

## MANHOLE FORM TESTING

Report To: Derek Hinkle

WhirlyGig Inc. 2418 Bishop Circle. Caldwell, Idaho 83605

Project: Manhole Form Testing

File: WHIGIG BM05430

Date: November 16, 2005

On September 22, 2005, your personnel delivered two samples of your plastic manhole form for laboratory testing for vertical load strength and lateral load strength. The specimens were tested as per our telephone conversation. Vertical load strength was determined by applying a load using our calibrated compression machine with the form in the normal use orientation. The lateral load strength was determined by applying a load perpendicular to the wall of the form using a calibrated hydraulic jack with a circular 1 in<sup>2</sup> application surface. The deflection of the form and pressure applied were then recorded. Results of the testing are presented below.

Vertical load strength - Form failure at 8,525 pounds force

Lateral load strength – Form deflected 2 1/4 inches at an applied load of 480 pounds force (deformation was elastic and form returned to original shape with release of load).

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the information in this report, please feel free to call us at 376-8200.

Sincerely, STRATA, INC.

Christopher Kaetzel, S.E.T.