

## Rubber Pavements Association and Our History



The RPA is a non-profit industry association comprised of crumb rubber producers, A-R contractors, equipment manufacturers, engineering consulting firms, testing laboratories, crack sealant manufacturers, and asphalt suppliers. Member companies are international with offices in Canada, China, England, Germany, Mexico, Spain, South Africa and the USA. The RPA promotes the greater usage of high quality, cost effective asphalt pavements containing recycled tire rubber. The RPA disseminates technology through seminars, field tours, research, and publications. The RPA has dedicated resources to provide an expansive reference library on asphalt rubber related reports, monitoring tire issues and laws, and provides guidance to agencies and policy makers in the use of crumb rubber modified asphalt. An eleven member board of directors governs the RPA. The Professional Engineers experienced in the application of A-R. The technical board has Materials Engineers and Pavement Services Engineers from various transportation agencies to assist other agencies in the initial use of A-R.



### Charlie McDonald

Over 40 years ago, Charlie McDonald, an engineer for the City of Phoenix, developed a time/temperature formula for mixing scrap tire material and asphalt to develop a material that would make the asphalt behave much like tire rubber. His motivation started earlier when he was with the Bureau of Highways (now FHWA) and traveled extensively in State Parks in California, living in a small trailer with a leaky roof and he needed a flexible material to patch and seal the roof so the rather primitive roadways would not continue to cause cracking.

After he joined the City of Phoenix, he continued his experiments, first in his kitchen and later in the engineering laboratory. When he was satisfied he had achieved the right formula, he took the material to the streets where he covered potholes. Application methods were primitive, but the binder he created started a whole new paving industry.

Asphalt-Rubber has been used in forty states in the U.S. and over 25 countries worldwide. Many projects have performed beyond engineering expectations. The reason is that his formula provided a binder with 20% tire rubber contents or higher. The tire rubber is not dissolved and has been fully saturated in with the oil in asphalt cement. Properly designed asphalt-rubber pavements have lasted fifteen years or more in significantly reduced pavement thickness.

Today, the most beneficial applications are the thin friction course surfacing of Portland Cement Concrete pavements and aged asphalt pavements to provide quieter and safer ride characteristics for the traveling public or the spray applied membranes used as inter-layers or surface treatments.

Manufacturers, contractors and engineers have joined the Rubber Pavements Association to develop and expand the technology to provide paving agencies with the longest lasting asphalt pavements possible. The RPA has focused upon technology transfer to provide every city, county, state and country the opportunity to capture the superior engineering characteristics of scrap tire rubber in their pavements. The Asphalt-Rubber conferences, begun in 1999, are technology transfer opportunities for every country to learn how to provide their people with the highest quality asphalt pavements made from recycled tire rubber.