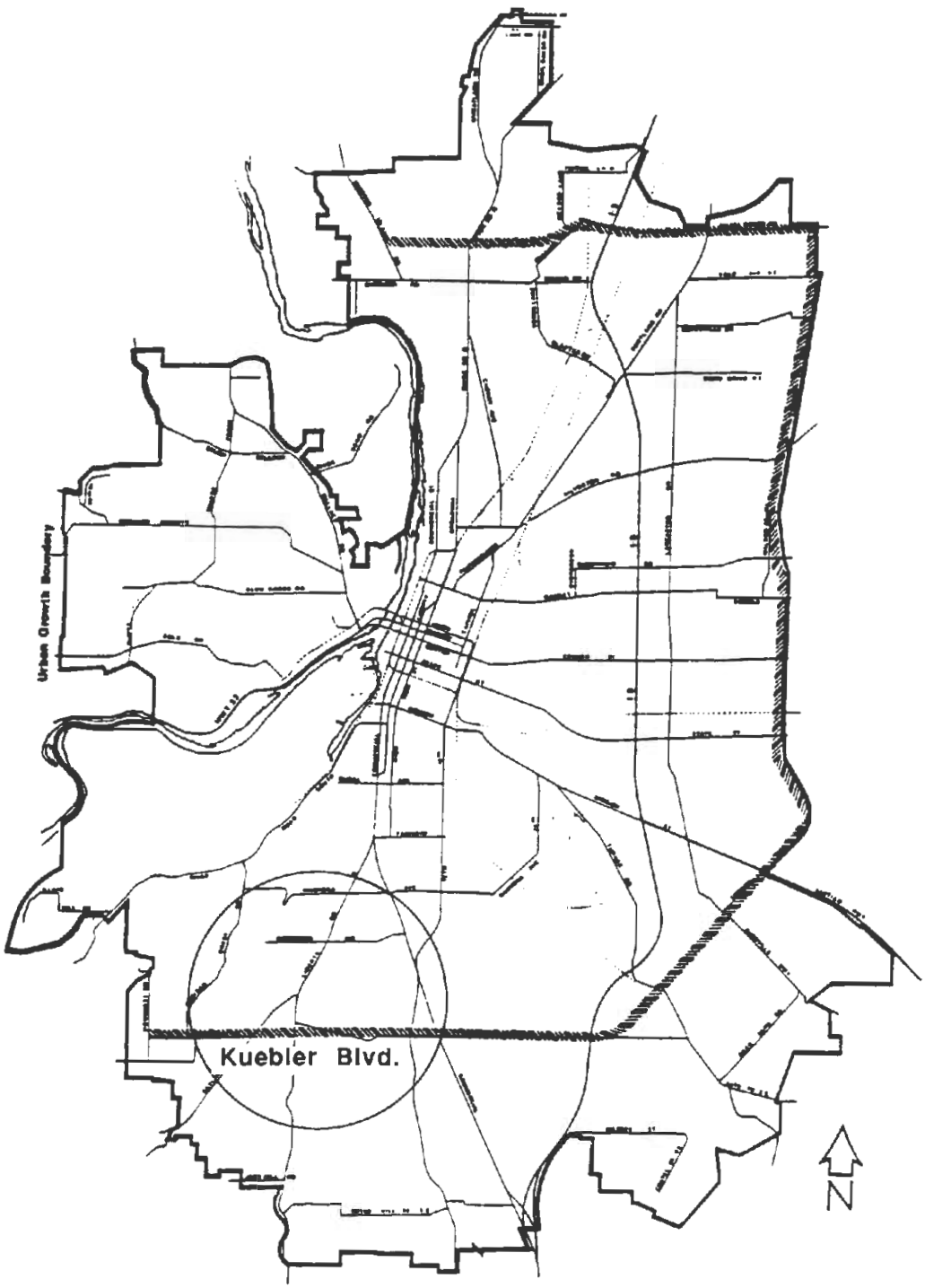
As each developer came in for subdivision approval, the only way the city of Salem could deny permission to build in the right-of-way was to purchase the land itself, using funds from its right-of-way account. Through the site plan approval process, the city was, however, able to negotiate orientation of subdivisions backing up to the road. In some cases, the city was able to persuade developers to plat pedestrian paths between house lots so neighborhood residents could have direct access to the sidewalks and bicycle paths which would border the new road. During the heyday of the development boom, planning and public works officials were negotiating over subdivisions at the rate of one or two a week.

Thus, when Salem voters approved a special bond issue for road projects in the last quarter of 1983, all but one parcel of the right-of-way for the first segment of Kuebler Boulevard (Skyline Road to Liberty Road) had been assembled by the city. By 1984, this part of the road was built. It did not take much longer to acquire the few remaining parcels needed for the second segment (between Liberty Road and Commercial Street) and construction was completed in 1985.

b. The State Acquires and Builds. A third leg, the southeastern segment of the beltline corridor has received Federal funds transferred from cancelled interstate projects. A Draft Environmental Impact Statement (DEIS) for it was approved in late 1984 and the final EIS in September 1985. While the southwestern segment of the highway was intended to serve a residential area, the southeastern segment is expected to stimulate new industry by providing access to large, undeveloped tracts. Subdivision activity in the southeast sector has been modest since the area lacks water and sewer and has only recently been annexed by the city of Salem. Also, part of the corridor passes through several large blocks of land in institutional use, including a private college and a State correctional facility. Because these uses, (and absence of infrastructure) themselves, were a barrier against development in the corridor, ODOT proceeded with extensive land purchases for right-of-way in a systematic, conventional manner.

Figure 16

BELTLINE ROUTE AND KUEBLER BLVD. SEGMENT
Salem, Oregon



Source: City of Salem, Oregon

With the opening of the southeast section to traffic in December 1990, the final link between the southern leg of the beltline and the existing eastern and northern legs came into place. Only the western leg is missing and no planning is under way to proceed with it.

City officials interviewed about the benefits of corridor protection for the Kuebler Boulevard project placed more emphasis on the savings of time (from commitment of project funding to completion of the construction) and controversy spared (because of coordinated subdivision design and extensive negotiations with abutting neighborhoods on design details) than on cost savings. They have not analyzed project costs to calculate the amount attributable to early right-of-way acquisition, but they cite a substantial advantage in purchasing right-of-way through open fields at a time when prices were averaging $15,000 an acre.

3. Route 85 in San Jose, California

Route 85 illustrates how, after the State had ceased advance acquisition, a local community employed innovative measures to control right-of-way until land purchases could resume. It also illustrates how a variety of funding sources can be brought to bear once acquisition can be scheduled.

In the late 1950s, the California Transportation Commission adopted an alignment for State Route 85 as a freeway through Santa Clara County. The alignment was shown on the county and city general plans. The State began acquiring a 200-foot right-of-way. By the mid-1970s, about 45 percent of the right-of-way, 364 out of 804 acres, was acquired entirely utilizing State funds.

In the mid-1970s, acquisition stopped. Then-Governor Brown and his Transportation Director were unsympathetic to additional highway building. The transportation agency was directed to consider disposing of the right-of-way acquired for Route 85 and other still-to-be constructed freeways throughout the State. The city and Santa Clara County vigorously opposed elimination of the freeway.

Public agencies, business groups such as the Chamber of Commerce, industries, developers, and citizen activists opposed the deletion for some powerful reasons: The freeway route had been on the general plans, and the entire southwestern development of the city

was predicated on its existence. Development was already occurring, based on expectation of access to a freeway.

San Jose was one of the fastest growing cities in California. Population by 1975 was 610,000. It rose to 691,000 by 1980 and has been projected to approach a million by the year 2000. San Jose also functioned as a bedroom community for much of Santa Clara County's industry. Transportation between the employment centers located in the northern sections of the county and the rapidly growing residential areas at the southern end of the city and beyond was growing increasingly difficult. Route 85 was perceived as a badly-needed link.

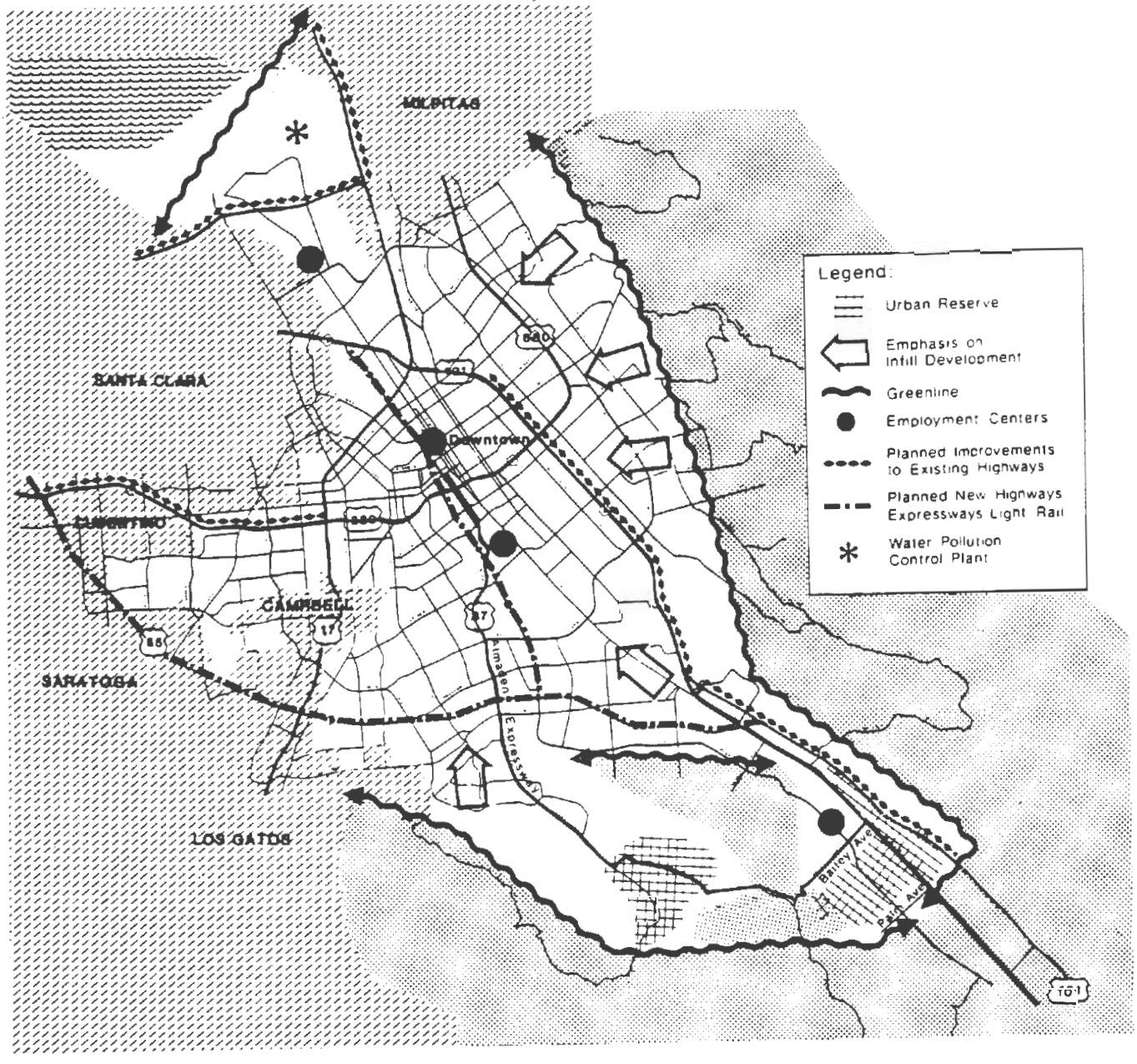
Private developers proceeded to subdivide and develop land in accordance with the City's General Plan which called for residential and retail uses on both sides of the corridor. Development applications were coming perilously close to the preferred right-of-way itself. The city realized that it could not freeze the land without compensating the owners, nor could it require developers to dedicate right-of-way for a freeway. Therefore, it resorted to persuasion and innovative uses of the police power.

a. Persuasion and the Police Power. Persuasion focused on the landowners and developers. The City's position was that the freeway would be built. It was not only on the General Plan, but both land uses and subsidiary transportation routes were predicated on ultimate existence of the road. City officials, backed by citizen and business groups, asked for voluntary developer cooperation so that the option would not be foreclosed.

City agencies proceeded to act on zoning applications as if the road were actually programmed. They encouraged, for example, density transfers within affected properties so that the developers could shift the yield from land within the corridor to adjacent land which would not interfere with an ultimate alignment. They approved applications that established interim uses on the corridor which would not interfere with an ultimate taking. These included golf driving ranges, nurseries, truck farms, and Christmas tree groves. In the case of the Oak Ridge Mall, located adjacent to an anticipated interchange, they permitted overflow parking and storage on land which would ultimately be required. Developers did not object to these actions without direct compensation, although they could have brought suit which might well have been supported by a sympathetic court in the absence of a programmed public use (i.e., the road).

Figure 17

GENERAL PLAN CONCEPT MAP
SHOWING ROUTE 85 CORRIDOR
San Jose, California



Source: City of San Jose, California

According to the Deputy City Manager, this approach "bought" about 10 years' time (until developers started asking the city and/or State to buy their land or eliminate the road once and for all). It protected about 80 percent of the unacquired right-of-way.

But it was not successful in all instances. Since the city depended on voluntary cooperation, it had to approve a 30-lot subdivision whose owner refused to defer or modify his proposed development . Houses with market values of $200,000 were built, and — when acquisition was approved and funded — the government had to pay $6 million to buy the properties lying in the right-of-way.

Figure 18 shows a portion of the protected land in 1982, with large segments of property in nursery cultivation adjoined by developed subdivisions.

By the early 1980s, San Jose had begun to consider taking options on key properties, but did not pursue this avenue because, after years of effort, a blend of funding sources was finally mobilized which enabled resumption of direct acquisition to resume.

b. The Blend of Funding Sources. Various regional transportation studies during the 1970s continued to show the SR 85 corridor, and the city of San Jose decided to utilize Federal Aid Urban System (FAUS) funds to protect the land for some form of future transportation facility. That action itself required environmental studies. In the late 1970s, San Jose paid Caltrans to prepare a preliminary EIS which evolved into a draft and final corridor EIS, completed in 1981.

In 1979, a Santa Clara Valley Corridor Evaluation study was completed under the auspices of the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). This included preservation of the Route 85 corridor, and in 1979 the MTC adopted the corridor in its revised Regional Transportation Plan.

In evaluating the protection option, the EIS stated:

> Because of the fact that no construction is being proposed at this time, in order to use Federal Aid Urban System funds for right-of-way protection, the Federal Highway Administration will require a project agreement that will require a refund of federal funds if actual construction on some type of transportation system has not started by the close of the

Figure 18

CORRIDOR IN INTERIM USE AS PLANT NURSERY
Future SR 85, San Jose, California, 1983

Source: Caltrans; Lynn G. Harrison, Photographer

tenth fiscal year following the fiscal year in which the agreement is signed.[28] (Construction actually started in the late 1980s.)

Reviewing the necessity for the proposed action, the EIS continued:

> The necessity for the proposed action, a decision on whether to resume protective right-of-way acquisition or to abandon the corridor right-of-way, is based on a combination of strong local support for preservation of the corridor and intense pressure on the cities to approve development in the remaining privately owned land in the planned right-of-way. The remaining privately owned property, which makes up the major portion of the corridor right of way in terms of dollar value and land area, represents one of the largest blocks of undeveloped land in the San Jose vicinity. Estimates by local agencies show enough demand for the land to reflect a 100% build-out of the privately owned portion of the right-of-way by the year 1990 if no action is taken to protect the corridor from development. [29]
>
> . . . The effects of inflation, increased real estate values and construction of such private improvements in the corridor would cause the estimated monetary cost of acquiring the 800 acre, fully developed right-of-way to reach more than $1 billion dollars in 1990.[30]

In addition to this fiscal conclusion, plus the strong public support, the EIS determined that negative impacts of the protection action (largely loss of some tax revenues) were outweighed by the benefits. It recommended that protective and hardship buying continue, at least at the $5-10 million level available using the FAUS funds. A full EIS of the facility would still have to be prepared when a mode was selected and a facility programmed. This occurred in the late 1980s.

Critical to the public support for the process was formation of a citizen task force in the late 1970s. This group included homeowners associations, as well as realtors, businessmen, and the Santa Clara County Manufacturers Group (among whose membership were such "heavy hitters" as Apple Computer and Lockheed Aircraft). Public comment on the EIS was overwhelmingly positive.

In 1984, Santa Clara County passed Measure A, a half-cent sales tax anticipated to generate over $950 million within 10 years. Funds were totally earmarked for four highway construction projects, two of which were the widening of those portions of Route 85 that had been built and remaining land acquisition and construction of the final 18 miles of freeway corridor. An agreement was then executed between the county and Caltrans, enabling

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28 Op. cit., *Route 85 EIS*, pp. 1-3.
29 Ibid., p. II-3.
30 Ibid., p. II-3.

expenditure of $68 million of Measure A revenues for land acquisition in the four projects during 1986-87 alone.

Although Caltrans and the State came "fully aboard" with the change in governor and the 1981 EIS, local funds via the sales tax will be responsible for about half of the financing for Route 85 by the time it is completed in 1993.

4. Salt Lake City, Utah, West Valley Highway

The West Valley Highway is another example of creative police power to control a corridor until full funding becomes available for acquisition by State or local authorities.

West Valley Highway was first conceived in 1959 and put on the Salt Lake County Master Plan in 1960. This was long before the peak population growth in the West Valley or incorporation of two municipalities (West Valley City and West Jordan) which lie along the route. The land which the corridor traversed was largely agricultural.

The EIS cited above was completed a quarter century later in 1986. It commented that the right-of-way for the road was "first required to be set aside by developers in 1961 as a prerequisite for subdivision approval." In fact, however, Salt Lake County — and the incorporated municipalities which came along later — had no legal authority to require right-of-way dedication in the subdivision process, and the land, while reserved, was not actually dedicated.

At any point in this years-long process, the actions could have been challenged in court. They were not, because most landowners and developers felt keeping the land free of development to be in their strong self-interest. Ultimately, all the right-of-way was, or is being, purchased — part using local funds (30 percent of the 180 acres by the time of the EIS in 1986) and the remainder, Q funds from FHWA. But it took a long time, and the land was largely kept open by its owners until it was acquired. About half the land is now completely bordered by residential and commercial subdivisions and local parks. The remainder is still in agricultural use.

a. Aggressive Local Action. The secret to success was aggressive effort to enlist support of landowners and developers by the county (and then municipal) planning personnel. Local governments zoned the highway corridor agricultural, orchestrated the

grants of zoning and subdivision for large land holdings in keeping with local plans, and kept the corridor open.

Utah law permits a jurisdiction to place right-of-way on an official map and in reservation, but only for one year before the jurisdiction must purchase the land or drop the reservation.

In this case, the right-off-way lines for the West Valley Highway were drawn, but the long-term reservation was entirely voluntary.

The local governments persuaded the developers that the highway was coming, that it would provide important north-south accessibility and that the right-of-way would eventually be purchased. East-west accessibility was provided by local arterials already in place, and there were some parallel north-south arterial stretches built by developers.

In only one case did the a landowner demur — and here West Valley City "made a deal." The applicant was an automobile sales operation. The deal was to permit an open used-car lot as an interim use on the anticipated right-of-way. The owner agreed not to build any structures on the property, understanding that the land would be purchased when highway construction was imminent.

Reserved land was generally kept vacant or in agriculture. It is important to note that a "sweetener" was added to the private reservation that occurred. Utah (like Maryland and Virginia) has a farmland assessment or "greenbelt" tax instrument. Land in agricultural use is taxed at agricultural value, so many of the landowners paid very little in taxes while holding the land. Had they eventually developed the land, Utah law would have required a five-year back payment of taxes. Since the property was eventually bought for a highway, the owners were spared this payment. The State acquired the property at its agricultural value.[31]

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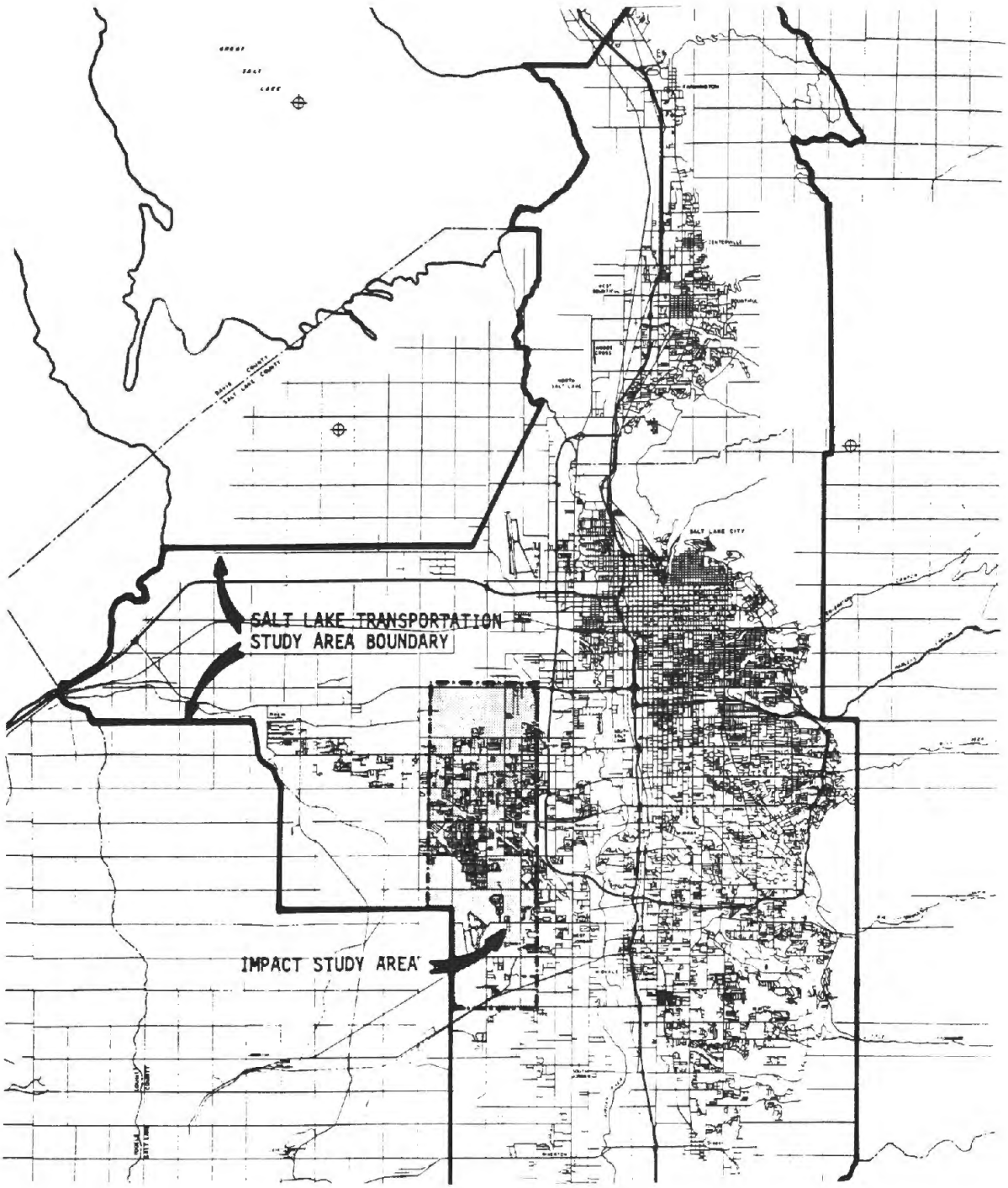
31 This would not have been the case in Maryland where the basis for valuation in condemnation would have been the most likely, reasonable expectation of development use for the land, not its "preserved" actual agricultural use.

Figure 19

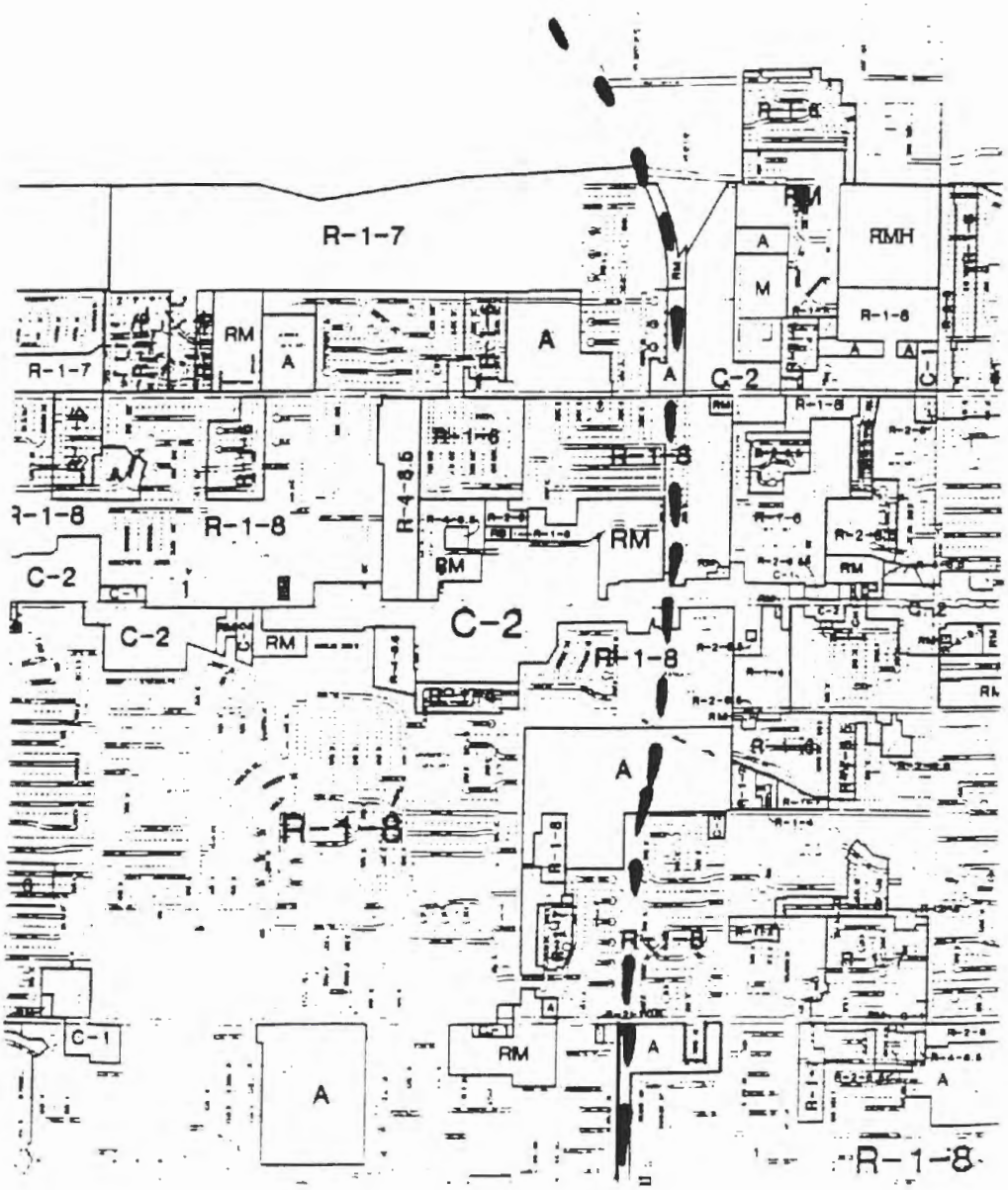
WEST VALLEY HIGHWAY STUDY AREA
Salt Lake City Area, Utah



Source: Utah Department of Transportation

Figure 20

AGRICULTURAL ZONING, WEST VALLEY HIGHWAY CORRIDOR
West Valley City, Utah



Source: The City of West Valley, Utah

This condition was noted in the EIS:

> Property tax impacts to state and local taxing entities resulting from properties being removed from the tax roles . . . are expected to be minimal. About 30 percent of the properties in the reserved right-of-way are already in public ownership. Most of the remaining property is either vacant or is currently zoned for agriculture. Planning personnel . . . indicate that the tax losses associated with highway construction would be much less than that which would be expected if the highway alignment had not been protected over the past two decades.[32]

b. Making It Work. When the EIS was completed in 1986, the project became eligible for Q funds (the revolving fund) to acquire remaining rights-of-way. FHWA regulations on Q fund timing, however, required that they be "converted," i.e., paid back, within 10 years. This meant that the low-priority West Valley facility had to be under construction by the mid-1990s. While public support for the facility had been desultory, the western suburbs were now growing rapidly and the access was needed. West Valley City was incorporated in 1980 with a population of 70,000. By 1990 it had grown to 90,000.

The Regional Council projection 1985-2005 indicated that while only modest population increase was anticipated for Salt Lake City, the remainder of the county which includes the West Valley was expected to show significant growth in jobs and housing. By the time of the EIS, both the growth expectation and increasing signals from landowners within the right-of-way that they wanted their parcels purchased soon or the facility dropped, accelerated pressure to build the road.

Next came a two-pronged campaign orchestrated by the local community. Lobbying within the Regional Council brought the road up to top priority. On the political front, Governor Norman Bangerter was a West Valley resident and businessman. He had been elected on the strength of West Valley votes. For him, also, the road became high priority.

The gas tax is the primary source of funding for state-built highways in Utah. The Governor persuaded the legislature to pass "special" legislation earmarking $40 million from the State's general fund to build this road. All segments were to be under construction by 1992, well within the Q fund deadline. So the corridor was preserved with minimal disruption to development and environment, and the road is being built.

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32 Op. cit., *West Valley EIS*, p. IV-9.

III. A BRIDGE TO THE SYSTEMS APPROACH: SANTA CLARA COUNTY, CALIFORNIA'S MULTI-MODAL GUADALUPE CORRIDOR

The nine-mile long southern leg of Santa Clara County's Guadalupe Corridor Project contains a freeway, bikeways and high-occupancy-vehicle (HOV) lanes, a station link with interurban commuter rail, and park-and-ride lots. The light rail is an extension of a system which runs a total of 16 miles, traverses city streets for most of its length, connecting northern industrial areas with the air-port and Downtown San Jose. When the final freeway segment opens in 1993, some 30 years will have passed since the corridor was first adopted on the General Plans of San Jose and Santa Clara County. Preservation of most of the corridor, years before construction, was a crucial factor in enabling a project of this complexity to be planned and executed.

The new national transportation act (ISTEA) calls for advance planning of transit as well as highways and its corridor preservation directives extend to multi-modal facilities. The Guadalupe Corridor Project is one of the few examples where such joint planning and preservation has already occurred. It is particularly relevant to this study because the preservation and ultimate acquisition involved multiple units of government working in concert and guided by an over all plan approved by elected officials in the affected communities.

Planning and preservation for the Guadalupe Corridor began, as in the other cases described above, before the advent of NEPA. Much of this activity occurred, however, within a pioneering institutional framework that was a precursor to the systems approach to corridor preservation now being employed by States such as California and North Carolina (discussed further in the next section of this report). The Guadalupe Corridor was a pilot for its time, and a bridge between the *ad hoc* planning and decision-making by individual agencies and new comprehensive efforts at corridor preservation and project execution.

A. Project History

The corridor for State Route 87, south from Highway 101, paralleling Downtown San Jose and the Guadalupe River, was approved as a planned freeway by the California Transportation Commission in 1963 and subsequently incorporated into the General Plans for San Jose and Santa Clara County. It was the second of two freeway corridors planned to support the burgeoning growth of San Jose. (The other was Route 85, discussed in

Section II.C. above). Route 87 was to connect with Route 85 within Santa Clara County (Figures 21). Special State legislation at the time required that the city and the county begin acquiring right-of-way, ultimately to be conveyed to the State. Possible transit use was not considered at that time.

By 1970, the State also had begun to acquire right-of-way. Funding ceased in 1972, however, while the State contemplated terminating any highway development along this corridor and disposing of lands already purchased. Both Routes 87 and 85 were considered for abandonment. By this time, State, city, and county authorities had already bought 78 percent of the anticipated right-of-way.

Urban and suburban growth in the vicinity of the corridor, particularly residential, was continuing — predicated on the existence of a freeway. Relief capacity was clearly needed.

> In the 15 years from 1975 to 1990, the corridor area is expected to grow from 360,000 to 420,000 in population and from 187,000 to 383,000 in the number of new jobs. This large growth will generate an increase of at least 50 percent in demand for more daily person trips than the approximately 1.2 million trips made in the corridor in 1975. Almost half of this large increase has already been achieved during the significant growth years of 1975 to 1980.[33]

Portions of the still unacquired land were in the path of suburban expansion. As in the case of Route 85, the city of San Jose was hard pressed to deny zoning and subdivision approvals without support of an approved transportation project or acquisition funds. For some of the remaining land, the city was able to negotiate land banking and interim use until acquisition resumed in the early 1980s.

Between 1974 and 1983, when a Final Environmental Impact Statement on the corridor was issued, a series of studies were performed and actions taken to convert the proposed freeway into a multi-modal facility. Santa Clara County's Transit District took the lead in evaluating the feasibility of transit in a corridor where planned highways could not handle the full transportation demand. With financial assistance from the Urban Mass Transportation Administration, the Santa Clara Valley Corridor Evaluation Study recommended a joint highway and transit project in 1978.

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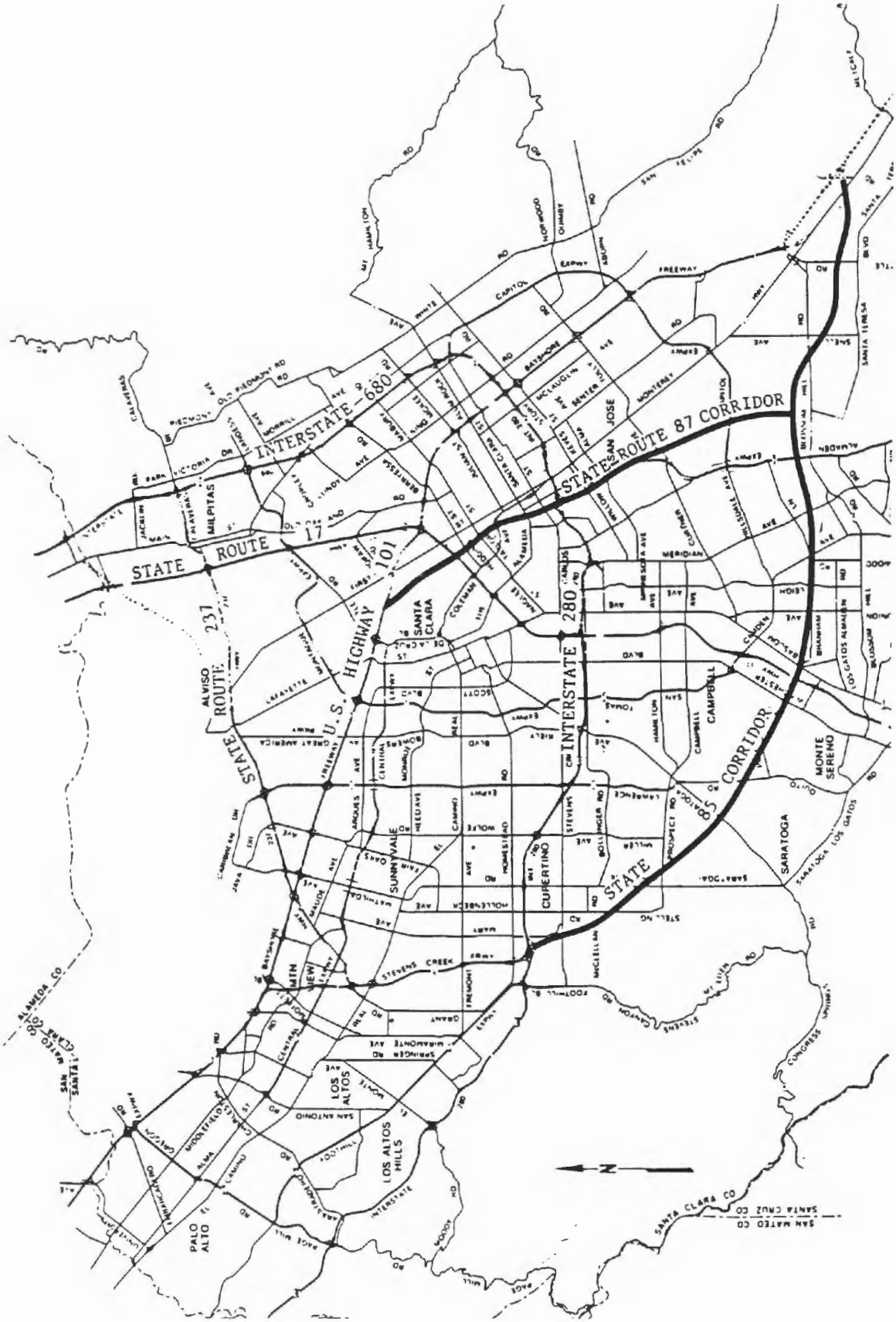
33 Department of Transportation, Urban Mass Transportation Administration, Federal Highway Administration, Santa Clara County Transit District, *Guadalupe Corridor Transportation Facility Final Environmental Impact Statement*, August 1983, p. S1-2.

Figure 21

CORRIDORS FOR STATE ROUTES 85 and 87



> It was cited that this corridor had long been master-planned for major freeways. (State Routes 85 and 87) which had never been built and that the right-of-way is now over 70 percent in public ownership.[34]

Soon thereafter, final recommendations to purchase the remaining rights-of-way were endorsed by the Association of Bay Area Governments, the Metropolitan Transportation Commission, Santa Clara County, San Jose, and 12 other cities in the county. In 1981, after further alternatives analysis and a Draft Environmental Impact Statement, all local jurisdictions, backed by considerable citizen and interest group support, endorsed a preferred alternative consisting of light rail/expressway/and bikeway.

B. The Joint Powers Board (JPB)

Preservation of the corridor for some form(s) of ultimate transportation use had enabled the project to move forward. Much detailed planning and engineering remained to be done, however. The complexity of bringing together so many units of government, along with the need to mobilize a potential variety of funding sources and to maintain accountability to the public was daunting. All parties agreed that a cooperative arrangement was essential, and in 1982, a Joint Powers Agreement was executed for implementation of the preferred alternative.

This was the first such agreement under recently enacted California Law. It effectively merged planning, land acquisition, and project implementation responsibilities (for the Guadalupe Corridor alone) of five entities: Caltrans, Santa Clara County Transit District, Santa Clara County, and the Cities of San Jose and Santa Clara. Members included elected officials from the three jurisdictions, a member of the Transit District Board, and two Caltrans representatives.

While the Board was to be the decision-making body, a Technical Management Committee under the Board would supervise the project. (See the attached organization chart, Figure 22.) Chaired by the Santa Clara County transportation director, the four-member Board included the public works directors of the two cities and a Caltrans representative.

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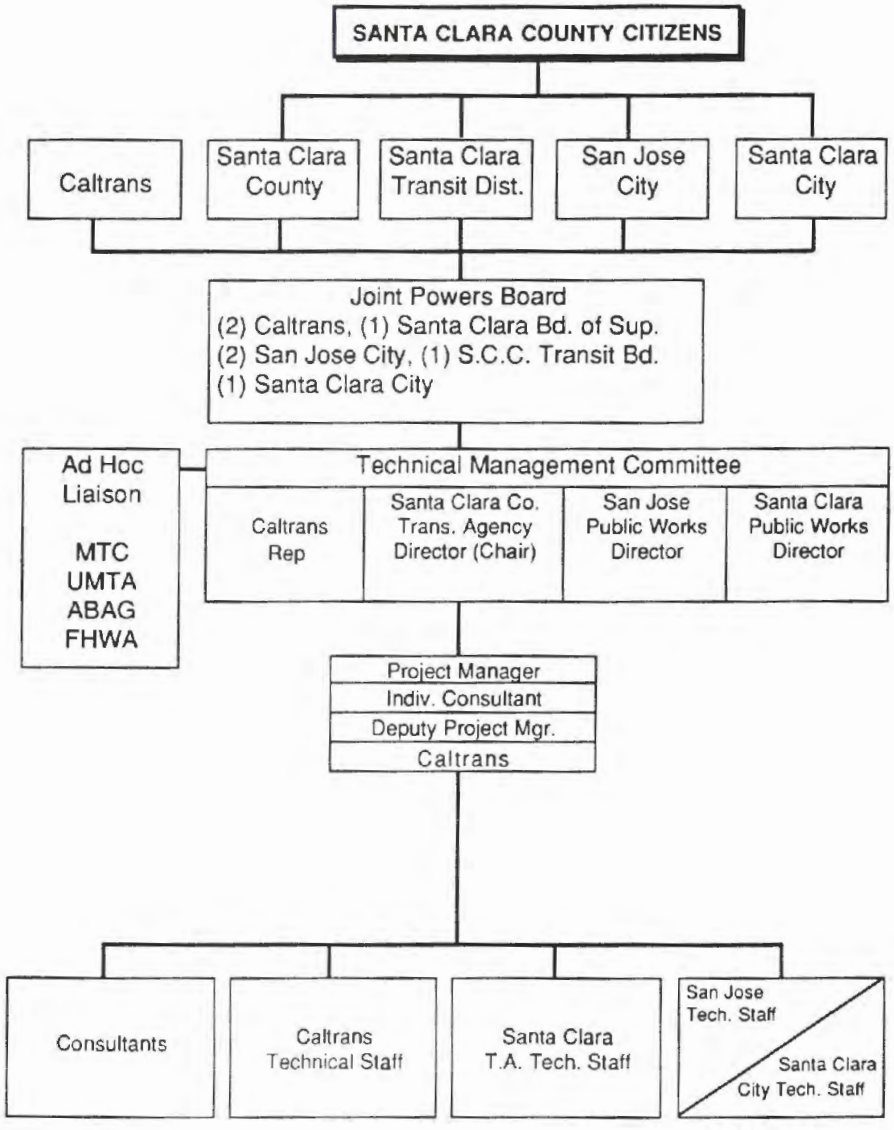
34 Ibid, p. S-3.

Figure 22

GUADALUPE PROJECT ORGANIZATIONAL CHART
San Jose, California



Source: Caltrans

Non-voting members were key Federal and regional representatives from UMTA, FHWA, ABAG, and MTC. The Committee retained a project manager (consultant) to prepare the Master Work Plan and establish operational procedures, and a deputy project manager representing Caltrans. Caltrans, under the deputy project manager, was charged with the responsibility for project design. It established, and continues to operate, a separate project office in San Jose for the Guadalupe Project.

Thus, the Joint Powers Board provided a structure in which planning, funding, building, and operating agencies at every level of government were represented in the environmental review, design, modifications, and construction of the joint facilities over almost a decade. In 1989, the JPB voted to abolish itself, returning the project and various of its operations back to the respective participating agencies.

C. Putting It All Together

The first major tests of the new planning and decision-making body were to prepare the final Environmental Impact Statement (FEIS), undertake preliminary design and engineering for the array of facilities to be provided — both on the southern expressway segment and on the seven-mile long northern leg of the light rail — and to build solid public support for the project.

Community participation was particularly extensive. Some 60 public meetings were held by the JPB between 1981 and completion of the FEIS in 1983.

> The community participation and local design review process (through the Technical Management Committee and the Joint Powers Board) have been successful in resolving the majority of design issues related to the Guadalupe Corridor.[35]

The FEIS stressed the resource aspect of the assembled right-of-way and the cost savings it represented.

> Approximately ten miles of the State Route 87/85 right-of-way purchased for transportation purposes remain undeveloped and unused. This very valuable resource, over 70 percent of the required right-of-way, can result in significantly lower capital costs for the development of transportation facilities than would normally be possible without substantially undeveloped, available rights-of-way.[36]

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35 Ibid, p. S-22.
36 Ibid, p. S-2.

It also identified the relative ease with which the largely interim uses that the city, county, and State had permitted to remain could be converted to transportation purposes.

By the time of the FEIS, only 127 acres remained to be acquired by the Joint Powers Board. While this involved some 69 residences and 17 businesses, the total displacement was quite modest considering that the facilities were to traverse an urbanized area. Displacement was minimal since so much of the needed land had been assembled years before.

This tightly coordinated effort was well-warranted. Funding from several sources had to be orchestrated: UMTA, State, city, and county — including the Measure A sales tax passed by county voters in 1986, which helped finance both Route 85 and the Guadalupe Corridor. Separate elements of the project, built by Caltrans, the Transit District, and the city had to be integrated. Public support for the multi-modal facility was high, but had to be sustained throughout the long years of planning and construction.

Design modifications and unforeseen events lengthened the process. When Route 85 was upgraded to a full freeway, the configuration of Route 87 was changed as well. This led to a citizen lawsuit seeking to lower the profile of the interchange between the two roads. The Superior Court ordered a Supplemental Environmental Impact Report to evaluate all design changes made since the original environmental studies. Yet another legal challenge contending the project violated air quality standards delayed construction further, until the Court approved MTC's determination that the projects were in conformance.

The northern portion of the light rail system has been operating since 1987, carrying twice the number of riders projected. The recently opened southern segment appears to have substantial ridership and the park-and-ride lots are filling up. Traffic is moving on the completed segments of Routes 87 and Route 85. Most striking are the offices, shopping centers, and residential subdivisions, along with developed parks and recreation areas adjoining the full length of the corridor (Figure 23). Without corridor preservation long before construction, it is unlikely that the array of services would now be in place — even 30 years after a project was initially conceived.

Figure 23

MULTI-MODAL INTERCHANGE
SR 85 and 87 and Guadalupe LRT, San Jose, California, 1983

Source: Caltrans; Lynn G. Harrison, Photographer

IV. THE SYSTEMS APPROACH TO CORRIDOR PRESERVATION

> Rapid population growth and new settlement in California is foreclosing on transportation options. Land suitable for transportation use needs to be set aside at the earliest possible time to accommodate existing growth and planned development. Local government has the responsibility for land use decisions early in the planning process. The Department is responsible for assessing transportation impacts of proposed development on state transportation facilities. Development of an integrated transportation system is a joint responsibility involving local, regional, state, federal, and private entities. The Department needs to be involved in all stages of the preservation of existing and future transportation corridors.[37]

Faced with prospects of building and/or upgrading countless miles of transportation facilities in the 1990s under conditions of severe capital constraint, four of the case States have initiated statewide efforts at corridor preservation (California, Florida, North Carolina, Oregon). A fifth State, Arizona, has targeted the Phoenix metropolitan region for preservation action within a 231-mile freeway building program. The approach in these cases is system-wide and systematic. All exhibit the following elements:

- clearly-articulated policy of corridor preservation,
- state enabling legislation supportive of the policy, and
- thoroughgoing institutional reorientation of the transportation agency, both internally with respect to offices participating in corridor preservation, and externally in respect to relationships with local governments and property owners.

Most of these pioneering programs also focus on environmental analysis at the corridor selection stage. They are trying to determine the scope and level of *environmental assessment* needed and appropriate before moving to protect a corridor, recognizing that much more definitive assessment will be required years later when facility design is final and construction can be consummated.

It is the *leverage* that the State staff and program resources can exert which represents the truly significant feature of this new systematic approach to corridor preservation. This is a human resource commitment, modest in dollars but large in potential impact. The leverage is exerted internally, by building corridor preservation concerns into the planning, environmental review, and right-of-way acquisition processes of the transportation agency. It is exerted even more externally by working with local governments and landowners to

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37 Caltrans, *Director's Policy Memo, Transportation Corridor Preservation*, 1991, p. 1.

ensure their commitments of planning, regulatory measures, land and capital to an extent broader than the State can alone muster. With the prospect of ultimate facility construction as the shared objective, these States are teaming with local government and the private sector to foster corridor preservation.

An infusion of new funds in these five States has provided both a financial and political impetus for corridor preservation. The legislature or the voters, and sometimes both, in each of these States have, since the mid-1980s, enacted special legislation for highway construction which allocates substantial sums for advance right-of-way acquisition. A striking example is Florida, where the 1990 legislature passed a special $500 million bond issue for advance acquisition of transportation corridors. Within a few months, the entire fund was committed to specific corridors.

North Carolina's $9.3 billion highway program, to be funded over the decade by an earmarked gas tax and vehicle sales tax, includes a right-of-way acquisition budget of almost $600 million between 1991 and 1996. Construction of circumferential loop roads around seven major cities is a $2.2 billion component of the overall program. About one-fourth of the loop program budget, amounting to $70-$80 million annually, is allocated for environmental impact studies and right-of-way acquisition in the first seven years. Right-of-way expenditures alone are estimated at 18-20 percent of the loop program's total costs. In Oregon, a major increase in the gas tax provides financial support. Voters of Maricopa County in Arizona passed a half-cent sales tax which provides a major funding for the area's 231-mile freeway program, and numerous California counties have enacted similar sales taxes to pool with State and Federal funds for highway construction.

Other, more modest sources, are also available. The Federal revolving fund has been used as a supplement by eight of the nine case States and is available, on a project-specific basis, to be repaid, interest-free, within 10 years, when the assisted roads must be under construction. Only $42.5 million annually, nationwide, has been available from this source, however. California's 1990 legislative session permitted Caltrans to use up to $25 million for advance acquisition from the rental, lease, or sale of Transportation Department-owned property. ADOT's administration has earmarked revenues from leased land and facilities, amounting to about $1 million annually, as a supplement to other funds.

Accompanying these funds was clear political pressure to expedite both corridor protection and facility construction. It is well to point out, however, that programmed maintenance

and construction still command the bulk of STA resources, and that funds attainable for advance acquisition are modest in context of transportation agency budgets that may be as large as $1 billion or more a year.

A. Policy

Since the new approach to corridor preservation departs from traditional highway agency procedures and orientation, all five States have formulated official policy respecting corridor preservation. In each case, the process has been multi-disciplinary. Within the agency, it has involved personnel from right-of-way, planning, and environmental specialties. Often FHWA Division personnel, representatives from local government, and outside experts such as attorneys have been pressed into service.

1. California

Perhaps the most diverse group formulating policy has been in California where Caltrans has revamped its internal office linkages to address the problem. Philip Simpson, Caltrans' prime mover in the field, has written:

> The purpose was to develop state-of-the-art department policies and guidelines for corridor preservation. This task group consisted of planning, programming, project development, environmental, budgets, legal, right-of-way, district planners from San Francisco Bay Area, Fresno, San Bernardino and San Diego and the Federal Highway Administration.
>
> We discovered that while we all agreed as to the need to provide for the long term reservation of transportation corridors, each of these functions was seeing a different nature or piece of the problem. For example: the budget folks see the resource availability side; the programming and the project people see the project delivery side; the environmental analysts know their pivotal role; the right-of-way people are anxious to acquire but need the environmental clearance and the funding; and, the attorneys are there to foresee and to help avoid legal problems. We see the planners' role is to bring a common focus on the problem and to help coordinate all of the players inside and outside of the organization.[38]

Early drafts of the policy paper were distributed and discussed throughout the State, informing local agencies, as well as Caltrans staff, that corridor preservation was now a priority concern. The final policy directive under Director Robert K. Best's signature was issued in January 1991. It is one of the most succinct and all-inclusive directives in this

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38 Philip G. Simpson, *Preservation by State-Local Interaction*, International Conference, 1990, p. 3.

field. In addition to its declaration of purpose which began this chapter, the paper outlines the principles of partnership:

> POLICY
>
> It is the policy of CALTRANS to work on a partnership basis with local land use authorities to accomplish early identification of transportation corridors and to explore all appropriate means for the acquisition and preservation of those corridors.
>
> PROCEDURE
>
> Corridor Preservation has four identifiable stages for specific procedures, which are carried out jointly with local, regional and private agencies. The procedures used depend on the stage of corridor planning completed. These stages are:
>
> 1. Identify the need for corridor preservation by reviewing general plans, Regional Transportation Plans, corridor studies for future transportation facilities, District System Management Plans (DSMP) and Route Concept Reports (RCR's);
>
> 2. Conduct corridor environmental review to identify the environmental consequences of a corridor location. The scale and depth of environmental review should be adequate to the actions being taken for preserving the corridor;
>
> 3. Work with local and regional governments to include corridors in local general plans and Regional Transportation Plans. Corridor preservation cannot proceed without appropriate corridor analysis and environmental review.
>
> 4. Act to preserve land for a corridor through a variety of means. For example, Department actions include actively fostering donations and dedications, negotiating transportation impact mitigations and pursuing advance right of way purchase.
>
> RESPONSIBILITIES
>
> Each district shall implement the corridor preservation policy by working with local and regional jurisdictions in their land use and transportation planning, and incorporating the policy into overall system planning, project development, right of way and access permits activities.
>
> Headquarters functional divisions of Transportation Planning, Right of Way, Project Development, Traffic Operations and Legal shall support district activities by pursuit of creative methods to preserve corridors and incorporate the corridor preservation policy into all pertinent guideline updates. All actions under this policy shall ensure protection of private property rights as provided by the United States and California constitutions.[39]

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39 Ibid., pp. 1-2.

2. Florida

On the opposite side of the country, in an equally fast growing State, the Florida Department of Transportation also appointed a multi-disciplinary task force, including FHWA and other outside members. The Chairman, Kenneth Towcimak, had been part of the AASHTO task force and provided continuity with its recommendations. The Florida task force report emerged almost simultaneously with AASHTO's in mid-1990 and promulgated the following policy:

> It is the policy of the Department of Transportation that, to the greatest extent possible, transportation corridors be preserved and protected; that acquisition of property rights in association with these corridors occur as far in advance of the construction need as possible; that property rights required to protect transportation corridors be acquired and retained for future use to avoid adverse public impacts associated with right of way acquisition after development has occurred; and that right of way acquired as part of the advance acquisition program be managed to take advantage of joint development opportunities, maximize revenues, and recapture the value of the investment.[40]

Program recommendations in support of the policy contained a strong directive to enter into "informal" protection of important corridors by working closely with local government, prior to and along with acquisition actions by FDOT. The paper went on to outline procedures for setting corridor protection priorities, the studies to be made, and it included a draft of a "Transportation Corridor Protection and Acquisition Agreement" as a model for formal relationships between the State and local governments.

Building on these early recommendations, in concert with enabling legislation adopted by the Florida State legislature (see below), FDOT developed detailed procedural directives for its district offices. These preservation actions are to be implemented following a corridor designation process which culminated with inclusion of the corridor in the Florida Transportation Plan. Three major preservation options are detailed:

> (a) Informal corridor protection is providing information and assistance to local government to encourage them to voluntarily use reasonable land use regulations whenever possible for corridor protection, to the extent provided by law.
>
> (b) Formal corridor protection is a statutorily authorized written agreement between the Department and local governments which formally provides for the imposition of land use regulations by the local government within the corridor. This method should be used infrequently and with extreme caution since Department liability for inverse condemnation could result.

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40 Florida Department of Transportation, *Advance Acquisition and Corridor Protection Executive Committee Report*, August 27, 1990, p. 6.

> (c) Advance acquisition is the early purchase or other acquisition of property by the Department. It is the most effective and legally acceptable method of corridor protection available to the Department. It may take the form of:
>
> > 1. Project advance acquisition whereby complete PD&E information is developed, right of way acquisition is scheduled on the entire project, and eminent domain operations may be fully conducted, or
> >
> > 2. Parcel advance acquisition whereby the CPDR (Corridor Planning and Design Report) or equivalent has been developed on the corridor which will provide sufficient information upon which to base informed, early, individual negotiated parcel acquisition decisions. Eminent domain operations would not normally be utilized in this type of acquisition since this would require completion of the environmental document as well as location and conceptual design acceptance. This type of acquisition is usually possible only on non-federally funded projects unless a categorical exclusion has been approved for a hardship or protective purchase by FHWA.[41]

The directives cover virtually every aspect of each of these activities, from types of study necessary to evaluate corridors for inclusion in the Florida Transportation Plan, to deadlines for District Directors to take certain actions in cooperation with local officials in their comprehensive planning as part of the informal corridor protection process. Rail and transit corridors, and multi-modal corridors, as well as highway corridors, are covered by these instructions.

3. North Carolina

Three aspects of North Carolina's corridor preservation policy are particularly significant. First, it gains impetus, not from *deficiency* but from *availability* of highway financing, through the 1989 Highway Trust Fund generated by revenues from earmarked gas and sales taxes. Second, long range corridor preservation is nothing new in North Carolina. It dates from the 1960s when moneys from a State revolving fund were available for advance acquisition of highway right-of-way.

Third, while historically there has been considerable reliance on municipal efforts to protect future right-of-way in the State's urban areas, recent measures have added new, more powerful tools for accomplishing this job. By virtue of provisions under the Roadway Corridor Official Map Act, the State itself can also take a direct role in preserving corridors especially beyond the fringes of municipalities' jurisdictions, where not yet urbanized areas and

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41 Florida Department of Transportation, *Directive Corridor Protection and Advance Acquisition*, September 18, 1992, pp. 3-4, Topic No. 525-030-200-b.

rural roads lie in the path of development. Strategic advance acquisition of right-of-way appears to be the first-choice and last-resort means of corridor preservation.

North Carolina's current concerted policy thrust toward corridor preservation comes in context of a massive statewide highway program. The program is designed to catch up with the backlog of facility needs in the wake of the State's last two decades of rapid growth and provide for new growth beyond the turn of the century.

> We need to establish a system of construction funding that, once caught up, will match the growth of demands on the system and we will have to restructure the state Highway Fund to provide for these over the long haul. None of these can be accomplished overnight.
>
> Indeed, given the long lead time needed to plan highway projects, and the need for the state's construction industry to gear up to the larger volume required of them, the state solution will have to be in place several years before any results can be expected. . . . The North Carolina Department of Transportation has examined these limitations, and found that there are some steps that can be undertaken in the near-term that will help 'get the show on the road.'[42]

During the second half of the 1980s, much work went into structuring the transportation development program and the funding proposals passed and ratified in 1989. These were also years of devising tools for corridor protection, for example, the State's Corridor Map Act (passed in 1987 and amended in 1989), transferable development rights enabling legislation, and an act supporting public-private partnerships for transportation infrastructure.

The Department of Transportation foresaw that, once fruits of these efforts became law, it would be under pressure to produce tangible evidence for the public of tax dollars at work. Realistically, however, NCDOT recognized that building up capacity to implement so massive a construction program would take time. Thus, the central strategy for the early years of the highway program has been to create a shelf-full of projects ready to go.

> With this on-the-shelf inventory of existing . . . projects and with a selective acceleration of design work on already-programmed projects, the department can produce designs for additional right of way and construction in the 1989-92 period of some $450 million in contract authority above the present TIP level without strain on the competitive bidding capacity of our construction industry.
>
> The initial new outlay necessarily would be in right of way acquisition. . .[43]

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42 James E. Harrington, Secretary, North Carolina Department of Transportation, *Planks, Pavement & Progress: A Review and Analysis of North Carolina's Highway System*, 1987-88, p. 27.

43 Ibid., p. 27. TIP: Transportation Improvement Program.

- projects of importance, locally and regionally, as well as to the state system can be accelerated in planning, design right of way acquisition and construction given the indication of available funding to supplement the current program schedule. . . [44]

- Expenditures from the Trust Fund should be authorized for early right of way acquisition, either directly or to reimburse any approved local efforts to acquire right of way in advance of construction schedules.[45]

An important role for local participation was spelled out.

> The trend in government, more and more, is to run programs and to pay for them at the lowest level possible. That is why states are bearing more of the financial burden of building highways. In turn, states are encouraging local governments to become partners in road projects. . . . Some communities have the will and the money to move faster on their road needs than a state/federal program will allow.
>
> In this area, our most critical need is for local governments to protect rights of way that will be needed for future highway projects. Local planners and zoning boards can pinpoint future needs and cities can acquire these corridors. This not only reduces the cost of a particular project, it also helps the entire construction program by letting the state use the savings elsewhere.[46]

Strategic early purchase of right-of-way and short-term reservation are the keystones of North Carolina's corridor preservation policy. First priority strategic purchases are to gain control of critical interchange locations. Then tactical purchases of other parcels will be made as development threats arise. In these cases, however, corridor locations and even specific rights-of-way boundaries are fairly well defined. They have also passed at least preliminary environmental screening to eliminate what are clearly the most environmentally damaging options.

4. Oregon

Oregon raised its gas tax in the late 1980s and, like North Carolina, designed a statewide strategic highway program, largely based on objectives of supporting economic development and urban growth needs. When Oregon's 1987 Legislature voted to augment Highway Trust Fund revenues, it established that the program would be essentially a modernization effort (in contrast with North Carolina's, which includes many new routes and facilities). Beyond precluding projects on the Interstate system, the legislators issued general policy guidance that priorities for project funding should be: Statewide significance, equitable geographic distribution and stimulation of economic development. The Oregon

44 Ibid., p. 29.
45 Ibid., p. 45.
46 Ibid., pp. 38-39.

Transportation Commission was then to flesh out the highway development program. The AOH system depicted above was the response.

The Oregon Transportation Commission has shifted its major policy from providing access for development to protecting public investment in the capacity of the State's arterial highways to serve through traffic. Here too, citizens who are funding the highway program through user taxes need to perceive reduced congestion. The State must perform. Since Oregon cannot afford to continue upgrading roads only to lose capacity to traffic and access demand generated by new highway-oriented development, corridor preservation has to move front and center in the program's implementation. Protecting integrity of the AOH routes is a top priority. Another is strengthening the partnership between the Oregon State Highway Division and local government to achieve mutual highway and community goals. In this respect, there is another similarity to North Carolina. Local government is charged with the critical role to serve as agent of the State.

> Local government must assist the state to help protect the integrity of AOH [Access Oregon Highways] and maintain (their) primary function of serving through traffic. City and county jurisdictions must begin to accept the responsibility of planning and funding local circulation systems, arterials and frontage roads to serve commercial development. Decisions on zoning and land use must be made so as to discourage the kind of strip development so common along many state highways. . . [47]

5. Arizona

Arizona's corridor preservation policy focuses specifically on the fastest growing metropolitan region in the State, the Phoenix metropolitan area. In Maricopa County, ADOT, within terms of reference of an overall transportation plan adopted by the Maricopa Association of Governments (MAG) in 1985, has a long-term program to build 231 miles of controlled access highways. Some 14 miles were completed by 1991, with an additional 48 to be opened by 1995. But the system as a whole will not be fully operational until well into the next century.

Since the system is designed for financing exclusively by State and local means, it is not subject to Federal NEPA requirements, although the Uniform Relocation Act is incorporated. A long lead time for completion has been anticipated. Land development and speculation in the region have been among the most volatile in the country, and corridor

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47 ODOT Highway Division Planning Section, *Access Oregon Highways Corridor Studies*, February 1990, p. 8.

preservation has been a critical component of the program from the outset. As with the other States, preservation involves a close meshing between the highway agency and the local governments. It is sanctioned by the following policy.

> Corridor preservation utilizes the coordinated application of various measures to forestall development and protect the right-of-way. Further, conventional wisdom would suggest that forestalling disorderly or inconsistent major development by acquiring unimproved lands well in advance of actual construction can save millions of dollars in anticipated right-of-way acquisition and relocation costs. Moreover, the program also helps to minimize the environmental, economic, political and social impacts that invariably affect neighborhoods and development after the location of a transportation facility becomes public knowledge.[48]

The policy positions promulgated by the various STAs serve notice to local communities and landowners alike that the State is serious about corridor preservation. They also formally authorize the transportation agency to build a network of State/local government and developer relationships.

B. The Legislative Mandate

In support of the policies, STAs have relied on existing legislative authority and/or have been beneficiaries of recently enacted instruments which strengthen the transportation department's role, provide special funding sources, or otherwise support close interaction between State and local authorities.

1. California

When Caltrans started to consider corridor preservation, there appeared to be sufficient enabling legislation in place to move forward with a program. Caltrans identified 17 State and Federal laws in support of a policy. These included some powerful tools.

One State statute gives a local community general plan the force of law, stipulating that no zoning or subdivision approval may be granted that conflicts with an adopted general plan. This enables communities to deny a permit to an applicant whose subdivision lies within an adopted highway corridor. Tested in court through the appellate level, this statute has thus far been sustained.

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48 Arizona Department of Transportation, *Maricopa County Transportation Excise Tax Review*, 1990, pp. 13-14.

A second law enables communities to enter into "development agreements" with private parties as a function of local government approval for specific projects. The development agreement permits an applicant to negotiate payments for public facilities, donation of land, or other measures to mitigate project impacts. It provides opportunity for government to negotiate developer contributions to rights-of-way and/or road construction, much broader in latitude, for example, than Virginia's proffer system which is tied to direct, on-site project impacts.

Both laws essentially invited Caltrans to establish close working relationships with jurisdictions where projected State highway facilities were planned.

California has, moreover, been among the pioneers of special assessment districts (Mello Roos Act), many of which permit right-of-way funding (as well as other community infrastructure) from their proceeds. Eighteen of the State's counties have enacted half-cent sales taxes for transportation that permit local contributions to the costs of right-of-way, State and local road construction, and, in some cases, transit.

California's strong environmental legislation, the California Environmental Quality Act (CEQA), is modeled on NEPA. It requires Environmental Impact Reports (EIRs) for general plans, roads, and other public improvements as well as private developments of more than five lots. It affords opportunity for Caltrans staff — on a technical assistance basis — to help communities perform environmental studies preparatory to corridor selection. Caltrans has the dual responsibility of providing transportation facilities to support new development and to prevent development likely to have adverse effects on the State's transportation facilities. The agency's role in EIR review affords early warning in both areas of responsibility. The charge to protect facilities from adverse impact, however, gives Caltrans particularly strong leverage in the EIR review process to delay development projects until adequate facilities are available, and to negotiate developer mitigation agreements.

On analysis, Caltrans found these pieces of legislative infrastructure provided sufficient statutory support for a pilot corridor preservation program. In mid-1987, Caltrans initiated four test projects, each in a different district. Six months into this demonstration, the agency felt so confident about success that it expanded the program statewide. California had two years' more experience behind it when the legislature met in 1990 and passed SB 1784, establishing a $25 million advance acquisition fund to expand corridor preservation

work. Moneys in the fund would be generated through the rental, lease, or sale of Caltrans'-owned property and could be spent to address the following:

> Transportation corridors should be protected from uses which are incompatible with transportation requirements . . . Important potential transportation corridors are being developed for other purposes . . .
>
> It is, therefore, the intent of the Legislature in enacting this decision to vest in the Department of Transportation responsibility for implementing a program of transportation right-of-way protection and conservation within essential transportation corridors by acquiring and holding transportation corridor lands which would otherwise be lost to public use.[49]

That legislation permits Caltrans to hold any property so acquired for up to 20 years before it must be turned to highway use. The agency has already begun to set priorities for corridors in which to apply the funds.

2. Florida

When Florida's Department of Transportation became interested in corridor preservation during the late 1980s, that State's enabling legislation, unlike California, was insufficient for a significant effort. The enormous growth pressures, the State's fiscal crisis, and the serious backlog in infrastructure construction, however, moved the legislature to enact important growth management legislation (e.g., requiring local communities to prepare comprehensive plans and to implement "concurrency" requirements by adopting adequate public facilities measures). This carried over into new transportation legislation as well.

In 1988, the legislature adopted F.S. 337.273, a transportation bill with a component entitled "Transportation Corridors." It reads like a manifesto for corridor preservation. The legislature found that:

> (1)(a) Immediate and decisive action must be taken to plan, designate, and develop transportation corridors within this state in order that the public health, safety, and welfare may be protected, preserved, and improved.
>
> (1)(c) The designation and protection of transportation corridors and the planning and development of transportation facilities within transportation corridors will substantially assist in allowing government to alleviate traffic congestion and transportation facilities overcrowding, aid in the development of an effective transportation system and alleviate the (problems) to the public.

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49 State of California, SB 1784, *Statutes 1990*, Chapter 95, "Public Utilities Relating to Transportation," p. 1.

The legislature further determined that:

> (2)(a) & (b) Transportation corridors cannot be developed without timely preservation, protection, or acquisition of property necessary to accommodate existing and planned transportation facilities within the corridor (and that) (t)he inability to timely protect, preserve, or acquire property necessary to accommodate a transportation facility in a transportation corridor constitutes an economic, health, safety, and welfare liability which imposes increasingly onerous burdens on public revenues, substantially impairs or arrests sound growth, impedes the provision of transportation infrastructure concurrent with the impact of development, retards the provision of an adequate transportation system for the people in the state . . .

and went on to express its intent that:

> (3) governmental police powers be utilized to the greatest extent possible by each governmental entity, and by two or more entities through corridor protection agreements, to preserve and protect property necessary for transportation corridors; (and) that property acquisition by donation, purchase, or eminent domain occur as far in advance of construction need as possible;[50]

The statute provides that a local government can designate a transportation corridor in its comprehensive plan. It further encourages local governments to adopt ordinances and regulations ensuring protection of the rights-of-way within these corridors, and it provides for Transportation Corridor Protection and Acquisition Agreements between FDOT and local governments which spell out the rights and responsibilities of each governmental entity.

a. Maps of Reservation. Separate provisions of the 1988 legislation permitted both municipalities and FDOT to prepare and record maps of reservation for transportation facilities, delineating the proposed rights-of-way and holding public hearings. Following the public hearing and adoption of the corridor by either the municipality or FDOT, local government was required to record the map of reservation in the public land records.

To implement FDOT maps of reservation, local governments were then required to withhold development permits within reserved corridors — delineated as a building setback line from the centerline of the facility — for a period of five years from the date on which the map of reservation for that corridor had been recorded. The five-year period could be extended for an additional five if FDOT repeated the same procedure. Thus, land could be held in reservation for 10 years without compensation to the owners.

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50 State of Florida, F.S.337.273, *Transportation Corridors*, 1989.

After the State Supreme Court ruled, in 1990, that reservation provisions constituted a "taking" which required compensation,[51] the legislature proceeded to pass "corrective" language. It expanded the corridor preservation options, and enacted a $500 million bond issue to fund protective right-of-way purchases.

The statute permits FDOT or any expressway authority to prepare and, following public hearings, record roadway corridor official map for a proposed transportation facility or improvement

> . . . to inform the public and to prevent costly and conflicting development of the land involved. The map shall show the locations and approximate widths of right-of-way required for the project.[52]

A key feature of the roadway corridor official map is that local jurisdictions must notify FDOT of any pending zoning change or subdivision or building permit application for development within the right-of-way shown on the map at least 60 days before taking action. Within 45 days of such notification, FDOT must inform the owner of the property of the transportation agency's intention to acquire the land, and then must acquire it within 120 days thereafter, or initiate eminent domain proceedings. Otherwise, the local jurisdiction may proceed with such action as it deems appropriate.

b. The Role of Comprehensive Planning. Pursuant to the State's growth management legislation, each local government must prepare and adopt a local comprehensive plan consistent with both the appropriate regional policy plan and the State Comprehensive Plan, and formally acknowledge the major role of local government in carrying out the policies of these other plans. The Florida Department of Community Affairs (DCA) is charged with enforcing these comprehensive planning requirements. Chapter 9J-5 of the DCA's rules sets forth minimum criteria for review.

Local government plans must:

> (3)(b)4. Provide for the protection of existing and future rights-of-way from building encroachment
>
> (3)(c)2. (Provide for implementation activities for) control of the connections and access points of driveways and roads to roadways . . . (and) establishment of

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51 *Joint Ventures* v. *Department of Transportation*, No. 71,878 (Fla. April 26, 1990) (15 F.L.W. S246)

52 Op. cit., State of Florida, F.S.337,273, *Transportation Corridors*, 1989.

> measures for the acquisition and preservation of existing and future rights-of-way.[53]

In reality, DCA does more than just enforce the requirements. It assists local jurisdictions to adopt these provisions and serves as a clearing house for information on local performance.

3. North Carolina

North Carolina's General Assembly passed several measures in 1987 to strengthen the ability of the Department of Transportation and local governments to protect rights-of-way for priority highway projects. Authority to adopt and enforce roadway corridor official maps was established through one of these acts. Another enabled cities and counties to allow density or development rights transfers in connection with required and voluntary dedication of right-of-way in any street or highway corridor shown on an officially adopted thoroughfare and comprehensive plan.

a. The Roadway Corridor Official Map Act. Under prior law, North Carolina's local governments could require subdividers to reserve rights-of-way for streets but did not often exercise this authority. The 1987 Act permits reservation of corridors pending purchase by a municipality or NCDOT. Such reservation must be in accordance with a recorded, specially adopted official map and it affects applicants for building permits as well as subdivision approval and zoning changes. Cities may adopt an official roadway corridor map for facilities within their respective jurisdictions; the State Board of Transportation, anywhere in the State. Landowners are compensated for the reservation through reduction of their tax bills by 80 percent on the land included in the official map, beginning in the tax year immediately following map recordation.

The Act provides for assurances about city or NCDOT intentions to follow through with the officially mapped road project.

> A roadway corridor may be placed on an official map only if (i) at least a portion of it has been included on the current TIP or (ii) at least a portion of it has been included on a comprehensive street plan adopted by a city and NCDOT, and the adopting city has included the road project in a capital improvement plan of ten (10) years duration or less. The corridor . . . need not be surveyed; the boundaries may be defined by map or written description. Once the official map is recorded in the office of the register of deeds, no

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53 State of Florida, Department of Community Affairs, Chapter 9J-5 FAC, "Minimum Criteria for Review of Local Comprehensive Plans and Determination of Compliance," Section 9J5.007.

> building permit may be issued for any building or structure within the corridor and no land within the corridor may be subdivided for a period of three years after the original application for the permit or approval is made.[54]

The State or city has one year following recordation of an official map to begin preliminary engineering and/or environmental impact studies on the mapped project. If such work is not begun, the official map becomes invalid and restrictions accompanying the reservation are lifted. An application for subdivision or building permit for land in the mapped corridor starts the clock running on a three-year period within which the city or State must buy the affected right-of-way parcel(s). If acquisition is not consummated, the official map is considered abandoned and its restrictions no longer apply.

b. Right-of-Way Dedications and Other Tools. The 1987 legislation offers cities and counties two approaches for obtaining dedication of land within the corridor of any proposed street or highway "on a plan established and adopted pursuant to G.S. 136-66.2."[55]

> Whenever a tract of land located within the territorial jurisdiction of a city or county's zoning or subdivision control ordinance or any other land use control ordinance authorized by local act is proposed for subdivision or for use pursuant to a zoning or building permit [emphasis added] . . . A city or county may require an applicant for subdivision plat approval or for a special use permit, conditional use permit, or special exception, or for any other permission pursuant to a land use control ordinance authorized by local act to dedicate for street or highway purpose, the right-of-way within such corridor if the city or county allows the applicant to transfer density credits attributable to the dedicated right-of-way to contiguous land owned by the applicant.[56]

The density transfer alternative would apply in the situation where the applicant voluntarily dedicates the right-of-way.

> . . . then the local unit [of government] may either allow the applicant to transfer density credits to contiguous land or these credits may be converted into 'severable development rights' that may be . . . applied to other sites in zoning districts designated as 'receiving districts'. The procedures for establishing, transferring, and exercising these developments rights are provided for in the new law.[57]

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54 Richard D. Ducker and Philip P. Green, Jr., *1987 Legislation Related to Planning, Development, and Land-Use Regulation*, Institute of Government, The University of North Carolina at Chapel Hill, October 1987, p. 4.

55 Excerpts from Road and Highway Laws of North Carolina, Chapter 136 - Article A. *Streets and Highways in and Around Municipalities*, Chapter 136 - Article 3B, "Dedication of Right-of-Way with Density or Development Rights Transfer," § 136-66.10.

56 Ibid.

57 Op. cit., *1987 Legislation Related to Planning*, p. 5.

The Act further provided that offers to dedicate streets on comprehensive street plans are irrevocable. The 1987 Legislature also granted local governments new authority to require subdividers to pay fees in lieu of making required street improvements, based on formulas related to projected trip generation. Considerable flexibility was included for expenditure of funds so collected. In North Carolina, there are no county roads, only State or municipal facilities. Cities have extraterritorial jurisdiction for transportation and land use controls of between one and three miles, depending on agreements with their respective adjoining counties. So, in situations where counties collect the fees in the course of exercising their own land use regulations, they must turn the fees-in-lieu over to the municipality that will be responsible for the road project. Funds generated may also be spent for joint city-NCDOT projects on State roads inside municipal limits, or outside but within the municipality's extraterritorial jurisdiction.

In addition, larger municipalities were allowed, subject to certain limits, to participate in the costs of acquiring rights-of-way for State highway projects in the TIP. The scope of city and county ability to impose set-back requirements was broadened to include proposed streets as well as existing, parking areas and utilities as well as structures. Cities' powers to regulate municipal curb cuts were expanded to include, where justified on the basis of development impacts, exactions such as dedicated right-of-way and payment for constructing medians, acceleration and deceleration lanes and traffic storage lanes — on city streets and, with NCDOT consent, on State highways within their jurisdictions as well. NCDOT, too, may now institute rules and standards for driveway connections into State roads. NCDOT's powers to enter into cost-sharing contracts with private developers, originally granted in 1986, were also extended. The public-private partnership agreements have to do with highway projects in which developers donate the right-of-way and share in as much as half the costs of engineering and construction.

In addition to the tools provided to North Carolina governments by general statutes, localities may obtain specific enabling legislation to enact development impact or facility fees. The latter are not subsumed within the authority of zoning, building code or subdivision control legislation. Raleigh, Chapel Hill, Carrboro, Garner, Hillsborough, Hickory, Durham, Pittsboro, the Towns of Dare, Orange, and Chatham Counties and, with respect to roads alone, the Town of Cary have such legislation

> . . . authorizing imposition of impact fees upon developers to finance the costs of right-of-way acquisition; and improvements for collector and arterial streets and other thoroughfares that serve areas of the city beyond the development for which they are collected. . .

> Such fees may be imposed on multi-family, commercial, office, and industrial developments and are not restricted to single-family residential subdivisions. . . [They are] generally imposed at the time the building permit or the certificate of compliance is issued. As a result, owners of previously-platted lots not subject to the requirements of the subdivision ordinance may nevertheless be subject to impact fee requirements . . . Fees collected must be related in amount to the traffic generated by the development for which they are paid. Also, the fees must be expended within a reasonable period of time on road improvements that provide sufficient benefit for the residents or users of the development from which they were collected.[58]

4. Oregon

Oregon's Transportation Commission did not deem new enabling legislation necessary for corridor preservation since the elaborate statewide land use planning system provided adequate framework. New administrative rules were, however, promulgated, spelling out the respective roles and responsibilities of local governments and all State agencies in respect to the AOH program. Any local jurisdiction lacking provisions in its comprehensive plan, ordinances or procedures necessary to carry out AOH responsibilities was enjoined to enact the missing pieces of institutional infrastructure. In the interest of effective and equitable enforcement of land use regulations affecting highway objectives, ODOT has also published a handbook of guidelines for local jurisdictions defining its interpretation of highway-compatible zoning practice. After advice from a legal consultant on the scope of its own authority under the police power, ODOT was encouraged to approach controlling or managing access to State highways quite aggressively. Accordingly, ODOT has issued standards and prepared a policy directive to ensure equitable enforcement of access controls statewide by its various district offices.

5. Arizona

In Arizona, passage of House Bill 2306 in 1985 created the structure for advance acquisition and other components of corridor preservation in Maricopa County. The resulting Act enabled bonding for the MAG controlled access system, approved by the State Transportation Board and constructed and maintained by ADOT. It was followed by a local referendum adopting a half-cent sales tax as the primary basis for funding the system. As the executing agency, ADOT was able to establish advance acquisition of rights-of-way as a priority. Some 38 percent of the land was obtained through acquisition or other means by 1990.

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58 Richard Ducker, Outline, *IV. Land-Use Regulation and Right-of-Way Acquisition*, September 15-17, 1987, p. 7.

C. Restructuring Institutional Relationships

The third component of new-style corridor preservation is a major restructuring of relationships within the State transportation agencies and between these agencies' representatives and the "outside world," i.e., the local communities who plan land uses in conjunction with transportation systems and review/approve private sector development plans and the private sector.

Within the transportation agencies, there is greater collaboration among planning, environment, and right-of-way personnel who now come together to formulate corridor strategy in early feasibility and planning stages. Outside the agencies, technical personnel have increasingly undertaken a "proactive" role (as Caltrans puts it), making themselves known to communities and property owners. They participate in meetings of planning boards and supervisors, seek ways to utilize local planning and regulatory powers in support of corridor preservation objectives, help to perform environmental analyses, and meet to negotiate with property owners for land donations and other mitigation agreements. Communication channels, previously blocked, have been opened which help apply available power and money to keep development from corridors needed to serve future transportation needs. To borrow an expression from basketball: the new look in corridor preservation commits the State Transportation Agency to a "full court press" on the world outside.

In support of this commitment, Caltrans invests considerable effort to orient its personnel for a changing decision environment. Meetings and conferences are regularly scheduled in various districts around the State so that agency personnel can see firsthand what their colleagues from other locations are doing. They are provided opportunities to learn new methods and skills, share experience with approaches they have tried, seek ideas from one another, and benefit from advice of specialists enlisted to talk about specific issues or situations.

Changing institutional relationships are manifest in different ways in other States.

In Arizona, for example, ADOT professionals have been detailed to serve as the transportation staff for Maricopa Association of Governments, the MPO, so a direct line of communications has been ensured.

ADOT has actually contracted with real estate staff of a number of MAG area jurisdictions to negotiate with private landowners for land sale or donation.[59] ADOT has also signed "red letter" agreements with all the MAG area jurisdictions, under which those jurisdictions immediately alert the agency when inquiries are made about developing land that might affect a proposed right-of-way.

Implementing North Carolina's roadway corridor official map entails statutorily mandated involvement of NCDOT officials with local government. Beyond the earlier thoroughfare planning/comprehensive planning phases, the Recorder of Deeds, the City or County Clerk, the relevant Engineer's Office and personnel who review development applications are all party to the process. Recognizing that a substantial amount of training is required for the system to function properly, NCDOT has arranged for the Institute of Transportation Research and Education (affiliated with the University of North Carolina) to develop and conduct training programs for local officials and others involved in the right-of-way control and acquisition process.

As for State-local collaboration in the early stages of systems planning, the focus is primarily at the level of technical staff. Although management level officials from the Statewide Planning and Environment Branch may occasionally address meetings of groups such as a Chamber of Commerce, district engineers are thought to be, as a general rule, too busy to engage in outreach activity. NCDOT has launched three pilot projects seeking to adapt their own early environmental studies to NEPA requirements so they can secure early FHWA corridor location approval. In this effort, the representatives of resource agencies such as EPA, the Fish and Wildlife Service and historical preservation authorities were invited "to the table" early to collaborate with NCDOT on scoping the environmental work. A major advantage of such consultation early in the systems planning state is that the resource agencies can focus on broader systems issues, cumulative impacts and trade-offs rather than individual projects such as highway segments, one at a time. NCDOT has also

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59 Communities in the Phoenix metropolitan area have successfully developed an extensive arterial system with land, and often improvements, provided by developers. This may be the result of historic circumstances as much as local legislation and negotiation.

The Phoenix area developed with major roads on the mile grid lines. This mile grid often, but not always, corresponded to property boundaries of large land holdings. As the area grew there were both the plan and the expectation that the mile-grid system would be continued. Developers understood that the mile-grid arterials would be the primary means of access to their properties. As land was subdivided and developed, the arterial system added new sections. Many miles of right-of-way and arterial construction were obtained at no direct public cost. Even where development has not yet occurred, the arterial corridors have been identified and preserved for future construction.

experimented with combining the public hearings required for the roadway corridor official map and for highway design in a dual-purpose session.

Once corridors are included in Florida's State transportation plan, FDOT District offices are to work closely with local governments to encourage their designation on local comprehensive plans. FDOT Districts are to provide continuing advisory support to local government efforts to employ land use control measures (zoning, setbacks, development agreements, donations, dedications, impact fees, etc.) to protect the corridors. District offices must coordinate with local jurisdictions, MPOs, and Regional Planning Commissions to establish right-of-way protection policies in long-range transportation and regional policy plans. District offices are expected to monitor all designated corridors with regard to land use changes, comprehensive plan amendments, zoning petitions, site plans, and Development of Regional Impact (DRI) submissions.

Oregon has instituted at least one change in its effort to integrate highway access management with its over all AOH program. That has been to move the Access Control Engineer who supervises access permits, physically into the office space shared by the systems planners.

V. THE ROLE AND NATURE OF ENVIRONMENTAL ANALYSIS

Environmental analysis plays an important role in the new systems approach to corridor preservation. Several States have been trying different approaches, seeking cost-effective procedures and levels of analysis appropriate to their circumstances.

It is important to contrast this introduction of environmental assessment into the early (systems planning) stages of corridor location studies with the cases cited in Part Two that were initiated prior to NEPA. Most of these cases involved some form of environmental assessment, especially those which received Federal funding. The assessments came late, however, rather than early in the planning process. By the time major studies or EISs were conducted, most of the basic route location decisions had been made, and available options were limited. Route 85 (San Jose) and Utah's West Valley Highway, for example, were evaluated through full-fledged corridor Environmental Impact Statements. But those EISs considered only a very few alternatives and concluded that the designated route — with minor modifications — was the least damaging and the most suitable.

The situation is changed today.[60] California, North Carolina, Oregon, etc., are all trying to bring environmental assessment into early corridor studies through close working relationships within the transportation agencies among planning, environmental, engineering and right-of-way personnel. They seek to use such assessment to screen a wide range of corridor options, identifying the most effective and least damaging routes. They are mindful of the NEPA requirements for Federal participation in funding either right-of-way acquisition or ultimate construction of a facility.

Under existing laws and regulations, Federal participation in project-wide acquisition activities can be authorized after approval of an appropriate NEPA document. Hardship and protective buying may be done with Federal funds for a *limited* number of properties and authorized as a Categorical Exclusion (CE) prior to NEPA process on the entire project. The following conditions apply to the use of this approach:

- the NEPA compliance process must be already under way,

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60 The one exception in the case studies is Arizona's MAG system, which is financed with state and local funds only. Arizona has significant environmental assessment requirements, but the studies were done as project analyses after the corridors were selected.

- the State Transportation Agency must have given official notice to the public that it has selected the particular location as its preferred alignment, held a public hearing, or provided an opportunity for a public hearing,

- no Section 4(f) (i.e., parkland, open space, historic, or cultural resources) properties are involved or, if there are such properties, the required procedures and determination of the Advisory Council on Historic Preservation must be *completed,* and

- such acquisitions will not influence the environmental assessment of a project, including the decision that there is a need to build the project or the selection of any specific location.

Even if Federal money is not involved directly in the protective actions, States are concerned that lack of compliance with the procedures could jeopardize later project funding or necessary permits from Federal agencies. They hope early mobilization of NEPA compliance will both aid in selection of environmentally sound locations and avert later controversy within the affected communities as well as State and Federal resource agencies. In full recognition of the very long time between feasibility examination and construction, at least one State's environmental motto is said to be "Study early and often."

This having been said, State transportation officials still face situations in which their immediate concerns are what actions they can take quickly with a minimum of documentation to protect critical properties, longer-term risks notwithstanding. Such limited protective purchase can usually meet the criteria for Categorical Exclusion. (See discussion in Section V.A.2 below.) Sometimes mere acquisition of property threatened by impending development can be judged environmentally neutral. Indeed, even more extensive acquisition may be justifiable as a Categorical Exclusion.

Under other circumstances, an Environmental Assessment (EA) may be needed to establish that starting corridor preservation is an act without significant environmental impact. In these cases, as well as that of corridor location approval (in a stage prior to detailed project approval), early environmental work would need to be sufficient to identify an environmentally preferable corridor that serves purpose and need. Appropriately documented, this could serve as a first phase or tier of the NEPA process. In a subsequent stage, the impacts of project construction activities would be analyzed in more detail and mitigation plans for impacts on resources, etc., would be developed.

California offers several illustrative examples. In one case concerning acquisition of an abandoned railroad line (to preserve it for some as-yet unspecified future transportation use), an EA found that this preservation action would have no significant environmental impact. In two of the most controversial transportation projects under analysis during the early 1990s, however, considerable environmental analysis was built into preliminary planning in an attempt to reach some objective answers so local transportation officials could begin protecting the corridor. One was the Cajalco Freeway (that would traverse Riverside County and cross the Cleveland National Forest into Orange County); the other, the Route 102 Bypass for Sacramento that involves several jurisdictions. Local governments, citizens, and environmental groups were deeply divided about the merits of these latter facilities. Neither had reached a location decision when research for this study was completed.

A. How to Approach Environmental Analysis

The fundamental question is how to approach the environmental analysis for corridor evaluation and selection so that Federal requirements are satisfied and early corridor location approval can be secured. Through discussions with FHWA officials we have been able to ascertain some general directions that analysis may take.

1. FHWA Policy and Recommendations

Both the U.S. Department of Transportation and FHWA issued policy statements in early 1990,[61] underscoring their shared objectives of more expeditious environmental reviews and timely decisions on transportation projects. The two policy directives called for improving procedures to ensure these objectives.

Under FHWA's *Environmental Policy Statement* (EPS), environmental protection and enhancement must be treated as an integral part of the decision making process in *all* aspects of the Federal aid highway program.

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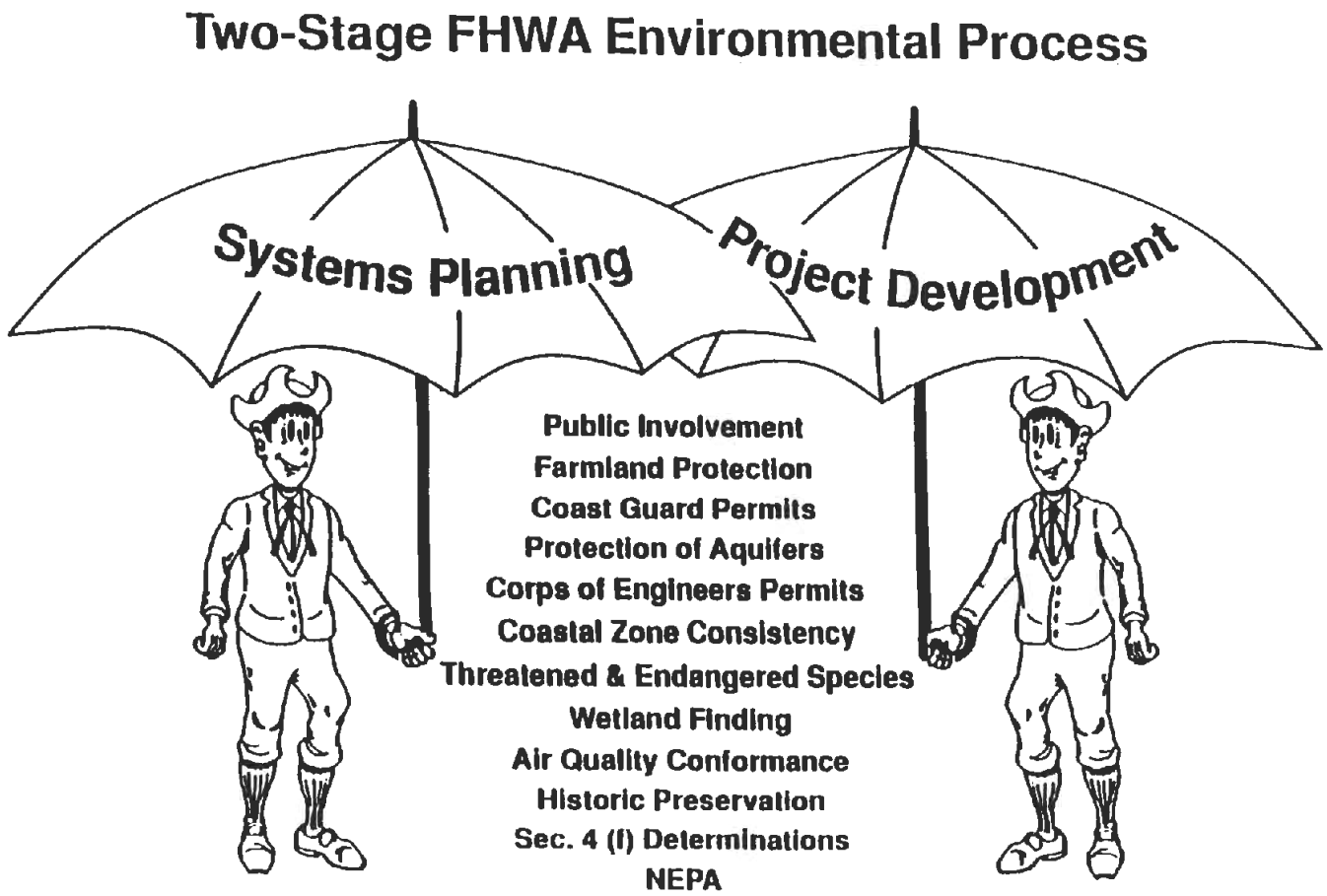
61 U. S. DOT *National Transportation Policy*, February 1990; and the FHWA *Environmental Policy Statement*, April 20, 1990.



Source: Federal Highway Administration, U.S. Department of Transportation

Figure 24

During ***systems planning***, environmental considerations are to be addressed early in development of land use and transportation options so they can be properly integrated into land use planning and transportation decisions at both State and local levels. This directive addresses the following components of FHWA policy:

- to promote the integration of land use, transportation, and environmental planning;

- to encourage involvement of environmental/resource agencies, groups, and the public throughout the systems planning stage to assure full consideration of environmental concerns in development of land use and transportation plans and improvement programs; and

- to support ***corridor preservation*** so as to assure early consideration and possible avoidance of environmentally sensitive areas and to minimize future social, economic, and environmental impacts while providing for needed transportation facilities.

During the ***project development process***, environmental considerations must be accorded sensitive treatment and addressed early as well. Efforts to protect and enhance the environment must extend throughout all phases of project development, including location, design, construction, maintenance, and operations. This directive responds to the following elements of FHWA policy:

- to provide continuity between the systems planning and project development processes in addressing project need and environmental concerns; and

- to utilize the FHWA/NEPA process as a framework for project decision-making, taking all relevant environmental requirements of law and policy into account in reaching conclusions which reflect the public interest.

High level FHWA officials have visited numerous regions, divisions, and States across the country, encouraging them to preserve planned transportation corridors as a way of avoiding or (if that is not possible) minimizing social, economic, and environmental impacts. In order to do this, State and local governments must undertake appropriate planning, NEPA compliance steps, and right-of-way acquisition years earlier than has been customary.

This does not mean, however, that FHWA, State, or local agencies should do the necessary work to comply with NEPA and other environmental requirements three, or even two times. FHWA policy directs that all levels of government — Federal, State, and local alike — pledge to eliminate unnecessary duplication as they work together on anticipating

transportation needs, considering various alternatives, complying with NEPA and other environmental and public involvement agreements, selecting the best alternative, and obtaining FHWA location approval under a single process. This would accelerate project planning, development, decision-making and construction while maintaining eligibility for Federal assistance.

2. Phasing the NEPA Process

The new FHWA EPA and NEPA were designed to mainstream environmental considerations *throughout* agencies' planning and project-stage decisions. States and local governments have the option of several possible approaches to ensure early consideration of environmental concerns during system planning and project development. FHWA considers the following three approaches acceptable:

- including inventories of social, economic, and environmental factors in the State agency's system planning process, then accomplishing the traditional NEPA process during project development;

- performing corridor studies during systems planning with provision for public involvement and attention to social, economic, and environmental consequences of the various alternatives. (This effort would be accomplished through a collaborative or cooperative arrangement among Federal, State, and local agencies.) Once local agencies have made their decisions on the preferred alternative, the results of the corridor studies would be incorporated in the FHWA/NEPA document for coordination, processing, and approval.

- initiating the NEPA process and carrying out the analysis, documentation, processing, and approval during the systems planning stage to coincide with, or represent, the corridor studies. A phased NEPA process, not necessarily a *tiered* EIS, could also be employed.

FHWA, AASHTO, and many States believe that most STAs and local governments now give serious weight to environmental concerns from the very beginning of the Systems Planning or 3-C Process. Unfortunately, there is no formal documentation or distinct step for environmental review at the end of this process. Consequently, acknowledgement that NEPA compliance has occurred cannot be made until a formal environmental document is produced later during project development. This could be rectified if existing planning studies, supplemented as necessary by *some* project development information, were provided as a basis for an early stage of environmental review. Supporting documentation for these studies

could possibly satisfy the requirements for CEs that do not involve significant impacts under 23 CFR 771.117(a) and (d).

a. Categorical Exclusion. FHWA's environmental regulations provide opportunity to use a Categorical Exclusion for Federal actions that do not involve significant environmental impacts. According to 23 CFR Section 771.117, criteria for CEs, i.e., actions that do not involve significant environmental impacts, individually or cumulatively, are:

> . . . actions which meet the definition contained in 40 CFR 1508.4, and, based on past experience with similar actions, do not involve significant environmental impacts. They are actions which: do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.[62]

In some instances, acquisition of right-of-way for the purpose of corridor preservation would be consistent with the above criteria. Therefore, the existing regulations could allow corridor preservation activities to be classified as a categorical exclusion if there is adequate documentation to support that action on an individual project basis. This CE classification would be accomplished as a separate step from later NEPA approvals for location approval and/or construction authorization approval. The documentation provided to support this categorical exclusion would address the environmental ramifications of the right-of-way acquisition and/or activities, but would defer evaluation of actual project construction impacts until the later NEPA documents. This was the approach taken in initiating the capacity-protection strategy for Route 1 in Delaware, and will be followed up by full environmental studies as the project proceeds.

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62 *23 CFR 771.117 (a).* Section (b) goes on to say that some actions which normally would be classified as CEs but *could* involve unusual circumstances *will* require the Administration, in cooperation with the applicant, to conduct appropriate environmental studies to determine if the CE classification is proper. Such unusual circumstances might be: significant environmental impacts, substantial controversy on environmental grounds, significant impact on properties protected by section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act, inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the action. Section (b) cites examples of actions which satisfy criteria for CEs in the CEQ regulations (Section 1508.4) and §771.117 (a) and *normally* do not require further NEPA approvals by the Administration. Among these are planning and technical studies, grants for training and research and engineering to define the elements of a proposed action or alternatives so that social, economic, and environmental effects can be assessed. Section (d) enumerates certain actions which meet the criteria for CEs but may be designated as CEs *only after Administration approval.* Applicants are required to submit documentation which demonstrates that the specific conditions or criteria for these CEs are satisfied and that significant environmental effects will not result. Included in the section (d) list are: approvals for changes in access control and acquisition of land (i.e., only a particular parcel or limited number of parcels) for hardship or protective purposes on condition that such acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects as may be eventually required in the NEPA process.

Approval of a CE by FHWA would not imply any authorization to construct in the selected corridor. Construction would need a separate NEPA approval to proceed. Moreover, approval of this type of CE would also include a condition that the right-of-way activities such as acquisitions shall not influence subsequent decisions about construction of the project or selection of a preferred alternative. In addition, with sufficient details, these planning studies could possibly be used and accepted by the FHWA as the NEPA Environmental Document for the entire project, not just the right-of-way phase.

This approach would also acknowledge NEPA compliance during planning via a CE, EA/FONSI (finding of no significant impact), or EIS and Record of Decision prepared to address all project-related impacts, not just the implications of right-of-way activities. It would provide opportunities to receive authorization for right-of-way acquisition earlier than normal. It could also permit earlier project location approval, and avoid need for a later NEPA document to address construction impacts.

b. EA/FONSI. The Golden Gate Bridge, Highway and Transportation District in California used this approach in connection with acquiring 54 miles of abandoned railroad right-of-way which parallels the major north-south transportation spine for the region. Complying with Federal and State laws, they prepared an Environmental Assessment/Initial Study and held a public hearing jointly with the county of Marin and Marin County Transit District to receive public comments on the proposed property acquisition.

The action addressed by the EA was preservation of ". . . right-of-way for future use as a transportation facility to accommodate the growing transportation needs of Marin and Sonoma County."[63] No construction was proposed on the basis of the environmental document. Indeed, it was not yet clear just what sort of transportation facility or facilities might be proposed to occupy the corridor, or when.

The EA found that the corridor preservation action would be "compatible with local, regional and State land use planning and will not induce growth in the area [or] . . . alter present patterns of traffic circulation or movement."[64] The preservation action would likewise be neutral

63 Golden Gate Bridge, Highway, and Transportation Agency, *Negative Declaration (CEQA)*, April 14, 1989.

64 Ibid.

with respect to 26 specific categories of environmental concern.[65] Because the right-of-way in this action was *already* a transportation corridor and because the object of the action was to *keep it undeveloped and available* to serve some different, future transportation function(s), the FONSI was a logical conclusion.

Preserving right-of-way for substantial thoroughfare widening in an existing corridor or for a *new location* facility corridor would likely present a more complicated situation and impacts of greater significance.

c. Tiered Environmental Document Process. Another avenue for facilitating early right-of-way activities is through a *tiered* environmental document process. The first tier would address environmental impacts sufficiently to narrow the range of alternatives to a single corridor and to request FHWA approval of a Federal action to authorize acquisition of right-of-way for purposes of corridor preservation. The second tier would evaluate in detail the impacts of project construction activities. The notion of a tiered environmental document has been endorsed by the CEQ regulations, although the specific reference in the CEQ regulations is to a tiered EIS.[66]

3. Examples of Phasing Efforts from the Case Studies

When preparing its comprehensive plan, a municipality near Portland, Oregon, was concerned about placing an anticipated new location corridor on its map so that land use and development decisions — already quite pressing — could be properly related to the future facility. The corridor was, at the time, still in the systems planning stage at the Metropolitan Planning Organization. The local government contracted with a consultant to prepare a formal environmental impact analysis of the alternative locations where the facility could pass

65 Criteria included: local, regional and State land use plans, inducement to growth in the area, alteration of present patterns of traffic circulation or movement; effects on air, noise, and water quality; rate of use of any natural resource; effects on fish, wildlife, or any rare and endangered species; impacts on historic or archaeological sites or structures of architectural or engineering significance; impacts on housing, businesses or neighborhoods, social, cultural or educational facilities or the economy of the area; effects on the aesthetic features of the area; effects on 4(f) land, floodplains, wetlands or any important farmland; propensity to increase geologic or seismic hazards.

66 See Section 1502.20 and also Section 1508.28.

through their community. This analysis was the basis for the community's own choice of a preferred location.[67]

Notwithstanding conditions particular to Oregon, other States may encounter instances where it is clear from the outset of planning that certain environmental impact issues will have to be examined carefully, or that some location alternatives can be dropped very early from further consideration. FHWA considers that conscientious evaluation and a well-documented decision process with provision for public participation may establish a record sufficient for authorization of right-of-way actions. Although prior right-of-way actions, themselves, cannot be allowed to prejudice an eventual project-level EIS and final determination, pertinent information and sufficient analysis (which provide the basis for the right-of-way action) are to be recognized and included in the NEPA compliance process.

North Carolina's DOT has issued environmental guidelines for its planning engineers in systems-level (thoroughfare) planning. Their approach is to identify and evaluate specific transportation improvements during the system planning stage. The analysis leads to identifying the general location for the transportation improvements in the systems plan such that the limits of the right-of-way to be protected or acquired can be outlined, based on a generalized or prototype highway cross-section. Alternative systems plans are then evaluated within a broad environmental context. This evaluation includes identification of many environmentally sensitive areas to be avoided in laying out alternative locations. A mapping scheme showing wetlands, developed areas, historic sites, parks and recreational facilities, endangered species, hazardous waste sites, etc., helps establish environmentally viable alternative locations. Information for these maps is drawn from resource agencies' environmental inventories and from the ongoing planning process, including aerial photography and field survey on the ground. Impacts of the systems plan components with respect to any of the significant environmental factors are quantified during this first-stage analysis.

For major projects requiring an EIS, the North Carolina approach currently necessitates evaluation of environmental concerns at both the systems planning and project development stages. But the magnitude of effort for the project level could be considerably streamlined if the EIS did not need to retrace ground covered in the systems planning environmental work.

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67 It should be noted that environmental protection is a high priority in Oregon. Local comprehensive plans themselves must pass scrutiny in this regard before they can take effect. Further, it is the general policy of the Oregon State Highway Division to follow the same environmental procedures as are required for Federal aid projects.

North Carolina DOT officials believe that cost savings may be realized in the formal NEPA/EIS work during project development planning because potentially controversial impacts can be averted through early elimination of less environmentally desirable location alternatives.

In three current pilot projects, NCDOT is working with Federal and State resource agencies and the FHWA to advance the NEPA process and obtain early corridor location approval in order to enable timely corridor preservation.

4. Caltrans' Tiered EIS

Caltrans has carried the concept of tiered environmental review farther than most States. This agency anticipates that over the lifetime of a highway's planning process, two phases of fairly definitive environmental documents will be required: one addressing very preliminary engineering considerations and evaluating options, and one of equal or greater detail at project design.

Caltrans does make a distinction, however, between "qualitative" or conceptual analyses on such matters as noise, air quality, and wetlands at a Tier 1 stage and much more definitive treatment and identification of mitigation measures once a facility has been designed. The complete set of Caltrans "interim guidelines" for tiering accompanies this text. It is being used in several pre-location-approval studies.

To a degree, the State of Oregon follows this model. ODOT guidelines call for separate corridor approval and project location approval stages, each with its respective draft EIS analysis, public hearing, hearing study report, and final EIS. As a practical matter, however, the State Highway Division does utilize a combined location/design-type environmental evaluation process.

INTERIM GUIDELINES FOR TIERED ENVIRONMENTAL DOCUMENT

CORRIDOR PRESERVATION

WHY CORRIDOR PRESERVATION?

- Do early so that lower cost locations are not foreclosed.
- Do early so that there is a better opportunity to avoid environmentally critical areas.
- Do early for lower right of way cost.
- Provides for better certainty in land use planning.

WHAT'S NEEDED?

- Completion of the CEQA process for CTC route adoption and for inclusion on the local land use plan.
- Completion of the NEPA process for FHWA location approval.

ENVIRONMENTAL OPTIONS

- Insignificant impacts. Do an IS/ND for CEQA and an EA/FONSI for NEPA.
- Significant impacts. Do an EIR for CEQA and an EIS for NEPA.

ENVIRONMENTAL DOCUMENT OPTIONS

- Traditional Environmental Document. This is a project-level document.
- Tiered approach. This offers a streamlined document tailored for corridor preservation where timing is a factor. The Tier 1, corridor document, would not have the detail of a project level document. It would address all issues that are necessary to a location adoption decision. The completion of the Tier 1 document would permit the acquisition of the right of way to preserve the corridor. The Tier 2 document would address project specific issues and would describe in more detail the project environmental consequences, design alternatives, and project mitigation. All major issues would be addressed in a merged fashion.

TIER 1 ENVIRONMENTAL DOCUMENT

The purpose of the Tier 1 document is to address the environmental consequences of the location decision. The document must be sufficient to support the location decision, particularly where the question of "no feasible and prudent alternative" or "practicable alternative that has less impact" may arise.

The key to the success of a Tier 1 in terms of economy in people, time and cost is to keep extraneous and unnecessary material out of the document.

The Tier 1 document needs to describe what tiering is intending to do, provide a description of the process for subsequent project development, and what the Tier 2 procedure will be. (Caution, there shouldn't be a commitment to the type of Tier 2 document in the Tier 1 document, since the Tier 1 step may be too early for a practical call.)

In terms of people effort, the engineering effort should generally be limited to establishing a center line and corridor band width to be preserved. The environmental effort will be closer to what is required for a traditional document. So, when a tiered approach is used the total engineering effort required will be about what the traditional approach requires, while the environmental effort will be substantially larger because of the two environmental documents required.

Items to be discussed in the Tier 1 document having the same coverage as seen in a traditional Environmental Document are:

- Purpose and need. This is a key part of the Environmental Document. The treatment should be the same as in a traditional Environmental Document. The Tier 1 document would not have the project concept fully developed, the Tier 2 document would describe the size and scale.
- Location Alternatives.
- Description of the Affected Environment.
- Interagency Coordination and Public Involvement.

The Environmental Consequences discussion must address all issues and elements critical to the selection of the location adoption. Critical issues will require quantification to the extent necessary for corridor location adoption. The mitigation concepts that will be employed in the project need to be described. Critical issues and elements to be addressed include:

- Land Use and Economic Impacts.
- Relocation.
- Section 4(f).
- Endangered Species.
- Wetlands and other 404 Permit Issues.
- Longitudinal Floodplain Encroachment.
- Historic and Archaeological Sites.
- Hazardous Waste.

For some locations other issues will be critical, such as coastal zone or use of farmlands, and will have to be addressed in the Tier 1 document.

The Environmental Consequences discussion for non-critical issues to the location adoption such as noise and air quality can be handled qualitatively. It is expected that any particular qualitative discussion would be less than a page in length.

The mapping used in the Environmental Document for the location adoption is another critical item. There needs to be a good, up to date map that shows all of the critical features including parks, endangered species areas, wetlands, historic sites, etc. Such mapping should help in resolution of feasible and prudent and practicable alternative questions.

The study area in looking for critical features needs to be broad enough on each alternative so that there is sufficient room to determine if the alignment can be shifted to avoid any such features that m ay be identified in the various studies. The study area needs to take into account possible major features such as station and interchange locations.

Specific points to discuss in Tier 1 documents:

- Land Use and Economic Impacts. Provide a brief overview of the existing land use in the corridor, discuss the current development trends, and discuss how the transportation corridor will contribute to the development of the land use patterns planned for the area as expressed in the area wide general plan.

- Relocation. The number and type of residences and businesses that would need to be relocated.

- Section 4(f). Must demonstrate that there are no feasible and prudent alternatives to avoid the taking of 4(f) lands. The "all mitigation to minimize harm" is to be discussed conceptually, such as, the 4(f) land taken is to be replaced but where the replacement will be has not been decided. The details of the mitigation features would be in the Tier 2 document.

- Endangered Species. Do any of the alternatives threaten the continued existence of a species? Results of consultation with the Fish and Wildlife Service and the Department of Fish and Game must be presented. Federal endangered species regulations allow agencies to take incremental steps towards completion of an action., For Tier 1, request the Service to issue a biological opinion on the location adoption proposal and ask for its views on the entire action. For the Tier 2 document, a biological opinion is needed to cover the specific project action.

- Wetlands and other 404 Permit Issues. Must demonstrate there is no practical alternative to avoid wetlands, and where there is involvement, discuss what will be done to minimize adverse impacts. Give the approximate size, values and function(s) of the wetlands and describe the mitigation plan concept. The detailed wetlands delineation, complete mitigation plan, and wetlands finding would be in the Tier 2 document.

- Longitudinal Floodplain Encroachment. The question of practical alternatives to avoid the encroachment must be addressed.

- Historic and Archaeological. For Tier 1 the identification/evaluation stage of Section 106 is completed. The formal assessment of effects will be at Tier 2. An exception would be where there is an unavoidable and obvious adverse effect. For Tier 1 an architectural survey and eligibility assessment is necessary to identify potential Section 4(f) properties. For Tier 1 the level of archaeological study is more problematic. Test excavations would not be done until Tier 2 and sufficient information to make such a determination. The Tier 1 archaeological approach will need to be tailored for the specific location adoption study and will vary depending on the study width and the number of alternatives being considered. It is desirable that there be a 100 percent survey. For wide corridors, a staged approach may be appropriate; here archaeology is only looked at on locations still considered feasible after other critical features have been identified.

- Hazardous Waste. Do as Initial Site Assessment. What is the potential of the hazardous waste for the land use types involved? If there is a potential, what wastes may be involved? Does it appear any of the sites are on or eligible for Federal or State Super Fund listing? A Preliminary Site Investigation may be necessary at some sites.

- Noise. There is to be a qualitative discussion of the areas potentially affected. The Tier 2 document would contain information on the detailed noise analysis and decisions on the noise abatement measures.

- Air Quality. There is to be a qualitative discussion of the existing air quality within the corridor in comparison to the ambient air quality standards, of the status of applicable plans for the attainment of the ambient air quality standards, and on how possible modal alternatives may work with the primary pollutants. Information on the detailed air quality analysis, a description of the measures being incorporated into the project to meet air quality goals, and the statement on State Implementation Plan and Regional Transportation Improvement Plan conformity would be in the Tier 2 document.

Source: California Department of Transportation, 1990

B. Working with Resource Agencies

One of the major problems expressed by all the State agencies grappling with the substance of staging or tiering is relationships with the resource agencies — both Federal and State — who become involved as commentators in the environmental assessment process. Close contact with these agencies at an early stage is encouraged by FHWA.

> Coordination with the resource agencies at this point allows for the identification of corridors that avoid sensitive resources, thus reducing the controversy in any subsequent proposals for transportation improvements. Agencies that issue permits must be assured that critical issues are identified and that alternative corridor locations are being evaluated.[68]

Several State and some local officials conveyed concern that resource agency personnel were not always "on the same wavelength" with FHWA. While the transportation people regard early corridor studies as a means of expediting both facility planning and ultimate construction, they felt resource agency personnel do not necessarily support those objectives.

Some attributed this to different missions. The transportation agency is empowered to build, while Fish and Wildlife and historic preservation professionals are directed toward conservation and maintaining the status quo. Others felt that agency work schedules or priorities for staff availability were not always synchronized, and that participation in an early stage assessment for transportation by professionals in other fields was regarded as a burden. Whatever the reason or combination of reasons, the issue arose quite often. Interviewees recognized that efforts to coordinate are being made at the national level, but suggested they need to be intensified and brought down to the field in the interest of making the tiering approach work. The North Carolina pilot projects seek to achieve early collaboration.

FHWA is thoroughly aware of these concerns and considers establishment of close working relationships with relevant resource agencies to be a key factor in effective, early environmental review, location approval, and corridor preservation. In addition to encouraging pilot projects within which this relationship-building can be forged on a case-by-case basis, FHWA has issued a broad policy document, Guidance on Cooperating Agencies, June 1991.

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68 George E. Schoener, *Corridor Preservation: A Case for Linking Transportation and Land Use Decisions*, Institute of Transportation Engineers, 1990 Conference Proceedings, p. 162.

VI. TWO CASES OF INTEGRATED PRESERVATION ACTION: OTAY MESA, CALIFORNIA, AND COLUMBUS, GEORGIA

How does this integrated, systematic corridor preservation actually work in the field? This section examines two specific cases: an application of the statewide Caltrans process and a program at the city scale in Columbus, Georgia. The Caltrans case addresses preservation for both publicly provided highways and a proposed private toll facility.

Perhaps the most extensive and sophisticated approach has been formulated at Caltrans' central and district levels. Caltrans is organized so that each of its 12 districts has full responsibility for environmental clearance and project development in its area. Both headquarters office and several districts are now committed to "proactive planning" in which corridor preservation is but one of several related activities. Caltrans' Philip Simpson pegs the impetus for "proactive planning" to observations during the mid-1980s of how utility companies operated within the State.

A. The Caltrans System

Utilities traditionally deploy executives and other staff to participate in public affairs and establish relationships with elected officials and agencies in the communities they service. Noting how effective this was in garnering support for utility company projects, Caltrans resolved to do the same. Such aggressive networking is non-traditional for highway engineers. In California, it is being applied to a wide range of activities in the highway-building process: advance planning, corridor identification and preservation, and environmental studies, as well as organizing construction finance. Officially this is called Advance Transportation Systems Development (ATSD).

1. ATSD Leverage

ATSD attempts to improve planning and coordination from very early stages of the development process. It is not expected that the desired improvements can occur so long as State, local, and regional agency spheres of operations remain rigidly compartmentalized and State transportation officials narrowly construe their role of highway-building. Directives to Caltrans staff are quite specific and far-reaching:

- foster public and private sector cooperation in developing transportation systems management programs for regional networks and individual corridors as means of reducing congestion;

- become involved early in systematic monitoring and review of land use development activities;

- establish good collaborative working relationships with local government, and jointly, together with these local governments:

  identify transportation needs based on projected growth in their respective communities,

  develop overall transportation programs properly scaled to support projected needs,

  delineate respective State, local and private implementation responsibilities,

  study corridor location options and right-of-way requirements, and

  devise strategies for preserving right-of-way under local development regulatory authority until transportation plans are definitive (and, presumably, right-of-way control can be achieved through the more conventional means of acquisition, dedication of right-of-way or outright construction of the transportation facility by the private sector).

Major goals of ATSD have been to facilitate economic growth and reduce the time involved in securing approval of development applications (thereby saving the private sector time and money). To the extent that increased funding of transportation projects by the private sector can be encouraged, earlier delivery of transportation capacity with reduced demand on public resources is an anticipated collateral public benefit. Operationally, the State is expected to benefit by having clear, undeveloped right-of-way when construction money becomes available and the transportation agency is ready to build. Moreover, if early resolution of conflicts can spare added costs of delays sparked by controversy, Caltrans will be more productive and cost-effective.

ATSD began in 1988 as a small, two-year demonstration for four high growth areas. Caltrans' commitment amounted to about 10-person/years of staff time annually. A variety of skilled and outgoing personnel from headquarters were assigned to the projects. ATSD then became "institutionalized" with the 1991-92 budget, involving 72-person/years at headquarters and staff time of numerous personnel in the districts. This is a human resource, not a capital commitment. It appears particularly modest in light of the savings which Caltrans has claimed.

In the first 12 months of the ATSD demonstration program in the four original geographic areas, the Department shows benefits of at least $104.5 million. Costs have been only $429,540. In summary, minimum benefits are as follows:

Transportation benefits to the state of $102.6 million:

Agreements by developers for transportation mitigation, $101.4 million: 37.2 million for right-of-way and $64.2 million for improvements.

Future state resource needs reduced by $1.2 million (staff time for local development reviews and the preparation of studies).

Savings of $1.3 million to developers related to reduced delay; also a savings of three years in development processing time. These savings occur because the ATSD program is able to expedite the development process. Most of the dollar savings are in the form of studies, consultant fees and finance charges that the private sector will not need.

Savings of $ .6 million to local agencies for capital improvements.

Enthusiastic support from local agencies and the private sector for the program.

On top of these savings are other benefits the Department expects to receive. They include revenue from local development impact fee ordinances ($239 million), the reduced time it takes to deliver capital projects (minimum of $13 million), and protecting future transportation corridors from inappropriate development (minimum of $268 million). Future savings in these three areas are estimated to be at least $520 million.[69]

2. The Otay Mesa Pilot Project

One of the first demonstrations of ATSD was the Otay Mesa project in San Diego directed by Caltrans' District 11. It is ongoing and represents an excellent case study of the "pro-active planning" approach, the enormous complexities to be addressed, and the new style of corridor preservation.

a. Background. The Otay Mesa Demonstration Area covers 40 square miles of relatively flat land lying against the Mexican border. It is bounded on the north by the city of Chula Vista, on the east by the Otay Mountains, and on the west by Interstate 805 (Figure 20). Portions of three jurisdictions are included: the city of San Diego, the city of Chula Vista, and San Diego County. Close to half the acreage is planned for residential use. Another 25 percent has been designated for commercial and industrial development; a similar amount, for other uses including parks and public facilities. Current population of the Otay Mesa communities is between 3,500 and 4,000 and employment amounts to about 2,700.

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69 Advance Transportation System Development FY 1988-89 Demonstration Program, *Report to the Legislature*, Caltrans, December 1989, pp. 1-2.

Population growth in the immediate Otay Mesa area tripled between 1980 and 1988, while the San Diego region as a whole and its South Bay segment added 25 percent. Across the Mexican border, the city of Tijuana grew by over 350,000 (53 percent) during the same period, passing the 1 million mark by 1988.

One factor contributing to this growth has been Mexico's *maquiladora* or *twin plant* program,[70] under which a U.S.-based company sends raw materials or components to its *twin* plant on the Mexican side of the border for assembly or further processing, then returns the goods to the plant on the U.S. side for finishing, quality control and shipping. There is, in prospect, a host of additional planned or anticipated developments, including a new bi-national [71] airport, on which the San Diego Association of Governments (SANDAG) has based its forecast that

> with appropriate planning and public facility development, population in the Otay Mesa communities could [be] . . . 101,900 . . . and employment, . . . 39,700 jobs, by 2010.[72]

The combined trip generation impacts of these developments, when tested on the Otay Mesa area's current transportation network, appeared to absorb all existing capacity by the year 2000. Reaching the capacity threshold will trigger necessity for all local jurisdictions to enforce development limitations. Area officials are concerned that continued phenomenal growth on the Mexican side of the border could generate such levels of travel demand as to use up existing road capacity near the border at Otay Mesa even before the year 2000. The critical role of two new State highways became evident. Their absence would mean simply stopping the flow of all that had been set in motion.

One is SR 905, ultimately planned to continue eastward from its I-805 interchange as a 6.4-mile freeway, paralleling Otay Mesa Road to the south and bending southward to align with the Otay Mesa border crossing. SR 905 would connect with proposed SR 125

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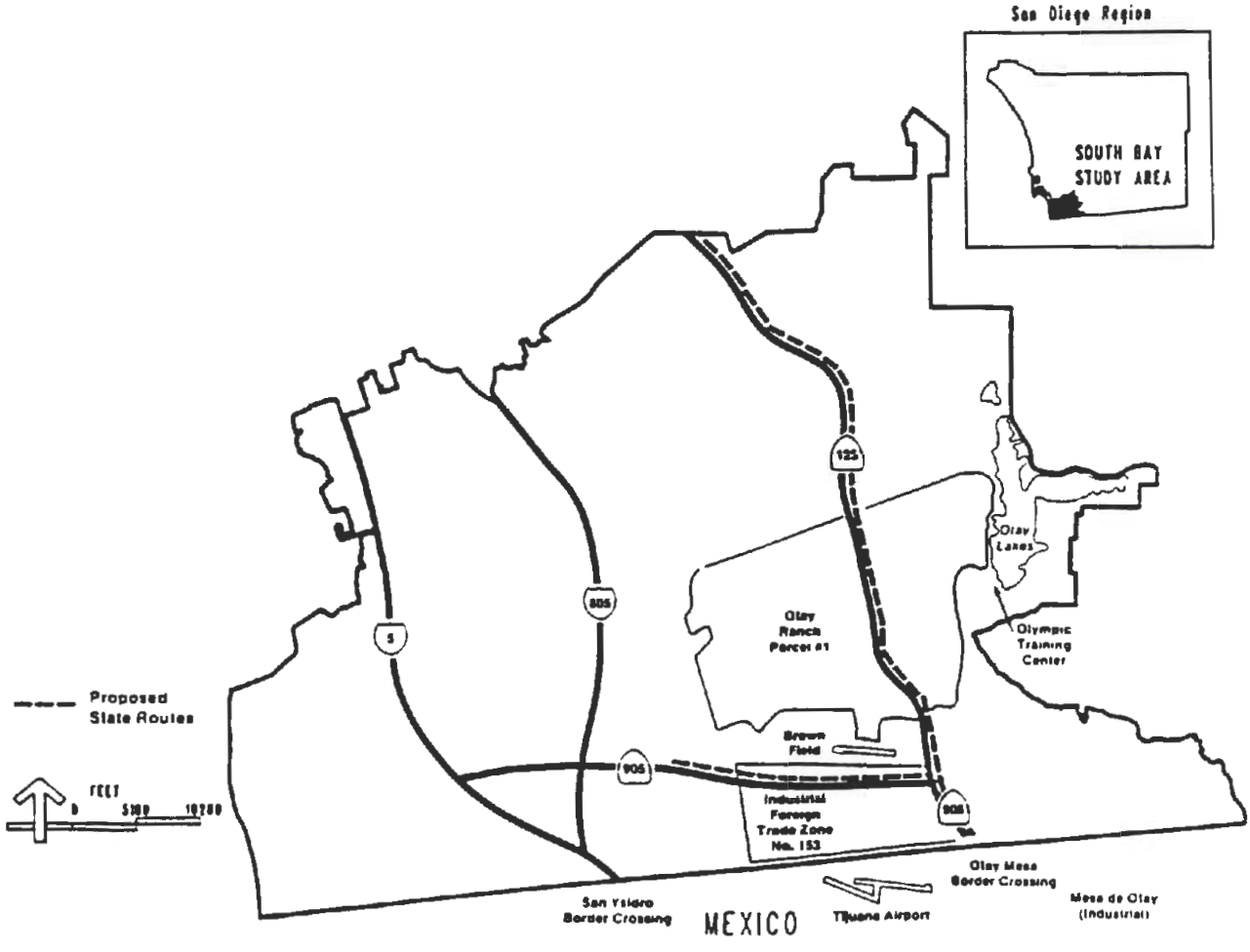
70 "By mid-1988, the number of Maquiladoras . . . in the Tijuana area totaled 413 plants, employing 45,000 persons and paying Maquiladora workers over $71 million in salaries for the first six months of 1988. Overall, Maquiladoras are Mexico's second most important income generating sector, behind petroleum and ahead of tourism." (San Diego Association of Governments, *Otay Mesa, SR-125/SR-905 Economic Study*, Prepared for Caltrans District 11 Advanced Transportation System Development Program, November 1990.) Caltrans officials estimate there are 1,200 Maquiladora plants on both sides of the border as of early 1991.

71 The proposal envisages "twinport" runways on each side of the U.S.-Mexican border.

72 Ibid., p. ES-14.

Figure 25

OTAY MESA AREA FREEWAYS, EXISTING AND PLANNED



Source: San Diego Association of Governments.

(a north-south facility) approximately at the point where it bends, a short distance north of the border station.[73]

This general alignment, originally called Route 75 and later Route 117, was first adopted as a freeway route in June 1965, and a *freeway agreement* was executed in January 1969. In 1987, the route designation was changed from SR 117 to SR 905, in anticipation of a future I-905 designation.[74] SR 905 is included in Caltrans' long range transportation plan but not in the STIP, the seven-year program for which funding is committed. In the face of numerous development applications submitted to the city for projects in the industrial/commercial area and for housing to the west, Caltrans had no means of protecting the future right-of-way for SR 905.

The second major project is SR 125. SR 125 would begin at its intersection with SR 905, travel northward to its intersection with Otay Mesa Road (designated a 2-4-lane collector) and continue toward the north beyond Otay Mesa to intersect with State Route 54 near the northern boundary of the city of Chula Vista. Years ago, SR 125 was in the State's long-range transportation plan, but was removed during Governor Brown's administration. As applications for development approvals on the first phase of the Otay Ranch "new town" were in preparation, it was apparent that a substantial portion of any future SR 125 would have to pass through the Otay Ranch property. Plans for creating a major new regional park were underway as well. Like the Otay Ranch, the potential park land would straddle the SR 125 corridor. It was clearly important that the highway corridor not be incorporated within the park master plan boundaries; for if it were so treated, later efforts to establish the corridor would face Section 4(f) constraints under NEPA.

The city of San Diego had been updating the community plan for Otay Mesa when issues of siting a new international airport in the vicinity to serve San Diego emerged during the late

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73 A two-mile western segment of I-905 links the two major San Diego freeways, I-5 and I-805 about a mile and a half north of the point where they join together to carry traffic through the San Ysidro border crossing into Mexico.

Principal access to the Otay Mesa border crossing, five miles east of San Ysidro and to the rapidly growing industrial area between the two border stations, is via an eastward extension of SR 905. SR 905 is freeway for about a mile east of I-805 and continues as Otay Mesa Road, a four-lane arterial for a little over four miles before bending southward over the north-south alignment of future SR 125 to approach the U.S. Customs station at the border. From the bend where SR 905 turns to the south, Otay Mesa Road narrows to two lanes and continues eastward. There is no major north-south highway link serving the eastern end of Otay Mesa and no express east-west corridor for the border traffic or local Otay Mesa development.

74 The estimated cost of construction of this road (in 1987 dollars) was $44 million at the time of designation as SR 905. Today the estimated cost is over $100 million.

1980s. Because of the anticipated impacts on safety, land use, and the transportation staging plan, the city called for a two-year moratorium on approval of any development applications in the Otay Mesa area, pending resolution of the airport siting question.[75]

These were a few outstanding features of the scenario into which the ATSD demonstration program was introduced in 1988. ATSD formalized the authority for District 11's Transportation Planning Branch to undertake *proactive* planning activities. Planning Branch officials interviewed for this study attribute much of their effectiveness to two mutually supporting features of this approach:

- the way they use their input in development review process, and
- the influence they are able to exert through the creation of partnerships with all parties engaged in the development process — private real estate and development entrepreneurs, citizens, business and public interest groups, local governments, regional agencies and entities conducting special project studies.

To these planners, corridor preservation is not the sum and substance of their effort, but rather an outcome of a much broader approach to transportation planning in its modern day context.

b. Development Monitoring and Review. All development approval applications, as well as all plans from the counties and municipalities within District 11, are referred to Caltrans for review. For Otay Mesa, ATSD staff have arranged with city and county staff that these referrals span every phase and level of detail. They begin with the earliest community plans, General Plans, and *Notices of Intent to Prepare an Environmental Document*, to an *Environmental Impact Report (EIR)* or *Declaration of No Significant Impact* through *Tentative Maps*, development and site plan, final engineering and building permit reviews, resolutions, general plans, specific plans, two-year capital improvement programs and *STIP or RTIPs (State or Regional Transportation Improvement Programs)*. With few exceptions, local cooperation has been excellent.

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75 The moratorium was extended for another six months in 1990, then lifted for all but residential development in the western end of Otay Mesa. As of April 1991, the moratorium on residential development in western Otay Mesa remained in effect as the School Board had refused to decide on school sites until the airport site was fixed.

ATSD staff in the Transportation Planning Branch are the designated lead group for comprehensive review of any development, public or private, within the Otay Mesa area to protect the SR 905 and SR 125 corridors. They are in charge of monitoring, distributing, reviewing, and commenting on everything from general plan through tentative map approval. When a tentative map or plan comes in related to any development in this area, the Transportation Planning Branch determines the appropriate land use authorities to be notified and decides who, within the Caltrans' District organization, needs to participate in the review. Occasionally, developers consult with the Caltrans' planners informally before submitting their applications for development permits.

Recommendations from the Planning Branch's initial reviews carry weight, partly because of the combined engineering and planning expertise of the personnel and partly because applicants know that their projects in more definitive form, farther along in the review process, must gain Caltrans' approval. Caltrans' participation in final project review gives added authority to the agency's recommendations offered at the early planning review level, for the agency maintains a high degree of continuity internally.

Essential to this intra-agency continuity are two particular tools that District 11 planners utilize for systematic monitoring and tracking of land use activity. One is a map on which they record the location and basic parameters (including trip generation statistics) of all prospective developments submitted for review; the other, a computerized database which tracks each development as it passes through successive levels of approval. The database serves as a record of changes in the development program or plans, as well as actions taken by Caltrans. Officials who need to examine a development for any reason — whether planning, engineering, right-of-way, or field inspection review — can refer both to this history and to the maps which are kept up to date so they provide an overall picture of development activity in a given area. These tools have proven a good early warning system of land use change, as well as a means of assessing cumulative impacts from multiple developments. They also provide a framework for negotiating conditions of private development plan approval.

Planning Branch officials take pride in the reputation this system has gained among development review agencies in the San Diego region as a reliable repository of institutional memory.

c. Participation with Decision-Makers. ATSD staff participate actively in the broader community planning process. They attend City Council, Board of Supervisors, City and

County Planning Commission, and City and County Environmental Subdivision Review Board meetings. Here, they are aided by another automated database. This one monitors and tracks important planning documents such as EIRs, general plans, community plans, and public notices. ATSD staff use this tool to identify impacts on highway facilities and determine appropriate mitigation. It generally helps them make constructive, timely inputs into preparation of guidance instruments and public decisions affecting Otay Mesa's future development.

Caltrans commissioned the regional planning agency, SANDAG, to prepare an economic study of Otay Mesa. The charge was to assess the study area's development potential and analyze economic impacts of *no-build, wait in line for funding* and *advanced-schedule* alternatives for SR 905 and SR 125.

The study concluded:

> Without SR 905 and SR 125 . . . the Otay Mesa communities would be able to accommodate 43 percent less employment growth, 40 percent fewer housing units, and 37 percent fewer residents . . . $5.5 billion in development would be delayed or not take place at all.[76]
>
> The year 2010 does not represent build out for the Otay Mesa communities, or the South Bay area. Beyond 2010 additional development would continue to be held in check until improvements were made to the transportation network, in this case the construction of SR 905 and SR 125 . . . In addition, the reduction in growth and development, associated with the no-build alternative, would result in lower income and municipal revenue. Aggregate household income, taxable retail sales and sales tax revenue would be 41 percent less, and property tax revenue would be 42 percent less.[77]

Caltrans used this report in discussions with Otay Mesa business interests, landowners and developers, as well as with local and Federal Government officials.

d. Other Outreach Activities. ATSD staff believe their initiative in communicating openly with the general community on how transportation facilities are planned and implemented has paid off in positive support. Besides speaking with "dozens of representatives from local jurisdictions that have planning and decision-making responsibilities," ATSD staff have participated in several multi-agency planning or environmental review scoping meetings. They have addressed numerous public and private forums, seminars, conferences and meetings, and sat as members of many task forces, committees and planning groups. ATSD

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76 SANDAG, *Otay Mesa, SR-125/SR-905 Economic Study*, p. ES-5.

77 Ibid., p. ES-9.

staff have also sought to inform the general public about the importance of the Otay Mesa program through releases to newspapers and other media.

These efforts have built a spirit of teamwork between Caltrans and local agencies in addressing one another's concerns and in cooperating with Otay Mesa developers, as well as other private interest groups. Both sets of working relationships have been productive in terms of quite specific accomplishments for Otay Mesa corridor preservation. A side benefit of being "out and about" in the community has been exposure to the real estate "grapevine." In order to build the sort of transportation partnership they are seeking, ATSD staff believe they must operate (and gain recognition) as an integral part of the development community.

The ATSD team has succeeded in convincing Otay Mesa developers that:

- the State simply has no resources available to build SR 905 any earlier than the late 1990s,
- at best, the future of their development plans absolutely depends on that road, and
- developers must help Caltrans if they want the road on schedule or, indeed, at all.

Caltrans needed help with the real and present threat of development in the SR 905 corridor. Caltrans let individual developers or landowners know how local participation by donations or dedication of portions of the right-of-way or, at a minimum, voluntarily avoiding the right-of-way line in their respective development plans, could reduce both impacts and avoidable costs. By enabling Caltrans' resources to go farther, they could significantly improve the prospects for the highway facility that was so crucial to them.

Further, ATSD staff argued, the development community as a whole could help by exerting peer pressure on those of their number who might be uncooperative. Voluntary cooperation was of the essence. Dollars were not available for protective purchase. Mandatory dedications could not be required through zoning and subdivision procedures because SR 905 was designated as a limited access freeway. Consequently, no one should count on inverse condemnation proceedings to secure compensation in the short term. In due course, Caltrans would acquire the necessary right-of-way. But if Caltrans had to incur added costs due to displacing commercial and industrial activities built in the corridor, this would eat into money

otherwise destined for construction. In the worst case, the project could become altogether infeasible; in the best, the wait until the road could be put into service would be prolonged.

3. Corridor Preservation Results for SR-905

The ATSD team worked with city of San Diego staff to establish the alignment and right-of-way boundaries for future SR 905. They negotiated with the city an administrative procedure through which developers could voluntarily reflect the future right-of-way line in their subdivision platting. In effect, this arrangement results in creating a separate lot for the land in the freeway right-of-way. The right-of-way parcels are kept in reserve, undeveloped, but are not to be dedicated for the freeway facility. At the appropriate time, the State will have to acquire the reserved right-of-way parcels.

The ATSD group from Caltrans also worked with city staff and their consultants, as well as representatives of the private sector to revise the Otay Mesa transportation phasing plan. One product of this undertaking was a feasibility study of building an Interim SR 905 in the freeway right-of-way. They also collaborated in developing a proposal for financing the $21 million construction cost of the interim facility through a revised fair share infrastructure funding agreement for Otay Mesa.[78]

By 1993, 60 percent of the 300 acres required for the SR 905 right-of-way had been reserved. Property owners committed themselves to put another 15 percent in reserve when they requested subdivision approvals; and land for half of a diamond interchange has been donated outright.

San Diego County considers encumbrances on land use as a factor in establishing assessed valuation for tax purposes, so participating property owners may be receiving some tax benefits from their action.

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78 The city of San Diego had established, as early as 1983, a Facilities Benefit Assessment District for the Otay Mesa communities. Revisions in the transportation phasing plan for the area (and likely other elements of infrastructure program) necessitated by the intense pace of development would require changes in the funding formulas. As of November 1991, a preliminary design concept for SR 905 had been approved. The city of San Diego refers to the facility as a freeway, not Interim SR 905. Formal environmental studies using ISTEA demonstration funds will continue through 1995 and the alignment has been adopted. No construction funding sources have been definitively committed; and anticipated date of completion is the year 2000 or later.

In another preservation action, Caltrans worked with the city and a developer to establish a conditional use permit for an outdoor swap meet within the proposed 905 corridor. The arrangement calls for Caltrans purchase of the land when needed for the highway — but a commitment from the owner to forego all claims for improvements and any loss of business benefits.

The entire Otay Mesa project began during an economic/real estate boom in Southern California, and much of the landowners' willingness to participate was predicated on continuation of that boom. In the recessionary period that followed, several of the owners are campaigning for Caltrans to buy their properties sooner rather than later, contending that the State has saddled them with an unfair burden. A "Citizens for 905" group has been formed to lobby both for the road and for early right-of-way purchase by the State.

4. Corridor Preservation Results for SR-125 Toll Facility

State Routes 905 and 125 are part of the same system of transportation facilities to support extensive new development in Otay Mesa. Caltrans has taken the lead in proactive planning for both, with the full cooperation of SANDAG and the city and county of San Diego. SR 125 presents quite different corridor preservation and project implementation challenges from Route 905. That the two corridors fall within a single network is a striking illustration of the variety of circumstances attendant to transportation planning in the United States and the need to establish "tailor-made" approaches to protection which uniquely address each facility in context.

Despite its *unadopted* status (i.e., elimination from the Caltrans adopted State transportation plan), proposed SR 125 continues to be regarded by Caltrans as an essential component of the regional transportation network. It answers to needs for access between the city of Chula Vista, city and county of San Diego, and the U.S.-Mexico border crossing at Otay Mesa. Therefore, Caltrans pursued *Route Location* and *Environmental Studies* for this corridor.

As formal members of the SR 125 Project Development Team, ATSD staff worked with San Diego County to identify right-of-way needs for this facility. They have participated, together with representatives from San Diego County and private developers, in ongoing implementation of a local arterial street system consistent with, and supportive of, eventual development of SR 125; and they have been party to negotiations with the county and developers for "fair-share" mitigation and funding agreements.

The SANDAG economic impact study, with its preliminary evaluation of potentially lost development opportunities, was instrumental in having SR 125 considered as a candidate in the State's highway privatization program. Before leaving office, Governor Deukmejian approved inclusion of SR 125 as one of the projects in California's AB 680, the Toll Revenue Transportation Demonstration Program. The objective of this program is to advance the schedule for bringing needed freeways into service by encouraging public/private transportation partnerships. Private enterprise is expected to raise investment funds to build these facilities in corridors designated by Caltrans.

Nine of the ten miles of Route 125 are planned as a toll facility, to be constructed by a private sector consortium. The highway will also include HOV lanes with provisions for conversion to future fixed-rail transit. Most of the toll road will traverse two large property holdings whose owners plan new communities for which Route 125 will be the principal means of access. Expectations are that the owners/developers will make financial contributions to construction of the facility and will donate or sell much of the necessary right-of-way. Caltrans officials point out, moreover, that the needed rights-of-way represent relatively small losses of land for these owners in view of the benefits to be derived. This contrasts with the situation of some owners of smaller properties along Route 905 who will lose 20-30 percent of their respective holdings.

While the widely publicized master plans of the two properties incorporate locations for the Route 125 corridor, by late-1992 no owner had made a definitive commitment as to how the land will be transferred. Reservations were completely "informal." The final one-mile route segment will be constructed by Caltrans as a freeway, funded by State and local sources. It will pass through an area of exurban settlement, encompassing more than 100 developed properties. Caltrans itself intends to handle acquisition and relocation for this area.

a. Project History. Route 125 is one of four toll facilities whose sponsors, after a competitive submission, were awarded franchises by Caltrans in 1991. California Transportation Ventures (CTV) prepared the winning proposal for SR 125. As of 1992, this was one of two in the advanced stages of planning and the only one involving substantial areas of privately owned right-of-way to be acquired. CTV is a joint venture of Parsons-Brinckerhoff, a large transportation planning and design firm; Fluor Daniel, a major construction company and Transroute, the consulting component of a group of French toll road operators. Until it withdrew in 1991, the financial firm of Prudential-Bache was a fourth partner and had committed to provide several million dollars of venture capital.

The first phase of the project will be four lanes costing about $260 million. Ultimate expansion will be to 10 lanes, with two in the median reserved for HOV and their potential conversion to transit. Total project cost is estimated at over $400 million.

A particularly appealing aspect of the CTV proposal is landowner participation in the provision of right-of-way and in project financing:

> The project would be financed primarily by tolls but also by developer contributions of land and a Mello-Roos community facilities financing district. Approximately 730 acres of land are required for the right-of-way, much of which is owned by two large developers, Eastlake (in Chula Vista north of Telegraph Canyon Road) and Baldwin (on the Otay Mesa). Landowners are expected to contribute up to 425 acres for right-of-way worth approximately $30 million. (Only $30 million in right-of-way costs, representing the portion not donated, is included in the $260 million construction cost estimate.) The Mello-Roos district would provide approximately $15 million in tax revenues to cover shortfalls in the earliest years of operation.[79]

Caltrans had been meeting with the major property owners in advance of the toll road decision, informing them of long-term need for the facility, obtaining feedback on their development plans and conducting preliminary engineering and environmental studies. Caltrans' view was that the traffic demands generated by the proposed projects would have a significant effect on the scale of facility and on when a project would need to come on line. Although Route 125, along with Route 905, would support the industrial growth along the Mexican border and might be the site of a third border crossing, traffic demand from the industrial complex alone would not be sufficient justification for a major commitment in this transportation corridor.

Examination of the development plans for Eastlake and Otay Ranch (Baldwin) makes it readily apparent why these projects are so important. The two together would create a new city on the southeast edge of the San Diego metropolitan area four times the size of Columbia, Maryland, the "new community" between Baltimore and Washington.
Eastlake comprises 3,111.2 acres (almost five square miles), of which about 1,400 are residential (over two square miles) and planned for nearly 9,000 dwelling units. Non-residential acreage includes industrial, retail, and public facilities areas, as well as the Olympic

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79 Jose A Gomez-Ibanez, John R. Meyer, with the assistance of Marcella Butler; *Private Toll Roads in the United States The Early Experience of Virginia and California*; Harvard University, 1991, prepared for the U.S. Department of Transportation, p 128. Note: Mello-Roos Districts are the California version of a special taxing district where taxes for earmarked services and facilities are levied on benefitting properties — usually on a voluntary basis. These districts have been a particularly popular means of facilities finance ever since Proposition 13 was enacted to limit local government levies in California.

watersport training site on Otay Lake, which the developers have donated to the U.S. Olympic Committee.

The Otay Ranch plan covers 23,088 acres (almost 40 square miles). It anticipates over 50,000 dwelling units with close to 150,000 people, plus a full town center and a university campus.

Eastlake's plan has been approved. Substantial construction of residence and business parks has been completed (with access from developer-improved arterial roads) and occupied. In fall 1992, Otay Ranch's extensive (1,600-page) Draft Environmental Impact Report (DEIR) was under review by the city of Chula Vista. If approved, Chula Vista would probably annex the ranch and negotiate service agreements with the developer.

The toll road facility has been a subject of controversy. Lawsuits challenged the objectivity of CTV as preparer of the Environmental Impact Statement for the project, and at least one jurisdiction — the exurb of Bonita, which would be impacted by the Caltrans freeway extension and would undergo considerable displacement — has opposed the road. The EIS matter was settled when Caltrans agreed to conduct the EIS itself, with financial contributions from CTV and local government, a process scheduled to begin in late 1992 along with additional engineering and design. CTV officials were in the process of securing financing and are optimistic that construction can begin within three-five years — well before the road could be built with State funding.

b. Corridor Preservation Matters. It is clear from the master plans of both developments that Route 125 will be a major factor in providing them with access. The Eastlake Plan shows a facility corridor and three interchanges, along one of which are arrayed the development's most intensive uses, apartments, and retail center. The eventual road is included in Eastlake's marketing literature, and the developer has actually set aside a corridor location on the property. In at least two locations large signs identify "Future Highway Crossing, State Route 125 as shown on the city of Chula Vista General Plan, Eastlake General Plan."

The DEIR documents for Otay Ranch show an even greater dependency. Five interchanges are depicted. Also, the town center and other intensive uses are located directly adjoining the highway corridor.

While these appear to be clear commitments for protecting the right-of-way, no legally binding agreements had been reached as to what lands will be transferred and how the transfers will be made. Certainly, more detailed design and environmental analyses are required before the precise alignments can be established. The seriously deteriorated real estate market in metropolitan San Diego casts some doubt as to whether the original expectations of donated land will be met.[80] CTV officials indicated that one alternative to donations would be negotiated purchase by CTV and subsequent dedication to the State. Condemnation by Caltrans of any "hold-outs" is also an option. (All land for the toll facility will be owned by the State, while the toll road and its revenues will revert to State ownership after 35 years.) The soft economy has also left in doubt the extent to which the principal landowners will be willing to make cash contributions beyond the donated land and/or will agree to creation of a special taxing district. Much negotiation lies ahead. Direct costs may be considerably higher without land donations and other landowner financial support from abutting landowners.

Despite the uncertainty, keeping the corridor free of buildings and expediting construction of the road continues to be in the developers' self-interest. Their "informal" land reservation must be considered a significant corridor preservation action, and it buys time at no cost to the public until the environmental studies are completed.

5. San Diego County's Protection Program

In selecting San Diego County for the Otay Mesa pilot projects, Caltrans found a particularly responsive local government partner. The county had initiated its own, albeit modest, corridor protection fund. In 1987, county voters passed a half-cent sales tax for transportation (transit, highways, maintenance) whichwas expected to yield $2.25 billion.
The measure earmarked $25 million for advance land acquisition. Route 54 is an east-west expressway connecting I-5 with I-805 toward northern San Diego County. An eastward extension is planned. Still further extensions as far as SR-125 are planned as well. In 1992, in the area earmarked for ultimate extension, a 20-acre nursery parcel was put up for sale.

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80 The national recession and a downturn in a local development economy affected implementation of another highly publicized toll road where private landowners proffered the bulk of the needed right-of-way. That is the 14-mile extension of the Dulles toll-road in Virginia planned by a private consortium to serve the rapidly growing industrial and suburban area in Loudoun County near Dulles Airport. Fewer than 20 landowners owned the affected properties and, after several years of negotiations, almost all of them had agreed to donate right-of-way by 1991. Many had proposed developments which were to benefit by access to the toll road. Growth in the area has practically ceased, however. Financing for the facility has been difficult to obtain, but the ground breaking finally occurred in 1993. For an extensive discussion of this project history, see the Harvard University study cited in footnote 79 above.

Concerned that the property could be rezoned for light industry, county authorities spent $5 million from the preservation fund to acquire the land they will lease for continued nursery use until it is needed for the transportation facility.

B. Columbus, Georgia

Corridor preservation in the city of Columbus and surrounding Muscogee County is a microcosm of the integrated, systematic programs conducted by several of the case States. Columbus is a modestly growing metropolitan area of under 200,000 people. Its corridor preservation program was initiated in the late 1980s. The program is based on a clearly articulated policy, backed by a legislative mandate, and carried out by a task force of department heads empowered to exact from, and negotiate with, landowners. The program is aided by special appropriations for land acquisition by the City Council and it is supported by both the State and FHWA.

FHWA/Georgia regards the Columbus program as a model and is encouraging its replication by other communities. The State of Georgia itself does not have a corridor preservation program and is restrained by State legislation from making any advance right-of-way purchases except on federally assisted roads with the express permission of FHWA.

1. Policy

Corridor preservation policy is expressed in a long-range transportation plan adopted by City Council, and consistent with the comprehensive land use plan. This plan identifies all corridors (both new alignments and widenings) anticipated for some form of improvement to the year 2005. An adopted TIP covers short-term (five-year) projects. During the early 1990s, City Council was appropriating $3.5-$4.5 million annually for purchase of right-of-way to implement the plan.

2. Legislation

Columbus has a network of mutually supporting legislation enacted under its home-rule status. In a mapped streets/street use map ordinance, it has classified streets from freeways to cul-de-sacs, set down prototypical rights-of-way widths, and incorporated State standards

for access control. A companion ordinance deals with Street Design Standards. Both of these were prepared in consultation with the State, and adopted in 1988.

These ordinances are consistent with the city's subdivision ordinance and zoning code which is the basis for development permit review.

> No site plan involving mapped streets shall be given final approval and no building permit issued until the site plan has met the requirements of the mapped streets ordinance or the site plan has been given approval by council following consideration by the mapped streets committee in cases where said plan does not meet the requirements of said (mapped streets) ordinance.[81]

3. Institutional Character

Central to the Columbus effort is the mapped streets committee comprised of all the relevant planning and review bodies and chaired by the Chief of Transportation Planning. By statute, this committee includes the Director of Community Development, City Engineer, Traffic Engineer, Highway Coordinator, Chief of City Planning and Chief of Building Inspections. Its task is to:

> Insure compliance with established or recommended final right-of-way requirements for present and future road and highway improvements through the review of site plans and subdivision plots . . .[82]

The committee, backed by review staff in the various city departments, is a "one-stop-shop" for examining and expediting development approvals. Transportation Chief Stephen Dockter reports that this process has been particularly well received by developers because all the anticipated rights-of-way are clearly mapped according to the State standards, and developers "know where they stand." Both the Chamber of Commerce and the City Council have backed the system.

City staff have used the instruments to obtain set-backs and dedications (for routes up to arterial status), to purchase right-of-way outright, and to negotiate donations and other concessions with property owners. In several cases, the city has reserved rather than purchased the land in advance by negotiating interim uses such as parking lots, until a project is ready for construction. Armed with the legislation, funding, and elected official support, Dockter comments that they have yet to have a major problem with negotiations because of the city's

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81 Columbus, Georgia, *Zoning Ordinance*, p. 2948.

82 Columbus, Georgia, *Street Use Map Ordinance*, p. 2.

"velvet covered brick." He also points out that the city has placed no time restrictions on conversion of acquired property (unlike the Federal Revolving Fund) so that land for really long-term projects can be in the inventory until needed.

PART THREE:

GUIDELINES FOR DECISION-MAKERS

INTRODUCTION

Before ISTEA, corridor preservation by transportation agencies was discretionary. FHWA encouraged the practice, and the AASHTO Report of 1990 demonstrated its widely applicable benefits. Within many a transportation agency, however, advance acquisition of land for preservation purposes competed for limited funds with current projects and facilities programmed for near-term implementation. Allocation of staff time to initiate protective measures short of direct acquisition also competed with more immediate agency imperatives. The extent to which an agency actually committed funds and staff resources for corridor preservation depended entirely on its sense of urgency about keeping potential rights-of-way free of development.

ISTEA, however, now urges both States and MPOs to consider preservation in formulating transportation plans, identify corridors where protection would be in the public interest, and establish strategies for protecting those corridors. ISTEA does not remove the competitive aspect from internal agency resources allocation. It does, however, make corridor preservation somewhat "more equal" to other concerns.

Thus, lessons learned from these case investigations in nine States now take on a broader significance. They offer guidelines to decision-makers faced with considering corridor preservation in transportation planning

I. BENEFITS OF CORRIDOR PRESERVATION

A principal lesson from the case studies is that corridor preservation demands and can appeal to a broad constituency. Most actions to preserve individual corridors, along with the special enabling measures and funding mechanisms enacted by State legislatures, had strong support from State, and often local agencies, elected officials, citizens and interest groups — including land developers — in the affected corridors. Locally enacted revenue initiatives (Arizona, California) which earmarked funds for advance acquisition were supported by citizens and taxpayers who understood the benefits of preservation action.

Figure 26 characterizes both the benefits and the beneficiaries. The traveling public; State and local government agencies charged with transportation, land use, and environmental protection; businesses, residents, and land developers in the corridor; taxpayers; and the

Figure 26

Who Benefits from Corridor Preservation?

The Beneficiaries	The Benefits
The Traveling Public	Certainty that long-range transportation needs can be met when construction funds are available.
State and Local Government	Ability to mesh transportation and land use development more effectively.
Businesses	More rapid availability of right-of-way when construction funds are available.
Residents	Minimal displacement impacts to businesses and residents.
Land Developers	Reduced disruption to the natural environment, historic resources, etc.
The Environment	Protection against increased costs that development in the right-of-way entails.
Taxpayers	

environment itself all stand to benefit from the certainty that corridor preservation affords. Once a corridor or strategically important parcels (such as key interchanges, locations most subject to development pressure) are preserved, uncertainty is substantially reduced. Affected parties are assured that long-range transportation needs can be met without undue delay when construction funds become available, because rights-of-way will be or can be assembled and made available quickly. Since development in the right-of-way will be minimized, displacement of households and businesses, along with costs attendant to acquisition and relocation, will likewise be minimized. Presuming that sufficient studies have been conducted to determine the most environmentally acceptable route as the target for preservation, less disruption to the natural environment, historic resources, etc., can be anticipated. Any required mitigation measures can be planned, and in many cases even implemented, well in advance of construction.

Demonstrating this broad range of benefits to affected constituencies will be a task for transportation agencies throughout the country. These agencies cannot help recognizing that, notwithstanding the broad-gauge advantages of corridor preservation, the principal beneficiary is their own central mission to provide safe, efficient transportation in a fiscally responsible manner.

Discussion turns now to suggestions on how that task can be accomplished.

II. SELECTING THE PRIORITY CORRIDORS

ISTEA requires that the metropolitan and statewide transportation planning processes include development of transportation plans addressing a planning horizon of at least 20 years. The plans must include a Transportation Improvement Program (TIP) for metropolitan areas, and a State Transportation Improvement Program (STIP), respectively, which cover a period of at least three years and identify priority projects that are financially constrained. TIPs and STIPs may include only those projects for which availability of construction and operating funds can reasonably be demonstrated. Thus, the horizon plans will likely identify long-term facilities needs whose implementation will occur well beyond that of programmed projects. Corridor preservation priorities should be articulated for these longer-range corridors (10-20 years out), as well as for projects that may be closer (7-10 years away).

Each case study situation examined for this report has its own nuances of physical setting, as well as development, governmental, and political context. Any generalizations from them can be made only very cautiously. Nonetheless, there are some common themes which may provide a checklist for a program manager who faces decisions on corridor preservation priorities. Before applying the checklist, certain prerequisites must be established.

The first is that the potential target corridors appear in the horizon plans based on analysis of roadway/transit capacity and demand, purpose and needs findings, and review of consistency with plans of local jurisdictions. Corridors not yet on an adopted plan of a Metropolitan Planning Organization or State Transportation Agency will require too much study, planning, and public participation prior to selection of reasonably probable alignments to warrant near-term preservation action.

Environmental analyses are also required. (See Part Two, Chapter V.) Only those corridors for which sufficient analysis has been accomplished to demonstrate a feasible alignment generally free of serious environmental constraints should even be considered candidates for preservation priority.

Key parcels may be acquired at an early stage of environmental assessment. Moreover, corridor protection measures utilizing police power may be effective in controlling development activity. Although these actions may be taken without extensive environmental analysis, they do entail some risk at a later stage. (See IV.B.3 below.)

Risk that the selected alignment will be disapproved is minimized, however, by documented evidence that anticipated impacts will be minimal in comparison with other corridor alternatives. When one or more candidate corridors have been identified, the following checklist can help establish a simplified priority-rating system. The checklist is short — five items only.

Figure 27

Priority Checklist for Corridor Preservation

Importance of the Corridor

How important will the corridor(s) be in the system needed to serve the area's development pattern in the early years of the twenty-first century?

Immediacy of Development

How imminent is the threat of development? Will the transportation corridor or strategic parcels be lost if nothing is done to prevent development before construction funding becomes available? Are there key locations (e.g., river crossings, environmental features that must be avoided, etc.) that are critical to successful project execution?

Risk of Foreclosing Options

If development does occur in the potential alignment, what options will be foreclosed? Will the remaining options be potentially far more damaging to environmental, economic, and social values?

Opportunity to Prevent Loss of the Corridor

Is development in the corridor still sufficiently modest that early protective action can make a difference? Are tools available — other than outright early acquisition of right-of-way — that can be employed to protect the corridor?

Strength of Local Government Support

Will the affected communities do their share to help? Do they have the needed tools at their disposal?

The following discussion relates each element of the checklist to evidence from the case investigations.

A. Importance of the Corridor

Virtually all States identified in this report have moved to preserve corridors that will play vital transportation roles.

These will be new facilities to support an ever-expanding pattern of suburban/exurban growth, to relieve existing infrastructure where the volume/capacity ratio is already strained, or to expand capacity of existing routes when no alternative to an additional alignment can be found. Utah's West Valley highway will be an outer belt for Salt Lake City. California's Otay Mesa expressways will be vital to serve major new employment centers and residential development at the edge of metropolitan San Diego. Delaware's Route 1 expansion will handle the burgeoning vacation traffic along the Atlantic shore. Their importance is clear.

Transportation agencies can readily determine the relative importance of their portfolio of planned but distant projects, through

- periodic traffic projections and analyses of future systems deficiencies,
- continued monitoring of population and economic projections from the MPOs, and
- keeping track of major development proposals (public and private), project approvals, and construction permits within the affected communities.

B. Immediacy of Development

This is a second task for a monitoring system. It requires firm links between the transportation agency, the MPO, and local development review agencies responsible for processing zoning and subdivision permits. It means keeping close tabs on land conversions and land prices. The MPO normally tracks population and employment trends and changing land uses within the metropolitan region. MPOs also have a much greater role in transportation planning under ISTEA.

The task is fairly easy in a small State like Delaware where master plan proposals, zoning changes, and subdivision permits routinely come to the State Transportation Agency for review. Arizona has a superb institutional presence, since ADOT professionals are the

transportation staff for the Phoenix MPO. ADOT's ability to monitor overall area changes is reinforced by the "red letter" agreements executed with all Phoenix area jurisdictions. Each local government is committed under one of these agreements to alert the State about development applications that affect the expressway system right-of-way. For the Otay Mesa demonstration project, Caltrans District 11 developed its own computerized monitoring system, and has since expanded it to cover the entire District. Some local officials consider Caltrans' tracking system the most reliable repository of development information in the area and consult it themselves.

Florida law requires notification by local government to FDOT of all requests for land use map amendments, rezoning, platting, or permitting on any land within a Roadway Corridor Official Map. FDOT also formally requests local governments, MPOs, and regional planning agencies to notify them of any actions or activities (including meetings and hearings) regarding all other corridors designated in the Florida Transportation Plan.

Monitoring land value trends is essential. Rapid land value increases in the vicinity of a corridor as the result of speculation or development may soon make right-of-way acquisition both difficult and costly.[83] If there is a clear and present danger that land for the right-of-way will soon be developed or will present severe cost constraints at ultimate acquisition, the transportation agency should give serious consideration to early protective action.

Development activity in the corridor, or developer interest in changing to more intensive zoning or uses, can greatly increase the cost of right-of-way and would justify corridor preservation activities. If development pressures don't exist, it will be difficult to justify preserving the corridor, given competing demands for limited transportation funds. The use

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83 The rapid rise of land values at the edge of Carson City was a major factor in motivating NDOT to proceed with revolving fund acquisition of the bypass route. Raw land escalation at 15-20% annually accelerated GDOT's advance purchase of right-of-way for the Atlanta outer perimeter highway, utilizing both state money and the Federal revolving fund.

As sophisticated as the monitoring of development trends and permits has been in some places, the surveillance of land value trends is generally rather rudimentary. As one highway official put it, "if any area is growing rapidly, you just know that the values are bound to rise." This is not always the case, however. In two of the case States, Nevada (Las Vegas and Reno) and Arizona, land values in certain areas *dropped* after the transportation agency had begun advance acquisition. The situation was particularly striking in Phoenix when, after the building boom of the mid-1980s, economic conditions worsened and the bottom dropped from the land market. Substantial holdings, including portions of the right-of-way for the projected MAG system, fell into the hands of the Resolution Trust Company after savings and loan bankruptcies, and were offered to ADOT by RTC at sharply reduced prices. Because land values do not always go up, or stay up, more precise continued monitoring may be warranted.

of police powers, especially zoning and development controls, may still be appropriate until funding is available for right-of-way acquisition.

C. Risk of Foreclosing Options

Loss of the land for potential transportation use is one issue. Consequences of a dysfunctional transportation system to the area's economic prosperity, to environmental protection, and to community stability must be evaluated as well.

Environmental concerns are particularly important. Throughout this analysis, we have emphasized the benefits of evaluating the environmental impacts of the transportation alternatives under consideration during systems planning. We want to be sure the least environmentally damaging corridors that meet the project purpose and need are being preserved and that the unavoidable environmental impacts of the project can be adequately mitigated.

But for the same reasons that these corridors are feasible from the environmental point of view, they are highly attractive for residential subdivisions and commercial enterprises. The AASHTO report states:

> Those same federal and state agencies are in direct competition with the private sector for undeveloped land with limited environmental sensitivities.[84]

If development occurs in the designated corridor, then options for right-of-way relatively free of environmental sensitivities may be foreclosed. If a facility is to be built at all, alternative routes may encounter even greater obstacles with wetlands, steep slopes, forested area, historically significant sites, or endangered wildlife habitat. The environmental impact statement for Utah's West Valley Highway noted:

> During the preliminary stages of the corridor study, at least eight alternative alignments within a broad band or corridor located between 2700 West and 5600 West were studied in addition to the West Valley Highway alternative. These alternative alignments were not developed further because they did not meet the desired transportation objectives and/or had greater environmental consequences than the West Valley Highway alternative.[85]

A principal factor in motivating State Transportation Agencies to preserve has been the fear of foreclosing the least environmentally adverse option.

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84 Op. cit., *AASHTO Report*, pp. 1-5.

85 Op. cit., *West Valley Highway EIS*, p. II-36.

Economic concerns figure prominently as well, and the economic impact of not producing the facility as conceived must be assessed. Caltrans' economic development study for Otay Mesa dramatically underscored the role of the designated corridors in supporting planned employment growth in southern San Diego City and County. It concluded great economic value would be at risk unless the two major access routes were completed within the next 10-15 years. That became a factor in deciding to launch protective action and in mobilizing broad-based support.

Risk must be assessed where any other alternative would generate greater displacement of developed businesses and residences. Such displacement adds both to the community impacts of the facility and to project costs for purchase and relocation, not to mention sources of opposition and delay. This point was dramatically made in the EIS for Route 85 in San Jose:

> This corridor is the last remaining undeveloped land in this part of the county where a major transportation facility could be built without causing significant displacement impacts on existing residential, commercial and industrial developments or on existing traffic flow. To relinquish it now would be an irrevocable act since the right-of-way and environmental costs would preclude public ownership of this corridor in the future.[86]

If viable options will be foreclosed by failure to preserve the right-of-way, even if some alignment modifications must be made at a later date, protective actions merit early support.

D. Opportunity to Prevent Development

Another factor to weigh is the relative cost-effectiveness of protective action. Is it possible to use limited resources — of funds, people, and regulatory powers — to "tie down" or control the maximum amount of land for the buck? Is it possible to capitalize on active interest of developers and landowners to obtain ultimate roadway access or frontage? Most case States have concluded that the primary opportunity for preservation lies in corridors whose surroundings are designated for development but

(a) are still at a stage where much vacant or agricultural lands exist, and

(b) may attract developers seeking regulatory approval who can be induced/-required to cooperate in dedicating or, at least, reserving right-of-way.

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86 Op. cit., *Route 85 EIS*, p. 111-6-7.

This approach is most directly expressed in Florida DOT's priority-setting policy:

> Corridor protection will be most effective on transportation corridors which are ready for development, but which have not yet been heavily developed. It can be expected that the greatest potential number of legal protests will be raised as a result of land use regulations or ordinances imposed to protect heavily developed transportation corridors. Concentrating corridor protection efforts on relatively less developed corridors will reduce legal challenges to protection and provide less of an impact on the affected property owners. This should be considered in establishing the priority of corridors for protection.[87]

Virtually all the case States have adopted a similar policy for both new corridors and capacity protection on existing primary arterials.[88]

1. Comparative Land Costs

The accompanying chart from ADOT dramatizes the relative cost-effectiveness of securing land in still-developing rather than developed corridors. It depicts the cost per square foot for right-of-way acquisition in each element of the MAG freeway system. The highest levels — from $10 to almost $20 — are for the Squaw Peak and East Papago freeways. These were facilities programmed to flow through some of the most highly developed sections of the metropolitan region. Properties, many of them developed and in commercial use, were invariably purchased outright.

The least cost routes, well under $5 a square foot, are the Red Mountain, Pima, Estrella, and South Mountain freeways. These, by contrast, are at the edge of the region in areas with plenty of room to grow. Not only were the land costs low, but State and local authorities obtained substantial properties through donations and exactions. Indeed, practically the entire route of the Estrella Freeway was donated to ADOT by a consortium of 23 landowners.

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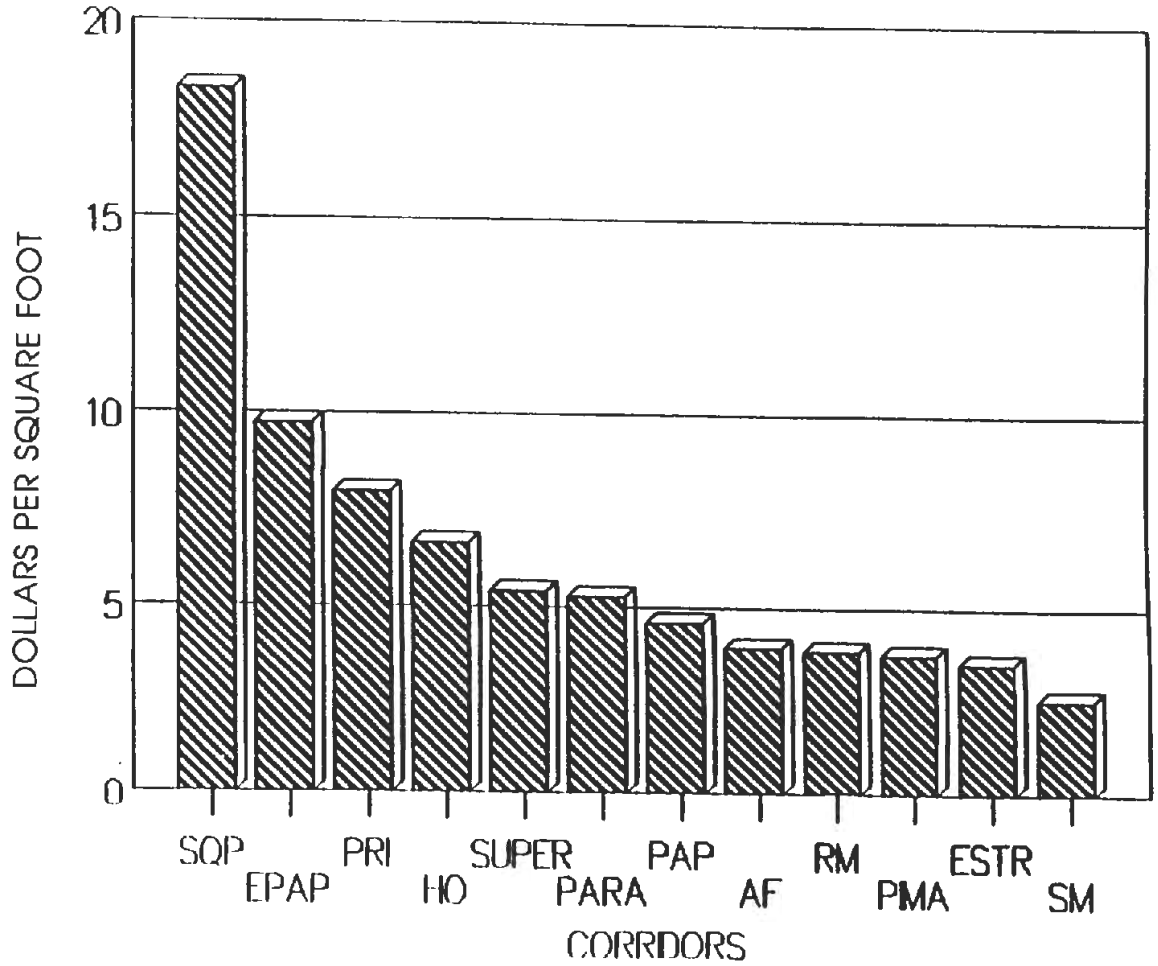
87 Op. cit., *Executive Committee Report*, p. 10.

88 California, Delaware, Utah, and Oregon have placed the priority for capacity protection on existing primary arterials in largely agricultural and undeveloped areas, but where development pressure is on the rise. They are designing prototypical rights-of-way and intersections, planning to make strategic purchases, and working out agreements with local jurisdictions to alert the transportation agency about development applications that are submitted and (where relevant) potential exactions.

The Otay Mesa case illustrates how this approach can be applied to a new corridor in a setting of high developer interest. In the case of SR 905, there is major reliance on the city's site plan review process to get platted as separate lots those portions of properties slated for eventual purchase as right-of-way. The objective is to negotiate avoidance of buildings on these future right-of-way parcels. The efforts have been successful so far. Some developers and/or owners do make interim use of the parcels (e.g., for parking or open-lot storage) until they are acquired. A similar strategy, relying on voluntary developer reservation combined with strategic advance purchase of key parcels, was followed for Utah's West Valley Highway.

COMPARATIVE RIGHT-OF-WAY COSTS, MAG SYSTEM CORRIDORS, ARIZONA



Source: Arizona Department of Transportation

Figure 28

Developers of such fringe properties can realize meaningful benefits by working with public officials to tie down proposed right-of-way. Potential project redesign, and associated costs could be minimized through early developer/public agency coordination. The developer could also gain economically since improved accessibility increases property value.

2. Property Management Issues

Consistent focus by the STAs on still-undeveloped corridors has led to only modest concern with property management issues as factors in making a preservation decision. In the terms of reference for this research, FHWA asked whether property-related issues affected agency decisions to protect right-of-way. These were identified as costs or problems involved in managing property, income generating potential of the property between time of acquisition and clearance for roadway construction, resale potential if the project should not require all the land, and property tax implications for affected local communities.

This entire cluster of factors seemed to have little bearing on any of the projects or State programs reviewed in this study. Benefits of the protective actions were perceived as far outweighing any costs or risks involved in holding property until it was needed for construction.[89]

For the most part, the case States have followed Florida's approach of targeting right-of-way in fast-growing but still undeveloped corridors where land is vacant or in agricultural use. Interim uses, producing some revenue to the highway agency, have been easy to find: continuation in farming, nurseries, storage areas, parking lots, etc. Tenants have been readily available for improved properties that had to be acquired.

Loss of tax base to the local jurisdictions has not been at issue either, because of agriculture or other uses with insignificant improvements. Some States require the transportation agency

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89 Changes in plans can very well occur, however, especially if there is a long lead time between early protective action and actual construction. In some instances, land may need to be sold or put to other public use because the route has been readjusted. Between the early planning in the 1960s for the southern leg of the Inner Beltway in Raleigh and its final design in the 1980s, the alignment was shifted well to the south to serve development that had occurred in the interim. The original alignment, along which property had been reserved and acquired, was then replanned and has since become a pedestrian greenway park. Such changes are very difficult to predict when an early corridor preservation decision is made. Selling land no longer needed for right-of-way seems not to pose a serious problem when the land has been bought or donated to the transportation agencies. Land acquired through exaction, however, represents a different situation.

to pay a portion of rental income to local jurisdictions in lieu of taxes to compensate for municipal services rendered to the interim tenants. California, for example, mandates that 24 percent of revenues from rental highway property be passed back to the affected jurisdictions. The EIS for Route 85 in San Jose estimated tax loss to affected communities from acquired right-of-way to be insubstantial, and that much of it would be made up by the State payments from lease revenues.

E. Strength of Local Government Support

One of the most important lessons of the case studies is the iron necessity for local community cooperation and involvement in the corridor preservation process. The State can rarely do it alone.[90] Corridor preservation works only if the affected jurisdictions are full parties to the effort. Except for its powers to purchase (limited by available capital funds) and to approve or deny access permits, the State lacks most of the tools available to local jurisdictions. These include authority to regulate land use and development and the negotiating muscle this authority confers. Some jurisdictions also have funds which can be used in right-of-way acquisition. Caltrans' first step in its "proactive" planning process is to create links with the institutions and actions of the local jurisdictions. Florida's requirement for local protective action is embodied in policy and law:

> The degree of protection exercised by local governments should be a factor in determining a project's priority for advance acquisition funds and/or construction. This is supported by Section 339.175, F.S. (as passed in 1989 and in SB 1474), which states that the Department shall, among select issues, give 'primary priority to those transportation improvements that are . . . within transportation corridors protected by local government action.[91]

Put another way, community support from elected officials, planning and development review agencies, and citizens is a *sine qua non* of successful corridor preservation projects. Before deciding to proceed, assessment of such support or its potential is one of the most important evaluations a State Transportation Agency Organization must make. By the same token, a project opposed by local officials and citizens, especially if it undermines local master plans, is bound to come to grief.

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90 Indeed, the only case encountered where the STA was effectively the sole participant was the Carson City Bypass which NDOT purchased with the Federal revolving fund. There, the city placed the route on its master plan after the State-conducted EIS was approved. In Nevada, there are considerable constraints against community use of the police power.

91 Op. cit., *Executive Committee Report*, p. 24.

Oregon's AOH program directs that:

> Consensus between OSHD (Oregon State Highway Division), local government, and affected citizens on the proposed improvements should . . . be reached to the extent possible before active project development processes begin.[92]

A controversial project, lacking such support and targeted for opposition by community or environmental groups should be passed by.[93]

1. Modes of State/Local Collaboration

Much of the outreach activity through which State agencies such as Caltrans can test (and elicit) community support is informal: for example, appearing at city council or county supervisors' hearings, meeting with planning directors, serving on joint task force teams, etc. Technical assistance efforts or research funding are also increasingly common. Caltrans drafted a corridor protection ordinance for Madera County. UDOT and ADOT executed early warning agreements on development applications with jurisdictions in affected corridors.

Since authority to adopt Official Maps was granted to North Carolina cities as well as the State DOT, the Department's policy is to limit its use of this authority to projects or portions of projects outside municipalities' jurisdiction to regulate land use. NCDOT encourages municipalities to take the lead in adopting Official Maps, with the view that the Official Map Law should be administered by the same unit of government that exercises regulatory authority over land use, subdivision, and building permits, since these approvals are directly affected by the Official Map. Many cities have extraterritorial jurisdiction in these regulatory areas, extending up to three miles beyond their borders, and some urban counties have their own regulatory mechanisms to control development. Since all county roads are on the State system, counties cannot adopt Official Maps. Therefore, NCDOT undertakes cooperative adoption arrangements outside the municipal regulatory jurisdiction. The State can also adopt an Official Map for any road on the State system within a municipality, but its policy is to do so only if a city is unwilling or unable to use its own authority.

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92 Oregon Highway Division Planning Section, *Access Oregon Highways: Corridor Studies*, February 1990, p. 5.

93 Soon after decisions were made to reserve and acquire land for the eastern leg of the Charlotte, North Carolina, Outer Beltway in the early 1980s, a coalition of neighborhoods from the area formed to relocate the route outward. Their opposition prevailed. Subsequent draft and final EISs endorsed an alignment as much as six miles east of the protected corridor. Some of the earlier acquired right-of-way then had to be put on the market.

Intervention with the community must be handled with a great deal of delicacy, however, because it is not always welcome.

2. The Sensitivity of Exactions

Many communities experiencing rapid growth have created sophisticated systems of master planning, zoning and subdivision control. Through State and local enabling legislation they can claim or negotiate "exactions" from developers to mitigate project impacts. These may range from impact fees, to dedications of land for schools, parks, roads, and other public facilities. In general, though the laws can differ from State to State, fundamental justification is that a *nexus* exists between the impact of the development and the exactions required.

In other words, strains on the necessary public facilities must be directly traceable to the people or businesses that would be housed in the development, e.g., their traffic generation, need for schools, recreation, etc. Interurban expressways and through routes which carry traffic beyond what is generated by a single development do not always fit the nexus criterion.

When a State Transportation Agency asks the community to exercise a higher exaction than customary, the community can become caught between the State's desire to secure control of the future transportation corridor by means other than purchase of the right-of-way and its own local objectives or development pressures.

To demand a higher exaction from developers than customary may put the community at a disadvantage in competition with other nearby communities. Developers seeking approval for proposals that could make desirable additions to the local tax base may threaten to take their projects someplace else, where the local jurisdiction does not impose extra burdens of providing land for major State transportation facilities.

There are other reasons for resistance to use local powers on behalf of State transportation corridor objectives. Arizona officials report, for example, that some communities give higher priority to exactions for strictly local facilities (of various types, not exclusively transportation-related) than to negotiating for contributions to the MAG right-of-way. Local agencies may understand developers' own economic equations and just how much of the cost of exactions and conditions can be passed on to their customers. And then, of course, "foot-dragging" on State requests to exercise local land use controls for corridor preservation could be

the response of local officials to certain of their own constituents who oppose the transportation corridor.

3. Exposure to Legal Action

Another problem may be threat of litigation when a community conditions development approval on dedication of major acreage for a State transportation facility or when it prohibits certain uses of land in the designated transportation corridor, particularly when the precise alignment of the future facility is not yet fixed and the corridor is still fairly wide.

Fear of exposure to legal action by developers ready to challenge exactions (including restrictions from building in future right-of-way) as takings without compensation has become widespread since the U.S. Supreme Court 's decisions on the *Nollan*[94] and *First English* cases.[95]

In Florida, despite carefully constructed statutory authority, a multi-disciplinary task force which examined the best ways to implement corridor protection, and a series of very detailed procedural directives designed to make corridor protection an integral part of the fabric of administrative actions, full implementation of FDOT's corridor protection effort had not occurred by 1992. No local community had entered into formal Transportation Corridor Protection and Acquisition Agreements with the State, under which the community would specify actions it would take to protect planned right-of-way. This, despite provisions in State enabling legislation (Section 337.273[7]) which indemnify communities against lawsuits arising from such actions and place the liability for court judgments with the State. FDOT implementation of corridor protection was on hold pending the outcome of a study to determine the status of Florida case law on use of various corridor protection methods.

Building department officials in one Oregon city have said they would be happy to keep development out of designated right-of-way but, in the absence of "official mapped street" enabling legislation, they lack authority to block construction that otherwise conforms with regulations. Since Oregon does not have a statute enabling this kind of right-of-way reservation, the reluctance reflects a legitimate concern about exceeding proper authority. The results of ODOT's efforts to inform, persuade, and negotiate constructive solutions of other

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94 *Nollan v. California Coastal Commission [107 S. Ct. at 3147 (1987)].*

95 *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles [107 S. Ct. at 2378 (1987)].*

sorts have been variable. Some communities accommodate ODOT's concerns; others do not. Some developers are cooperative; others not.

In practice, many of the corridor preservation techniques can be applied with little resistance from developers and landowners, especially if the result benefits them. Unless the right-of-way requires a large proportion of an individual property, there is a good chance accessibility benefits and assurances about corridor location exceed negative impacts from reservation or dedication. Developers will often refrain from litigating because of the delay and financial outlay, the uncertain outcome of a legal appeal, or simply calculations that they can pass the costs through to their customers.

At times, however, efforts to achieve a negotiated solution break down and litigation follows denial of a development permit. Time and money costs are certainly good reasons for local government to avoid litigation. Some corridor protection advocates may argue that risk of litigation "goes with the territory," but an MPO official in Oregon suggested that pushing the limits of land use controls to achieve corridor protection could bring down a whole delicately balanced "house of cards." Successful lawsuits could dismantle the municipality's whole system of negotiated amenities or, more seriously, significant portions of its regulatory structure for managing land use and development. Perhaps a prudent strategy is not to try to avoid any and all risks of this sort, but rather to choose legal battles carefully.

Nevada and Carson City will not use police power to preserve right-of-way. Other States, such as Virginia, severely constrain communities from enacting adequate public facilities ordinances or developer exactions which go beyond on-site mitigation measures specifically linked with project impacts. California and North Carolina, however, have much broader legislative mandates. And California, through both its environmental legislation and developer agreements, can work with local communities to mitigate development impacts on future State roads by negotiating right-of-way reservation and dedications. Technical assistance, training, diplomacy, and sometimes financial or political leverage, have all been utilized in securing cooperation of local officials.

Reluctance to exact, and concern with legal consequences, not to mention constituent opposition, may well dampen enthusiasm of some jurisdictions to join with the State in corridor protection. These concerns, however, will vary from community to community and State to State. STAs should be forewarned of these potential difficulties, simply because they could

become factors in shaping how the State enlists the community in a common strategy to protect a corridor.

III. APPLYING THE CHECKLIST: RATINGS FROM THE CASE STUDIES

An enormous variety of circumstances can form the context for corridor preservation in different States and communities. Thus, any rating system which assigns points to the five checklist decision factors can be only relative and approximate. It can, however, contribute some generalized values for each factor to aid in the priority-setting. Simplified designations of "high," "moderate," and "low" can be useful. For example, given a candidate corridor or an array of candidate corridors, transportation agencies should be able to determine whether a given route is high in importance, low in importance, or something in between. The same can be said for each of the other factors, i.e., is local government support strong, weak, or modest?

It may be particularly instructive, therefore, to see how each of the individual case routes depicted in the case studies in Part Two would have rated had the checklist actually been applied by the State and local decision-makers who initiated corridor protection. That outcome is depicted on the accompanying chart (Figure 29). The judgments indicated are those of the writers in retrospect, based on the field evidence reviewed. They should not be directly attributed to the agencies and officials involved at the time.

Just about all the case study corridors rated high in relation to all of the factors. Each was considered to be critically important to the long-term transportation system, threatened by early development in the right-of-way, a serious loss to the system if development were permitted to occur, early enough in the process so that protective action would make a major difference, and each traversed a local jurisdiction or jurisdictions strongly supportive of preservation.

Figure 29

RATINGS FOR THE CORRIDOR PRESERVATION PRIORITY CHECKLIST (From the Case Studies)

	Importance of Corridor	Immediacy of Development	Risk of Foreclosing Options	Opportunity to Prevent Development	Strength of Local Government Support
Capacity Protection					
Delaware Route 1	High	Moderate	High	High	High
Utah Route 89	High	High	High	High	Moderate
California Route 49	High	High	High	High	High
New Corridors					
Carson City Bypass	High	High	High	High	Low
Salem Kuebler Blvd	High	High	High	High	High
San Jose Route 85	High	High	High	High	High
Salt Lake, West Valley Highway	High	High	High	High	High
San Jose Guadalupe Corridor	High	High	High	High	High
San Diego SR 905	High	High	High	High	High
San Diego SR 125 Toll	High	Moderate	High	High	Moderate

The exceptions are especially interesting since they illustrate how considered judgment of special conditions by the transportation agency must, in the final analysis, be the basis for undertaking corridor preservation with the resources, personnel and leadership support appropriate to a high priority effort.

The capacity protection actions in Delaware were initiated in the early 1990s during a recession when there was little likelihood of imminent development. Given the prospect that development would be initiated by landowners once economic conditions improved, State and local officials determined that early preventive action was warranted.

In the case of Utah's Route 89, the existing highway traversed several individual jurisdictions. Some of these local governments had not yet executed early warning agreements with UDOT, and some were not prepared to utilize their own powers to participate in corridor protection. Nevertheless, the transportation agency deemed the risks of right-of-way loss so severe that State funds, combined with support from communities who did perceive the need, would be well invested in early action to control the right-of-way.

In Carson City, the local government refused to halt subdivisions or otherwise utilize local police power to prevent development in the bypass corridor. Faced with loss of an extremely important relief route and effectively no alternative, the State proceeded to secure the right-of-way through purchase with Federal revolving fund monies.

SR 125 in California is also an exception. Development of large landholdings along this corridor is not imminent. That development largely depends on activating the proposed transportation corridor. While San Diego County and Chula Vista show the corridor on their respective General Plans, neither major jurisdiction was prepared to buy right-of-way to protect it. In this instance, Caltrans and the communities were moving forward with protection but relying entirely on persuasion and the self-interest of affected landowners to reserve the right-of-way until funding for the toll facility could be secured, in the expectation that land will be donated at that time.

IV. FORMULATING THE PRESERVATION STRATEGY

When deciding to target a corridor or corridors for preservation, the transportation agency must formulate a conservation strategy for the rights-of-way. That strategy may involve a single technique, such as Nevada DOT's use of the FHWA revolving fund to acquire land for the Carson City Bypass long in advance of construction. Or it may involve orchestration of several measures involving both State and local powers, funds from a variety of sources and, in certain instances, the willingness of landowners voluntarily to donate sites or reserve needed land until it is eventually acquired by the transportation agency. The "tools" are numerous. Which tools to apply where, and in what sequence, will depend entirely on the political, legal, and development context and the precision with which right-of-way needs can be defined. Strategies will vary from State to State or within a given State. By no means are all tools legally or administratively available — or politically acceptable — to all States and local jurisdictions. Experience in the case studies suggests yet another checklist.

Figure 30

Steps in Formulating Strategy

- **Inventory Available Powers and Resources**
  (and initiate measures to secure needed legislation, demonstration project authority, funds, staff, etc.)
- **Evaluate and Select Techniques**
- **Organize the Transportation Agency Internally to Perform the Tasks**
- **Cement External Support for Corridor Preservation**

A. Inventory the Available Powers and Resources

The very first step in determining how to proceed is for the transportation agency to inventory the legal, regulatory, and procedural authority available within its State and local communities for corridor preservation. In some States, only limited authority exists. Nevada, for example, does not rely on the exercise of police power by local jurisdictions to protect right-of-way as a matter of policy. Georgia is constrained to use State funds for advance acquisition but does allow local government wide latitude in using their powers to regulate land use and development for protecting right-of-way. Enabling legislation permitting negotiation of broad-ranging developer agreements like California's is rare. Authority to establish "official maps" or right-of-way reservation and tax abatements for reserved properties is by no means universal, and the length of time for which land can be reserved before the public agency purchases it varies among those jurisdictions which do use the reservation tool.

ISTEA calls for all States to establish corridor preservation strategy. It is expected many will undertake preliminary studies, including inventory of available tools and constraints and possibly pilot projects to proceed with formulating a statewide strategy or with measures for an individual corridor.

1. Inventory of Powers

An initial inventory of powers — and financial resources — to implement preservation was undertaken in three case States which have launched broad, statewide systems approaches to corridor preservation: Florida, North Carolina, and California. Both Florida and North Carolina found that new enabling legislation was required to provide a full complement of corridor preservation tools for their extensive statewide programs. Both were to involve active participation by local governments in collaboration with the State. Their respective legislatures enacted legislation and subsequently provided funding for advance acquisition of parcels when necessary to preclude development.

A California task force examining authority for corridor preservation found that the existing array of laws and delegated powers supported both State and local participation. To further the effort, however, the State assembly established a special two-year demonstration program for "Advanced Transportation Systems Development." The initial authorization covered four pilot projects. In view of the dramatic success of the demonstration, the program was

extended statewide, even before the first two years were up, and it has since been incorporated into standard policy and procedure. On the basis of initial success, the assembly subsequently enacted a special law permitting funds from the sale, lease, or rental of transportation agency property to be used in acquiring strategically important lands.

As the result of this inventory and debate — both in the State legislatures and at the local level — each of these States has adopted formal corridor protection strategy, including policies, procedures, and regulations supporting a wide range of protective efforts. Not all States will reach the same conclusions. Oregon, for example, has embarked on a statewide program strategy of capacity protection rather than preservation of corridors for "new location" transportation facilities. Utah targets activities towards one new facility (the West Valley Highway) and one capacity protection facility (Route 89), Arizona, to a comprehensive freeway system in a single metropolitan area (Phoenix).

2. Inventory of Resources

A comparable inventory of *financial* resources for advance acquisition is also in order. Although FHWA encourages corridor preservation through a wide range of measures that go beyond early purchase of right-of-way, acquisition will still be a critical item in the "tool kit." What, if any, funding for corridor preservation can be anticipated from sources such as gas tax? What other resources can be brought to bear? The FHWA revolving fund, now extended under ISTEA to permit land-banking for up to 20 years before conversion to transportation purposes, is one source. New allocations have, however, recently been limited to $42.5 million annually. Utah enacted special legislation to implement the West Valley Highway out of the State's general fund. Florida, California, and North Carolina have considered corridor preservation of such importance, that legislatures created special funding mechanisms. Local initiatives also are potentially important funding tools. These have taken the form of sales tax set-asides in Arizona, California, and Georgia. With the enactment of ISTEA, more States may now be considering legislative enactment of corridor preservation set-asides or revolving funds for advance acquisition.

B. Selecting the Techniques

From the case study research and the AASHTO report, we have identified 20 different techniques that can be used singly or in combination to hold right-of-way out of development until needed for construction of transportation facilities. These are listed on Figure 31. They are not all equally effective in the preservation effort, nor do they represent equal cost or risk to the transportation agency or other public body. Moreover, they are not all universally available. For conceptual purposes, the array of techniques are divided into two basic categories: interim protection measures and preservation measures.

Figure 31

Selecting Techniques

	Interim Protection	Preservation
Fee Simple Acquisition (Including hardships or protective buying, with or without Federal funds, and purchase of strategic parcels)		X
Development Easement Acquisition		X
Landowner Donations		X
Public/Private Partnerships (e.g., key highway links or toll facilities)		X
Options to Purchase at a Later Date	X	
Access Management and Control	X	X
Official Maps of Reservation	X	
General Plan Corridor Designations	X	
Zoning and Subdivision Controls Requiring Setbacks	X	
Zoning and Subdivision Controls Requiring Dedications/Exactions		X
Agricultural Zoning	X	
Transferable Development Rights to Other Properties or Land Swaps		X
Density Transfer Within a Single Property	X	
Interim Uses on Right-of-Way	X	
Irrevocable Offers to Dedicate	X	
Highway Right-of-Way Platting	X	
Developer Agreements (includ'g commitment to reserve)	X	
Tax Abatement	X	
Voluntary Developer Reservations	X	
Special Assessment Districts Involving Right-of-Way Dedications		X

Preservation measures definitively ensure that the right-of-way is or will be available when needed for a transportation facility that will eventually be approved. They invariably involve transfer of title or other rights to a public agency or, in the case of toll facilities, to a private transportation corporation.

Interim protection measures are those which serve, or combined with other measures can help, to hold land out of development until purchase can be made or title otherwise transferred. They buy time and provide temporary assurances without ironclad guarantees that a particular site will actually be available for transportation purposes.

Preservation measures, except for landowner donations and required dedications, are the most costly in the short run. They require direct cash outlays by the transportation agency for fee simple or easement purchases. They are best used when planning and environmental reviews have reached the stage for delineating right-of-way lines with some precision and/or when key parcels such as future interchanges with major routes are under such threat of imminent development that short-run purchase is the only option.

Interim protection measures, on the other hand, require minimal direct cash outlays, although they should be considered a prelude to ultimate acquisition by the transportation agency. Protection measures often require considerable staff work and close coordination with local government which exercises many of these through the police power, through taxing power in the case of tax abatements, or through negotiations with developers. Protection measures are frequently applied well before alignments reach definitive design stage or final environmental clearance. These are useful prior to private sector construction where developers or owners would dedicate, donate, or sell property to the transportation agency; and/or before the transportation agency has sufficient funds available for acquisition of the entire right-of-way.

Access management and control may reflect elements both of preservation and interim protection depending on the methods employed. Acquisition of partial interests in property is preservation (such as denial of access along a highway or acquisition of rights-of-way for access roads that results in removal of entrances onto an adjacent highway). Policies such as restricting entrances or setting minimum spacing requirements are typically interim protection measures involving the police power.

In actual practice, most case studies of individual corridors demonstrate combinations of interim protection and preservation measures used at various points in the process of facility planning and design. Moreover, each State currently formulating a systems approach to statewide or regional preservation advocates, and employs, combinations of interim protection and longer-term preservation techniques.

1. Preservation Measures

Six of the preservation techniques noted involve just compensation or the landowner's voluntary waiver of the right thereto. The seventh, mandatory dedication or exaction required by the local development review agency, does not call for compensation unless such exaction is found by a court of law to be a "taking" — and in this case compensation is automatically required. Negotiated agreements with developers, transferred development rights, or conditions placed on development proposals, might involve quid pro quo. Local practice varies widely.

Ultimately, all or most rights-of-way will need to be acquired by the transportation agency. But rarely will there be sufficient funds available to tie up in broad-scale early acquisition. The AASHTO report states:

> Transportation agencies simply do not have sufficient funds to carry on the currently critical transportation work program and still reserve additional funds for substantial early acquisition of future needed rights of way.[96]

Given this limitation, the case States use advance acquisition sparingly and strategically or tactically to tie down sections of the right-of-way. Measures are:

- protective and hardship buying under Federal regulations, with or without Federal revolving funds
- Purchase of key intersections before development pressure arises: strategic or preemptive

Strategic purchase is, for example, the cornerstone of North Carolina's advance acquisition program and San Diego County's local preservation fund. It is also the basis for application by Caltrans of the $25 million fund from sales, leases, or rentals of department property authorized by the California legislature under SB 1784. The early-warning agreements signed between Utah DOT and the communities along Route 89 are tailored to alert the State agency

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96 Op. cit., AASHTO, pp. 4-9.

to situations where direct acquisition of land proposed for development may become the only means of protecting capacity for that major arterial. Oregon's capacity protection program (and Delaware's) anticipate actual buying of existing driveways through negotiated purchase or condemnation.

A transportation agency normally must weigh and balance benefits from allocating funds for early land purchase against more imminent projects, unless in a position such as Caltrans which uses an earmarked State fund for advance purchases. Caltrans allocates available money among priority corridors.

In the cases reviewed, most land-buy decisions were based on ad hoc judgment on strength of the development pressures in relation to the foreseeable transportation need for the land. Rigorous quantitative analysis of benefits versus costs or of alternative priorities was not made. Indeed, the only detailed quantitative analysis of trade-offs was an elaborate California example which produced inconclusive results. In the future, however, a stronger analytic basis for some advance purchase decisions may become advisable.

Direct fee simple purchase is the most utilized, although not the sole method of advance preservation. AASHTO advocates purchase of development easements. No examples of easement purchase were found in the case study States. Reasons offered were that the costs in areas of imminent development often came close to fee simple acquisition. There were examples in Arizona and California of landowners donating properties outright when they expected to derive benefits from the facility. At least one State (North Carolina) has enabling legislation permitting the transportation agency to reimburse up to 50 percent of private sector costs for preliminary engineering and construction on facilities for which the entire right-of-way has been donated. While the planning of privately-funded toll roads in California incorporates expected landowner right-of-way contribution, thus far no actual donations have been made.

Zoning or subdivision ordinances which require land dedication are also means of preserving right-of-way. However, such regulations rarely extend to limited access facilities where it is difficult to construct a *nexus* between anticipated volumes and traffic generation from individual developments. Special assessment districts where dedication of right-of-way by affected landowners can substitute for cash contributions and land exchanges for publicly-owned property elsewhere are other, albeit rarely utilized, preservation techniques.

2. Interim Protection Measures

Interim protection measures help hold the line until purchase or donation can be effected, and they may do so for many years. Thirteen such measures are identified on the chart, most of which involve actions by local government or the participation of local government in a negotiation process.

Under California law, for example, a transportation corridor shown on an officially adopted General Plan serves notice that local government will not permit development within that corridor. It may deter applications for zoning and subdivision permits. If an application for development is submitted, the parcel may have to be purchased to avoid the risk that the applicant may win on appeal of any permit denial. Access controls may impose tight restrictions on a landowner's access to a thoroughfare, but additional right-of-way must eventually be purchased if the facility is to be widened. Official maps or reservations pin down the dimensions of the right-of-way, but State law generally requires purchase within a specific, limited time frame. Options to purchase prevent both cost escalation and improvements, but generally must be exercised by a specified deadline. Setback controls through local zoning can prevent encroachment in a right-of-way but do not obviate the need for ultimate acquisition.

Several interim protection measures make it possible to avoid depriving a landowner of reasonable use of a property without compromising right-of-way while awaiting future acquisition. These include density transfer from the land lying within the right-of-way to other portions of a holding; interim uses such as parking lots and storage areas; agricultural zoning with probable tax reduction or exemption for the affected parcels; tax abatements on reserved land; designation of platted lots for eventual highway use.

California makes considerable use of *irrevocable offers to dedicate* by landowners, but until either the development proceeds or the highway is programmed title to the land is not transferred. California also has legislation permitting local government to enter into reservation and other agreements with developers in return for permit approvals. Such enabling legislation does not exist in all States.

One of the most frequently used interim protection measures is voluntary, informal reservation by developers of affected lands. Voluntary reservation may occur if the developer perceives ultimate construction of a transportation facility as vital to success of contemplated

projects. The most striking example is the proposed SR 125 toll road corridor in San Diego County. Most of its right-of-way is displayed on developers' long-range plans and marketing instruments, but by 1993 formal agreements had not been executed to ensure that the land will actually be made available.

All of these interim protection measures involve uncertainty and risks. They can nonetheless be components of a preservation strategy when design studies and environmental clearances are not sufficiently advanced to delineate right-of-way precisely, and when the transportation agency does not yet have funding for purchase of full right-of-way.

3. The Risk Factor

The case studies demonstrate there is often a very long period between the time when need for, and general location of, a facility are identified (on a local or State transportation plan), completion of all requisite environmental analysis and approvals, and authorization of construction funds. Given the extent of citizen review and scrutiny, moreover, the planning-to-construction process may be growing longer rather than shorter.

Once need for a facility has been identified, efforts to gain control of the right-of-way can occur at any point in the transportation planning-programming process. But, until final environmental clearance is granted (for projects involving any kind of Federal action), there is always the possibility that protected or preserved right-of-way may not be used for the transportation facility. Protection or preservation, by whatever means, cannot be permitted to prejudice the EIS process under NEPA rules. This may be viewed as a "risk" if the protection measure cannot be reversed, e.g., by putting purchased land back onto the market or nullifying a dedication. Investment in an option-to-buy property may be "at-risk" if the option is now exercised and allowed to lapse. State and local funds advanced for right-of-way purchase may be "at risk" if approvals are not forthcoming for Federal reimbursement. Then there may also be political "risks" in re-opening a whole controversial decision process when a long-standing, planned facility location that has been generally accepted locally fails to receive Federal project-level approval. These examples by no means represent the full variety of possible risks.

Presumably, risk that no project will occur in the protected or preserved corridor lessens as the stages of systems and project planning progress. Which tools are better for early stages in the process and which are best used more extensively later?

One generally applicable principle is to minimize the amount of capital tied up in long-term land holdings. This would mean emphasizing interim protection-type measures and voluntary agreements in early stages of the facility-development process, and only gradually increasing investment-type preservation outlays as the facility clears its successive approval hurdles and gets nearer to ultimate construction. The graphic in Figure 32 illustrates the relative balance, or mix, over time.

There are exceptions to this scheme, of course. For example, exactions of right-of-way made pursuant to establishment of the *nexus* or essential need for the facility connected with specific developments, may entail obligation not only to build a transportation facility on land that has been exacted, but also to build within a designated time frame. Voluntary agreements by a developer to keep right-of-way open may not hold when a development project encounters economic difficulties or changes hands. Consensus over need or type of facility or location may also shift over time as conditions change.

These matters must be considered by the transportation agency in context of its own circumstances, and strategy formulated accordingly.

The case investigations which have formed the basis for this manual do suggest, however, that the "risks" are greatly reduced where the transportation corridors gain the thoroughgoing support of local government, citizens and developers from early in the planning, and maintain this support as the process continues.

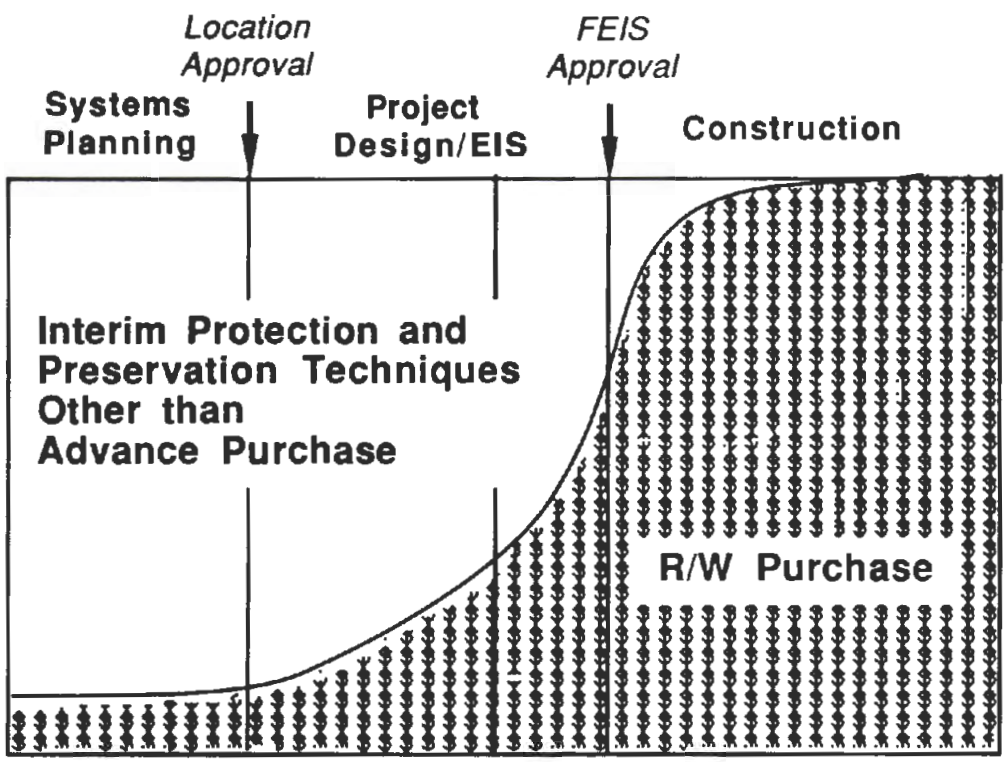
C. Organizing the Transportation Agency from Within

Selecting and orchestrating techniques for a preservation strategy demands appropriate *internal* transportation agency organization. It begins with a commitment from top management and must carry over to an appropriate outlook and working style on the part of personnel involved. Corridor preservation requires a team effort within the agency.

Figure 32

The Time Line:

Appropriate Protection/Preservation Techniques for the Corridor Planning Process



A variety of skills and disciplines must be brought to bear in a corridor preservation team, even from the earliest stages of systems planning. These include:

planners,
environmental analysts,
engineers,
attorneys,
right-of-way specialists,
property managers, operation/maintenance staff, and
access permit personnel.

A mechanism and staff for monitoring land development trends, land values within the designated corridors, and all public decision processes affecting the corridors are also needed.

Collaboration of personnel with such divergent skills from early in the planning process is a new mode of operation for some transportation agencies that follow traditional segmented, sequential procedures from needs analysis through preliminary design, environmental review and mobilization for construction. STAs will, therefore, need to encourage a major departure from "pigeon-hole" thinking and highly-compartmentalized views of job descriptions among their staffs.

A collaborative, task force approach was tested in the working groups which prepared the statewide preservation policy documents for Florida, North Carolina, and California. Encouraged by FHWA, these States and others such as Delaware, Oregon, New Jersey, and Illinois are following through with integrated, interdisciplinary teams in the course of individual pilot projects to test the efficacy of corridor preservation.

California has carried the restructuring farther than most through its Advanced Transportation Systems Development Program (described in Part Two). Caltrans Headquarters and Districts alike have created interdisciplinary planning and implementation teams, combined with early warning monitoring systems throughout the State. The organizational framework for Otay Mesa is an exemplary case. A similar task force is utilized in the metropolitan area example of Columbus, Georgia. Georgia DOT is encouraging other communities to follow the Columbus example.

When all is said and done, a corridor preservation imperative may go a long way toward revolutionizing the way a transportation agency does its business. Internally, it will broaden the planning process by integrating the planning and project development process (including environmental analysis). Right-of-way officers will have need to work more closely with environmental analysts and planners who evaluate highway needs, alternatives, and timing of agency actions. Those actions will be broadened beyond the conventional focus on advance acquisition alone to encompass a variety of techniques — from local police power to persuasion and voluntary cooperation — which can be brought to bear. The factors that must be considered in developing statewide and metropolitan plans because of ISTEA will facilitate this integration.

Since a number of these techniques can be exercised only by local government, and must be supported by private land owners and other groups within society, transportation agency skills in maintaining external relations will also be at a premium.

Figure 33

Actors in Corridor Preservation

Federal:	Federal Highway Administration Resource Agencies (EPA, Interior, et al)
State:	State Transportation Department Legislature Resource Agencies
Local:	Elected Councils and Supervisors, Mayors and Executives Planning and Zoning Boards Planning and Zoning Staff Transportation Departments Metropolitan Planning Organizations Economic Development Offices
Private Sector:	Land Owners Developers Chambers of Commerce Bankers
Citizens:	Corridor Neighbors and Civic Groups Umbrella Public Interest Groups Environmental Activists

D. Cementing Strong External Support for Corridor Preservation

The State Transportation Agency is the key player in formulating and executing a corridor preservation strategy, but the case studies demonstrate that many actors are involved. (See Figure 33) Each has a role or roles to play: power, funds, or land to deploy; studies to perform or ideas to exchange; support or opposition to express. Successful corridor preservation calls for the STA to accept the mantle of leadership and cultivate a commonality of interest among the other players. Where Federal facilities and Federal funding are in the picture, the Federal Highway Administration can offer encouragement, support, training, and technical assistance to the STA. But the agency itself must, as Caltrans puts it, become "pro-active" in its corridor preservation efforts.

Several techniques and approaches are available to the transportation agency for pro-active involvement. The case studies afford many examples of how they can be employed.

Figure 34

Pro-Active **Role for the State Transportation Agency in Corridor Preservation**

- **Institutional Outreach/Networking**
- **Technical Assistance**
- **Analytic Studies**
- **Public Relations and Information**
- **Advisory Task Forces**

1. Institutional Outreach/Networking

Transportation agencies should bring the message of corridor preservation to the other agencies of Federal, State, and local government with whom they interact.

STAs in Florida, California, North Carolina, and Oregon consulted representatives of other public bodies in formulating their broad corridor preservation policies and have disseminated their formal statements of goals and policy widely throughout government. Utah and Delaware initiated contacts with localities when they were drafting their capacity protection policies and formal intergovernmental agreements. Job descriptions of Caltrans' interdisciplinary ATSD teams include responsibility for maintaining continual contact with, and appearances before, municipal and county councils, planning departments, zoning boards, line agencies, and regional authorities, as well as private development and business organizations whose members' decisions affect the corridors.

Of particular importance are the Federal and State resource agencies who participate in environmental reviews of corridor alternatives. These agencies, early in the systems planning process, need to be enlisted in seeking the most environmentally acceptable corridor location and in supporting early location decisions to protect those locations. Several FHWA-supported pilot projects in North Carolina are exploring how this collaboration in early corridor planning can be achieved. FHWA itself has launched a corridor preservation training program for Federal, State, and local officials nationwide. Representatives from resource agencies such as the Corps of Engineers have participated in the pilot sessions of the course, and are expected to attend when it is offered in the respective FHWA regions.

Georgia DOT's transportation planners and environmental groups meet regularly with representatives of interested environmental and resource agencies to keep them apprised of the status of projects in various stages of planning and to discuss issues as they arise. In that way, the Georgia STA officials report, the resource agencies are spared having to start familiarizing themselves with a project and related issues "cold," when presented with an EIS or EA for review. The resource agencies also have opportunity to influence how projects are shaded from their early stages.

2. Technical Assistance

STAs can lend staff and or consultants to local government to help plan and implement corridor preservation activity. These resources are generally not available to local authorities and could spell the difference in enlisting local support.

Working with elected officials and staff of Madera County, for example, Caltrans designed prototype rights-of-way for an expanded Route 49. It also drafted a protection ordinance which the local government enacted. DelDOT provided similar technical assistance to local jurisdictions in framing their ordinances for capacity protection. ADOT detailed its technicians to serve as staff for the Phoenix MPO in preparing the regional freeway strategy. UDOT's consultants are working closely with each jurisdiction in the Route 89 corridor to study alternatives for Route 89 expansion. The monitoring system which Caltrans designed for SR 905 and 125 in San Diego is made available to all local jurisdictions to keep them abreast of pending developments in the corridors. Caltrans District 11 directors encourage staff to contribute from their technical expertise when they participate in task forces and committees with local government and private sector counterparts. These are all examples of relatively straightforward resource allocations which create corridor preservation support at the local level.

3. Analytic Studies

States can perform or commission analytic studies of land use, development, transportation trends, and economic factors within anticipated corridors. These studies can be made broadly available to create both public and private sector receptivity for corridor protection. They can also serve to reinforce cooperative relationships between the STAs and Metropolitan Planning Organizations.

Here, the most effective example was the economic development and impact analysis commissioned by San Diego's MPO and funded by Caltrans which concerned the corridors slated for protection. This demonstrated that severe economic losses could occur if the two transportation links were not put in place by the year 2000. Widely publicized throughout the region, the study was persuasive in convincing private landowners to reserve highway land through formal or informal agreements with local government.

The SANDAG study, along with ADOTs technical support to the Phoenix MPO, are both excellent illustrations of how cooperative arrangements can be established between the two levels of transportation planning. Neither has a monopoly on the skills and resources available for corridor preservation, and many occasions may arise where joint effort is appropriate in planning a region's transportation system.

4. Public Relations and Information

STAs can let the public know that corridor preservation is now an agency priority. They can provide speakers for community groups, attend and participate in meetings of local councils, and planning agencies, seek media coverage on the subject, and issue newsletters and information bulletins on corridor preservation. Outreach can be made to conservation and environmental groups who can become powerful allies. Early and continuous involvement with both Federal and State resource and permit agencies will be highly desirable.

Active public information campaigns and participation by the top executives in community affairs have long been standard operating procedures for utility companies across the country. Faced with the necessity of building public support for its new corridor preservation policy, Caltrans has modeled its outreach activities on those of the electric power industry. Caltrans' own corridor preservation training programs urge district officials to regard themselves as part of the development community and to join planning and other professional organizations where they can establish regular contact with others who operate in the same sphere. Feeling the pulse of the development environment and sharing information of the informal grapevine is considered as important as more formal, official presentations.

DelDOT carefully briefed State legislators and county officials on its capacity protection policy for Route 1. The transportation agency talks with landowners throughout the corridor to enlist their support for the access control program and has blanketed the affected area with information materials.

It is equally important that involvement with Federal and State resource and permit agencies be established early and maintained throughout the transportation planning process.

5. Advisory Task Forces

STAs can activate advisory task forces to participate in delineating the most acceptable transportation corridors. By bringing affected interest groups into the planning process at an early stage, strong public support for corridor preservation decisions can be established.

Proposed transportation facilities are often among the most controversial of public agency actions. Given competition for scarce financial and staff resources, it rarely makes sense for transportation agencies to target corridors for preservation that are strongly opposed by citizen or environmental groups. When one or more jurisdictions oppose a facility that traverses a segment of a metropolitan region, moreover, it is also extremely difficult to build a consensus for preservation.

In many of the case studies examined, successful corridor preservation could be attributed to winning widespread support from both interest groups and the affected jurisdictions early in the planning process. Phoenix's MAG freeway system, Utah's West Valley Highway, and California's Guadalupe Corridor are outstanding examples. One approach to establishing such support is for the transportation agency to identify the relevant interests and jurisdictions and to establish a formal advisory and consultation procedure throughout the planning and environmental process in which the needs and potential corridor locations are delineated.

Illinois chose the formal advisory committee procedure as the community involvement cornerstone for its feasibility analysis of the 50-mile Fox Valley corridor (See Figure 6, Introduction), combining it with still wider efforts at disseminating information and receiving feedback through newsletters and public meetings. Other approaches can be initiated as well, especially tailored to the context of the prospective transportation corridor and its affected communities. One excellent example was the multi-year planning in Delaware for Relief Route 13.

> A variety of tools were identified or developed for use in the community effort. These tools included a local project office, local phone service, project newsletters, project meetings, pre-programmed slideshows, project surveys, and most important, project exhibits. These tools were designed to maximize the opportunity for informing, educating, and involving all potentially interested parties; to allow opportunities for the mutual education of the public and the study team; and to allow flexibility of the effort to avoid the appearance or the fact of authoritative, insensitive decision-making.
>
> In the early phases, the study team's objective was to familiarize itself with existing conditions, to identify and introduce itself to the central Delaware community, and to familiarize the community with a generic range of potential solutions. Initially, the effort was focused on key individuals who could provide insights on the concerns of their community, agency, or

> organization. In the middle phase when a range of corridor alternatives were developed and an initial evaluation completed, the objective was to expand the effort to include all interested governmental officials, the entire memberships of various organizations, and the general public. As the list of alternative solutions was narrowed in later phases, the objectives of the community involvement effort became more narrowly focused on the concerns of those potentially affected, while continuing to review corridor-wide issues with the general public. These objectives carried over into the preparation of the Draft and Final Environmental Impact Statements.
>
> The Route 13 Relief Route's Community Involvement effort played a central role in the development of a solution to a long standing transportation problem which enjoys broad based support from Delawareans.[97]

Transportation agencies have allocated considerable staff/consultant resources to these involvement efforts. The process takes time, and is no panacea. It involves risks that consensus will not be reached and that decision-makers will be forced to take actions not endorsed by affected groups or advisory committee members. Where it has been undertaken, however, the sponsoring agencies have accepted the risks and the multi-year time frames. These are considered part of doing business in an increasingly pluralistic and involved society that demands participation in major public decisions.

E. Concluding Note

Corridor preservation may appear a formidable challenge. Cultivating good working relationships among STAs, MPOs, and resource agencies; monitoring development trends; and engaging in dialogue with interest groups are all tasks that call for sustained effort. The central argument of this guidebook for decision-makers is, however, that such effort is most definitely worthwhile in view of the benefits to a wide variety of "publics" that successful corridor preservation can create.

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97 Division of Highways, Department of Transportation, State of Delaware and the Federal Highway Administration, U.S. Department of Transportation, *The Community Involvement Process, U.S. Route 13 Relief Route*, Dover, May 1988, pp. 1-2.

Appendix A

1990 AASHTO Task Force

on

Corridor Preservation

Executive Summary

I. Executive Summary [1]

a. Introduction

In its report entitled, The Bottom Line, AASHTO assessed the extent of investment needed to "Keep America Moving" into the next century. The report concluded that surface travel demand is expected, even under conservative estimates, to at least double by the year 2020. In urban areas alone, an additional 178,000 lane miles will be needed by the year 2005, and only 75,000 of those lane miles can be accommodated within existing highway right-of-way. A good portion of the investment is needed to catch up on a backlog of improvements.

There is an increasing awareness in various parts of the nation that if even only a small portion of these needs are to be met corridor preservation strategies will need to become an integral part of the transportation planning and project development processes. In response, legislative bodies and Federal, State and local transportation agencies have begun to pursue the corridor preservation concept. However, these efforts have primarily focused on specific programs and/or projects and have not been part of a cohesive and comprehensive corridor preservation policy. Those who have been involved in corridor preservation efforts believe that more can and should be done in this very important area.

Any Corridor Preservation Strategies and program will need to be developed within the policy and regulatory framework of the National Environmental Policy Act of 1969 (NEPA). This Act requires an assessment of the environmental impact of Federal actions, such as highway projects involving the acquisition of right of way. For complex projects these environmental requirements can take five years or more. During this time the cost of the right of way can increase dramatically due to inflation, development, and/or speculation and critical corridors can be lost due to development. Yet government has been reluctant to address the issue, partly because of a sense that many will oppose corridor preservation concepts on environmental grounds.

The AASHTO Task Force on Corridor Preservation has found that corridor preservation, in many instances will actually enhance environmental interests instead of inhibiting them. By keeping undeveloped corridors open, or preventing development from occurring too closely to existing facilities that are under consideration for expansion, State Transportation Agencies will not be forced into making decisions to construct in wetlands, parklands and other sensitive areas, or not building at all.

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Furthermore, deferring acquisition until the traditional NEPA process is completed can cause a wide range of social and economic problems. Citizens are forced to go through the inconvenience of personal disruption or relocation. Community and area planning cannot be reconciled with proposed highway improvements. Project costs can increase substantially - particularly right of way expenditures for improved properties, relocation, and land. Ultimately, a needed highway improvement can be lost because the state highway agency cannot respond quickly enough to private development pressures.

The principal purpose and goal of the joint AASHTO Task Force has been to review the entire corridor preservation subject in greater depth and more comprehensively than in the past. It has also been to explore innovative and practical methods for preserving transportation rights of way options without compromising environmental and right of way requirements.

b. Definition of Corridor Preservation

Corridor preservation is a concept utilizing the coordination application of various measures to obtain control of or otherwise protect the right-of-way for a planned transportation facility. Corridor preservation techniques should be applied as early as possible after the transportation corridor is identified either along a new alignment, or along an existing facility to:

- Prevent inconsistent development;
- Minimize or avoid environmental, social and economic impacts;
- Reduce displacement;
- Prevent the foreclosure of desirable location options;
- Allow for the orderly assessment of impacts;
- Permit orderly project development; and
- Reduce costs

This may be accomplished through one or more of the following approaches:

1. The acquisition of property or property rights.

2. Action by State and/or local governments in the exercise of reasonable governmental regulation.

3. Arrangements with property owners to preserve property in an unimproved condition.

c. Establishment of Corridor Preservation as a Priority in Planning, Programming, and Project Development

The success of corridor preservation activities will depend, to a large degree, on the cooperation of several organizational units within a state transportation agency. In urbanized areas the cooperation of local governmental agencies is necessary as well. Administrators, planners, project developers, programmers, land acquisition personnel, and local government coordinators are all involved and essential to ultimate success. Each organizational unit must understand its role and perform accordingly when called upon to do so.

The planning function first identifies the need; project developers then refine the general need to define appropriate preservation actions; programming must then include the identified actions in the TIP and annual element; land acquisition personnel initiate programmed actions; and local government coordinators contact local governments and solicit their cooperation in conducting support operations. Administrators with overall responsibility must be convinced of the need for, and benefits of, corridor preservation. It is they who must establish the agency-wide goals and communicate the priorities to each organizational unit. It is they who must monitor the operation and assure that each step is accomplished. All involved will need to be educated regarding the intent of corridor preservation, the content of feasibility/location bridging studies, and the nature of preservation actions.

Communication between planning/programming and project implementation functions will need to be expanded to provide for an open and free flow of information. Project development personnel should understand the basis for proposals in the long-range plan in order to develop a project that will properly address the identified needs. Simultaneously, planners should be aware of infeasible corridors or environmental issues that may be discovered during feasibility/location studies. Land acquisition personnel must know how strong to pursue protective or advance acquisition and communicate cost information to programmers for estimating and program development. Some of the line of communication involved in corridor preservation may be nontraditional in some state transportation agencies, and special care must be exercised to see that every organizational unit understands what information is expected from it and to whom it should be sent.

AASHTO has already begun the process of assigning priority to corridor preservation by establishing this task force. Such actions bring new issues to the attention of all member states. The next step is to document the need for, and benefits of, corridor preservation such as is being done in this report. Through this action, state agency administrators will have an opportunity to be informed about the issue. Further dissemination of information regarding the importance and function of corridor preservation can be accomplished by encouraging its inclusion on agendas of the various AASHTO committee, subcommittee, and task force meetings. This will help others

understand how corridor preservation affects their interests. All these actions will help prepare key people in state transportation agencies. Once the issue is publicized, and information is available describing the intent, benefits, and methodology, it will be up to each state to determine the applicability within its jurisdiction.

d. The Role of Planning and Project Development in Corridor Preservation

To be effective, corridor preservation will need to be addressed at each level of the Planning Process. After identifying needed future facility improvements and the general corridor they should occupy, the long-range transportation plan should prioritize the various improvements and indicate whether or not the corridors will need protection. In some cases additional detail may need to be developed to determine a more precise location, the nature of the threat to the corridor, what preservation actions may be appropriate' and when preservation actions should be initiated. These issues must be addressed early so the recommended preservation actions can be included in the multi-year TIP when appropriate.

In some situations, it may be possible to determine that a corridor needs protecting, how it should be protected, and when it should be protected, using only that information typically available from the planning process. In many situations, however, some of the detail normally produced during project development will be needed. It is not practical to produce the additional detail during the planning process, so those responsible for project development must be called into action. If the facility improvement in question would not begin the normal project development process for some time, an interim action must be initiated to bridge the gap and produce the details necessary for corridor preservation. These details are necessary to determine (1) whether it is, in fact, feasible from an engineering and environmental standpoint to put the proposed facility in the corridor indicated and (2) the range of optional alignments on which the facility could be located and to what degree they are threatened by development. The engineering and environmental issues must be considered jointly, because each affects the other. and either can render the proposed improvement infeasible.

In most states, the principal responsibility for land use planning, zoning, and development approvals is at the local government level. If corridor preservation is to be done in a cost-effective manner, it will, by necessity, require that the local jurisdictions in which a transportation corridor is located cooperate with the agency that must ultimately purchase rights-of-way and construct the transportation facility. Local planning organizations can and should be a major partner in corridor preservation efforts. The 3C planning process involves local communities in area-wide transportation planning, but the transportation planning, land use planning, zoning, and development approvals must be merged into a compatible master plan in each municipality.

State transportation agencies can also often find themselves in a position that the most effective way to preserve a corridor is to work together with the property owners or developers who would otherwise develop the right-of-way. This approach is more applicable in certain circumstances than others, but it has the potential for a large cost savings when developers can be convinced that it is in their best interest to set aside rights-of-way, or even, in some instances, to build a portion of the ultimate transportation improvement.

e. Evironmental Issues

The Task Force found that FHWA requirements placed certain limitations on the extent of and timing for general right-of-way acquisitions in the normal course of project activities. The intent appears to have been to prevent early right-of-way acquisition from prejudicing the NEPA process. The procedures governing timing of right-of-way acquisition and other project development were drafted in the 1970's, several years after NEPA was enacted, and before Federal agencies really had a clear idea of how the NEPA process would affect and evolve their programs. Inclusion of such restrictions seemed appropriate at the time.

However, it has now become clear that when one or more highway corridors are threatened by private development the limitations on advanced right-of-way acquisition sometimes hamper implementation of NEPA principles, instead of fostering them. Federal agencies, and state agencies seeking federal participation cannot keep pace with the private sector, because the need to integrate the NEPA process into an agency's decision-making process extends time-tables for decisions and actions years beyond those facing the private sector. Those same federal and state agencies are in direct competition with the private sector for undeveloped lands with limited environmental sensitivities, and lose access to them while following the very NEPA process which ultimately identifies them as the preferred location for a highway. Clearly, this was not the intent of NEPA or of the limitations placed on the ability to undertake advanced right-of-way acquisition. This led the Task Force to take a closer look at FHWA, Council on Environmental Quality and other regulations and procedures to determine if they provided opportunities for allowing advanced right-of-way activities for corridor preservation.

This review led to the identification of several opportunities already present in existing regulations for accomplishing corridor preservation. These are:

1. The ability to pursue corridor preservation related right-of-way activities under a categorical exclusion.

2. The ability in some instances to use information developed during planning processes to demonstrate NEPA compliance for ROW authorizations and possibly even construction authorizations.

3. The opportunity to initiate full NEPA environmental document preparation during the planning process.

4. The opportunity to use a Tiered Environmental Document approach.

In reviewing various corridor preservation scenarios, the task force concluded that in some instances, corridor preservation related right-of-way could be authorized under a categorical exclusion (CE). The Council on Environmental Quality (CEQ) and FHWA regulations indicate that categorical exclusions are classes of actions, which by their nature, rarely are found to have environmental impacts.

In most instances, the corridor preservation related right-of-way activities would be consistent with the criteria for CEs set by CEQ in 40CFR §1508.4. In essence, the task force views corridor preservation related right-of-way acquisition as an environmentally neutral action, a concept which appears to have acceptance in some courts. The task force believes that the favorable holdings in the majority of related early acquisition cases can be extended to a corridor preservation scenario, and that pursuit of corridor preservation related right-of-way acquisition under a categorical exclusion will, in many cases, be reviewed favorably in the courts.

f. Right of Way Techniques for Accomplishing Corridor Preservation

Once State Transportation Planners identify the need to preserve a particular corridor, and Environmental Specialists insure that proper environmental factors have been weighed into the decision-making process, how then do Right-of-Way personnel accomplish the task of preserving needed corridors? The task force identified a number of useful activities that focused primarily on attempts to control property development through police power regulation, acquisition of property to bank it for future use, acquisition of development easements and options to purchase, and incentives to property owners for maintaining open space.

Preservation of open space through police power regulation can be accomplished through property exactions, setback ordinances, and official maps. Most of these techniques are not directly available to state transportation agencies which do not have local ordinance power. Instead, the state agencies, through close coordination and communication with local governments will need to secure the assistance of local government in using its police powers to control development in future rights of way and maintaining open space to the greatest extent possible. Caution must be exercised not to

over-regulate, thereby depriving the property owner of the reasonable use of the property and creating liability under inverse condemnation.

Property exactions involve conveyance of property by the owner to the government in exchange for certain government approvals. In order to avoid liability, exactions should be used for right of way purposes only when a clear and direct connection exists between the exaction and the substantial advancement of a legitimate governmental interest. Setback ordinances may provide open space for right of way but should be used in combination with other recognized valid public purpose such as street noise abatement, pedestrian safety, etc. Official maps and maps of reservation have also been used with varying degrees of success to protect property needed for future rights of way. These may be successful if the map does not deny compensation for improvements in the mapped area, the period of time in which the reservation is in effect is short, and if it does not deny the property owner the reasonable use of his property.

Another approach to preserving rights of we, is to acquire the property at a point in time before actual construction need. This avoids the need for government regulation of property, fully compensates the property owner, allows for the banking of the land and interim income from the property for value recapture until construction begins. Disadvantages associated with this approach includes the needfor substantial advance acquisition funding, elimination of property from the local tax base, and property management liabilities.

To overcome these problems, some states have experimented with acquisition of lesser interests than fee simple, such as development easements. By purchasing only the right to further develop the property, government can ensure that the property will continue at its current level of use and development, the property will remain in private ownership and management, and at a cost less than outright purchase. Options to purchase have also been used to accomplish the same objectives.

Governmental incentives to property owners to maintain property in a vacant or static condition include transferable development rights. While not directly available to state transportation agencies, many local governments have used this concept effectively to protect open space for many types of property needed for governmental purposes. By allowing a property owner to transfer development rights situated within areas needed for future rights of way, the property owner may be compensated for maintaining the property in an open space condition.

To be effective, a state transportation agency's corridor preservation program will need to take advantage of several of the above techniques, in a mix which varies according to the particular situation of the State and on a project-by-project basis.

State transportation agency officials will also need to recognize that there are often more creative, and usually less costly, means to preserve a property for future transportation use than simple fee acquisition, particularly if the state transportation agency works closely with local jurisdiction planning officials in the effective application of local land use controls. With limits on the amount of funding available for corridor preservation activities, it is critical that both federal and state transportation officials be as creative and flexible as possible in the application of existing regulations and mechanisms related to corridor preservation.

g. Survey of States - Corridor Preservation Problems and Procedures

In November 1988 the Task Force surveyed each state transportation agency to identify those that were experiencing significant right of way cost increases and the methods they were employing to protect transportation corridors. Forty-four of the fifty states responded to the survey questionnaire, however, all states did not respond to all of the survey questions.

A majority of the states responding (71 percent) indicated that they were experiencing significant cost increases in the purchase of rights of way. Most (53 percent) are identifying critical corridors and are working with local governments to reduce cost by implementing protective devices. The protective device most often employed is advance acquisition of property rights. Only 42 percent of the respondents used police powers in cooperation with local governments to protect corridors. Of those using police powers, local zoning and setback ordinances were most frequently used. Only 17 percent of those surveyed protected corridors through filing maps of reservation.

Though advance acquisition was the most utilized method of corridor protection, a majority (58 percent) of the respondents chose not to acquire property with state funds prior to the satisfaction of NEPA requirements on federal-aid projects. Insufficient funding was most often cited as the reason for not using state funds. Sixty percent of those surveyed currently implement the hardship and protective buying provisions of the federal regulation.

If federal funds were made available and provided more flexibility, 90 percent of the respondents would use federal funds for advance acquisition. Two modifications they would like to see made were; (1) allow acquisition prior to NEPAlpublic hearing, and (2) reimburse the states for advance acquisition if the property acquired in advance is used on a federal-aid project as long as the parcel was acquired subsequent to program authorization. The respondents felt that the greatest impediment to obtaining NEPA clearance and location approval was the NEPA process itself, changing design, or insufficient design information.

h. Task Force Recommendations

The Task Force deliberations led to the development of the following recommendations:

1. Each state transportation agency should actively use corridor preservation as a tool for avoiding environmentally sensitive areas.

2. State transportation agencies should give consideration to structuring their planning processes and products so that the NEPA process is given higher visibility.

3. State and local agencies and FHWA should jointly take a creative approach for innovative and flexible use of existing mechanisms and regulations to implement corridor preservation.

4. States should work closely with local governments and planning agencies to jointly identify transportation projects for which rights-of-way should be preserved, and using all available corridor preservation techniques to keep the right-of-way available for future transportation use.

5. Criteria, such as the following, should be established for determining priorities among corridors:

   - Failure to protect a corridor could force the project into an environmentally sensitive area;
   - Significant development in the corridor is imminent
   - Land values are escalating rapidly;
   - The need for a project has been identified in the corridor;
   - The proposed transportation improvement is expected to be a priority within the next 10-15 years;
   - Failure to protect a corridor could ultimately result in many more relocations;
   - Cooperation from local jurisdictions and the private sector can be obtained in protecting a corridor.

6. State and local agencies should modify existing planning processes and develop and implement the use of abbreviated feasibility or PE studies to bridge the gap between the identification of needs in the planning process and the time ROW needs are normally identified in the project development process.

7. FHWA and State Transportation Agencies (STAs) should take whatever steps are necessary to implement mechanisms for obtaining control of or otherwise protecting the ROW for a planned transportation facility as early as possible after the transportation corridor is identified. Such mechanisms include:

    1. The ability to pursue Corridor Preservation related ROW activities under a CE.

    2. The ability in some instances to use information developed during planning processes to demonstrate NEPA compliance for ROW authorizations and possibly even construction authorizations.

    3. The opportunity to initiate full NEPA environmental document preparation during the planning process.

    4. The opportunity to use a Tiered Environmental Document approach .

8. STAs and FHWA should more actively pursue efforts to streamline the planning, project development and NEPA processes.

9. FHWA should develop a consistent interpretation of what constitutes a federally programmed project, to assist STAs in understanding when it can use its own funds to preserve ROW.

10. States should aggressively pursue public/private partnerships for the acquisition of right-of-way through donations and take advantage of the benefits provided under the Section 146 of the Surface Transportation and Relocation and Assistance Act of 1987.

11. The concept of a two stage Federal authorization process for corridor preservation projects should be developed by FHWA. The first stage (prior to location approval) would establish a date of eligibility with the second stage authorizing Federal funding participation.

12. State and local governments, especially transportation agencies, should evaluate the alternatives either established or proposed by other states to determine if legislative or regulatory changes are necessary for implementing corridor preservation concepts.

13. AASHTO and State and local agencies should develop an awareness and training program to communicate the environmental transportation and public interest benefits of corridor preservation.

14. AASHTO/FHWA should jointly sponsor a national conference for state and local agency personnel for purposes of promoting and explaining corridor preservation techniques.

Appendix - B

Report

of the

Secretary of Transportation

to the

UNITED STATES CONGRESS

on

Preservation of Transportation Corridors

(Text Only, Appendix Information Omitted)

Issued pursuant to Section 1017(c), Public Law 102-240

Submitted
November 3, 1994

INTRODUCTION

Section 1017(c) of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), P.L. 102-240, December 18, 1991, provided:

> *(c) Preservation of Transportation Corridors Report. - The Secretary, in consultation with the States, shall report to Congress within 2 years after the date of the enactment of this Act, a national list of the rights-of-way identified by the metropolitan planning organizations and the States (under sections 134 and 135 of title 23, United States Code), including the total mileage involved, an estimate of the total costs, and a strategy for preventing further loss of rights-of-way including the desirability of creating a transportation right-of-way land bank to preserve vital corridors.*

The Federal Highway Administration (FHWA) was asked to coordinate and assemble the needed information to prepare the report.

Existing FHWA programs providing for protective buying of real property under regulations contained in 23 CFR 712, and early acquisition of rights-of-way using the revolving fund authorized by 23 U.S.C. 108 were based on preservation concepts. Both these programs have been in place for more than 25 years.

During the past few years the concept of preserving lands needed for transportation improvements has received increased attention. The ***Report of the AASHTO Task Force on Corridor Preservation***, published in July 1990 by the American Association of State Highway and Transportation Officials (AASHTO) was the first comprehensive report on the subject. The report contains a definition of corridor preservation and numerous recommendations for implementing a preservation program without compromising environmental requirements.

In 1991 and 1992, FHWA initiated three research contracts that related to corridor preservation. One research project developed a 2-day training course on techniques that can be used to successfully preserve corridors. The other two research contracts, which are to be completed in 1994, are developing two separate reports on issues relevant to the use and implementation of preservation strategies to protect proposed and existing corridors.

The AASHTO report, findings from FHWA's research efforts, input obtained for this report, and the number of requests for training, indicate a broad based interest in preservation exists within the transportation community. This report briefly describes the study approach used by FHWA, summarizes the corridor data received, discusses preservation methods available to state and local governments, outlines a Federal strategy, and comments on the desirability of establishing a transportation right-of-way land bank.

Study Approach

FHWA considered findings from agency research, the AASHTO report, and provisions of ISTEA to establish the scope of this study. For the purpose of this study, a transportation corridor was identified as all lands needed to accommodate highway, passenger rail transit, bikeway, or pedestrian trail facilities. Preservation was considered applicable to both existing and proposed corridors.

Within existing corridors, where right-of-way for a transportation facility already had been acquired, preservation can be applied in the following three basic situations:

1. maintaining or preserving design year utility,
2. retaining options for future enhancements or expansion of capacity,
3. conversion of existing rights-of-way, whether public or private, to other transportation or public purpose use.

For proposed transportation corridors, where right-of-way has not been acquired, preservation measures can be used to coordinate the land development process during the extended environmental studies required under the National Environmental Policy Act (NEPA). The purpose of such early action would be to assure that land development will not adversely restrict the public options available within the alignment alternatives being considered for a needed transportation facility. Early scoping of environmentally sensitive areas and close coordination with the private sector are important to successful preservation activities within proposed corridors.

In December 1992, standard data forms to gather background information and specific corridor information on existing and proposed transportation corridors were distributed to all FHWA division offices, one of which is located in each state. Division staff obtained information from the state and the metropolitan planning organizations (MPO's) identifying the corridors where preservation measures would be appropriate. Appendices A and B summarize the corridor data received.

Background information on legal capabilities and experiences relating to the use of preservation methods within each state, and within some MPO's, was also received. To supplement the background information from the state and local governments, FHWA published a notice and request for comments in the *Federal Register* on April 8, 1993. This notice solicited input from parties affected by preservation actions taken by governmental agencies and from others interested in the subject. Appendix C contains a copy of the notice and a commentary on the 38 responses received in the docket.

The state and MPO submissions were prepared during the first half of calendar year 1993. Submissions were received from all 50 states, Puerto Rico, and the District of Columbia. Background information on capabilities and experience was provided by 46 states and Puerto Rico, and 151 local governments (located in 24 states). Separate data on corridors identified as needing preservation action were received

from 43 states and Puerto Rico. State submissions included the corridors that had been identified by local governments and MPO's. Of the 1,561 corridors submitted, state transportation agency submissions identified 685 corridors, with local governments or MPO's submitting the remaining 876 corridors.

It should be noted that the corridors submitted were not based on an identification process conducted under fully implemented Sections 134 and 135 of Title 23, U.S.C., as indicated by the congressional request. Final regulations implementing these sections, which relate to metropolitan (Section 134) and statewide (Section 135) planning procedures were not published in the Federal Register until October 28, 1993. Study guidelines issued with the data forms and interim guidance on the new planning requirements were available, but states and MPO's had to rely solely on existing information regarding planned transportation corridor needs. Public involvement and early environmental scoping, essential to effective preservation considerations, were not in place during the study period. The data received reflect this problem in that not only were a wide range of corridors submitted, many lacked requested length or cost information. Many states reported a preservation cost equal to the projected cost to acquire the full right-of-way. For this reason we included in the corridor listing whichever cost information was available, either a preservation cost estimate or a cost to acquire the full right-of-way.

CORRIDORS

The volume of submissions received from the states and local governments shows a widespread interest in preserving transportation corridors. This study, however, came at a time when many changes were taking place in transportation planning. States generally lacked the long-range transportation planning outlined in ISTEA. Many MPO long-range plans were not up to date. Based on the changes initiated by provisions in ISTEA, the agencies affected by this study already had an extensive work program to address. Of the 1,561 corridors identified and submitted, roughly 60 percent were submitted without complete information on the length of the corridor or the anticipated cost to preserve it. A summary of the corridor submissions received from 43 states and Puerto Rico is provided in Appendix A. Appendix B contains the list of existing and proposed corridors identified within each reporting state and Puerto Rico, including the length and estimated cost. Corridors involving the use of railroad right-of-way are marked and a subtotal included for each state.

Corridors totalling more than 18,000 miles were identified as being appropriate for use of preservation measures. Nearly 80 percent of this mileage related to existing corridors. Corridors involving railroad right-of-way accounted for about 4,400 miles of the total.

Existing Corridors

Of the total corridors identified and submitted, 975 corridors were related to existing transportation facilities. Table 1 summarizes the mileage and cost information received on existing corridor submissions from the state and local governments.

A wide range of planned improvements was identified within these corridors. Improvements to highways accounted for 67 percent (656) of the submitted corridors. An additional 84 corridors involved coordinated improvements of highways and other transportation facilities, such as passenger rail or bicycle/pedestrian trails. Recreational trails were identified as the planned use in 102 corridors, while light-rail transit facilities were planned in 103 corridors. The remaining 24 corridors involved varied transportation or transportation-related improvements, such as airport runway expansion programs, land banking activities, and enhancement activities, or were unspecified.

From the information received, it was difficult to determine how many highway corridors needed preservation action solely to maintain the design life of the existing facility. For most highway corridors, the information indicated preservation was related to a planned widening or expansion of the existing facility. The number of submissions received dealing with expansion projects indicates that such improvements are considered important by transportation planning agencies. The corridors planned for development of transit lines or bicycle/pedestrian trails primarily were related to reuse opportunities presented by railroad rights-of-way that are, or are planned to be, abandoned.

TABLE 1 - EXISTING CORRIDORS

		CORRIDORS	MILEAGE	COST (Millions)
LOCAL	RR	100	1,496	383
	Other	397	3,146	665
	Total	497	4,642	1,048
STATE	RR	110	2,889	144
	Other	368	6,921	1,780
	Total	478	9,810	1,924
Existing Total		975	14,452	2,972

NOTE: Costs are based on 635 (roughly 65 percent) of existing corridors submitted.

Proposed Corridors

The proposed corridor list is shorter than the one for existing corridors. The list of proposed improvements includes 586 corridors. Table 2 summarizes the mileage and estimated cost based on origin of submissions.

TABLE 2 - PROPOSED CORRIDORS

	CORRIDORS	MILEAGE	COST (Millions)
LOCAL	379	1,892	845
STATE	207	1,951	1,086
TOTAL	586	3,843	1,931

NOTE: Costs are based on 341 (almost 60 percent) of proposed corridors submitted.

Highway projects account for about 85 percent (494) of the proposed corridor list. Joint development or multimodal projects incorporating a mix of highway, transit, or trail facilities account for an additional 5 percent (32) of the planned uses for the proposed corridors. In addition, corridors for planned bicycle and/or pedestrian trails (32) or rail transit lines (14) were included. The remaining 14 corridors were for other transportation-related uses, such as park-and-ride lots, or were unspecified.

METHODS

Interest in corridor preservation prompted informal FHWA studies related to the subject in early 1988. For the past 2 years, FHWA research programs have studied preservation techniques used by state and local governments. This research has identified numerous tools or strategies that are available for preserving corridors. Case studies indicated that successful preservation efforts relied on successfully combining the tools available to localities and states. It also was noted that with rare exceptions, preservation actions require extensive coordination between state and local governments. Such coordination is vital to ensure that transportation needs are related to land-use and land development decisions. These decisions are normally controlled by local governments. An exception would be those states that have implemented growth management programs.

The tools that are available to preserve critical corridors include land-use police power controls and the acquisition of real property rights. Existing FHWA procedures relating to protective buying have been employed for years to protect a preferred alignment where specific right-of-way needs were known. In most cases, this procedure has been used when

development threatened a selected and defined alignment before full acquisition funding is available or while environmental studies are being completed.

In many ways, the use of police power to control land-use has distinct advantages over real property acquisition. One advantage is not having to divert current funds for a long-term investment. The purchase of real property also reduces the tax base within the local jurisdiction and adds a land-management burden to the acquiring agency.

For local governments, the use of police power controls has been the preferred method to preserve corridors. Local agencies have used setback ordinances and exactions of various types for many years. When used, these two forms of land-use regulation have been tied to subdivision and building permit requests. Exactions from land developers, providing for dedication of needed rights-of-way for required streets and transportation improvements has been the norm in many areas of the country. Several other forms of exactions have been used, such as in-kind contributions, in lieu payments, or impact fees.

Other police power measures that have been employed in preserving corridors include access control programs, growth management, official mapping or maps of reservation, and specific preservation ordinances. These types of coordinated programs are less numerous since they usually evolve at the local level from statewide statutes. The development of comprehensive programs that coordinate land-use development with needs for transportation has been limited at the state level. This is primarily the result of a general lack at the state level of systems planning and land-use or growth management programs. With certain exceptions, such as Florida, Oregon, Washington, and a few others, there has not been a consistent or widespread effort to develop policy and procedural systems that support land-use controls for preserving land for transportation uses.

Statewide statutes dealing with preservation have become increasingly popular. State statutes usually address the need to develop coordination between land-use and transportation planning agencies. Many incorporate some form of mapping provision to permit identification of land resources needed, or being considered, for planned transportation facilities. Statutes provide for development restrictions or establish a notification procedure whereby transportation officials are advised by local officials of pending land-use changes or development plans. Although the process varies by state, the agency upon receiving notice of a land-use change is provided the opportunity, within a specified time, to take action to provide protection for any planned development that may affect the corridor. Actions taken based on such programs can range all the way from inaction, through active coordination with the developers, to acquisition of real property.

Based on FHWA's research, acquisition is a last resort to ensure that lands needed for transportation improvements will remain available. Still, at the state level, acquisition remains the method most frequently used when corridors are threatened and preservation measures need to be taken. When specific land requirements for a proposed facility can be identified, most states are able to acquire the needed lands using the power of eminent domain. In many states, however, if the project development process has not progressed sufficiently to allow identification of specific project needs, an amicable and totally voluntary settlement with the land developer would be the only acquisition option available.

Acquisition, when initiated, will normally be very selective, especially early in the planning process when specific needs are undefined. If acquisition is used it is usually in response to a specific opportunity, such as the availability of a railroad corridor, or threat, such as a major development proposal that would encroach upon a corridor. During the early stages of corridor development, before project development processes are initiated, acquisition will usually be limited to identified "key parcels." Under ISTEA, such parcels could be identified as part of the systems planning process. A parcel becomes "key" when its loss to any imminent development would adversely affect the range of environmentally acceptable alignment alternatives that could be considered during normal project development.

As project development activity commences, identification of "key" parcels will be made with more specificity. Once a preferred alignment is selected and project design is nearing completion, the potential exists to clearly define potential project needs even though the full NEPA process has not been concluded. At any stage of development, the major problem will be the lack of funding. The purchase decision will also be tempered by the long-term management responsibilities that come with ownership and the related loss in local real estate tax base.

The problems associated with the acquisition of needed property have resulted in many agencies acquiring less than the fee simple interest traditionally used to acquire right-of-way. Land purchase options, long used by developers during assemblage periods, could be employed to buy time for agencies to complete needed studies and define actual needs. The acquisition of development easements limiting or restricting improvements within defined limits is another acquisition tool. While not precisely an acquisition tool, the transfer of development rights, or density transfer, is a negotiated process that is available to keep land undeveloped and available for proposed transportation facilities. The use of any of these approaches eliminates the detriment of removing land from the local tax base, but does not provide much relief from finding the necessary funding resources.

Several of the states have established, either through regulation or practice, good coordination between the railroad industry and transportation agencies. Such coordination is a critical factor in addressing appropriate reuse of abandoned transportation facilities, and assessing potential reuse options. The other critical factor deals with funding resources to handle the acquisition and development of the alternative transportation facility. The ability to arrange

for funding in a timely manner when the opportunity is presented by an abandonment action is critical to effective preservation of these corridors and often is the major problem.

A similar land resource is available through public disposal procedures. The military base closure program is an example of such a resource.

STRATEGIES

Interest in the use of preservation methods to ensure that needed transportation facilities can be adequately maintained, improved, or constructed can be expected to increase as the supply of useable land resources declines. State and local governments will seek new ways to better coordinate land development and transportation requirements. Research by states to develop model preservation statutes and ordinances, and provide for training of public officials is expected to increase. A more active use of available police powers to effect coordinated development within existing and proposed transportation corridors will become more prevalent as local and state agencies develop required long range plans. When coordination proves insufficient, acquisition will remain an effective means to secure land resources for current and future transportation needs. Innovations in funding, such as state or local revolving funds for preservation, are anticipated to complement the financially constrained improvement programs required by ISTEA.

In adopting any form of preservation, the objective must be to balance or coordinate the use of land and ensure that public needs and private development opportunities are both served. The tension that exists between corridor preservation and the development of adjacent property cannot be ignored without serious detriment to either, or both, interests. A sound preservation program can directly benefit the developer by providing greater assurance that proposed transportation facilities will be built. On the other hand, it must be recognized that preservation does not need to be applied universally. Because of the degree of coordination required to be effective, preservation action should be limited to those situations where cost savings or other public benefits clearly dictate its use.

Provisions in ISTEA require that preservation be considered during development of transportation plans and programs under the metropolitan and statewide planning processes. These plans and programs are to be developed with public participation. As such, the public will have input regarding the use and scope of preservation actions that would be appropriate to the transportation improvements planned for an area.

Based on current practice, preservation measures placing restrictions on property development to accommodate long range systems planning needs are expected to rely on the use of police power controls. Local governments will have to develop better coordination among transportation, land-use, and development groups and seek the support of the state to provide statutes that promote preservation goals and objectives.

The consideration of corridor preservation required under Sections 134 and 135 of Title 23, U.S.C., should define the necessity for implementing a preservation program within the term of the long-range systems plan. Identification of critical corridors and an assessment of most appropriate methods available to provide for preservation should be a policy issue included in the process. Further, if acquisition is to be a part of the preservation strategy adopted, funding sources will have to be identified during development of the transportation improvement programs.

Within existing corridors where capacity protection is the desired objective, development of an access management program is advantageous. Only a few states have such a program, but the concept is receiving increased attention based on successes in Colorado, Oregon, and New Jersey, where statewide programs have been established. Success with an access management program depends on building relationships between local land-use planning authorities and state transportation officials. Proper coordination will assist in using a reasonable method to handle driveway permits, spacing of signals, intersections, and other potential traffic conflicts based on the traffic requirements of the roadway.

When the potential exists for expanding capacity on an existing facility, the same basic coordination is required. Currently, Delaware has a demonstration project underway where land-use controls and active coordination with land developers and local officials have been employed to ensure that current and proposed transportation needs are not adversely affected by land development.

When private railroad right-of-way is available for purchase, the opportunity to acquire it may precede any determination, through the planning process, of a public transportation use to which the property could be applied. In these cases the ability to acquire in a timely fashion is critical if the right-of-way is to remain intact. In addition, acquisition alone may not be sufficient. Depending on the type of title held, a continued transportation use may be required within the right-of-way to avoid reversion of title to the original land owners. To fully use abandoned rail rights-of-way and implement alternative transportation uses, planning organizations must develop inventories of potential resources. Some commenters indicated that inventories would be appropriate databases in support of either the intermodal or public transit management system required by Section 1034 of ISTEA. It would be appropriate for such inventories to be available if they are to be considered by the public during the transportation planning process and especially if resources needed for acquisition are to be defined during development of the transportation improvement program.

Coordination between local land-use and state transportation officials is essential for corridor preservation activities along existing alignments, but is even more important when preservation is to be applied to proposed corridors. The coordination can be formally required by state statute, such as mapping laws that set notification requirements based on filed maps, or developed as necessity demands. It is likely that the coordinated planning process required by ISTEA will result in better dialogue between local governments, regional planning authorities, and state transportation agencies.

Prudent public policy for preservation should attempt to keep costs and acquisition to a minimum until project needs are clearly defined. This indicates the use of police power controls and forms of negotiated acquisition agreements with land developers are appropriate for preservation during early systems planning stages. Since land-use, and many of the police power controls that affect it, are implemented by local officials, successful preservation requires coordination. Such coordination is a central theme in the "Corridor Preservation" course being presented by FHWA to state and local officials.

Acquisition of land prior to determining project need can be expected to be limited. This is not to say that justification for acquisition could not be based on broad systems needs. It is simply recognizing that early acquisition, with the attendant consequence of an early commitment of public funds and long term public management of the property will be less popular with state and local officials than using other available preservation strategies. Certainly, early action could be justified using the key parcel concept, where a prime land area is considered critical to any eventual development within a corridor. Acquisition could involve limited, or temporary, land restrictions until an alignment is selected and project needs defined. Early acquisitions, based solely on a transportation systems plan, are a possibility that has been used by a limited number of states. Key parcel acquisition can ensure that NEPA study options are maintained. It can also directly contribute to development of transportation facilities that have minimum impacts on environmentally sensitive areas.

Funding for early acquisition is a concern for most state and local governments. At present, FHWA's protective buying program is used to protect identified right-of-way needs that are threatened by potential development, or in the revolving fund program, where an opportunity exists to advance acquisition and preserve a selected transportation alignment. Generally, funding approvals on projects using the protective buying program are initiated during the later stages of the NEPA evaluation process. Revolving fund use is administratively limited to projects that have, or are close to receiving, NEPA clearance. Both of these programs require FHWA review and approval prior to initiating acquisition. An obligation for Federal reimbursement is established before a property is acquired.

In Section 1017(b), ISTEA made available retroactive reimbursement as an option for states that want to use early acquisition of right-of-way procedures. Other funding resources have been specifically addressed by some states and local governments that have provided revolving funds dedicated to funding preservation activities. An example of state/local funding is the Right-of-Way Acquisition Loan Fund (RALF) created in 1989 by the State of Minnesota. This noninterest loan fund allows the Minneapolis-St. Paul MPO to grant loans to local governments for early acquisition of land when development or costs can be minimized within planned corridors. Repayment of the loan is deferred until the lands are incorporated into the planned project or the project is dropped. All rents received on the property and the proceeds of any sale are returned to the fund by the local government. Where acquisition options are appropriate and existing resources insufficient, states and even local governments will need to use funding innovations, such as the RALF program, to secure needed funding resources.

Any preservation initiative, either by police power or acquisition, must supplement or enhance the options available for providing an environmentally benign transportation facility. Early intervention to control land-use should be concentrated in areas where growth rates or development can be predicted to adversely affect transportation development opportunities. The methods to be used and the types of corridors or rights-of-way to be protected should be selected based on criteria developed within local and state planning deliberations. Funding commitments for early acquisition should also flow from the coordinated efforts made during development of statewide plans, metropolitan long range plans, and local and state transportation improvement programs.

A FEDERAL STRATEGY

The foregoing addresses the range of corridors where preservation can be applied and the methods available to state and local governments for protecting transportation resources. What is apparent to FHWA is that successful corridor preservation efforts have not been a result of structured or consistent policy or practice. An institutional commitment to preservation as a policy or process is not thoroughly understood throughout government. The coordination between and within governments, and between land-development, transportation, and environmental interests has not been fully developed.

Metropolitan and statewide planning under Sections 134 and 135 of Title 23, U.S.C., provides a structure within which preservation opportunities can be considered and evaluated. The prospect also exists, while developing required management systems, to provide inventories of resources and identify potential opportunities. Once fully operational, the process can enhance public involvement early in the systems planning process. By encouraging interagency coordination and consideration of land-use and environmental concerns, the early identification of land critical to transportation objectives will be possible. As indicated by the results of our inquiry of the states and local governments, the opportunities for a preservation program are numerous, but the need to implement such a program must provide for a balance between the commitment of current resources and the importance of the corridor being preserved. Decisions will be tempered by the actual rate of development, and the extent of environmental constraints imposed by the local area.

As states and local governments develop their management systems, long range transportation plans, and improvement programs, what will be needed is an increased awareness by state and local officials of preservation strategies that can be employed. FHWA's current efforts in training, while limited, seek to address this need. The related research program is designed to identify successful preservation strategies, isolate those institutional and legal barriers that impede preservation efforts, and point to ways for such barriers to be overcome. Publication of the research findings will further assist state and local governments to select the best possible solutions regarding corridor preservation that could be applied within their

jurisdiction. Additional efforts will likely be required using new technology, when practicable, to accelerate and expand the reach of the training process and research efforts. Support for state and local initiatives in development of model statutes that specifically address improvements possible within the regulatory process will need to be considered.

The knowledge of "how to" will then have to be refined so that, as transportation plans and improvement programs are developed and implemented through the years, an understanding emerges of "when to" make a commitment of staff and resources for an ongoing preservation effort. Not every area or project is a candidate for such a program. Effort will have to be made to ensure that NEPA concerns are appropriately addressed during the systems planning effort, and maintained throughout the alignment selection process. Greater coordination with the public, the development community, and the environmental interest groups will be encouraged. Protection of environmentally sensitive resources will be maintained.

When police power controls are inappropriate or insufficient to provide adequate protection, a funding resource must be in place to support selective acquisition of real property interests for preservation to be effective. FHWA will study all existing funding options available to determine if current resources are sufficient. The results of the funding study will be used to determine what changes may be required to allow states and local governments sufficient flexibility for properly funding a preservation program. The goal will be to encourage a prudent use of acquisition when needed to preserve "vital" corridors. Finding ways to reach this objective within existing funding capabilities is considered in the best public interest.

Based on its analysis to date, FHWA considers that ISTEA provides opportunities for addressing most corridor preservation issues relating to highway, transit, and other projects eligible for Title 23 funds that are included in approved transportation plans. Questions remain regarding appropriate treatment of rail lines where continued freight service is desired, and in providing for acquisitions that are unrelated to those specific projects currently included in a long-range transportation plan.

Existing initiatives using research findings to provide training opportunities and resource materials for state and local officials that will define the concepts and potential for preservation will be continued. Opportunities to promote preservation during development of state and metropolitan planning processes, as required by Sections 134 and 135 of Title 23, U.S.C., will be maintained. Support will be provided for state research into development of model preservation programs that emphasize coordination of land-use and development. States will be encouraged to develop comprehensive and coordinated land-use, environment, and transportation planning processes.

Existing funding resources under the protective buying and revolving fund programs will be reviewed and modified, if necessary, to better coordinate and support preservation needs identified in state and MPO transportation improvement programs. Flexibility in use of existing Federal program funds will be encouraged when such use contributes to preservation

programs adopted by state and local governments. State and local government will be encouraged to develop funding resources that can be used for early acquisition. The potential for retroactive funding in 23 U.S.C. 108, as added by Section 1017(b) of ISTEA will be promoted and broadly interpreted to allow states greater flexibility in establishing early acquisition programs for preservation or land banking consistent with their statewide planning process. Initially, the potential use of retroactive reimbursement may be limited since the pre-acquisition conditions necessary to qualify a state to use these provisions may be difficult for most states to meet without changes to state law. Further, the risks associated with obtaining DOT and EPA concurrence that prior state action did not influence the environmental assessment or the decisions on the need, location and design of the project may make some states reluctant to use the early acquisition provisions.

A TRANSPORTATION LAND BANK STRATEGY

The above strategy, from the Federal perspective, provides information, assistance, and use of existing programs and funds to support most situations where corridor preservation is expected to be necessary. The new and restructured planning processes for state and metropolitan areas, supported by an array of management systems to drive and monitor the transportation development process, do not indicate a general need at this time for creation of a land bank program.

However, land banking may be needed where an opportunity exists to preserve an existing rail transportation corridor that may otherwise be abandoned. In these situations, the timing of the actions needed to take advantage of the railroad acquisition opportunity may not coincide directly with existing plans and improvement programs. However, this would not necessarily mean that the resource could not be used to enhance and improve transportation objectives if sufficient time were available to consider how the right-of-way could be incorporated within plans for the area. To maximize potential benefits from railroad abandonments, transportation agencies may need the latitude to routinely acquire available land and create state land banks as a resource for future transportation plans or for use in meeting land-based environmental mitigation requirements. Full use of the provisions for retroactive reimbursement, notwithstanding the previously discussed difficulty states may have in meeting the pre-acquisition conditions, could provide a way for states to accomplish preservation using state funds and make establishment of a new, special purpose program less important.

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