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Historic Preservation and Transportation

Saving Historic Roads and Bridges
Context-Sensitive Design
Transportation Enhancements
Legal Remedies
FHWA's Historic Preservation Program
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Cover clockwise from left:
- The Palisades Interstate Parkway (Photo by H. Gilmore)
- Metal truss bridge in Pennsylvania (Photo courtesy of Eric DeLony)
- The Sandia Mountains outside Bernalillo, New Mexico (Photo by Meg Maguire, Scenic America)
- Brooklyn, Connecticut (Photo courtesy ConnDOT)
If a proposed project... involves a historic facility or is located in an area of historic or scenic value, the Secretary may approve the project...if such project is designed to standards that allow for the preservation of such historic or scenic value and such project is designed with mitigation measures to allow preservation of such value and ensure safe use of the facility.

This passage from the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) acknowledges what historic preservationists have known for a long time: decisions about the location and design of roads can have an enormous impact on historic resources. It also reminds us that transportation planners are under a legal obligation to respect historic resources in the landscapes through which the roads pass—and, moreover, that preservationists have a right to insist that they do so.

The National Trust for Historic Preservation has two interrelated goals for national transportation policy. One is to guarantee that historic structures and landscapes are protected and enhanced when transportation investment decisions are made. The other is to ensure that transportation is the servant, rather than the master, of community development. We engage in an array of activities in support of these policy goals, especially as part of our ongoing efforts to fight sprawl and promote smart growth.

Our experience—and that of grass-roots preservationists around the country who have found themselves in conflict with transportation agencies over decisions that have not given sufficient weight to impacts on historic structures and values—has taught us that the chief instrument for achieving our goals is a working partnership between public and private advocates of historic preservation and transportation agencies at all levels of government. Admittedly, it is not always easy to form these partnerships, but more and more preservationists are committed to meeting this challenge effectively.

This issue of Forum Journal is devoted to a number of policy areas where contacts—and, in too many instances, confrontations—with transportation officials occur because road decisions are adversely affecting historic resources. We hope that the articles that follow will encourage preservationists to see the value in the partnership approach with transportation agencies and to support efforts within their states and communities to find ways of melding transportation and preservation objectives.

Shaping Federal Laws

The National Trust for Historic Preservation was a vigorous leader in a coalition that shaped the progressive features of national surface transportation policy during the ISTEA debate in 1991. Our aim was to empower preservationists as effective advocates for saving and enhancing historic resources by enabling them to participate directly in transportation decision making at all levels of government—federal, state, and local. Happily, we succeeded. The enactment of ISTEA marked an epochal shift away from longstanding surface transportation policies that had spent billions on massive road-construction projects, shorthchanged other transportation options, and drained the life out of countless communities.
The architect of ISTEA and its most forceful and articulate advocate was Senator Daniel Patrick Moynihan of New York, whom the National Trust honored in 1999 with its Louise duPont Crowninshield Award, which recognizes superlative lifetime achievement in the field of historic preservation. Senator Moynihan understood better than any other advocate that shortsighted transportation decisions had been responsible for the destruction of more historic resources than any other federal program (with the possible exception of urban renewal), particularly during the decades when mighty interstates were rammed through the older commercial and residential areas of dozens of American communities, destroying historic buildings and neighborhoods and facilitating the disinvestment and decay that continue to afflict the centers of cities and small towns throughout the country. As early as 1960, Moynihan shared his insights into the flaws of national transportation policy in an essay entitled “New Roads and Urban Chaos,” in which he decried the failure of policy makers to realize that the interstate highway program was bringing about changes for the worse in both the efficiency of transportation and the livability of communities.

Moynihan’s determination and vision shaped new legislation—ISTEA—that heralded a dramatic and welcome change in policy direction. This change is reflected in four of the law’s major components:

• half of all federal transportation funding was given new flexibility for use on highways, transit, or other options;
• decisions about the use of these funds were to be made through inclusive and honest planning at the state and metropolitan levels, with meaningful input from citizens and local officials;
• significant funding was reserved for maintenance of existing highway, bridge, and transit systems; and
• small but important sums were set aside to support alternatives to the highway system and reduce its negative effects on society.

Translating Policy into Reality

All of the hard work we have done together to bring about transportation reform in Washington is meaningless
unless it results in positive change in American communities and the quality of life they support. Having a choice among several transportation options—being able, for example, to walk to school, bike to the store, or ride the train to work—is a hallmark of community livability. But these choices will not be made available unless people demand them. The challenge facing us, therefore, is to encourage Americans to think of “transportation” as much more than a synonym for “car” and to take full advantage of the opportunity presented by the new legislation.

The National Trust’s transportation policy initiative, far from being an isolated effort, is a key component of a broad range of programmatic activities aimed at bringing cities and small towns back to life, supporting land-use policies that manage sprawl and encourage sustainable development, and demonstrating the economic and social value of preserving and enhancing historic structures and neighborhoods. We feel strongly that transportation policy, having contributed greatly to urban decay and small-town disinvestment in the past, must now promote community revitalization.

Ordinary citizens across the country are already taking advantage of the power that ISTEA gave them to bring about change in transportation policy. Having worked hard to secure the legislative framework for meaningful reform, the National Trust is now working equally hard to support these grass-roots leaders in every way it can and to encourage others to join the fight where it counts the most—on their own streets, in their own neighborhoods and communities, where opportunities abound to see that transportation decisions conform to both the public will and the plain language of the law.

The transportation programs, and the other programs and policies discussed in this issue of Forum Journal, represent enormously important opportunities for preservationists. But in many cases, effective utilization of these programs depends on our willingness to build partnerships with state transportation officials, to create and expand implementation opportunities that state officials may not have envisioned or considered fully.

The components of genuine reform in national transportation policy are falling into place. Strengthened public participation in road planning, a decision-making role for the local communities through which the roads pass, a commitment to the principles of context sensitive design, a willingness to give full weight to the legal protections that Congress has extended to historic resources—all of these are part of the transportation reform program that concerned citizens are committed to bringing about in their states. But these tools are only as effective as our utilization of them.

Speaking on behalf of the National Trust for Historic Preservation, I express my deep appreciation for the time and effort that contributors have devoted to the essays that follow. I hope that you find the essays informative, thought-provoking, and sufficiently stimulating to lead you to conversations with state transportation leaders about ways of working together. By building lasting partnerships based on mutual trust and respect, preservationists can take a permanent seat at the tables where transportation decisions are being made. These partnerships, if they are effective, can help advance our mission of protecting America’s irreplaceable heritage.

Richard Moe is the president of the National Trust for Historic Preservation.
Across the United States our historic roads are in danger. They are being lost at an alarming rate to replacement, realignment, and outright destruction. At risk are our parkways, first transcontinental highways, and early freeways. While interest in these roads as historic resources is beginning, it is occurring at the same time in which new safety standards, aggressive driving, and congestion threaten their very existence. For a growing number of individuals in historic preservation, transportation, planning and even engineering, a wake-up call is being issued for the recognition and preservation of historic roads.

Roadways such as the Bronx River Parkway (1906-1924) in New York, for example, which was not only a model of environmental reclamation, but also such a significant advance in highway design that it would serve as a prototype for the Autobahn in Germany and the then-emerging California freeway system, have become so threatened, that the parkway was listed as one of America’s 11 Most Endangered Historic Places by the National Trust for Historic Preservation in 1996.

Many of our nation’s historic roads still function admirably. Historic roads provide direct and efficient commuting links, take us to places of natural beauty and recreation, and link communities. The fact that the general public still uses these resources on a daily basis in many ways diminishes recognition of their historic value. Consider the Bronx River Parkway, for example. There are no velvet ropes separating the parkway from the surrounding community. No admission fees. No guides in period costume to whisk you away on an interpretive tour in a Model T. Perhaps unfortunately, the Bronx River Parkway still functions quite effectively in moving today’s modern automobiles. Most of the parkway’s daily users are unaware of the road’s immense and innovative contributions to transportation design and technology (the first use of a median, separated grade interchanges for automobiles, and night lighting outside an urban area). So, like many urban roads, the parkway faces constant citizen clamoring for
more lanes and faster speeds, unaware such requests are equivalent to developing a food court in the dining room of Jefferson’s Monticello.

Similar pressures across the United States are jeopardizing our significant historic road resources. Parkways, U.S. routes, and early freeways are being altered or lost as state highway departments, engineers, and road managers determine the need for additional roadway capacity, safety, or upgrading. Decisions to remove canopy trees, stone walls, and elegant balustrades; the addition of lanes on parkways severing the motorist’s relationship with the landscape; and the loss of views and viewsheds are destroying resources few yet recognize as historic. What is being lost is not only the history of roadway construction and engineering in the United States, but, in many instances, the history of landscape architecture and environmental reclamation. What’s driving these decisions? Safety, liability concerns, and ignorance.

At Issue: Safety and Liability

Providing a safe driving environment for both motorists and other highway users is of paramount importance. For historic roads to survive, the design, preservation, and engineering communities must recognize that safety and historic preservation are not mutually exclusive. Innovative and thoughtful design can enhance safety while honoring the innovations of the past. Yet faced with bigger vehicles, higher speeds, and aggressive driving, many historic roads are having greater difficulty providing a safe driving environment. The question arises: to what extent must roads designed for different uses and speeds be forced to accommodate modern demands?

While some historic roads do pose safety concerns, many more are being destroyed because of fear of liability. Roads gently aligned in the landscape at the beginning of the 20th century are now being straightened for fear that a driver traveling at an excessive rate of speed will lose control of his or her vehicle and sue the local or state government because the road does not meet currently held design practices.

Inconsistency in the Application of Standards

While many threats to the integrity of historic roads come from changes in use or
are generated by safety responses to liability concerns, other destructive actions occurring on and along our historic roads have come from the inconsistent, irregular, or inappropriate application of the current recommended standards.

The origin of most state and local highway standards can be found in the recommended guidelines and policies for highway design in the Green Book, a publication of AASHTO—the American Association of State Highway and Transportation Officials. Its purpose is to recommend safe practices for the planning, design, and construction of roadways. The Green Book establishes a range of acceptable values for highway design. For example, the recommended width of a country lane is between 5.4 and 7.2 meters (roughly 18 to 24 feet). For historic road preservationists, the Green Book is most often encountered during the reconstruction or rehabilitation of a historic road.

Unfortunately, in recent years many state and local governments, courts, and members of the transportation community have held the AASHTO Green Book as an inflexible and rigid document. Perpetuating a myth that there is no flexibility in the publication and that the safety of the motoring public cannot be accomplished in alternative manners, the Green Book’s use and interpretation by many in the transportation profession has become somewhat of a nemesis to the preservation community.

What must be remembered is that the Green Book recommends guidelines to the states and local governments for the design of roadways. No state or local jurisdiction is required to adopt these guidelines. However, almost every state and the majority of local governments have adopted the AASHTO guidelines in full or in part.

In addition to state and local use, the Federal Highway Administration (FHWA) has adopted the Green Book as policy for all federal roads and construction projects in the National Highway System (NHS). For projects off the NHS, the AASHTO Green Book does not need to be followed. In fact, the Vermont Agency of Transportation has developed its own guidelines which recognize the value of historic roads and bridges as a matter of policy.

Exceptions to the Green Book guidelines can be sought for road projects exhibiting special characteristics or needs. The Oregon Department of Transportation takes
full advantage of flexibilities within the Green Book or seeks exceptions when addressing the management of the historic Columbia River Highway.

Thoughtful attention to historic road needs, such as occurs in Vermont or Oregon, however, is not the norm. Frequently, and understandably, lacking the resources to sensitively manage historic roads, many local and state highway departments apply current standards and expectations to roads designed in the past. Because of the lack of policies and design standards tailored to historic roads, and the heightened awareness of safety and liability issues in recent years, management agencies often apply the toughest standards to avoid the possibility of a citation of contributory negligence in the event of an accident. In many instances, historic roads, because of the lack of clarity about their position in the transportation world, have been held by the courts to the highest standards. As a result, sections of historic roads that may have the characteristics of a low-volume rural road, are, in instances, being held accountable to arterial, or even freeway, design standards.

With the provision of a safe driving environment the ultimate goal of all concerned with historic roads, it seems reckless to continue depending on limited review and interpretation of the Green Book without investigating the flexibilities that are available. Only with a clear and reasonable expectation of the uses of these roadways can aesthetic concerns for historic resources be effectively studied and managed.

Historic Roads Defined

Obviously the preservation of resources as diverse as the Pasadena Freeway (originally constructed as and now renamed the Arroyo Seco Parkway) and the Rockefeller Carriage Roads at Acadia National Park would necessitate a framework for proper education and a vocabulary for dialogue. In order to better understand this diverse resource group and, most importantly, to direct effective policy and management solutions to threatened historic roads, the National Trust identified the three principal types of historic roads: aesthetic, engineered, and cultural. Recognition of these types allows for appropriate preservation and engineering solutions. A road with an associated designed landscape (aesthetic) presents different challenges than, say, the New Jersey Turnpike (engineered).

Aesthetic routes represent historic roads for which the primary rationale for development was the design and provision of a specific visitor experience. Aesthetic routes such as parkways and park roads have, historically, been intensively designed and developed for the purpose of leisure, recreation, and commemoration. They have a documented origin and construction date. Never intended as the fastest or quickest route, such roads typically follow the natural topography of the region, and are most often associated with a designed landscape or park space. In urban areas, park boulevards and monumental avenues exhibit an equally high level of detail and composition. Examples include the Bronx
River Parkway, the Blue Ridge Parkway, and Lake Shore Drive in Chicago.

Roads designed for a specific transportation goal represent a larger category of roads than those designed for aesthetic purposes. Engineered routes, like aesthetic routes, will have a documented idea, mandate, or construction date. These are roads that may have been developed to open isolated areas to commerce, link the nation, or simply serve our communities. The aesthetic experience was often secondary. Their alignment and detail are important in their representation of technology and culture. Most generally, for these resources, speed, safety, and economy determined the design. Because of location or remaining details, however, many engineered routes have taken on aesthetic qualities and associations. Many city grid patterns and our first transcontinental highways are typical of this category. Examples include the Lincoln Highway, New York to San Francisco; the National Road, Cumberland, Md., to Vandalia, Ill., (Old US 40); and US 101 along the Pacific coast.

Cultural routes represent roads that evolved through necessity or tradition without a formal initial goal or objective guiding location. These roads, now in automobile use, have generally undergone significant changes and modifications since their inception, often leading to multiple layers of development. These may be roads that evolved from Native American or colonial trails, or simply from convenient connections between farm villages. Road construction projects at different times in the route’s history may have left different layers of interesting historic resources. Examples include the Boston Post Road; El Camino Real, California, New Mexico and Texas; and the Ashley River Road in South Carolina.

**Saving Historic Roads**

Ultimately, understanding of the resource, available options and flexibilities, and a commitment to preservation can enhance both safety and historic preservation. The following examples from Connecticut, Kansas, and California showcase both happy accidents and careful strategies to address historic roads.

In Connecticut, when a number of bridges along the Merritt Parkway needed to be widened because of safety concerns, it was determined that new construction with con-
crete beams and simulated arches—a false facade concealing an ordinary flat deck bridge—would be less expensive than construction modeled on the historic reinforced concrete arches that gracefully span the parkway. That was true. So, a determination to rebuild with simulated arches was made.

Fortunately for the parkway and the people of Connecticut, a savvy Department of Transportation administrator discovered that the concrete beam and simulated arch (experimented with on a few bridges) was not always less expensive than a genuine concrete arch and that it had a significantly shorter life span than the historic (genuine arch) concrete construction. Concrete construction of the bridges, recreating the architectural detail for which the parkway bridges are famous, over time, was competitive with simulated arches. The bridges have been reconstructed in concrete as genuine arches.

It wasn’t cost, but liability that threatened historic bridges in Kansas. Many local jurisdictions, fearful of potential liability threats, were destroying well-loved landmarks simply because of narrow lanes or reduced clearances. To assist local communities in the preservation of these resources, the Attorney General of Kansas issued an informal opinion regarding the potential tort liability of local government entities with respect to the repair and maintenance of bridges in 1995.

The informal opinion suggests that historic bridges that are maintained in good condition, free of demonstrated or chronic safety problems, and built to the acceptable standard of their day, should not be a liability burden for local communities. Consider a Kansas bridge a few feet narrower than would be constructed today. Under this informal opinion, the Attorney General’s office suggests the bridge width is not a liability issue. Should an accident occur, the injured party must demonstrate another breach of the government’s responsibility—poor maintenance, improper information, or hazardous pavement surface, for example.

Lastly, the historic Arroyo Seco Parkway (1940) in Los Angeles has benefited from an administrative decision. The parkway, best known as the Pasadena Freeway, was classified as a segment of the California Freeway system—that classification carrying with it a number of management and legal obligations. In order to better manage the parkway as a historic road, the California Department of Transportation (Caltrans) created a new category: historic parkway. This determination enables the state to apply greater flexibilities and creative options for management that are precluded for roads classified as a freeway. In order to best understand the new options now available for the parkway, Caltrans worked with the Historic American Engineering Record of the National Park Service in the summer of 1999 to document this early California prototype.

Historic roads in the United States are increasingly being recognized as significant landmarks (such as the Historic Columbia River Highway) or contributing features in a historic district (the Granitoid street pavement in Duluth, Minn). Whether nationally significant or locally valued, the historic preservation community is becoming a strong voice in this new and interesting field of preservation.

Dan Marriott is the director of the National Trust’s Rural Heritage Program.
Roads are an integral part of our daily lives; they have been for centuries. It’s how we get from here to there. In fact, roads are so enmeshed with our lives that often we take them for granted. We shouldn’t. Roads can greatly enhance our understanding of our collective past. The rumble of bricks or cobblestones under your tires immediately sends the imagination wandering back to bygone days. A twisting, winding road with lots of dips similarly conveys a different pace of life, a different means of conveyance. Clearly some roads hold a special place in our past. But what makes them historic?

For some roads it is their pavement: brick, cobblestone, early concrete, and wooden roads still exist in some places today. Other roads are important because they are the location of a significant event in our history: a civil rights march or wartime troop movements. Yet other roads are important works of design and engineering: lushly landscaped parkways or efficient elevated expressways. And then still other roads combine all, or some, of these characteristics.

New Jersey has a long and distinguished road-building history. Since colonial times, New Jersey has been a key link between the metropolitan areas of Philadelphia and New York. Characterized by Benjamin Franklin as a “barrel tapped at both ends,” New Jersey met the challenge of being an important overland transportation route between these major centers of economic development since the 1700s. Today, as the most densely paved state in the country, New Jersey daily copes with 18 million vehicle trips on its roadways.

New Jersey transportation officials and historic preservationists have taken a creative approach to protecting the state’s historic roads. When the traditional Section 106 review process involving a historic road became bogged down in debate over historic significance and eligibility, the New Jersey Department of Transportation (NJDOT), the New Jersey State Historic Preservation Office and the Federal Highway Administra-
tion (FWHA) decided to work together as partners to find a better solution.

Background
In the early 1990s, NJDOT and FHWA needed to replace several bridges. As federally funded projects they were subject to reviews for potential effects on historic properties pursuant to Section 106 of the National Historic Preservation Act. This review process raised several questions about the state's historic roads, such as how to identify and establish their eligibility and how to assess the effects of transportation projects on historic resources. Reaching consensus was complicated by the lack of a contextual understanding of the state's transportation history. Were all roads historic? Was it possible to judge the significance of a road or its integrity without understanding the history of roadway development in the state?

A Partnership Approach
Not surprisingly, the three agencies involved in the Section 106 review process had different goals, and reaching agreement on how best to deal with the question of historic roads in New Jersey was not an easy process. The state historic preservation office (SHPO) was primarily interested in recognizing that roads could be historic and that eligible roads need to be preserved to the greatest extent possible. The NJDOT was primarily interested in advancing its capital program for the maintenance and improvement of its roadway network and concerned that identification of a roadway as eligible would hinder the agency's ability to accomplish its mission to deliver a safe and reliable transportation system. While FHWA was interested in ensuring that NJDOT effectively utilized its federal funds for roadway improvements, it also was responsible for ensuring compliance with federal regulations protecting cultural resources.

Since colonial times, New Jersey has been the link between New York and Philadelphia. This photo shows early 20th-century road conditions. Photo courtesy of the New Jersey State Historic Preservation Office

With all of these interests at the table, it was no wonder that a simple solution was not readily evident. Initial attempts to work within the confines of the traditional Section 106 consultation process met with little success. Complicating the consultation process in New Jersey was the lack of guidance available on identification of historic roadways. Frustrated by the lack of progress and driven...
by a need to find a solution that all involved agencies could live with, the NJDOT proposed that the three parties carry out a historic roadway study that would meet the goals of each agency. The purpose of the study would be to identify roadways of statewide significance; to establish thresholds of integrity for significant roads; to develop design treatment guidelines for eligible roadways; and to establish programmatic agreements on how these roadways will be maintained and improved in the future.

At the heart of the study was a desire to break the circular communication process and step outside the “process track” inherent in the traditional Section 106 consultation process. Rather than one agency offering an opinion that the other must comment on, this study would be carried out by staff from the FHWA, the NJDOT, and the SHPO offices. The agencies would evaluate the results of the study and reach agreement on the identification of significant resources.

The goals of the study, furthermore, would be structured such that each agency would have a vested interest in seeing the study advance since the study would address concerns or issues of importance to that agency.

Finally, each agency agreed to put the identification of historic roadways in New Jersey on “hold” and not to raise the issue on a project-by-project basis until the statewide study was complete. This would allow all three agencies the opportunity to advance the roadway study without the pressure to address the issue for projects advancing through the project development process.

This “partnering” approach required each agency to accept the goals and mission of others at the table, even when those goals or missions were conflicting. It required willingness to compromise in order to reach the mutual goals established by the group and a commitment to work through issues and disagreements.

The Four Phase Approach

The New Jersey Historic Roadway Study was designed to address four basic questions. What roadways are significant? What other resources would you expect to find associated with a particular significant roadway? What type of design guidelines should you follow for transportation projects on roadways eligible for
the National Register? What types of projects will have no or little effect on these eligible roadways so that they can be advanced in an expedient manner by mutual agreement among all three agencies? The study was broken down into four phases:

- Phase I is intended to identify and establish the significance of historic roadways in New Jersey and their associated resources and establish the factors of integrity needed for the roadway and its associated resources to be considered eligible for the National Register of Historic Places.

- In Phase II, design recommendations and guidelines for roadway projects will be developed, consistent with the roadway’s significance, designed features, or historic theme so as to avoid, minimize, or mitigate adverse effects to the historic resource.

- In Phase III, a field review of a select number of significant roadways will be conducted to determine their eligibility so as to verify that the study approach has been successful, the criteria developed realistic and resulting recommendations valid.

- Finally, in Phase IV, based on the historic significance of the roadway, the scope of the roadway project being proposed and taking into consideration the design guidelines developed as part of this study, programmatic agreements will be developed that define what constitutes findings of “No Affect,” “No Adverse Affect” (with or without recommended treatments), and “Adverse Effect.”

As of May 2000, Phase I of the study is approximately 60 percent complete. A list of roadways with statewide significance has been developed and statements of significance for each is in progress. Completion of the entire study is anticipated by the spring of 2001.

Lessons Learned

Our efforts to protect historic roads in New Jersey have taught us several valuable lessons. What should preservationists in other states do to identify and protect their historic roadways?

The first step is to identify why historic roadways are an issue for your community or state. Perhaps you are responding to a specific threat, such as development or a road-widening project, or you are trying to protect the character of your neighborhood. You
may want to work with the road owner/manager to proactively address maintenance and management issues. Or, you may represent either a transportation or historic preservation agency and need to address this issue from a regulatory standpoint. Regardless of why you are dealing with this issue, the more clearly you define your goals and the better you define milestones, the more realistically you can anticipate success.

Once you’ve defined your goals, establish the connection between the road and your goals. If your goal is the protection of your neighborhood from the degradation caused by sprawl, then preserving Main Street as a two-lane road may help. However, adjusting local zoning on adjacent properties for lower densities that correspond with current uses may be more effective and appropriate.

Choosing Partners

Now that you’ve established the history of your road, your goals, and the link between the two, it’s time to come up with a list of partners who can put their heads together with yours to develop a plan of action. Think about who can help. Who are the people and organizations with expertise, money, and jurisdiction? Local government agencies at the municipal and/or county level can help with public awareness, sponsor funding applications, and may have some jurisdictional control. The state department of transportation may have jurisdictional control, funding programs, and other programs to help you. Scenic Byways programs, nonprofit preservation advocacy groups at the state and/or local levels, the FWHA, and the National Park Service are other possible partners. Scout troops and civic groups may be able to provide volunteers for clean up or sign posting projects that garner positive press coverage and build community awareness for the significance of your road.

In approaching and working with partners, it is important to understand the tools they have available to help you, as well as potential limitations placed on how they can use those tools. For example, your DOT may have millions of dollars to spend each year, but it is probably divided among specific programs in advance. Many of these programs have eligibility criteria and specific
funding cycles, both of which need to be factored in as part of any action plan. Initiatives undertaken with FHWA funding may require adherence to certain engineering standards, which may be more or less stringent than standards followed at the state or local level.

If you are approaching a transportation agency as a potential partner, ask for information on their design process. Projects don’t just happen. They often take years of planning and can cost hundreds of thousands—even millions—of dollars to design. That’s a lot of money, and agencies are understandably reluctant to consider additional alternatives or redesign aspects of a project when this level of investment has already been made.

If you want to discuss different design concepts or changes in the project scope, the agency will be more likely to embrace your ideas if they are voiced at the appropriate time in the project development process rather than just before, or during, construction. Be cognizant of the implications, in time and money, when you backtrack the design process.

Keep in mind that your partners may have conflicting goals. Transportation agency representatives will be primarily concerned with the creation and management of a safe and efficient transportation system. State historic preservation office representatives seek to preserve significant aspects of the built environment. When evaluating the significance of transportation resources like roads and bridges, or when evaluating the effects of transportation projects on historic resources, these goals often collide head-on.

**Partnering**

A partnership approach establishes a process for conflict resolution that provides each team member with a “win-win” approach to problem solving. It relies heavily on open communication and team building and establishing a positive working relationship built on mutual trust and integrity. At the outset, the mission of each team member and his or her organization must be acknowledged and recognized as valid, even when those missions conflict with each other.

Equally important is the development of a common language within the group. When preservationists and engineers gather to focus on issues relating to historic roads, the same word may have completely different meanings to each group. By developing a common language within the group, you may avoid future misunderstandings and conflicts that can be time consuming and will break down forward momentum toward your goals.

Finally, it is important that you each invest time in setting up a relationship with your partners and separating the person from the issues. Learning to distinguish between John as a person and John as a project manager is part of recognizing the mission of the agency and the role that John must play as a representative from that agency.

Achieving solutions and reaching goals through the partnering process takes time … this isn’t a quick fix.
Conclusion

Since there are so many different types of roads and so many different potential partnering arrangements, what works for one group or for one road might not work in every case. Solutions must be customized to deal with the wide range of roadway types and the goals of the partners involved in the study.

In New Jersey, a statewide study was a solution. In other instances, a management plan for a particular resource may be the best method to reach a goal. Look to other management plans, partnerships, and studies for examples that may best suit your needs or goals. Expect your goals and solutions to evolve with the passage of time.

And finally, be patient enough to work in incremental steps. Trying to deal with everything at one time may be too overwhelming for some partners based on their available tools and prescribed limits.

Miriam Crum is a project manager for the New Jersey Department of Transportation (NJDOT). She currently manages both the New Jersey Historic Roadway Study and the Historic Bridge Preservation Plan.

Andrea Tingey is the principal historic preservation specialist in the Transportation and Planning Unit at the New Jersey State Historic Preservation Office.
In the early 1900s, roadway construction typically consisted of paving over dirt roads that in some cases were nothing more than old cow paths. Beginning in the 1930s, the industry recognized that to provide a reasonable level of safety it needed to establish a consistent approach to highway design. In the late 1930s, national committees were formed to develop appropriate design criteria to guide the highway engineers, which culminated with the publication of nationally accepted design criteria in the 1950s.

With safety now recognized as a major goal of the designer, these design criteria were employed and further refined in the 1960s. In the late 1960s, however, the public became more concerned with the environment and socio-economic considerations and began to oppose what was perceived as the proliferation of roads and the negative environmental affects associated with them.

As a result, the Connecticut Department of Transportation (ConnDOT) became more responsive to the concerns and desires of the communities. Following the 1983 collapse of the Mianus River Bridge in Greenwich, ConnDOT embarked on a major infrastructure improvement program. A large component of this program was the reconstruction of the expressways serving Hartford, which required a major commitment to keeping the public informed of the proposed changes.

The success of this public information/relations program led to even greater public involvement during the design and planning phases. Citizen advisory groups began to influence project designs and procedures. One such group was the Merritt Parkway Working Group (MPWG), a multidisciplinary group with representatives from both the public and private sectors, which established guidelines for future projects on the historic and nationally recognized Merritt Parkway.

The success of ConnDOT’s involvement with the MPWG and other projects, such as the reconstruction of Route 6 through the historic village of Brooklyn in eastern Connecticut, led the Federal Highway Administration (FHWA) to recommend that Connecticut cut be one of five pilot states to participate in an initiative to implement “context-sensitive design” nationally.

What is Context-Sensitive Design?

“Context-sensitive design” involves taking into consideration the land use and environment adjacent to the roadway when planning and designing a project. Designers make decisions based on the impacts of the roadway on the community, rather than blindly following set design criteria. It requires designers to be aware of the environment in which the road sits and the qualities of the area that the community feels are important. Designers must accept the community as a partner in the decision-making process and be open to constructive comments and compromises.

The ultimate goal of a context-sensitive design is to provide a facility that meets the needs of motorists and addresses the concerns of the community that the road passes through. To meet this goal, the designer and the community need to identify the concerns of the community and...
establish consensus on the purpose and intent of the project. The designer’s job is to strike a balance between the intent of the project and the desires of the community.

The designer must involve the community at an early stage in the design of the project. Instead of one public meeting held after the preliminary design is completed, a context-sensitive design may include several meetings with local officials and the public before the project is initiated and at several points during the design process and throughout construction.

Perhaps the most important aspect of a context-sensitive design is making the road blend in with the area. This is where the expertise of the designer is critical. No one single design works for any given road, and the designer needs to recognize that certain road attributes are not appropriate for some regions. For example, a long, straight, flat, wide road design may not be appropriate for a road passing through a rural village, just as winding roads may be out of place in an urban environment. Designers may have to create several iterations of a design to achieve the most desirable results.

What are the benefits to the designer of using context-sensitive design techniques? When the community understands the purpose and need for the project, it will be more willing to accept the required changes to the environment. Additionally, designers who understand community issues will be better able to justify any required exceptions to design criteria. Conversely, by a systematic design development process, the designer will be better prepared to explain and defend any determinations that are contrary to the identified desires of the community. Early coordination with the public often means fewer revisions to the project.

Despite these benefits, some engineers still resist the context-sensitive design philosophy. Concerns include excessive costs (both design and construction costs), maintaining an appropriate level of safety, potential liability, and public requests that are unrelated to the goals of the project. These are all legitimate concerns, but designers need to recognize that design costs will be minimized with early coordination. Using context-sensitive design techniques does not guarantee that the project will proceed smoothly. The designers need to recognize that there will always be negative reactions no matter how sensitive the design. The majority of people, however, will at least appreciate their efforts even if they may not accept the final design.
The designer must also be aware that items such as landscaping and other aesthetic treatments will increase the cost of the project without adding any increase in safety or capacity. However, aesthetic treatments will improve the appearance of the community and in many cases encourage private investment. Still, the designer and the community need to realize that transportation funds are not limitless and the department is responsible for using these funds cost-effectively to improve the safety and efficiency of the state’s roadways.

Concerns about liability and safety often revolve around requests to utilize design criteria that are inconsistent with accepted practice or requests to include non-typical treatments, such as traffic calming devices. ConnDOT is responsible for providing a safe and efficient improvement. Any deviations from normal design criteria must be justified, documented, and approved by the department, which should alleviate any potential liability concerns.

Simply put, in applying context-sensitive design the designer is being asked to give fair consideration to community input and to be prepared to provide a reasonable explanation for those requests that cannot be accommodated. The examples that follow demonstrate context-sensitive design principals at work in Connecticut.

The Reconstruction of Route 6 in Brooklyn

Route 6 travels the width of Connecticut from Danbury through Killingly. When a proposed expressway connecting Hartford and Providence, R.I., was rejected because of environmental concerns, the state initiated a series of improvement projects in 1986 to address the 23-mile portion of Route 6 between Windham and the state line. All of these projects were constructed except for the five-mile section through Brooklyn. Route 6 includes a number of different configurations as it crosses the state, from a multilane expressway to a two-lane road. In Brooklyn, Route 6 is a two-lane road that bisects the historic town center. Brooklyn residents were concerned about how changes to Route 6 would affect the character of the town center. ConnDOT, the consultant engineer hired by ConnDOT, and the town could not agree
Influencing Highway Design in your Town

Sally G. Oldham

Context-sensitive design is a term coined just two years ago at a national workshop on highway development. This new approach to highway design gives citizens the opportunity to participate with DOTs in designing transportation facilities to preserve historic and scenic resources and support community values. The workshop resulted in the articulation of a new definition for design excellence in highway development that is being embraced by an increasing number of transportation departments.

Context-sensitive design is a collaborative, interdisciplinary approach, involving all stakeholders to ensure that transportation projects are in harmony with communities and preserve historic, scenic, aesthetic, and environmental resources while maintaining safety and mobility. The deliberations of the 325 national workshop participants resulted in a consensus on qualities of excellence in transportation design and characteristics of the process that will yield excellence.

Following the workshop, the American Association of State Highway and Transportation Officials (AASHTO) selected five pilot states — Utah, Minnesota, Kentucky, Maryland, and Connecticut — to implement the qualities and characteristics of context-sensitive design. The pilot states are well under way with efforts to implement context-sensitive design. Maryland’s State Highway Administration conducted four project charrettes in 1999 to assess projects using an evaluation tool based on the qualities and characteristics of design and project excellence. The agency held a statewide workshop in November 1999 to design a comprehensive approach for implementing context-sensitive design.

Minnesota DOT is designing a training course on context-sensitive design that was piloted in 2000. Kentucky Transportation Cabinet (KTC) has developed a two-day course which will be required for relevant transportation staff and all consultants who wish to do business with KTC in the future. Connecticut DOT, which last year introduced a newly developed handbook of state design standards, held a one-day workshop on context-sensitive design in 1999 and plans additional training for state DOT staff and external stakeholders within the year. Utah DOT is currently developing an implementation approach and training for context-sensitive design for that agency, including initiatives dealing with public relations and public involvement.

Other state departments of transportation are also undertaking context-sensitive design related initiatives. New Jersey DOT is developing a comprehensive training program including both context-sensitive design and Community Impact Assessment. Ohio DOT is developing an “Aesthetic Design Initiative” including an Aesthetic Design Manual and pilot projects involving community stakeholders and project team members to develop an Aesthetic Vision for project corridors.

This is a dynamic time for change in state DOTs. To find out what your state DOT is doing, contact the director of your district or regional DOT office. Ask what he or she knows about context-sensitive design initiatives. Get involved to help educate your own DOT staff and yourself about how you can influence highway design to enhance and preserve historic resources.

Sally G. Oldham is president of Oldham Historic Properties, Inc., in Annapolis, Md.
on a scope of work. Alternatives, including construction of a bypass, were reviewed and rejected. In 1996, the scope of the project was reviewed and the project was reassigned to the department’s office of highway design.

The designers took a fresh look at the project. They met with town officials, a number of residents, an architectural/planning group hired by the town, the regional planning agency, elected officials, and the state historic preservation office. They listened to their concerns and modified the design of the project. The width of the paved shoulders was reduced in the vicinity of the town center, essentially eliminating any widening of the pavement in this historic area.

In addition, the designers reevaluated the design speeds chosen for the project and determined that lower design speeds would be more appropriate for the area. They eliminated a previously proposed intersection realignment that would have conflicted with an attractive stone wall. Also, a proposed climbing lane just west of the town center was eliminated. The alignment of the road was revised to better match the terrain and provide visual clues to drivers that they were entering a village area and, therefore, should be slowing down. A number of significant historical and scenic constraints were identified including a large copper beech tree, a well house, and the town green. The designers were not only able to avoid these resources, they even eliminated two town roads that bisected the green, forming a larger, contiguous area.

The revised design achieved the project goal of reconstructing the road, providing roadside drainage, and upgrading the guard rail systems. In addition, a sharp horizontal curve with very limited sight lines will be flattened, requiring a total of five property takings which was acceptable to area residents.

Residents expressed support for the revised design at a public hearing, thus ending many years of impasse. This project is currently scheduled to begin construction in 2002. In this case, ConnDOT’s willingness to consider and carefully examine the town’s proposal for an alternative intersection design showed an honest attempt to work with the community and value their opinions. Finally, designers must carefully examine the character of the area and the effects of the proposed design in order to determine the appropriateness of the design. The designers were able to recognize that the character of the Brooklyn Center did not fit with the design speed of the adjacent sections of this road.

Intersection Realignment in Canton

In Canton, Conn., transportation planners were able to use context-sensitive design to come up with a proposal for the realignment of two awkward intersections. Both intersections are frequently congested and historically have had a high occurrence of accidents.

The project, which involved widening a bridge, adding more lanes, and eliminating a traffic signal to improve traffic capacity and operations at the intersections, was presented to town officials in 1992. The town expressed concerns over several of the proposed changes, and trans-
Portion planners came up with a revised plan which town officials and owners of the abutting properties approved. Yet when the plan was presented to the public, it was met with fierce opposition. The main objections centered on environmental impacts to the nearby Farmington River and Cherry Brook and what was perceived as a lack of any significant improvement to the roads.

The town Conservation Commission, which up to this point had not been involved in the project design, was the most vocal opponent. In addition, residents were concerned about the amount of additional pavement and the expectation that traffic speeds would increase.

At this point, ConnDOT took a fresh look at the project, its goals, and the concerns of the community. The designer met with town officials, the regional planning agency, and owners of abutting properties to develop a plan that addressed community concerns. In February 2000 a second public meeting was held. The revised plans were met with resounding approval and compliments about the responsiveness of the department and appreciation for listening to community concerns.

This project illustrates the value in not only early coordination with the stakeholders, but also in taking the time to identify all the stakeholders. If the Conservation Commission had been included in the project review process from an earlier stage, no doubt some of the redesign efforts and public opposition could have been avoided. In addition to contacting the owners of the abutting properties, it should be recognized that arterial roads are used on a regional basis and designers should seek input from all users of the road.

Carl Bard is the principal engineer, Will Britnell is a project manager, and Simone Cristofori is a design engineer with the State Design Unit at ConnDOT.
Transportation enhancement activities were added to federal surface transportation law in 1991 and extended in 1998. These laws were the first federal transportation policy initiatives to focus on enhancing the travel experience and fostering the quality of life in American communities.

Congress defined enhancements as 12 specific activities. It set aside 10 percent of each state’s Surface Transportation Program funds—less than two percent of all federal highway funds states receive—exclusively for enhancements activities and required that to be eligible for funding, the activities had to be related to surface transportation.

The 12 transportation enhancement activities include:

1. Provision of facilities for bicycles and pedestrians.
2. Provision of safety and educational activities for pedestrians and bicyclists.
3. Acquisition of scenic easements and scenic or historic sites.
4. Scenic or historic highway programs (including the provision of tourist and welcome center facilities).
5. Landscaping and other scenic beautification.
6. Historic preservation.
7. Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals).
8. Preservation of abandoned railroad corridors (including the conversion and use thereof for pedestrian and bicycle trails).
10. Archeological planning and research.
11. Environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.
12. Establishment of transportation museums.

Transportation enhancement activities are part of the Surface Transportation Program, the largest and most flexible source of transportation assistance to the states. The Federal Highway Administration (FHWA) issued guidance that encourages states to develop flexible procedures to accommodate the develop-
ment and efficient implementation of enhancement activities. Beyond the apportionment of enhancement funds to the states and being the ultimate judge of project eligibility questions, FHWA provides a large measure of flexibility to the states to determine the structure of their enhancement programs and how they are managed and administered.

State enhancement programs differ widely, and a national analysis of administrative schemes and spending patterns will not reveal to a potential project sponsor the information needed to succeed in seeking enhancement funds. To be successful in winning transportation enhancement financial support, project sponsors must learn the ins and outs of their state programs and devise their strategies accordingly.

The National Trust’s Public Policy Department has worked with preservationists across the country to improve the standing of historic preservation-related enhancement projects. The department has come upon many examples of exemplary state programs, of which the following are just a few good examples.

**Kentucky**

Kentucky’s transportation agency has taken full advantage of preservation-related enhancement activities. According to its secretary, James C. Codell, III, “The Kentucky Transportation Cabinet strongly believes in historical and environmental preservation, as we believe that Transportation Enhancement projects add value to Kentucky’s comprehensive transportation program. We have been able to retain, rebuild and protect our cultural assets for a relatively small investment of our federal highway funds in a variety of nontraditional projects. As a result of working together on Transportation Enhancement projects, we have been able to build partnerships which have carried over into traditional highway projects.”

The Kentucky Transportation Cabinet has committed $10 million of its enhancement allocation over a two-year period to support transportation-related streetscape improvements that are part of revitalization efforts in the state’s Renaissance/Main Street initiative. Kentucky’s transportation enhancement program complements its community economic revitalization goals. The state permits enhancement funds to be used on the restoration of the facades of public buildings on Main Street, explicitly recognizing that historic buildings contribute to the aesthetics and the ambiance of Main Street and encourage pedestrian traffic.

The state historic preservation office (the Kentucky Heritage Council) recognized at the beginning of the enhancement program the variety of opportunities presented by the then ten enhancement activities and reexamined its historic preservation needs assessment to identify projects with a transportation relationship that fit into the specific activities in the new law. By establishing and explaining how these projects related to transportation, the Council found a for-
mula that met pressing historic preservation needs and at the same time helped the Kentucky Transportation Cabinet develop an innovative enhancement program, solidly grounded in good, nontraditional highway-related projects with the required transportation relationship.

According to David Morgan, Kentucky’s historic preservation officer and executive director of the Kentucky Heritage Council, the understanding and trust engendered by the close working relationship with transportation officials enable both agencies to manage the many controversies and disagreements that inevitably develop when evaluating highway projects and their effects on historic resources.

“There are probably more controversies than ever,” says Morgan, “but how we approach them is totally different today, as a result of the experience of working so closely together on enhancements. Old stereotypes have been changed, and we see ourselves as partners, working together with Kentucky’s communities.” Morgan advises historic preservationists not to underestimate their transportation agencies and the people who work there. “Get to know them, find ways to work with them. They are an enthusiastic bunch interested in doing things differently and working on projects that communities truly support.”

New Jersey

New Jersey’s enhancement program focuses on community livability, the preservation and protection of natural and cultural resources, economic revitalization, the fostering of local partnerships, as well as alternate modes of transportation. New Jersey’s is a balanced program: approximately 40 percent of its awards support bicycle and pedestrian facilities, 30 percent support a wide variety of transportation-related historic preservation projects, and 30 percent support streetscape and beautification activities in historic commercial areas.

The New Jersey Department of Transportation also appreciates the partnership-building benefits derived from its enhancement program. The state agency works closely with project sponsors starting with its solicitation for applications all the way to final project close-out, including becoming part of the project implementation team. New Jersey makes use of a large and diverse Transportation Enhancements Advisory Committee to evaluate applications against clearly established and well-understood criteria and to prepare a recommended short list of projects for consideration by the Commissioner of Transportation.

Because the New Jersey Department of Transportation sees itself as a full partner in bringing projects to a successful conclusion, the agency takes extraordinary steps to reduce burdens on project sponsors. Paperwork requirements are decreased, environmental reviews are streamlined, and by requiring the services of licensed engineers or architects, agency reviews of projects are reduced to a preliminary and final review, relying on project sponsors to certify that what is required is actually being done.

Georgia

During 1998, Georgia’s Transportation Enhancement Activities Advisory Panel created a subcommittee to examine the state’s application form and make recommendations for changes. The subcommittee suggested a new question to be answered by applicants when establishing their proposal’s eligibility for the enhancement program: “Will the project facilitate transportation and strengthen the cultural, aesthetic, and envi-
ronmental aspects of the inter-modal transportation system.” This question captures the essence of congressional intent—that these projects enhance the community benefits of transportation enhancements.

The subcommittee also proposed that Georgia add illustrative lists to the application so that project sponsors could gain a broader view of the types of eligible projects, especially in the archeological and historic resources categories. The Historic Preservation Division of the Georgia Department of Natural Resources encourages communities around the state to match up their needs with the enhancement categories and assists communities with their applications. The Georgia enhancement program recently hired a consulting firm to assist approved sponsors who were experiencing difficulties in implementing their projects.

In 1999 the Georgia Department of Transportation allocated $8.6 million for historic preservation-related enhancement projects, an amount far in excess of funding available from all Historic Preservation Division grant programs combined. The state’s emphasis on creative, imaginative projects, its outreach and assistance to applicants, its projects involving multiple enhancement activities, and the contributions to broader state goals like livability, community revitalization, and heritage tourism make Georgia a good model for states looking for ways to improve their own programs.

Evaluating Your State’s Enhancement Program

The following questions can be used to evaluate any state enhancement program. It’s an illustrative list, not meant to exhaust the possibilities or to be a substitute for a genuine working relationship with the state. You should understand that some states resent being obliged to implement the enhancement program. How a state approaches enhancements can tell us a great deal about its degree of commitment to protecting and enhancing historic resources within transportation corridors as new roads are planned and old ones repaired or reconstructed.

1. Is your state spending the enhancement dollars that the Federal Highway Administration makes available? Does your state agency have a balance of uncommitted enhancement funds that has accumulated over the years? How and when will the money be committed to the state enhancements program?

2. When you look at how the state has spent its enhancement funds, does the program heavily favor one or two of the 12 transportation enhancement activities? Who has established the priorities reflected in the spending patterns?

3. What percentage of the state’s enhancement allocation is spent on state transportation agency activities? How much is spent on local community-generated proposals?

4. How many proposals does the state transportation agency receive and how many are funded? Ask for numbers of projects and their value in dollars.

5. How extensive a mailing list does the state agency use to disseminate information about the enhancements program? Has the state asked historic preservation and heritage tourism groups for help with identifying lists? Does the state advertise and hold local meetings to explain the program?

6. Does the state agency encourage communities and non-transportation groups to compete for enhancement funds? Is such encouragement provided for all 12 enhancement activities?

7. Does the state agency
offer non-traditional project sponsors technical assistance to help them navigate complex transportation administrative procedures?

8. Who reviews projects and makes selections for funding? Are representatives of state agencies other than transportation part of the review and selection, e.g., parks, recreation, community and economic development, historic preservation, or open space acquisition agencies? Are non-governmental groups represented?

9. Does the application describe all of the criteria that will be used to judge the proposals? Is it prescriptive enough so that applicants know all of the points on which they will be judged?

10. Does the state agency assist project sponsors in developing their applications? Are workshops conducted to help non-traditional, non-transportation applicants?

11. Is your state taking advantage of any of the administrative streamlining opportunities that help sponsors complete projects in a timely fashion with the least bureaucratic red tape?

12. Has your state program discarded the eligibility restrictions on historic preservation participation, required by the 1995 guidance, in favor of the new federal guidance, which is more flexible and makes it clear that historic preservation projects do not have to perform modal transportation functions?

13. Does your enhancement program support larger state policy goals like livable communities, economic and community revitalization, heritage tourism, and other quality of life goals?

The Transportation Enhancement Program is midway through its ninth year and nearly halfway through its second congressional authorization. The money available under the program has increased in most states. There is no other potential source of federal funding for historic preservation-related work as substantial as transportation enhancements. The program is working well in some states, and less well in others. How’s it doing in your state?

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For more information on the enhancement program in your state call the Public Policy Department at the National Trust at (202) 588-6167 or the National Transportation Enhancements Clearinghouse at (888) 388-NTEC. E-mail address: ntec@transact.org, web site: www.enhancements.org.
Legal Tools for Fighting Freeways and Saving Historic Roads

Andrea C. Ferster and Elizabeth S. Merritt

Perhaps our age will be known to the future historian as the age of the bulldozer and the exterminator; and in many parts of the country the building of a highway has about the same result upon vegetation and human structures as the passage of a tornado or the blast of an atom bomb...

— Lewis Mumford, The Highway and the City (Harcourt, Brace & World, 1963)

Planners and preservationists have long been aware of the devastating impact of highway development on natural and historic resources. These impacts, as we now know, go beyond the actual footprint of the roadway and have the potential to radically change the face of a landscape by inducing or accelerating changes in land use patterns that can further exacerbate impacts on historic properties. This unplanned or induced development (often referred to as “sprawl”) has been dubbed one of the most significant economic, social, and environmental problems of our time, contributing to urban decline, racial polarization, worsening air and water quality, destruction of our rural heritage, and the erosion of community. This article will focus on the legal tools for protecting historic sites from highway projects that are subsidized to some extent by federal funds.

The primary federal laws that specifically protect historic properties threatened by transportation projects are Section 4(f) of the Department of Transportation Act, 23 U.S.C. § 138; 49 U.S.C. §303, and Section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f. Section 4(f) directs the U.S. Department of Transportation to give the protection of historic properties (as well as public parks, recreation areas, and wildlife refuges) paramount consideration in transportation planning. Transportation projects that require the use of these protected sites
may not be approved unless (1) there is no feasible and prudent alternative to harming the site, and (2) the project includes all possible planning to minimize harm. Section 106 requires all federal agencies to take into account the effect of their undertakings on historic properties prior to funding or approving permits or licenses for projects. In addition, federal agencies must conform their decision-making process to the requirements of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332.

This article will discuss how preservation advocates can make use of these legal tools in fighting destructive highway projects, starting with NEPA, which provides the overall framework for defining the range of alternative transportation solutions or designs that will be considered under both Section 106 and Section 4(f).

Review of Highway Projects under NEPA

NEPA is the overarching federal law requiring federal agencies to prepare an Environmental Impact Statement (EIS) prior to approving any “major federal action” that is likely to have a “significant impact on the human environment.” An EIS is a detailed statement describing the environmental impact of the proposed project and exploring alternatives. Under binding regulations developed by the White House Council on Environmental Quality, environmental impacts include impacts on the built environment and on historic and cultural resources.

While NEPA does not mandate that transportation agencies avoid or protect resources, the NEPA process can help to give agencies the information they need in order to do so. It also gives members of the public timely information about project impacts and alternatives and can help them to advocate more effectively for changes in the project to address historic preservation concerns.

Whether to Prepare an EIS

Whenever a transportation project is proposed for federal funding, the first step in the NEPA process involves determining whether the proposed actions are likely to be significant and thus require the preparation of an EIS. The Federal Highway Administration (FHWA) has developed its own procedural regulations for NEPA. Under these regulations, a full EIS is normally required for a new controlled access highway or a road project of four or more lanes on a new location.

If the project is not one that normally requires a full EIS, and the project is not “categorically excluded” from environmental review, an Environmental Assessment (EA) must be prepared. Proposed actions for which only an EA may be required include projects to widen or expand the capacity of existing highways. An EA’s assessment of impacts and alternatives is not as detailed or rigorous as that of a full EIS and is usually not subject to formal public review. Following completion of an EA, the FHWA will either issue a Finding of No Significant Impact (FONSI) or it will decide that a full EIS is required because the project will have significant environmental impacts.

If an EIS is prepared for a project, it must be circulated in draft form to the public and to a variety of resource agencies for review and an opportunity to comment. The agency must then respond to these comments in its Final EIS. The agency may not approve or begin the proposed project (including right-of-way acquisition and final design) until it has finalized
the EIS and issued a Record of Decision summarizing the reasons for its decision, including any mitigation adopted to address adverse impacts.

**Alternatives Under NEPA**

The heart of the EIS is the consideration of alternatives. This is the place where the FHWA must identify the transportation needs to be addressed by the project (the “purpose and need”), which in turn will determine the range of alternatives to be considered. Highway projects generally address one or more of the following needs: system linkages, capacity, roadway deficiencies, legislation, social demands, or economic development. Only alternatives that satisfy some or all of the identified transportation needs will be evaluated in the EIS.

One issue frequently challenged in highway cases is FHWA’s refusal to consider alternatives that would reduce or avoid impacts on historic and/or natural resources, based on the conclusion that the alternatives would not provide a desirable “level of service” or satisfy “current design standards.” These alternatives may include “mass transit” such as bus or rail, “Transportation System Management” (TSM), and road improvements, such as straightening or banking curves, flattening hills that limit sight distance, adding passing or turning lanes, paving shoulders, or making other improvements to roadway geometrics that improve safety or travel speed. While some courts have held FHWA in violation of NEPA when it failed to consider such alternatives to building or expanding a highway, other courts have upheld FHWA’s refusal to do so, based on deference to the agency’s determination that alternatives would not provide sufficient capacity to handle a projected traffic increase or meet other transportation needs.

However, the continued ability of highway agencies to reject these “low build” alternatives out-of-hand is increasingly called into question. Current research shows that building or widening roads is not necessarily an effective long-range solution to traffic congestion. To the contrary, building more highways can have the opposite result of stimulating additional trips (called “latent demand”) and accelerating new development (“induced growth”), which in turn generates more traffic. As one court pointed out, “[h]ighways create demand for travel and expansion by their very existence.” These stud-
ies offer persuasive authority that EISs evaluating the impacts of new or expanded highways should rigorously evaluate alternative transportation solutions, such as improving the existing roadway or investing in mass transit, rather than adding capacity for single occupancy automobiles.

Likewise, highway agencies can no longer justify intrusive highway designs as necessary to adhere to “current design standards.” In response to concerns by frustrated citizens, who have long pushed highway engineers to place community and preservation values on par with the needs and convenience of motorists, Congress has now amended federal funding statutes so that highway design standards “may take into account . . . (A) the constructed and natural environment of the area; (B) the environmental scenic aesthetic, historic, community, and preservation impacts of the activity.” FHWA regulations and guidance now acknowledge that highways can be flexibly designed to protect scenic and historic values. The explicit recognition of these values in federal law and policy provides strong authority for designing highway projects that respect rather than destroy the history and character of the communities through which they pass.

Section 106

Section 106 of the National Historic Preservation Act (NHPA) is the basic federal law requiring all federal agencies, including FHWA, to take into account the effects of their actions (called “undertakings”) on historic properties, in consultation with preservation agencies and interested members of the public. The key participants in the Section 106 process are the state historic preservation officer (SHPO) (or, for proj...
## Federal Historic Preservation Laws at a Glance

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<tr>
<td>ACHP/SHPO at the table with veto over some decisions</td>
<td>DOT has sole authority; Interior comments</td>
<td>EPA review; CEQ referral</td>
</tr>
</tbody>
</table>

Projects on tribal lands, the tribal historic preservation officer (THPO)) and the federal Advisory Council on Historic Preservation, an independent agency created by Congress to implement and enforce Section 106.

The Section 106 process is governed by the Advisory Council’s binding regulations, which outline three basic steps: identifying historic properties; assessing the effects of the project; and resolving any adverse effects. In carrying out each of these steps, the federal agency must consult with the applicable SHPO/THPO and the Advisory Council, if it elects to participate in the consultation, and provide opportunities for public involvement.

### A Consultative Process

While Section 106 is similar in many respects to the assessment of cultural resource impacts under NEPA, the Section 106 process is distinctive in its heavy reliance on consultation with preservation officials and the public.
agencies and interested parties. One unique aspect of Section 106 is the ability of affected members of the public to request “consulting party” status. Under the Advisory Council’s regulations, certain entities (such as the permit or funding applicant, an Indian tribe or Native Hawaiian organization, or representatives of local governments) are entitled to participate in the Section 106 process as “consulting parties.” In addition, other individuals or organizations with a concern about the effects of the project, or having a legal or economic stake, such as owning an affected property, may seek to become consulting parties. Consulting parties are entitled to receive and comment on most documentation prepared as part of the Section 106 process. Preservation advocates often request consulting party status to ensure that they receive timely notification about a project’s impacts on historic properties and an opportunity to comment on the project.

Another important difference between NEPA and Section 106 is that, unlike NEPA, the agency proposing the undertaking does not have the final say over whether the effects on historic properties have been adequately considered. Rather, as described below, the final decision about whether historic properties are eligible for the National Register of Historic Places and whether the project’s effect on those historic properties will be “adverse” rests with other agencies with expertise in historic preservation.

**Identifying Historic Properties**

The agency is responsible for identifying historic properties within the “area of potential effects,” that is, the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of any historic properties. In doing so, the agency must make a “reasonable and good faith effort” to identify properties that may be eligible for listing in the National Register of Historic Places.

In the event of a dispute over whether a property that may be affected by a highway project is National Register-eligible, or over the boundaries of a historic property, the FHWA is not free to disregard the views of the SHPO, the Advisory Council, Indian tribes, or the public. Instead, these disputes are submitted to the Keeper of the National Register, a unit within the U.S. Department of the Interior, National Park Service, for a final determination of National Register eligibility or boundaries.

**Assessing Adverse Effects**

In assessing effects on historic properties, the FHWA is required to apply the “criteria of adverse effect” in the Advisory Council’s regulations. These regulations define “adverse effects” as including not just physical destruction of or damage to a historic property but also indirect effects such as the “[i]ntroduction of visual, atmospheric or audible elements that diminish the integrity of the property’s significant historic features,” and any “[c]hange...of physical features within the property’s setting that contribute to its historic significance.” This standard is particularly important in the case of highway projects, whose effects typically extend beyond the roadbed and include visual intrusion, noise, vibration, and vehicle fumes, as well as secondary impacts, such as highway-induced development. Again, in the event of disputes over the application of the criteria of adverse effect, the Advisory Council or SHPO, not the FHWA, makes the final determination.
Negotiating a Memorandum of Agreement

Once adverse effects are identified, the FHWA and the other parties must consult to determine whether changes can be made in the project to avoid or mitigate adverse effects on historic properties. Generally, this involves making minor shifts in a highway’s alignment to avoid resources directly near the highway’s path rather than a major reevaluation of alternative designs or transportation modes. However, preservation advocates should also use the process to develop a creative mitigation package, considering elements such as noise mitigation, less intrusive design, landscape and streetscape improvements, easement programs, traffic mitigation, historical interpretation, and funding for adversely affected businesses.

The Section 106 process is usually completed by the execution of a Memorandum of Agreement (MOA), a binding and enforceable contract embodying all mitigation commitments. If no agreement is reached, the Section 106 process is terminated by the head of the federal agency requesting and receiving the formal comments of the Advisory Council on Historic Preservation. These comments are not binding, but are intended to urge the agency to make a more preservation-minded decision.

While Section 106 does not require the FHWA to protect or preserve historic properties, it is nonetheless an important legal tool for protecting resources that may be harmed by transportation projects. With its strong emphasis on procedure and public participation, Section 106 can be used by preservation advocates to help ensure that effects on historic sites are accurately identified and assessed. This, in turn, helps to ensure that historic resources are protected by Section 4(f) of the Department of Transportation Act, the most stringent federal preservation law in existence.

Section 4(f) of the Department of Transportation Act

Section 4(f) of the Department of Transportation Act prohibits the Secretary of Transportation from approving any transportation project or program that would “use” land from any park, historic site, recreational area, or wildlife refuge, unless (1) there is “no prudent and feasible alternative” to harming the site, and (2) the project includes “all possible planning to minimize harm” to the pro-
tected resources, 23 U.S.C. § 138; 49 U.S.C. § 303. The circumstances under which a preservation alternative may be rejected under Section 4(f) have been narrowly defined by the U.S. Supreme Court: transportation officials are forbidden from rejecting alternatives that would avoid or minimize harm to protected sites unless they can show that the less harmful alternatives would result in costs or community disruption of “extraordinary magnitude,” or other unique factors.25

Determining Whether the Project Will “Use” Historic Properties

The first issue that arises under Section 4(f) is whether the project will “use” historic sites. A project can “use” historic sites either directly, by physically encroaching within the boundary of a protected resource, or indirectly, if the project’s proximity impacts would “substantially impair” the value of a protected site so as to constitute a “constructive use.”26 Under Section 4(f), any direct use of a Section 4(f)-protected resource, no matter how small, is subject to evaluation under Section 4(f).27 A temporary use of protected land during construction of the project can also be a “use” under Section 4(f), if the construction activities result in permanent impacts to the protected site, such as removal of natural features or structures that contribute to the site’s historic significance.28

A “constructive use” occurs under Section 4(f) “where the project’s proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under section 4(f) are substantially impaired.”29 Courts have found constructive use in the case of highway projects that would come within 15 to 200 feet of historic properties in urban settings.30

Evaluation of “Prudent and Feasible” Alternatives

Once a project is determined to involve a “use” of a historic site, the FHWA must determine whether there are any prudent and feasible alternatives to that use. An alternative is infeasible only if it cannot be constructed as a matter of sound engineering.31 Since very few designs are technically infeasible, most Section 4(f) disputes focus on the circumstances under which an alternative can be rejected as being “imprudent.” In order to find that an alternative is “not pru-
“Transportation projects can be especially devastating for communities with historic resources, but preservation advocates have an array of strong legal tools to help prevent or minimize those adverse impacts.”

Even if there are no prudent or feasible avoidance alternatives, Section 4(f)(2) requires the FHWA to undertake all possible planning to minimize harm to Section 4(f)-protected sites. Where two or more alternatives would “use” Section 4(f) resources, the “all possible planning to minimize harm” requirement mandates that FHWA quantify the magnitude of the harm to protected sites for each alternative route and select the alternative that does the least total harm. 13

In determining which of two or more alternatives would involve a greater “use” of historic sites, the Secretary must take into account the views of the Advisory Council on Historic Preservation, but need not accord those views absolute deference. 14

Conclusion

Transportation projects can be especially devastating for communities with historic resources, but preservation advocates have an array of strong legal tools that can be used to help prevent or minimize those adverse impacts. These legal tools should not be reserved for litigation—they are most effective when used early during the administrative process to persuade federal and state decision makers to modify their plans for transportation projects before final decisions are made, in order to be more sensitive to historic preservation concerns.

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Notes

1 40 C.F.R. §1502.14(a).
2 See 23 C.F.R. Part 771.
3 Id. §771.115(a).
4 Categorical Exclusions (CEs) are categories of actions that the FHWA has determined, based on past experience, do not involve significant environmental impacts. 23 C.F.R. §771.117(a). For example, FHWA regulations categorically exclude from environmental review bridge replacement projects and highway modernization by resurfacing, restoration, rehabilitation and reconstruction, or adding shoulders or auxiliary lanes. Id. § 771.117(d). However, if the action normally classified as a CE would actually involve significant impacts on historic or environmental resources, the FHWA will conduct appropriate environmental studies to determine if the CE classification is proper. Id. § 771.117(b)(3).
6 See North Buckhead Civic Ass’n v. Skinner, 903 F.2d 1533, 1542 (11th Cir. 1990) (“a discussion of alternatives that would only partly meet the goals of the project may allow the decision maker to conclude that meeting part of the goal with less environmental impact may be worth the tradeoff with a preferred alternative that has greater environmental impact.”).
7 "Level of Service" (LOS) is a measure used by highway engineers to describe operational traffic conditions based on factors such as speed, travel time, freedom to maneuver, traffic interruption, and safety. See Transportation Research Board, Special Report 209, Highway Capacity Manual, at Glossary (1992). LOS is reflected as a grade of A through F. Preservation and community advocates have long criticized the priority placed on "level of service" analysis, which considers only the comfort and convenience of the motorist, and fails to take into account the interests, values, and needs of surrounding communities and their environment.

8 TSM, generally an option for urbanized areas, involves measures to optimize performance of the present system, such as synchronizing traffic signals or adding high occupancy vehicle (HOV) lanes to existing roadways. See FHWA Technical Advisory T 6640.8A, “Guidance for Preparing and Processing Environmental and Section 4(f) Documents,” at 15.

9 See Coalition for Canyon Preservation v. Bowers, 622 F.2d 774, 784-85 (9th Cir. 1980) (“the improved two-lane road was a reasonable alternative to be considered”); Rankin v. Coleman, 394 F. Supp. 647, 658-59 (E.D.N.C. 1975) (EIS was invalid because it failed to consider alternative of improving existing state roads); I-291 Why? Ass’n v. Burns, 372 F. Supp. 223, 248-50 (D. Conn. 1974), aff’d, 517 F.2d 1077 (2d Cir. 1975) (same).

10 See City of Alexandria v. Slater, 198 F.3d 862 (D.C. Cir. 1999) (upholding FHWA’s refusal to consider bridge replacement alternatives involving fewer than 12 lanes); Corridor H Alternatives, Inc. v. Slater, 166 F.3d 368 (D.C. Cir. 1999) (upholding FHWA’s refusal to consider road improvement alternative); Committee to Preserve Boomer Lake Park v. Department of Transp., 4 F.3d 1543, 1550 (10th Cir. 1993) (“The inability of an alternative to accommodate future traffic volumes is justification for rejecting that alternative”); Hickory Neighborhood Defense League v. Skinner, 910 F.2d 159, 164 (4th Cir. 1990) (same).


13 These standards are generally set forth in the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Streets and Highways, also referred to as the “Green Book.”


15 See 23 C.F.R. § 625.3; FHWA, Flexibility in Highway Design, at iii (FHWA-PD-97-062).


17 36 C.F.R. Part 800 (revised, effective June 18, 1999).

18 36 C.F.R. § 800.2.

19 Id. § 800.16(d).

20 Id. § 800.4(b)(1).

21 Id. § 800.4(c)(2).

22 See id. § 800.5(a)(2).

23 Id. § 800.5(c)(3).

24 See Corridor H Alternatives, Inc. v. Slater, 166 F.3d 368, 371 (D.C. Cir. 1999) (“Because the historic properties protected by Section 106 are similarly defined, it follows that the FHWA must complete its section 106 determinations before it can comply with section 4(f)”).


26 Id. at 413. See Stop H-3 Ass’n v. Dolle, 740 F.2d 1442 (9th Cir. 1984), cert. denied, 471 U.S. 1108 (1985) (an alternative that would increase project’s cost by over $40 million (or ten percent) did not represent a cost of “extraordinary magnitude” justifying rejection of the alternative under Section 4(f)).

27 23 C.F.R. § 771.135(p).

28 See Coalition on Sensible Transp. (COST) v. Dole, 826 F.2d 60, 65 (D.C. Cir. 1987) (taking of “temporary” construction easements on parkland, requiring the removal of mature trees and the permanent alteration of park topography, constitutes a “use” that must be evaluated under Section 4(f)).

29 See 23 C.F.R. § 771.135(p)(2).

30 See Coalition Against a Raised Expressway, Inc. (CARE) v. Dole, 935 F.2d 803, 811 (11th Cir. 1988) (elevated highway within 43-200 feet of historic buildings would result in constructive use); Citizen Advocates for Responsible Expansion, Inc. (I-CARE) v. Dole, 770 F.2d 423, 427-28 & n.2, 441 (5th Cir. 1985) (elevated highway within 40-200 feet of historic buildings would result in constructive use); City of South Pasadena v. Slater, 56 F. Supp. 1106, 1122 (C.D. Cal. 1999) (below-grade freeway within 15 feet of residential historic district boundary would likely be a constructive use).


32 Id. at 413. See Stop H-3 Ass’n v. Dolle, 740 F.2d 1442 (9th Cir. 1984), cert. denied, 471 U.S. 1108 (1985) (an alternative that would increase project’s cost by over $40 million (or ten percent) did not represent a cost of “extraordinary magnitude” justifying rejection of the alternative under Section 4(f)).

33 Druid Hills Civic Ass’n v. Federal Highway Admin., 772 F.2d 700, 716 (11th Cir. 1985).

In 1969, the Historic American Engineering Record (HAER) was established to document the achievements of engineers, industrialists, and laborers. Over the past 30 years, HAER has been the primary catalyst to ensure that engineering structures and the industrial workplace are documented through measured drawings and photographs and, when possible, preserved along with historic sites.

“Preservation through documentation” has been the modus operandi as HAER has worked to record America’s industrial, engineering, and technological achievements of historical significance. Some of the sites recorded serve as the foundation for subsequent preservation efforts that transform communities and the way people think about industrial workplaces. Steel mills, factories, foundries and the canal, road, and rail infrastructure that linked them together and to their larger markets now are beginning to be thoughtfully regarded and preserved with new insights.

Documenting Historic Bridges

Bridges form an important part of HAER’s collection with more than 1,000 recorded. These include the obvious icons such as the Brooklyn Bridge in New York, the Eads in St. Louis, and San Francisco’s Golden Gate Bridge. Equally significant are the more common types such as the iron trusses and concrete arches that adorn the American landscape. Thousands of these bridges were built, especially in the years following the Civil War when the railroads opened up the Midwest and West catapulting America into a process of infrastructure expansion and improvement that continues to this day. This burgeoning nation, coursed by dozens of rivers, thousands of creeks and streams, and millions of acres of swamps and coastal wetlands, was precluded from any physical union until the daunting impenetrability arising from the constant intervention of water was bridged by the engineer and builder.

No country in the world needed bridges like the United States. Transportation infrastructure first took the form of turnpikes, then canals, and eventually railroads—hundreds of lines. Once the frontier opened, settlers began building a matrix of farm-to-market roads, which required bridges by the thousands. The solution was “catalog bridges”—primarily iron trusses fabricated during the late-19th and early-20th century by numerous bridge companies and sold to local bridge commissions through catalogs. Americans depended on these little bridges to tie their communities together and link them to larger cities.

During early decades of the 20th century, single and multiple span concrete arches began to compete with metal trusses. Surprisingly, many of these bridges remain, with some still carrying traffic. Many of these bridges have passed the century mark, and some are starting to wear out.

Concern about the condition of the country’s bridges first arose following the worst bridge disaster in modern history—the collapse of the Silver Bridge over the Ohio River at Point Pleasant, W.Va., in 1967. Forty-six lives were lost.
In 1975 the General Accounting Office issued a report on unsafe bridges that generated further attention, especially by the media, on the issue of bridge safety. The New York Times followed up with article entitled “32,000 Old Bridges Termed Unsafe,” which alerted Americans to the condition of the country’s decaying bridges. The Times article also signaled concern about the future of America’s historic bridges. Massive federal and state programs to upgrade the primary and secondary road system doomed older bridges. The nation stood to lose, in a single generation, the physical evidence of some of America’s greatest engineering and manufacturing achievements—the fabricated metal truss and the reinforced-concrete arch bridge.

Soon after the early bridge replacement programs started in the mid 1970s HAER staff initiated a series of symposiums and meetings to educate highway officials, engineers, preservationists, and the general public about the value and significance of older bridges. First coordinated with the state historic preservation offices, the Advisory Council on Historic Preservation, and the National Trust for Historic Preservation, these efforts soon expanded to include highway officials and engineers. For many years, preservationists were at loggerheads with highway officials and engineers over the bridge issue but this adversarial relationship subsided when it became apparent that the two groups had to work together if there was any hope of saving America’s historic bridges.

One of the first efforts of HAER and its partners was to promote the concept of comprehensive statewide historic bridge inventories. These efforts were largely successful. Just about every state has inventoried bridges not only for structural sufficiency and essentialness for public use but also for historical significance. These inventories have led to listing or determinations of eligibility for listing of approximately 8,000 bridges in the National Register of Historic Places.
Today, however, preservationists and highway officials are asking a more complicated question: Now that we have identified all these bridges, what should we do with them? While no one advocates that every historic bridge should be saved, few can argue against preserving the outstanding and representative examples of different types of bridges.

Some can be rehabilitated for continued vehicular use, while others may need to be moved to new locations where the use and weight limits are not so critical. Some bridges may need to be bypassed completely. The best option and the one that should be most vigorously pursued is to keep these bridges in service so they stay eligible for state funding for maintenance and repairs. Bypassing a bridge should be a last resort, since it removes a bridge from the state inventory and the bridge slowly deteriorates from lack of maintenance.

When continued vehicular service is not possible, there are a number of alternatives where historic bridges have been saved by relocating them to hiking or biking trails or to backcountry roads in state, municipal or federal parks or wildlife refuges. Leaving old bridges for fishermen is one of the most popular and easiest adaptive uses. Historic bridge management or preservation plans in each state will help insure that these preservation options are considered.

By the mid 1980s, as the first historic bridge inventories were being concluded, HAER began developing partnerships with some states by recording a selection of that state’s historic bridges identified by the inventories. Since then, bridges in ten states have been recorded, Ohio being the first in 1986.¹

Paralleling the state bridge-recording program, HAER started documenting bridges within the National Park system beginning with a pilot project in summer 1988.¹

The roads and bridges within
the national parks are subject to the same deterioration as those on primary and secondary roads but, because they are in national parks, HAER was particularly concerned that the bridges be rehabilitated in keeping with their original design intentions and character. A few years after the bridge documentation project in the national parks, HAER broadened its scope to include the landscape and natural features such as view sheds, historic vistas, and plant materials that are so critical to the public’s enjoyment and often the very reason for their designation as national parks. The culmination of the first 10 years of park projects was an exhibition, “Lying Lightly on the Land: Building America’s National Park Roads and Parkways,” that ran for eight months at the National Building Museum in Washington.

Parkways and Scenic Byways
HAER has also turned its attention to parkways and scenic byways. The program has received funding to document historic parkways such as the Merritt in Connecticut, the Columbia River Gorge in Oregon, the Arroyo-Seco in Los Angeles and the Taconic in New York. All four have been disfigured over the years by insensitive upgrades to allow for higher speeds and increased commuter traffic, by poor maintenance, and, in some cases, by partial abandonment or overbuilding. HAER drawings served as baseline information for the maintenance crews and planners and were used in developing new rehabilitation guidelines and interpretive programs for both the Merritt Parkway and the Columbia River Gorge Scenic Highway. The presence of HAER teams in the summer and the results of their work—drawings, photographs, and histories—made both the public and transportation officials aware of these historic resources.

HAER documentation not only provides specific information on the physical features, but also explains how the road is integrated into the landscape. The drawings and photographs make a compelling argument of how roads enhance the quality of life in our communities and the character of the countryside and cultural landscape.

Educating the Engineers
Preserving our roads and bridges requires the technical expertise of engineers. However, engineers and engineering educators interested in our engineering past are rare. There are many reasons for this but the one most critics point to is the fact that little in engineering education prepares students to deal with issues such as aesthetics, much less the concepts of cultural landscapes, preservation or, for that matter, restoring historic bridges. Some engineering educators have told me that course requirements are already overloaded just to get across the basics of sound engineering. Anything having to do with aesthetics or similar issues must be found outside the engineering curriculum and, most likely, on the student’s own time.

Unlike architectural curriculums that require at least a semester of architectural history, only a few engineering schools offer anything pertaining to aesthetics, the history of engineering, or the humanities. Consequently, it has been difficult to involve student engineers in the Historic American Engineering Record.

In its early years, HAER tried hiring engineering students on its summer teams but found that engineers had limited skills in producing drawings, photographs, or histories. Furthermore, while most engineering students understand structural behavior and are
familiar with the latest computer programs to analyze modern bridges, rarely do they have the background or experience to analyze historic bridges. Pinned connections, built-up sections, and archaic materials such as cast and wrought iron were not taught in building material and structural engineering classes.

As Dario Gasparini, professor of civil engineering at Case Western Reserve University explained: “Most practicing engineers would be hard pressed to answer exactly how old bridges behave much less where to get information on such archaic materials as cast and wrought iron, early steels, and reinforced concrete.” In 1996 Professor Gasparini, who has studied the history of bridges and their engineering, accepted my offer to work with the HAER teams. Under his guidance, carefully selected civil engineering students analyzed historic bridges using contemporary structural programs yet, at the same time, taking into consideration the original parameters under which the bridges were designed and built.

The engineering students added a new dimension to HAER’s historic bridge documentation program. For the first time we were able to say exactly how the bridges were working and reach some conclusions about which bridges were particularly innovative and well designed. I am convinced that in the same way that architects have become seminal to the preservation of historic buildings, engineers will do the same for historic bridges.

More and more bridges are going to be rehabilitated than replaced and several insightful engineering firms already are beginning to stake out expertise in historic-bridge rehabilitation as a part of their everyday practice. Even with the billions available from TEA-21, the current surface transportation bill funding road and bridge projects, there is not enough money in the treasury—federal, state or local—to replace the estimated 250,000 structurally-deficient and functionally-obsolete bridges.

One intriguing lesson learned from our study of park roads was that the close cooperation between engineers and landscape architects pioneering early road and bridge systems resulted in functional and graceful bridges and roadways. National Park Service landscape architects and Bureau of Public Roads engineers developing the first paved roads in the national parks worked closely together.
to perfect these systems. Engineering journals and periodicals published lively discussions about design standards and aesthetics appropriate for road and bridge design. I would like to see a return to this interdisciplinary approach —landscape architects, engineers, historians, and preservationists working together, not necessarily on every project, but certainly the important ones.

Highway officials and bridge engineers have been maligned since the beginning of the interstate era as insensitive to historic bridges, the environment, and the cultural landscape. The vast sums of money allocated to transportation departments is indicative of the power they hold in state and federal governments. However, not all road officials and bridge engineers are evil. Times have changed significantly since the mid 1970s when HAER’s historic bridge program started. Many highway departments are now watching out for environmentally sensitive areas and historic resources. Engineers are becoming interested in their state’s historic bridges. The interstate era is over, and never again will there be the need to build new roads and bridges on the same scale of the last 40 years.

Although new bridges will continue to be built, the rehabilitation of historic bridges is taking priority in some states. It is possible to bring additional excellence to America’s already superb highways by combining new construction while at the same time maintaining that which represents the very best handed down to us from the past so we can pass it on to the future. Saving historic roads and bridges of fine materials, humanly-scaled proportions, notable craftsmanship, and varied textures enhances the quality of life and maintains familiar surroundings. In...
places where it is perceived that historic architectural and cultural resources are lacking, attitudes supporting good design may also be absent. Such values are especially needed in America where we tend to throw away the past, build the expedient, pursue the quick profit and, in the process, trash the countryside. In this age of instant gratification, historic roads and bridges provide a link with the past as well as deeper insights and hope for the future.  

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Notes


As an adjunct to the statewide recording projects, HAER initiated a special project, in cooperation with West Virginia University’s Institute for the History of Technology & Industrial Archaeology (IHTIA), to record the estimated 70 surviving cast and wrought-iron truss bridges, a special category of bridge type built between the end of the Civil War and the introduction of steel in the late 1890s. See Eric DeLony, “Surviving Cast and Wrought Iron Bridges in America,” IA: The Journal of the Society for Industrial Archeology, Vol. 19, No. 2, 1993, p. 17-47.

3 After a pilot survey in Washington that documented a variety of bridges in area parks, the program moved on to Yellowstone in 1989, the Going-to-the-Sun Road in Glacier in 1990, Yosemite in 1991, Mount Rainier in 1992, the Generals Highway in Sequoia and Zion National Park in 1993, Acadia, Grand Canyon,
and Mesa Verde in 1994, Acadia-II, Colo-
nial and Rock Creek Parkway in 1995,
Great Smokey Mountains in 1996, Blue
Ridge, Natchez Trace, and Vicksburg in
1997, Natchez Trace-II, Chickamauga/
Chattanooga, Shiloh, and Gettysburg in
1998, and Baltimore-Washington and
Taconic in 1999. Roads and bridges in
Scott's Bluff National Monument (Neb.),
Wind Cove National Park (S.D.), the
landscape features associated with the
Going-to-the-Sun Road in Glacier
National Park, Rocky Mountain Nation-
al Park, Redwood National Park, Lassen
Volcanic National Park, and the Petrified
Forest are scheduled for recording during
2000.

4 The American Society of Civil
Engineers continuing education depart-
ment offered two courses on historic
bridge rehabilitation in 1999, one in
Boston and another in Chicago.

5 Vermont is a good case in point. In
1996, the Vermont legislature passed
precedent-setting legislation establishing
as policy, the rehabilitation rather
than replacement of bridges on state and
local roads for the purpose of preserving
the magical image that most people have
of Vermont: largely an agrarian landscape
accented by exquisite New England
towns organized around beautiful town
greens. This landscape is also a money
maker. Thousands visit Vermont every
year for the pleasure of experiencing
this landscape, and the permanent
residents appreciate the quality of life
this scale of development and road
construction affords. In recognition of
this unprecedented effort, the Vermont
Agency for Transportation won a
National Preservation Award from the
National Trust in 1997.

6 In recognition of its efforts in
promoting the preservation of historic
bridges over the last 25 years, HAER
received two prestigious awards: the
President’s National Historic Preservation
Award, sponsored by the Advisory Coun-
cil on Historic Preservation under aus-
pices of the White House in 1991, and
the Design for Transportation National
Awards, sponsored by the U.S. Depart-
ment of Transportation and the National
Endowment for the Arts, in 1995.
The Federal Highway Administration (FHWA), a surface transportation agency within the Department of Transportation, has a long history of encouraging, supporting, and funding historic preservation efforts. Following the passage of the National Historic Preservation Act of 1966, which required federal agencies to take into account the impact of their projects on historic properties, the FHWA took several steps to address preservation concerns. The FHWA was among the first federal agencies to develop standardized training in historic preservation through its National Highway Institute in 1976-77. Other early efforts to address preservation issues included developing a manual of mitigation measures for transportation agencies and preservation groups; supporting interagency conferences and workshops on historic preservation matters; and creating award programs to recognize exemplary historic preservation efforts as an important component of FHWA’s mission.

Today, the following historic preservation issues are an important part of FHWA’s work.

Protecting Historic Bridges
In the early 1980s the FHWA encouraged state departments of transportation (DOTs) to identify state-owned bridges eligible for the National Register. Interest in historic bridges grew to the point that in 1987 Congress passed the Surface Transportation and Uniform Relocation Act, which encouraged rehabilitation of historic bridges. This legislation required states to conduct inventories of historic bridges and then seek to donate historic bridges to a responsible party rather than demolishing them.

To find new uses for deficient and deteriorated bridges, FHWA and the state DOTs sought new partners who would accept donated bridges. State and local park organizations were willing recipients, and bridges were placed in public parks on trails or as monuments. The bridge relocation program was not problem free. Often no group could be found that was willing to accept the bridge. The
costs of continued maintenance even for bike and pedestrian use were very high.

As local communities expressed the desire to retain the original rehabilitated bridge, state DOTs increased their efforts to repair older bridges. Innovative techniques to strengthen deteriorated decks were employed in Washington, Virginia, and Pennsylvania in order to retain original bridges in place. Some states tried retaining the original bridge, closing it to vehicular use, and building a replacement bridge next to the original.

The FHWA is looking into ways to better protect historic bridges. A new FHWA study, which will be released this year, will offer guidance on techniques for rehabilitating historic bridges and will provide information on best practices that may be applied across the country.

Involving the Public

The FHWA believes that greater public involvement in planning and developing projects will result in better projects from safety, mobility and environmental perspectives. The agency is taking steps to involve the public in transportation planning through the following programs:

**National Scenic Byways**

The National Scenic Byways Program was established by the Intermodal Surface Transportation Efficiency Act of 1991 and reauthorized in 1998 by the Transportation Equity Act for the 21st Century. The program provides for the recognition of highways that are outstanding examples of scenic, historic, recreational, cultural, archeological, and/or natural qualities by designating them as either National Scenic Byways or All-American Roads. National Scenic Byways possess outstanding qualities that exemplify the regional characteristics of our country, while All-American Roads represent our country’s finest byways. Since the program began, the Secretary of Transportation has designated a total of nine All-American Roads and 44 National Scenic Byways.

The designation program is voluntary and dependent upon the submission of a nomination by states or federal land management agencies. The designation imposes no federal controls on land use or development.

The program provides about $22 million annually (through 2003) in grants to the states for designated roads. Of the eight eligible grant cat-
egories, one is of particular interest to preservationists: “Protecting historical, archeological, and cultural resources adjacent to byways.” For example, grant funds can be used to rehabilitate or renovate a resource specifically for the establishment of a scenic byway interpretive facility and/or an interpretive site; for the restoration of historic features that contribute substantially to the intrinsic qualities of the scenic highway; or for efforts leading to the inclusion of a property (related to surface transportation) in the National Register of Historic Places.

What types of roads are designated? Several nationally designated byways focus on historic or cultural qualities that tell the story of the region or our nation. For example, the Selma-to-Montgomery March Byway (US Route 80) has been designated an All-American Road and a National Historic Trail. This route achieved historic importance as a result of the civil rights movement, specific events that occurred during the march in 1965, and the association with persons important in our history.

Byways also may be designated for their historic engineering qualities. For example, the Columbia River Gorge highway was designed and constructed as a scenic road, striking a balance between engineering, the terrain, and surrounding environs. It was completed in 1922, serving recreational needs as well as commercial trucks hauling agricultural products from the interior of Oregon to Portland. The design of the road and the architectural details incorporated into guardrails, tunnels, and bridges make this an engineering landmark.

The Coal Heritage Trail National Scenic Byway in West Virginia interprets the history and culture of the coal industry and the impact it had on the physical and social environment. Many resources, including coal company towns, tipples, railroad structures, strip mines, and reclamation projects are being transformed into interpretive sites.

The Santa Fe Trail in Colorado and New Mexico was one of America’s first trade routes and a critical route in the westward expansion of the United States. This National Scenic Byway interprets historic sites located along the route such as trading posts, stage stops, graves, and ruins.
Transportation Enhancements

The Transportation Enhancements (TE) program is a federal initiative that focuses on enhancing the travel experience and fostering the quality of life in American communities. ISTEA and now TEA-21 require states to reserve 10 percent of their surface transportation funding for designated transportation enhancements activities. Communities may use the program to restore historic buildings, renovate streetscapes, develop transportation museums and visitor centers, construct sidewalks and bike facilities, and convert abandoned railroad rights-of-way to trails. Many localities also use the program to acquire, restore, and preserve scenic areas.

All TE projects must be one of the 12 activities defined in the law and must relate to surface transportation. A number of eligible activities relate directly to historic preservation, such as acquisition of scenic easements and scenic or historic sites, rehabilitation and operation of historic transportation buildings, structures, or facilities, archeological planning and research, and establishment of transportation museums. Other activities can relate indirectly, for example, bicycle or pedestrian trails or reuse of abandoned railroad corridors that access/cross historic sites can provide awareness of historic properties to a wider variety of users.

Enhancement activities that have involved historic resources include the Thomas Jefferson Parkway (Route 23) in Virginia; the Grafton County Senior Center in Plymouth, N.H.; the Golden Gate Beach Chalet in San Francisco; and the Elizabeth Railroad Station in New Jersey. These innovative projects included improvements for safe pedestrian use, sensitive historic rehabilitation, and adaptive use as a regional senior center/trail rest stop or a lounge/restaurant or active transportation hub.

In King County, Wash., 18 acres of historic and scenic open space, located on a DOT designated heritage corridor, were preserved through an easement to limit development on the Meadowbrook Farm. A similar effort in Richmond, Vt., will preserve historic and scenic views of the Richmond Flats and Monitor Barns landscape.

Most archeological resources are located under ground and out of sight. When these resources are identified early in...
project development they can be avoided or mitigated through appropriate scientific excavation. One example is the Grand Isle archeological exhibit in Vermont. A permanent exhibit highlights both the (pre-European) prehistoric Native American settlement and the early commercial history of Gordon’s Landing.

Transportation and Community and System Preservation Program

Section 1221 of TEA-21 established the Transportation and Community and System Preservation Pilot Program (TCSP), a component of the Administration’s Livability Initiative, which funds projects in communities across America that ensure a high quality of life and strong, sustainable economic growth. The TCSP was authorized at $20 million in FY 1999 and at $25 million per year for FY 2000 through 2003. States, local governments, metropolitan planning organizations, and tribal governments are eligible for TCSP discretionary grants. Eligible activities include planning and implementing strategies to improve the efficiency of the existing transportation system; reducing the environmental impacts of transportation; and examining land use and development patterns and identifying strategies to encourage private sector development that achieves these goals.

Context-Sensitive Design

Context-sensitive design integrates highways and communities. This approach encourages designers to balance the transportation goals of mobility and safety with community values by enhancing and preserving a community’s cultural and natural resources, and at the same time not establishing any new standards or criteria.

Success in context-sensitive design requires an interdisciplinary team and community involvement throughout planning and implementation. With early and continuous collaboration, this team may identify valuable features to incorporate in the project. The cut-and-cover design of I-35 through Duluth, Minn., and of I-10 in Phoenix, Ariz., are examples utilizing the concept of context-sensitive design. In Duluth, designers placed the roadway below the existing ground level and covered it over with a park to save a historic district and to improve pedestrian access to the Lake Superior waterfront.

Five pilot states—Connecticut, Kentucky, Maryland, Minnesota, and Utah—are
working cooperatively with FHWA to incorporate context-sensitive design concepts into their daily activities. The states are developing strategies, tools, and training materials that reflect geographical distinctions. Regional training activities have been sponsored in Connecticut, Maryland, and Kentucky. Training includes not only technical modules, but also communication skills and public involvement techniques.

For three years, the FHWA and American Association of State Highway and Transportation Officials (AASHTO) have been actively implementing context-sensitive design. In 1997, FHWA completed a publication entitled *Flexibility in Highway Design* to help designers and planners develop environmentally sensitive projects. To complement this publication, AASHTO is developing additional chapters dealing with geometric design, environmental design, safety, and liability issues.

**Traffic Calming Initiatives**

The main goal of traffic calming is to increase safety and preserve physical, cultural, environmental, and aesthetic values. With proper choices of materials and design, traffic calming can be compatible in historic districts. When traffic through historic districts is light and slow, visitors and residents experience a feeling of tranquility, safety, and comfort. In many older cities, traffic calming has been used in conjunction with restoration projects and historic trolley bus lines. The combination of transportation, heritage, commerce, and tourism has been effective.

Traffic calming also works for rural historic districts. In a historic rural section of Vermont, slowpoints, gateways, and pavement treatments have been employed to control traffic. Tree-lined medians, raised intersections, and mini-traffic circles are among the measures proposed for a historic section of Route 50 passing through Middleburg, Va.

To help local governments and grass-roots organizations understand how traffic calming can benefit communities, FHWA hopes to strengthen its research initiative and information sharing activities while encouraging communities to assume a role in shaping policy on traffic calming.

**Conclusion**

The FHWA and the National Trust are currently putting finishing touches on the second
edition of Building on the Past, Traveling to the Future, a booklet about transportation enhancement efforts. We hope this issue of the Forum Journal and the second edition of Building on the Past will help transportation officials and preservationists to look to the future and seek common ground. Let us look beyond past mistakes and poor judgment and seek to become actively involved in the transportation planning process at the state and metropolitan levels. Let us use the NEPA process to identify and consider social, economic, and environmental impacts. If we work together we will be able to bridge the gap between preserving the past and living for the future.

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For more information on FHWA programs, visit its website at www.fhwa.dot.gov.
“I Think That I Shall Never See A Billboard Lovely As A Tree....”

Meg Maguire and Frank Vespe

I think that I shall never see
A billboard lovely as a tree.
Perhaps, unless the billboards fall.
I’ll never see a tree at all.
—Ogden Nash

Billboards? I thought Lady Bird Johnson got rid of them.

Think again! If you believe billboards are on the decline you must be from one of the four billboard-free states—Vermont, Maine, Alaska or Hawaii. But if you are from Florida, Minnesota, Missouri, Mississippi or any of the other 46 states that permit billboards, all you need to do is look around to see the damage. Tall, steel mono-poles designed to last forever tower over trees, homes, and businesses, plastering commercial messages against the sky. In 24 states billboard companies can clearcut public trees on public property for private billboard visibility; in at least 34 states, billboards are legally constructed in unzoned rural areas. And at this very moment, billboard operators are probably busy at your state capitol convincing legislators to enact takings legislation to protect billboards from removal.

You are not powerless. There is much that preservationists can do to support billboard reform at the federal level and to ensure that state and local laws support banning the construction of new billboards and then removing old ones.

The Highway Beautification Act

As Americans’ love affair with the car began, so came a huge expansion in our national road system and with it what Reader’s Digest has called America’s most persistent roadside parasite: the billboard. The parasite gave birth to the Outdoor Advertising Association of America (OAAA) in 1925.

But with billboards came opposition to billboards.

By 1913, a women’s group in Hawaii, the Outdoor Circle, had become increasingly disturbed by their husbands’ ugly billboards. Interested in preserving the scenic...
beauty of the islands, the Outdoor Circle organized a boycott of all products advertised on billboards, proceeded to buy out the last billboard company on the islands, and took down all the billboards. Hawaii has prohibited billboards ever since, and the Outdoor Circle remains active to this day, working on a host of scenic conservation issues in Hawaii.

Back on the mainland, billboard opponents were spurred to act in the 1950s by the specter of uncontrolled billboard construction along the thousands of miles of planned interstate highways. After rejecting more far-reaching efforts, in 1958 Congress enacted the Bonus Act, which gave states that banned billboard construction along rural interstates a bonus of 0.5 percent of their federal-aid highway funding allocation.

On January 1, 1959, the billboard-free territory of Alaska joined the nation as the 50th state. Alaskans, fiercely proud of the unique beauty and grandeur of their state, spurred their state legislature to reconfirm the billboard ban in its first session. The state remains billboard-free today.

President John F. Kennedy, speaking to Congress in 1961, encouraged beautification, saying that the interstate system was not intended to provide a large and unreimbursed measure of benefits to the billboard industry, whose structures tend to distract from the beauty and safety of the routes they line.

After Kennedy’s successor, Lyndon Johnson, won reelection in 1964, Lady Bird Johnson, the President’s wife, spearheaded a vigorous campaign to enact tough federal billboard controls. However, a massive billboard industry lobbying effort chipped away at the proposal. When it passed in 1965, Lady Bird Johnson’s Highway Beautification Act (HBA) was hailed as the harbinger of a new conservation movement.
Today, the HBA is a disaster for the American landscape and a dream for the billboard lobby, which proclaims it as a law that works. Foremost among the act's problems were lax controls on new construction that allowed new billboards just about anywhere and an onerous requirement that taxpayers pay cash to remove billboards not conforming to the law—a provision that would lead to even more mischief in 1978.

Still, the HBA's passage did lead some states to take their own action. Vermont had long been concerned with growing visual pollution in the state. A legislative council found that tourists provided the state's second largest source of income and that billboards were not effective at providing tourist information. The state legislature passed a billboard prohibition in 1968, choosing to establish a series of Travel Information Centers around the state to provide needed information. In 1974 Vermont removed its last billboard. Within two years, tourism in the state had risen by a whopping 50 percent.

In 1975, Oregon enacted a statewide cap on the number of billboards, effectively freezing the number of billboards on state and federal roads in the state. Oregon remains today one of our nation's most beautiful and least billboard-blighted states.

In 1977, Maine enacted its Traveler Information Services Act, which is patterned after Vermont's law. It provided for the complete phase-out of off-premise billboards over a six-year period. The media and a group of state dignitaries, including Marion Fuller Brown who had shepherded the law through the Maine legislature, gathered in 1984 to witness the felling of the last two billboards in Maine.

Despite these states' successes, by 1978 only 30 percent of signs not conforming to the HBA had been removed from the nation's roadways at a total cost to the taxpayers of $107.5 million. That same year, Congress allowed the Outdoor Advertising Association of America (OAAA) to leave another mark on the HBA. Congress amended the law by requiring local governments to pay cash compensation to companies for any nonconforming billboards on federal aid highways and roads removed under local laws or ordinances. Shortly thereafter, federal money for the billboard removal program dried up, virtually precluding any more removal of billboards under the HBA.

As a result, it became almost impossible for local and state governments to protect their scenic heritage through the elimination of billboards. A number of billboard opponents, frustrated by the federal government’s failure to control billboards, began to organize in earnest.

Also in 1978, a number of activists formed the National Coalition to Preserve Scenic Beauty, now Scenic America, and by 1982 the organization they founded had incorporated and begun to fight back. Scenic conservationists have made real progress at the state and local level. In 1990, Rhode Island took a key pro-beauty step by stopping any new billboard construction, making it the fifth state, and the first in nearly 15 years, to take such a step.

Meanwhile, many cities and counties have taken the lead on controlling billboards. By 1998, an estimated 1,000 American communities were billboard free, prohibited new billboards, or had tough restrictions. For example, Charlottesville, Va.; Houston and Dallas, Tex.; and Baltimore and Montgomery County, Md., have banned construction of new billboards. Philadelphia, Pa., and Seattle, Wash., have placed a cap on the total number of billboards
allowed in the cities. And cities like Little Rock, Ark., and Washington, D.C., have placed tough restrictions on size, spacing, and location of billboards.

At the federal level, pro-beauty forces have encountered tougher sledding. The U.S. Department of Transportation has consistently shied away from the problem because the billboard lobbyists make life very tough for those that take them on. But looking the other way is inexcusable: the DOT Inspector General’s 1984 report said the HBA “has been ineffective in improving highway beautification as the number of signs located adjacent to the nation’s highways continues to increase... [It has] had little impact on enhancing the scenic and recreational value of highways.”

In 1986, and again in 1991, Scenic America and other scenic advocates made strong but ultimately unsuccessful efforts to reform the HBA. The reform proposals would have prohibited new billboard construction on federal roads and allowed billboards to be removed via any constitutional method.

In 1998, Senator James Jeffords (R-VT), with Representative John Lewis (D-GA), introduced the Scenic Highway Protection Act. This bill brought billboard control and scenic conservation back into the federal spotlight but Congress did not want to include this contentious issue in the Transportation Equity Act for the 21st Century (TEA-21).


Thousands of new billboards are constructed annually. There are at least 425,000 to 450,000 billboards lining America’s federal-aid highways today and that number grows by about 5,000 to 15,000 billboards annually (Congressional Research Service estimate, 1991; and Scenic America estimates, 1997). The maximum allowable number of billboards under the Highway Beautification Act is 21 structures per mile on Interstate highways, 36 structures per mile on rural primary highways, 106 per mile on urban primary highways—more than 10 million nationwide.

Rural and scenic areas are under siege from billboard blight. HBA rules are so permissive that one business in a rural, unzoned area may be surrounded by as many as eight, 1,200-square-foot billboards—the equivalent of two football fields! According to a 1984 U.S. Department of Transportation study, sign companies have resorted to using inactive or sham businesses as the basis for securing the necessary state permits in rural areas.

Thousands of publicly owned trees are clearcut each year to improve the visibility of billboards on private property. The HBA allows billboard operators to come onto the public highway right of way and clearcut public trees to improve the visibility of their billboards. Billboard operators clearcut publicly owned trees at least 1,000 to 2,500 times a year in 24 states. Communities are prohibited from removing billboards on federal-aid highways through the constitutional method.
amortization and must instead pay the billboard polluters cash compensation to remove non-conforming billboards.

Taxpayers must pay to remove billboards. The HBA is the first federal takings law in that it requires taxpayers to pay billboard polluters to remove their nonconforming billboards—those legally erected boards that no longer conform to laws and are targeted for removal—from federal highways. This overrides local control over sign regulation and creates absurd situations.

Few nonconforming billboards are removed, and virtually all conforming billboards remain from year to year. Today, 35 years after the HBA passed, more than 73,000 nonconforming billboards line America’s federal-aid highways. On average, less than .005 percent of the remaining nonconforming boards are removed under the HBA each year. At this rate it will take more than 730 years to remove these boards!

Because of inadequate permit fees, public subsidies to billboard operators total more than $6 million each year. Thirty-seven of 44 states in Scenic America’s 1997 study reported that the costs of their billboard control program outpaced their revenue from billboard permit fees—by a combined total of more than $6 million. Furthermore, billboard operators pay no road user taxes, tolls, or fees, and the public has paid more than $250 million to remove non-conforming billboards.

State DOTs and the federal government often pay little more than lip service to billboard control efforts. According to the U.S. DOT Inspector General (1984), AFHWA monitoring of state outdoor advertising programs has allowed the states to forego resolving known program violations and to become lax in detecting additional violations. Many states have only vague or incomplete statistics.
Reform of the Highway Beautification Act

Preservationists, environmentalists and all who care about the beauty of their communities and countryside need to press their state departments of transportation, the U.S. Secretary of Transportation, and the Administrator of the Federal Highway Administration to enforce rigorously the existing law. And every preservation organization should make sure that the billboard industry does not pass state legislation that hinders the ability of local governments to enact strict billboard controls.

Further, we need to insist that Congress reform the Highway Beautification Act to ensure that it meets its original purposes. The HBA should appear on every list of federal programs that are injurious to our nation’s environment and to the future of sound land use planning. Smart growth proponents in the House and the Senate need to target the HBA as a federal law that hurts, not helps, communities in making sound choices about their future.

Fighting Billboard Blight in Your Community

In spite of the shameful deficiencies of the federal law, there is much that states and local communities can do to enact strict billboard control. Taking your community back from the billboard barons won’t be easy. But with commitment, hard work, and a good plan, you can win and add to the growing list of communities with tough billboard controls.

Step One: Pass a Temporary Moratorium on Construction of New Billboards

Every community working to stop billboard blight should first pass a temporary moratorium on all new billboard construction to make sure that the problem doesn’t get any worse. If billboard companies know that new sign regulations might be passed, they will probably secure as many permits as possible before any change in the law can take place, making the problem worse.

Step Two: Pass a Permanent Moratorium on the Construction of New Billboards

Most communities concerned with billboard blight either have too many billboards altogether or too many billboards in the wrong places. The best solution to either problem is to stop the construction of any new billboards. Your community should pass an ordinance that
simply prohibits new billboard construction. The ordinance should also prevent rebuilding of billboards at existing sites and relocation of billboards to a different site. Such an ordinance ensures that your city will not endure more blight.

**Step Three: Give Your Ordinance Teeth**

It is important to make sure that your billboard ordinance has teeth in it. Some key provisions to give your ordinance teeth include:

- Assess adequate annual permit fees to cover the city’s cost of controlling billboards.
- Enforce your ordinance. Make sure that strict fines are levied for illegal billboards: a fine that, for example, doubles every day will help to reduce the number of illegal billboards, both as a preventive measure and by raising revenue for the local government to enforce billboard control.
- Require that the local government keep a detailed inventory of billboards to help enforcement of billboard control. The inventory should include the location, size, age, and tax status of every billboard in town.

**Step Four: Remove Existing Billboards**

Once you have an ordinance in place that prohibits new billboard construction, you can work on removing existing billboards. The most effective way to do this is by passing an amortization ordinance that requires the removal of all the billboards in your community (or within a particular neighborhood) by a given time, typically five to seven years. Most states allow amortization, and you should pursue this option for billboard removal if amortization is permissible in your state.

As noted above, amortization is prohibited along federal highways by the Highway Beautification Act. Thus, if you hope to remove billboards along federal highways, you must pay cash for them. There are funding sources available to you, among them federal transportation enhancements and, if the road is a scenic byway, scenic byways funds.

Another method of reducing the intrusiveness of billboards—and one that is acceptable along federal-aid highways—is to require that, after a certain number of years, all billboards in your community be no larger than a specified size, say 75 square feet. Cities like Denver and Tucson have successfully used downsizing as a way to reduce the size and intrusiveness of billboards.
A Final Word

Here are 10 reasons that preservationists should work to control billboards:

1. Billboards are a form of pollution — visual pollution.
2. Billboards are out of place in most locations and, thus, make one place look like any other.
3. Billboards are unavoidable ambush advertising.
4. Billboard companies are selling something they don’t own — our field of vision.
5. Billboard operators completely fail to police themselves or exercise restraint in their location of billboards or in the messages they carry.
6. Billboards are targeted at low-income, minority neighborhoods.
7. Billboards are the medium of choice for alcohol, strip joints, and casinos.
8. Billboards are both a cause and a symptom of unplanned sprawl development and urban blight.
10. Billboards are ineffective and unnecessary in an age of Internet information.

Remember this: While change is inevitable, ugliness is not!

Meg Maguire is president of Scenic America and Frank Vespe serves on its Board of Directors. For additional information contact Scenic America, Suite 300, 801 Pennsylvania Ave., SE, Washington, DC 20003 or visit its website at www.scenic.org.