

**Pattern and Palette of Place:  
A Landscape and Aesthetics Master  
Plan for the Nevada  
State Highway System**

**July 3, 2002**



**Kenny C. Guinn**  
Governor



**Tom Stephens, P.E.**  
Director

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**Facing page: the Nevada State Capital  
along US 395 in Carson City.**

# A Message From the Governor



Highways are among the most visible artifacts of our civilization. Our highways give form to our communities and impact us every day of our lives. They connect us to each other and to the place we have chosen to call home. They welcome our guests upon arrival and send them on their way when they leave. Because they affect our ecosystems and the way our neighborhoods and places of business connect to each other, they influence the quality of life of every citizen in the state.

The goal of this *Master Plan* is to establish a landscape and aesthetics program for the Nevada state highway system. The program will provide a vehicle for NDOT and Nevada's communities to improve the quality of life in the state by allowing us to beautify highways, improve the state's public image, welcome visitors, and contribute to a tourist-based economy. With careful attention, the landscape and aesthetics program can create highways that celebrate the state's many beautiful landscapes, as well as its diverse populations.

Kenny C. Guinn, Governor





# **A Message From NDOT**



Desert National Wildlife Range, Clark County.

**Aesthetics in highway construction, including landscaping, have had trouble competing for funding in the nation's fastest growing state. We need to establish an affordable level of investment in aesthetics and maximize the use of that scarce funding in a manner compatible with community values and Nevada's environment. This Master Plan, coupled with project-specific public consultation, will provide us with the needed guidance to improve the appearance of Nevada's highways to reflect the beauty and the people of Nevada.**

**Tom Stephens, P.E., Director**





# Quotes from Nevada Residents

Highway improvements, which may seem superficial to some, could do much to make this a nicer place to live and enhance Nevada's image to the many tourists that visit.

*R.L. Riemer, Las Vegas*

I think it is most important to not copy designs that were developed for another place, but rather look at the local context to draw design ideas and solutions.

*B. Santner, Reno*

At the Nevada Shade Tree Council, our... emphasis is on encouraging tree planting and landscaping within the cities, because it ... means so much to have greenery around you... people have a lot more pride in where they live... it just enhances life all the way around.

*Linda Stahl, Elko, member of  
the Nevada Shade Tree Council*

I really think [the landscape and aesthetics program] is great. It's about time we did this. I think it will make a lot of difference in people's land values and quality of life, and I think it's high time people started paying attention.

*Bill Rowe, Boulder City*

I strongly believe that landscaping makes a solid impression and a statement about the well-being of our State.

*M. Mazzaferri, Sparks*



View from SR 228, Elko Co.

# Acknowledgements

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# How the Master Plan was Developed

In May 2000, the State Transportation Board and the Nevada Department of Transportation (NDOT) embarked on a master planning process to create a vision for our state highway system and to satisfy a need for improved landscape and aesthetic policies, guidelines, practices, procedures, and standards.

In October 2000, a broad-based citizen's advisory committee was formed to provide master plan guidance and direction, and to make policy and procedural recommendations to the State Transportation Board.

In July 2001, the University of Nevada, Las Vegas (UNLV) signed an interlocal agreement with NDOT to research highway landscape and aesthetics programs across the nation, to facilitate the planning process, and to prepare a master plan for the state highway system. At the same time the University of Nevada, Reno (UNR) began development of detailed guidelines and standards for revegetating our roadsides with native plants.



SR 593 (better known as Tropicana Avenue) and Las Vegas Boulevard are examples of city streets that are part of the State highway system.



**US 95 bridge over the Colorado River, looking west from Bullhead City, Arizona, to Laughlin, Nevada.**

**Opportunities for public involvement included public meetings in Elko, Las Vegas, Reno, and Sparks. Written comments were accepted throughout the master planning process.**

**The result is a landscape and aesthetics program that will systematically integrate landscape and aesthetics, capacity design, and state-of-the-art-engineering. It draws on experience from all fifty states, as well as NDOT's own projects. It allows us to link our people, our resources and our communities in safe and creative ways.**

**The resulting highways will represent a combination of good engineering design, good landscape design, and community involvement.**



# **Section 1: The Vision**

**This section presents the vision and policies that guide the landscape and aesthetics program.**



Desert Inn overpass on I-215.

**" Simple things like the pink desert color scheme and replica petroglyphs on the Summerlin ... overpasses subtly impart a message ... that the people who live in this state appreciate the heritage and beauty of the place in which they live."**

***R.L. Reimer, Las Vegas***



# The meaning of "landscape and aesthetics"

"Landscape and aesthetics" refer to the total visual impression of the highway. But they are more than plants and art. They include:

- Well-proportioned and visually pleasing bridges, slopes, and drainage swales;
- Views of the highway from adjacent neighborhoods; and
- Carefully preserved scenic vistas viewed by motorists driving through Nevada.

The NDOT landscape and aesthetics program includes the policies, processes, documents, staff, and partnerships that guide planning, design, construction, and maintenance of State highways.

Attention to landscape and aesthetics results in built highways that contribute to Nevada's tourist-based economy and its citizen's quality of life.



US 395, Washoe Valley.

## **The idea of considering landscape and aesthetics is not new in Nevada**



View from US 95 near Beatty.

### **NDOT officially introduced the idea in its 1968 *Aesthetics Manual*:**

“Highways are aesthetic entities involving all the senses, much as a piece of architecture or sculpture does. A road is not just a linear element composed of interlocking forms; it has depth and height, and should be considered as a three dimensional form in all stages of design and construction.

It is important that the design and construction of roads fit the country or city where they are sited. This is the only way in which the problem of reconciling human perception with machine speed can be solved.

When a highway is safe to drive on and satisfying to use and observe, the problem of perception has been resolved and the road has both external and internal harmony.”



SR 159, entering Red Rock Canyon National Conservation Area.

## **Nevada's Renewed Commitment to Landscape and Aesthetics**

Although landscape and aesthetics have been factored into highway design in the past, Nevada is entering the twenty-first century with a renewed commitment to landscape and aesthetics as integral elements of the State's highways.

This *Landscape and Aesthetics Master Plan* sets the course of action for considering landscape and aesthetics throughout the life of every NDOT-managed highway.

## **A Vision For the State Highway System**

**We envision a system of state highways that reflect the land and people of Nevada.**



US 6, Ely.

**We believe that Nevada should have highways that are aesthetically pleasing, as well as safe and cost effective.**



SR 342, Gold Hill.



**Therefore, no state highway is complete until landscape and aesthetics are considered and addressed.**



Las Vegas Boulevard,  
"The Strip".

Highways contribute to local and regional character when cultural and natural features, scenic views, and community identity are preserved and emphasized. Landscape and aesthetics projects have a positive influence on Nevada's tourist-based economy - they improve the visual quality of our highways and the driving experience of our visitors. Highway landscape and aesthetics projects can improve safety by reducing glare, separating oncoming traffic, improving wayfinding, and providing predictable yet engaging driving environments. Landscape and aesthetics master planning can enhance environmental health by accommodating wildlife, reducing erosion and runoff, and protecting native plant communities.

# Statewide Policies Guide the Landscape and Aesthetics Program

## Landscape and Aesthetics Policy

It is the policy of the State of Nevada that landscape and aesthetics will be considered along with all other design factors in all transportation projects throughout their life cycles.



I-80, Elko County.

## Policy on Partnerships

The principles of context-sensitive design guide the development of transportation projects. Local communities, the public, other permitting agencies, and the private sector are encouraged to be involved in planning, design, construction, and maintenance of transportation projects to express the unique heritage, culture, and environment of the state and its communities.



US 95 near Beatty.

## **Policy for the NDOT Landscape and Aesthetics Program**

Landscape and aesthetic treatments will emphasize regionally appropriate materials and drought-resistant plants.



SR156, Mt. Charleston Scenic Byway.

## **Policy on Funding**

Local governments, private citizens, civic groups, and the business community are encouraged to work with NDOT to develop cooperative agreements for funding the design, construction, and maintenance of landscape and aesthetic improvements.



US 50 through the heart of Austin.



**"Liberty Pit" by artist Wei Luan, one of the many murals celebrating the history of Ely that can be seen from US 50 as it passes through the city's historic downtown.**



## **Section 2: The Process**

**This section outlines the process for including landscape and aesthetics in highway master planning, corridor planning, project design, construction, operations, and maintenance.**

**The landscape and aesthetics program will be guided by this *Master Plan*, a series of eleven corridor plans, and guidelines, procedures, and standards of a technical nature.**

**(Additional information can be found in the *Landscape and Aesthetics Technical Report*, available on the NDOT website at [http://www.nevadadot.com/pub\\_involvement/landscape](http://www.nevadadot.com/pub_involvement/landscape).)**



**"I feel that the citizens of the state of Nevada need a starting point from which to find a source of pride in their home... enhanced landscape efforts will uplift the... outlook of visitors and residents alike in respect to our state's beauty and potential for a welcome environment in which to live and work."**

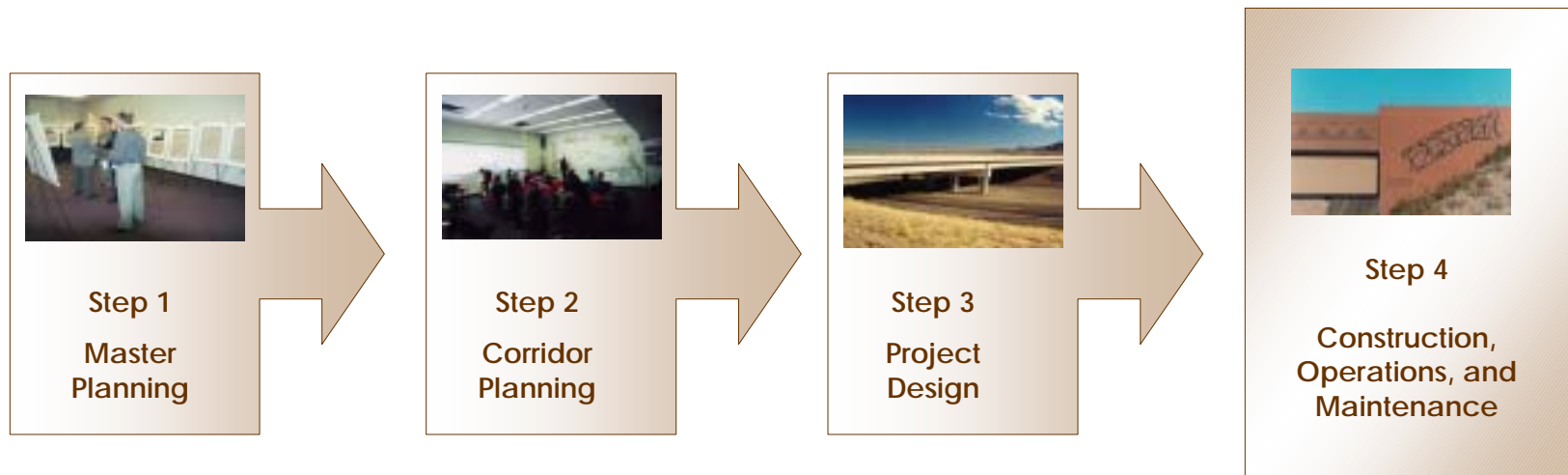
***J. Howard, Las Vegas***

**" I'm concerned about the water."**

***R. Preston, Las Vegas***

Neighborhood initiated art project on a 40-year-old freeway underpass, Maricopa Freeway, Phoenix.

# Overview of the Process for Including Landscape and Aesthetics in Highway Design



Master Planning sets statewide policy and establishes broad guidelines and the process for incorporating landscape and aesthetics in highway planning, design, construction, and maintenance activities.

Corridor Planning provides a management tool for deciding when and where different levels of landscape and aesthetic treatments will be installed and for developing broad budgets and priorities.

Project Design fixes the details of what actually gets built at a specific site.

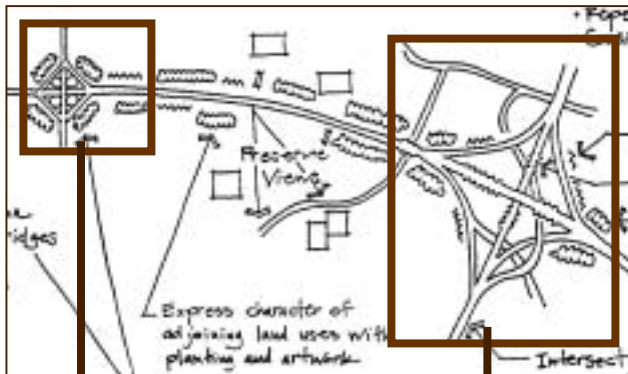
During Construction, Operations, and Maintenance, NDOT ensures that state highways are managed in a manner that is consistent with the landscape and aesthetic design intent specified in the corridor plan.

# Overview of Step 1: Master Planning and Step 2: Corridor Planning

## Step 1: Master Planning



## Step 2: Corridor Planning



**Retrofit\* Landscape and Aesthetics Projects:**  
Go to Step 3a on the following page.

**New Construction\* and Capacity Improvement\* Projects:** Go to Step 3b on the following page.

## Step 1: Master Planning

This *Landscape and Aesthetics Master Plan* was initiated and adopted by the State Transportation Board. The Plan was prepared by NDOT through a public participation process. The *Master Plan* presents statewide policy and broad guidelines for landscape and aesthetics. More information about master planning can be found in the *Landscape and Aesthetics Technical Report*, which can be seen on the NDOT website.

## Step 2: Corridor Planning

Corridor planning is initiated and managed by NDOT. Individual corridor plans are prepared by NDOT. Local government and stakeholders are involved through a public participation process.

A corridor plan presents the major design themes, levels of treatment, cost goals, and priorities for landscape and aesthetic treatments within the corridor. Local governments endorse the plan and agreements are initiated for funding of construction and long-term maintenance. (Additional information about corridor planning can also be found in the *Landscape and Aesthetics Technical Report*.)

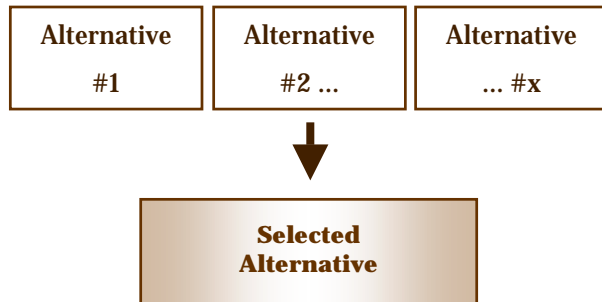
\* A **retrofit project** is one in which landscape and aesthetics are added to a segment of an existing highway; there is no associated new construction or capacity improvement project.

**New construction** includes all new stretches of roadway.

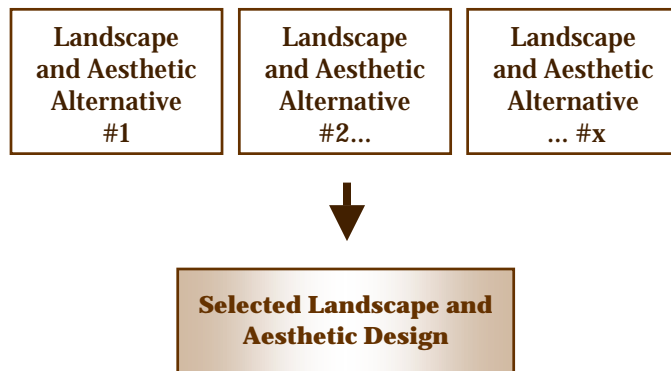
**Capacity improvements** are expansions of existing highways to accommodate increased traffic loads.

# Overview of Step 3: Project Design

## Step 3a: NEPA Process



## Step 3b: Landscape and Aesthetics Design Process



## Step 3a: NEPA Process

New Construction and Capacity Improvements generally go through the public process required by NEPA – the National Environmental Policy Act – to select a final engineering design before detailed landscape and aesthetic design begins. During the NEPA process, NDOT considers roadway alignment and its social, economic, and environmental impacts, including visual impacts. NDOT also begins broad landscape and aesthetics input to the design based on goals identified in the corridor plan. At this stage, engineering alternatives are presented to the public for comment before an alternative is selected.

## Step 3b: Landscape and Aesthetics Design Process

After an alternative is selected, the project goes through a public process to select the landscape and aesthetic design. (If the project is for retrofitting\* of an existing highway, it may not be required to go through the NEPA process. In this case it goes directly to the landscape and aesthetic design process.) NDOT presents alternatives to the public for review and comment. These alternatives are based on the design themes, levels of treatment, and cost goals established in the corridor plan.

After the final landscape and aesthetic design is selected, NDOT completes detailed drawings, specifications, cost estimates, and schedules needed to build the project. Agreements between NDOT and local governments for funding of construction and long-term maintenance must be finalized before construction can begin.

\*See definition on page 18.

## Overview of Step 4: Construction, Operations, and Maintenance



SR 50, Ely mural "Basque" by artist Don Gray and his son Jared.

During construction, NDOT monitors projects to verify that all work, including landscape and aesthetic treatments, are installed according to design plans and specifications. Any changes must be reviewed to ensure that they are compatible with the guidelines, themes, level of treatment, and materials developed during corridor planning.

During operations and maintenance, NDOT will refer to the design statement of intent prepared during corridor planning to ensure that landscape and aesthetics are properly considered throughout the life of a highway.



## **A Closer Look at the Planning and Design Process**



Desert National Wildlife Range, Clark Co.

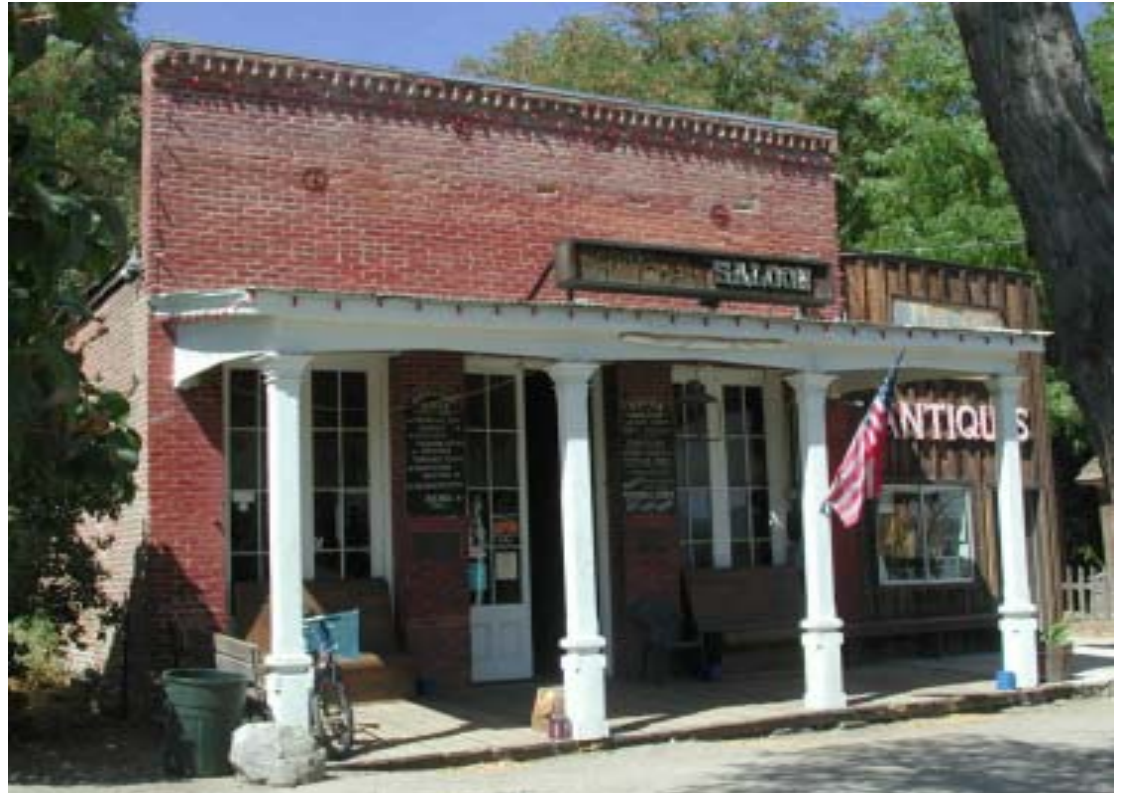
The remainder of the section looks at the philosophy behind master planning, corridor planning and the design process in more detail.

In particular, the procedures associated with corridor planning are explored in greater depth because corridor planning lies at the heart of the landscape and aesthetics program.

**Step 1:  
Master  
Planning**

**Master Planning is the first step towards creating highways that reflect the people and places of Nevada.**

Master planning brings NDOT and stakeholders together to identify the major policies and procedures that will guide the design, construction, and maintenance of landscape and aesthetic improvements in our communities. The result is a shared vision for Nevada's highways based on knowledge of the land and its people. Master planning generates improvements in communication and the design process.



SR 206, Genoa Lane, Genoa.





Basque mural, from SR 535, Idaho Street, Elko.

**This document is NDOT's *Landscape and Aesthetics Master Plan*.**

With the completion of this *Master Plan*, the State Transportation Board has provided a vision for Nevada's state highway system. It has established statewide policies for a landscape and aesthetic program and outlined a planning process to ensure that landscape and aesthetics are considered in all phases of every highway design and construction project. Furthermore, the process described in the *Master Plan* creates opportunities for public involvement and partnering, and provides guidelines for funding relationships among NDOT, local governments, other funding agencies, and the private sector.

**Step 2:  
Corridor  
Planning**

**Corridor planning is the second step towards achieving Nevada's highway vision.**

**Why do corridor planning?**

Corridor planning allows NDOT, local governments, and the public to:

- 1) Examine major design themes, levels of treatment, cost goals, and priorities for landscape and aesthetic treatments within the corridor;
- 2) Initiate intergovernmental cooperative planning for landscape and aesthetic improvements;
- 3) Promote community involvement in the decision-making process;
- 4) Save money by identifying long-range needs and anticipating problems before solutions become too expensive; and
- 5) Prioritize landscape and aesthetic projects for further development, design, and construction.

**Who does corridor planning?**

NDOT staff manage the planning process. They may hire consultants to assist with preparing the plans or they may prepare the plans in-house.

After a corridor plan is developed and endorsed by local governments and NDOT, the plan becomes the guide for landscape and aesthetics on individual project designs within the corridor. That is, NDOT staff refer to the corridor plan to ensure that project designs conform to the design themes, cost range, material guidelines, and overall aesthetic intent for the corridor.

Additional information about corridor planning can be found in the *Landscape and Aesthetic Technical Report* that was prepared in conjunction with this *Master Plan*.

## **What does an NDOT corridor planning team do? What are the products of a corridor plan?**

The planning team conducts scoping meetings with public officials, permitting agencies, and stakeholders, and forms a citizens advisory committee to provide input during the planning process. The team refines corridor boundaries and identifies major issues that need to be addressed. They describe the existing and likely future conditions along the corridor, such as the population, terrain, vegetation, highway conditions, adjacent land uses, and nearby tourist or recreation destinations.

The team defines the major design themes for the corridor based on local landforms, history, cultural influences, and industry. It develops written guidelines for materials to be used, such as preferred color schemes, rock types, and plants.

The advisory committee and the public provide input on preferred levels of treatment (high, medium, or low) for major features in the corridor, from which the team can estimate a range of costs. A target cost range for all landscape and aesthetic treatments within the corridor is then established for use in long-range planning. Finally, the planning team obtains local endorsement of the corridor plan and initiates local agreements for construction and maintenance funding.



Historical marker and scenic overlook, Virginia City.

Ultimately, NDOT endorses each corridor plan as the basis for future landscape and aesthetic design, construction and maintenance on State highways.

Corridor plans should be revisited every 5 to 10 years and adjusted to reflect changes within the corridor. Although the corridor plan provides guidance for project design, there is still opportunity for more public input into specific details when individual projects are designed and built.

## What are highway corridors?



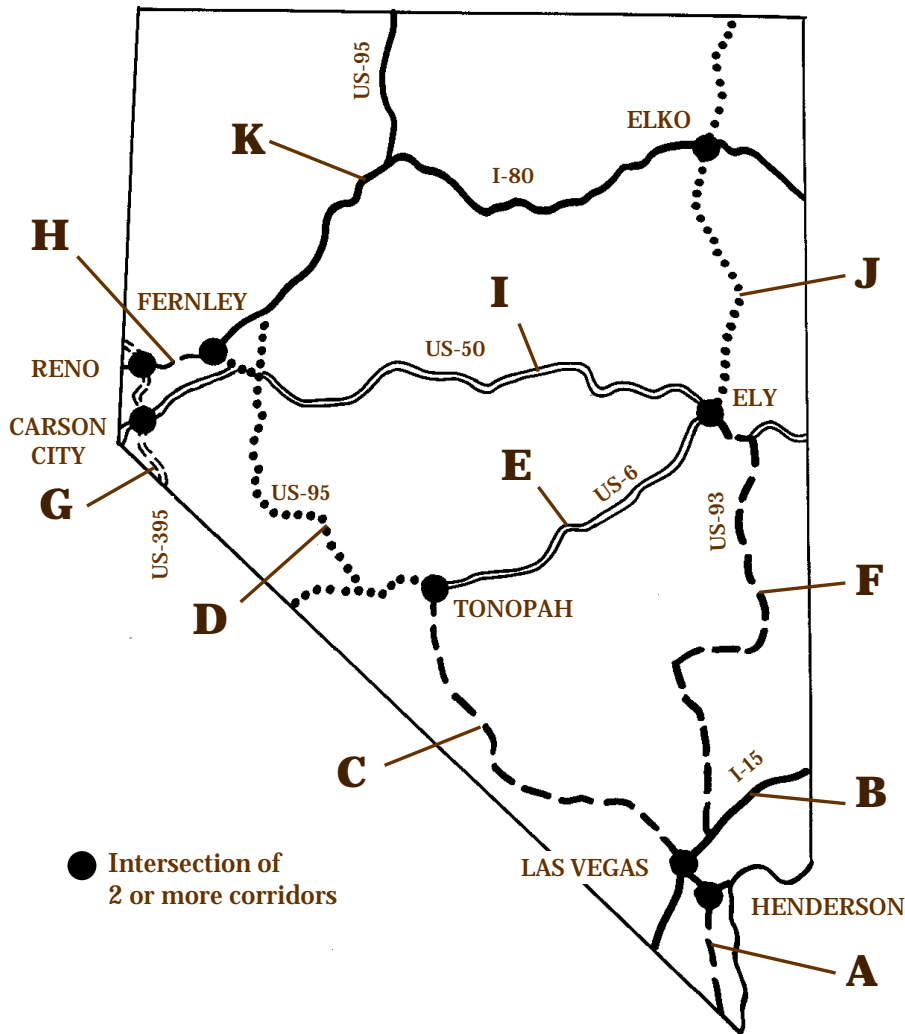
Interstate-15, Las Vegas.

A **highway corridor** is a length of highway right-of-way and its associated secondary roads.

The length of a corridor is based on the character of its landscape - whether it is urban or rural; the type of land forms and plant communities; and cultural or historical regions. In general, corridors begin and end at the state border or at one of our larger cities.

**Major highways** on which the corridors are based include: Interstate-15, Interstate-80, US-395, US-95, US-93, US-50, and US-6. Eleven suggested highway corridors are shown on this map and described on the next page. Smaller secondary roads will be assigned to one of the corridors when corridor planning begins.

## Where are the corridors?



- A. US-95 from the State border near Laughlin to Henderson, including US-93 through Boulder City to Hoover Dam.
- B. Interstate- 15 from the California border at Primm to the Arizona border at Mesquite, including US-95 from Henderson north to the junction with SR-157 at Lee Canyon.
- C. US-95 from the junction with SR-157 to Tonopah.
- D. US-95 from Tonopah through Fallon to Interstate-80, and including US 6 from Tonopah to the California border.
- E. US-6 from Tonopah to Ely.
- F. US-93 from the junction with Interstate-15 at Apex to Ely.
- G. All of US-395 from the state line at Topaz Lake through Carson City and Reno to the state line north of Reno.
- H. Interstate-80 from the California border through Reno and Sparks to Fernley.
- I. US-50 from the western state line through Fallon, Eureka, and Ely to the eastern state line.
- J. US-93 from Ely through Wells to the Idaho border at Jackpot.
- K. Interstate-80 from Fernley through Lovelock, Winnemucca, Battle Mountain, Carlin, Elko, and Wells to West Wendover at the Utah border, and including US 95 from Winnemucca to McDermitt.

The corridor descriptions follow the NDOT standard practice of describing highways from south to north and from west to east.

During the scoping phase of each corridor plan, the NDOT planning team determines exactly which secondary roads will be included in the plan.



### Step 3: Project Design

## Project design is the third step leading towards construction of landscape and aesthetic improvements.

Project design is guided by the corridor plan. Any entity proposing a construction project within an NDOT right-of-way must conform to the corridor plan. Communities work with NDOT and other resource agencies to decide **exactly** what will be built, what it will look like, and what plants and materials will be used.

Before proceeding to the project design phase, NDOT will verify local governmental endorsement and funding commitment to the level of treatment specified in the corridor plan. By the end of project design, these previous funding and maintenance agreements are finalized.

As funding becomes available, parts of the corridor are selected as individual projects ready for design and construction, such as:

- A new highway within a corridor, new lanes, a new bridge, or a new interchange;
- Additional plantings along the sides of an existing highway or within a median;
- A new soundwall or retaining wall;
- New artwork such as murals or sculptures;
- Rest stops or visitor centers.



Four site-specific designs for bridges.

## How design alternatives work



Imagine NDOT presenting the designs shown on these pages as alternative treatments for neighborhood review and comment.

During the project design phase, NDOT meets with stakeholders to discuss the parameters of design alternatives. Then designers prepare alternatives that interpret the corridor design theme for local use. The alternatives show a variety of ways in which landscape and aesthetic treatments can be combined at the project site. All alternatives reflect the level of treatment (high, medium, or low) that was identified in the corridor plan, local governmental endorsement, and their funding commitment.

NDOT presents the alternatives during public meetings where the reactions, likes, and dislikes of the community can be heard. Then the project designers develop a final concept after considering the public comments.

After NDOT hosts a public information meeting to present the selected design, the designers prepare the final construction documents.

If needed, cooperative funding agreements for construction and maintenance (which were initiated during corridor planning) are finalized between NDOT and local governments at this stage.



View of Slide Mountain from SR 341.

**" I think you have to make a master plan and consider not only the traffic flow, but the beauty and ecology that you are providing around it."**

***B. Fraser, Las Vegas***

**"Aesthetics isn't just about landscaping the slopes designed by others.... By a collaborative effort between the landscape architects, roadway, structural and geotechnical engineers, we can achieve more naturalistic designs where the highway and structures blend better with the natural landforms and the new landforms are designed to blend in with the existing landforms."**

***B. Santner, Reno***



## **Section 3: Planning Guidelines**

**C**orridor planning and project design require choices about landscape and aesthetic treatments, cost tradeoffs, and priorities.

**Planners, designers, elected officials, business representatives, and private citizens should consider the guidelines presented in this section as they sit down to participate in the planning of a corridor or the design of a project.**

## How to Use Section 3

In **corridor planning**, the guidelines are used in a general way to decide what kinds of features should be included; where high, medium, and low levels of landscape and aesthetic treatments are appropriate; how much landscape and aesthetic treatments in general will cost along the whole corridor; and what should be done first.

During **project design**, the same guidelines can be applied to every individual project to select specific design details to be built; to estimate the exact cost for building and maintaining each project; and to finalize cooperative agreements and secure funding for construction and long-term maintenance.

### A Word About Costs

It is important to remember that the costs in this part of the *Master Plan*:

- Were estimated in 2002 dollars.
- Do not include the expense of purchasing any additional right-of-way that may be needed.
- Represent only the added costs of constructing landscape and aesthetic treatments, not the total construction cost for a project.
- Maintenance costs are tied to a specific design and are estimated for design alternatives.
- High maintenance costs may affect or limit the selection of an alternative independent of the construction cost.



Sign at Pioche Courthouse.

## How to Use Section 3: Selecting a highway type or feature

Begin corridor planning by deciding which of the following types of highways and features are in the corridor. Then turn to the pages for that highway type or feature to find a discussion of the landscape and aesthetic opportunities and guidelines that should be considered during corridor planning and project design.

### Highway Types

Urban Freeways (p. 36)



City Streets (p. 46)



Rural Highways (p. 52)



Open Spaces (p.58)



### Features

Rest Areas (p. 61)



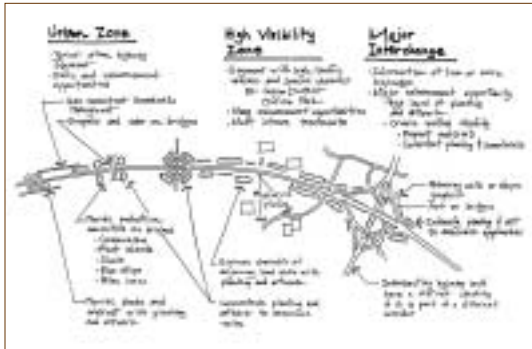
Gateways (p. 65)



Transportation Art (p. 66)



# How to Use Section 3: Landscape and Aesthetics Opportunities



Example of a drawing that illustrates landscape and aesthetic opportunities.



Example of a conceptual design drawing.



Example of the photographs that illustrate different levels of landscape and aesthetic treatments.

## Landscape and Aesthetic Opportunities

Each guideline for a highway type begins with a drawing that illustrates the landscape and aesthetic opportunities typically found in that kind of highway setting. Use this drawing as a visual checklist to find opportunities for landscape and aesthetic treatments along the length of highway that is being planned. Note the location, character, and importance of the various conditions and features.

Think about each of the opportunities shown on the drawing and decide which ones should be included in the corridor. For example, where are the major intersections, significant points of interest, or high visibility zones?

## Conceptual Design Examples

Following the visual checklist are examples of conceptual designs. All of the drawings depict actual built or proposed landscape designs. These examples provide the link between the landscape and aesthetic opportunities, prescribed guidelines, and constructed highway features.

## Levels of Treatment

Then look at the photographs on subsequent pages to help decide whether a high-cost, mid-cost, low-cost, or no-cost treatment is desired for each opportunity.

Use the cost ranges given for each treatment to develop an estimate of what the landscape and aesthetic treatments will add to the construction cost of the basic highway. This estimate also can be used to prioritize and schedule design and construction of individual projects.

## How to Use Section 3: Levels of Treatment

**No-cost Treatments** include actions that add little or no cost to a project, but improve the appearance of highway structures and features that are required for safety improvement and mitigation of environmental impacts. Examples include color and size of rock used for erosion control; native seed mix for revegetation; self-weathering materials; and blending road cuts into the natural landform. No-cost treatments can be used anywhere to create more aesthetically pleasing basic highways, generally with low maintenance costs.

**Low-cost Treatments** generally emphasize simple artwork on walls and bridges, limited plantings using native species, and expressive use of easy-to-maintain materials such as concrete, block, and rock. Maintenance costs generally are low. Low-cost treatments are appropriate for low visibility urban areas, rural highways, and open spaces.

**Mid-cost Treatments** feature repetitive use of standardized designs on walls and bridges, and more intensive or complex plantings of native species, possibly with some non-native species. Long-term maintenance costs range from low to medium. Mid-cost treatments are appropriate for suburban areas and city streets.

**High-cost Treatments** often are the most expensive both to install and to maintain. They feature complex combinations of one-of-a-kind artwork, walls, and plantings. They can also include reproductions of historical features and special lighting, fencing, or signage. High-cost treatments are appropriate for high-visibility locations along urban freeways and city streets, and within historic areas.

### Opportunities and Guidelines for Highway Features

The guidelines for highway features (Safety Rest Areas and Transportation Art) are slightly different than the guidelines for highway types. Drawings and/or photographs illustrate landscape and aesthetic opportunities and examples of treatments for that type of feature. However, levels of treatment and cost ranges are not provided. These vary too greatly depending on the specific situation.



## **Urban Freeways: *Landscape and Aesthetic Opportunities***



The "Spaghetti Bowl" I-15/US95 interchange, Las Vegas.

Numerous large-scale structures dominate the urban freeway, while plants and natural landforms are secondary or non-existent. Highway structures constitute a large presence and contribute significantly to the quality of the driving experience. Properly placed, well-chosen native plants can soften the appearance of urban freeways.

The landscape and aesthetic opportunities and treatments discussed on pages 37 through 45 include slopes, bridges, interchanges, retaining walls, and soundwalls.

# URBAN FREEWAYS

## Transition Zones

- Create a transition from rural to urban character.
- Emphasize no-cost and low-cost treatments.

## Urban Zones

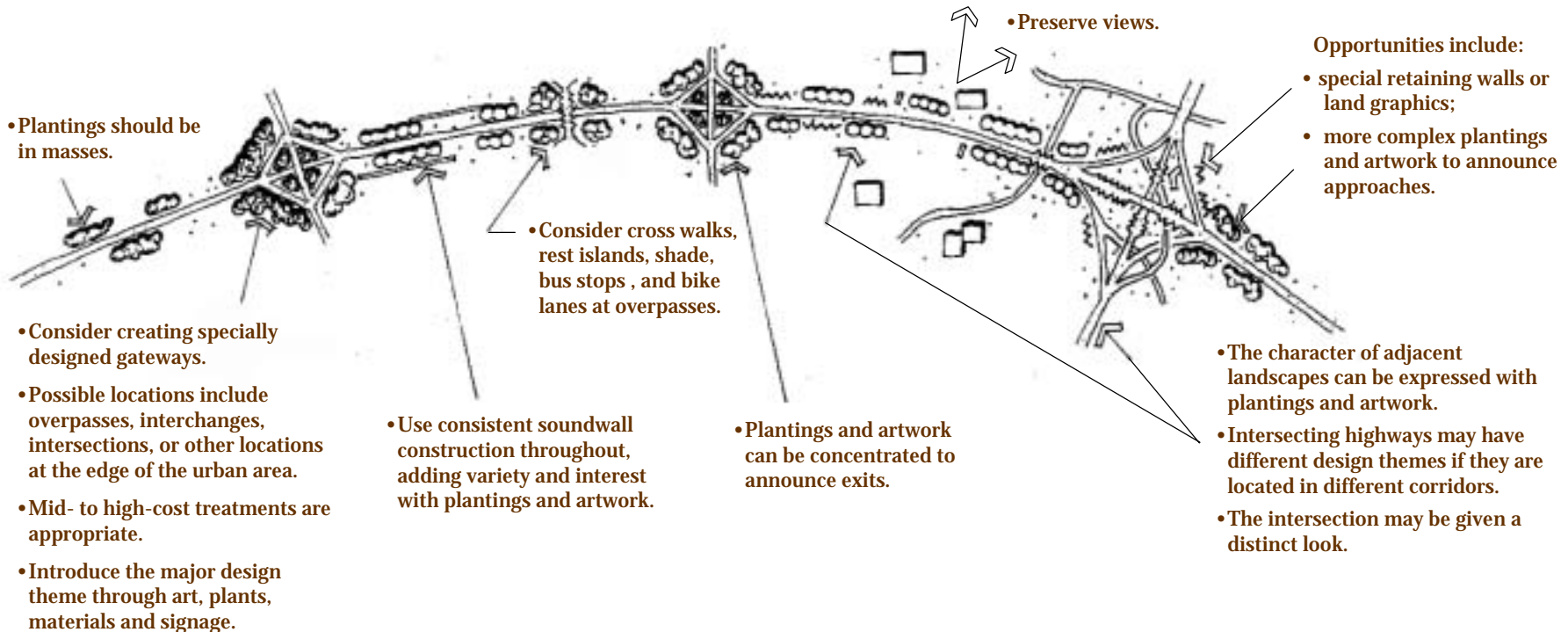
- Typical urban highway segments provide low-cost enhancement opportunities.

## High Visibility Zones

- Segments with high traffic volume and special character, such as casino districts, provide many enhancement opportunities.
- Mid- to high-cost treatments are appropriate.

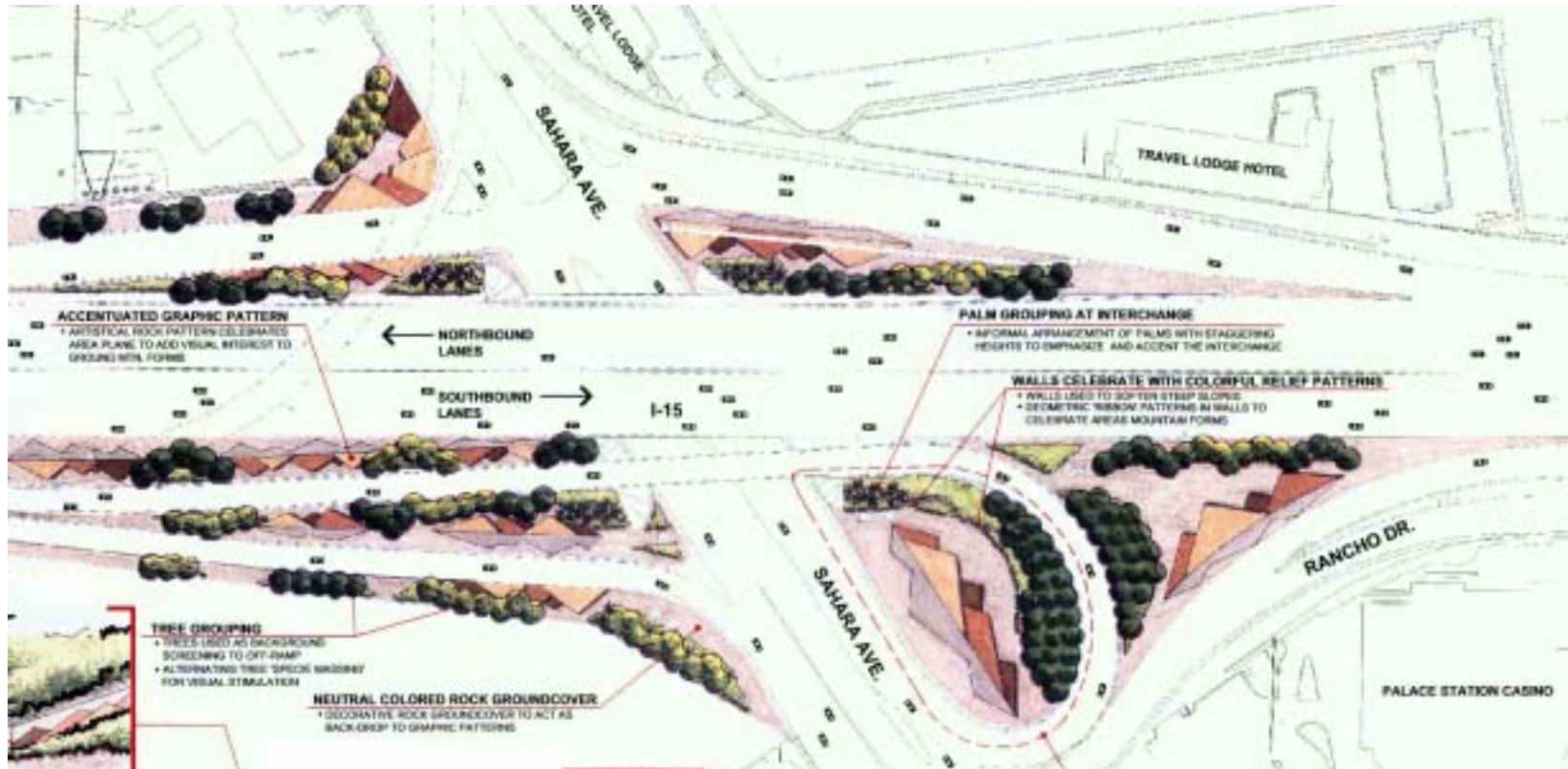
## Transition Zones

- Create a transition from rural to urban character.
- Emphasize no-cost and low-cost treatments.



## Visual Checklist of Landscape and Aesthetic Opportunities

# Urban Freeway Conceptual Designs

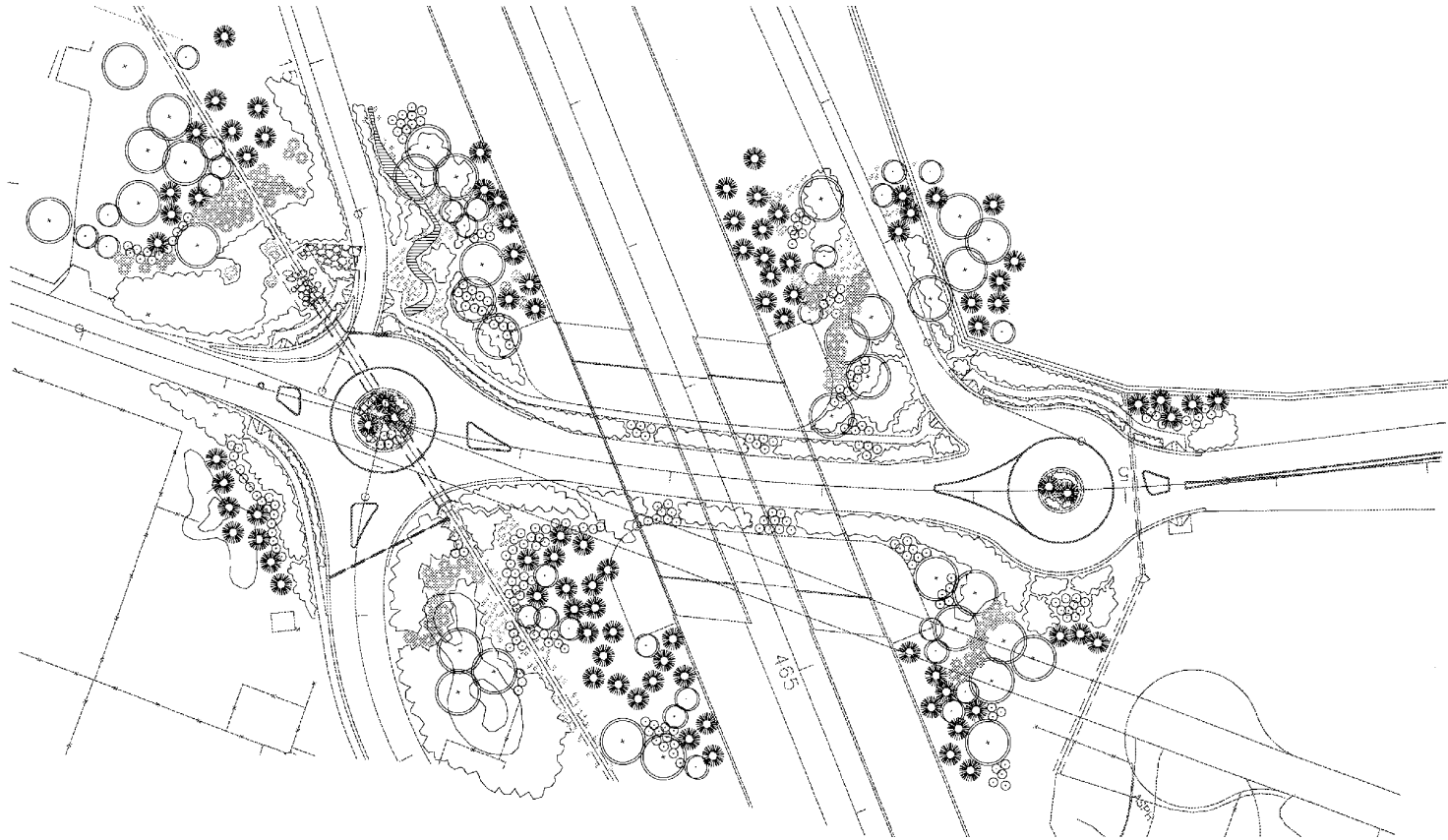


One of three design concepts for the reconstructed Sahara Interchange on I-15 in Las Vegas. From: *Sahara / I-15 Interchange Landscape Improvements*, prepared by Stantec Consulting Inc. for NDOT.

The drawings on these two pages show real examples of landscape and aesthetic designs for urban freeway interchanges. Note that although the presentation styles are different, the level of treatment is similar. Complex plantings and artwork are concentrated at high visibility locations.



## Urban Freeway Conceptual Designs, continued



Conceptual design for a gateway at Arrowhead Drive along the Carson Freeway (I-580). From: *Soundwall Study*, prepared by Jeff Codega Planning & Design, Inc. for NDOT.

## **Urban Freeway Guidelines: *Slope Treatments***



Terraced slope at McCarran Airport, Las Vegas.

Slopes at the edges of highways, at interchanges, and at overpasses provide many opportunities for landscape and aesthetic treatments. These treatments also serve to protect slopes from erosion and to reduce wind-blown dust. Plantings and rock mulch are two materials most commonly used in landscape and aesthetic treatments on slopes.

### **Aesthetic Guidelines**

- Even though rock for erosion control is not considered a landscape treatment, the sensitive choice of color, size, texture, and placement can be used to improve highway appearance.
- Select colors that harmonize with the adjacent terrain and are consistent with the materials palette for the corridor.
- Use a variety of rock types, sizes, and textures, to increase visual interest.
- Relate land graphic designs to local culture, history, industry, or natural features.
- Use bold simple designs that can be viewed at highway speeds considering also the angles and distances from which the designs will be viewed.
- Emphasize native plants that need little or no irrigation after a one or two year establishment period.

## **NO-COST TREATMENT**

I-215 , Las Vegas.

Consists of rock mulch or native plants for erosion control.

This adds \$ 0 to the basic construction cost of the highway. Annual maintenance cost is low.\*



## **LOW-COST TREATMENT**

US 395, Reno.

Predominantly rock and/or native and adapted plants.

This can add \$35,000 to \$55,000 per acre to the construction cost of the highway. Annual maintenance cost is low.\*



## **MID-COST TREATMENT**

East Broadway, Tucson, AZ.

Geometric patterns on walls; moderate plantings.

This adds \$55,000 to \$85,000 per acre to the construction cost of the highway. Annual maintenance cost is medium.\*



## **HIGH-COST TREATMENT**

Snow Mountain interchange, Clark Co.

Land graphics, plants, bridge and wall treatments.

This adds \$85,000 or more per acre to the construction cost of the highway. Annual maintenance cost is high.\*



\* Maintenance costs are project-specific and are estimated during the project design phase. Maintenance costs should be a factor in selecting a final design alternative.

## **Urban Freeway Guidelines: *Bridges and Interchanges***



Desert Inn Road overpass on the Clark County Beltway.

Bridges and interchanges on urban freeways are so frequent and repetitive that they offer special challenges and opportunities. Bridges, soundwalls, and retaining walls typically appear as the strongest visual and physical design elements in the urban corridor. Because of their mass, horizontal and vertical planes, and frequency, well-designed bridges and walls provide major opportunities to establish continuity and identity along urban freeways.

### **Aesthetic Guidelines**

- Enhance the visual appeal of bridges through careful engineering of scale, proportions, and balance of all components.
- Keep details simple, pronounced, and easy to distinguish.
- Limit aesthetic treatments on bridges to specialized surface finishes, colors derived from hues seen in surrounding communities, and textures and patterns that are visible at highway speeds.
- Preserve and replicate historic or architectural character of existing bridges.
- Use "high-end" treatments only at the most visible interchanges, such as gateways.



## **NO-COST TREATMENT**

I-80 overpass.

Aesthetic considerations include proportions and scale of bridges; color and texture of rock; lighting and fencing.

This adds \$0 to the construction cost of the highway. Annual maintenance cost is low.\*



## **LOW-COST TREATMENT**

Clark County Beltway 215, Las Vegas.

Simple artwork and patterns are added to the bridge.

This adds \$40,000 to \$80,000 to the total construction cost of a bridge. Maintenance cost is low\*



## **MID-COST TREATMENT**

Pima Freeway, Phoenix, AZ.

Intensive plantings of native species on slopes.

This adds \$55,000 to \$85,000 per acre to the construction cost of the interchange. Maintenance costs are low.\*



## **HIGH-COST TREATMENT**

Reno-Tahoe Regional Airport.

Complex art and planting used at high visibility locations, such as gateways.

This adds \$85,000 or more per acre to the construction cost of the interchange. Maintenance is high.\*



\* Maintenance costs are project-specific and are estimated during the project design phase. Maintenance costs should be a factor in selecting a final design alternative.

## **Urban Freeway Guidelines: *Sound Walls and Retaining Walls***



Soundwall along the Squaw Peak Parkway, Scottsdale, AZ.

Retaining walls and soundwalls deserve attention because of the impact they have on both motorists and neighborhoods. Aesthetic opportunities include materials, height and alignment, color and texture, art, and plantings.

### **Aesthetic Guidelines**

- To the extent possible, minimize the use of walls in significant viewsheds, where they will block the view of the area outside the right-of-way.
- Consider the appearance of a soundwall both from the roadway and from adjacent properties. Provide visual diversity based on the design theme defined for the corridor.
- Coordinate walls with bridges, fences, and other highway structures.
- Maintain a continuous, even, or curvilinear top line along the entire length of the wall, avoiding abrupt, right-angle steps, up and down.
- Consider grading as the first option for eliminating retaining walls or reducing the height of walls. Consider terraced wall systems to reduce the apparent height of retaining walls.
- For additional guidelines on soundwalls, see NDOT Soundwall Study (2001), available through NDOT Administrative Services (telephone 1-775-888-7070).

## **NO-COST TREATMENT**

Hwy 215, Henderson.

Color, texture, and an even top line.

This adds \$ 0 to the basic cost of the soundwall while improving its aesthetics. Maintenance is low.\*



## **LOW-COST TREATMENT**

Squaw Peak Parkway, Scottsdale, AZ.

Simple geometric formwork and limited plantings of native species.

This adds \$ 1.00 to \$ 4.50 per square foot to the construction cost of a wall. Maintenance is low.\*



## **MID-COST TREATMENT**

Terraced retaining wall, McCarran Airport, Las Vegas.

Complex patterns, formwork, or terracing, and mixed plantings with irrigation.

This can add \$ 4.50 to \$ 8.50 per square foot to the construction cost of a wall. Maintenance is low to medium.\*



## **HIGH-COST TREATMENT**

East gateway, downtown Tucson, AZ.

Complex shapes and plantings, one-of-a-kind artwork, terracing, and plantings.

This can add \$ 8.50 or more per square foot to the construction cost of a wall. Maintenance is medium to high.\*



\* Maintenance costs are project-specific and are estimated during the project design phase. Maintenance costs should be a factor in selecting a final design alternative.



## **City Streets: *Landscape and Aesthetic Opportunities***



Center Street Bridge, Reno.



11<sup>th</sup> Street, Ely.

City streetscapes are the most specialized road types considered in the Master Plan. Designs must respond specifically and in detail to the individuality of the communities and neighborhoods in which the streets are located. The slower driving speeds and pedestrian orientation of city streets require greater attention to landscape and aesthetic details.

It should be noted that, as a rule, NDOT prefers to relinquish ownership of city streets and to return responsibility to local governments.

Pedestrian safety and comfort are the primary concern of the designer. Smaller, human scale elements dominate city streets. Streets are closely lined by buildings and there are frequent intersections with adjacent streets, frequent curb cuts, and frequent traffic controls.

# CITY STREETS

## Transition Zones

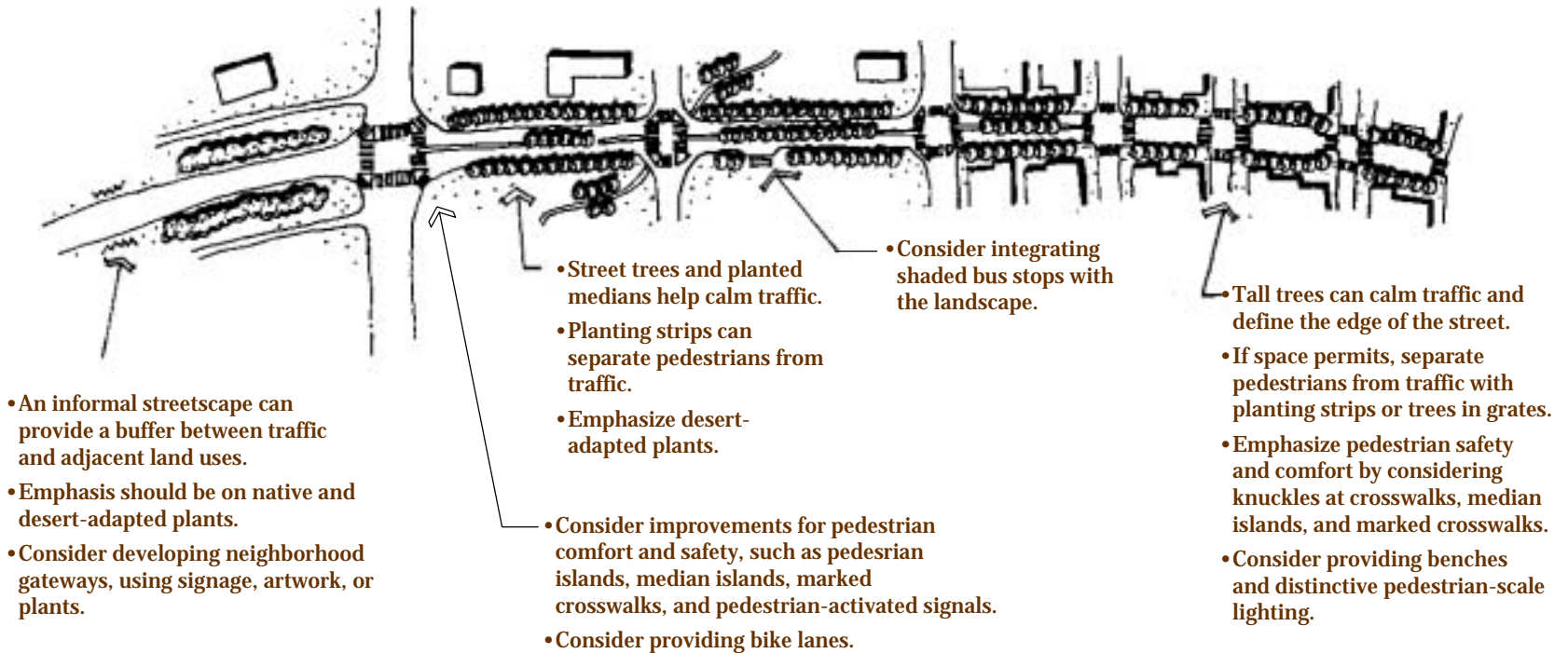
- Vehicular needs dominate this zone, with infrequent pedestrian crossings and few buildings.
- Frontage roads are common
- Low-cost treatments are appropriate.

## Suburban Zones

- Vehicular and pedestrian needs are balanced, with frequent cross streets and curb cuts; pedestrian crossings at intersections; and buildings with parking in front.
- Low- to mid-cost treatments are appropriate.

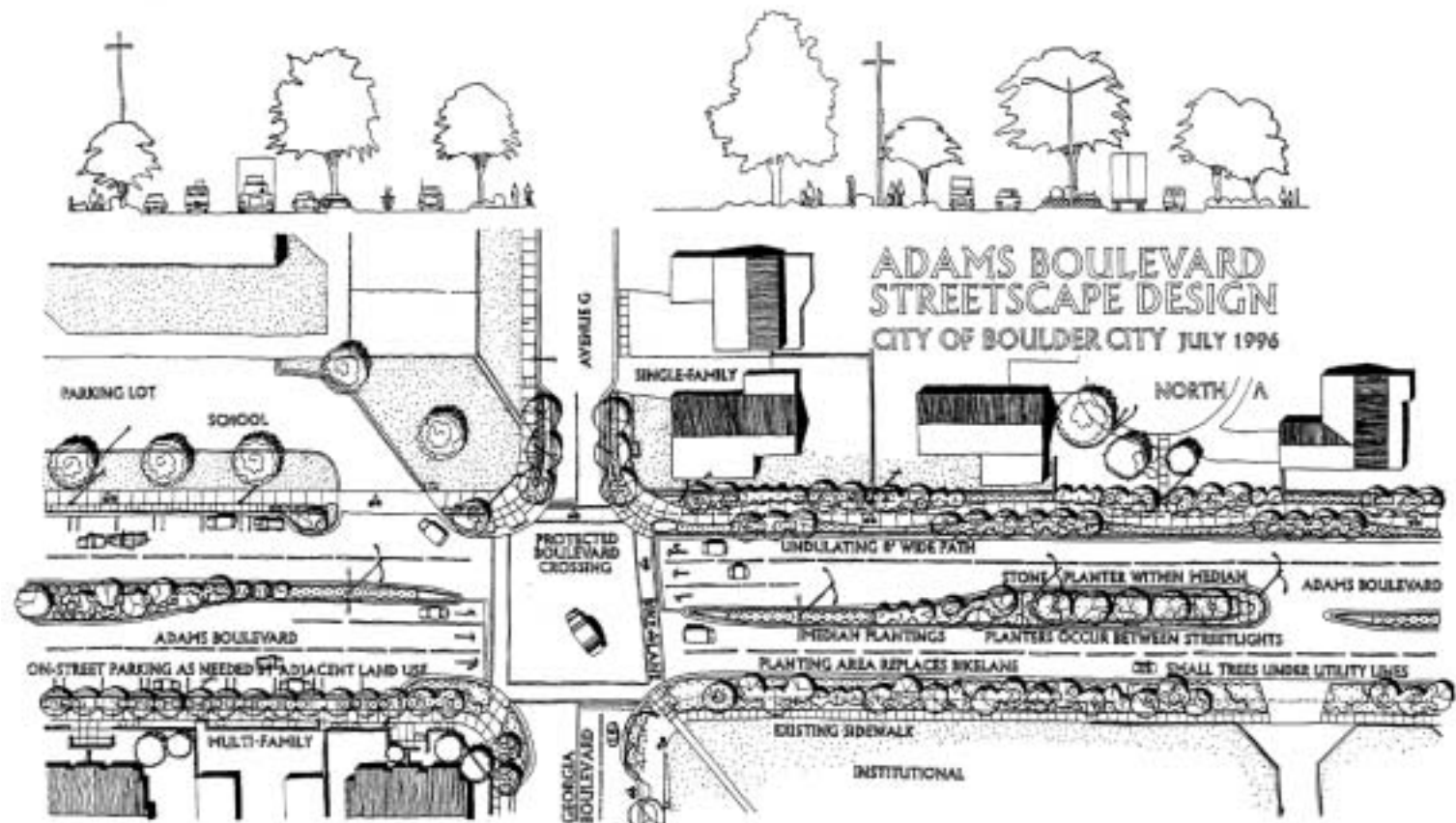
## Urban Zones

- Pedestrian needs dominate with frequent intersections with crosswalks; buildings that front on the street; and slower design speeds.
- High-cost treatments are appropriate.



## Visual Checklist of Landscape and Aesthetic Opportunities

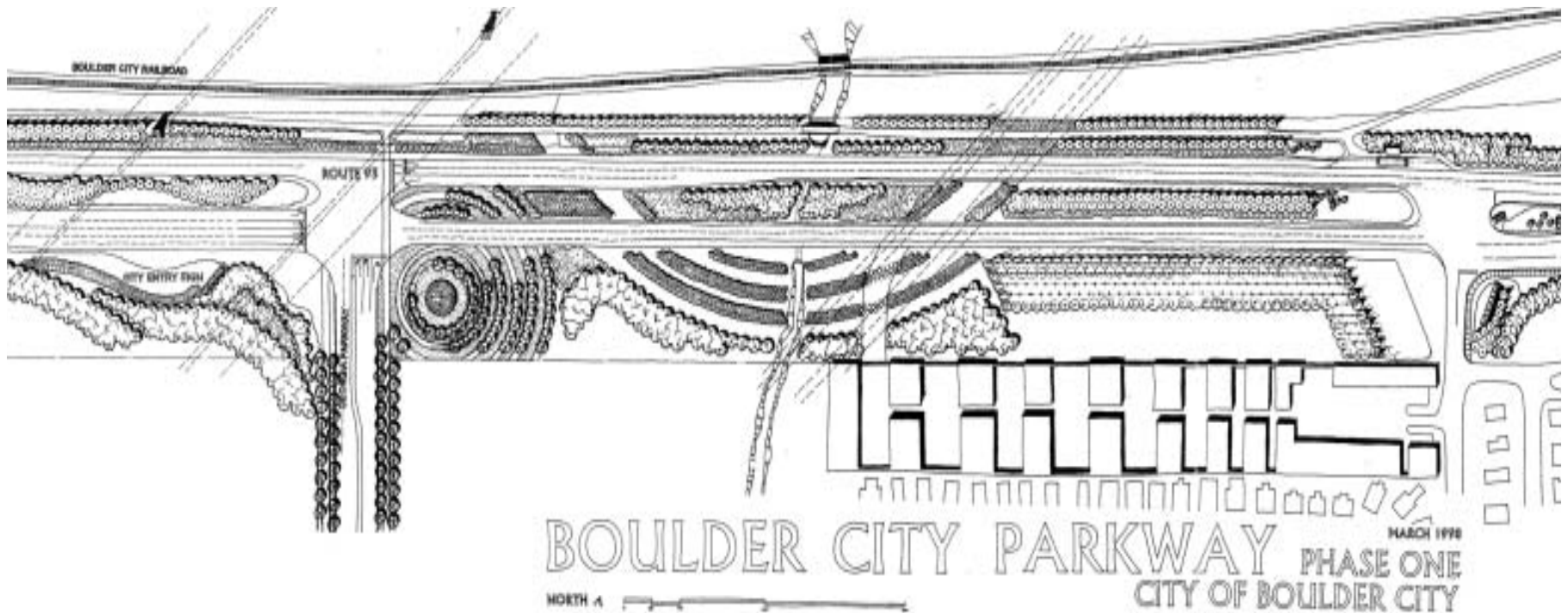
## City Streets Conceptual Designs



Adams Boulevard Streetscape Design, prepared by Damon Ohlerking, Urban Designer for the City of Boulder City.

The drawings on pages 48-49 show examples of landscape and aesthetic designs for streets in Boulder City. Designs emphasize pedestrian safety and comfort, using shade trees, sidewalks separated from traffic lanes, crosswalk “neck downs”, and planted medians.

## City Streets Conceptual Designs, continued



Boulder City Parkway gateway design, prepared by Damon Ohlerking for the City of Boulder City.

The gateway design welcomes visitors and residents alike to the heart of town (note the "CITY ENTRY SIGN" on the left-hand side of this drawing). Use of special materials and plantings introduces design themes used throughout the city.



## **City Streets: *Guidelines***



Downtown Boulder City.

### **Aesthetic Guidelines**

- Retain the character-defining features of the community, such as road width, sidewalks, street trees, on-street parking, streetlights, and fences.
- Preserve and echo the character of historic features such as bridge railings, hitching posts, and boardwalks.
- Ensure that commercial signage is consistent with other features in terms of size, placement, color, form, and materials.
- Introduce features to reduce vehicle speed and increase safety such as pedestrian “neck downs” at crosswalks and bollards.
- Create an inviting pedestrian environment by adding street trees, planted medians, benches, and special lighting.

## **NO-COST TREATMENT**

Downtown Boulder City.

Pedestrian-oriented streetscape where “neck downs” and on-street parking reduce the width of the road and require drivers to slow down.

This adds \$0 to the cost of construction.



## **LOW-COST TREATMENT**

US 95 median, Henderson.

Rock mulch and desert plants are appropriate for transition zones and wider rights-of-way.

This adds \$35,000 to \$55,000 per acre to the construction cost of a highway. Maintenance is low.\*



## **MID-COST TREATMENT**

Summerlin Planned Community, Las Vegas.

Rows of trees along the edges of the street and in medians are suitable in suburban areas.

This treatment adds \$55,000 to \$100,000 per acre to the construction cost of the highway. Maintenance is medium to high.\*



## **HIGH-COST TREATMENT**

SR 604 Las Vegas Boulevard.

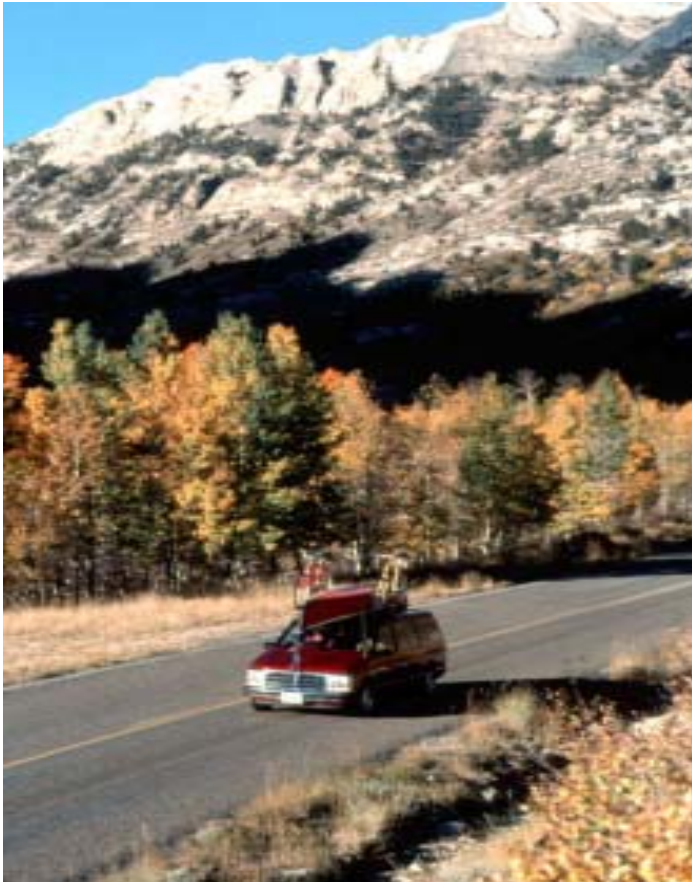
Heavy plantings of non-native plants, requiring constant irrigation, are most suitable for casino districts or gateways in major urban areas.

This treatment adds \$100,000 or more per acre to the construction cost of the highway. Maintenance is high.\*



\* Maintenance costs are project-specific and are estimated during the project design phase. Maintenance costs should be a factor in selecting a final design alternative.

## **Rural Highways: *Landscape and Aesthetic Opportunities***



Lamoille Canyon, Elko County.

Rural highways are part of a natural environment in which human elements are subsidiary to natural ones. Native vegetation and landforms dominate the views, and built elements are widely spaced. Roadside development tends to be agricultural, very low density residential, or sparse commercial.

The actions we take to improve the aesthetics of rural highways – careful alignment, blended slopes, and revegetation – are usually done to improve safety and mitigate environmental impacts. Thus, these improvements typically are part of the basic costs of the highway and are not considered landscape and aesthetic costs. However, opportunities to enhance the rural highway environment are available at a range of costs.



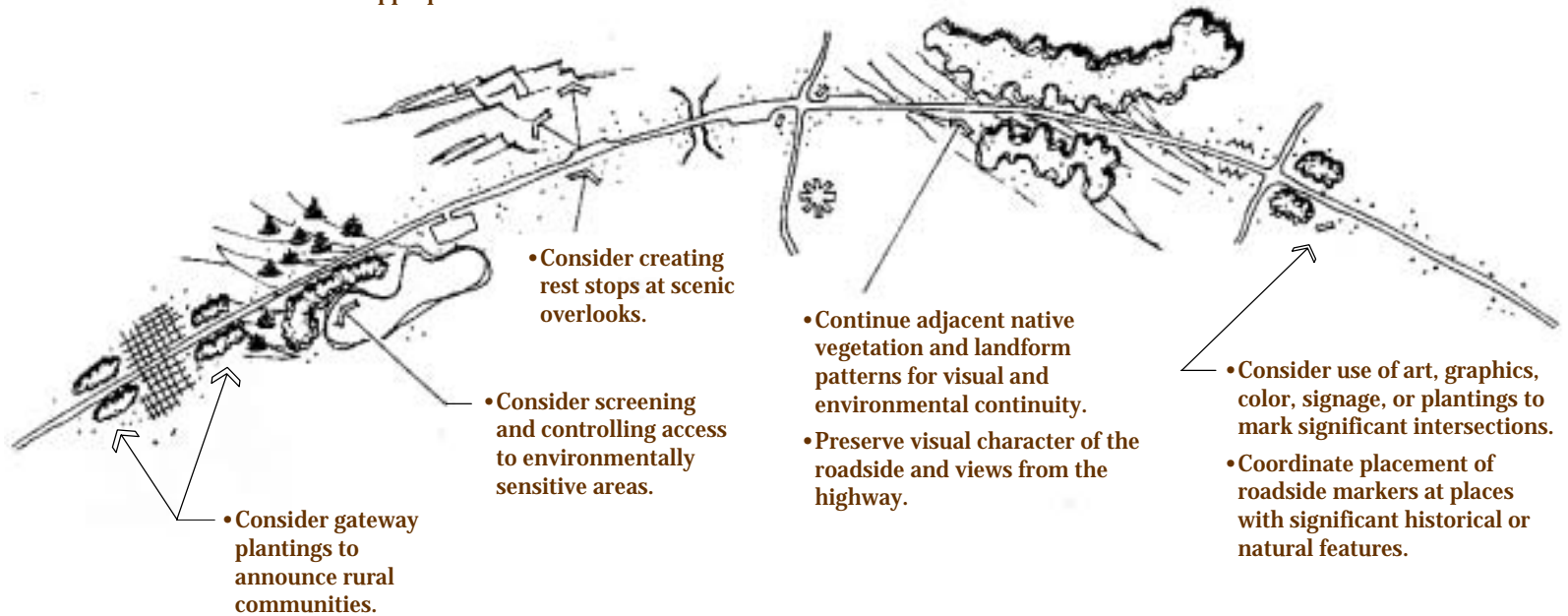
# RURAL HIGHWAYS

## Rural Communities

- Create a transition between rural highways and more pedestrian-oriented city streets.
- Consider ways to reinforce a sense of place.
- Encourage reduced speeds with gateway plantings and signage.
- Low-cost treatments are appropriate.

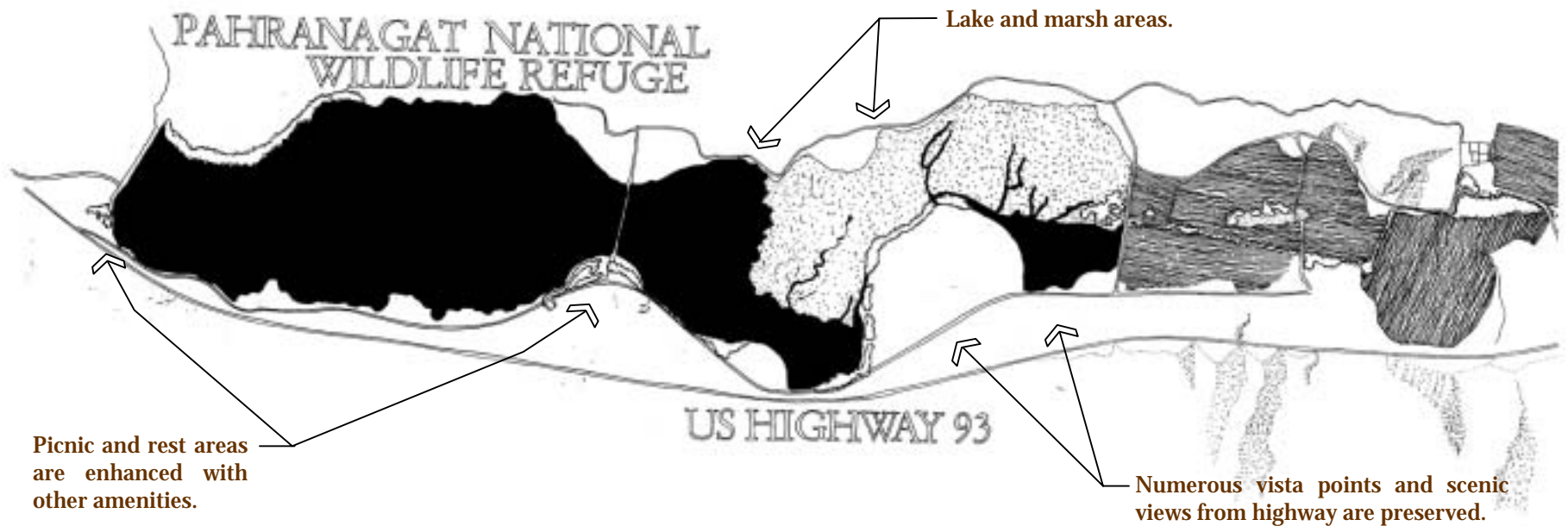
## Rural Landscape Segments

- Environmental and contextual factors dominate.
- No-cost treatments are appropriate.



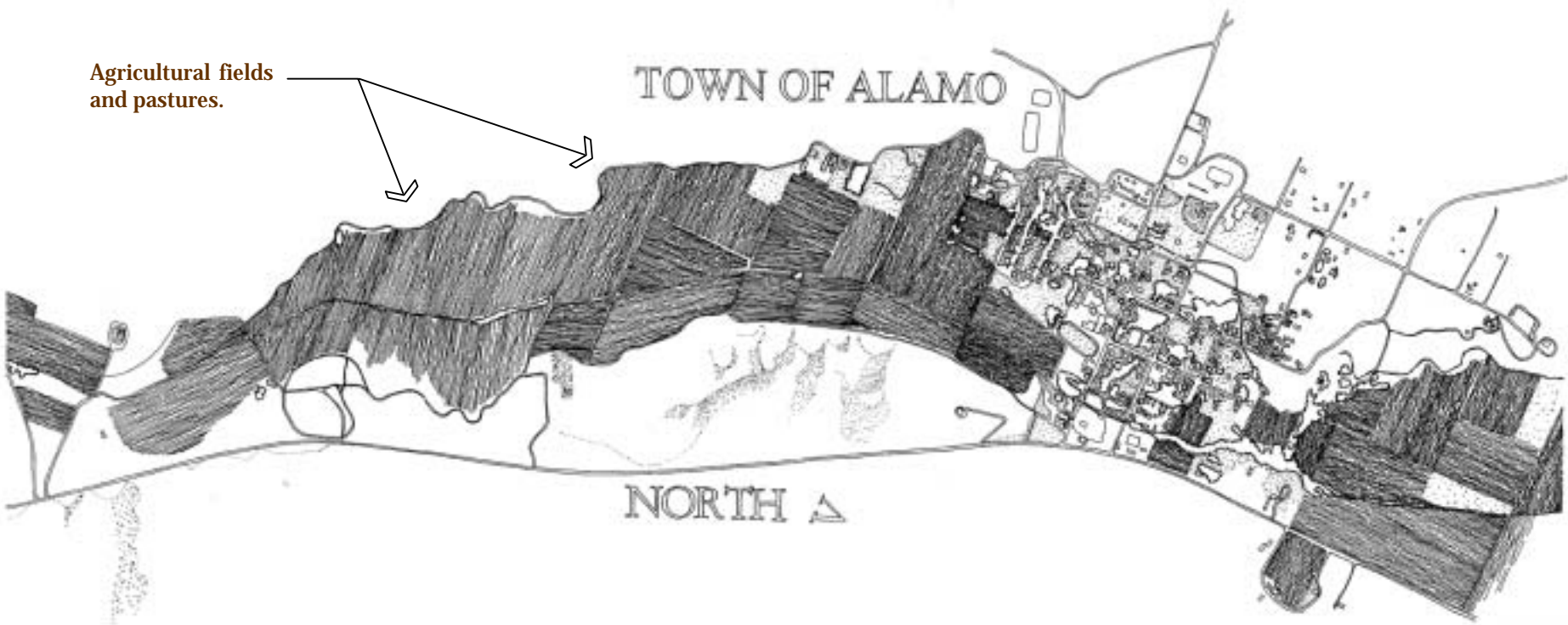
## Visual Checklist of Landscape and Aesthetic Opportunities

## Rural Highway and Open Space Conceptual Design



The drawing on pages 48-49 shows the aesthetic character of the stretch of US 93 between the town of Alamo and the Pahranaagat National Wildlife Refuge.

Agricultural fields  
and pastures.



## Rural Highways: *Guidelines*



Lake Shore Drive, Lake Mead.

### **Aesthetic Guidelines**

- Fit the road into the curves and hills of the land, making the smallest disturbance that is practical and economically feasible.
- Blend cut-and-fill slopes into the surrounding landforms.
- Use earth-toned paints and stains, and self-weathering metals that match their surroundings.
- Use natural stone in wall surfaces where possible.
- Continue native vegetation species and patterns into the right-of-way and across wide medians of divided highways, to combine visual and environmental continuity with low maintenance.
- Use art, land graphics, and special plantings sparingly. If used, concentrate at significant interchanges, such as community gateways.



### **NO-COST TREATMENTS**

SR 166, Lakeshore Road, Lake Mead National Recreation Area.

Engineered slopes are carefully blended into the surrounding landforms (top). Self-weathering materials blend into the landscape (bottom). These add \$ 0 to the basic cost of a rural highway because these features are all required for safety and environmental mitigation. Annual maintenance is low.\*



### **LOW-COST TREATMENT**

SR 341 near Gold Hill, and native vegetation seeding on US 93 in Arizona.

Simple graphics, materials, or color on structures and/or enhanced native vegetation add \$40,000 to \$80,000 to the basic cost of an interchange. Maintenance is low.\*

\* Maintenance costs are project-specific and are estimated during the project design phase. Maintenance costs should be a factor in selecting a final design alternative.



### **HIGH-COST TREATMENT**

Snow Mountain interchange, Las Vegas Paiute Reservation, US 95 north of Las Vegas.

Land graphics; colors and patterns repeated on bridges, traffic barriers, and planters; painted patterns on slopes; decorative details on fencing; and/or enhanced native or adapted plants. These treatments add \$80,000 or more to the construction cost of the interchange. Maintenance is high.\*



## **Open Spaces:** ***Landscape and Aesthetic Opportunities and Guidelines***



Pahrangat National Wildlife Refuge viewed from US 93.

Open spaces are green spaces where land uses are particularly sensitive to the visual, noise, and other impacts of a highway. Design, construction, and maintenance must respect the values placed on these spaces, such as wildlife habitat, cultural or historical significance, or recreational uses.

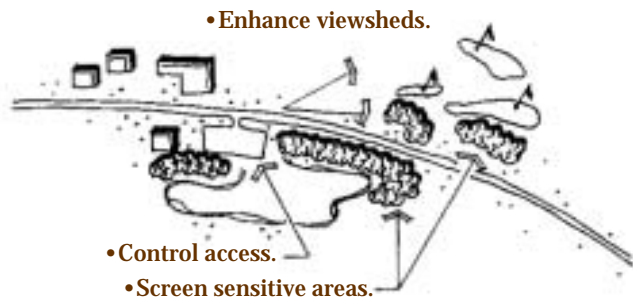
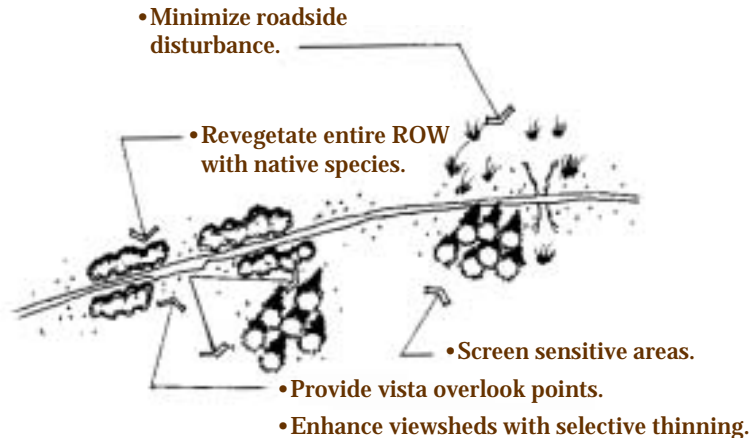
Open spaces are found in both rural and urban areas. Wildlife refuges, state and national parks, archaeological sites, range lands, and agricultural fields are examples of rural open spaces. Parks, plazas, and nature preserves are examples of urban open spaces.

By definition, open spaces have landscape and aesthetic opportunities that are unique to each specific place. A community can use the treatments suitable for the type of highway – urban freeway, rural highway, or city street – where the open space is found. Most of the treatments will be used to mitigate environmental impacts and therefore will add \$0 to the basic cost of the highway.

Because open spaces are particularly sensitive, it is especially important to follow the aesthetic guidelines in the Master Plan during corridor planning and project design.



## Open Spaces: Opportunities and *Guidelines* - continued



### Aesthetic Guidelines

#### Rural Settings:

- Display high sensitivity to the cultural, historical, and natural resources of adjacent lands, such as wildlife refuges, archaeological sites, and scenic byways, while following the guidelines for Rural Highways.
- Emphasize natural-looking forms and materials, derived from the local area, to complement the character of the land and interpret the major design themes from the corridor plan.
- Coordinate rest stops and scenic overlooks, with buffers, screens, and access control in the most sensitive areas.

#### Urban Settings:

- Display sensitivity to adjacent land uses such as parks, nature preserves, and urban plazas.
- Retain views of open spaces from the highway and limit signage, wherever practical, to improve the driving experience.
- Follow the guidelines for Urban Freeways and City Streets.

### Visual Checklist of Landscape and Aesthetic Opportunities

Please see pages 54-55 for a conceptual drawing of the open space setting.

## Open Spaces: *Examples of Landscape and Aesthetic Treatments*



Native Vegetation and riprap along SR 28 at Lake Tahoe.



SR 166, Lakeshore Road, Lake Mead National Recreation Area  
Pre-cast concrete barrier respects the 1930's heritage of Lake Mead, meets current safety standards, and blends into the landscape (detail below).



Free-standing wall art depicting Nevada's state fossil at Ichthyosaur State Park, Berlin, NV.



## Safety Rest Areas

Safety rest areas are places designed for the comfort and safety of travelers, where motorists may stop for short periods of time to rest and relax. They should be functional, visually pleasing, economical to build, easy to maintain, and safe. Rest areas can serve as gateways to the State and to communities, and often incorporate roadside markers.

The State of Nevada has five different types of rest areas that range from wide places in the road where drivers can pull off safely (rest stops, primitive rest areas, and basic rest areas) to major facilities, known as complete rest areas and welcome stations.



Memorial Point Visitor Center, with interpretive kiosk in a prominent position . SR 28, Lake Tahoe .



Rest stop at Lake Mead National Recreation Area. The site has been restored with native plants and rock so that it blends seamlessly with the undisturbed landscape.

## **Safety Rest Areas:** ***Landscape and Aesthetic Opportunities and Guidelines***

### **Aesthetic Guidelines**

- Consider scenic values when selecting sites.
- Site development should not detract from scenic quality. Blend the site into its surroundings.
- Locate and design complete rest areas and welcome centers to serve as gateways to the State.
- Enhance rest stops, primitive rest areas, and basic rest areas to serve as gateways to rural communities or state parks.
- Use plants, materials, and design themes to emphasize the identity and character of place. Include information kiosks or markers.

Please see page 54 for a conceptual drawing showing opportunities for rest areas.



Information kiosk at Memorial Point Rest Area, Lake Tahoe.



# REST AREAS

- 
- Interpretive signs, monuments, and markers can enhance a rest area.
  - Provide at least one picnic table, litter barrel, and shade structure.
  - Separate picnic areas 20'-30' for privacy.
  - Facilities should match design themes and materials specified in the corridor plan.
  - Enhance with shade trees where environmentally appropriate.
  - Revegetate to control foot traffic.
  - Provide a revegetated buffer for increased safety wherever possible.
  - Screen maintenance areas using regionally appropriate plants.
  - Facilities should match design themes and materials specified in the corridor plan.
  - Consider adding interpretive trails or kiosks.
  - Consider adding tree-shaded picnic groves where environmentally appropriate.
  - Divide paved areas with plantings.
  - Separate truck/RV/bus parking from cars and bicycles.
  - Provide a revegetated buffer for increased safety.

## Visual Checklist of Landscape and Aesthetic Opportunities

## Examples of Safety Rest Area Treatments



Rest stops, primitive rest areas, and basic rest areas provide picnic tables, litter barrels, and toilets. Some have telephones and are universally accessible.

This primitive rest area along SR 341 in Virginia City also incorporates an historical marker and a panoramic overview of the city.



Complete rest areas and welcome stations have running water, restrooms, and are universally accessible. Some have truck parking, picnic tables, and RV services. Welcome stations have staffed visitor centers.

The Memorial Point Rest Area, pictured here is located on SR 28 near Sand Harbor. The site, once just a parking lot, now includes an information kiosk, rest rooms, trails, and an observation deck with views of Lake Tahoe.



# Guidelines for Gateways

Gateways are highly visible areas that are specially designed and maintained to convey the first impressions and the identities of our neighborhoods, communities, towns, cities, regions and State.

Gateways provide special opportunities to celebrate the people and places of Nevada. They set the tone for driving through the highway corridor by introducing the design theme selected by the community. Gateways are established by local request. They generally are designed, constructed, and maintained by NDOT in partnership with local governments. Costs can range from low to high.

## Aesthetic Guidelines

- Introduce the strongly defined design theme developed in the corridor plan, using plants and materials that will be repeated throughout the adjacent highway corridor
- Execute the design in a clear, consistent, and bold manner since repetition of the design is the basis for the unique identity of the corridor.
- Enhance the special features and elements of the site selected to become a gateway.

Please see pages 39 and 49 for conceptual drawings of gateway opportunities.



# Guidelines for Transportation Art

Well conceived works of art, properly located for visibility and safety, improve the driving experience and enrich adjacent neighborhoods. Transportation art is public art specifically commissioned to be placed within the State highway right-of-way. It may be permanent or temporary; constructed as integral parts of highway structures or added after construction; painted on highway structures; or placed in spaces within the right-of-way.

Transportation art must be developed in cooperation with responsible local organizations representing the neighborhood and community that will host the artwork.

## Aesthetic Guidelines

- Fully integrate transportation art into highway design in a manner consistent with the landscape and aesthetic guidelines established for the corridor.
- Pursue partnerships with neighborhood, recreational, nature, and other civic groups to create neighborhood variations on the corridor's major design themes for added aesthetic value.
- Design artwork appropriate for the proposed setting. Artwork should (1) be in proper scale with its surroundings and pre-determined viewing angles; (2) not create an excessive distraction to motorists; and (3) not adversely affect existing landscape and aesthetic treatments.



Artwork discovered along the streets and highways of Phoenix.

## **Section 4: Funding**

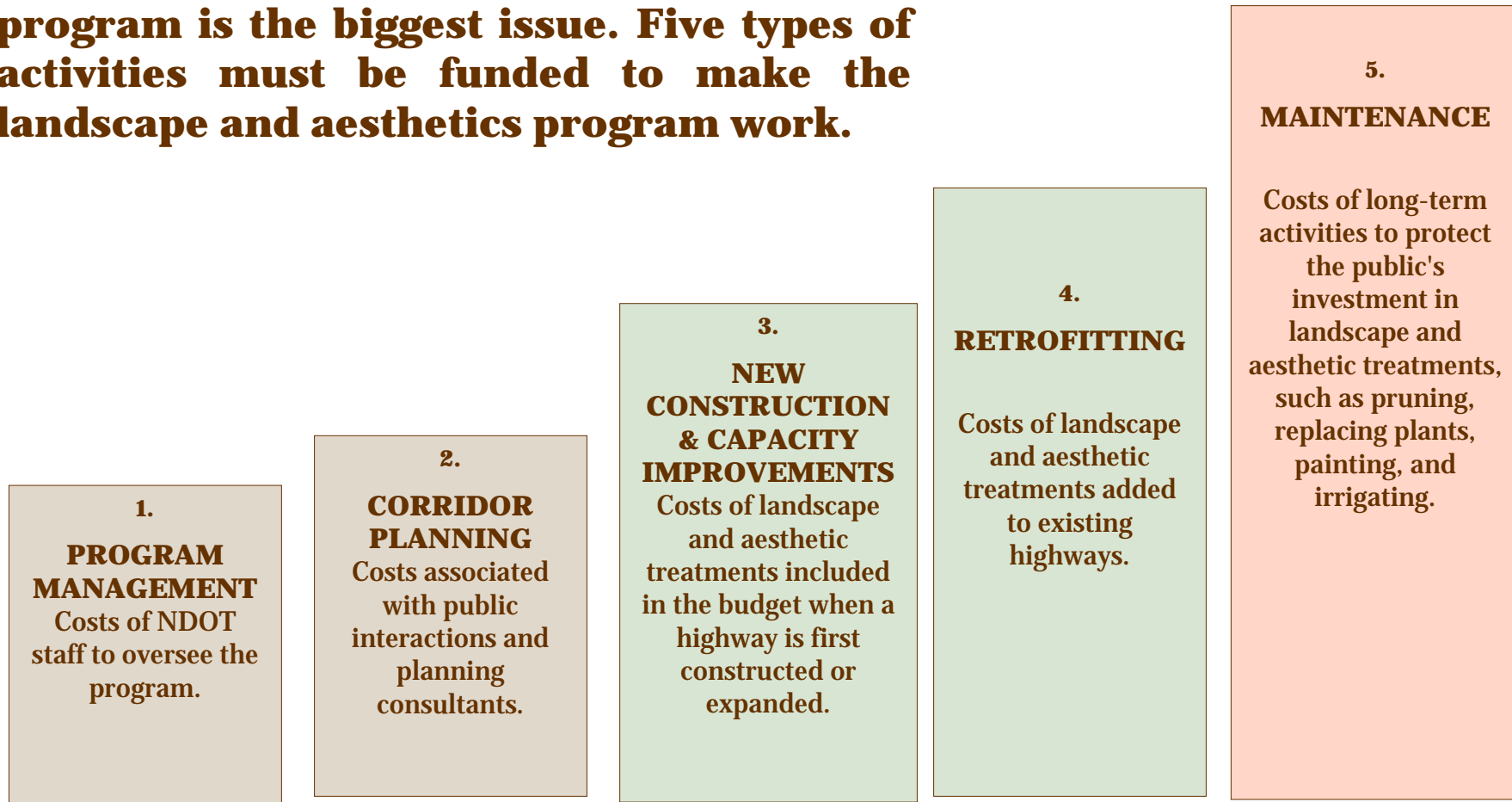
**This section examines funding issues and revenue sources associated with landscape and aesthetic treatments.**



**I think the State of Nevada should definitely focus on major corridors, making highways of significance across the state.**

***G. Miller, Elko***

**Funding the landscape and aesthetic program is the biggest issue. Five types of activities must be funded to make the landscape and aesthetics program work.**



Of the five types of activities described above, long-term maintenance presents the most difficult funding problems. Costs are not well-defined; they can change from year-to-year; and they continue for the life of the highway.



# How Landscape and Aesthetic Decisions Affect Costs

Landscape and aesthetics apply to the entire NDOT-managed highway system – urban freeways, rural highways, city streets, open spaces, rest areas, and maintenance yards.

Some treatments that improve the appearance of our highways are included in the normal process of designing, constructing, and maintaining a highway. These treatments are required for safety or environmental mitigation and are already included in the basic cost of a highway project. They do not add any extra landscape and aesthetic costs.

On the other hand, some treatments go beyond what is needed for safety or environmental reasons. These treatments can add significant landscape and aesthetic costs to the normal required costs of a highway project.

Examples of both types of treatments are described and illustrated on these two pages.



Design, construction, and maintenance of complex rock art.



Complex decorative planting.

Examples of treatments that **ARE** landscape and aesthetic costs:



Special textures and rock work.



Free-standing custom sculpture or other artwork.

## Examples of required safety and environmental treatments that **ARE NOT** landscape and aesthetic costs

- The size, color, texture, and distribution of rock mulch and native seed mix for erosion and dust control
- Establishment of plants for erosion and dust control
- Simple concrete or block soundwalls or retaining walls, with basic color, including the routine re-painting
- Shaping curves and road cuts to blend with natural topography and well-designed lines and proportions for bridges and soundwalls
- Fencing required to control access, grading and drainage
- New bike paths and walkways that are part of an approved transportation plan or other existing policies
- Any other expense incurred primarily to improve safety or mitigate environmental impacts (e.g., air quality, noise, or visual impacts)

Examples of treatments that **ARE NOT** landscape and aesthetic costs:



Rock mulch and native seed mix.

## Examples of treatments that **ARE** landscape and aesthetic costs

- Complex plantings and land graphics made of colored rock
- Long-term irrigation after plants are established
- Special block, rock work, or art for soundwalls or retaining walls
- Special painting, graphics, murals or other one-of-a-kind artwork
- Upgraded decorative fencing
- Any other expense incurred primarily to improve the appearance of the highway right-of-way



Bridge proportions or color.



The shape of a curve or slope of a road cut.

## Funding New Construction and Capacity Improvements

As a general rule, **3%** of total project construction costs on new construction and capacity improvements can be allocated to landscape and aesthetic treatments. NDOT will pay consultant costs for landscape and aesthetic design.



US 50 through Eureka.

## Funding Corridor Plans



View of Wheeler Peak from SR 488.

Effective October 1, 2002, NDOT will make **\$ 2 million per year** available from existing funds to accelerate corridor planning and complete as many corridor plans as possible during the first two years of the program. On October 1, 2004, the \$2 million per year will go into a 50/50 community matching grant program for retrofitting existing highways with landscape and aesthetic treatments. This program is described on page 68. Beginning on October 1, 2004, NDOT will contribute **\$500,000** per year to complete the remaining corridor plans, which is expected to take no more than 3 additional years, terminating September 30, 2007.

As outlined in previous sections of this Master Plan, a corridor plan will:

- Contain the major design themes and materials to be used in landscape and aesthetic treatments;
- Recommend the levels of treatment to be applied to highway features in the corridor, along with a broad cost estimate;
- Recommend priorities; and
- Outline strategies for funding of construction and/or long-term maintenance, including initial terms for relevant funding agreements.



## Funding the Retrofit of Existing Highways

Retrofitting our existing highways typically is initiated by requests from local governments, private parties, or non-profit organizations. Funding comes from varied sources.

An on-going source of funding is Federal aid enhancement funding that can be obtained through Nevada's existing Transportation Enhancement Project Selection Process. This program requires a match from non-federal highway sources and can include other contributions such as the value of local and state services, materials, and land.

Beginning on October 1, 2002, NDOT will contribute up to \$500,000 per year into a 50/50 community matching grant program to assist communities with landscape and aesthetic improvements to state highways. Beginning on October 1, 2004, NDOT will provide up to \$2.0 million per year into the 50/50 matching grant program. As part of the implementation of the landscape and aesthetics program, an evaluation team will be formed to ensure equity in the distribution of these funds.

## Funding Long-term Maintenance

The costs of **maintenance** of landscape and aesthetic improvements will be shared between NDOT and local governments. Written agreements must be in place before the landscape project is installed. Generally, NDOT will hire the maintenance contractor and then invoice the local government for the costs, in accordance with the written agreement.



SR 341, The main street of Virginia City.



# NDOT Yearly Funding Summary

Effective Dates Activities	October 1, 2002	October 1, 2003	October 1, 2004	October 1, 2005	October 1, 2006	Every October 1
Master Plan	Completed	-----	-----	-----	Formal update	Formal update every 5 years
Corridor Plan (1)	\$ 2.0 million	\$ 2.0 million	\$ 500,000	\$ 500,000	\$ 500,000	-----
Retrofit of existing highways (2)	\$ 500,000	\$ 500,000	\$ 2.0 million	\$ 2.0 million	\$ 2.0 million	\$ 2.0 million
New construction & capacity improvements	3 percent of construction costs	3 percent of construction costs	3 percent of construction costs	3 percent of construction costs	3 percent of construction costs	3 percent of construction costs
Maintenance of landscape & aesthetics	Shared per agreements	Shared per agreements	Shared per agreements	Shared per agreements	Shared per agreements	Shared per agreements
Program management & project design	NDOT cost	NDOT cost	NDOT cost	NDOT cost	NDOT cost	NDOT cost

(1) Timeframes associated with individual corridor plans may be accelerated through additional funding from stakeholders.

(2) 50/50 community matching grant program.



**The future of the Nevada  
highway system is at stake.**





Highways contribute to local and regional character when cultural and natural features, scenic views, and community identity are preserved and celebrated. The details of design can distinguish Nevada's highways and make them unique.

The process adopted in the *Landscape and Aesthetics Master Plan* is one way to ensure that landscape and aesthetics are consistently considered throughout the life cycle of every highway in the State. A separate *Implementation Plan* will be prepared that will go to the State Transportation Board for approval.

Together these documents provide the blueprint and a framework for use by NDOT and the citizens of Nevada to turn their vision for Nevada's highways into a reality.





**Yet the Master Plan and other NDOT documents are only the first steps toward celebrating Nevada's people and places. To assure success, the vision identified in the planning process must be realized in long-range transportation planning, in corridor planning, in designs for new projects, in plans for renovation of existing highways, and in ongoing maintenance.**



**As the landscape and aesthetics program takes built form, we hope that Nevada's citizens and visitors will experience a newfound kinship with our unique land.**

**Additional information  
is available from the websites listed below**

Nevada Department of Transportation  
[www.nevadadot.com/pub\\_involvement/landscape](http://www.nevadadot.com/pub_involvement/landscape)

Washoe County Regional Transportation Commission  
[www.rtcwashoe.com](http://www.rtcwashoe.com)

Southern Nevada Regional Transportation Commission  
[www.rtc.co.clark.nv.us/rtc](http://www.rtc.co.clark.nv.us/rtc)

Nevada League of Cities  
[www.state.nv.us/nvleague](http://www.state.nv.us/nvleague)

Nevada Association of Counties  
[nvnaco.org/NACo](http://nvnaco.org/NACo)