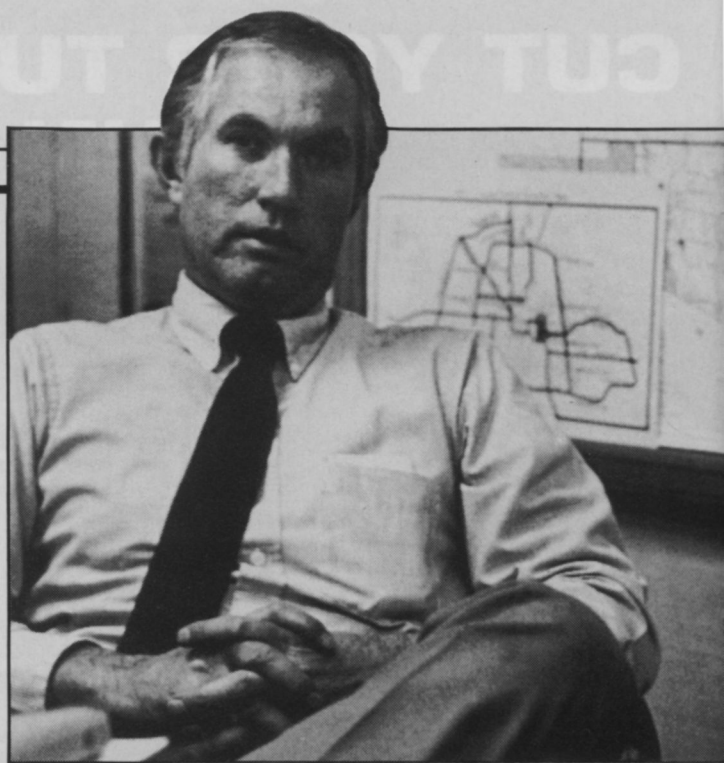


UNDER CONSTRUCTION

Growth in the booming Valley of the Sun and surrounding areas presents a challenge to the Arizona Dept. of Transportation's Highway Division. Another challenge: landscaping in a furnace-like environment.

by Carl Kovac



LeRoy Brady, manager of roadside development for the Arizona Dept. of Transportation, says water conservation and aesthetics are factors to consider when developing a roadside landscape.

In Maricopa County, Ariz., the shortest distance between any number of points is—or will be over the next couple of decades—under construction.

By 2005—if all goes well—Phoenix, the state capital and county seat, will be ringed and bisected by freeways which, among other things, will make it easier to get to surrounding cities such as Mesa, Tempe, Chandler, Glendale, Scottsdale, and Sun City, not to mention the West Coast and points east.

These highways will be more than just six-lane concrete ribbons snaking across the sprawling Valley of the Sun; they'll be bordered by landscaping in tune with the Grand Canyon State's unique ecology.

There are good, pragmatic reasons for this, not the least of which are water conservation and aesthetics.

Average annual rainfall in Maricopa County is a mere 7.03 inches. The Tucson area to the southeast gets about 11 inches a year and Prescott, to the northwest, 17 to 18 inches. Of the county's 9,127 sq. miles, only 98.2 sq. miles are water—lakes, rivers and canals.

Low water, low maintenance

These figures become quite significant in light of the fact that Maricopa County is the largest producer of crops and livestock in the state.

"By and large, we'll be using desert, low-water requirement plants along rights-of-way," says LeRoy Brady, manager of roadside development for the Arizona Dept.

—Carl Kovac is a freelance writer based in Cleveland.

of Transportation's Highway Division. "Desert-type landscaping minimizes use of closely planted growth and maximizes use of large trees and shrubs, giving a green landscaping appearance and reducing water use."

A variety of natural and hybrid plants—some of foreign ancestry—have been selected to grace Arizona's highways. "We're using Chilean and Argentine mesquite, for example," Brady reports, noting that "they're native to their countries, but in the process of nursery development in the U.S., they became hybrids. We're also planting eucalyptus, which is native to Australia."

Other trees, shrubs and ground cover finding homes along roadways throughout Arizona include blue and Sonoran palo verde, desert willow, acacia, cassia, myoporum, oleander, and verbena.

Turf is being used along parts of some rights-of-way, decomposed granite along others. "We take a conservative approach; we leave some open areas," says Brady. "The soils here are low in organic material and when it's dry, they'll blow. We use decomposed granite for erosion control and ground cover to alleviate the dust you get from native soil."

The AMA list

What gets planted where throughout the state depends largely on the availability—or lack thereof—of water. With this in mind, Active Management Areas (AMAs) have been designated and will go into effect in Phoenix, Prescott, Casa Grande, and Tucson Jan. 1, 1987.

As of that date, says Brady, any plants not on the AMA's low-water requirement list will not be planted along rights-of-way. "In the Phoenix AMA, for example, no turf will be planted after the first of next year," he says. "Each of the AMAs will be working to reduce per capita water consumption. In Phoenix, it's 170 gallons a day."

Beautification also is a major factor in the scheme of things, Brady notes, pointing out that "neighborhoods are most certainly concerned about how highways going through their communities will look."

In some cases, development has started before road construction has begun, with the tacit understanding that these highways will be landscaped.

Chandler, Mesa, and Tempe to the southeast of Phoenix and Glendale to the northwest in particular are experiencing major growth; the first three because large tracts of land are available for residential and industrial development and Glendale, because a growing number of high-tech firms are finding their way there.

Interestingly, it is the very climate that dictates highway landscaping in Maricopa County—average annual highs of 85.1 and lows of 55.4 and low humidity—that is bringing high-tech companies to the valley. An abundant

LANDSCAPE PROFILE



Arizona highway landscapers use a variety of low-water requirement desert plants and decomposed granite to beautify roadway and suppress erosion.

labor pool and the proximity of Arizona State University's college of engineering hasn't exactly hurt the industrial influx.

And new industry, high-tech or whatever, brings new people, younger people—some 10,000 a month, according to the Greater Phoenix Chamber of Commerce. Many of them buy homes and a community's environs can be a heavy deciding factor in where they buy.

A highway's look does matter

"A point hardly ever made with highway landscaping," Brady notes, "is that the appearance of a freeway has a major impact on the people who drive them and who live in the communities along them.

"It creates a positive image if it's an attractive freeway. Things like texture control and color accents just create an overall comfortable feeling. Conversely, if you don't have landscaping, you can have a very real negative impact. Is a developer going to put money into improvements in land adjacent to an undeveloped freeway?

"Here's another point that should be considered," he continues. "If you construct a freeway and delay landscaping three, five, eight years, that's the image of what the freeway is. Even after you begin planting, it takes another three years before the freeway looks good.

"In our desert environment, we have to pay attention to growing sequences fairly soon after construction so that the highway is a contributor to the urban/suburban

environment. Fortunately, you can incorporate all kinds of water methods in an aesthetic approach."

Low-level chemical use

Because roadside plantings are a hardy desert breed, maintenance is not a big concern.

"Insects are not one of our major problems," Brady reports. "We don't do an awful lot of spraying. When we do, we use a variety of herbicides, depending on the area. Short-term, pre-emergent herbicides are used to control weeds in urban landscape plantings; in rural areas, around road signs, guards rails and delineators, we go to longer-term chemicals. We have to be careful what we spray and where. This is a big agricultural area—citrus, cotton, and vegetables."

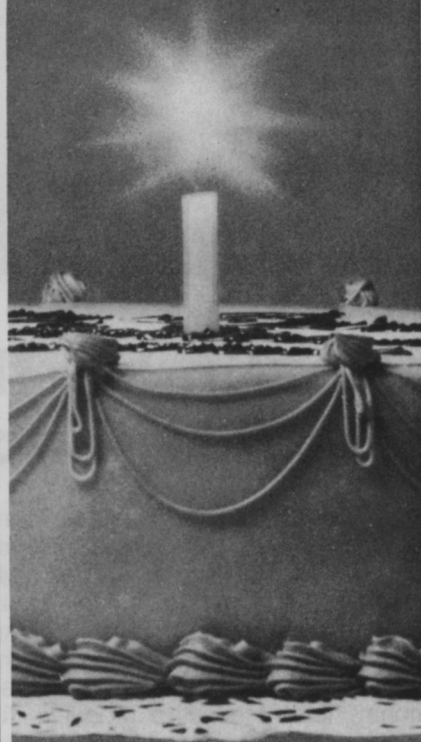
There are weeds to contend with; pig weed, sunflowers, telegraph weed, Russian thistle, and camel thorn, among others.

"You see some real weird things growing along the roads here," says a landscape worker.

"What happens is that we don't have a lot of rainfall, so that when it does rain, water collects along the side of the road. Along comes a truck from back East with seeds stuck in its tires, or a cattle truck dropping excrement loaded with seeds. The seeds germinate in the roadside water and you get a new weed, like Texas mesquite."

When the new highways are built, there will certainly be more transient trucks and, undoubtedly, more "weird" weeds. **WT&T**

Happy Birthday to the 3 Million Who Made it.



Each year more than 50,000 newborn don't live to their first birthday. Prenatal care increases the chance for a healthy survival and helps prevent birth defects.



March of Dimes
BIRTH DEFECTS FOUNDATION