

Project Name: Residential Home, George Kozeliski's Alley and Side Yard
Engineer: Frank A. Kozeliski, P.E., F.A.C.I.
Contractor: Gallup Fence's first project, under the direction of George Kozeliski
Ready Mixed Concrete Supplier: Gallup Sand and Gravel Co.
Gallup, New Mexico
Project Location: 1105 Ridgecrest Drive Gallup, New Mexico
N 35 Degrees – 31.141 W 108-43.367 elevation 6514 +`
Year Completed: July, 1994



The pervious concrete is about 400 sq. yards. The traffic is a garage truck pickup, an SUV and a dog (all four-wheelers). The material was placed 4" to 6" thick and leveled with a regular garden rake. It was compacted with a walk-behind flat plate compactor. No drainpipes or curbs and gutters. The location undergoes an average of about 212 cycles/year. The average daily temperature stays below freezing for 62 consecutive days (on average) but there is very little precipitation during this period and only about 10 inches of rain throughout the year. So the climate is considered a hard dry freeze with very high freeze thaw cycling. There is no annual maintenance on this project and, after 10 years, the performance has been good. There is more ground cover to keep the mud down and vehicles park but do not fall into the mud. Part of the pavement is on a hill and it slid some. There is one crack that we have noted. The pervious lot has been through many snows and it has not turned in to a pile of loose rock. Mixture design was cement = 300 lbs / cu.yd; coarse aggregate # 57 – 1" minus size 2570 lbs / cu.yd; water about 20 gals / cu.yd; plastic unit we about 106 pcf. No entrained air or water reducer or fly ash. % void based on ASTM C-138 20 to 24 % . When filling a 4"x8" cylinder with pervious and then adding water, 2" of water can be placed into the cylinder. And it will fill the voids. Compressive strength after 28 days about 1000 psi. No special curing of the pervious. Just placed and opened for traffic.