Aesthetics in the Landscape

How Nevada and Other States Are Integrating Aesthetics into Transportation Projects

JAMES L. SIPES AND RON BLAKEMORE

Arlee is a small town located on the Flathead Indian Reservation in the sprawling Mission Valley of western Montana, with breathtaking views of the Mission Mountain Range to the east. About half of the 600 residents of the town are Native Americans, for whom the Mission Range has cultural significance.

For all residents, Arlee is a great place to live, with one small problem—the town is split by U.S. Highway 93, a major north–south highway providing access to Flathead Lake and Glacier National Park. The highway is one of the most unsafe in the state because of the volume and the speed of the traffic. A popular local bumper sticker reads, "Pray for me, I drive 93!" School children are bused from one side of town to the other because walking across the highway is unsafe.

Communities across the country are addressing the negative effects of highways. In Maryland, residents of Paynesville are concerned that a new four-lane highway through town would be too congested and too disruptive (*1*). The Amish community in central Indiana objected that a proposed new highway, I-69, would bisect Amish farms and church districts, and would cut off members of the community from each other (*2*).

Thinking Beyond Pavement

In 1998, as the state of Nevada considered the design of the I-580 freeway between Reno and Carson City, Susan Martinovich, then Deputy Director of the Nevada Department of Transportation (DOT), attended the "Thinking Beyond the Pavement" conference in Maryland.

"The conference was the prelude to what is now known as context-sensitive solutions," she recalls. "It changed my perception of how highways could be designed to have a better fit with their environment." Martinovich brought back the concepts for consideration and implementation on the I-580 project.

Sipes is a landscape architect and Founding Principal, Sand County Studios, Stanwood, Washington, as well as Senior Associate with EDAW, Atlanta, Georgia. Blakemore is Supervising Landscape Architect, Nevada Department of Transportation, Carson City.

PHOTO: DESIGN WORKSHOP

This bridge on I-70 near the Continental divide in Colorado was constructed without center piers to frame the view of the mountain range beyond.

At about the same time, Nevada Attorney General Frankie Sue Del Papa proposed a program to plant 2,000 trees in the year 2000. The highway right-of-way was a good location—the land was state-controlled, the problems would be minimal, and the effect would be public. Del Papa enlisted the expertise of Professor Mark Hoversten, head of the landscape architecture program at the University of Nevada–Las Vegas (UNLV).

At the same time, the citizens of Carson City saw plans for a new freeway to bypass the congested downtown. The proposed Carson City bypass, however, included freestanding walls that would block views of the surrounding mountains, did not remedy the split already felt in the community, and included bridges and other improvements lacking in visual quality. Local citizens petitioned the state to improve the aesthetics to make the freeway community-friendly.

Unifying Strategy

These separate initiatives began to come together—an engineer with a new design method, a plan to plant trees, a citizenry with new priorities and an awareness of what could be, and a professor with a creative approach to highway landscape and aesthetics. Nevada DOT decided to build on the momentum and to develop a strategy to include context-sensitive design methods in transportation projects.

The agency hired Hoversten to lead a team of landscape architects and Nevada DOT engineers to conduct a study that contributed to the development of a comprehensive guide, *Pattern and Palette of Place: A Landscape and Aesthetics Master Plan for the Nevada State Highway System* (*3*). The master plan set a new standard for the aesthetic quality of all transportation projects within the state.

Aesthetic Highways in Other States

In 1997, the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO) published *Flexibility in Highway Design*, a companion guide to the AASHTO Green Book, which covers the geometric design of highways and streets. The premise is that design plays a major role in enhancing the quality of communities (*4*). The introduction of context-sensitive design and context-sensitive solutions by FHWA has helped promote the idea of designing safe transportation solutions in harmony with communities (*5*).

The Thinking Beyond the Pavement workshop focused on context-sensitive design and explored ways to integrate highway projects with communities and natural resources while still maintaining safety and performance goals. Maryland DOT, AASHTO, FHWA, and the Maryland State Highway Administration (SHA) cohosted the workshop (*6*).

The Maryland SHA Office of Environmental Design works to incorporate environmental design into highway planning by addressing wetland mitigation, stream restoration, sound barriers, streetscapes, highway landscaping, rest areas and welcome centers, greenways, scenic byways, trees and forest conservation, and highway aesthetics. The office comprises three divisions responsible for (*a*) wetland mitigation, stream restoration, and applicable environmental regulations; (*b*) reforestation and tree preservation, turf management, roadside maintenance, and wildflower programs; and (*c*) the development of concepts and designs for landscape architectural projects.

For the Nevada project, UNLV analyzed 32 state

programs, including those in Florida, Maryland, Massachusetts, New Jersey, Ohio, Texas, Arizona, and California, and found a variety of approaches. Some states take a general, broad-brush approach; some are developing detailed design standards; and others focus on design solutions at the local level (see sidebar, page 6). UNLV identified five states with programs similar to what Nevada was trying to do: Arizona, California, Minnesota, New Jersey, and Washington. The five states had developed comprehensive approaches to managing roadside activities, addressing a range of topics and presenting the information in easy-to-access formats.

Aesthetics in Nevada

Although an aesthetics manual had been introduced in Nevada in 1968, the approach was not enforced and had little impact on the design of highways and adjacent lands. A lack of dedicated funding and public support contributed to the program's lack of success. Policies addressed specific purposes, such as enhancement and betterment projects; erosion control; replacement after construction; landscaping for safety and for rest areas, buildings, and facilities; and reclamation. Unless identified under one of these categories, aesthetic improvements to the landscape were not an integral part of the highway planning or engineering. Project funding did not adequately support aesthetic improvements.

Many U.S. roads were designed with the utilitarian approach that characterized the World War II years—the emphasis was on safety and operations, to move as many vehicles as possible. Aesthetic issues often were limited to those directly related to a highway structure, such as an overpass or a noise wall. Until recently, some states—like Nevada—still followed that approach. In an effort to keep up with the pace of development, Nevada DOT has worked to build as much road as was possible, meeting the goals of safety and cost-effectiveness. This approach produced projects such as the Carson City bypass.

Master Plan

The rapid expansion of population in Nevada has increased transportation needs and stimulated interest in doing more than building as much roadway as possible. In May 2000, the State Transportation Board and Nevada DOT embarked on a master plan to define a vision for landscape and aesthetics in the state. The agencies contracted with the landscape architecture program at UNLV, which already had been working across the state on a range of community-oriented planning projects.

"The original concept was to design every highway in the state, but it did not take long to realize that we needed policies, procedures, and funding," Hoversten recalls. "The first master plan became a mechanism to start an entire program."

The *Landscape and Aesthetics Master Plan* developed by UNLV established a vision, policies, procedures, and guidelines for Nevada's highway system. It also defined a planning process for future projects and emphasized the need to conserve water in arid places, to adapt designs to the varied ecosystems within the state, to build more sustainable projects, and to celebrate the people and places of Nevada.

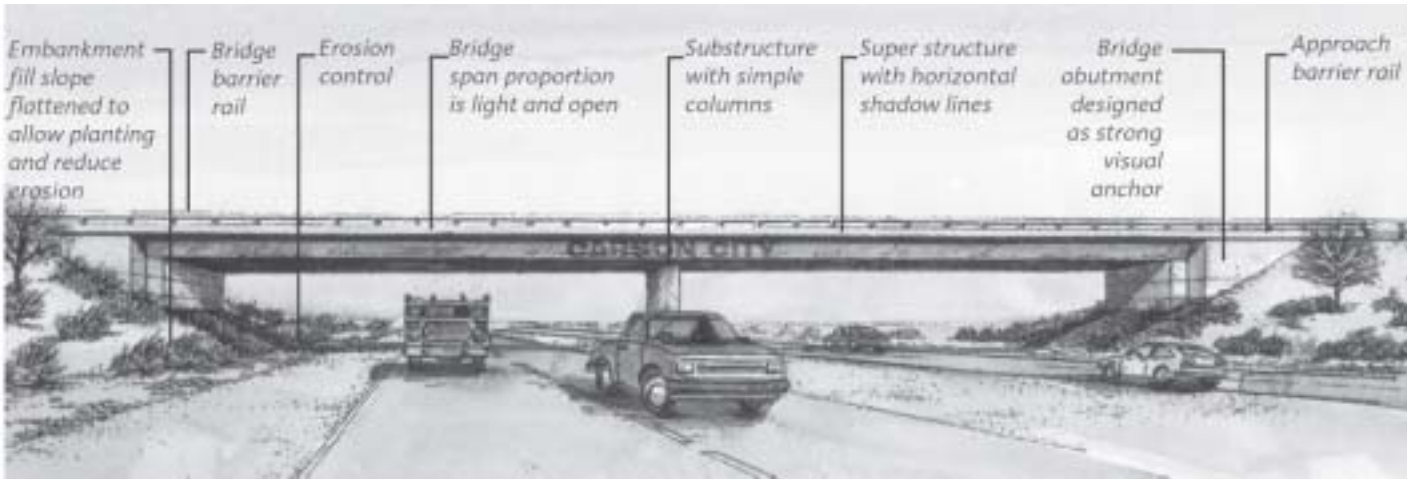
"The UNLV master plan clearly stated the vision and put in place the mechanisms necessary to carry out the whole program," notes Rand Pollard, Assistant Chief Roadway Design Engineer, Nevada DOT. The plan convinced the state legislature to authorize funds for startup, for community matching fund and transportation art programs, for continuation of long-range planning, and for the necessary staffing.

The master plan outlined a policy of integrating aesthetics into the design of all of the major highway projects in the state and provided a blueprint and a framework for Nevada DOT and the citizens of

PHOTO: D. A. HORCHNER, DESIGN WORKSHOP

The drainage system at the Rocks at Pinnacle Peak, Phoenix, Arizona, served as a model in the Nevada corridor plans for an alternative way to deal with drainage. The rock bed reduces erosion, allows some water to infiltrate, and reduces the velocity of runoff; the naturalized channel design and infiltration methods enhance the visual appearance of the highway.

The master plan's design guidelines for bridge structures integrate landscape and aesthetics at the outset; this sketch illustrates preferred landscape and aesthetic treatments that improve the appearance of a bridge.



CREDIT: DESIGN WORKSHOP

Highway Aesthetics Initiatives

A Sampler

Many states are at work to create highways that are more community-friendly:

◆ **Arizona** has implemented landscape design guidelines for urban areas, freeway mitigation and enhancement, erosion and pollution control, integrated natural resource management, and urban forestry. Some cities are requiring a more detailed look at highway aesthetics; for example, Scottsdale advocates planning and design in accord with "character areas," to maintain the visual character of the city (*1*).

◆ **California** has developed and organized a system for planning and designing landscape and aesthetic improvements. California DOT (Caltrans) has been a leader in incorporating aesthetics and environmental planning into highway projects. Caltrans has implemented programs that create context-sensitive highway designs, use native plant materials, incorporate transportation art and aesthetics into highway structures, and ensure consideration of community values along with safety, economics, and mobility. The state's *Highway Design Manual* includes sections on landscape and aesthetics, and the landscape architecture program provides direction and coordination for context-sensitive solutions; training development; erosion control and highway planting policies, standards, and guidelines; landscaped freeway designations; roadside management; and research and new technology (*2*).

◆ **Michigan** DOT's *Aesthetic Project Opportunities Inventory* lists approximately 2,000 opportunities for improving the visual quality of the environment along state highways. The inventory identifies eight types of aesthetic projects: landscape treatment opportunities, streetscaping opportunities, site or corridor management plans, scenic easement acquisitions, scenic turnout sites, structure removal or improvements, vegetation management opportunities, and landform improvements (*3*). Communities, agencies, and other stakeholders also use the inventory. Michigan DOT, however, does not guarantee financial support for implementing aesthetic opportunities.

◆ **Minnesota**'s *Highway Project Development Process* provides technical guidance on subjects such as vegetation, visual quality, noise, and soils (*4*). Another document defines the state's vision for addressing landscaping and aesthetics through case studies from the past 25 years and describes 10 characteristics that contribute to noteworthy environmental effects (*5*).

◆ **New Jersey**'s *Landscape and Urban Design Unit Procedure Manual* integrates landscape and aesthetics with highway design, community participation, and construction. The manual includes checklists and forms for plan reviews, landscape design, soil erosion and sedimentation, noise barrier aesthetics, wetlands design, final plan review, and monitoring scenic lands (*6*).

PHOTOS: KENTUCKY TRANSPORTATION CABINET

Kentucky Transportation Cabinet integrated aesthetic considerations into the design of the Paris Pike, which runs through horse country between Lexington and Paris. The roadway was expanded from two to four lanes for 12 miles (photo, opposite page, above right). *The realignment avoided historic properties, including stone fences* (photo, opposite page, below right)*; incorporated steel-backed timber guardrail for aesthetics and safety* (photo, above)*; and stripped, stockpiled, and restored the original topsoil, among other preservation measures.*

◆ **Ohio** DOT's design standards and guidelines incorporate patterns, colors, texture, and landscaping to increase the visual appeal of highways, noise barriers, and bridges for motorists and residents (*7*). The agency estimates that the cost for improved aesthetics amounts to less than 1 percent of a project's total cost. Ohio DOT's Gateway Landscaping Program helps towns and cities improve landscaping along the highways leading into their communities. The $500,000 set aside for the program is funded by Federal Transportation Enhancement Funds (*8*).

◆ **Texas** DOT addresses the visual characteristics of highways in the *Landscape and Aesthetics Design Manual* (*9*), which describes aesthetic approaches for highway design and provides general guidance on the applications. A supplement, *Develop Cost-Effective Plans to Add Aesthetically Pleasing Features to Transportation Projects*, guides Texas DOT designers and consultants in developing and constructing aesthetic treatments. *Aesthetics in Transportation Design* illustrates the

range of aesthetic opportunities and alternatives for transportation enhancements, with color photographs of completed projects (*10*).

◆ **Washington** State's *Design Manual* presents policies, procedures, and methods for developing and documenting design improvements to the transportation network (*11*). Seattle is developing plans to replace the Alaskan Way Viaduct, a 3.5-kilometer (2.2-mile)-long highway along the west side of the city, parallel to the Puget Sound shoreline, with a new underground highway. The areas above the proposed highway would include public spaces and development connecting Seattle to the waterfront. The viaduct project is controversial, partly because of a $4.1 billion price tag (*12*).

Many DOTs consider aesthetics in roadway design at the local level. For example, the **Kentucky** Transportation Cabinet (KTC) spent $70 million to design and construct the 19-kilometer- (12-mile)-long Paris Pike to fit comfortably into the surrounding horse country. Initially proposed in 1966, the project met resistance from stakeholders who believed it would destroy the road's rural beauty and historic significance. Construction finally began in the mid-1990s after KTC adopted a more context-sensitive design approach (*13*). Experts in highway design and landscape architecture have hailed the Paris Pike as a model of highway design and historic preservation.

—James L. Sipes

References

1. *General Plan: Environmental Design Element*. City of Scottsdale, Arizona, 1992. www.ci.scottsdale.az.us/generalplan/library/3environmental.pdf.
2. *Highway Design Manual*. California Department of Transportation, 2001. www.ca.gov/hq/oppd/pdpm/chap_htm/chapt29/chapt29. htm.
3. *Aesthetic Project Opportunities Inventory*. Michigan Department of Transportation. http://mdotwas1. mdot.state.mi.us/public/apoi/.
4. *The Highway Project Development Process: A Project Manager's Guide*. Minnesota Department of Transportation. www.dot.state.mn.us/tecsup/xyz/plu/hpdp; www.dot.state.mn.us/environment/research/environmental_design.html.
5. Bradley, S. D. *25 Years of Advocacy for Excellence in Transportation and Environmental Design: A Minnesota Department of Transportation Case Study*. Minnesota Department of Transportation, 2001.
6. *Landscape and Urban Design Unit Procedure Manual*. New Jersey Department of Transportation Division of Design Services Bureau of Design Support Engineering, August 2000.
7. Governor Announces ODOT Design Aesthetics Initiative. Press Release, Ohio Department of Transportation, December 10, 1999.
8. *Gateway Landscaping Program*. Ohio Department of Transportation. www.dot.state.oh.us/dist11/gateway.htm.
9. *Landscape and Aesthetics Design Manual*. Texas Department of Transportation. http://manuals.dot. state.tx.us/dynaweb.
10. *Aesthetics in Transportation Design: Color and Texture Alternatives*. Landscape Design Section, Design Division, Texas Department of Transportation, Jan. 22, 2001. www.dot.state.tx.us/insdtdot.orgchart/des/landscape.
11. *Design Manual*. Washington State Department of Transportation, August 15, 2001. www.wsdot.wa.gov/eesc/design/policy/DesignManual.htm.
12. Anderson, P. Tunnel to Replace Seattle Viaduct. *The News Tribune*, Dec. 7, 2004.
13. *Paris Pike Officially Complete*. Kentucky Transportation Cabinet. http://transportation.ky.gov/enviroach/parispike.htm.

CREDIT: DESIGN WORKSHOP

Proposed design for a sound wall along approximately 305 meters (1,000 feet) of a Nevada highway corridor. Characteristics include staggered wall planes, landscape planting in front of the wall face, and patterning on the wall face.

Nevada to turn their vision into a reality. Nevada DOT and UNLV completed the master plan in 2002, and the State Transportation Board adopted it as policy. Nevada DOT immediately began implementing the policy by establishing a landscape architecture program.

Nevada DOT staff manages the planning and design, hiring consultants or preparing the plans in-house. A team of professional landscape architects and engineers prepares landscape and aesthetic plans to implement the concepts. The master plan had specified four distinct phases: master planning; corridor planning; project design; and construction, operations, and maintenance. Each level or phase added detail to the preceding phase.

Corridor Plans

Corridor planning determines the design segments for each corridor—areas with common characteristics such as topography, plant communities, urban development, culture, and history. Objectives, themes, a program of development, and priorities are established for each design segment. Corridor plans provide design guidance for the day-to-day decisions on each project.

Each corridor plan includes final recommendations and a detailed vision for the landscape and aesthetics. The vision takes into account the historic, current, and future conditions, and synthesizes the information into a comprehensive guide for improving the corridor's visual character. The corridor plans also identify major design themes and materials to determine the landscape and aesthetic recommendations for each project.

The corridor planning has been completed for three of Nevada's 11 corridors, and three others are in progress. The first phase targeted three high-priority corridors along Nevada's Interstates—the Interstate 15 corridor that includes Las Vegas, the Interstate 80 urban corridor that includes Reno and Sparks, and the Interstate 80 rural corridor east of Fernley.

PHOTO: D.A. HORCHNER, DESIGN WORKSHOP

The revegetative palette of the Nevada master plan includes native plant materials, as well as regionally adapted trees, shrubs, and other materials for diversity. Recommendations for creating a sustainable highway environment emphasize the use of plants that do not require supplemental water. Water conservation—efficiency, protection, and reuse—is a central concept.

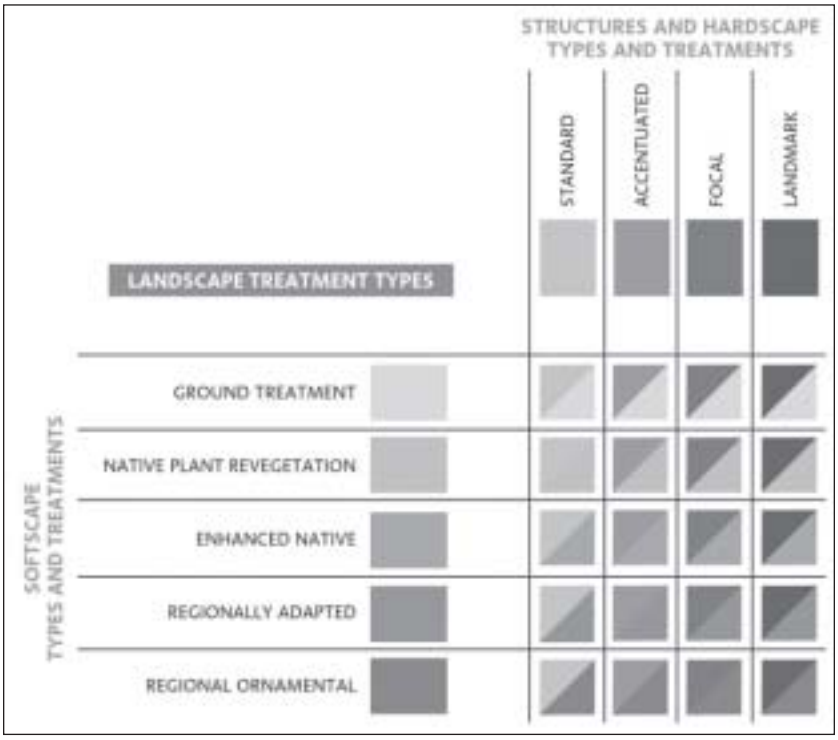
The initial planning for each corridor focuses on producing an inventory of data, including history, settlement patterns, anticipated urban changes, travel and tourism, natural resources, wildlife habitat, "viewsheds" or the visible area, the landscape character, and applicable Nevada DOT standards and practices. The design team bases recommendations about landscape and aesthetics on valid engineering practices.

The corridor plans define landscape types and a hierarchy of treatment levels that Nevada DOT can apply to landscape segments with common characteristics. The corridor plans serve as the foundation for all discussions about what happens along a particular section of highway. The treatments are arranged in a matrix from standard approaches to landmark approaches for the most striking and memorable landscape segments. Each level consists of combinations of treatments for softscape features—such as trees, shrubs, perennials, grasses, and ground treatments—and for hardscape features, including bridges, retaining walls, acoustic walls, pedestrian crossings, railings, barrier railings, lighting, and transportation art.

For example, the matrix that describes the treatment for the segment of Interstate 15 along the Las Vegas Strip is called "Dynamic Desert Metropolis."

"The longitudinal section for the location has the theme, 'Flamboyant Resort Corridor,' with a softscape treatment of 'Regional Ornamental' and hardscape treatment of 'Landmark,'" notes Lucy Joyce-Mendive, Nevada DOT Senior Landscape Architect. "The matrix offers specific information for each—the softscape includes a high diversity of plants, taller and denser, and in patterns that have cultural meaning. The hardscape calls for the most enhanced structures that require extensive aesthetic treatments and one-of-a-kind surfaces with special lighting and transportation art."

The corridor plan includes extensive photographic examples of the treatments to guide the designer and to provide direction for the engineers.



CREDIT: JONES & JONES–DESIGN WORKSHOP

Matrix of possible combinations of four landscape types and five treatments in Nevada's master plan. Separately, or in combination, the treatments are used to establish a design character for each corridor.

Project Design

During the project design phase, Nevada DOT selects projects for site-specific planning. These projects will change the visual quality of the residential neighborhoods and will add bicycle trails, parks, other green space, trees, public art, and enjoyable driving experiences. The projects also will promote tourism by protecting natural resources and by connecting visitors with local people, places, events, and community stories.

One of the first site-specific aesthetics projects was the central Las Vegas Spaghetti Bowl Interchange, a $92-million, three-year reconstruction of the junctures of I-15, I-515, and U.S. 95. Nevada DOT completed the Spaghetti Bowl Interchange in 2000, six months ahead of schedule. The original

PHOTO: DESIGN WORKSHOP

PHOTO: DESIGN WORKSHOP

Two examples of the enhanced native softscape, which provides greater coverage and plant densities, including adapted trees, along with scattered native rock mulch; special ground treatments are included for drainage and erosion control.

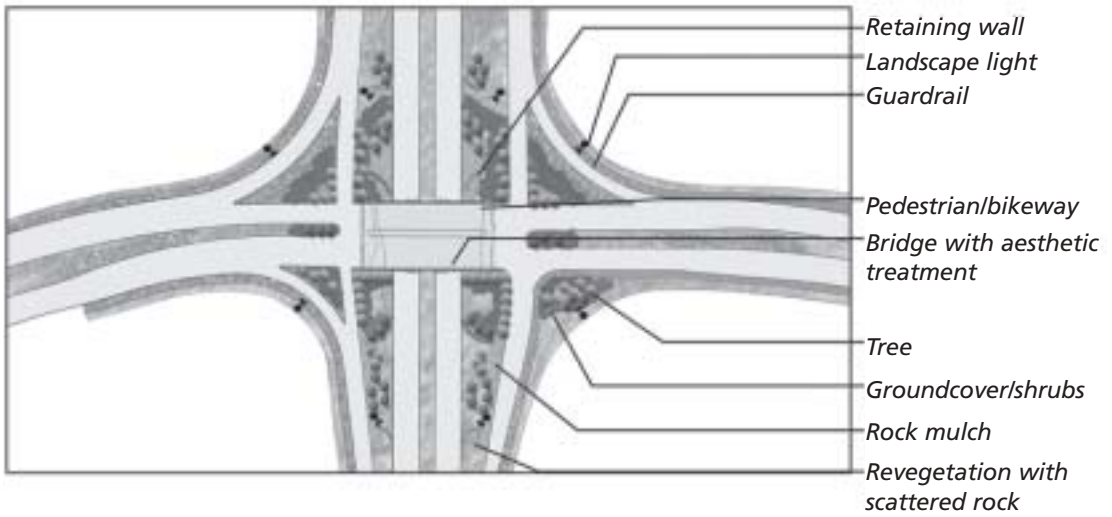
Photo: Design Workshop

Landscape planting along a median right-of-way.

construction did not include aesthetics or landscaping—although functional, it was not visually appealing. In 2004, Nevada DOT applied the corridor plan for I-15 to make new aesthetic and landscape improvements to the interchange. The result has been the most popular highway improvement in Southern Nevada.

"We are engaging Nevada's citizens throughout the design process," former Nevada DOT Director Jeff Fontaine observes. "The planning includes cities, politicians, special interest groups, and a range of ordinary citizens to ensure that the highways reflect the state's distinctive heritage, landscape, and culture."

More projects are under way, such as the St. Rose Parkway Interchange, a dry native landscape enhanced with bold graphics and colorful symbols imprinted in concrete; the water harvesting test areas along I-15 south of Las Vegas; the Nevada Gateway and rest stops on U.S. 95 south, with views, water harvesting, and solar power; and the



Credit: Design Workshop

The Nevada DOT master plan developed designs for hardscape treatments on prototypical interchanges, along with cost estimates for each level of treatment; shown here is the regionally adapted softscape type.

Henderson city gateway near Las Vegas, with sculpture, cast concrete images, plantings, and colorful stone ground art.

One of the most interesting and challenging projects is a segment of the I-15 freeway in Las Vegas, north of the Strip. Project Neon includes less than 3 miles of replacement freeway but will cost more than $1 billion. Already one of the nation's busiest roadway sections, its projected average daily traffic in 2030 will exceed 500,000 vehicles. Project features include 30 bridges, several braided ramps, pedestrian and bicycle accommodations, and multilevel roadways with retaining walls more than 50 feet high.

Because of the limited right-of-way and the extreme levels of traffic, the landscape and aesthetic treatments aim for a carefully controlled continuum that avoids the distraction of feature objects. Still in the conceptual stage, Project Neon will require new techniques, innovative uses of new and old materials, and a design that reflects the culture, the people, and the places of Nevada.

Construction, Operations, and Maintenance

The members of the design team are attentive to construction and maintenance concerns, such as the lifecycle costs of each project. The team has prepared detailed cost estimates for each combination of softscape and hardscape for the prototype designs of each landscape segment, working from data collected by UNLV, Nevada DOT, local engineering and landscape architecture firms, contractors, and product manufacturers.

A separate UNLV report examines long-term maintenance costs, such as graffiti removal, pruning, and irrigation. UNLV is developing a technical support document analyzing the day-to-day program work needed to manage a project.

The matrix of treatment combinations also was valuable in estimating long-term maintenance costs, because each hardscape and softscape element could be analyzed for the maintenance required; this allowed Nevada DOT to develop a maintenance demand analysis. The analysis in turn led UNLV to produce a *Landscape and Aesthetics Maintenance Cost Manual*. In preparation is a cost-tracking system that will allow maintenance and operations to improve budgeting and planning for staff needs.

"The funding for corridor planning for the first 5 years of the program was identified in the master plan," Hoversten notes. "Most research indicates that it takes 7 to 10 years to change institutional culture—but institutional culture will follow after the program is set up. With the amount of construction going on, we had to get the program in place."

The master plan requires that up to 3 percent of the state's construction budget for new and capacity improvement projects be used to implement landscape and aesthetic treatments. New construction and capacity improvements, however, were concentrated in the two metropolitan areas around Reno and Las Vegas. A retrofit program was created, therefore, to enable rural areas to take advantage of the landscape and aesthetics treatments. The state set aside $2 million annually for the retrofit of landscape and aesthetic improvements to rural highways, and local communities have contributed matching funds.

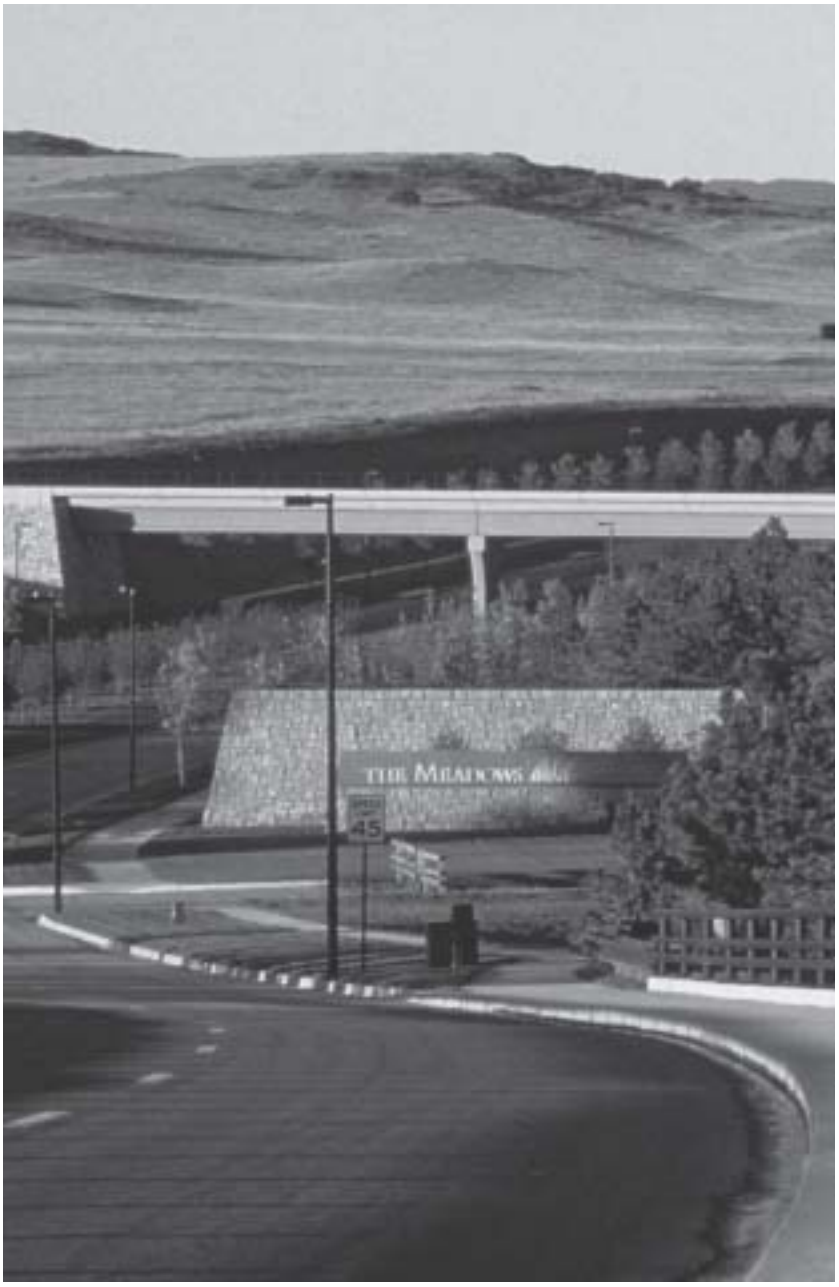


PHOTO: DESIGN WORKSHOP

Nevada DOT's corridor plans emphasize integrating landscape and aesthetics at the outset of projects to create context-sensitive solutions, so that the roadway and its facilities blend into the surrounding landscape.

Public Involvement

Implementation of Nevada's *Landscape and Aesthetics Master Plan* is still in the beginning stages, but the plan's impact will be dramatic. The corridor planning process calls for public participation through outreach meetings, community workshops, newsletters, and the establishment of a website. Nevada DOT has held meetings to solicit information, local knowledge, and ideas from the public.

Technical review committees of key stakeholders and representatives of public agencies and organizations also have conducted regular meetings. The committees have served as a conduit for local communities to become involved in the planning process.

Early in the corridor planning, rural communities expressed concern that Nevada DOT was not addressing local issues. In response, Nevada DOT developed several key components to promote local communities to tourists traveling through rural areas—such as community gateways, promotional radio broadcasts, place name signage, roadside rest opportunities with a focus on the communities, and several other initiatives.

Dynamic Partnership

The state has gained not only a new, comprehensive approach to highway design but also a greater awareness and understanding of how highways should be designed. Embracing landscaping and aesthetics as a critical part of the planning process has required a change in the agency's culture, and the evolution continues. But the change has been rapid, with the landscape and aesthetics program merged into the full highway planning and design effort after only three years.

Nevada's landscape and aesthetics master plan has been successful because of the dynamic partnership between Nevada DOT and other state agencies, UNLV, and policy makers who are committed to building improved highways. The plan will be the primary management tool that guides funding allocations, appropriate aesthetic design, and the incorporation of highway elements that uniquely express Nevada's landscape, communities, and cities.

"We have learned a lot in the last few years and we are continuing to learn—we are going to continue to make our roads fit better with the environment," says Pollard. "Everything we are doing today will have an effect for the next 50 years on how highways are developed."

PHOTO: DESIGN WORKSHOP

The Truckee River corridor and adjacent vegetation patterns provide scenic interest for motorists traveling along I-80 in western Nevada.

PHOTO: DESIGN WORKSHOP

A technical review committee, representing local interests and a range of stakeholders, reviews plans for I-15. Nevada DOT has fostered extensive public dialog at every stage of planning and development; committees like this have helped shape corridor plans.

Related Websites

Nevada DOT Corridor Plans
www.ndothighways.org

Nevada Landscape and Aesthetics Master Plan
www.ndothighways.org/MasterPlan-July3.pdf

References

1. Jacobson, M. Highway 23 Study Draws Comments at Public Hearing. *Paynesville Press*, July 6, 2005.
2. Amish Speak Out to Stop I-69 Highway. (Sept. 29, 1998.) *I-70 and US 41: The Common Sense Route for I-69 Between Evansville and Indianapolis*. www.commonsensei69.org/pressrealeases/pressrelease09-28-98.htm.
3. *Pattern and Palette of Place: A Landscape and Aesthetics Master Plan for the Nevada State Highway System*. Nevada Department of Transportation, June 2002.
4. *Flexibility in Highway Design*. Federal Highway Administration, U.S. Dept of Transportation. www.fhwa.dot.gov/environment/flex/.
5. Peaks, H., and S. Hayes. Building Roads in Sync with Community Values. *Public Roads*, March–April 1999. www.tfhrc.gov/pubrds/marapr99/flexdsgn.htm.
6. *Context-Sensitive Design: Thinking Beyond the Pavement*. Maryland State Highway Administration, Maryland Department of Transportation. http://www.sha.state.md.us/Events/oce/thinkingBeyondPavement/thinking.asp.