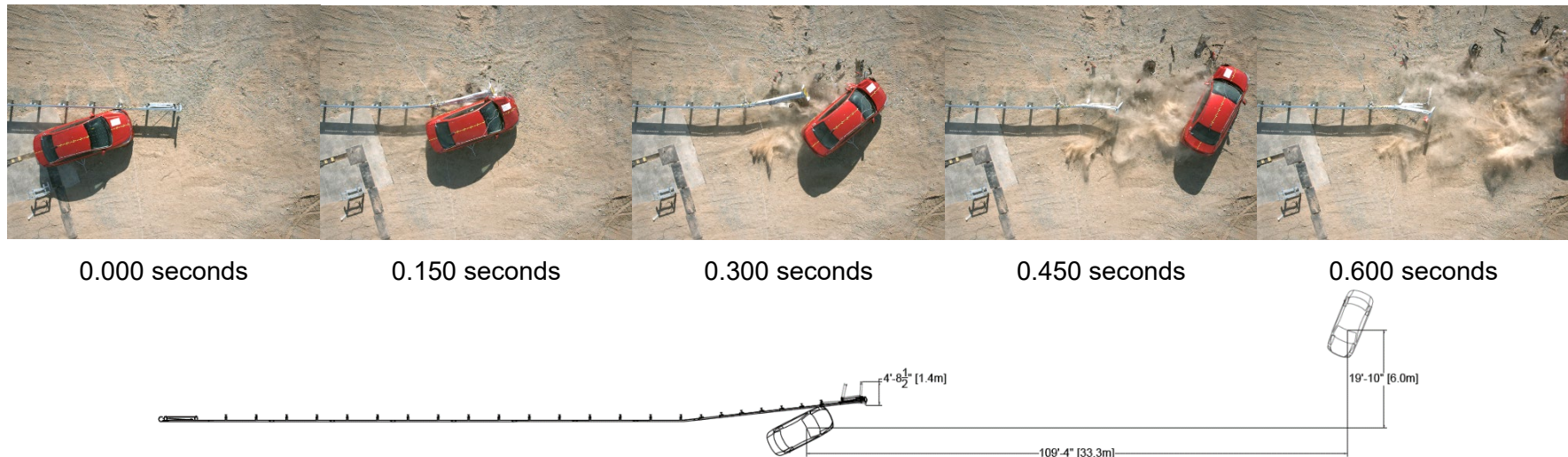


MASH 2016 Test 3-37b Summary



GENERAL INFORMATION

Test Agency..... Applus IDIADA KARCO
 Test Number..... P43096-02
 Test Designation..... 3-37b
 Test Date..... 11/27/23

TEST ARTICLE

Name / Model..... 4F-T flared terminal
 Type..... Terminal
 Installation Length..... 141.4 ft. (43.1 m)
 Terminal Length..... 34.4 ft. (10.5 m)
 Road Surface..... Smooth concrete to fine silty soil

TEST VEHICLE

Type / Designation..... 1100C
 Year, Make, and Model.... 2018 Kia Rio
 Curb Mass..... 2,530.9 lbs (1,148.0 kg)
 Test Inertial Mass..... 2,429.5 lbs (1,102.0 kg)
 Gross Static Mass..... 2,594.8 lbs (1,177.0 kg)

Impact Conditions

Impact Velocity..... 62.65 mph (100.82 km/h)
 Impact Angle..... 26.2° relative to downstream rail
 Location / Orientation..... 1.6 in. downstream from the center
 of post 3
 Impact Severity..... 62.1 kip-ft (84.2 kJ)
 Minimum IS Required..... 51.0 kip-ft (69.7 kJ)

Exit Conditions

Exit Velocity..... N/A
 Exit Angle..... N/A
 Final Vehicle Position..... 109.3 ft. (33.3 m) downstream
 19.8 ft. (6.0 m) Left
 Vehicle Snagging..... Satisfactory
 Vehicle Pocketing..... Satisfactory
 Vehicle Stability..... Satisfactory
 Maximum Roll Angle..... 24.5 °
 Maximum Pitch Angle..... 26.5 °
 Maximum Yaw Angle..... 198.4 °

Occupant Risk

Longitudinal OIV..... 34.1 ft/s (10.4 m/s)
 Lateral OIV..... -9.2 ft/s (-2.8 m/s)
 Longitudinal RA..... 3.4 g
 Lateral RA..... 6.4 g
 THIV..... 33.1 ft/s (10.1 m/s)
 PHD..... 10.2 g
 ASI..... 1.12

Test Article Deflections

Static..... 3.5 ft. (1.1 m)
 Dynamic..... 4.8 ft. (1.5 m)
 Working Width..... 4.7 ft. (1.4 m)
 Debris Field..... N/A

Vehicle Damage

Vehicle Damage Scale..... 11-FL-7
 CDC..... 11FDEW2
 Maximum Deformation.... (0.0 in.) 0.0 mm

Figure 2 Summary of Test 3-37b