



# NDOT Landscape and Aesthetics Program



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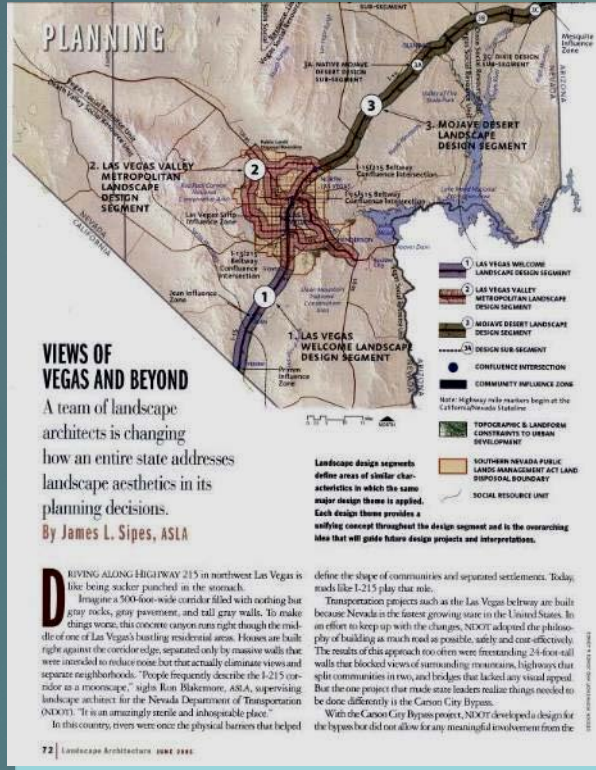






# Landscape and Aesthetics Master Plan

The Nevada Transportation Board adopted the Master Plan in 2002



- ❖ Vision
- ❖ Policies
- ❖ Process
- ❖ Funding

Landscape Architecture Magazine

“Landscape and Aesthetics” involves the total visual impression of the highway, encompassing landform, structures, plants, colors, textures and art.







# A Vision For the State Highway System



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

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

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





# Statewide Policies



## ❖ Landscape and Aesthetics Policy

“...landscape and aesthetics will be considered along with all other design factors in all transportation projects throughout their life cycles.”

## ❖ Policy on Partnerships

“...principles of context-sensitive design guide the development of transportation projects.”

## ❖ Policy for the NDOT Landscape and Aesthetics Program

“...emphasize regionally appropriate materials and drought-resistant plants.”

## ❖ Policy on Funding

“...develop cooperative agreements for funding the design, construction, and maintenance of landscape and aesthetic improvements.”





# Process



**Step 1  
Master  
Planning**



**Step 2  
Corridor  
Planning**



**Step 3  
Project Design**



**Step 4  
Construction,  
Operations, and  
Maintenance**

- ❖ Master Planning sets statewide policy, and establishes broad guidelines and process.
- ❖ Corridor Planning provides a management tool for decision making.
- ❖ Project Design fixes the details of what actually gets built at a specific site.
- ❖ Construction, Operations, and Maintenance ensure that highways are managed in a manner consistent with the design intent.





# Funding

Five types of activities have been funded to ensure a successful landscape and aesthetics program.

1.  
**PROGRAM MANAGEMENT**  
Costs of NDOT staff to oversee the program.

NDOT Budget

2.  
**CORRIDOR PLANNING**  
Costs associated with public involvement and planning consultants.

NDOT Budget

3.  
**NEW CONSTRUCTION & CAPACITY IMPROVEMENTS**  
Costs of landscape and aesthetic treatments included in the budget when a highway is first constructed or expanded.

3% of Construction

4.  
**RETROFITTING**  
Costs of landscape and aesthetic treatments added to existing highways through local partnering.  
  
Up to \$2 M/yr in matching funds.  
  
*\* \$5 M/yr in target allocation*

Community Match – Target Allocation

5.  
**MAINTENANCE**  
Costs of long-term activities to protect the public's investment in landscape and aesthetic treatments such as pruning, replacing plants, painting, and irrigating.

NDOT & Local Funds





# Landscape and Aesthetics Corridor Plans



- ❖ Promote community involvement in decision making process
- ❖ Initiate intergovernmental cooperative planning and agreements
- ❖ Determine major design themes, levels of treatment, and cost goals for the corridor
- ❖ Prioritize landscape and aesthetic projects for future development, design and construction
- ❖ Estimate long-term maintenance costs and establish overall program budgets





*1-80 landscape and aesthetics corridor plan*



CORRIDOR PLAN

*US 395, West US 50, SR 28, SR 207 and SR 431  
landscape and aesthetics corridor plan*



CORRIDOR PLAN

*Central US 95, West US 6, and Central US 50  
landscape and aesthetics corridor plan*



*1-15 landscape and aesthetics corridor plan*

CORRIDOR PLAN



CORRIDOR PLAN

*US 93, East US 6, and East US 50  
landscape and aesthetics corridor plan*



CORRIDOR PLAN

*Southern US 95 and US 93  
landscape and aesthetics corridor plan*







# Levels of Landscape Treatment

## Softscape Treatment Types







# Levels of Landscape Treatment

## Hardscape Treatment Types



Standard



Accentuated



Focal



Landmark





# Sustainability

## Three Pillars of Sustainability

- **Economic Prosperity**

Completion of an NDOT Landscape and Aesthetics project can involve as many as 20 different professional disciplines in fields ranging from biology to welding.

- **Environmental Protection**

Practices include using drought tolerant vegetation, water harvesting, erosion control, revegetation including cactus salvage and replanting and protection and creation of wildlife habitat.

- **Social Justice**

Projects help communities maintain a sense of pride, improve property values, attract business and reduce graffiti.







# Sustainable Applications

## Cactus Salvage and Replanting

Salvaging native cacti protects endangered cactus, allows for replanting on projects

## Native Seed Mixes/Native Plants

Require less water to germinate and thrive in Nevada's climates with little maintenance and no long term irrigation.

## Soil Amendments

Helps with water retention at the plant's roots and supply nutrients for more successful plantings.







## SUSTAINABLE APPLICATIONS:

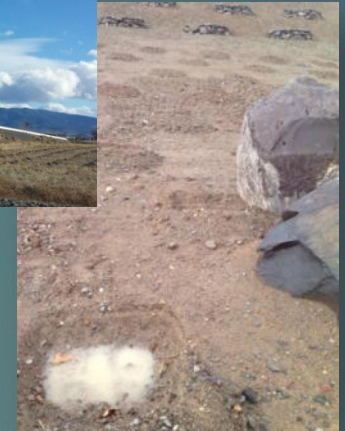
### Water Harvesting:

Reduces stormwater runoff volume from paved surfaces, reduces peak discharge rates, increases recharge through infiltration, and reduces pollutant transport through direct infiltration.

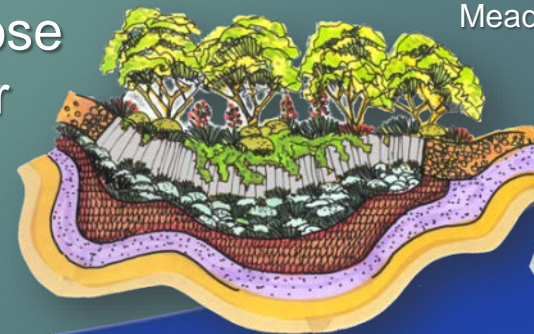
A 6,000-square-foot paved site in Northern Nevada produces more than 32,660 gallons of annual runoff.

### Local Materials:

Require less energy to transport than those brought in from long distances and better suit the projects aesthetically.



Water harvesting basins,  
Meadowood Mall Way,  
Reno.







# Vision to Reality

## I 15 Design Build /South



## CONCEPT AND VISION

### CONCEPT 1: DAWN OF A DESERT CITY

The Blue Diamond Interchange theme, previously designed by our team and built by Las Vegas King, reveals the native wildlife and geologic rock and mountain patterns that characterize the natural splendor of the area. This theme is a reflection of how geologic time has shaped the area today. "Dawn of a Desert City" continues the timeline concept - starting with native "preman" depicted in Blue Diamond's words and celebrating the northward traveling public of "man" that the railroad began from a cultural, social, and historical context about Las Vegas' beginning. Southbound would reflect the timeline in reverse. Moving within this theme is a modern interpretation of our desert's wishes and services expressed as continuous ribbons that symbolically link the traveler with each historical and geological context identified up to Russell Road. Concept ideas focus on an "art" historical points in time, artistically expressed at each interchange or crossover with a subtle graphic inspiration, time-relevant, unique and identifiable to the traveler.

Applying the design objectives, this concept uses landscape and aesthetic treatments ranging from re-establishing native conditions to artistic metal and concrete forms.

### HISTORIC CONTRIBUTIONS



## CONCEPT AND VISION

### CONCEPT 2: NATURE'S RESIDENTS

This concept also uses the Blue Diamond interchange as a starting point. Another interpretation of this interchange is its wonderful celebration of wildlife and botanical diversity captured in the bridge abutment murals. Our "Native" concept spotlighted the diverse ecosystem of Southern Nevada, allowing us to reimagine our "residents" on a grander scale. We celebrate certain wildlife species in the Blue Diamond Abutment as designed being the Desert Bighorn Sheep and Coyote found at our abutment, Desert Hawks and the raptorial. We have incorporated this in a way that celebrates the unique "wells the desert offers, how we "coexist" with nature. This theme comes through the "Urban Industrial Background" and translates into the "Hamboyart Resort Corridor" at Russell Road.

Applying the design objectives, this concept uses landscape and aesthetic treatments ranging from re-establishing native conditions to artistic metal and concrete that capture recognizable forms.

### FEATURED RESIDENTS



### DEFINING THE NODES

- Setting 1:** Blue Diamond Interchange - This is the basis and beginning for the celebration of this theme.
- Setting 2:** Warm Springs Bridge crossover - This theme celebrates the life and actions of the Bad Hawk and other Desert Hawks that make this desert home.
- Setting 3:** 12/15/17/18 Interchange - These quadrants in this interchange celebrate the Desert Bighorn Sheep and wild horses that make this area home with scenes of sheep overlooking custom "earth wall" and rock outcroppings and wild horses in action.
- Setting 4:** Sunset Road Bridge crossover - This Bridge portrays the life and actions of desert coyotes chasing rabbits and other action scenes.
- Setting 5:** LPRV Crossing - This area celebrates wildlife using painted steel images of bunnies and snakes that make the area home.
- Setting 6:** Russell Road Interchange - This area celebrates wildlife with 3-D images of desert bighorn sheep looking the Bridges on pillars. These are images people will identify with. This bridge will also incorporate modern patterns in the fencing that relates to the soil curves in the landscape yet provide artistic expression to associate with other areas of the overall I-15 corridor plan. The ground plane complements the natural desert where the wildlife flourish.
- Setting 7:** Humboldt Bridge crossover - The paragon and beaming aesthetics will match the aesthetics proposed at Russell Road to maintain unity.
- Setting 8:** Trinchero Avenue Interchange - The ground treatment for this interchange will be similar to the treatment proposed at Russell Road. All existing trees were removed so all landscaping will be new with decorative rock beds, earth walls and landfills.



### THEMED METAL WORK AND HARDSCAPE

Hardscape treatments shape the aesthetic character with the aid of finishes. These treatments are applied throughout the project using a use of materials and textures that tie together with other areas of site specific durable concrete will concept we've used accessibility to reinforced trench walls coated to look like weather-weathered concrete on the form.

Metalsmith provides another dimension to capture this theme. These integrated directly onto existing chain link fencing on top of the 20' or so wall sections expressed as vertical monuments to the ground plane. 1215 Interchange engages thematic symbolism of Bighorn Sheep exploring the scenes. Aesthetics transition with a modern paragon interchange gateway to the "Hamboyart Resort corridor" using 3-D Bighorn Sheep sitting on pillars.



Earth Concrete Wall



Steel Sculpture



Chainlink Fence Graphics



3-D Sculpture

### DEFINING THE HISTORICAL MILESTONES AT KEY CORRIDOR LOCATIONS

- Setting 1:** Before 2500 BC - Blue Diamond Interchange theme represents when early wildlife and geologic patterns defined the Las Vegas Valley.
- Setting 2:** 300 BC to 1700 AD - Warm Springs Bridge Flower theme represents the early habitation of the Anasazi and Navajo Indians to the corridor. Photos of the Las Vegas area: Images symbolic photographs found in the adjacent link and location known for hunting small game with bows and arrows for survival.
- Setting 3:** 1820 to 1855 - 1215/17/18 Interchange has four quadrants. Two will symbolize the Spanish trail through Las Vegas where the first American explorer scout came through Las Vegas with horses on a trail. The third quadrant portrays the first settlement of the Americans along with the local tribes who inhabited the area to develop farming on a trade to those who came through Las Vegas on the trail. The southeast quadrant metal walls to trailers coming into Las Vegas play on the trail early settlements of the Anasazi recreating a public scene resembling earlier wall challenges within rock cliffs with pottery patterns using decorative rock of the existing slopes.
- Setting 4:** 1860 to 1873 - Sunset bridge crossover theme represents the beginnings of historic land are mining in the First Mine in the Spring Mountain area and delivering it to bars to another in Las Vegas.
- Setting 5:** 1905 - The LPRV crossing aesthetics play on the railroad theme where a line from Salt Lake City makes its not connection here in Las Vegas to a line leading to Los Angeles have known as the Union Pacific. Las Vegas came an important stop for engine repairs and refueling with wood and water from the "Springs". This is the last historical key time marker before Las Vegas blossoms with hotels and later gaming leading into the next sub-section.

This ends the concept's vision of the "Urban Background" and begins the transition into the "Hamboyart Resort" sub-section.

- Setting 6:** 1920 to 1940 - As the "gateway" interchange to the Strip, the Russell Road interchange celebrates architecture's historic "Art Deco" period of time in Las Vegas using forms and patterns seen on Hoover Dam, Las Vegas High School, Las Vegas Rail Station and other early strip architecture. The ground plane landforms use "art deco" as an art expression to create forms more associated with more structured landscape patterns playing on the natural landforms and landscape patterns expressed in the "Urban Background" to create visual interest.
- Setting 7:** Humboldt Bridge crossover - This bridge creating has no walls so it reaches past the traffic lanes on each side to a further point. Landforms applied to the chain link fencing provide consistency with the Russell Road structures.
- Setting 8:** Trinchero Avenue Interchange introduces similar ground treatments using landscape, decorative rock and functions found at Russell Road Interchange to provide consistency in the corridor subsection.

### THEMED METAL WORK AND HARDSCAPE

Hardscape treatments shape the aesthetic character with the aid of accents and finishes. These treatments are applied throughout the project area with consistent use of materials and textures that tie together with other areas of the corridor.

Metalsmith provides another dimension to capture this theme. Thematic treatments are integrated directly onto existing chain link fencing on top of the paragon. Metalsmith art sculptures expressed on vertical or horizontal monuments to the ground plane proposed at 115/1215 interchange engages thematic symbolism capturing the essence of the theme. Aesthetics transition with a modern paragon at Russell Road Interchange, gateway to the "Hamboyart Resort corridor".



Monument Wall at I-215



Aesthetics on New Bridge Paragons



Monument at Russell Road



Steel Sculptures at I-215



Monument at Russell Road





















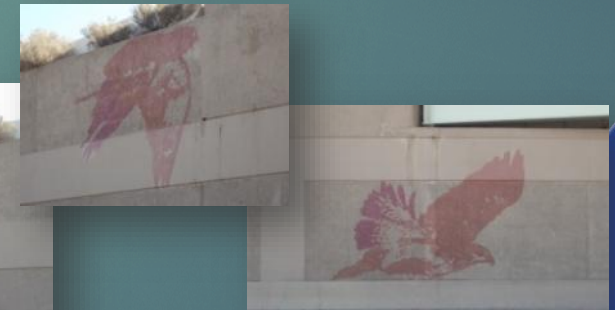
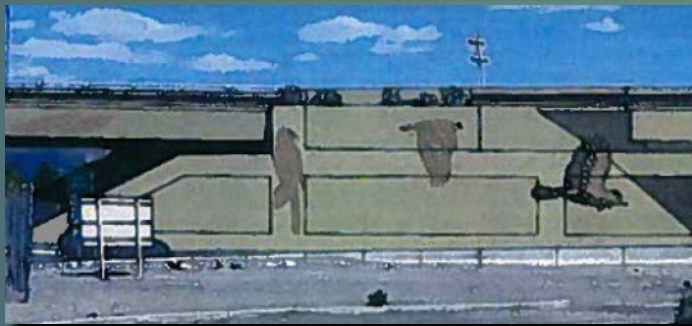






MILL STREET OFF RAMP  
FACING NORTH









# I 580 Retrofit







# I 515 Retrofit







# Partnering - Meadowood Interchange







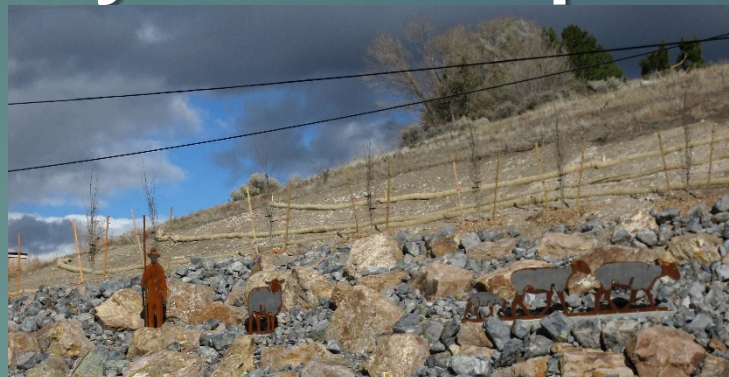
# Partnering - I 580 Carson City







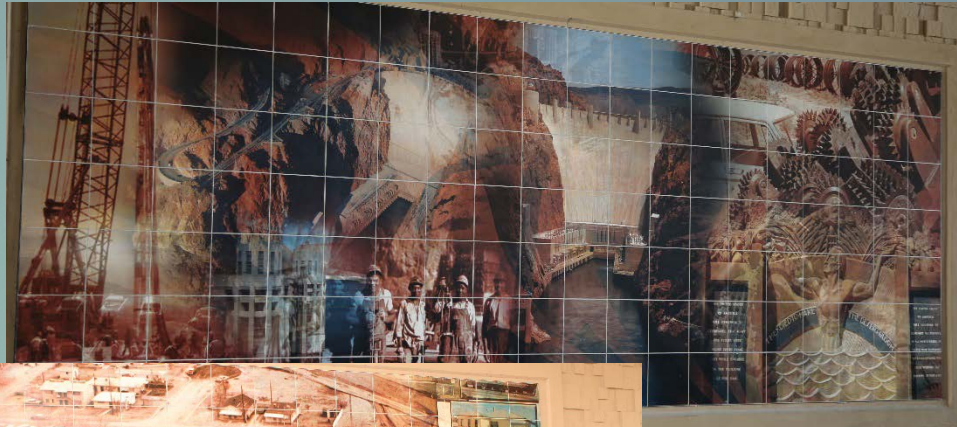
# Partnering - Elko City Streetscape







# Partnering/ EJ – F ST







# Reno/Sparks







# Las Vegas







# Rural Nevada



Schellbourne



Searchlight



Carlin

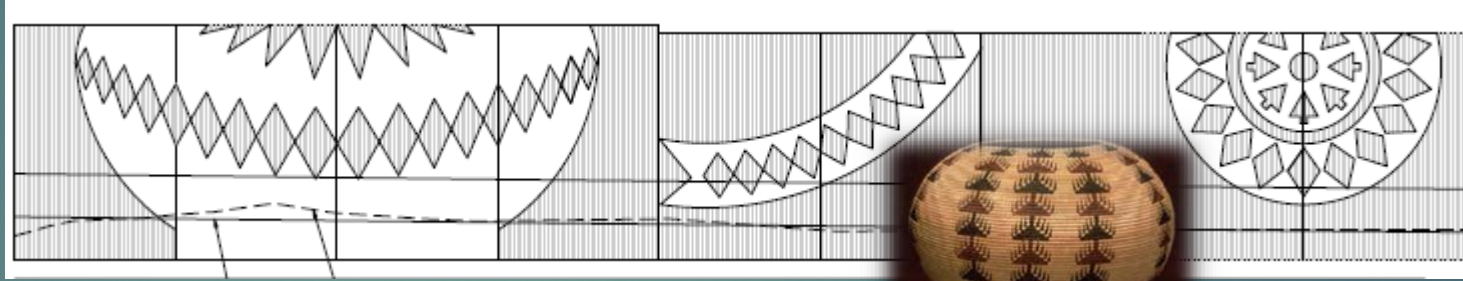


Wildlife Crossing



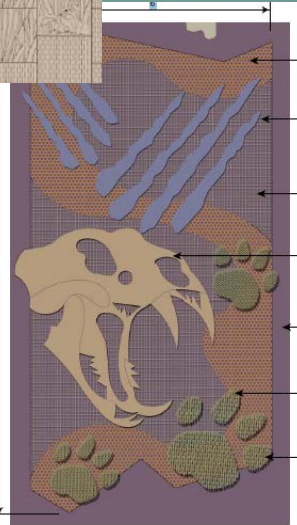
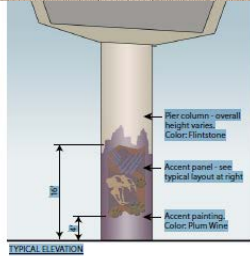
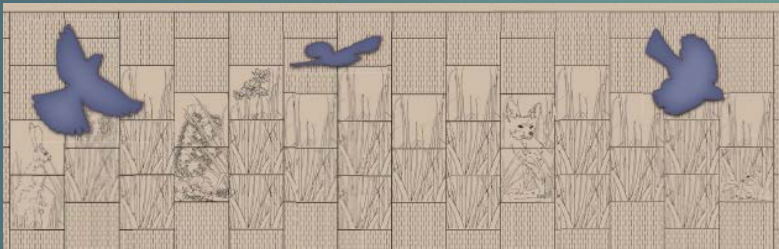


# Upcoming Projects



NEON

I 580 Carson



GRAPHIC PANEL "RISE OF THE MAMMALS"



US 95 Package 2A

US 95/CC 215  
Interchange







# Upcoming Projects



I 580 @ S. Virginia ( Summit)



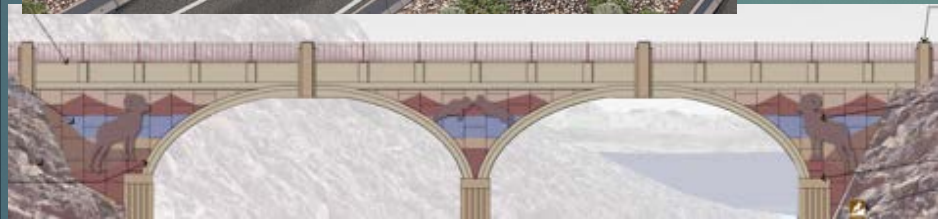
US 95 – Kyle Canyon



I 11 Phase 2



I 15 - Starr







# Benefits

Beautiful, site-appropriate highways contribute to Nevada's economic vitality and enhance the quality of life of its residents .

- Employs local professionals and firms, from landscape architects and engineers, biologists to artists
- Employs individuals and companies in multiple and varied construction and fabrication fields
- Reduced graffiti
- Provides site stabilization for water quality and air quality; reduces soil erosion
- Restores native vegetation and protects wildlife habitat
- Provides welcoming environment to our tourist-driven economy
- Provides improved quality of life for locals
- Provides "curb appeal" for attracting new businesses and residents, for a diversified economic base





# Acknowledgements

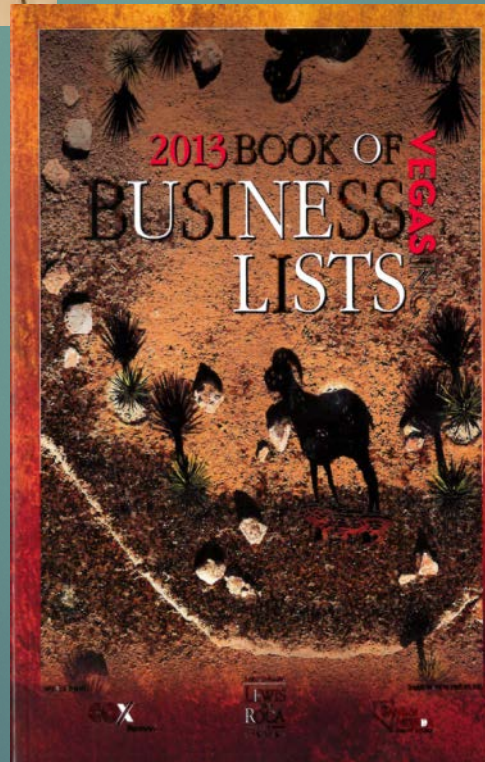
“Another part of all these projects might be a bit more subtle but also is important. That’s the effort - and money -- that NDOT and other agencies have committed to public art to go along with the road improvements. It’s a recognition that road building doesn’t have to create a blight on the landscape but can instead beautify the community visually, too.

They’ve succeeded.”  
RGJ editorial



“When you see public art instead of a bunch of weeds, it shows we’re trying to present ourselves in a certain way, that we take your business seriously and we take this community seriously. Public art elevates and challenges people. It soothes and encourages.”

Reno artist Paolo Cividino  
RGJ Reno Rebirth





# Public Approval

“It is so lovely to see the painted concrete decorations, the magnificent statuary and the beauty created with just rock and gravel. Thank you so much for cleaning up the trash and weeds and making our roads something to be proud of and appreciated. It shows we care about our city and how we appear to ourselves and others.”

“...how pleased we are with the facelifts and improvements you have given the freeways.”

“The overpasses and wall artwork and standards/monuments are so appealing. ... you have found a way to make the byways attractive and reflect the spirit of the West.”

“Great job on the I-15 south project. I drove to the south valley yesterday to get a look at it and it's impressive ...”

“We would sometimes cringe at the arid open areas by the freeways and the graffiti covered overpasses. But with the new designs for the signage and the adornment you have incorporated, it really is a sight for tired eyes!!! And what an impact all of this must make on visitors to our area...it shows local pride.”

“you are doing a great job in improving the freeways in the Las Vegas valley.”

“...landscape and aesthetics components to leave a good impression for our visitors and residents.”







"I want Texas to look like Texas, and Vermont to look like Vermont," she once said. "I just hate to see the land homogenized."

