

**Beaver Creek Communities of Yavapai County  
Beaver Creek Road Improvement Project  
January 2009 Statement of Need & Proposal**

Beaver Creek Road runs from Interstate 17 to the boundaries of Montezuma Well National Monument, connecting and continuing on as FS 119, a U.S. Forest Service dirt road, running to its northerly connection with Beaver Creek Ranger Station Road (FS 618). FS 119, commonly referred to as the Well Road, is entirely surrounded by Coconino National Forest lands.

Beaver Creek Road just east of I-17 is a major collector on the County Regional Road System, with the eastern portion of this road categorized as a minor collector road. The 2000 Census reports an area population of 3,344, with a 2007 projection of 4,385. Current and projected population statistics are not available for the area, however, the Beaver Creek communities, comprised of Lake Montezuma, Rimrock, Beaver Creek and McGuireville, have grown especially rapidly since 2000, potentially far exceeding the 2007 projections.

This proposal calls for the upgrade of Beaver Creek Road to an arterial road near I-17 and improvement and paving the remaining 3.13 mile dirt portion of the Well Road (FS 119) between the northern boundary of Montezuma Well National Monument and FR 618 for the road safety and to alleviate future traffic congestion.

**Background**

Yavapai County officially began maintenance of Beaver Creek Road (FR 119) under the authorization of a U.S.D.A Special Use Permit issued by the Coconino National Forest Supervisor on January 6, 1972. Efforts to keep the road open to the public since that time have included cattle-guard maintenance, attempts to add road-base material, carrying out surface grading, and managing drainage.

Beaver Creek Road and FS119 were first identified in 1993 and again in 1999 as an integral part of the Yavapai County's rural road system in the Verde Valley Regional Transportation Study. The January 2009 Verde Valley Multimodal Transportation Study prepared by Lima & Associates again identified Beaver Creek Road and FS119 for significant consideration in the Verde Valley's long-range regional transportation plan.

A 1998 traffic count for Beaver Creek Road showed a 1,108 average daily vehicles use between Montezuma Well and Interstate 17. Traffic volume on Beaver Creek Road has drastically increased since that time. The following chart shows traffic counts from past studies, present and projected estimates.

**TRAFFIC VOLUME AND LEVEL OF SERVICE BEAVER CREEK ROAD  
FROM I-17 TOWARDS FS-618 VIA FS-119**

<b>ROAD SECTION</b>	<b>Year 2006 (YC 24 hr)</b>	<b>Year 2007</b>	<b>Projected 2015</b>	<b>Projected 2030 - Unimproved</b>	<b>Projected 2030 - Improved</b>
BC Rd at I-17 - Y	7,128	9,479	12,042	17,309	20,614
Bice Rd to Y				15,814 – 8,437	19,129 – 12,961
Y to BC School	2,924	2,860	3,674	5,236	7,887
BC School to Well		616	1,773	2,943	3,792
Well Road		1,450	2,302	3,323	4,800

It is projected that by as early as 2015, the Beaver Creek roadway section by the McGuireville interchange (I-17) will experience an over capacity for the first 1.37 miles of road east of the interchange and heavy congestion throughout the Beaver Creek area if improvements are not made.

**Current Conditions**

Beaver Creek Road provides access across a dirt road between State Route 179 at Interstate-17 with the Beaver Creek communities of Lake Montezuma and Rimrock. At some points the road is too narrow for two vehicles to pass safely. Poor geometrics contribute to unsafe sight distances and vehicles can not maintain adequate control due to muddy road conditions during wet weather. The road is difficult to maintain because the small quantity of base material on the road is unsuitable for routine grading.

Surface runoff along the road is poor, especially along flat terrain north of Montezuma Well. The road does not have culverts or grading consistent with County Road Standards as set forth in Board of Supervisor's Resolution No. 1036. The dirt road provides access to Montezuma Well National Monument from Interstate-17 and some four-wheel drive Forest Service roads. This and other unpaved roads in the area also contribute to sediment loading in the local watershed.

Some of these hazards have been previously documented per letter to the County Roads Division from the U.S. Forest Service. The increase in car and truck traffic (which has lead to further road deterioration) requires the County to keep the road open to public access year-round.

**Proposed Action Plan & Desired Outcome:**

The project will upgrade Beaver Creek Road, a rural collector, to a two-lane collector with adequate road design to ultimately provide for up to 4800 vehicles per day at the level of service (LOS) recommended in the 1999 and 2009 Lima study which is also supported by population forecasts for the area. This includes a 28-ft wide engineered 2-

lane asphalt concrete surface, adequate drainage, and safety signage. The road will be built to County Standards per Road Ordinance Resolution No. 1036. The road upgrade will increase the safety of the traveling public, reduce watershed degradation, and protect the scenic quality of the area (reducing dust etc.).

Yavapai County Public Works Department has developed specific objectives for this project and provides details regarding how this project will contribute to desired future conditions for Beaver Creek Road. These conditions are:

1. Widen road to a 2-lane asphalt concrete all-weather 28-ft. wide surface with 4-ft. graded shoulders.
2. Create a 100-ft. wide right-of-way.
3. Install sized culverts and drainage ditches as needed to minimize flooding.
4. Establish proper safe-sight distances and road signage.
5. Establish a speed limit consistent with Level Of Service as defined in the 1999 Lima update (approximately 40-50 mph).
6. Re-vegetate cut banks with native seed.
7. Identify, protect, or mitigate any cultural resources and protect or mitigate any sites affected by construction activities.
8. Identify, protect, or mitigate federally protected, threatened, endangered and sensitive plants and animals (TES species).

Beaver Creek Road from the intersection of Interstate-17 to Montezuma Well would be reconstructed to current Yavapai County minor arterial standards that include a 28-foot paved surface with four feet of graded shoulder and drainage ditches as needed. The total width of the right-of-way would be 100-feet. The status of the road will be upgraded from a dirt road, rural collector to a major collector.

This alternative would solve all of the current issues associated with Beaver Creek Road including air quality issues (dust), safety (associated with poor sight distances, narrow road widths and lack of shoulders) and watershed issues (sediment runoff into waterways).

### **Cost Estimates**

Lima and Associates estimates the cost of the Beaver Creek Road upgrade near I-17 to an arterial and the remainder to the end of the pavement at FS 119 as a major collector at \$21,400,000.

The cost of improving the Well Road (FS119) as part of the committed network of roadway was projected at \$5 million.