

APPENDIX I

Acceleration-Time Histories From Curb-Barrier Impact Computed at the Center of Gravity of Vehicle

-Finite Element Analysis Results-

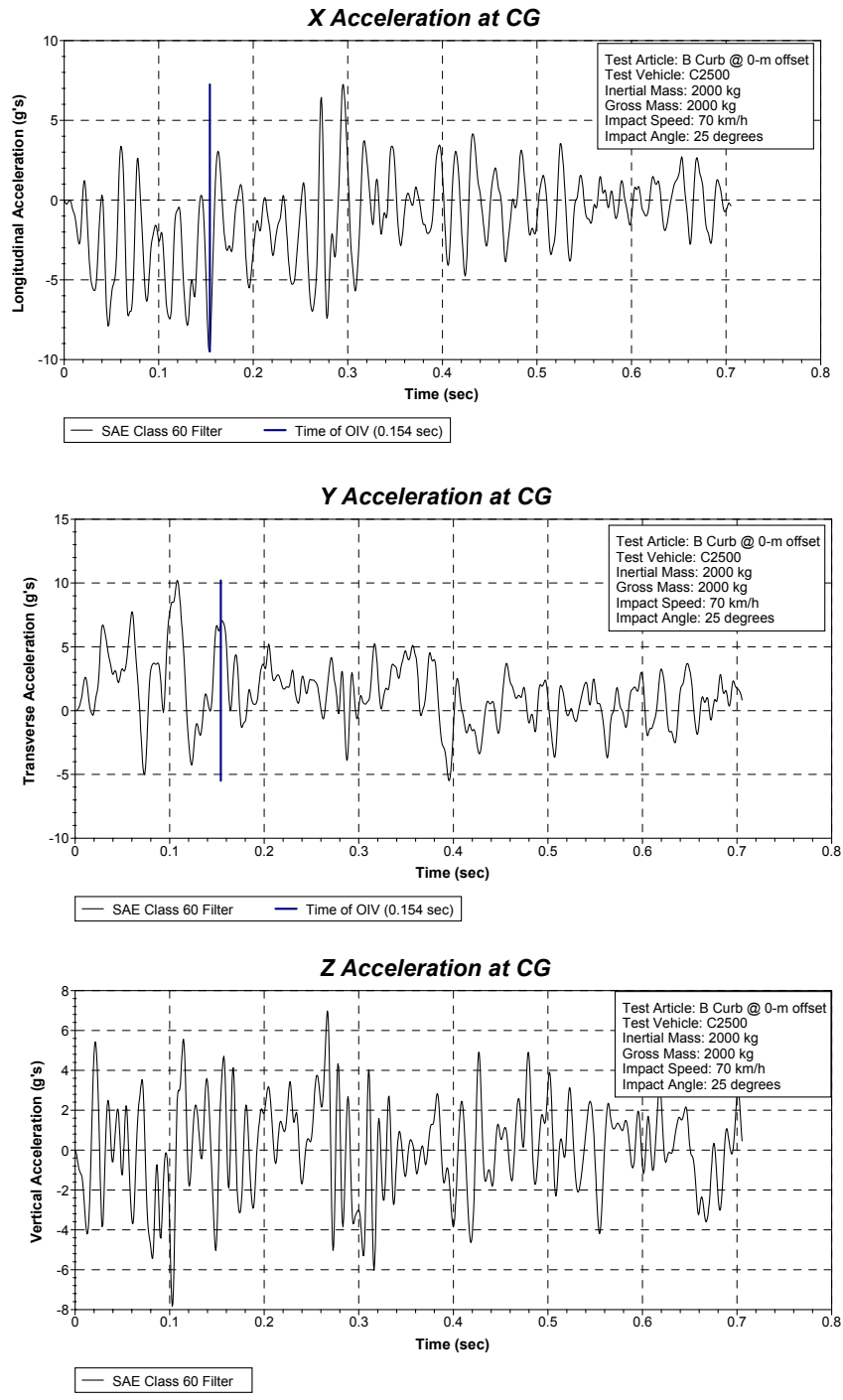


Figure I.1: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 70 km/hr
Offset Distance -- 0.0 m.

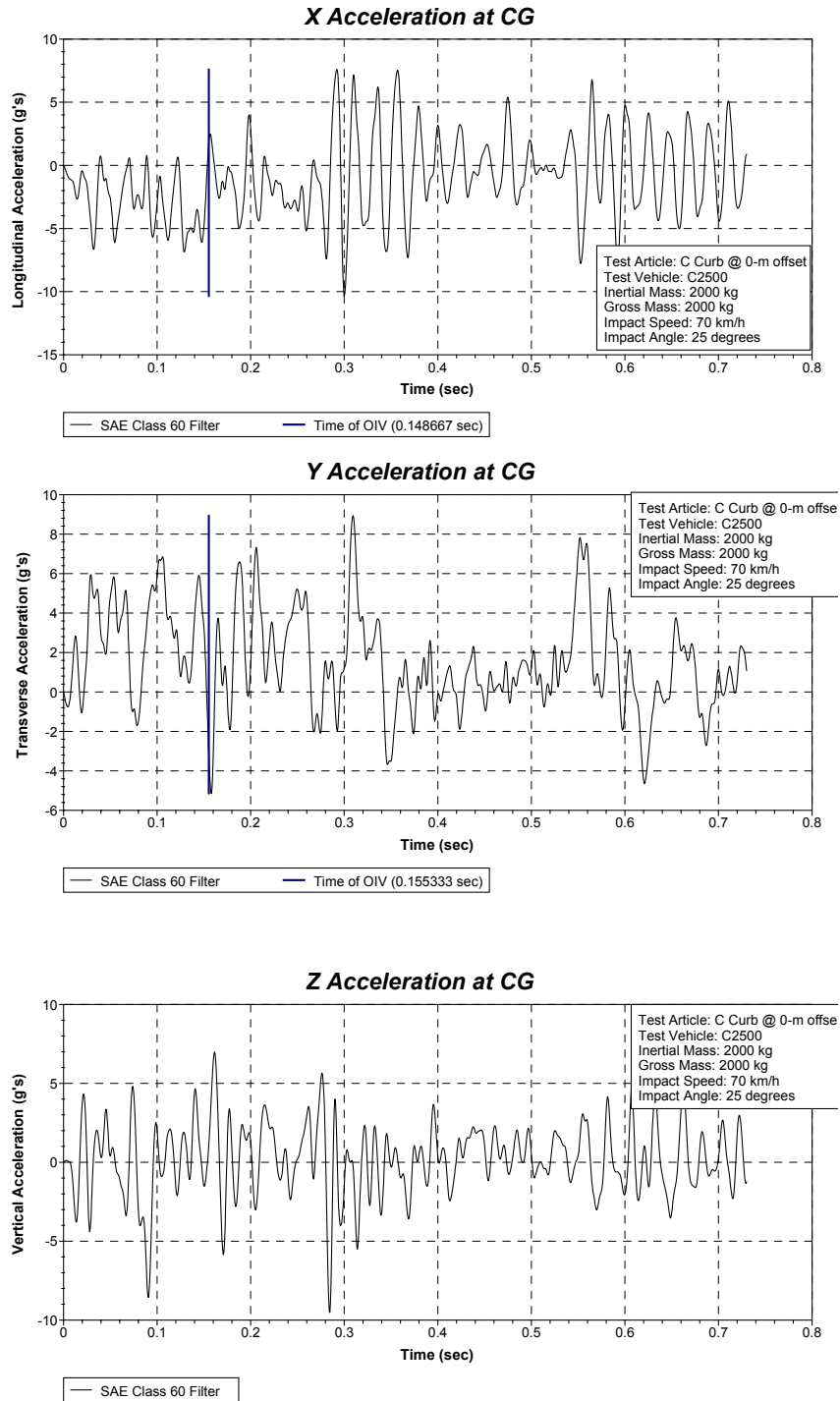


Figure I.2: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed -- 70 km/hr
Offset Distance -- 0.0 m.

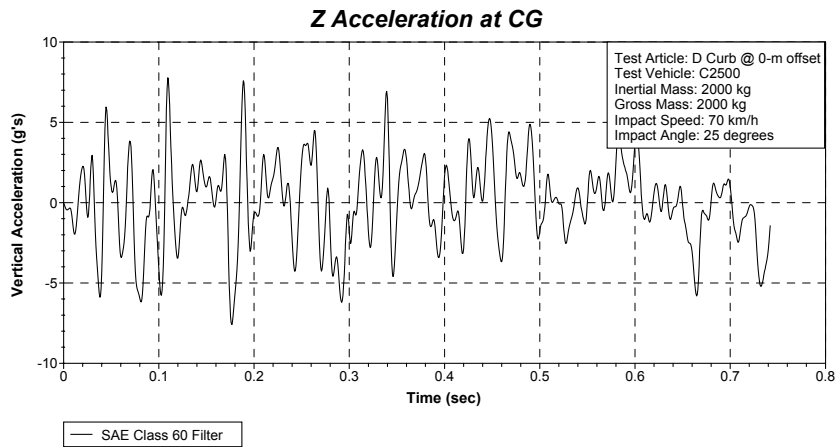
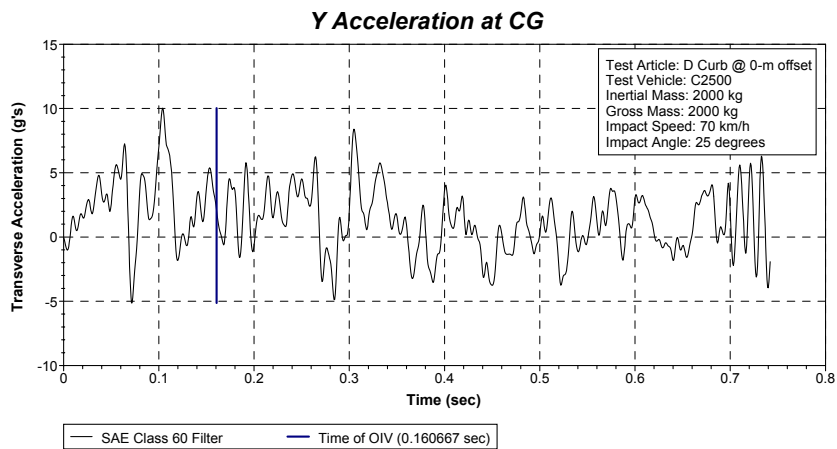
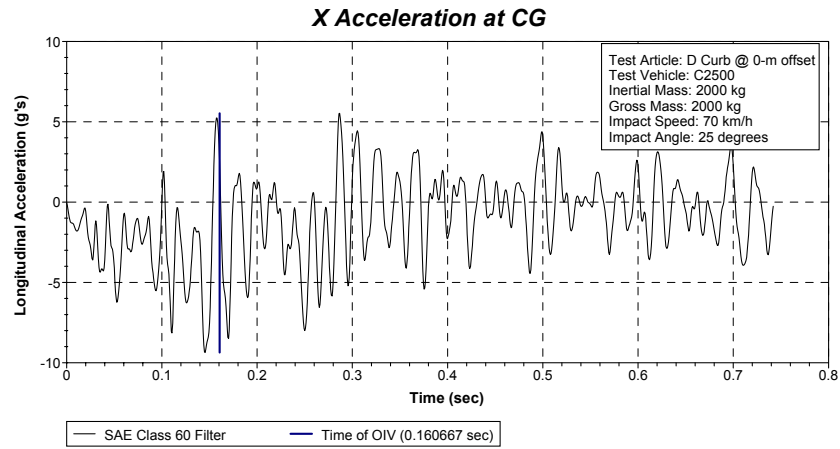


Figure I.3: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO D Curb
Impact Speed -- 70 km/hr
Offset Distance -- 0.0 m.

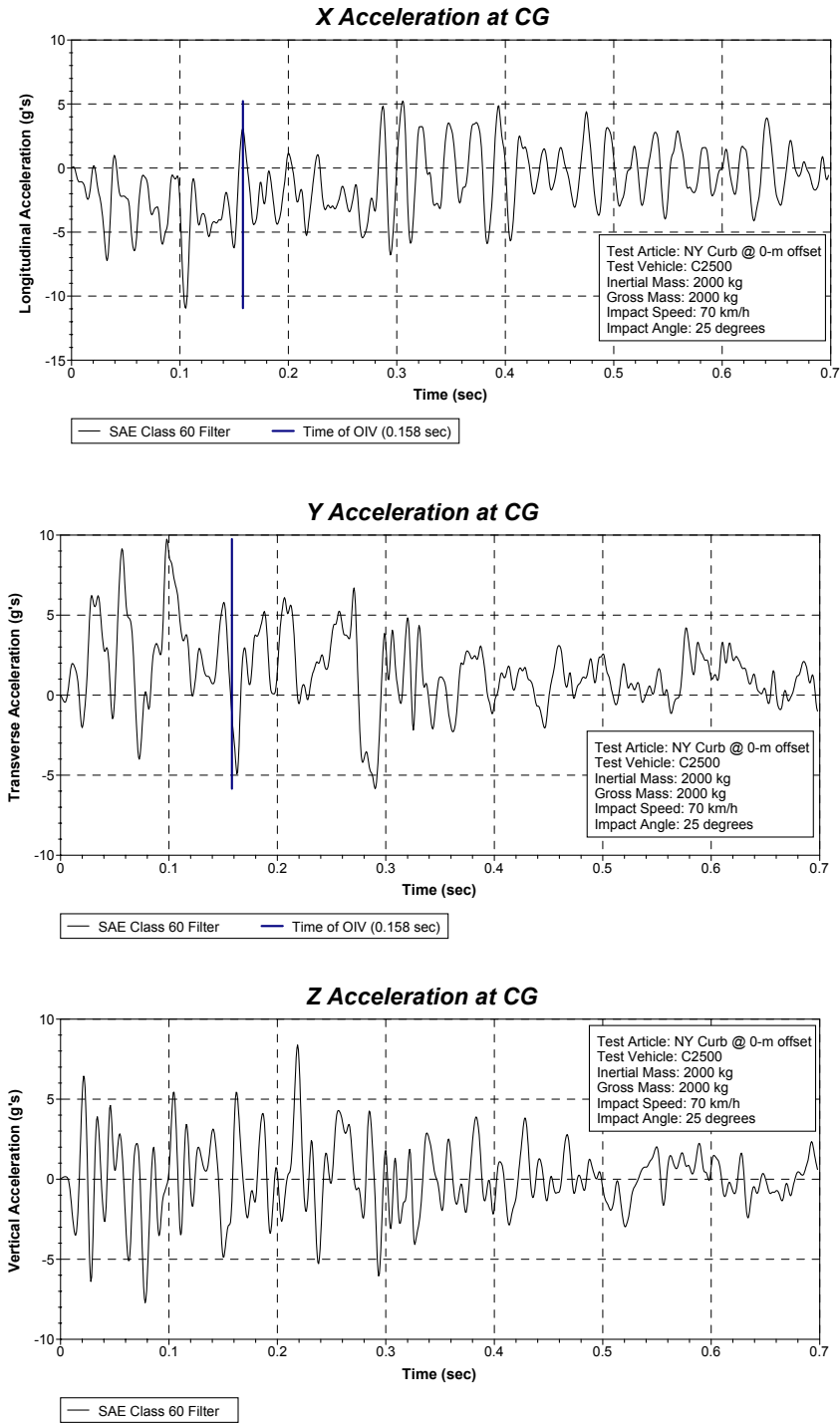


Figure I.4: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- New York Curb (100 mm)
Impact Speed -- 70 km/hr
Offset Distance -- 0.0 m.

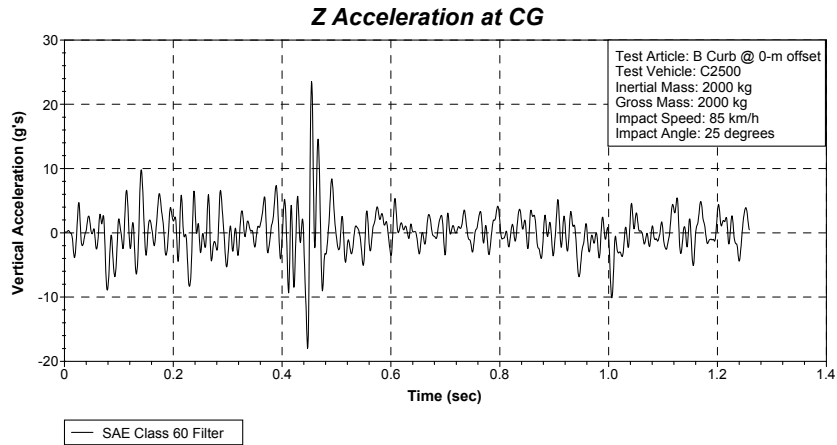
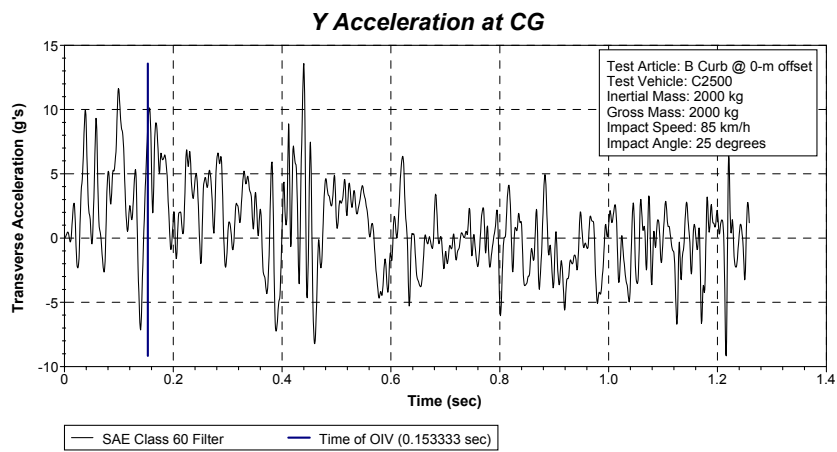
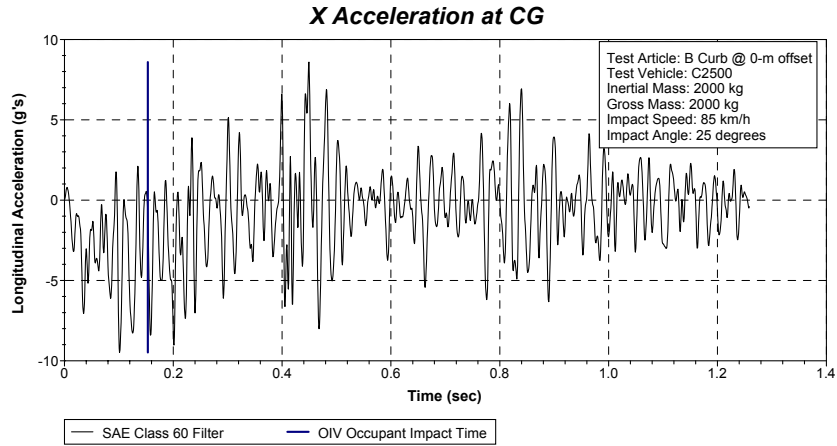


Figure I.5: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 85 km/hr
Offset Distance -- 0.0 m.

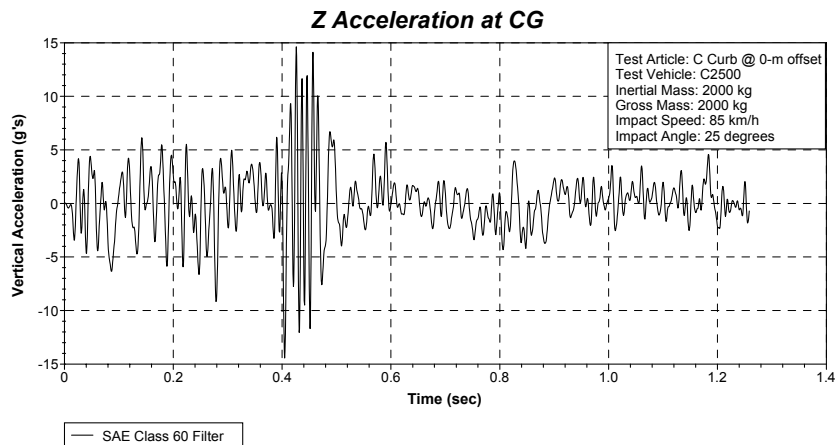
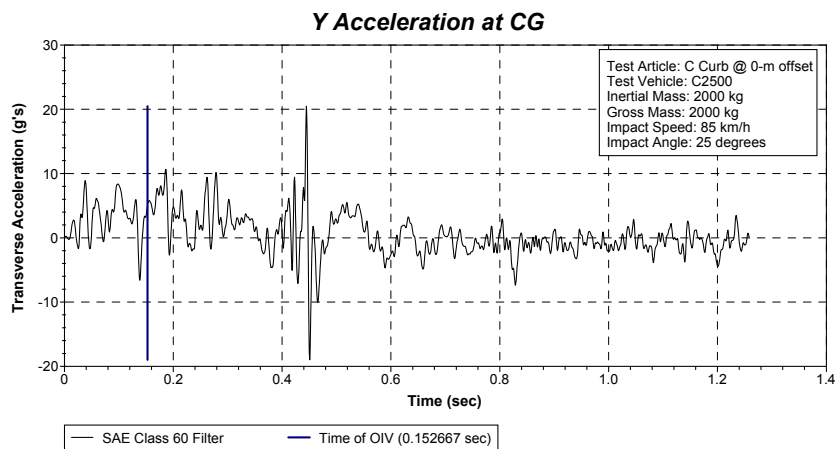
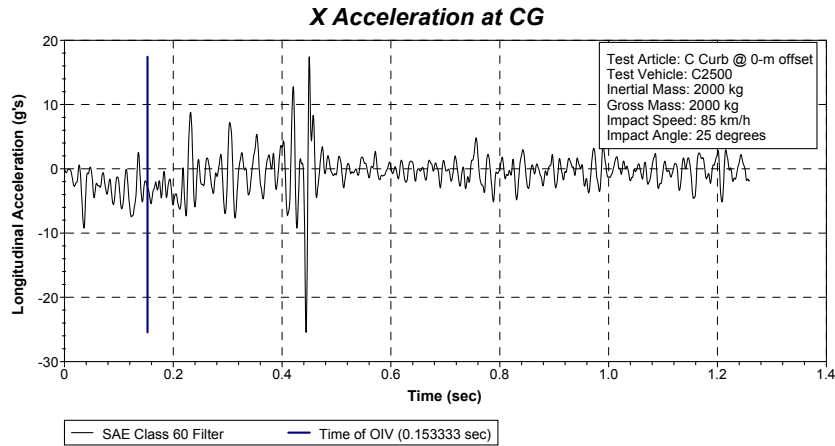


Figure I.6: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed -- 85 km/hr
Offset Distance -- 0.0 m.

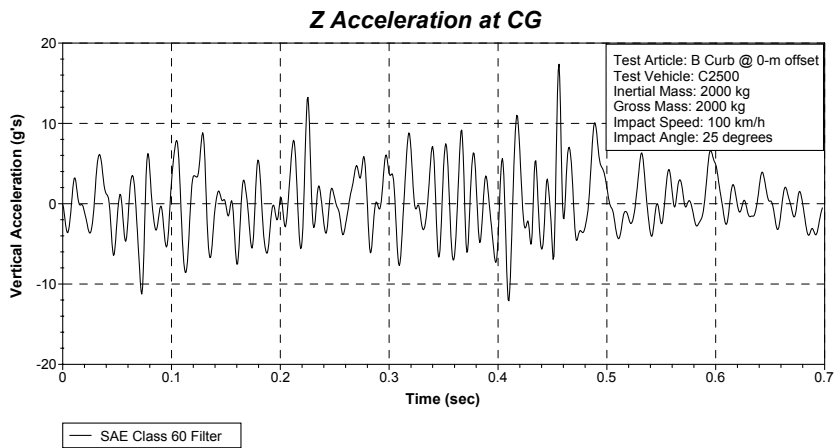
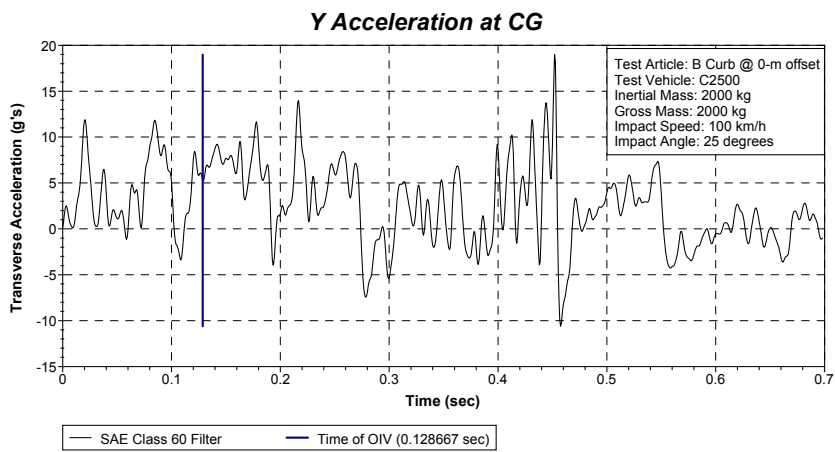
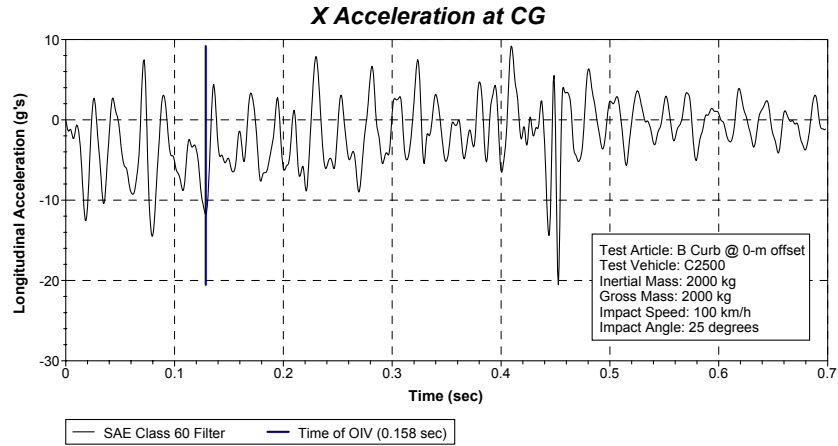


Figure I.7: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 100 km/hr
Offset Distance -- 0.0 m.

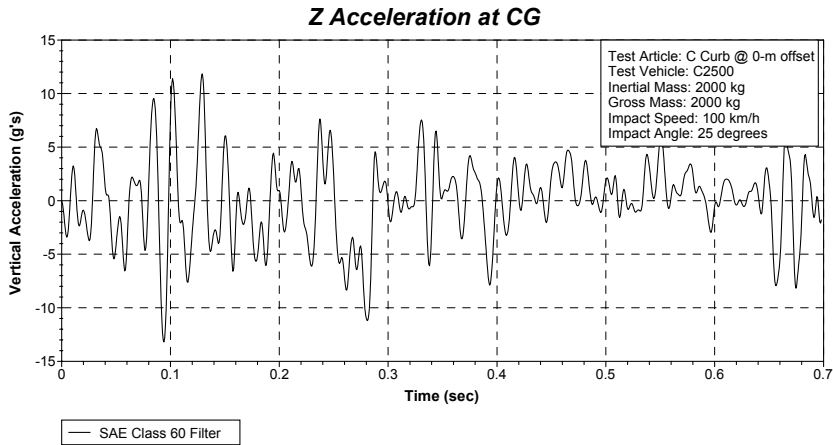
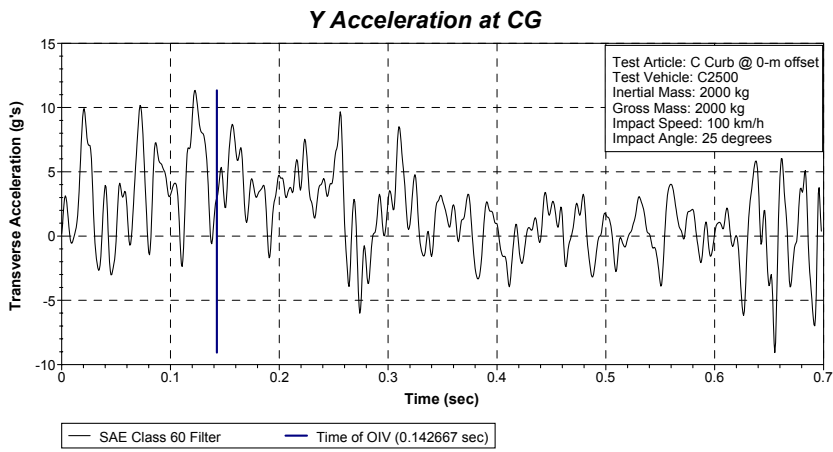
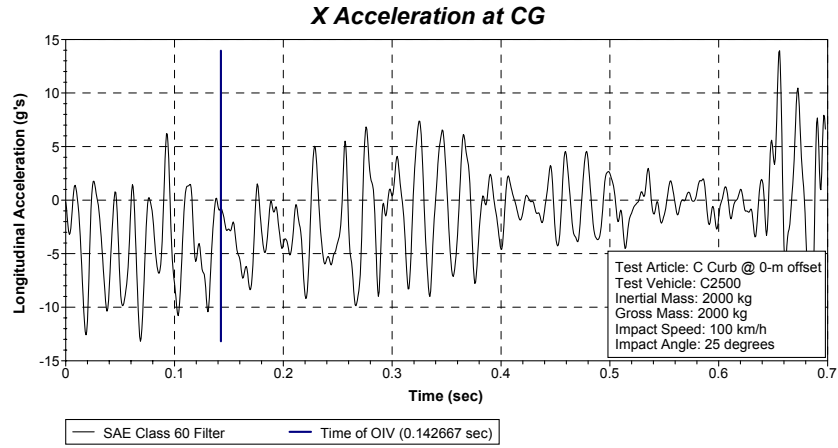


Figure I.8: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed -- 100 km/hr
Offset Distance -- 0.0 m.

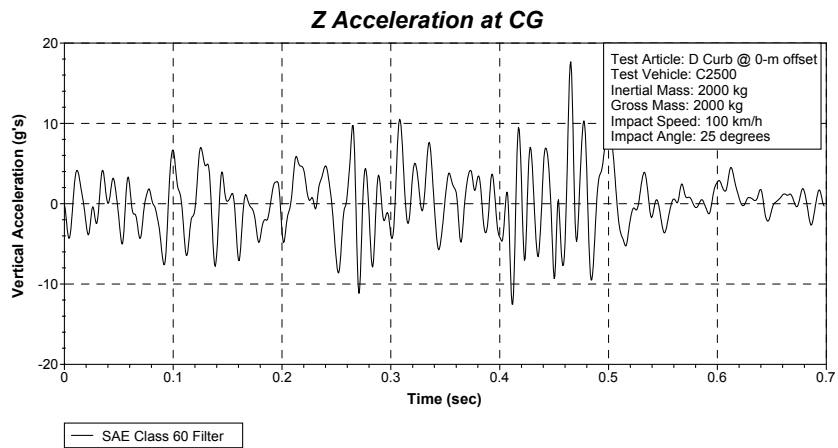
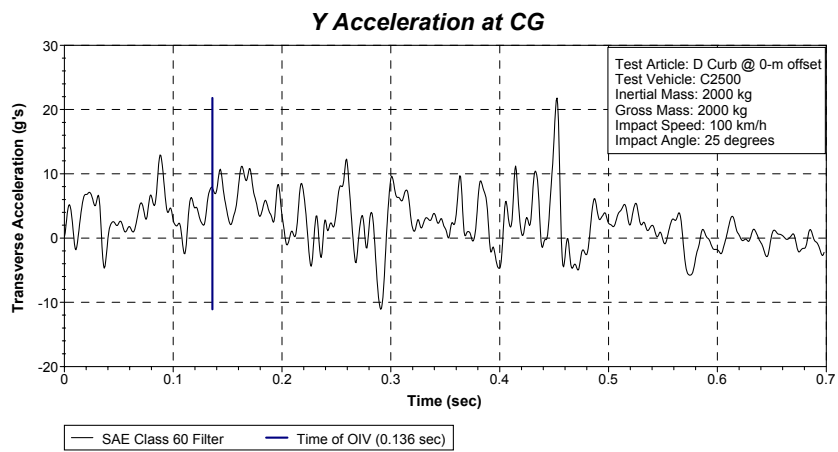
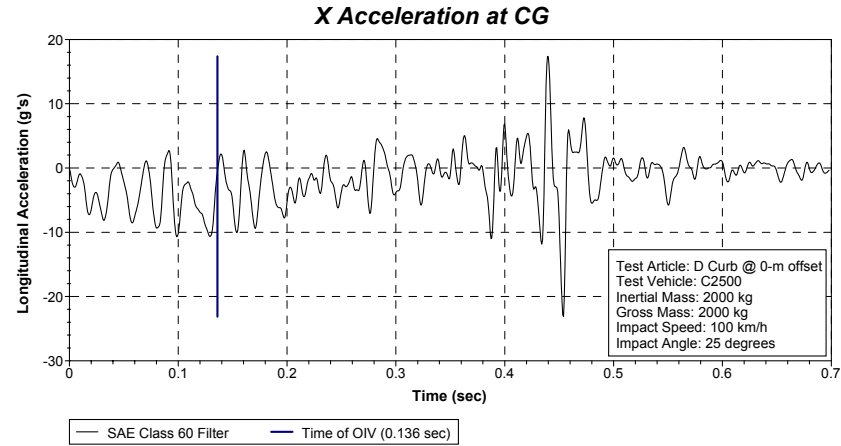


Figure I.9: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO D Curb
Impact Speed -- 100 km/hr
Offset Distance -- 0.0 m.

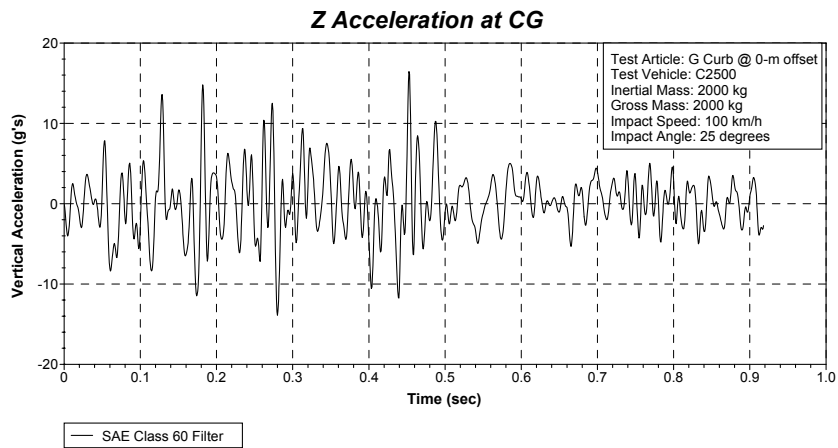
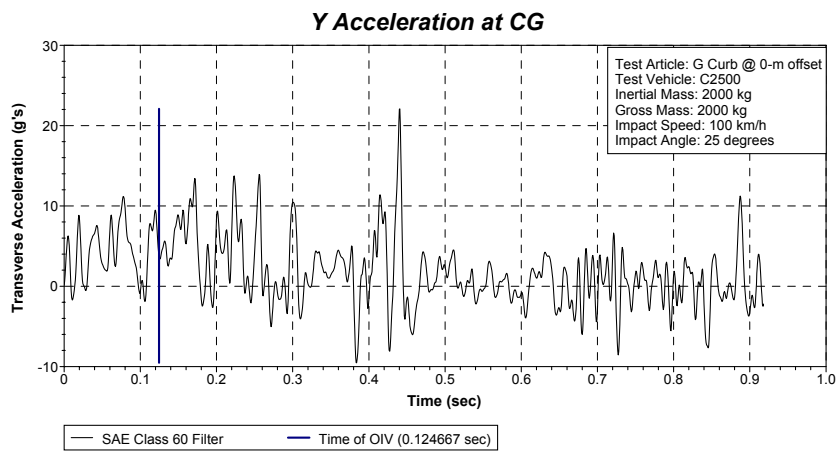
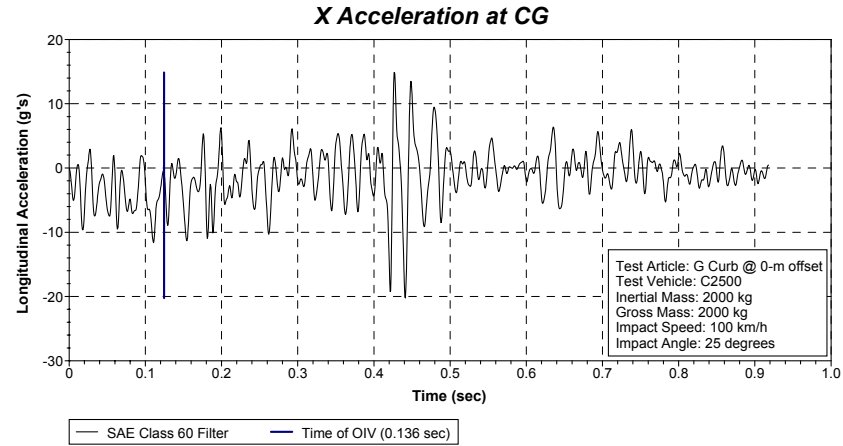


Figure I.10: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO G Curb
Impact Speed -- 100 km/hr
Offset Distance -- 0.0 m.

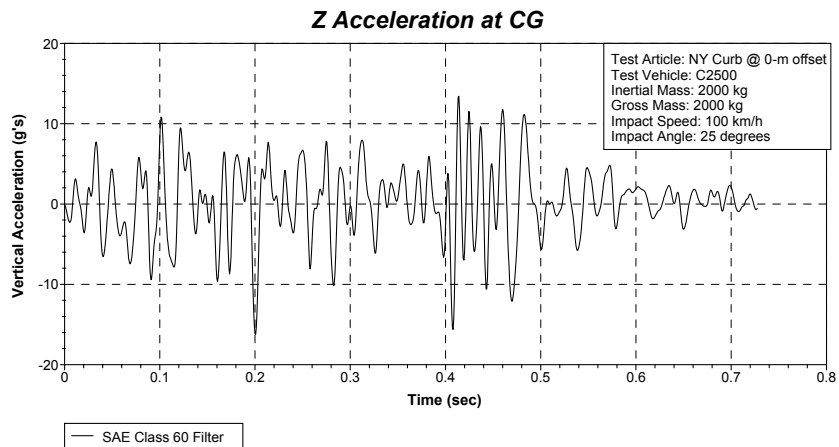
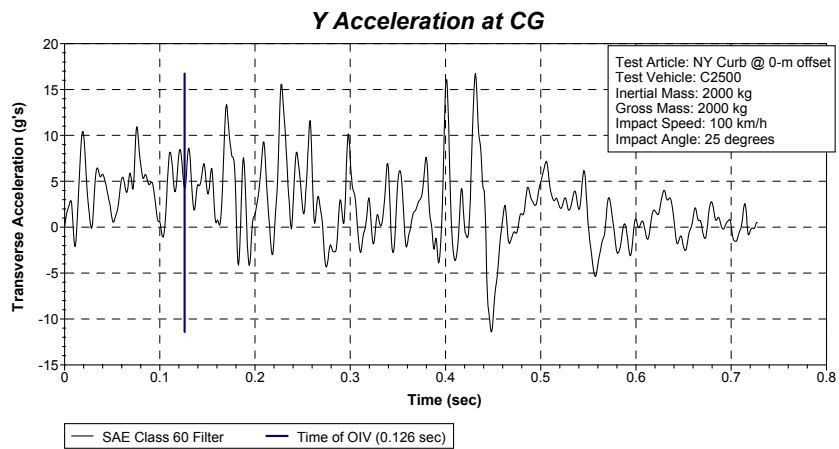
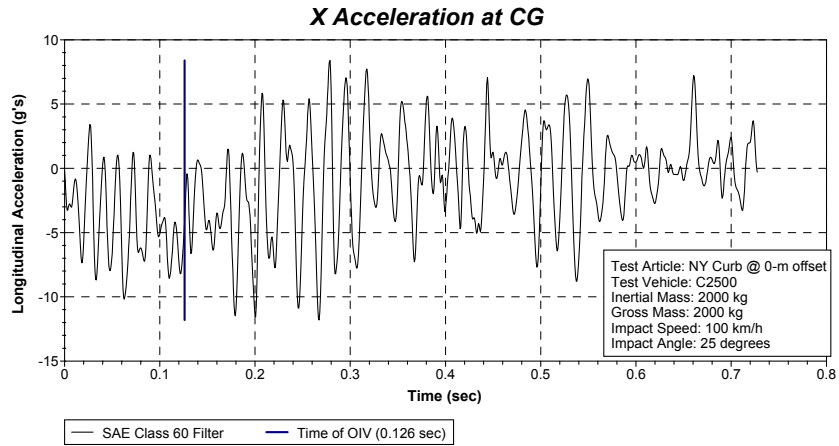


Figure I.11: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- New York Curb (100 mm)
Impact Speed – 100 km/hr
Offset Distance – 0.0 m.

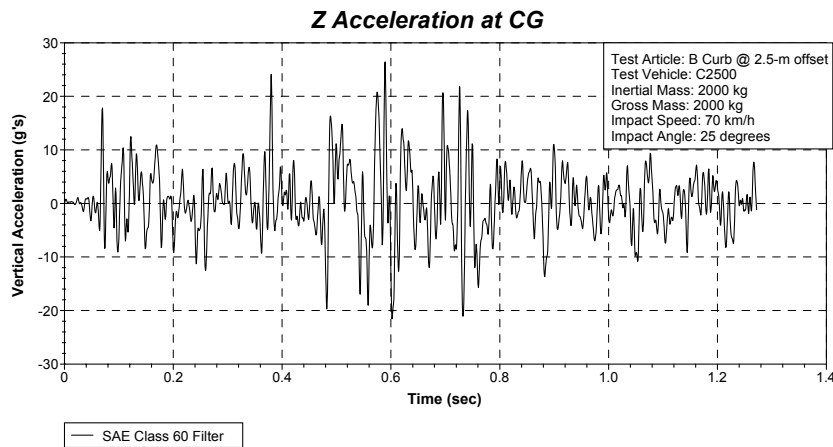
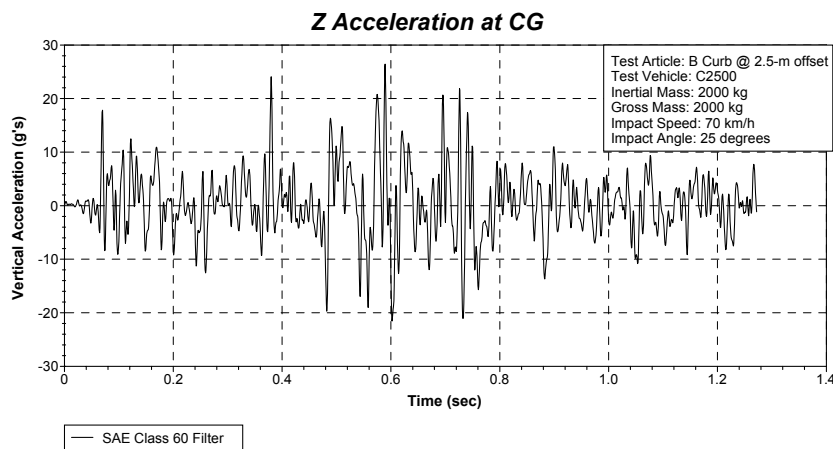
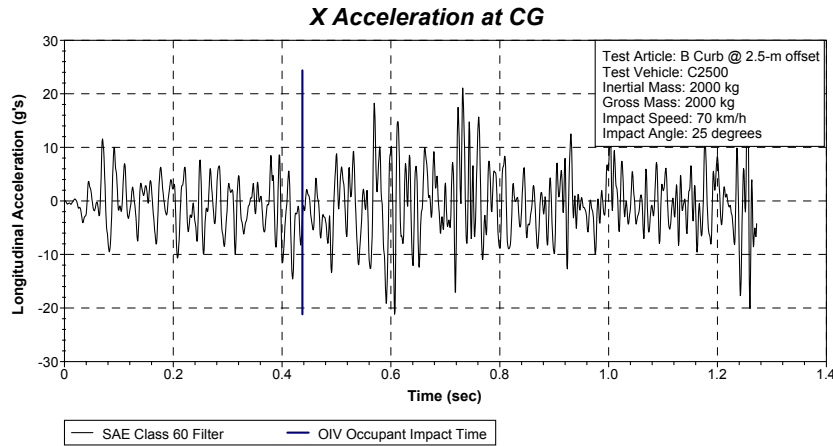


Figure I.12: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 70 km/hr
Offset Distance -- 2.5 m.

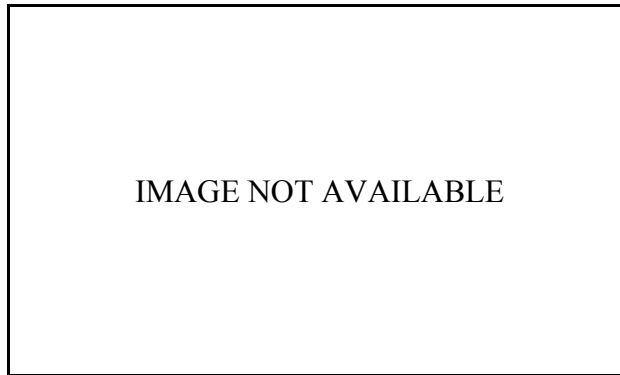


Figure I.13: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed – 70 km/hr
Offset Distance – 2.5 m.

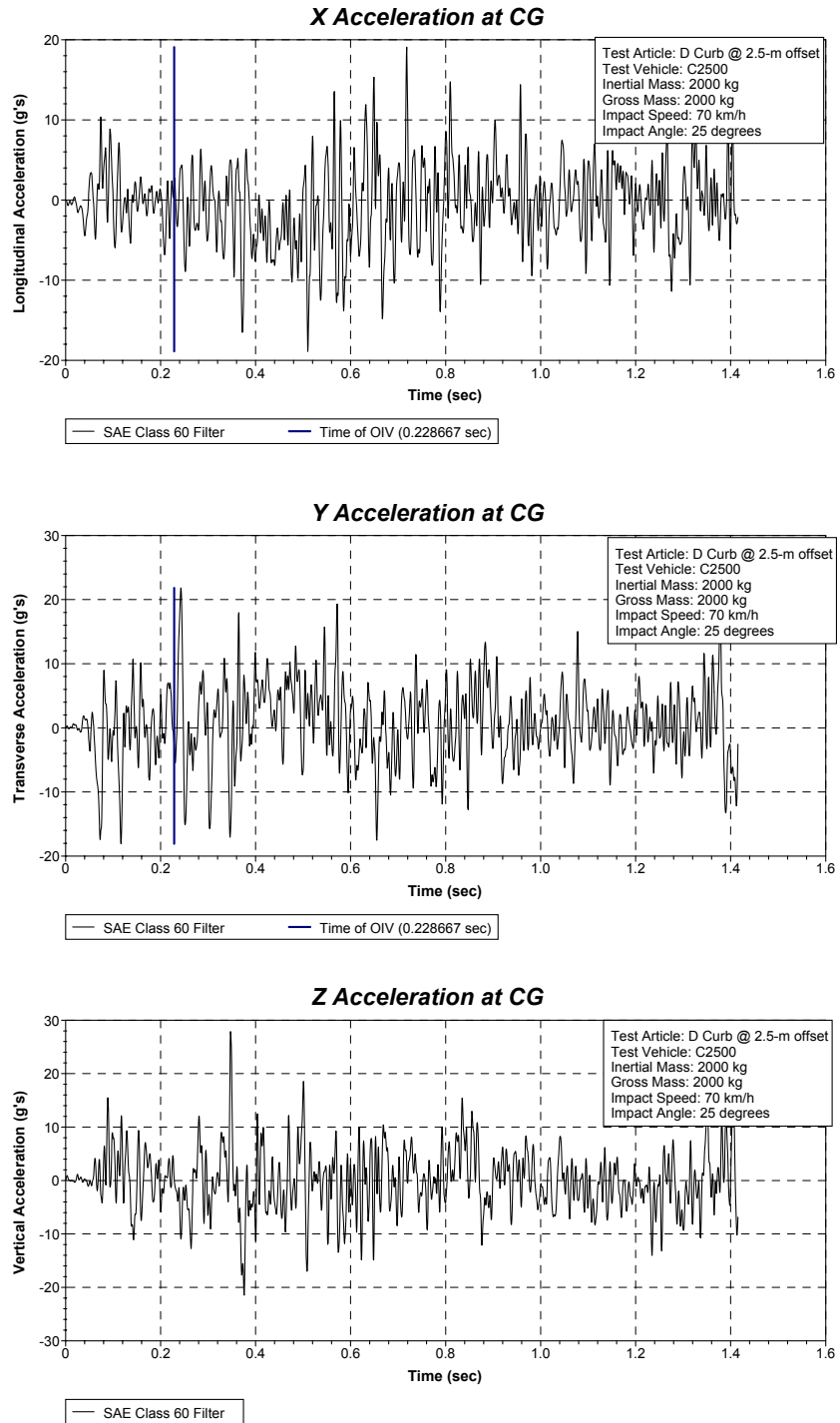


Figure I.14: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO D Curb
Impact Speed -- 70 km/hr
Offset Distance -- 2.5 m.

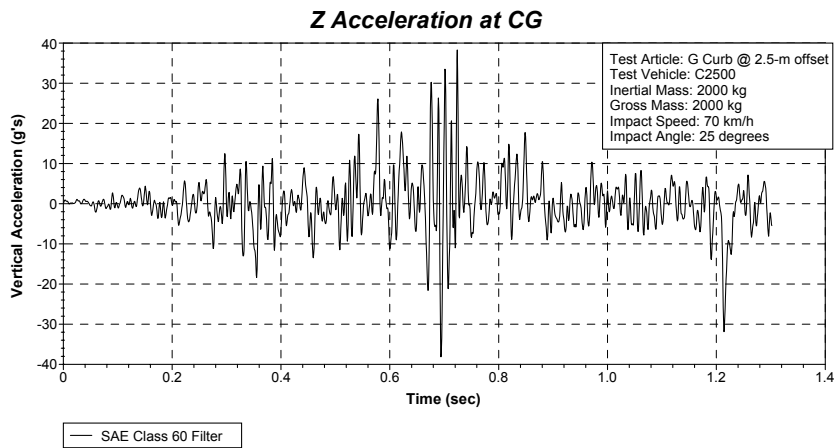
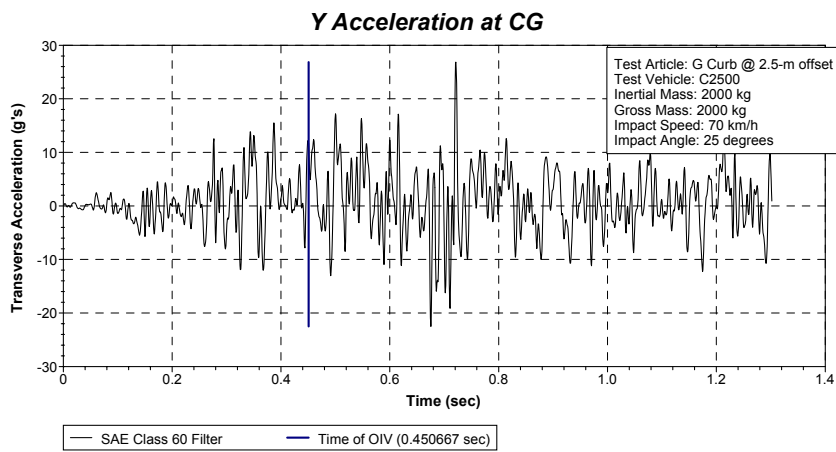
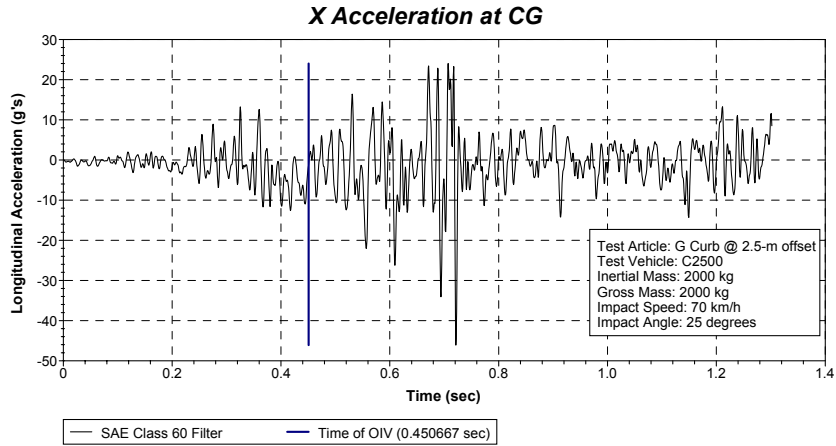


Figure I.15: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO G Curb
Impact Speed -- 70 km/hr
Offset Distance -- 2.5 m.

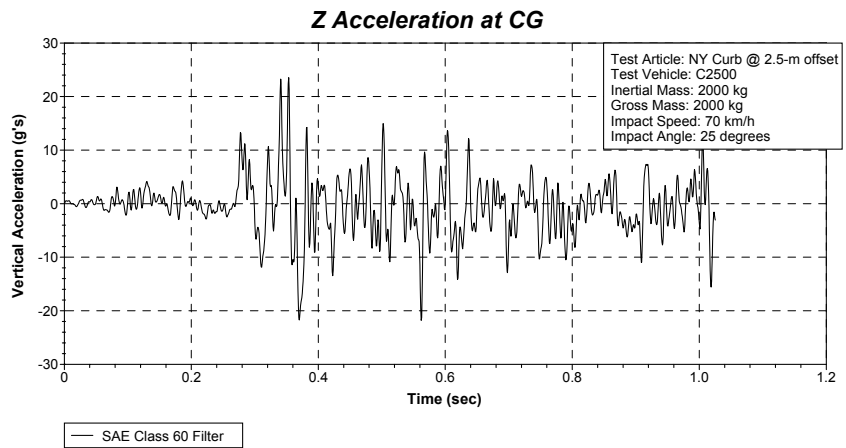
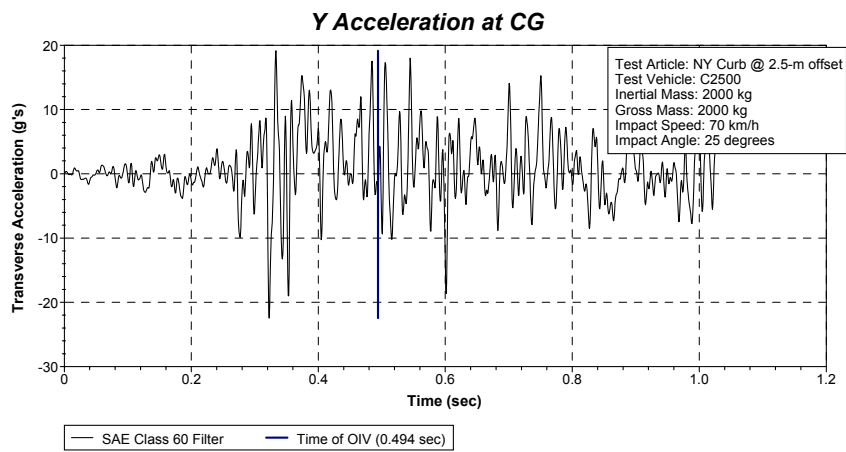
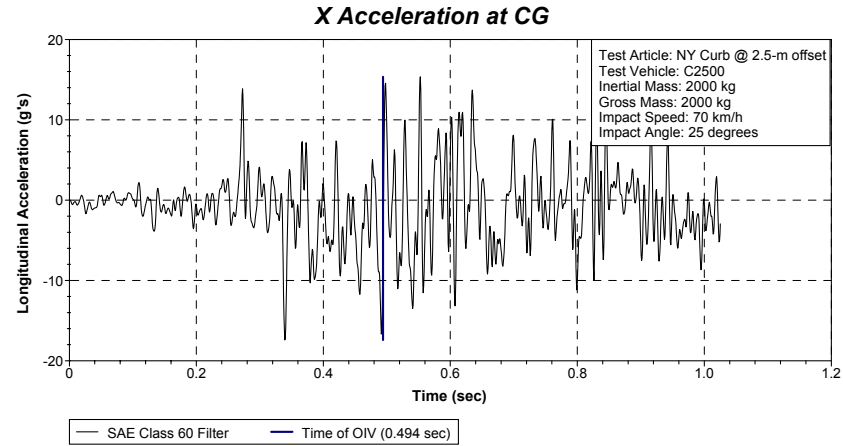


Figure I.16: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- New York Curb (100 mm)
Impact Speed -- 70 km/hr
Offset Distance -- 2.5 m.

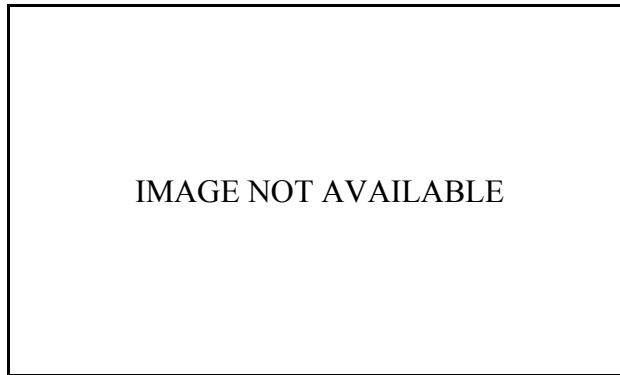


Figure I.17: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed – 85 km/hr
Offset Distance – 2.5 m.

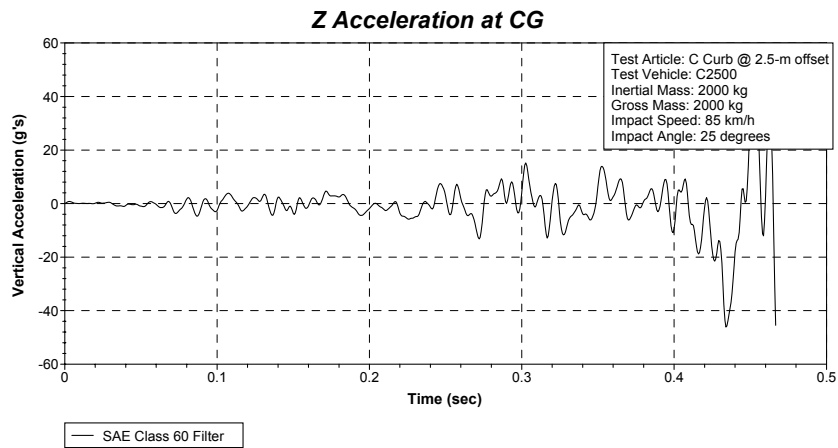
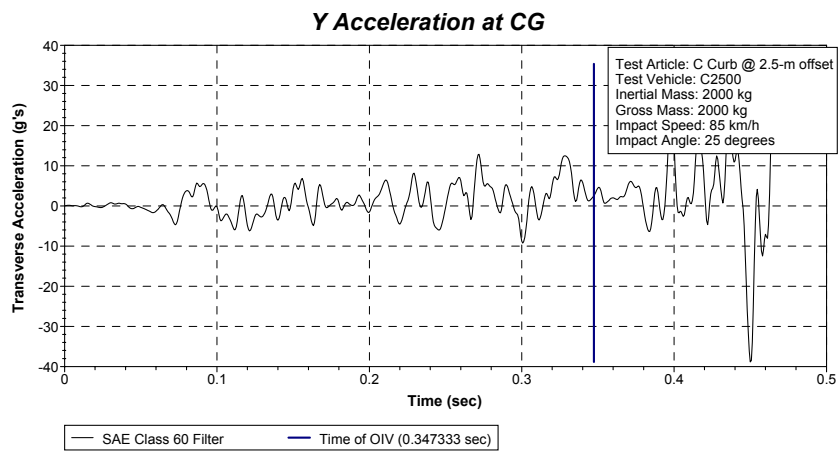
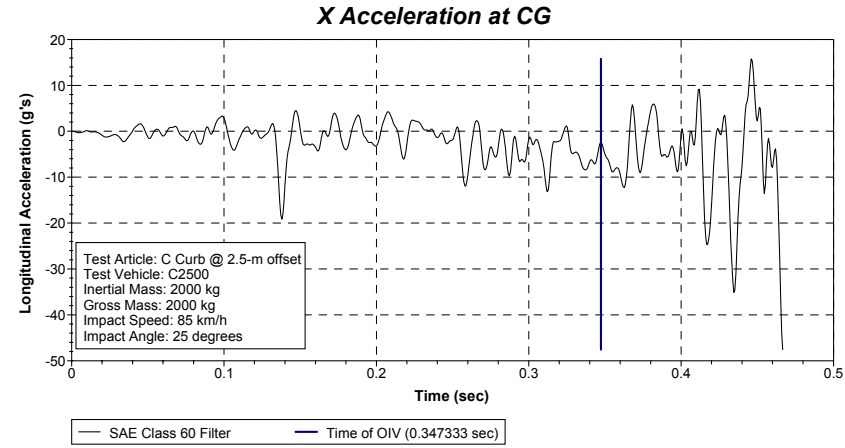


Figure I.18: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed -- 85 km/hr
Offset Distance -- 2.5 m.

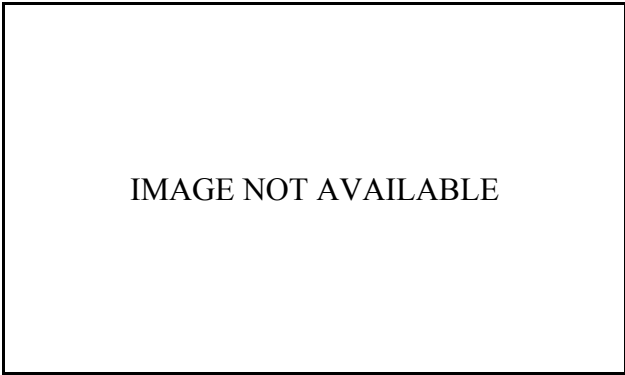


Figure I.19:

Acceleration-time histories at C.G. of pickup truck in local coordinates:

- Curb Type** -- AASHTO G Curb
- Impact Speed** – 100 km/hr
- Offset Distance** – 2.5 m.

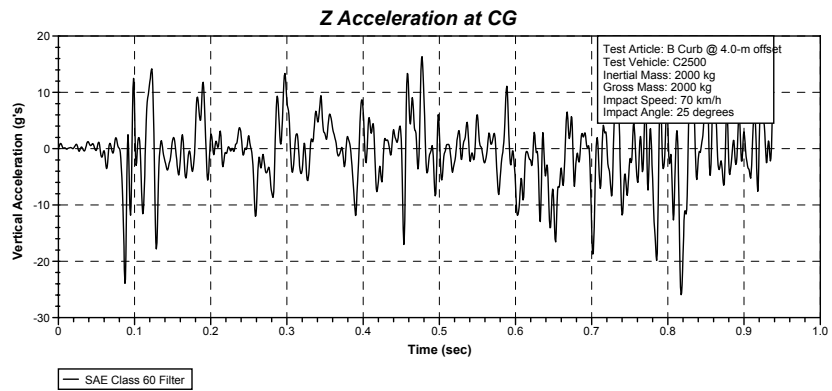
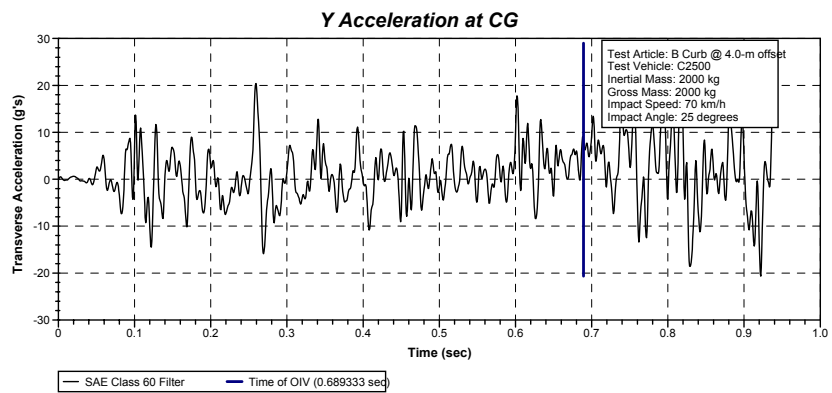
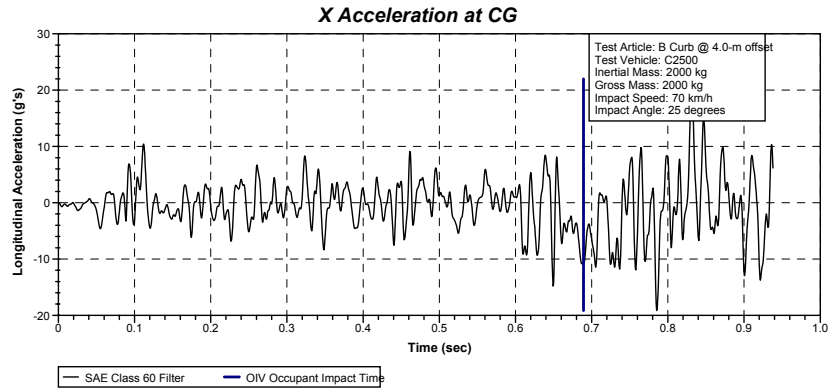


Figure I.20: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 70 km/hr
Offset Distance -- 4.0 m.

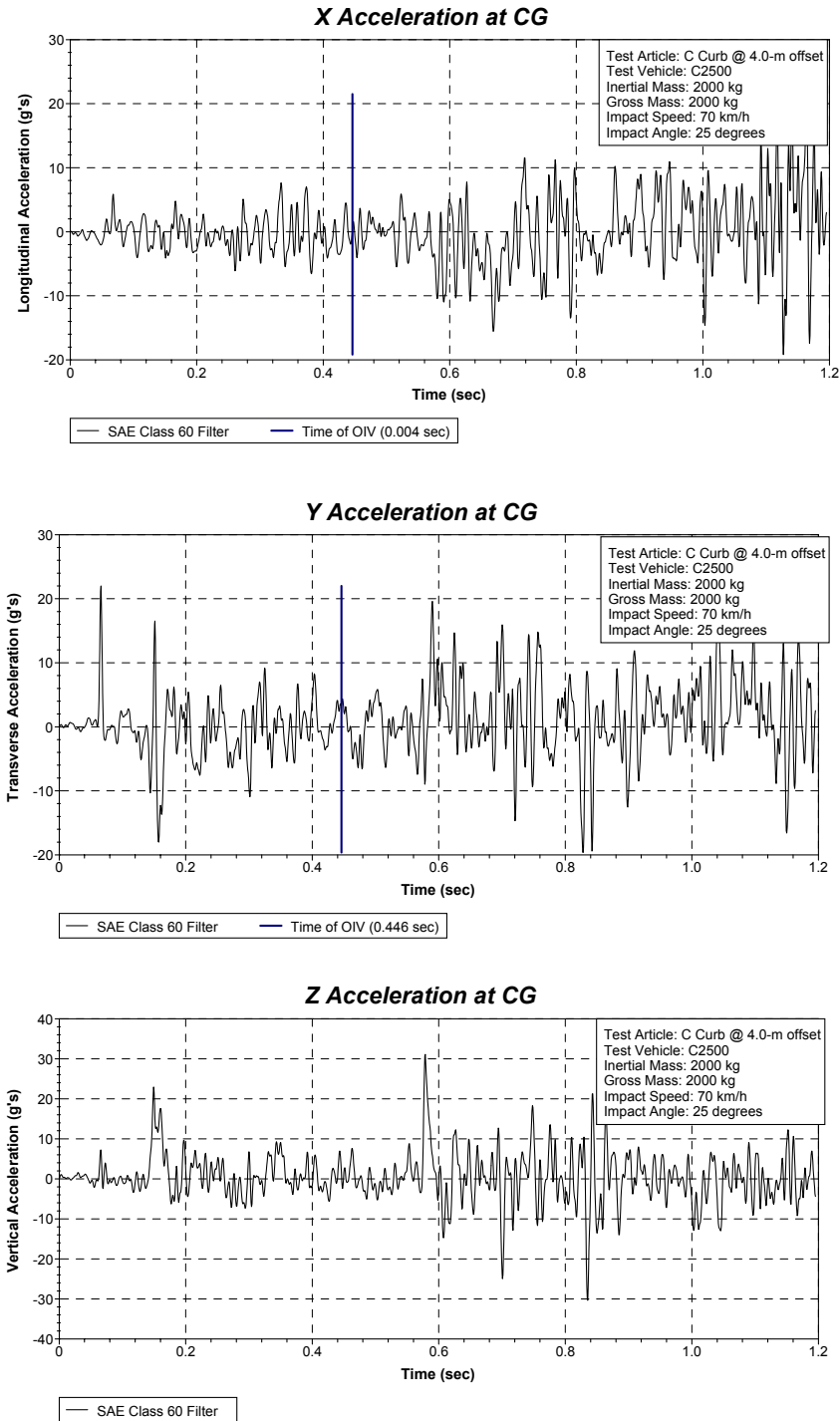


Figure I.21: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed -- 70 km/hr
Offset Distance -- 4.0 m.

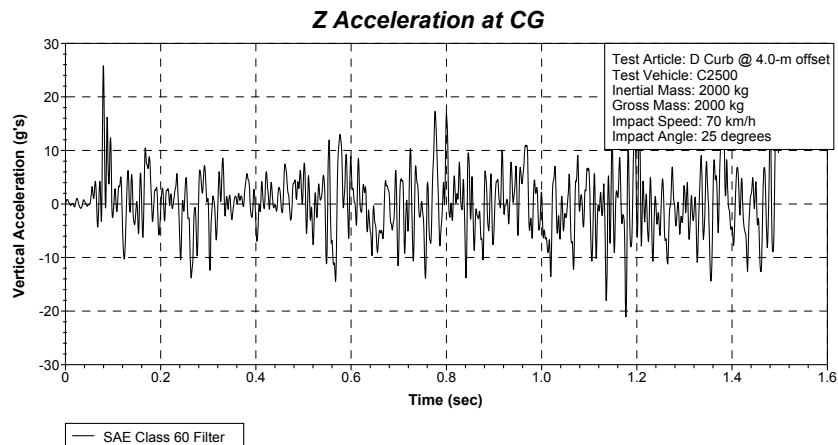
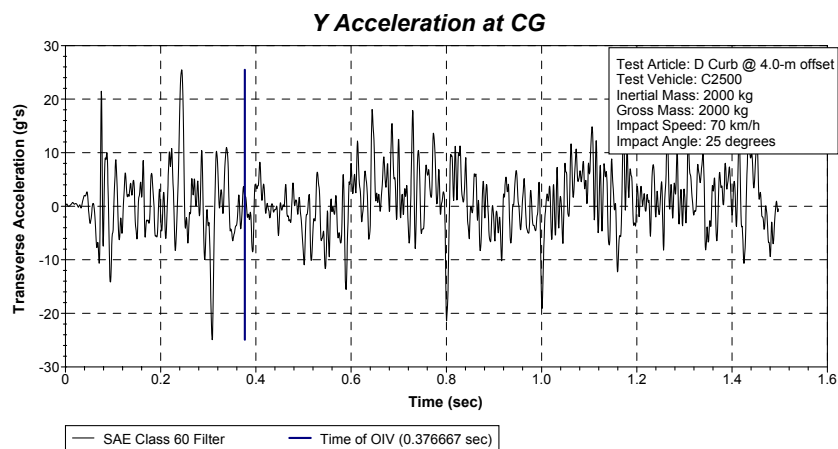
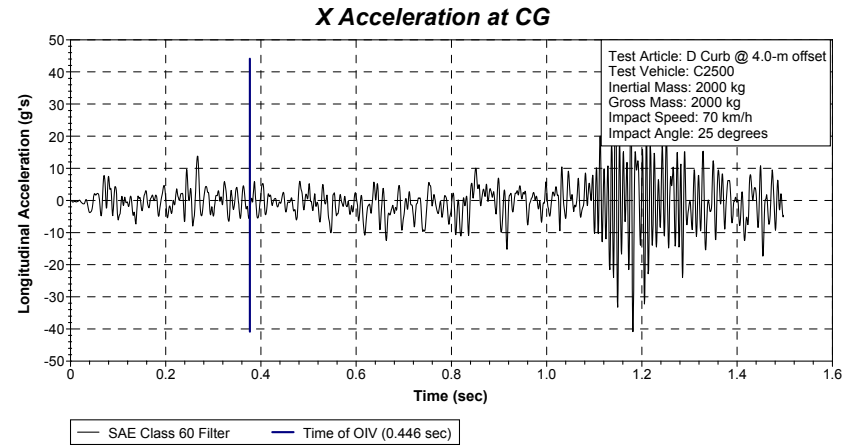


Figure I.22: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO D Curb
Impact Speed -- 70 km/hr
Offset Distance -- 4.0 m.

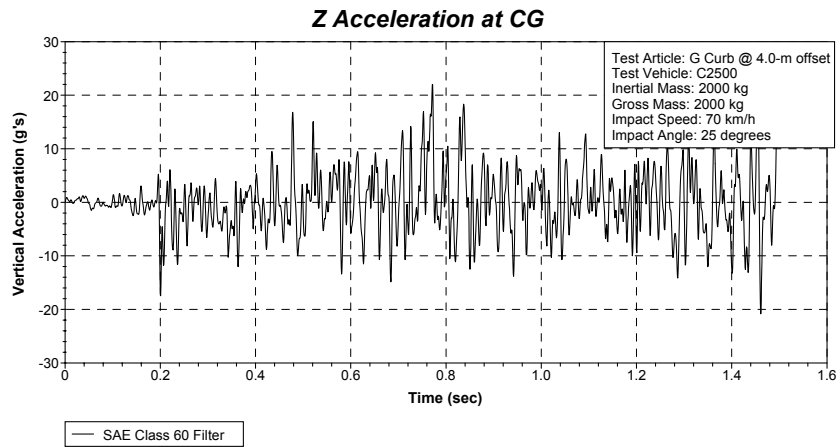
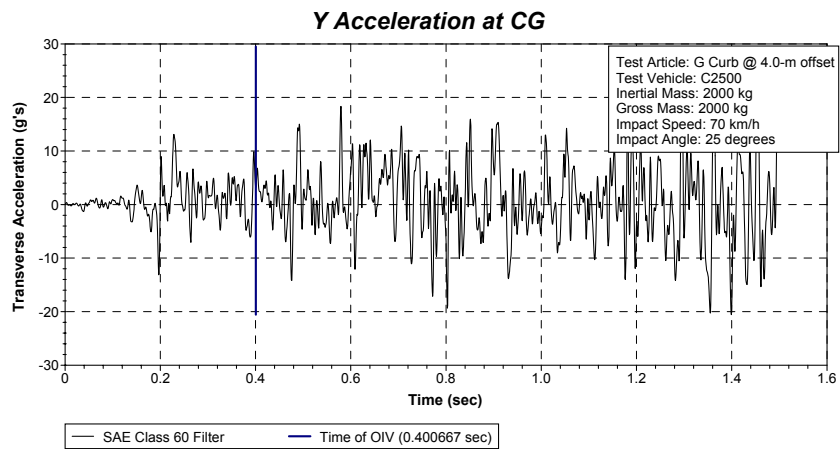
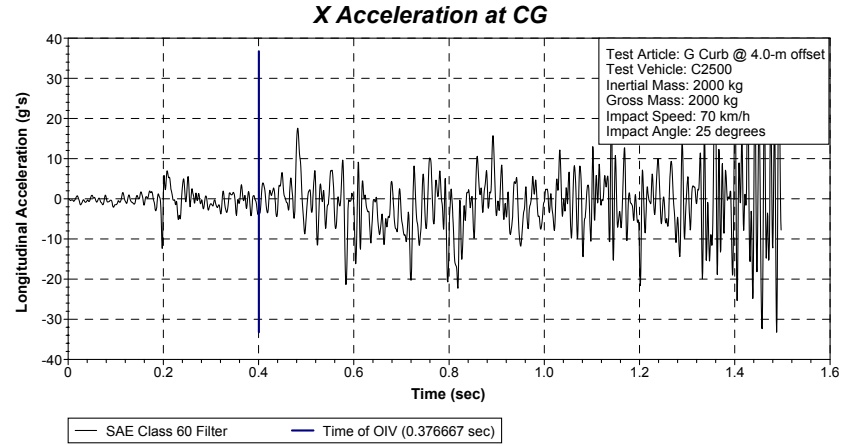


Figure I.23: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO G Curb
Impact Speed -- 70 km/hr
Offset Distance -- 4.0 m.

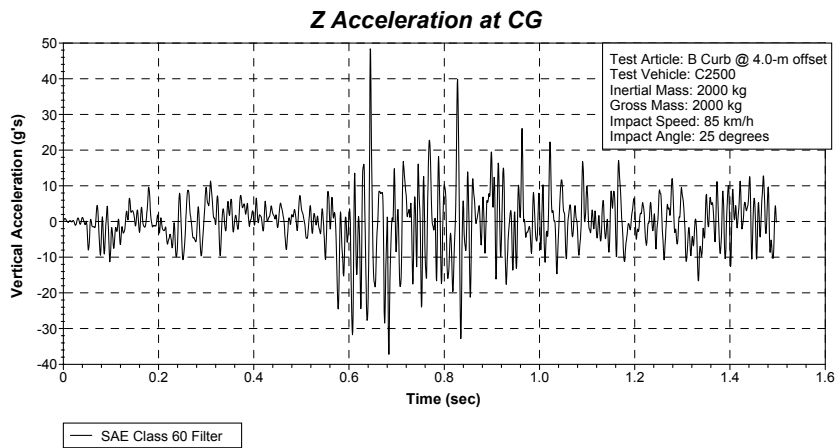
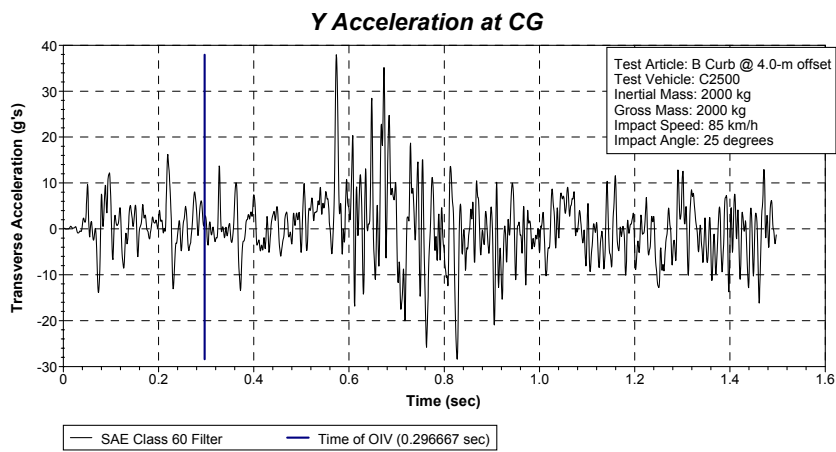
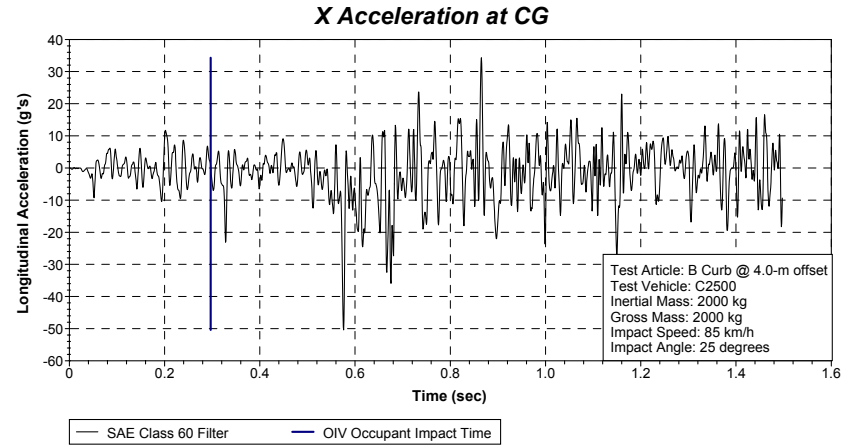


Figure I.24: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 85 km/hr
Offset Distance -- 4.0 m.

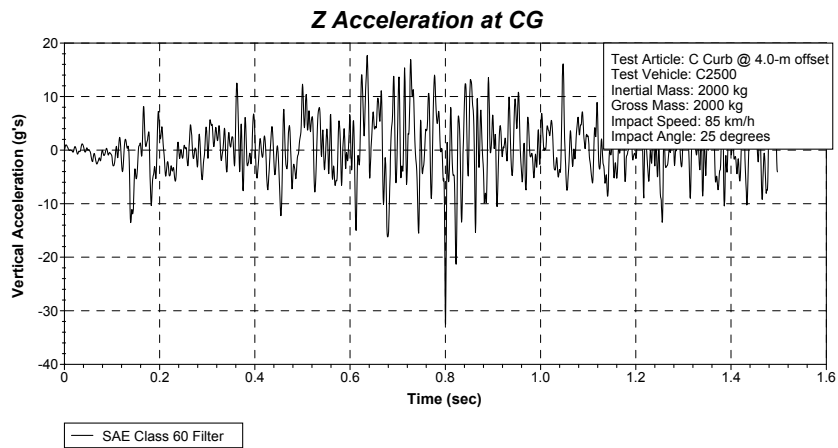
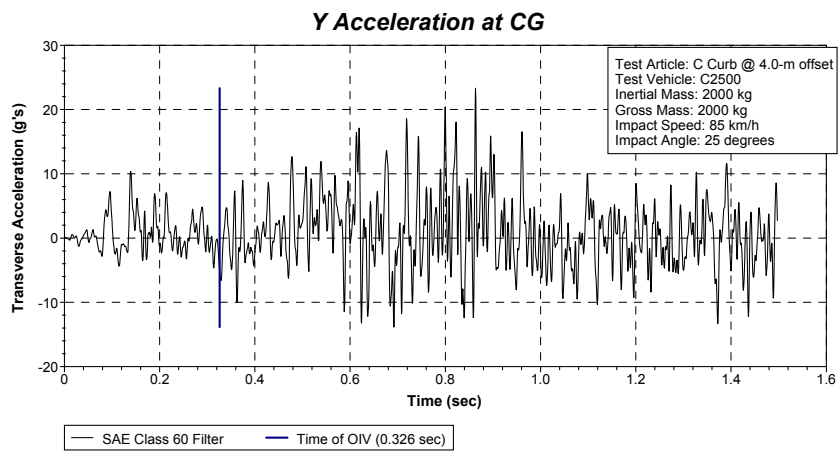
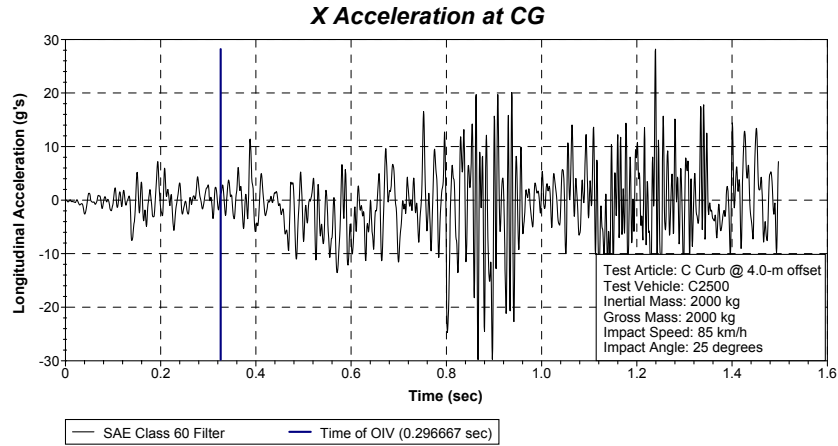


Figure I.25: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO C Curb
Impact Speed -- 85 km/hr
Offset Distance -- 4.0 m.

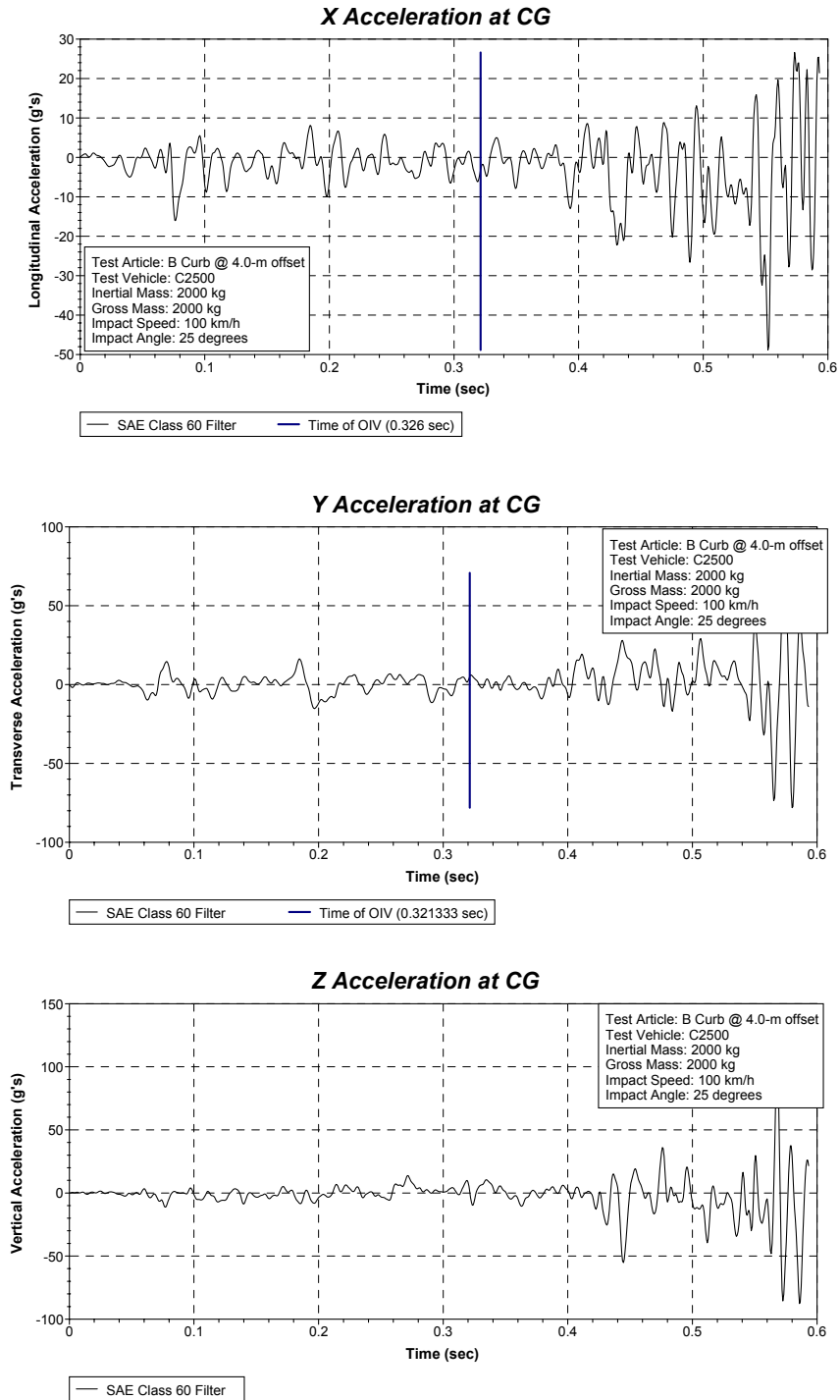


Figure I.26: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO B Curb
Impact Speed -- 100 km/hr
Offset Distance -- 4.0 m.

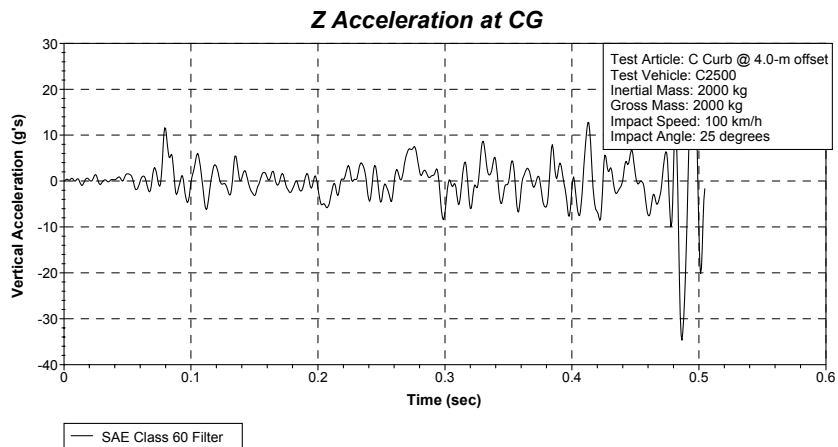
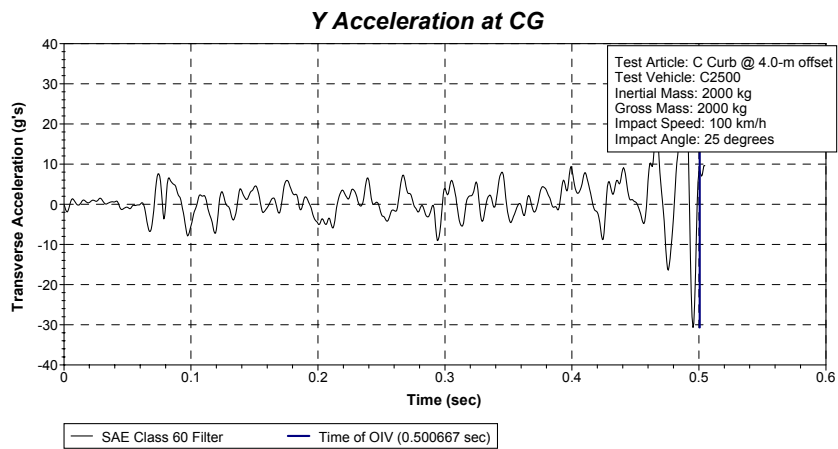
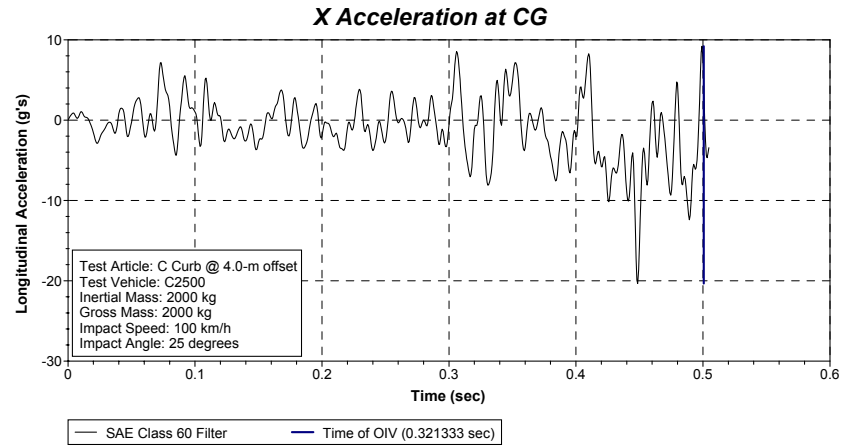


Figure I.27: Acceleration-time histories at C.G. of pickup truck in local coordinates:

Curb Type	-- AASHTO C Curb
Impact Speed	– 100 km/hr
Offset Distance	– 4.0 m.

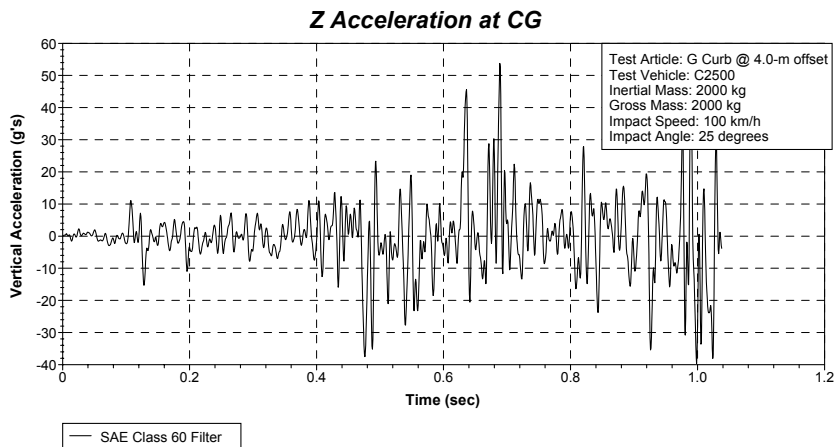
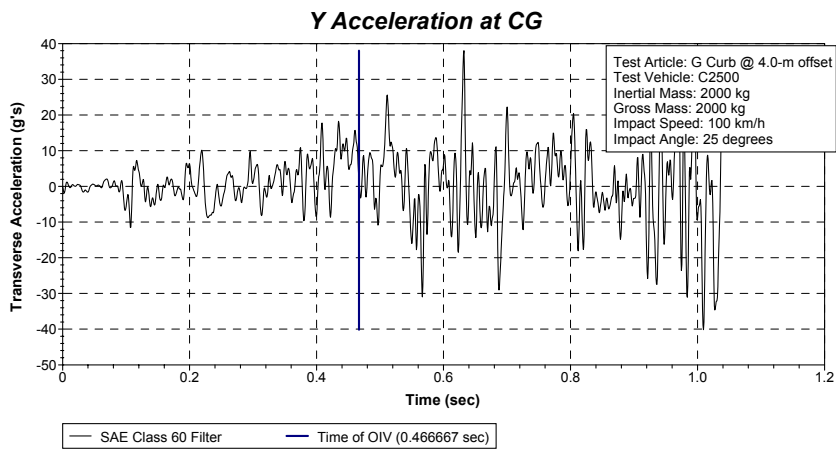
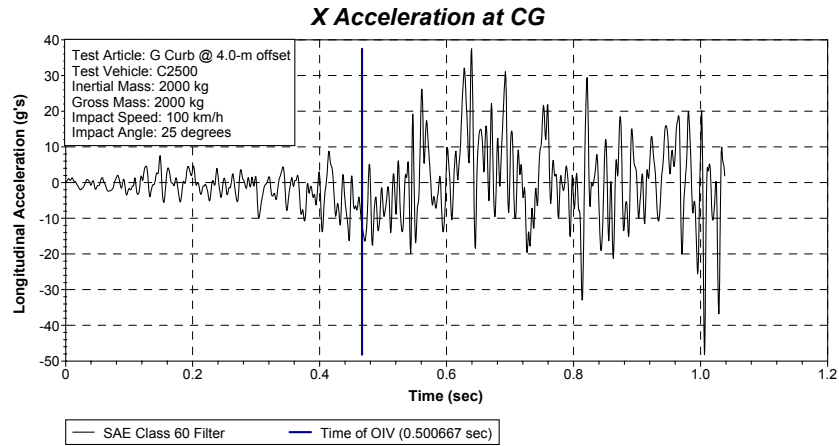


Figure I.28: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- AASHTO G Curb
Impact Speed -- 100 km/hr
Offset Distance -- 4.0 m.

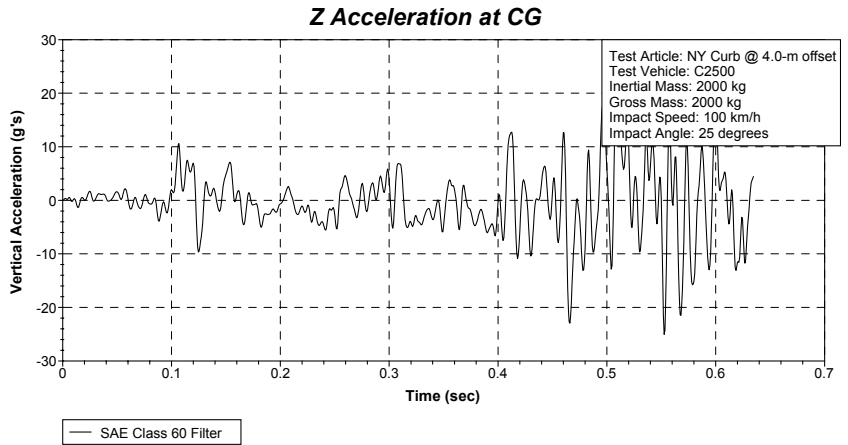
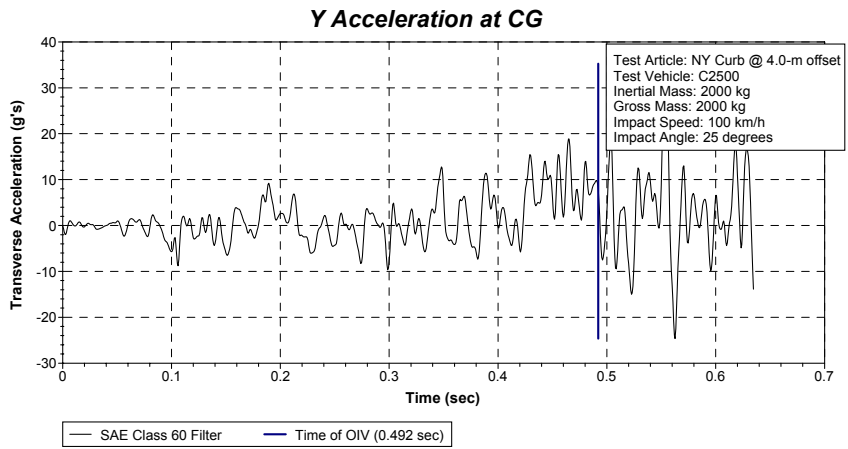
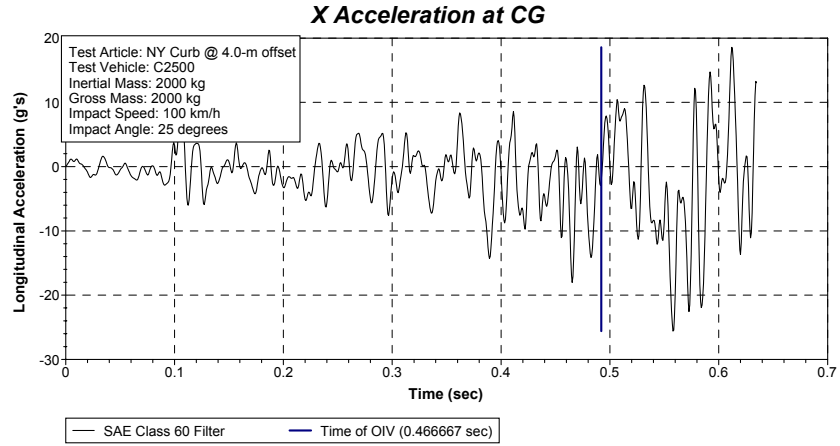


Figure I.29: Acceleration-time histories at C.G. of pickup truck in local coordinates:
Curb Type -- New York Curb (100 mm)
Impact Speed -- 100 km/hr
Offset Distance -- 4.0 m.