



Calspan Test No.: BR0139  
Test Standard: ASTM F2656-20  
Impact Condition Designation: M50  
Client: 1800 Bollards  
Model: M50 Shallow Mount Bollards  
Product Rating: M50 – P2

October 26, 2022

To whom it may concern:

This letter is to certify that the subject barrier, the M50 Shallow Mount Bollards provided by 1800 Bollards, was tested to the requirements of the ASTM standard F2656-20, with M50 impact condition designation. This was the standardized Test Method for Vehicle Crash Testing of Perimeter Barriers, at the time the barrier test was performed.

Testing performed at Calspan Corporation, on October 25, 2022, for 1800 Bollards. The 1800 Bollards, model M50 Shallow Mount Bollards was impacted by a medium duty truck, weighing 6,796.7 kg (14,980 lbs.) travelling at 81.4 kph (50.6 mph). Post-test measurements of the dynamic movement of the test vehicle's payload (truck bed) show that the right leading edge of the truck bed, was stopped at 5.46 meters (maximum dynamic intrusion) after the leading edge (reference line) of the impacted test article. As such, based on the test vehicle mass, impact velocity and penetration into the protected zone, the barrier rating per the ASTM standard F2656-20, is M50 – P2.

Calspan accredited to ISO/IEC 17025:2017 to perform ASTM F2656-20 testing by Perry Johnson Laboratories Accreditation, Inc. (PJLA) under Certificate Number L20-602-R1 and Accreditation Number 76654.

Respectfully,

A handwritten signature in blue ink that reads "David Casey". The signature is written in a cursive, flowing style.

David Casey

Test Director

*Safer Highways...Safer Skies*