

Location: Highway 2A:22/24 (Town of Hobbema)

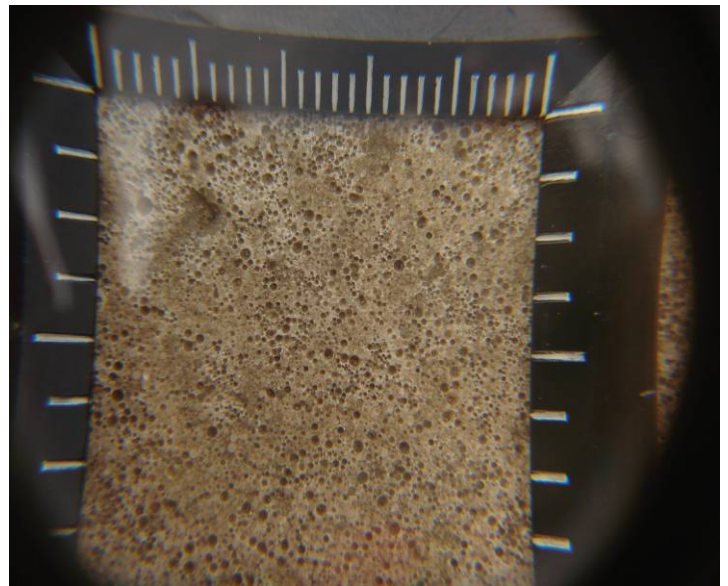
Applied: June 2008

Evaluated: June 17, 2009

## **Durability**

The overall appearances of the markings look good as they are providing positive delineation through the town of Hobbema during daylight hours. However due to the drastic drop in retro-reflectivity after only one season of service, these markings are not performing as intended and are considered a failure due to their very low retro-reflectivity. The yellow centerline is showing substantial amounts of cracking in the material, this will result in debonding of the material (I think in a year's time).

There appears to be a problem with the compatibility of the glass beads holding up in the durable material. Also Snowplows have sheared off many of the remaining glass beads that were embedded in the durable material. As can be seen in the magnification photograph (below), the majority of the glass beads have popped out or are sheared off..



There seems to be a glass bead compatibility problem with this material as can be seen by these two magnified photographs. The glass beads at this location have all popped out of the material, resulting in the very poor retro-reflectivity (non-existent). Of the glass beads that remain in the marking, the majority have sheared off from snowplows.

## **Recommendation**

Contact Lafrentz the applicator of the System 400 Durable Marking System on providing a remedial action to restore the reflectivity of these markings to the warranty levels (I believe a 4 year warranty).

Durable pavement markings should only be considered in an inlaid application.

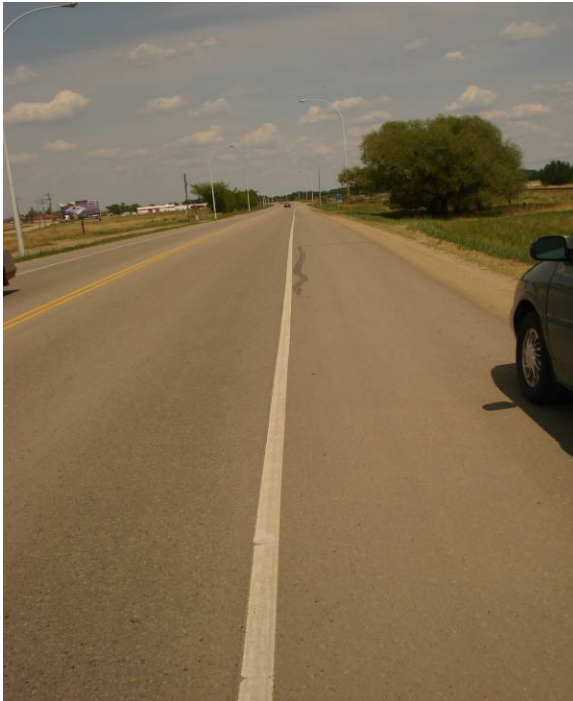
Prepared by: Joe Filice

cc: Russell Watts, Chris Peterson, Richard Chow, Bill Kenny, Roger Skirrow

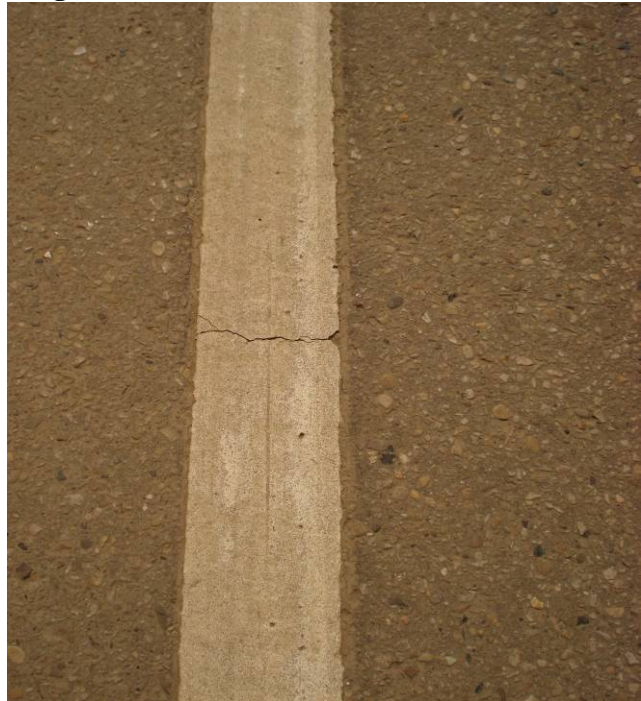
**Please see the following detailed observation notes, retro-reflectivity readings and photographs.**

# Location: Access from Bow & Arrow Service Station

## East White Edge Line



Looking N. along east edge line

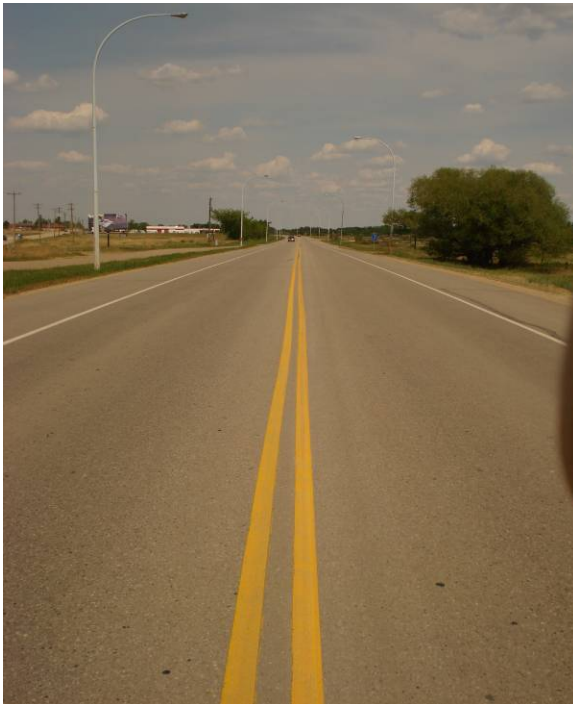


Close-up, lots of snow plow wear

Retro readings—75, 80, 56, 64, 61, 53, 76, 67, 45, 34 - **Average retro = 61Mcd**,

Retro-reflective readings are very low on the east edge line. The majority of the glass beads have popped out (see below for marking magnification).

## Double Yellow Centerline



Centerline looking North



Close-up, snow plow damage

Retro readings— 24, 28, 40, 38, 41, 24, 25, 27, 50, 27, 53, 44, 42 – **Average retro = 39 Mcd**

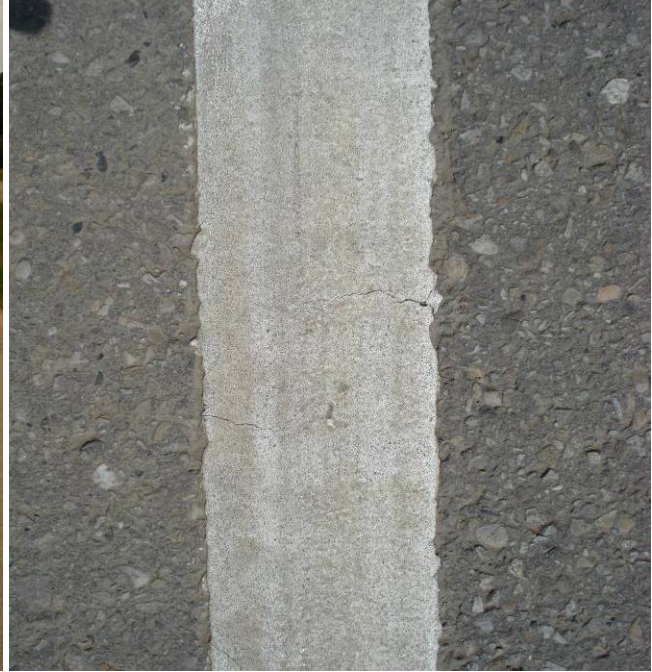
Retro-reflectivity is very poor on the yellow centerline.



## West White Edge Line



Looking south



Close-up, snowplow damage

W. white Retro readings– 49, 81, 96, 101, 82, 36, 52, 66, 63, 87 – **Average retro = 71 Mcd**  
Inconsistent retro-reflective readings along the west edge line. Glass beads have been sheared off by snowplows.