RESEARCH UPDATE

Update U97-13

RECLAIMED BASE COURSE STABILIZED
WITH CALCIUM CHLORIDE
(INTERIM REPORT)

REFERENCE:

WP 93-R-6, Report 95-3, U96-24

LOCATION:

The project began on VT 73 in the town of Brandon at MM 5.887, and extended westerly 13.37 km to MM 3.610 in the town of Goshen.

HISTORY:

During the summer of 1994, the existing 75 mm to 140 mm of bituminous material was pulverized along with some of the gravel subbase to an average depth of 150 mm. A 30% solution of calcium chloride (CaCl) was sprayed onto and mixed into the pulverized material at an application rate of 3.4 L/m^2. After rolling the base course, an additional 1.1 L/m^2 of CaCl solution was sprayed over the surface prior to the placement of a 50 mm Type II bituminous concrete binder course. The project surface course was 45 mm Type III bituminous concrete pavement.

Two control sections, each 320 m in length, were constructed as above except that the base course was not stabilized with CaCl.

COST:

The initial cost is referenced in report 95-3.

STATUS:.

The project was inspected in May of 1997. Crack surveys indicate 23 m of longitudinal cracking in the sections that were treated with CaCl and 13 m in the untreated control sections. Overall rutting has increased only very slightly with the 2mm rut in the left wheel path of the west bound lane unchanged. The IRI values are 94 mm/m in the CaCl stabilized areas as compared with 93mm/m in the untreated areas.

It is important to note that because the Mays meter is calibrated each year, data may not be consistent from year to year, but are nonetheless relative within a given year.

FOLLOW UP:

The project will continue to be monitored annually, with an emphasis on identifying differences between the sections that have been treated with calcium chloride and the sections that were not treated.

Metric