

Guidance

on Sharing Freeway and Highway Rights-of-Way for Telecommunications

AASHTO Task Force on Fiber Optics
on Transportation Rights-of-Way



American Association of State Highway and Transportation Officials



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Contents

Acknowledgments	ii
1996 AASHTO Subcommittee on Advanced Transportation Systems	iii
1996 NCHRP Advisory Panel 20-7, Task 76 Fiber Optics Facilities on Transportation Rights-of-Way	v
Introduction	1
Opportunity With Limits.	2
Framework.	3
Using this Guidance.	3
Step 1: Getting Started	5
Designate Project Champion	5
Organize for Action	6
Assemble Information Base	8
Step 2: Finding Partners	11
Identify Potential Partners and Their Needs	11
Determine Conditions for Partnerships	13
Enlist Participation	21
Step 3: Closing the Deal	25
Determine Compensation.	27
Negotiate Partner Responsibilities	28
Delineation of Design Parameters	31
Step 4: Following Up	36
Monitor Existing Partnerships	36
Consider Future Partnership	38
Conclusion	41
Appendix A	43
Appendix B	44



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Introduction

Across the U.S., public and private interests are building new communications networks on an unprecedented scale. In the public sector, for example, state and local transportation agencies are building sophisticated communications networks to support a variety of traffic and transportation management systems. These systems typically rely on fiber-optic cable, but can also call for conventional copper cable or wireless communications systems support. The private sector is also building networks, but for quite different reasons: rapid technological advances (wireline and wireless) coupled with burgeoning demand for telecommunications has prompted private communications companies to build new networks and expand existing ones.

The coincidence of these demands has spurred interest in public-private arrangements where each party taps the special resources of the other—the private partner gains access to public rights-of-way (ROW) and the public partner gains access to some form of compensation, either in-kind telecommunications facilities or service, cash, or both. Such partnerships, termed “shared resource” projects, have three distinct features:

- Public-private partnership;
- Private longitudinal access to public property (primarily roadway ROW) for telecommunications facilities; and
- Compensation to the ROW owner over and above administrative costs as identified above.

Shared resource projects also can be effected as public-public partnerships in which one of the partners is the ROW owner

and the other is another public agency that would not otherwise be able to longitudinally access the ROW for its own communications infrastructure.

Formulation of shared resource projects has been facilitated, first, by Federal Highway Administration (FHWA) delegation of authority to states to determine their own utility accommodation policies (subject to FHWA approval) and, second, by American Association of State Highway Officials (AASHTO) Board of Directors' recent resolution that recognized fiber optics as distinct from other utilities and sanctioned their longitudinal installation in freeway rights-of-way (see Appendix A).¹

Although the opportunity to undertake such partnerships is relatively new, it is not untried. Dozens of state and local governments have already successfully negotiated shared resource ventures. Yet the process has the potential to become complicated. Therefore, this guidance, based on lessons from applied experience, is a practical overview for state transportation agencies on how to capitalize on this opportunity.

Opportunity with Limits

While shared resource ventures offer an excellent opportunity for the public sector to meet their transportation communications requirements cost-effectively, the opportunity is not without limits. The reason: shared resource ventures are market-driven. In practice, this has two implications:

- **Time:** Market conditions dictate private vendor interest in developing a partnership and the timeframe available;
- **Value:** There is no inherent value for access to highway ROW or other public property; private vendor willingness to pay for access derives from the telecommunications revenue potential for private firms, tempered by the cost of competing ROW that might be available to those firms.

Of these, timeliness is generally the more critical consideration for public agencies. If the public sector agency is slow to respond, the window of opportunity may close before a partnership is established, and the public agency may have to wait until market expansion or industry restructuring generates new demand for telecommunications capacity and, its adjunct, sites for necessary infrastructure.

¹ Telecommunications facilities have some distinct features compared to traditional utilities. For example, the equipment used is non-hazardous and non-pressurized with low maintenance requirements and long service life. In addition, because telecommunications are required for Intelligent Transportation Systems (ITS) functions, public sector telecommunications are a direct input in increasing safety and traffic operations.

Framework

As for any major project, there are distinct stages and sources of information necessary to proceed with a shared resource venture. A review of those that have been successful reveals two important commonalities:

- Each identified a leader from the start, and
- The agencies involved were willing to take informed risks.

In many cases, for example, agencies wish to have a complete set of documentation prior to proceeding. Those that were successful did not wait for all information, but instead continued forward.

In addition to these important distinctions, each successful project has four major steps, as shown in the accompanying figure on the following page.

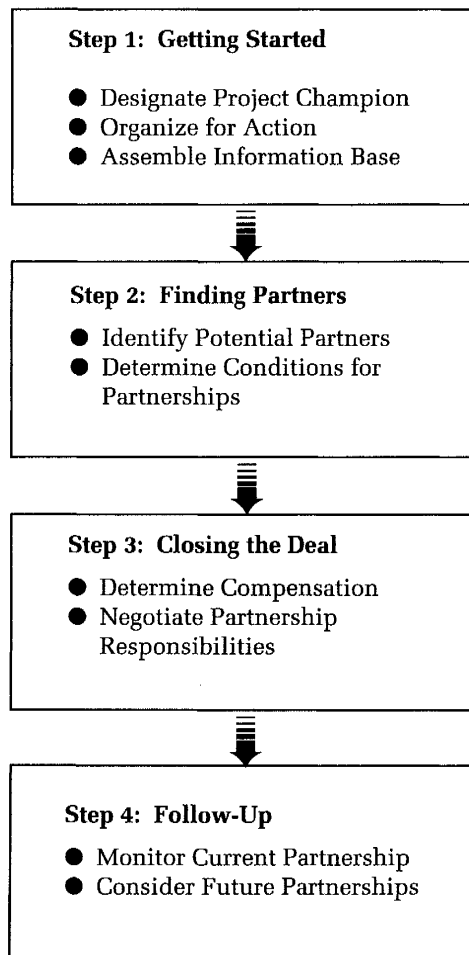
1. **Getting Started:** the public agency organizes for action and assembles an information base.
2. **Finding Partners:** the public agency identifies potential partners and their needs, determines conditions for partnership and structure, and enlists participation via a request for proposal or some other solicitation process.
3. **Closing the Deal:** public and private partners negotiate responsibilities, delineate design parameters, and sign the contract.
4. **Following Up:** the public agency monitors current partnership(s) and looks for additional opportunities for new partnerships to continue to add value.

Using This Guidance:

The purpose of this guidance is to identify key elements involved in the implementation of shared resource projects. It is designed as an overview of the steps and activities that are typically involved in the process based on experiences of public agencies that have completed or initiated shared resource projects. In using this guidance, applicable to both freeways and other roadways, readers should bear in mind the following factors:



Four Steps to Shared Resource Projects



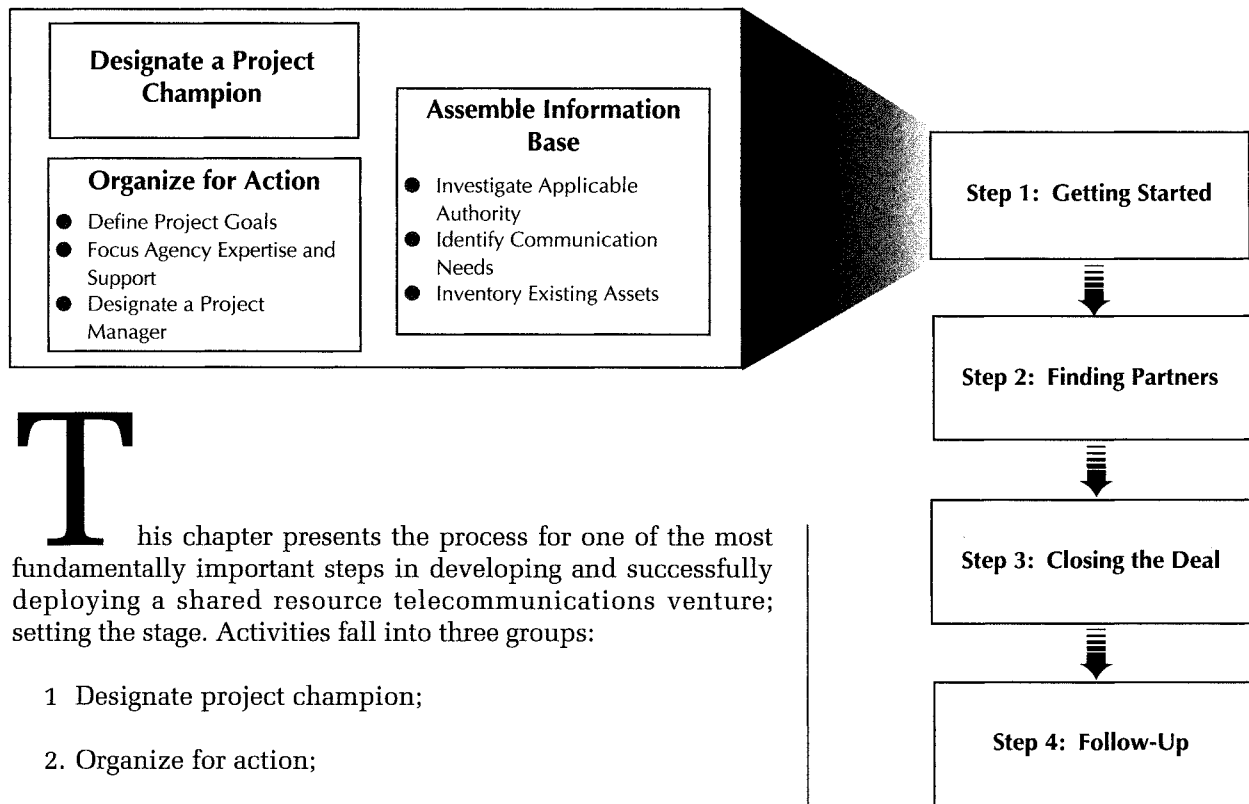
Descriptive rather than prescriptive: No single formula for implementation of shared resource projects exists. Nor is one likely, given the unique circumstances of each state and region. For this reason, this guidance is descriptive rather than prescriptive. It is intended to help public agencies interested in implementing such projects become familiar with the various aspects and issues typically involved in undertaking shared resource projects, consider the merits of alternative approaches, and select the strategies best suited to their circumstances and ultimate objectives.

Flexible sequencing: Although the four major steps for implementing shared resource projects described above will generally be undertaken sequentially, the order of the subtasks often varies. For example, individual public agencies may undertake some sub-steps concurrently or develop a customized action agenda based on the available resources and the agency's objectives.

Importance of legal counsel: The Telecommunications Act of 1996 may significantly influence the implementation of shared resource projects across the country. Although this guidance refers to some potential implications of the Act, it is important to recognize that the complete implications of the Act for shared resource projects are as yet unknown. Public agencies are advised to explore carefully potential ramifications of the Act for shared resource projects, track Federal Communications Commission (FCC) rulings and clarifications² and, from the outset, incorporate legal counsel such as the state's Attorney General's Office or private consultants.

² The appendix to this guidance groups relevant sections of the Act according to "urgency" with regard to shared resource projects.

Step 1: Getting Started



This chapter presents the process for one of the most fundamentally important steps in developing and successfully deploying a shared resource telecommunications venture; setting the stage. Activities fall into three groups:

1. Designate project champion;
2. Organize for action;
3. Assemble information base.

Once the component pieces are in place to the satisfaction of senior management, it is possible to proceed with procurement, contracting and construction. As will be discussed in later sections, the level of detail and completion necessary for each varies, depending on the local circumstances, the urgency of the requirement, and the technical capabilities of the agency itself.

Designate Project Champion

One of the most important lessons from dozens of case studies of successful (and unsuccessful) shared resource initiatives across the U.S. is that the complex and challenging context for this work requires a “project champion” — a single individual with authority and stature who spearheads the effort by: identifying institutional and statutory hurdles, developing consensus and support for shared resource projects, and mobilizing resources within the public sector.

“Typically, it takes approximately 12-18 months from the time a shared resource project is conceptualized to the groundbreaking for actual construction.”



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This individual is not solely responsible for reconciling conflicts nor for defining the project goals. Instead, the champion is a facilitator who helps to mobilize and organize resources within the agency to organize for action and assemble the necessary information as described in greater detail below. To succeed, the project champion must have high-level support, ideally from the agency's top leadership such as the Chief Administrative Officer or the Chief Engineer.

Organize for Action

Shared resource projects are relatively new to the public sector and agencies are not yet geared to achieving these partnerships efficiently and on the kind of expedited schedule that private partners want. Organizing for action therefore includes the following steps:

- Define project goals;
- Focus agency expertise and support;
- Designate project manager.

Define Project Goals

The first responsibility of the Project Champion is identification of broad goals for shared resources. These goals can change and be refined over time. However, it is important to start with a baseline goal for the process that identifies:

- Primary goal (or goals) for a shared resource venture, such as adding telecommunications capacity or receiving cash payments, and
- Projected project start.

In most cases, it may also be necessary to specify separate goals for wireline shared resource ventures as well as wireless ventures, as the two markets are unique both in terms of their goals and timing. The goal may be as simple as:

"...negotiate shared resource projects to support toll collection systems within the next year."

or more complicated, such as:

"...develop partnerships with private telecommunications interests to support department transportation management telecommunications needs, including wireline systems to support real-time video and wireless systems to facilitate management of variable message sign deployment, within the next 6 months."

Even though many agencies are not familiar with their telecommunications needs at project outset, it will certainly be possible to set out preliminary goals against which future ideas and objectives can be tested. The time component, whether explicitly stated or not, however, is particularly important since the overall potential for a shared resource venture is determined by market forces outside of the control of the agency. Having a target for success will help the agency measure its progress relative to a rapidly changing marketplace.

Focus Agency Expertise and Support

The Project Champion is responsible for organizing the technical committee within the agency, preparing the agenda, and executing that agenda. Potential interests from across the agency may include:

- Finance (including those with expertise on public-private ventures),
- Legal,
- Intelligent transportation systems/telecommunications,
- Right-of-way,
- Procurement, and
- Engineering/construction.

Once the team is assembled, two steps are necessary. First, the Project Champion must educate the technical committee on the background and potential for shared resources. To that end, existing research and outside expertise (communications or business consultants, for example) may be brought in to further substantiate the agency's position and potential for success. Outside expertise may also bring the added advantage of accelerating the education of key interests and reducing the time required to proceed.

Second, the technical committee must agree on the goals for a shared resource venture. Because agreeing to allow access to the right-of-way is unusual for many agency interests, this often requires the demonstrated commitment by high-level agency interests such as the Chief Administrative Office or Chief Engineer through presence at one or more of the technical committee meetings. Ideally, the CAO/CE can be present for the debate and resolution of goals.

"In general, public agencies are not used to operating in a business context which might become a liability during the implementation of shared resource projects. Ensure that personnel well-versed in business issues such as level of compensation and negotiation are included in the team."



Designate Project Manager

Public agency bureaucratic procedure can be daunting to potential private partners. Moreover, time is critical to achieving successful shared resource projects. For these reasons, it is important to designate a project manager or “point person” for shared resource projects — a single individual within the agency who is charged to develop and execute a shared resource project and who likewise has the authority and responsibility to carry the project through to its completion. This person, who may or may not be the project champion, is the sole point of contact or liaison with potential private partners and is the person who shepherds private vendor proposals through the inter- and intra-agency bureaucracy to obtain permits, design approvals, and the like.

Such focus is necessary to ensure that the initiative does not become lost among the many individuals and interests that inevitably become involved and that the understanding of the technical and non-technical issues can reside in a single agency expert capable of identifying the various and potentially conflicting needs of the agency.

Ultimately, the steps in Organize for Action culminate with establishment of “one-stop shopping” where the project manager is the point of contact for all potential private partners — applicants deal only with the manager, who coordinates the process and permitting activities on the public sector side.

Assemble Information Base

The final step for the Project Champion is to assemble technical and non-technical information relevant to shared resources. In certain cases, this will be simple. For example, many states have already developed a state-wide vision for intelligent transportation systems that includes (explicitly or implicitly) telecommunications requirements necessary to support full deployment of those systems. In most cases, however, this work will be new to the agency and much of it will be specific to the state, such as legal interpretation of the state’s accommodations policy—the document that describes limitations to access to state rights-of-way.

Like the project goals, however, this information does not have to be complete or definitive to begin the process. In fact, no agency that has undertaken a shared resource venture has had all possible information at the start — many have gone forward and succeeded without it in order to avoid missing an opportunity to undertake a shared resource venture.