



SSP Geocell Solves Roadblock Opens 118 Mile Long Highway In the Land Of Enchantment

The New Mexico Department of Transportation (NmDOT) has made news over the past several years with innovative financing and a record setting pace in the construction of 118 miles (190 km) of four lane highway along a route in the northwestern part of the state formerly known as Highway 44. With a construction timetable of just two years, and with the construction season limited by cold Rocky Mountain winter weather, design engineers needed to solve construction challenges without delay. Geocell was the perfect answer to a unique soft subgrade problem that threatened to stop paving operations with just a half mile of highway to complete and cold winter temperatures only months away.

While most of the highway, now known as U.S. 550, runs through remote and open country, the highway does pass through the middle of the small town of Cuba. With time pressures, extremely soft subgrade conditions, relatively shallow underground utility lines running under the highway, and a need to tie in to the existing elevations of sidewalks and parking lots of businesses adjacent to the highway, design engineers were faced with a challenge. Unable to proceed on a timely basis with any of the three conventional alternatives (excavating deep deposits of saturated soils and replacing with more stable materials, thickening the base and subbase structural section to a higher elevation in order to bridge the soft subgrade, or strengthening the

limited structural sections with conventional chemical stabilizers or geotextile/geogrid type products), they turned to the SSP Geocell. The SSP Geocell is a cellular confinement (geocell) technology with a proven record of providing an easily deployed stiffened flexural beam for bridging extremely soft subgrade conditions.

Because geocells are functional with either clean sand or aggregate infill materials, designers selected a locally available low cost source of free-draining sand for placement within the six inch deep honeycomb-like cells. The system was deployed on top of a geotextile product to protect the sand infill from contamination. Working half the width of the highway at a time, crews rapidly installed the geocell for the final half mile. The project required approximately 189,000 square feet of product. With the firm geocell working platform in place, base construction and asphalt paving were quickly completed, facilitating a timely grand opening for the 118 mile highway improvement project. NmDOT Project Engineer Allan Whitesel commented, "The geocell addressed the problem in far less time than any other alternative we had available. It went in quickly, without any complications for the construction crew. The geocell section will be included in a twenty year monitoring program we have scheduled for the entire U.S. 550 project."

Soil Stabilization Product Company, Inc.

(800)523-9992 or (209)383-3296

PO Box 2779, Merced, CA. 95344

Fax: (209) 383-7849, E-mail: info@sspco.com

