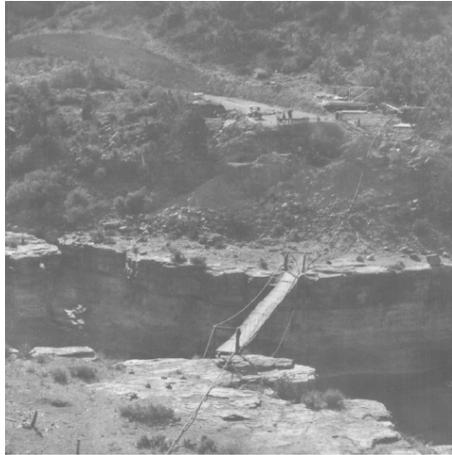




# History of Arizona's Transportation System

## Introduction

Transportation has continuously been key focus for the state of Arizona since humans have inhabited the area. Native Americans originally developed a series of foot trails that followed rivers and streams or paths forged by animals. These trails were used primarily for people to migrate to and from their winter and summer homes. Eventually these trails were expanded and used as trade routes with nearby tribes. When the



**Old Footbridge**

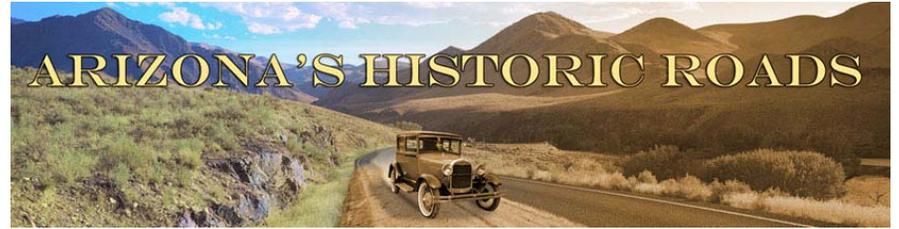
area was explored by the Spanish Conquistadors around 1540, portions of the original trails were used and new segments were developed as exploration and missionary routes. Later as the American westward expansion took place, these trails were utilized by the pioneers and fur traders. The gold rush in California caused a significant influx of travelers to the territory causing the need to expand the trails to primitive roads so wagons could safely pass through the state. Exploratory expeditions were commissioned to determine the feasibility of overland travel by Cooke, Kearney, Sitgreaves, Ives, Whipple, Powell and many others. Eventually the need for expanded military presence re-

sulted in the development of first roads built in Arizona to connect the outposts and facilitate the delivery of arms and supplies. The first federal appropriation of funds was authorized by Congress in 1857 for a road from Fort Defiance to the Colorado River near



**Beale's 1857 Camel Expedition**

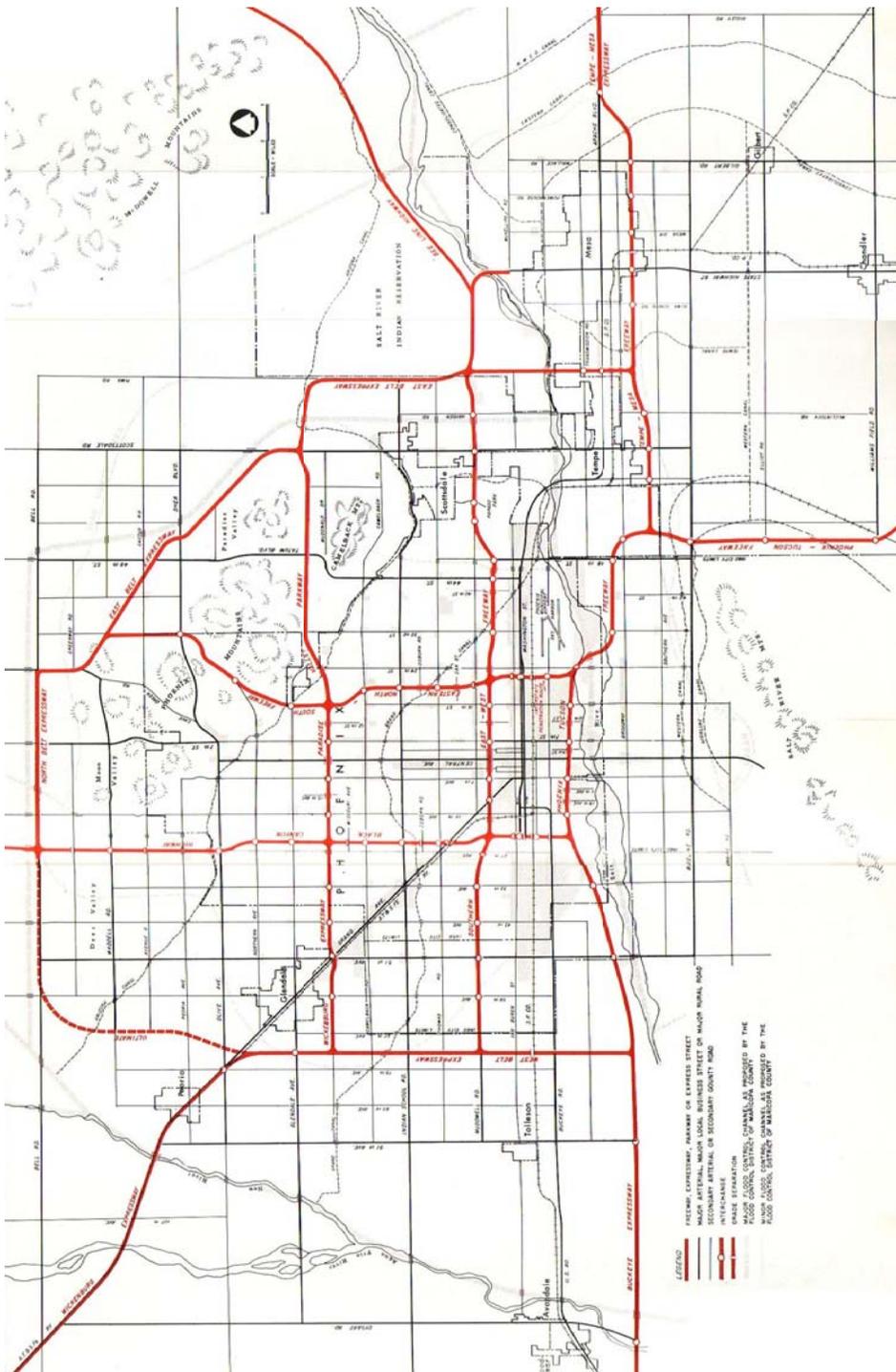
For more information on Arizona's Historic Roads, please visit [www.azdot.gov/Highways/Arizona\\_Historic\\_Roads/index](http://www.azdot.gov/Highways/Arizona_Historic_Roads/index)



State Highway System Year	1914	1964
High Surface Type Road	None	3,133 mi
Medium Surface Type Road	25 mi	1,746 mi
Low Surface Type Road	251 mi	192 mi
Earth Surface Road	1,221 mi	148 mi
Investment in Buildings and Equipment	0	\$20 Mil
Income	0.25 Mil	\$82 Mil
Number of Register Motor Vehicles	5,040	775,000

Route	Route Name	Total	Frontage	Year
I-8	Yuma-Casa Grande	178.33	112.06	1979
I-10	Various Segment Names	392.33	320.30	1990
I-15	Nevada - Utah	29.39	6.80	1974
I-17	Black Canyon Freeway	145.76	119.18	1973
I-19	Nogales- Tucson Freeway	63.35	83.04	1981
I-40	Topock-Flagstaff--Lupton	359.48	206.42	1985

**Figure 1—Early 1960 Freeway Map for Phoenix Metro Area (ADOT)**



the present day town of Needles (Beale's Wagon Road), the Santa Fe railroad, US 66 and eventually I-40 would follow this corridor. Additional funds were used to build a road from El Paso Texas to Fort Yuma. This road entered Arizona north of Cooke's Road, crossed the San Pedro River where it joins Aravaipa Creek, by passing Tucson, then followed the Gila River to the Pima Indian Villages where it join the Cooke road on to Fort Yuma. This new routes was shorter than Cooke's Road and had more watering places, however, Tucson citizens protested and encourage travelers to pass through their town. By 1864, toll roads were authorized by the Territorial Assembly to stimulate road development; by 1871 toll roads were permitted to incorporate under county authority. These privately constructed roads were allowed to be purchased by the county at the end of five years for the current appraised value.



**Travel along Crook's Trail**

## 100 Years of Highway Development

One of the first new wagon roads built in the state was undertaken in 1903 by the Bureau of Reclamation to transport supplies from the rail-head in Mesa to the construction site at Roosevelt Dam. This new road was built with hand labor with assistance from Native American crews and was completed in a little over one year. Road crews were composed of six crews working along the roadway and living in tents. This road was used as a side tour by the Southern Pacific Railroad from 1915 to 1930 and was branded the "Apache Trail" to spark interest in the trip. It was shown on the 1912 proposed state highway system map, but was not formally adopted into the state system until 1922.

In 1909 the office of Territorial Engineer was created and J. B. Girard was assigned to manage minor road improvement work. In 1912, the Arizona Territory was finally granted statehood, that same year Phoenix held its first auto show as part of the growing "Good Road" movement.

By 1913 Arizona published the *Arizona Good Roads Association Illustrated Road Maps and Tour Book*, to guide motorists along the so called road. Prior there were no maps showing “best” paths to each destination, there were no traffic signs, gas stations, rest areas, motels, or other modern convenience. Also in 1912 the office of State Engineer and a Highway Department were established with certain roads designated as state highways and others remaining under the jurisdiction of the counties. The first State Engineer, Lamar Cobb, was appointed by Governor George W. P. Hunt on March 12, 1912 and served until June 16, 1917.



**Governor Hunt**

By the way, Governor Hunt served as the chairman of the State Board of Control established to oversee the Highway Department and county roads. Governor Hunt’s deep ties to Globe prompted his



**Oscar Lyon Sr. - First Truck, 1912**

overwhelming support for one of the first major construction projects in the state, the “Million Dollar Highway” from Superior to Miami, modern day US 60. In 1916 Congress passed the Federal-Aid Highway Act, a bill authorizing the use of federal funds on Arizona’s public highways. These funds were distributed based on three factors; population, area, and mileage of rural mail delivery



**Lamar Cobb**



**US 60 Historic Plaque**

George Utah shown below. It has been said that “this location was a good place for a river and a good place for a road but not both.” The terrain was so rugged that surveyors were transported in helicopters to some locations. Since the original construction, several interstate improvement projects have been and will continue to be completed to increase both safety and capacity.

## Valley Regional Freeway System

In 1985, the state legislature passed enabling legislation allowing counties, by the vote of the people, to assess a half cent sales tax dedicated for transportation. It was immediately passed by Maricopa County voters and a Regional Area Road Fund was established providing significant construction of new freeways in the Phoenix metro area including;

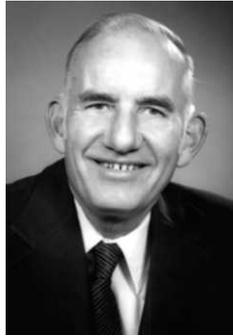
SR 101 (Agua Fria, Pima and Price freeways - 60.98 mi), SR 202 (Red Mountain and San Tan freeways – 55 mi), SR 51 (Piestewa Freeway – 16.6 mi), SR 143 (Hohokam Expressway – 3.93 mi). Improvements to existing highways, streets and freeways within the county were also improved using the sales tax funding. SR 153, the Sky Harbor Expressway was constructed by ADOT in 1996 and was transferred to the City of Phoenix in 1997. The construction of these freeways was completed by 2007. Several other rural counties have instituted the ½ cent sales tax for transportation. These funds are still utilized today for stand-alone projects or as matching for federal funds for safety, capacity and landscaping projects. The map below shows the existing and planned Valley Freeway System. Planned routes include; SR 202 (South Mountain), SR 303 (Bob Stump Memorial Parkway), SR 30 (I-10 Reliever) and SR 24. (Gateway Extension).



**Valley Freeway Interchange**

at 95% Federal to 5% state. To fund this major endeavor the federal government established the highway trust fund through the collection of taxes on gasoline, diesel fuel, tires, and truck fees. The funds were distributed by the Bureau of Public Roads and later the Federal Highway Administration. On July 1, 1974, the Arizona department of Transportation is created and William Ordway appointed as the first director responsible for completing the interstate system. In Arizona, the interstate routes planned to cross the state included two north-south routes (I-17 and a portion of I-15) and three east-west routes (I-8, I-10 and I-40), and Tucson to Nogales (I-19).

Arizona has 1168.64 miles of interstate started in 1959 and was completed with the opening of the Deck Park Tunnel section on I-10 through central Phoenix in 1990. Table 2 shows the mileage and completion dates for each interstate highway. The most challenging was the 29 mile section of I-15 through the Virgin River Gorge connecting Mesquite Nevada with St.



**Bill Ordway**

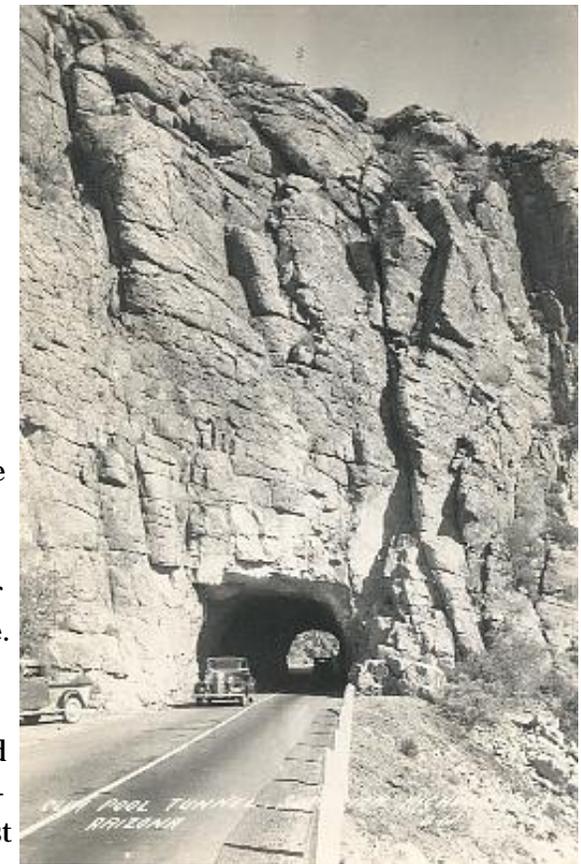


**Early Interstate 15 Construction—Virgin River Gorge**

routes. With the passage of the Federal-Aid Act of 1916 the Bureau of Public Roads was created to administer the program for the federal government. Due to the shortage of funds, the Arizona Highway Department utilized prison labor to construct roadway projects prior to World War I. Arizona did not actually receive federal funding until 1918 and the first project constructed was the bridge over the Gila River near Florence. After World War I, states and counties received surplus military equipment and supplies for use in road construction. Prior to this, most of the work was done with hand labor or utilizing horse

or mule drawn equipment. As noted above the first major road project was the construction a new road from Apache Junction to Miami that began in 1919. The section of road from Superior to the Gila County line was constructed by state forces utilizing convict labor. The site of the camp was located where the large water tank now sits about ¾ mile above Superior and below the old Claypool Tunnel. One of the first rural sections to be paved was this route from Apache Junction to the old Queen Creek Bridge. The remaining section from the county line to Miami was completed under contract and the entire route was completed in 1924 at a cost of \$1,000,000 earning the moniker “Million Dollar Highway.”

Other key projects built in the 1920s and 1930s included; Telegraph Pass section near Yuma, Congress Junction to Yarnell, Phoenix to

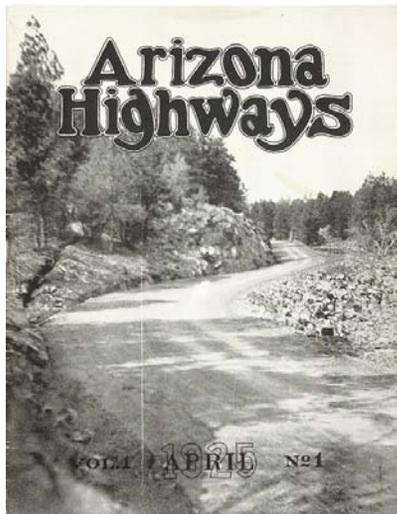


**Old Claypool Tunnel US 60**



**Early Arizona Highway Department Road Oiling Construction**

Wickenburg, Safford to Duncan, Nogales to Patagonia, Flagstaff to Fredonia and Marble Canyon Bridge, Kingman to Hoover Dam, Black Canyon from Phoenix to Prescott, and Mule Creek Highway from Clifton to the New Mexico state line. During this period most of the roads were being paved with asphalt mixed with the existing gravel surface, termed road oiling by highway engineers. Early Arizona state highway maps denoted this as an “Intermediate Type-Improved” driving surface. In 1930, the longest and most expensive route undertaken by the state at that time was initiated. The new Globe to Show Low highway was constructed on a completely new alignment over the foothills of the Apache Mountains near the old mining town of McMillan through the great Salt River Canyon on to Show Low. The marquee element of this project was the steel arch bridge across the Salt River designed by Arizona Highway Department Bridge Engineer Ralph Hoff-



**First Arizona Highways 1925**

man as documented in the September 1933 Arizona Highways magazine. This bridge now serves as a pedestrian walkway after being replaced with a wider structure. Another major structure completed during the same time period was the concrete arch bridge across the Salt River on Mill Avenue in Tempe, still in use today. During the floods of 1980, the Mill Avenue Bridge was the only crossing open providing access to the Phoenix metro area from the east valley. Construction activity was significantly slowed due to World War II. Some of the projects that began shortly after the war included; a new alignment from Snowflake to Holbrook, Black Canyon Highway from Phoenix to Prescott, Safford to Clifton, Benson to Wilcox, and Benson to Tombstone including the tunnel. Construction was completed much more efficiently due to the improved mechanized equipment available including; scrapers, large crawler tractors with bulldozers, loaders, graders, portable asphaltic concrete mixing plants, and lowdown machines.

## **Interstate Highways**

President Dwight D. Eisenhower signed into law the Federal-Aid Highway Act of 1956 which marked the beginning of the greatest public works project in the history of the world and to beginning of the interstate era in America. The entire 41,000 mile national interstate and defense highway system was scheduled for completion by the end of 1972. The law called for a federal to state dollar match of 90-10, but due to its great area of public lands Arizona’s matching ratio was set



**Early Interstate Interchange**