APPENDIX A

Modified-to-Scaled Ground Motion Characteristic Ratios versus Spectral Mismatch Metrics for Different Period Ranges
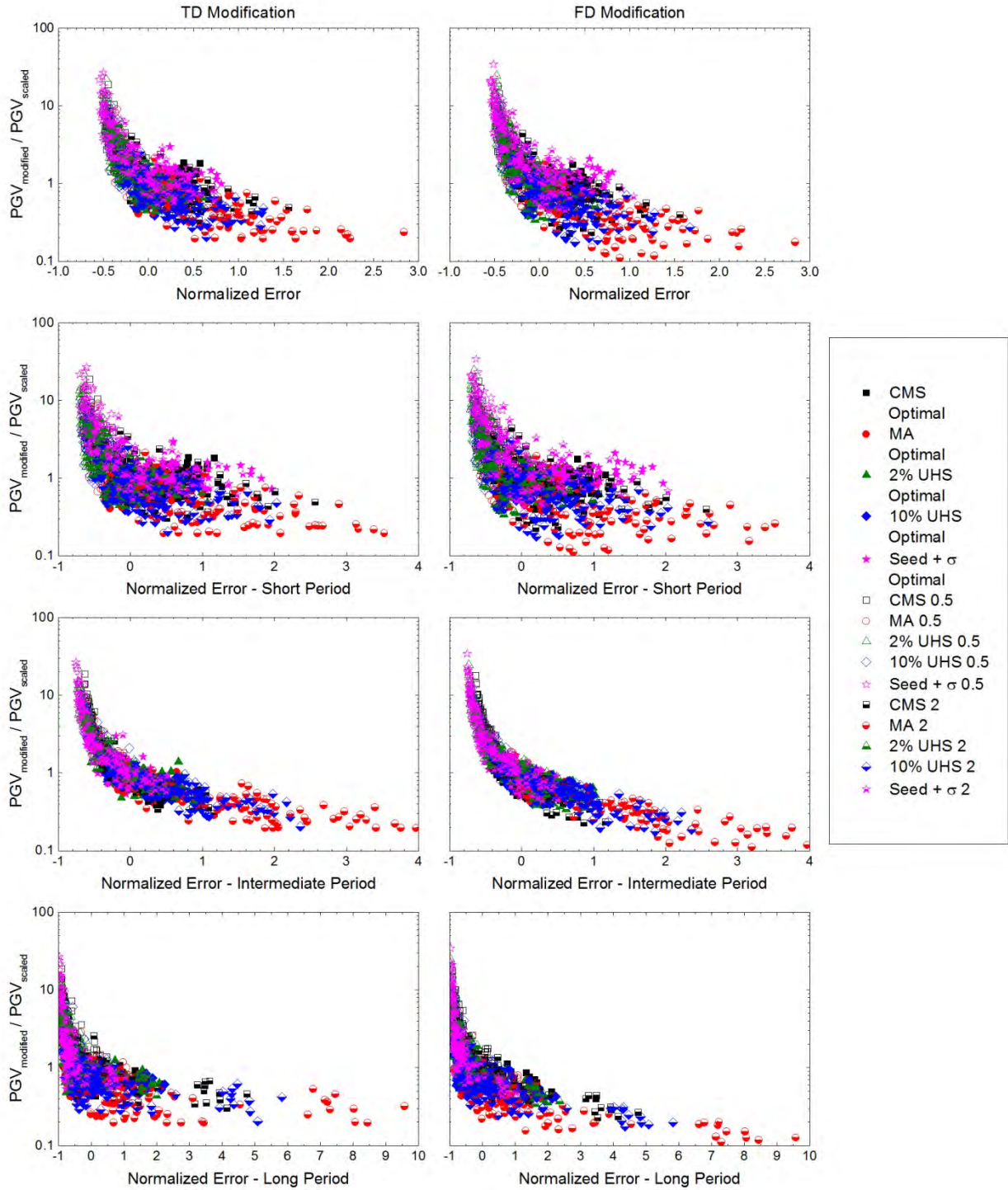
Figure A.1. Modified-to-scaled peak ground velocity (*PGV*) ratios of the motions in scenario I plotted against normalized error for the different period ranges for all target spectra and scaling factors.
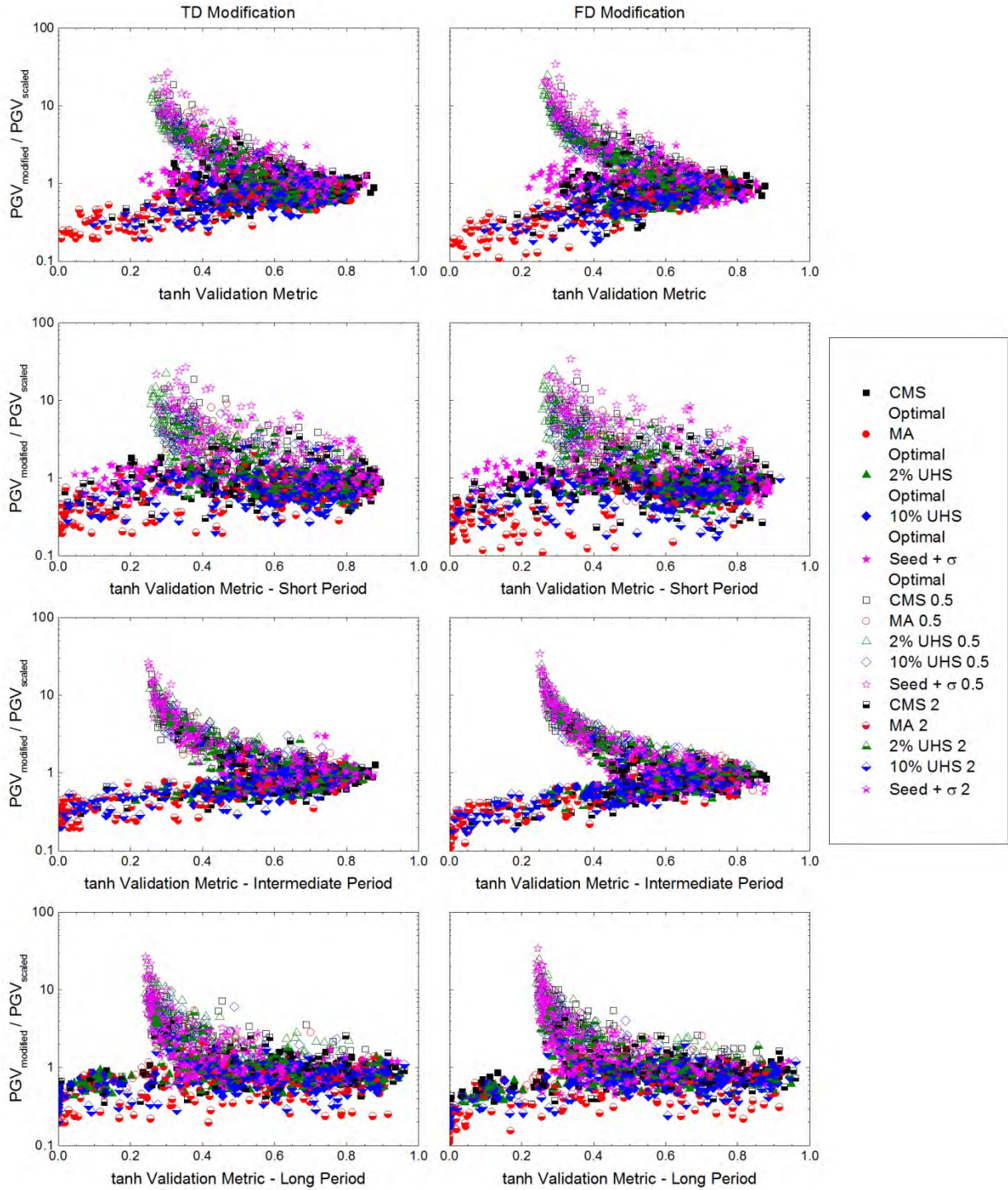
Figure A.2. Modified-to-scaled peak ground velocity (*PGV*) ratios of the motions in scenario I plotted against the tanh validation metric for the different period ranges for all target spectra and scaling factors.

Figure A.3. Modified-to-scaled peak ground velocity (*PGV*) ratios of the motions in scenario I plotted against the inverse modified root mean squared error for the different period ranges for all target spectra and scaling factors.

Figure A.4. Modified-to-scaled peak ground velocity (*PGV*) ratios of the motions in scenario I plotted against the complementary error function metric (*ERFCM*) for the different period ranges for all target spectra and scaling factors.

Figure A.5. Modified-to-scaled peak ground displacement (*PGD*) ratios of the motions in scenario I plotted against normalized error for the different period ranges for all target spectra and scaling factors.

Figure A.6. Modified-to-scaled peak ground displacement (*PGD*) ratios of the motions in scenario I plotted against the tanh validation metric for the different period ranges for all target spectra and scaling factors.
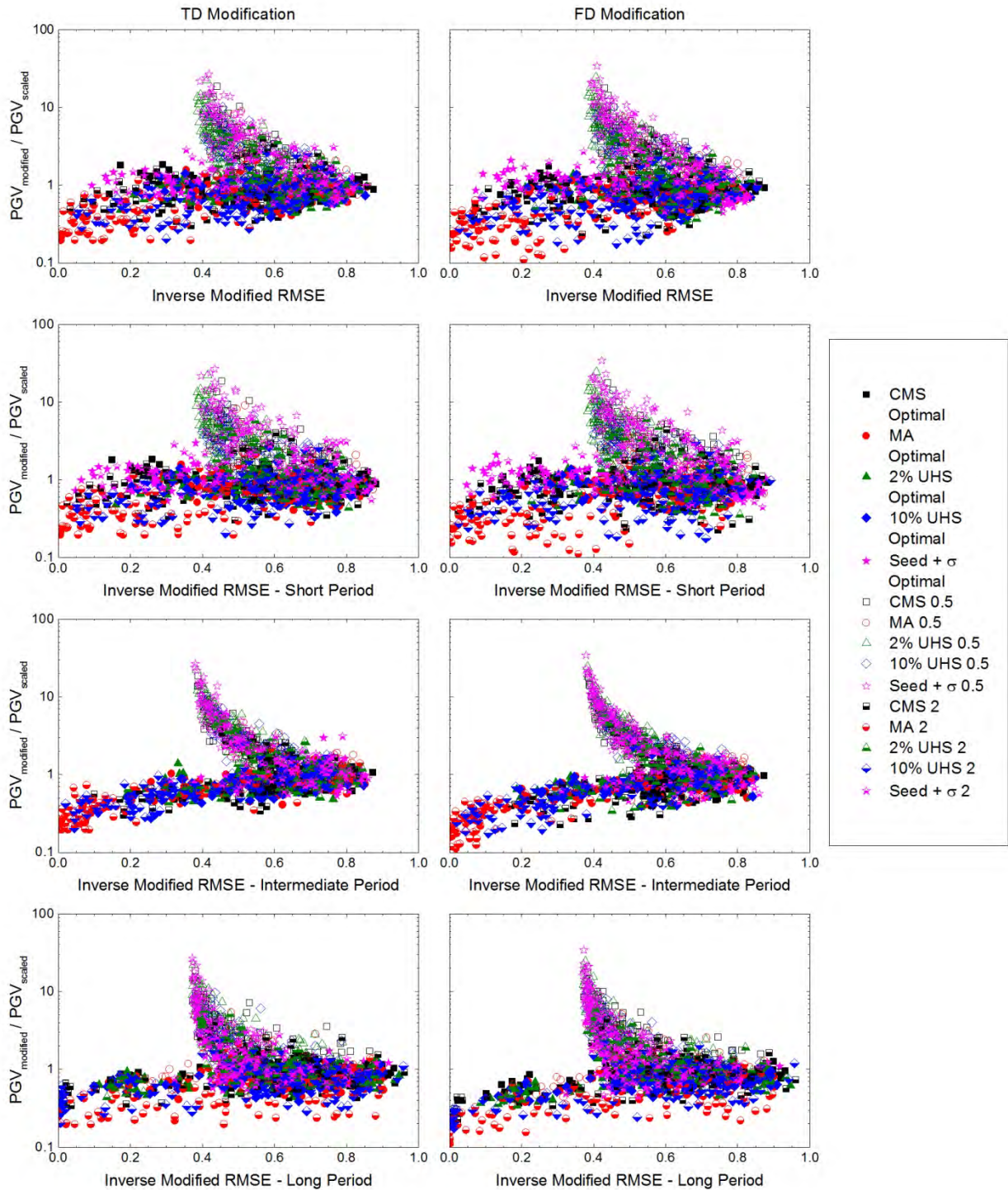
Figure A.7. Modified-to-scaled peak ground displacement (*PGD*) ratios of the motions in scenario I plotted against the inverse modified root mean squared error for the different period ranges for all target spectra and scaling factors.
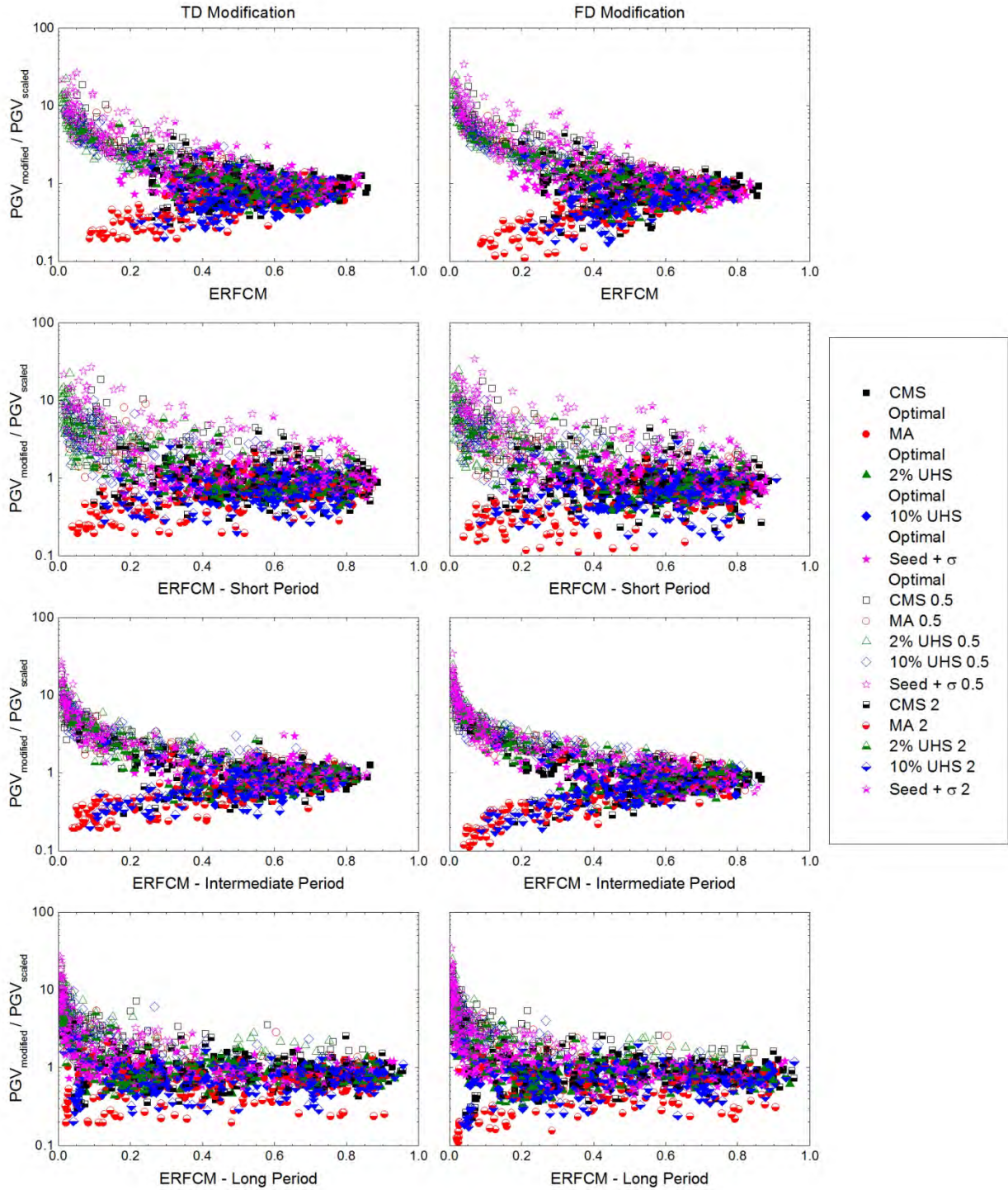
Figure A.8. Modified-to-scaled peak ground displacement (*PGD*) ratios of the motions in scenario I plotted against the complementary error function metric (*ERFCM*) for the different period ranges for all target spectra and scaling factors.
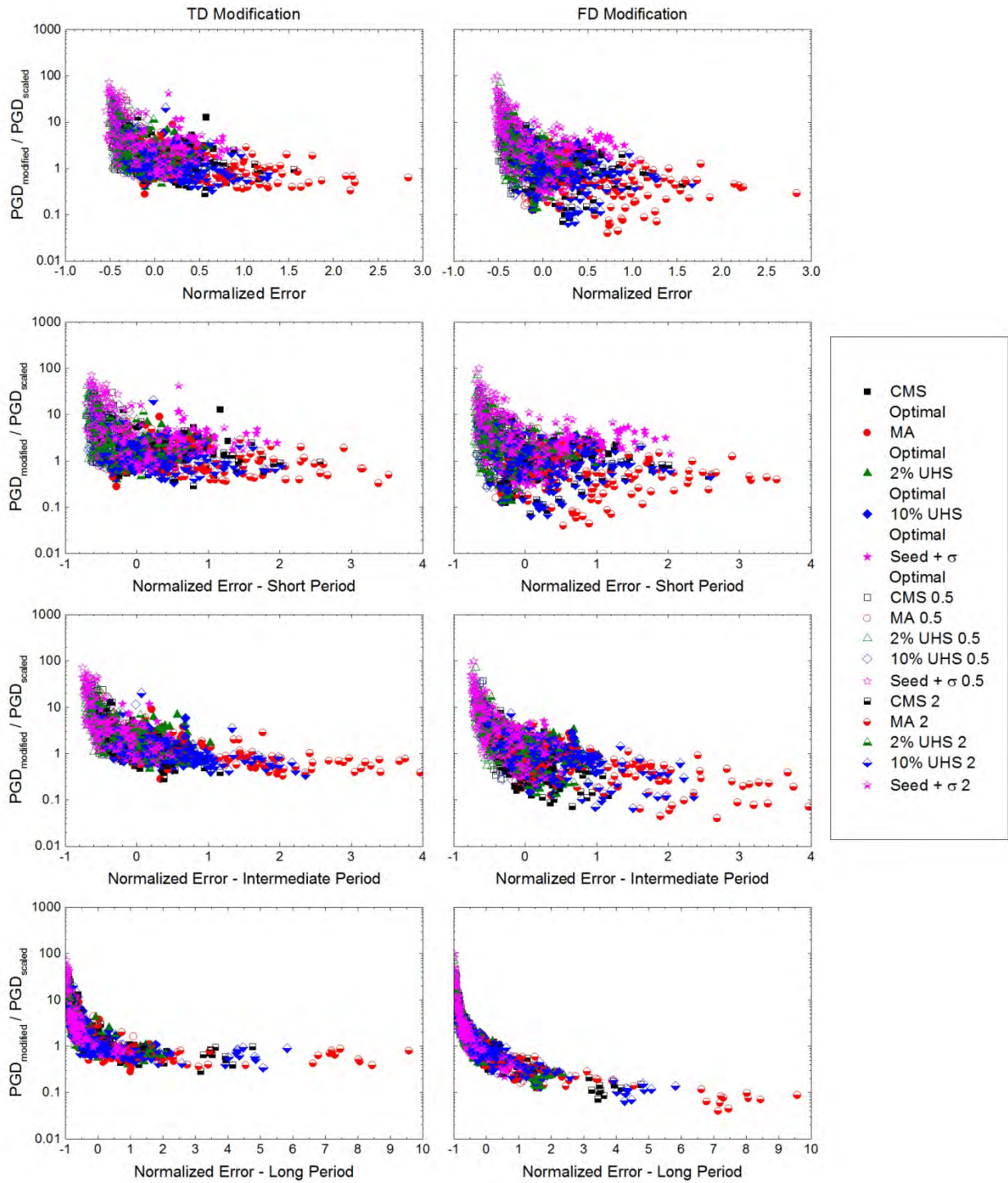
Figure A.9. Modified-to-scaled Arias intensity (I_a) ratios of the motions in scenario I plotted against normalized error for the different period ranges for all target spectra and scaling factors.

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Figure A.10. Modified-to-scaled Arias intensity (I_a) ratios of the motions in scenario I plotted against the tanh validation metric for the different period ranges for all target spectra and scaling factors.

Figure A.11. Modified-to-scaled Arias intensity (I_a) ratios of the motions in scenario I plotted against the inverse modified root mean squared error for the different period ranges for all target spectra and scaling factors.

Figure A.12. Modified-to-scaled Arias intensity (I_a) ratios of the motions in scenario I plotted against the complementary error function metric (*ERFCM*) for the different period ranges for all target spectra and scaling factors.
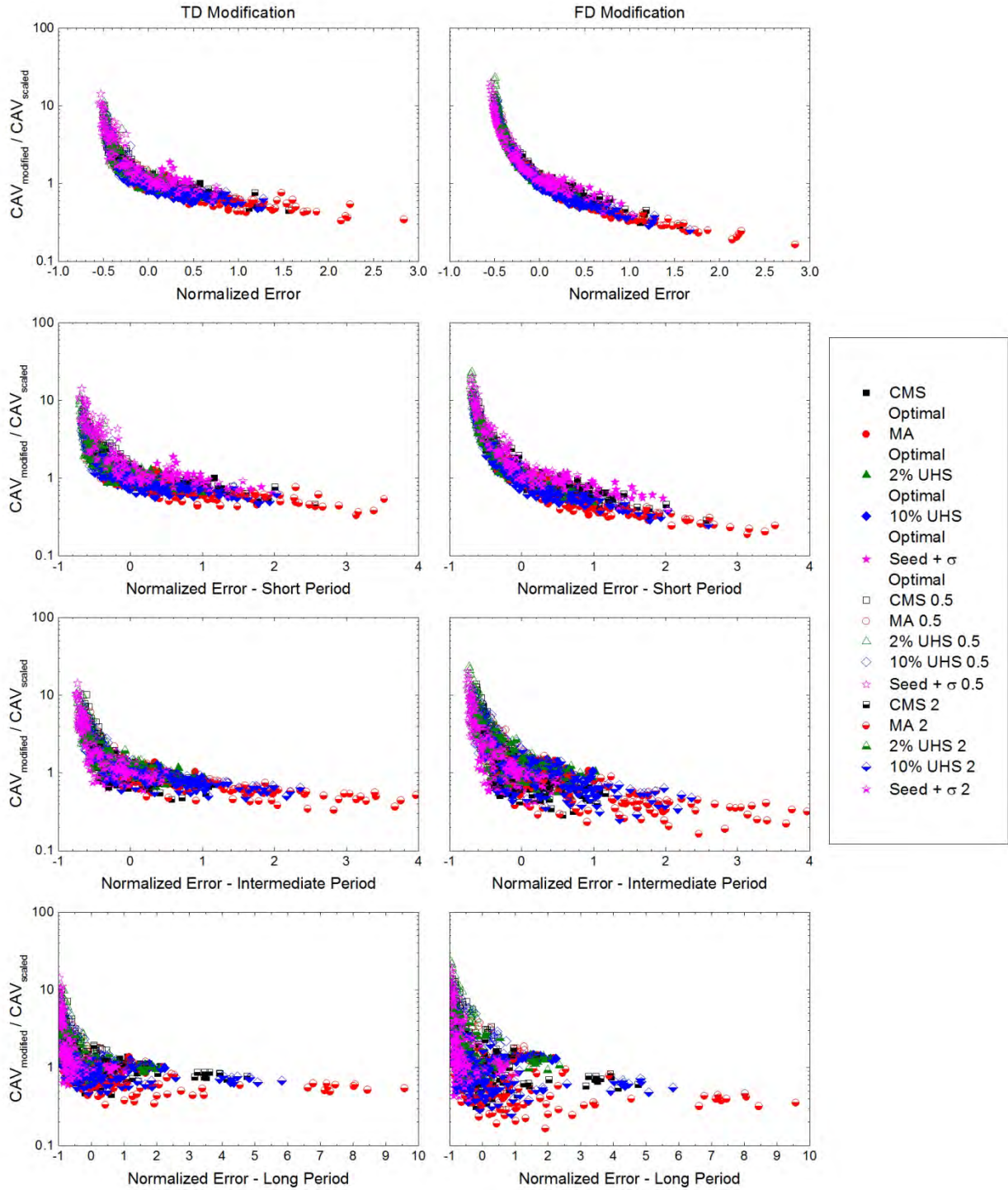
Figure A.13. Modified-to-scaled cumulative absolute velocity (*CAV*) ratios of the motions in scenario I plotted against normalized error for the different period ranges for all target spectra and scaling factors.
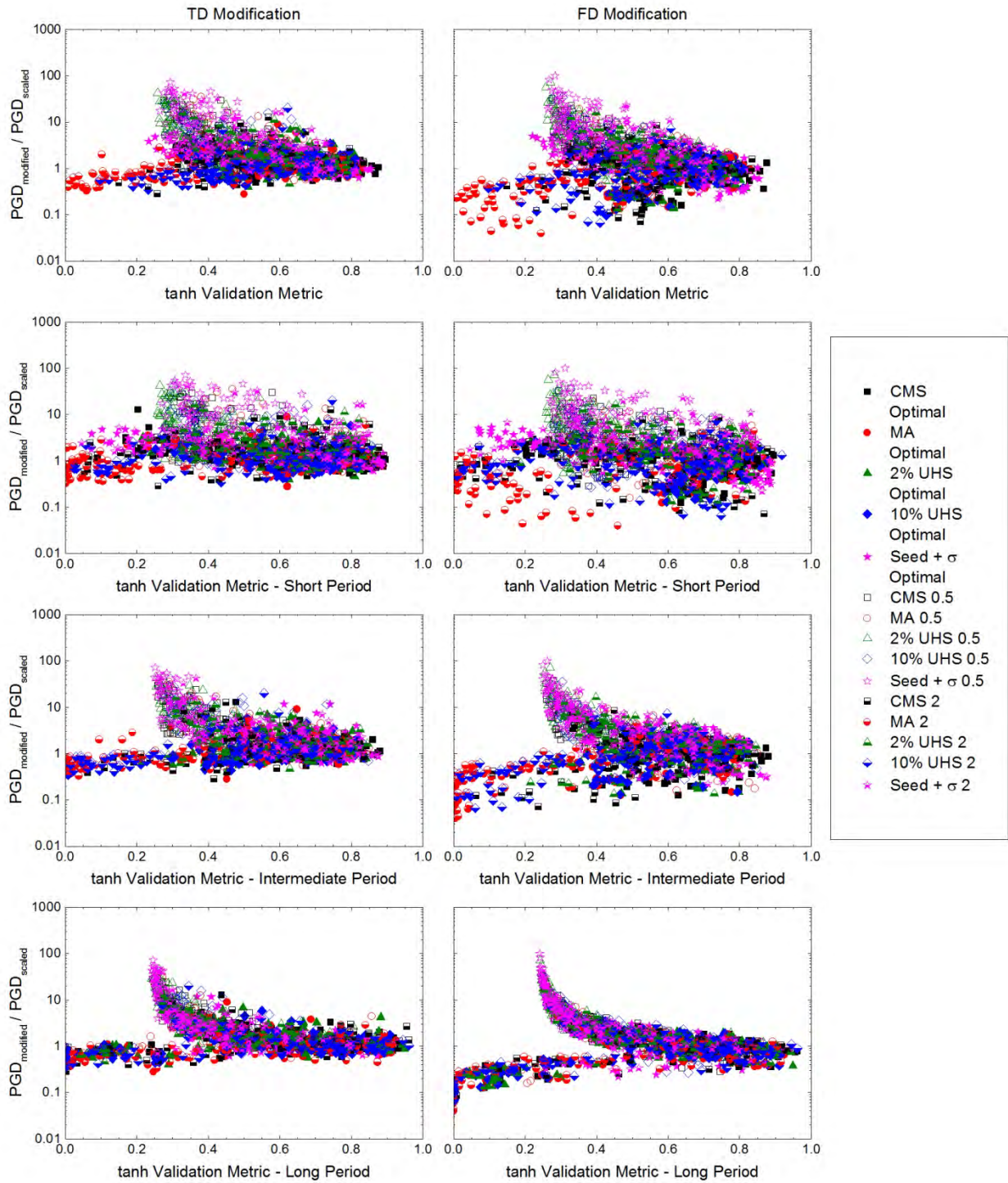
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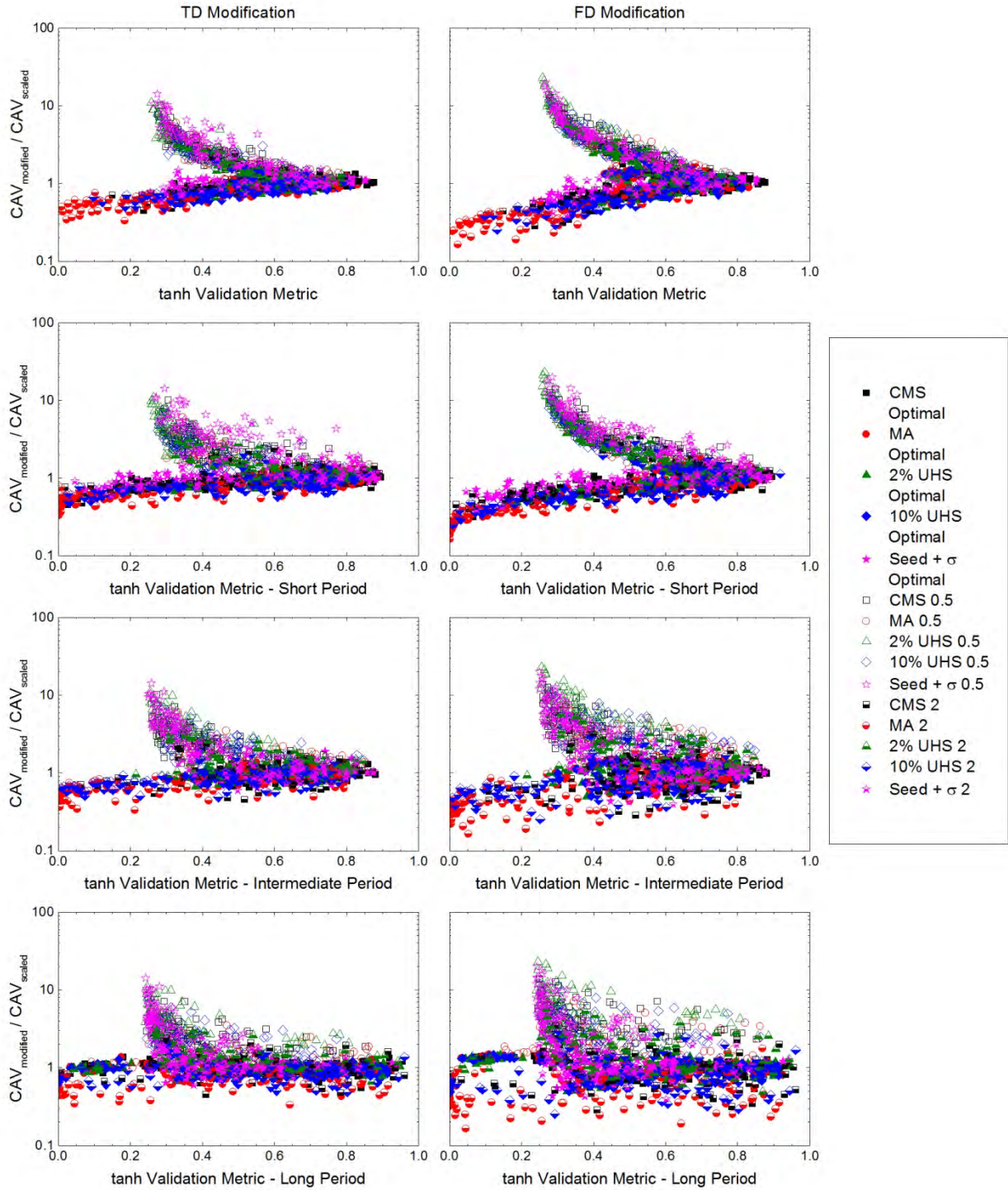
Figure A.14. Modified-to-scaled cumulative absolute velocity (*CAV*) ratios of the motions in scenario I plotted against the tanh validation metric for the different period ranges for all target spectra and scaling factors.
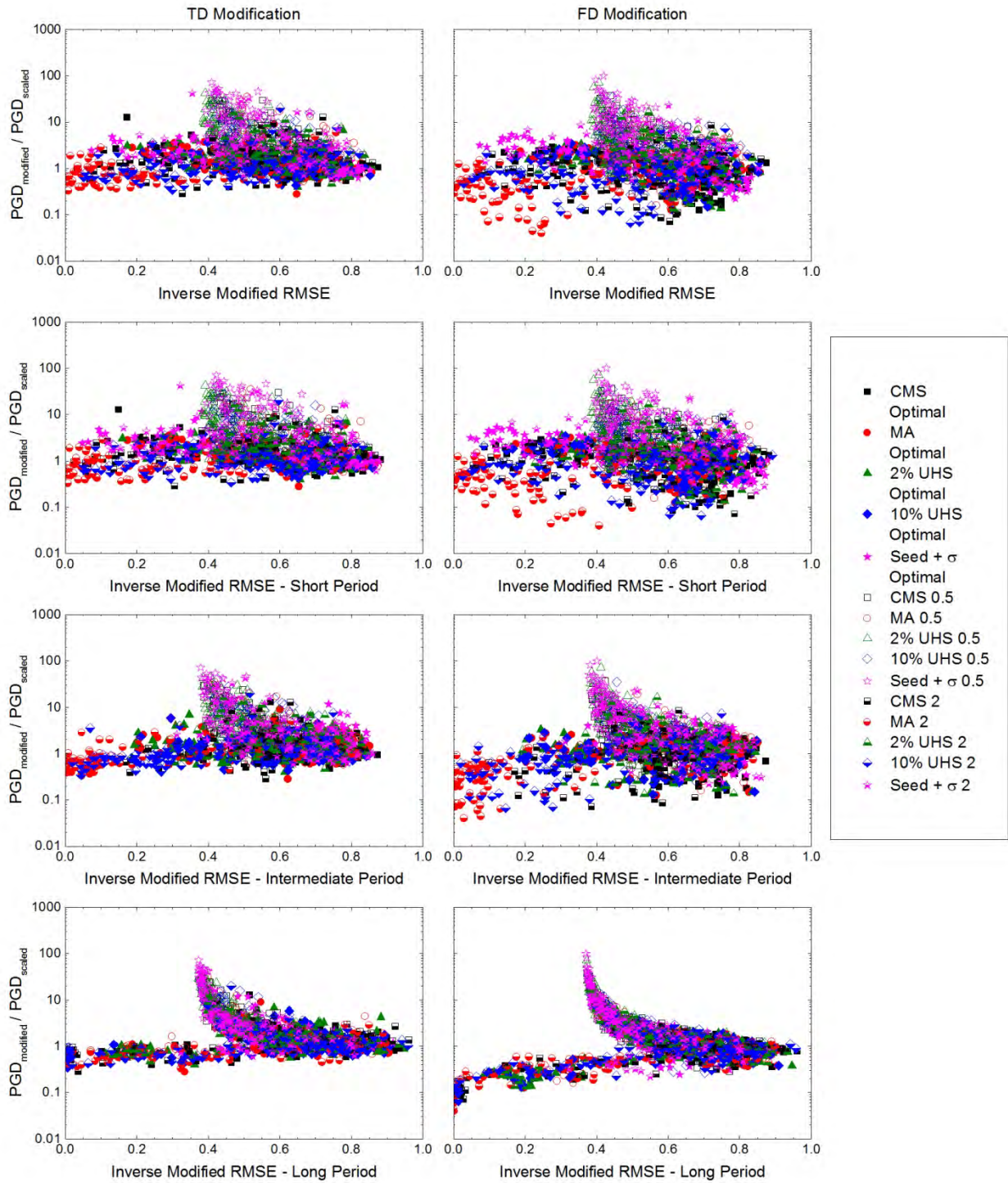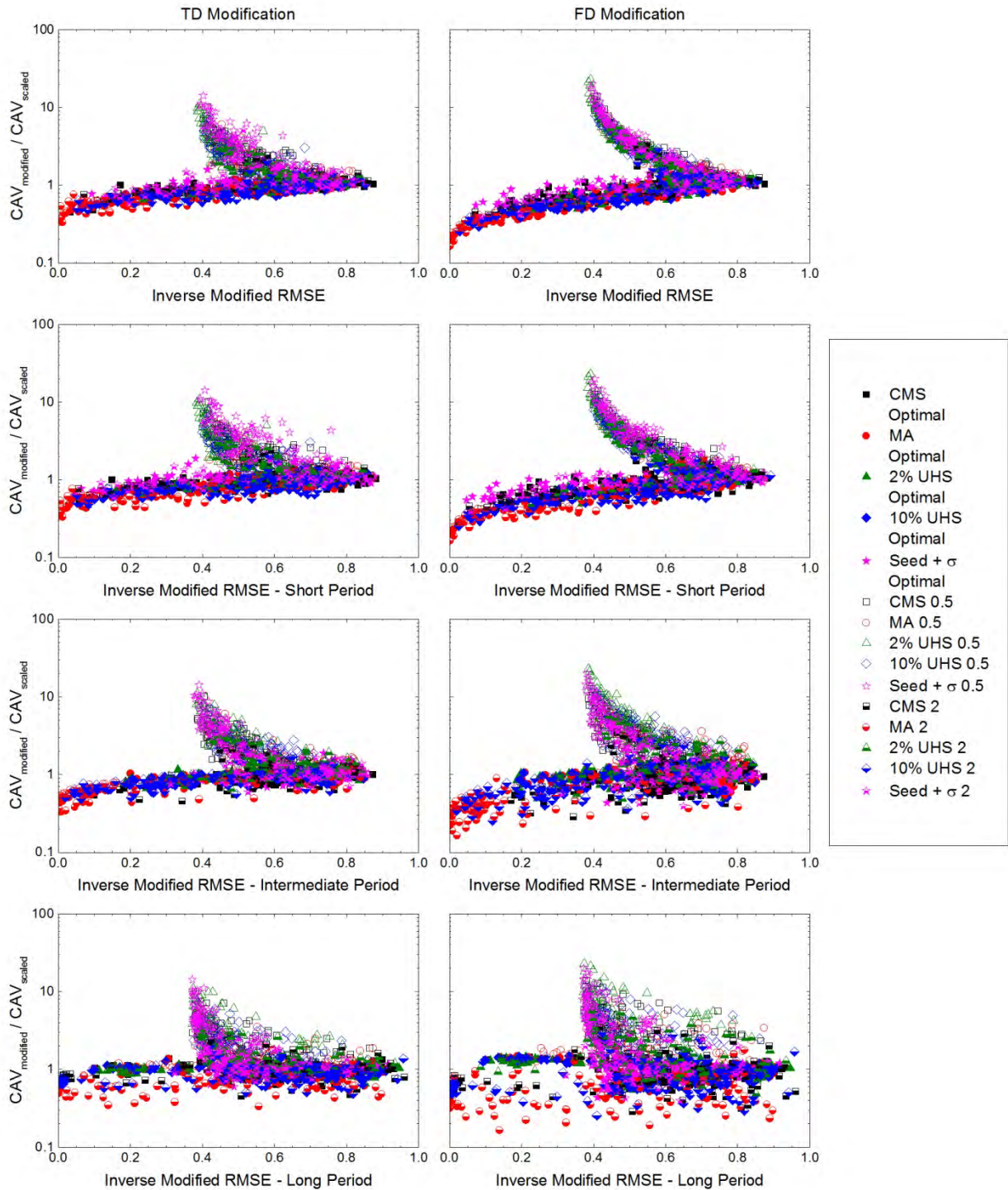
Figure A.15. Modified-to-scaled cumulative absolute velocity (*CAV*) ratios of the motions in scenario I plotted against the inverse modified root mean squared error for the different period ranges for all target spectra and scaling factors.
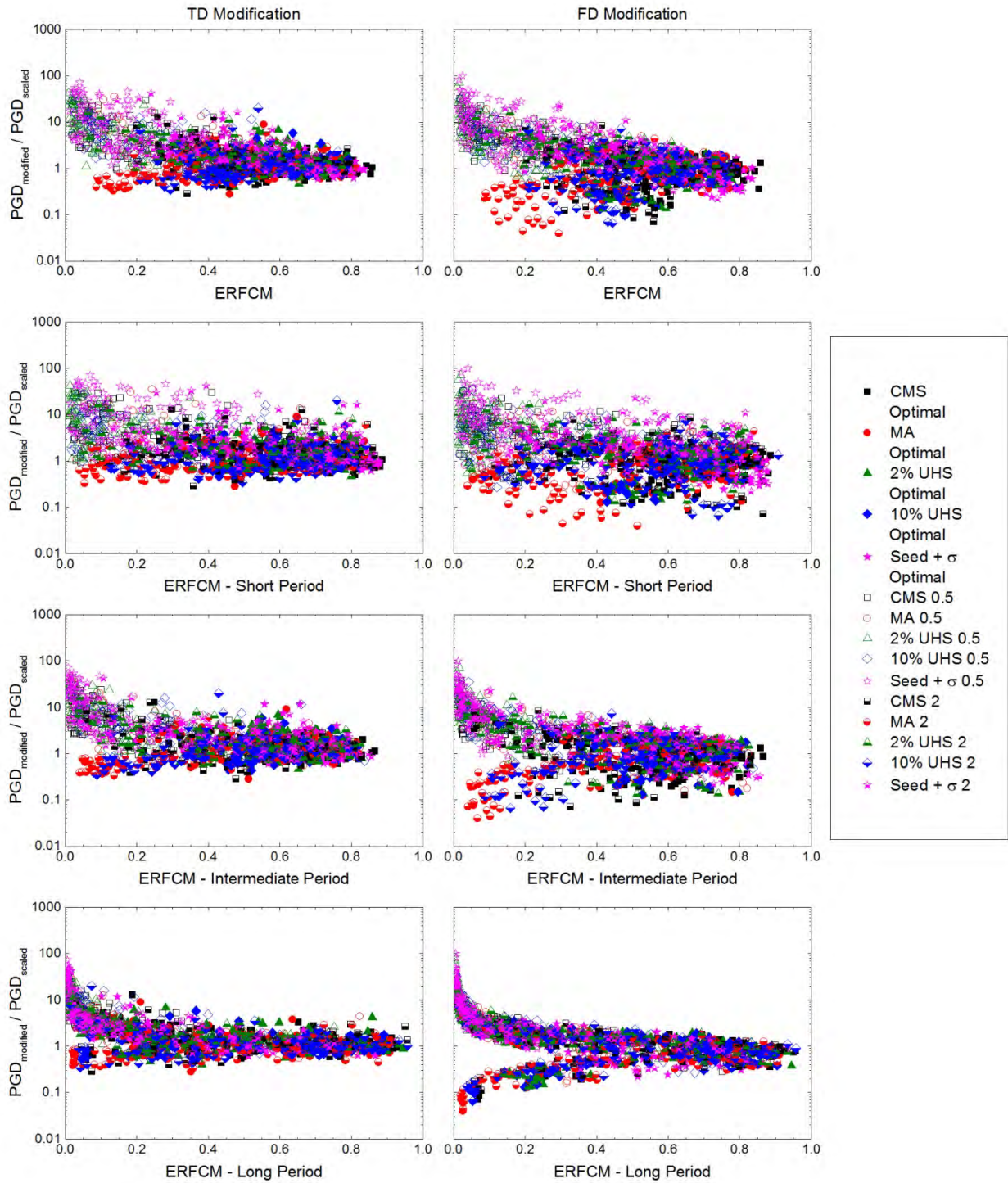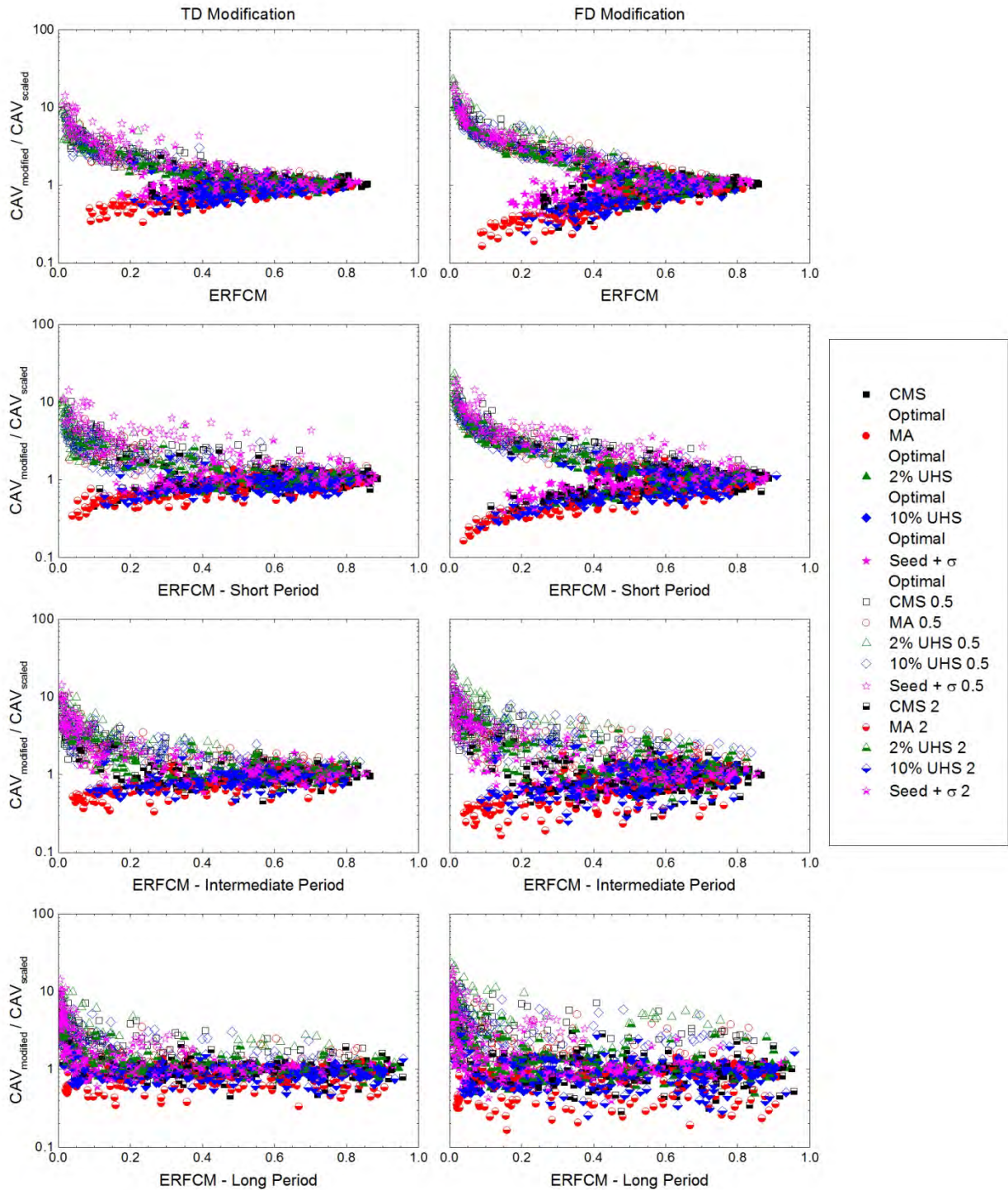
Figure A.16. Modified-to-scaled cumulative absolute velocity (*CAV*) ratios of the motions in scenario I plotted against the complementary error function metric (*ERFCM*) for the different period ranges for all target spectra and scaling factors.
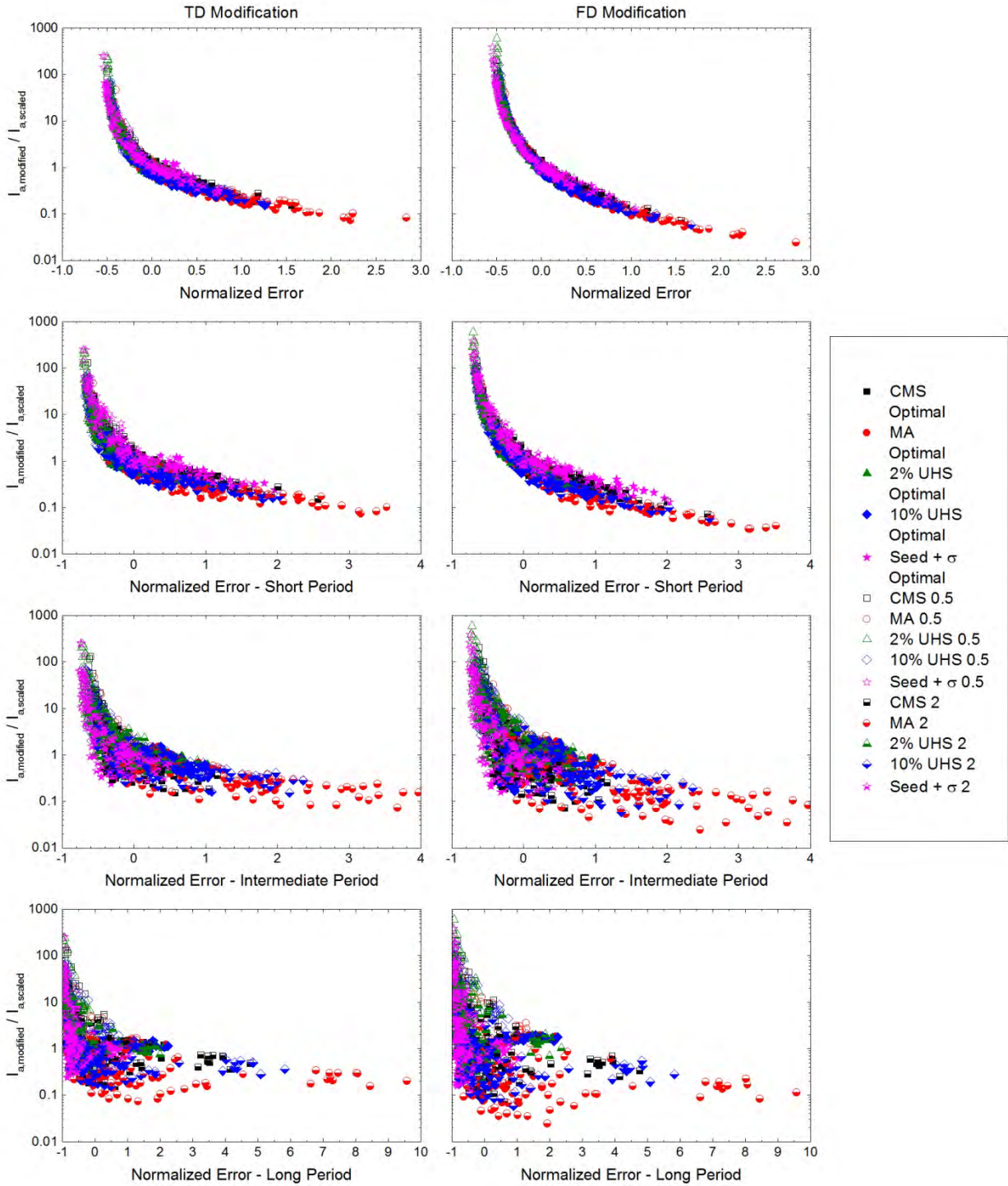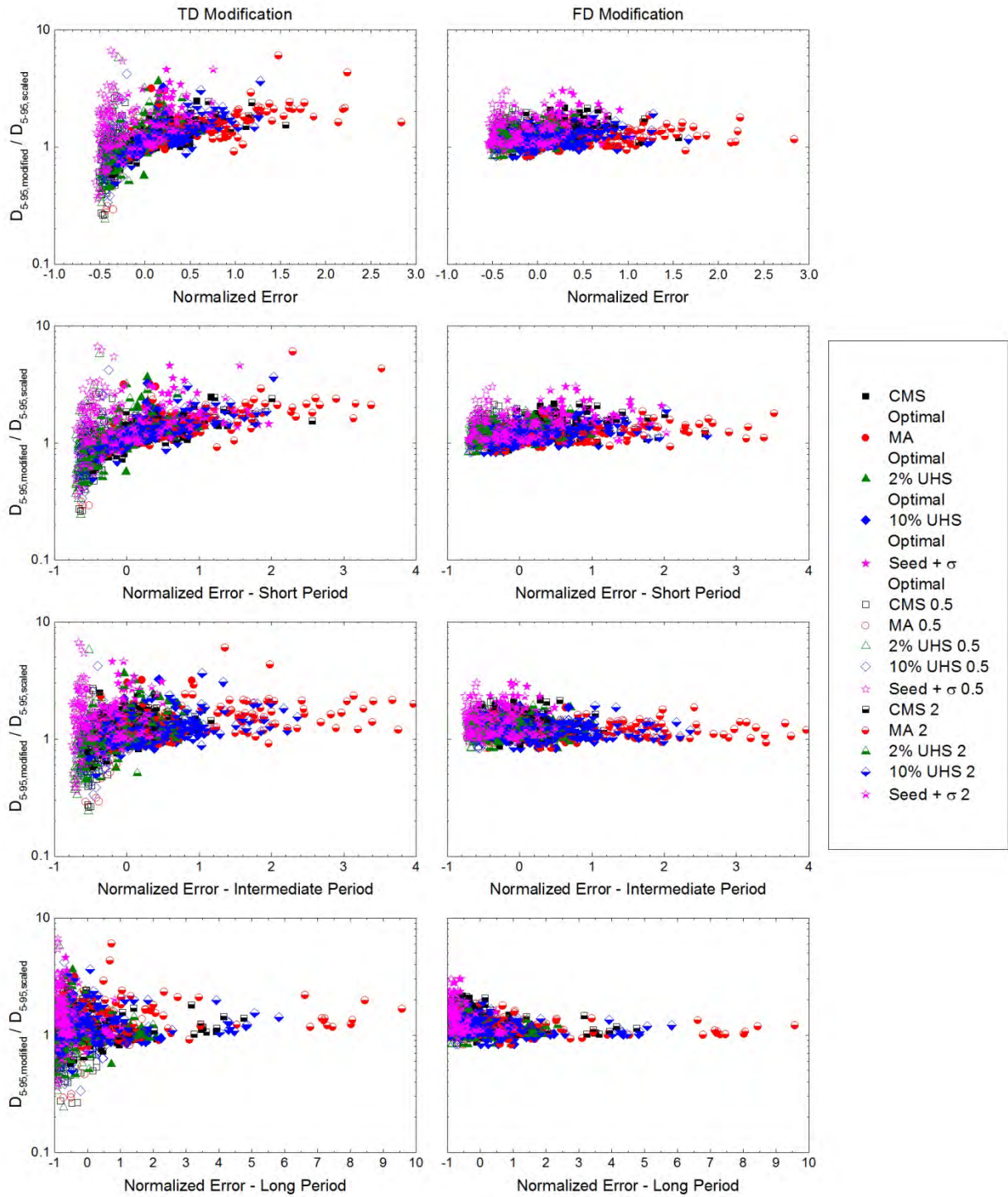
Figure A.17. Modified-to-scaled significant duration ($D_{5\text{-}95}$) ratios of the motions in scenario I plotted against normalized error for the different period ranges for all target spectra and scaling factors.
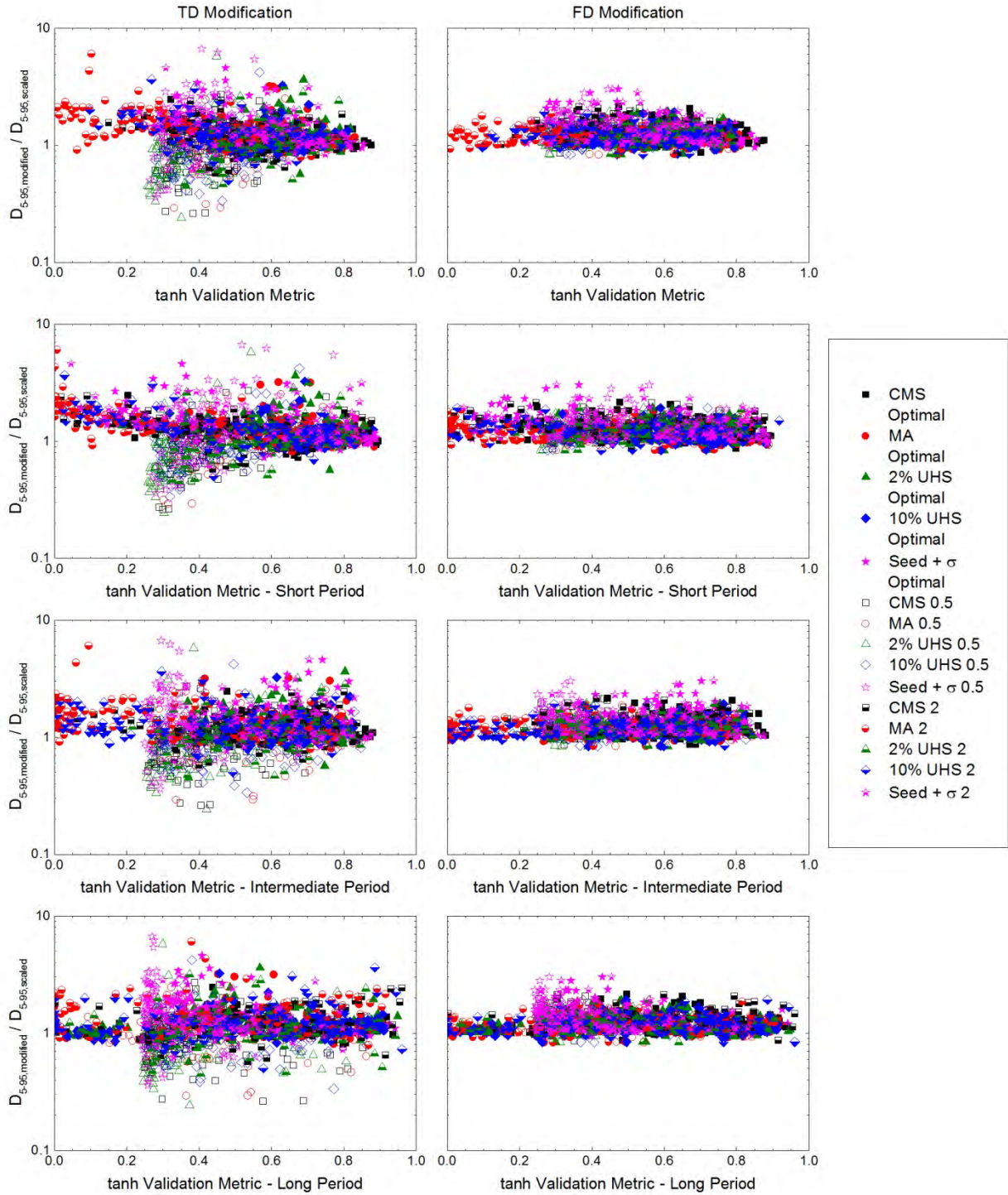
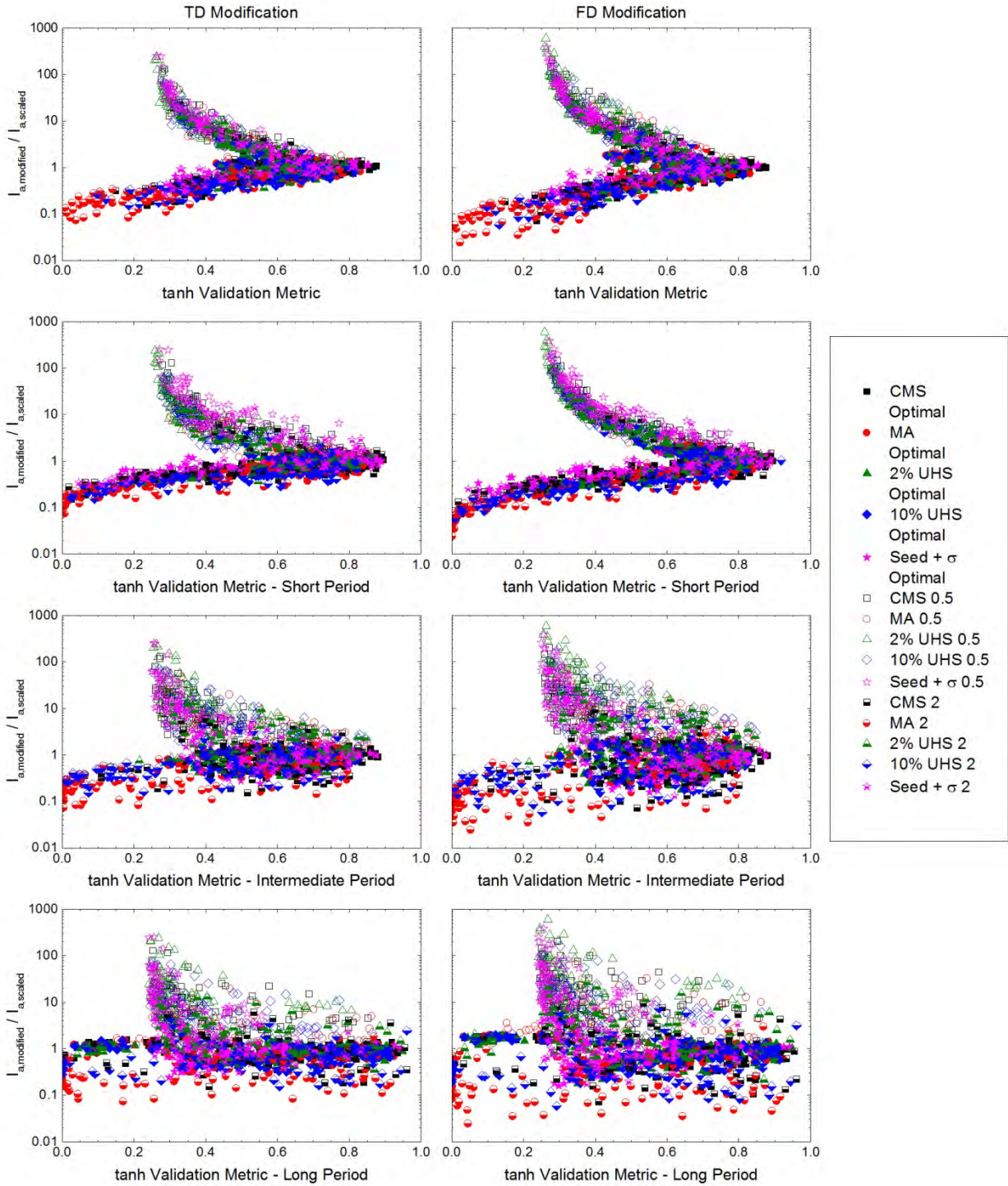**Figure A.18.** Modified-to-scaled significant duration ($D_{5\text{-}95}$) ratios of the motions in scenario I plotted against the tanh validation metric for the different period ranges for all target spectra and scaling factors.
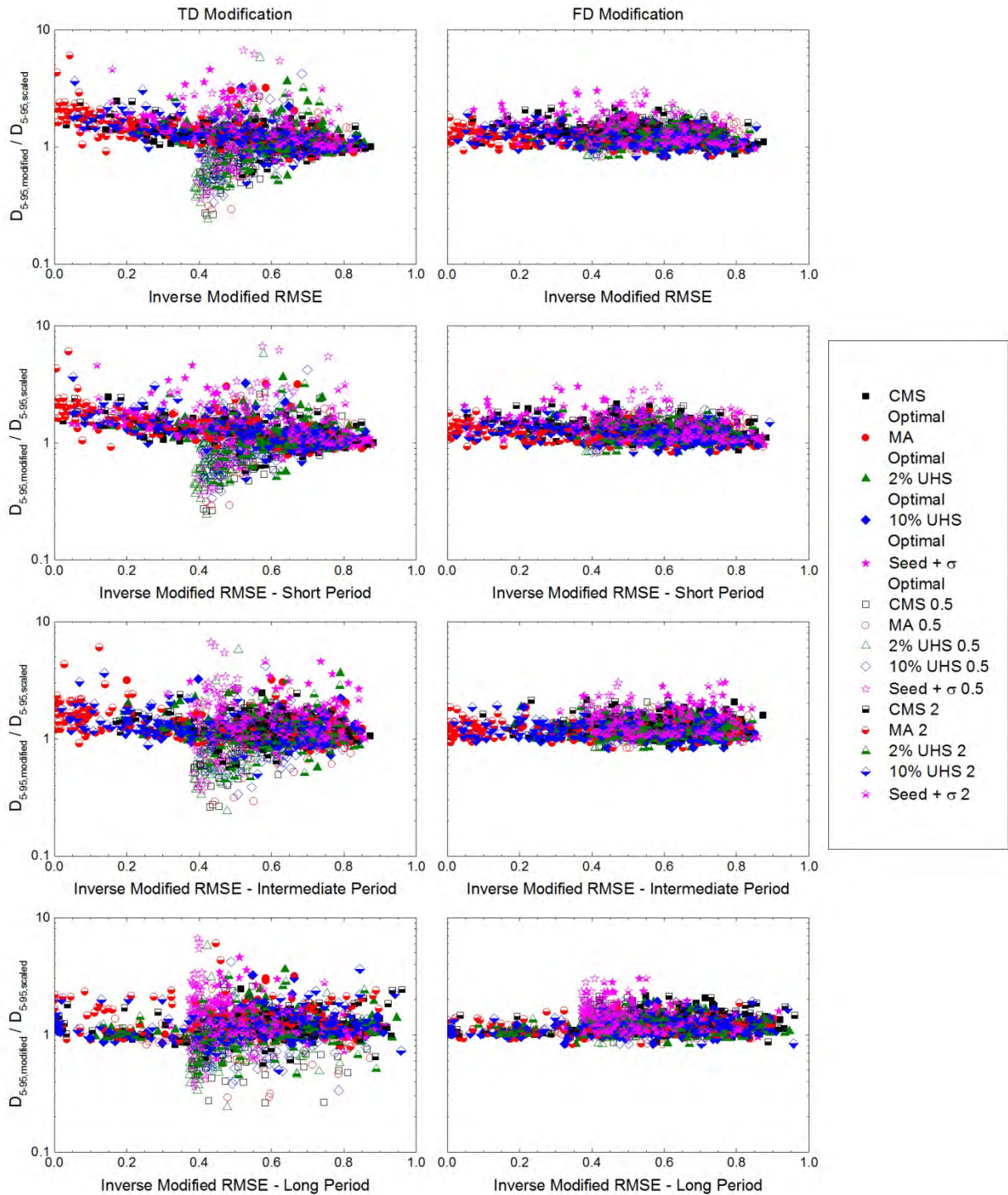
Figure A.19. Modified-to-scaled significant duration ($D_{5\text{-}95}$) ratios of the motions in scenario I plotted against the inverse modified root mean squared error for the different period ranges for all target spectra and scaling factors.
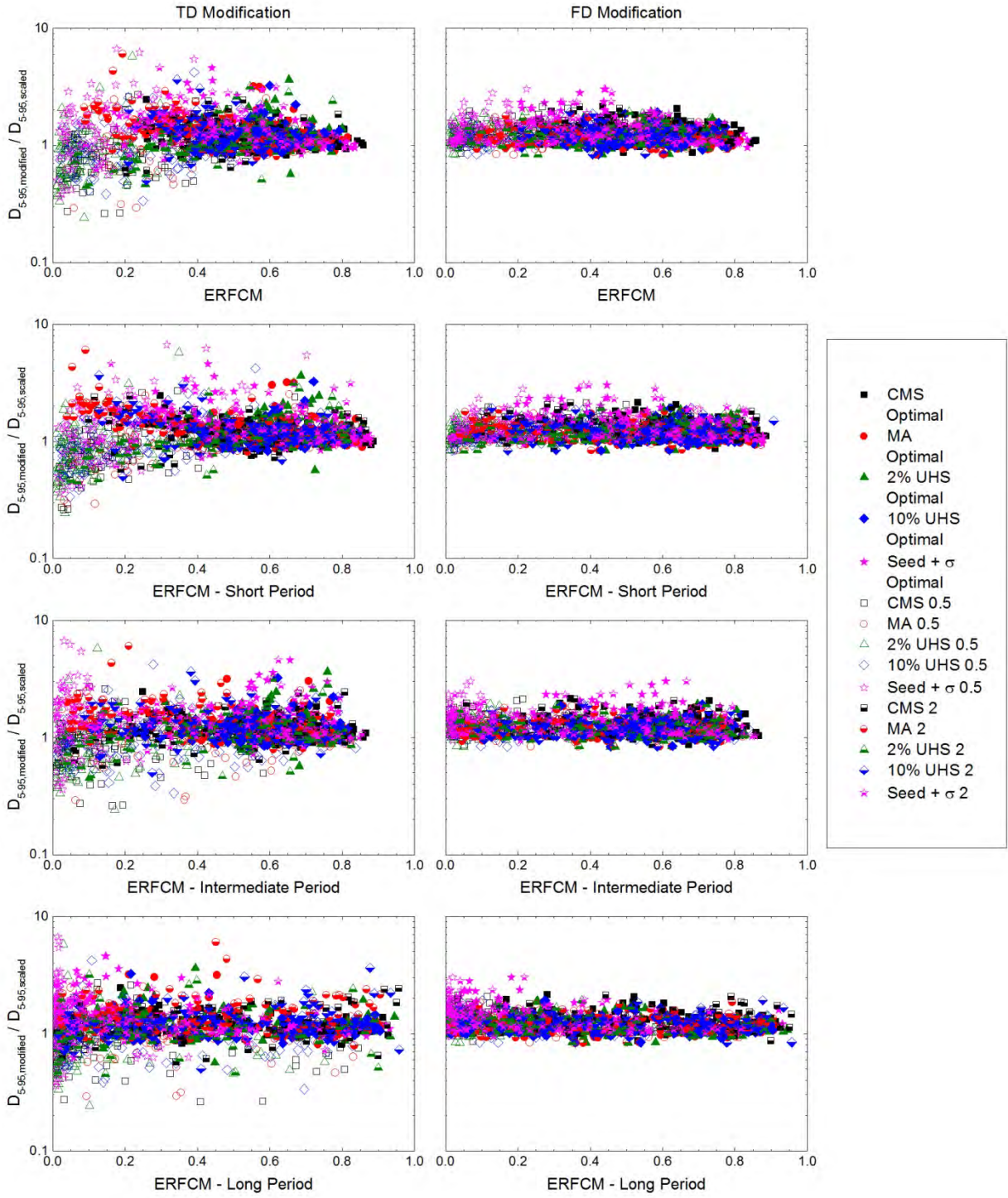
Figure A.20. Modified-to-scaled significant duration ($D_{5\text{-}95}$) ratios of the motions in scenario I plotted against the complementary error function metric (*ERFCM*) for the different period ranges for all target spectra and scaling factors.
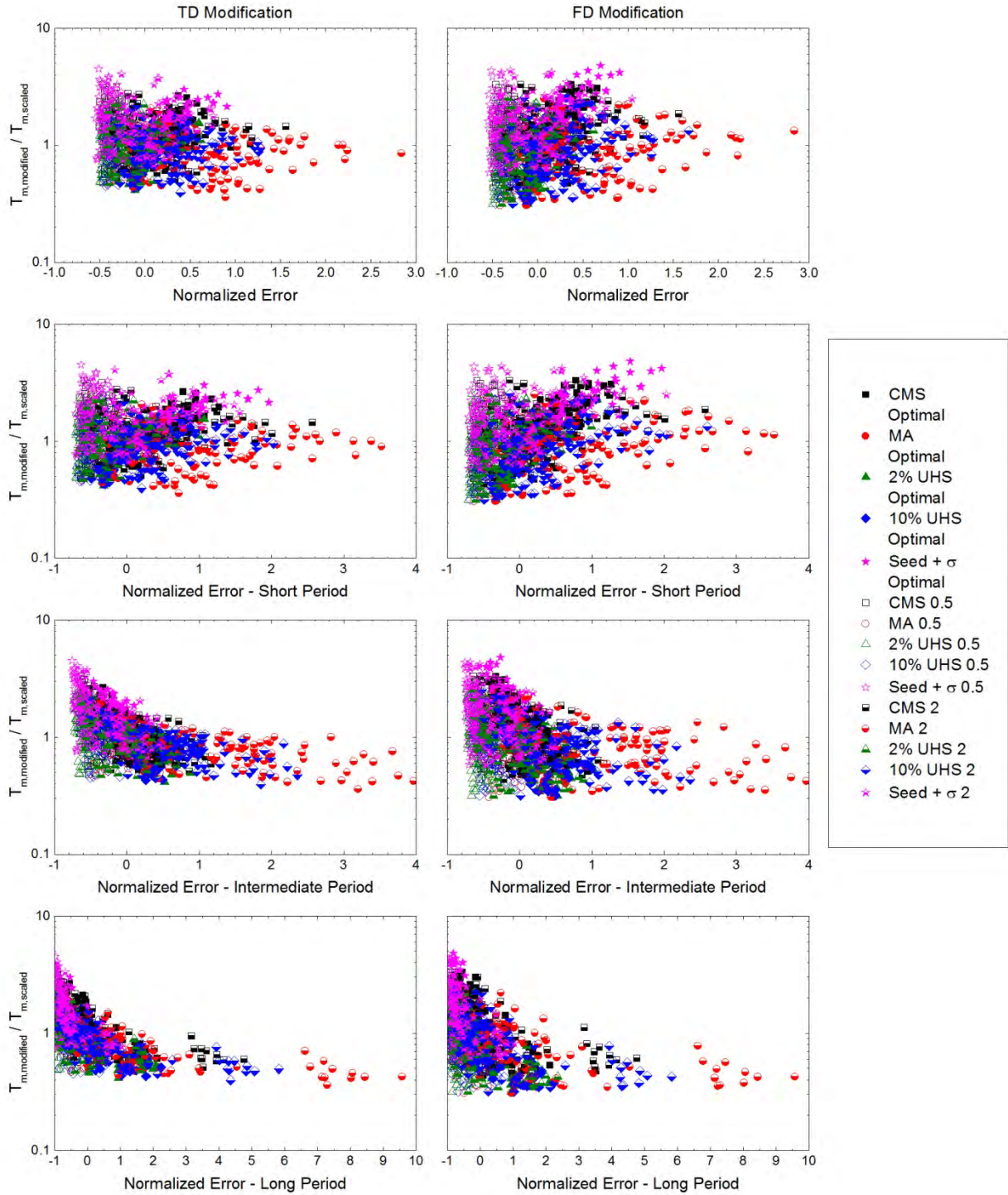
Figure A.21. Modified-to-scaled mean period (T_m) ratios of the motions in scenario I plotted against normalized error for the different period ranges for all target spectra and scaling factors.
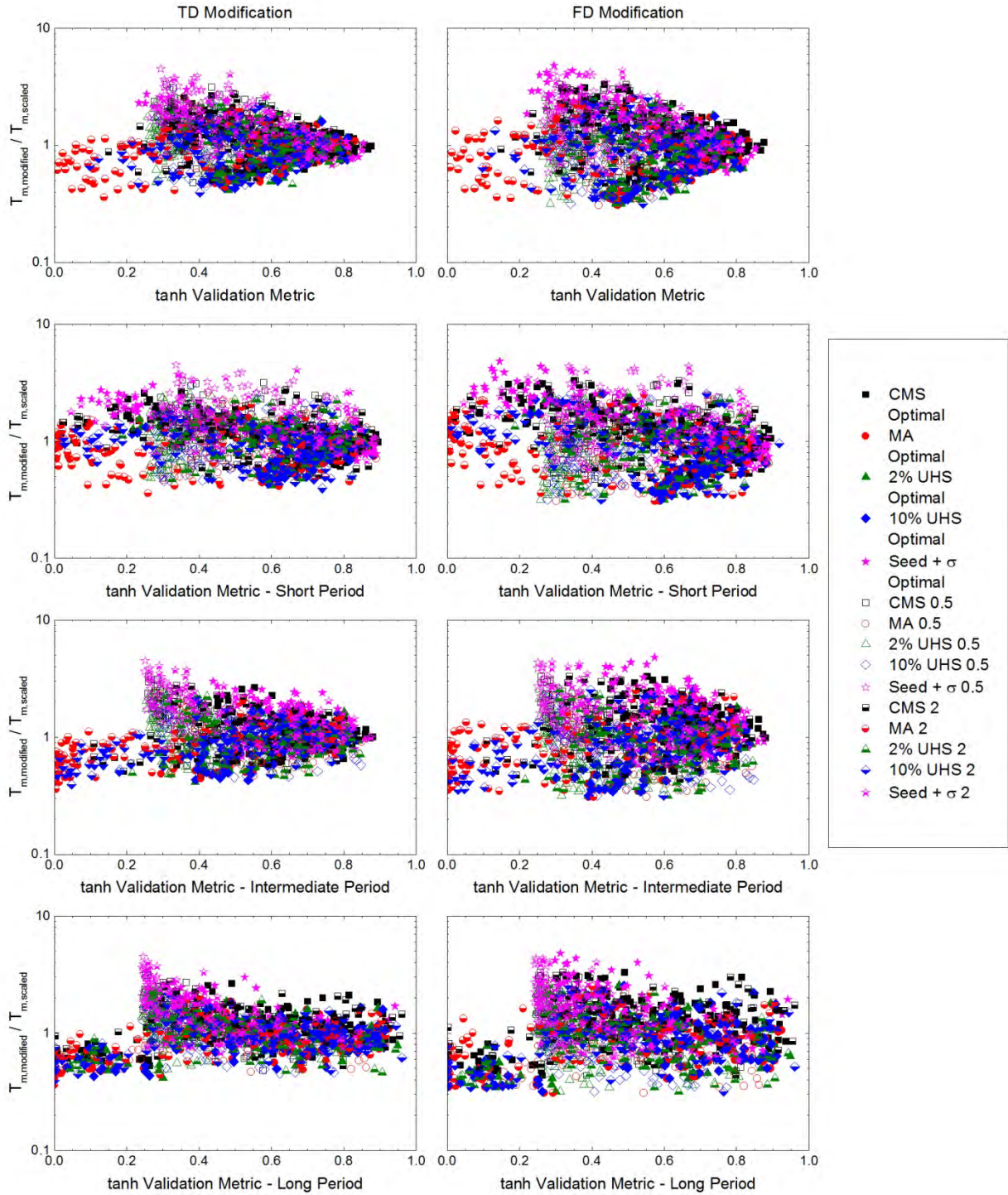
Figure A.22. Modified-to-scaled mean period (T_m) ratios of the motions in scenario I plotted against the tanh validation metric for the different period ranges for all target spectra and scaling factors.
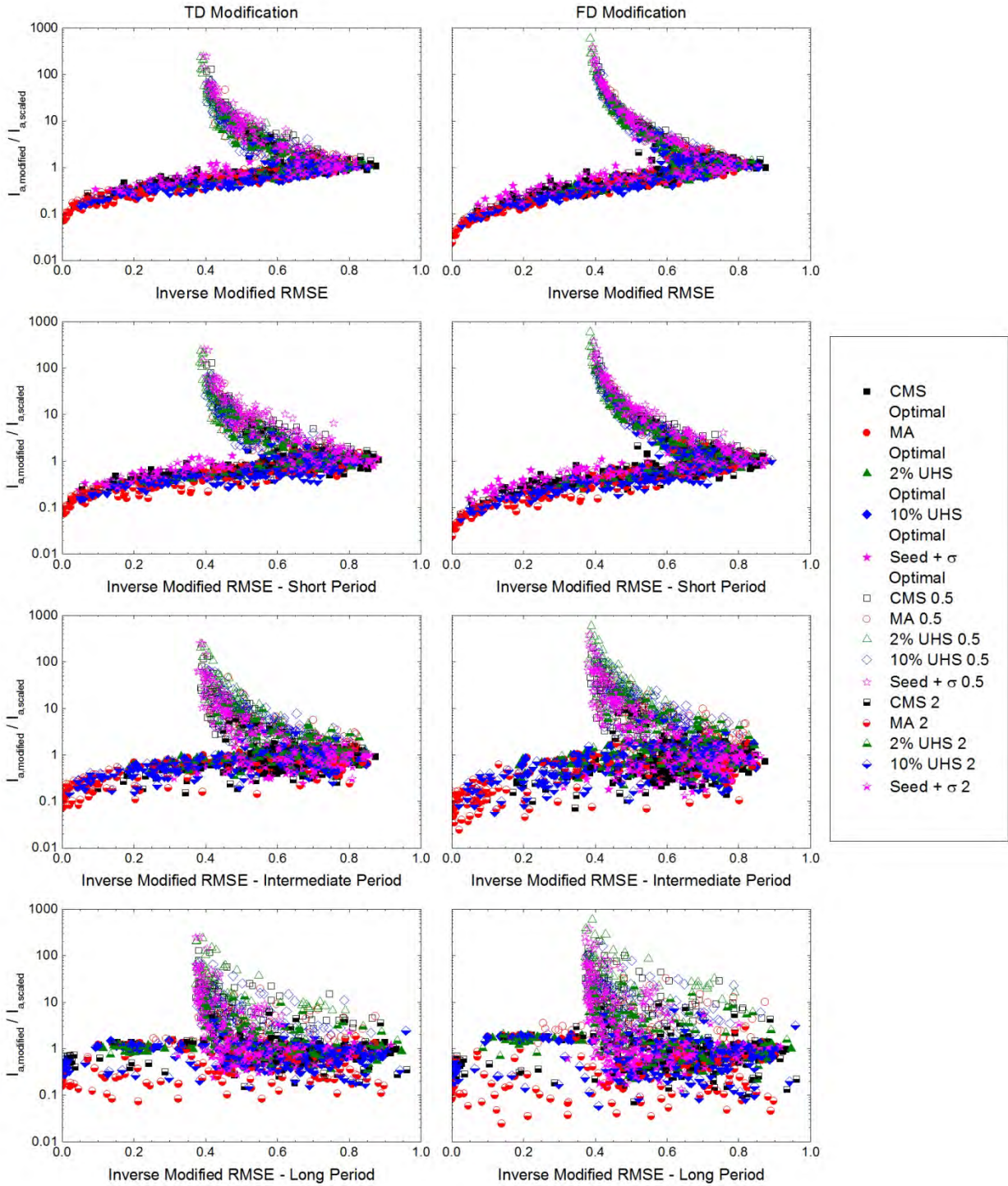
322
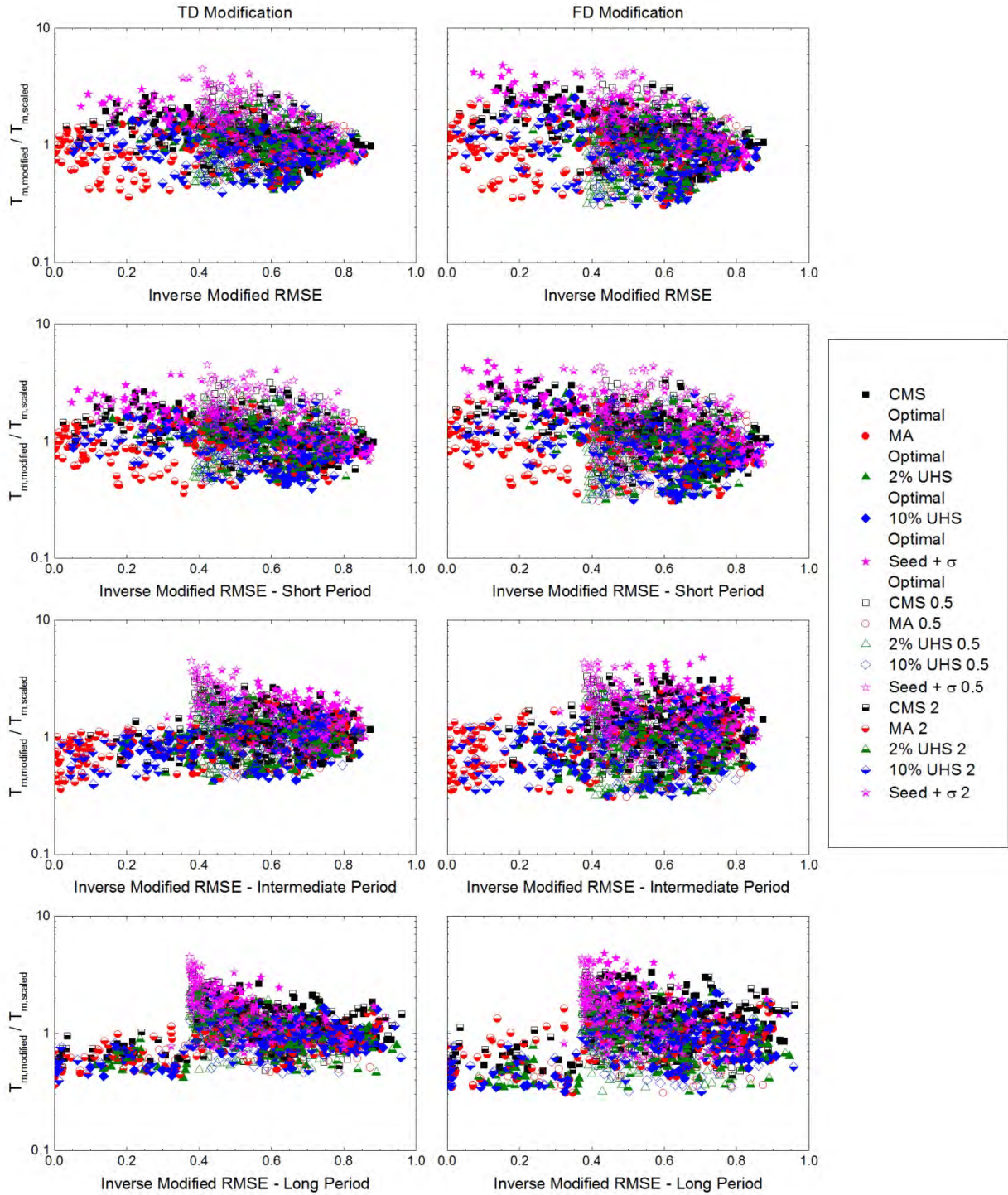
Figure A.23. Modified-to-scaled mean period (T_m) ratios of the motions in scenario I plotted against the inverse modified root mean squared error for the different period ranges for all target spectra and scaling factors.
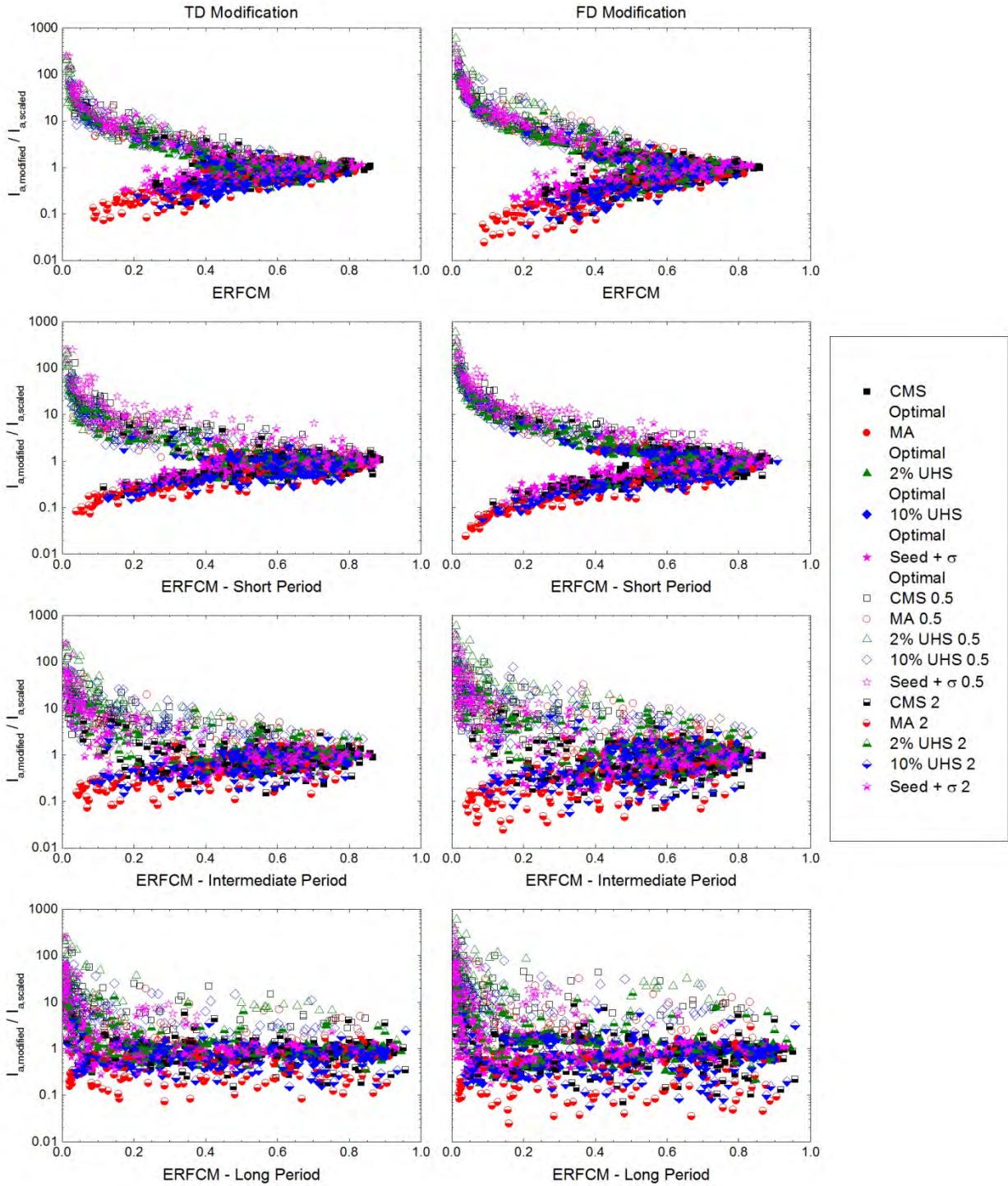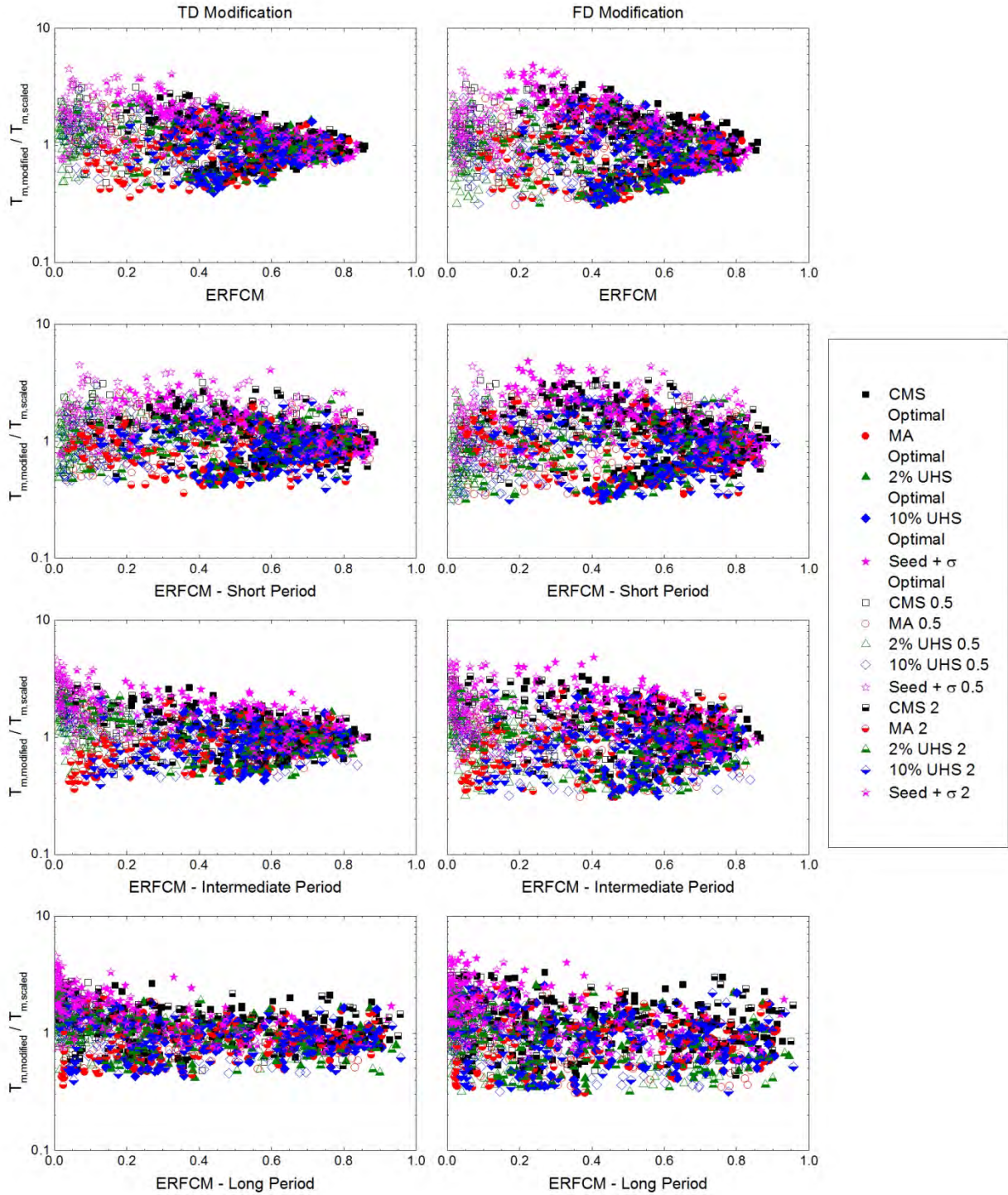
Figure A.24. Modified-to-scaled mean period (T_m) ratios of the motions in scenario I plotted against the complementary error function metric (*ERFCM*) for the different period ranges for all target spectra and scaling factors.

APPENDIX B

Residuals for Final Regression Equations versus Earthquake Parameters
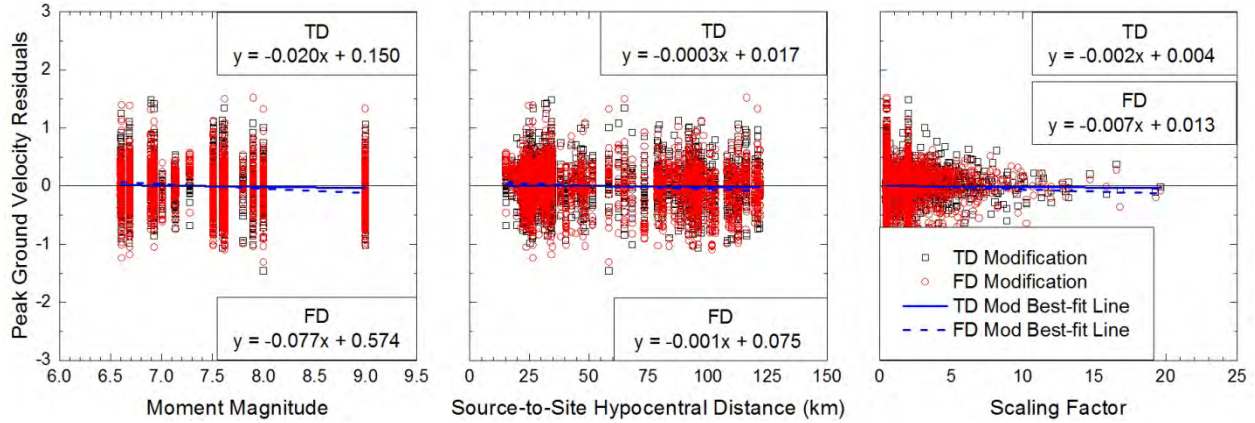
Figure B.1. Residuals of the motions in scenarios I and II for the regression equations developed for peak ground velocity plotted against moment magnitude, source-to-site hypocentral distance, and scaling factor and corresponding best-fit lines.
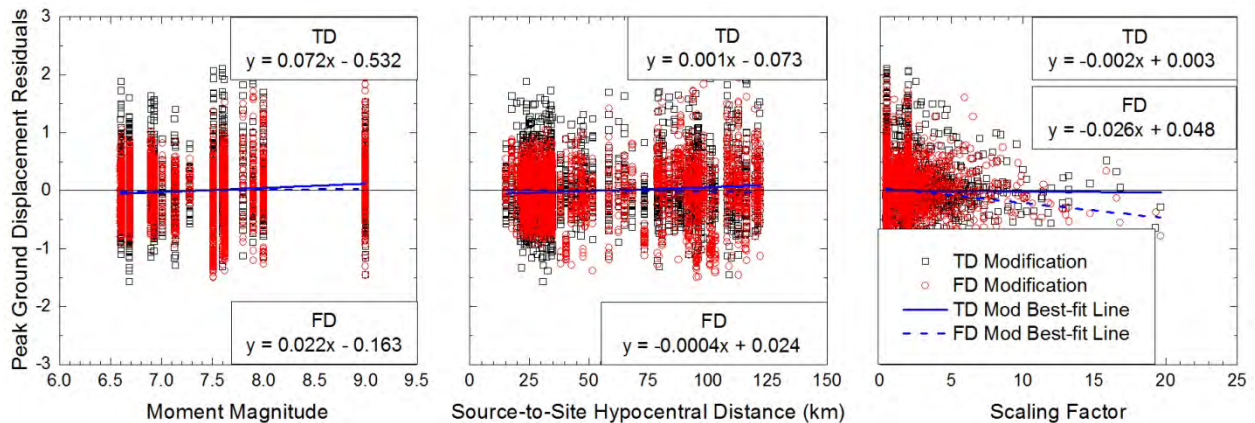
Figure B.2. Residuals of the motions in scenarios I and II for the regression equations developed for peak ground displacement plotted against moment magnitude, source-to-site hypocentral distance, and scaling factor and corresponding best-fit lines.
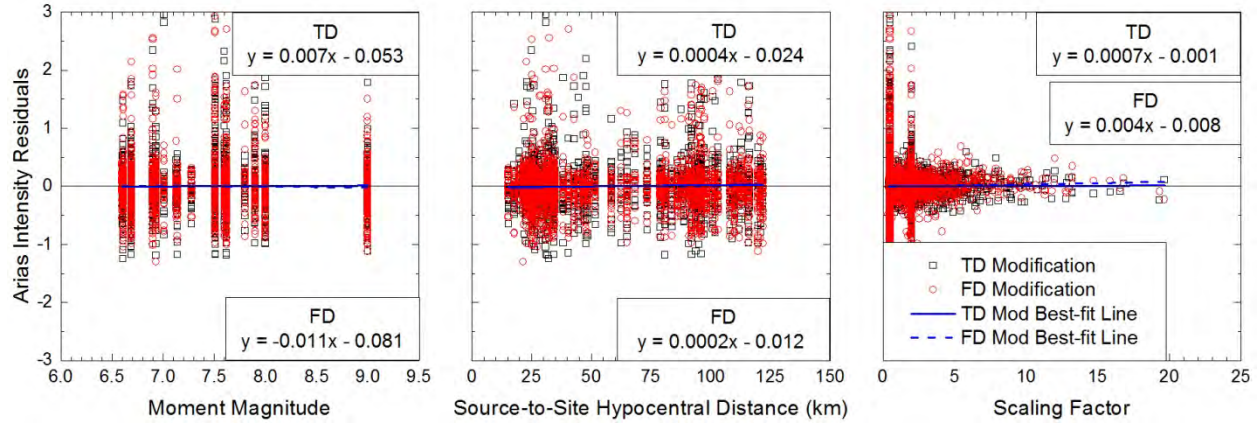
Figure B.3. Residuals of the motions in scenarios I and II for the regression equations developed for Arias intensity plotted against moment magnitude, source-to-site hypocentral distance, and scaling factor and corresponding best-fit lines.
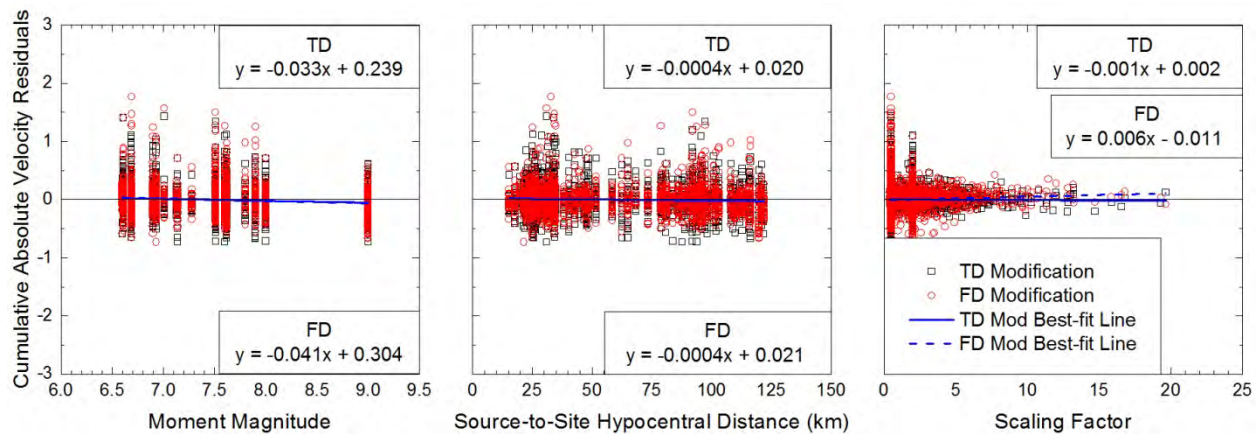
Figure B.4. Residuals of the motions in scenarios I and II for the regression equations developed for cumulative absolute velocity plotted against moment magnitude, source-to-site hypocentral distance, and scaling factor and corresponding best-fit lines.
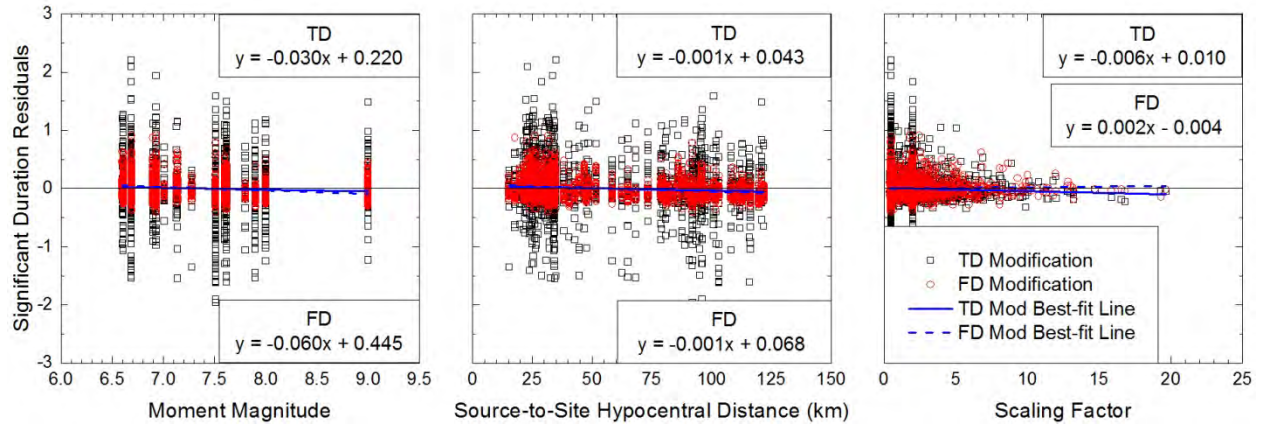
Figure B.5. Residuals of the motions in scenarios I and II for the regression equations developed for significant duration plotted against moment magnitude, source-to-site hypocentral distance, and scaling factor and corresponding best-fit lines.
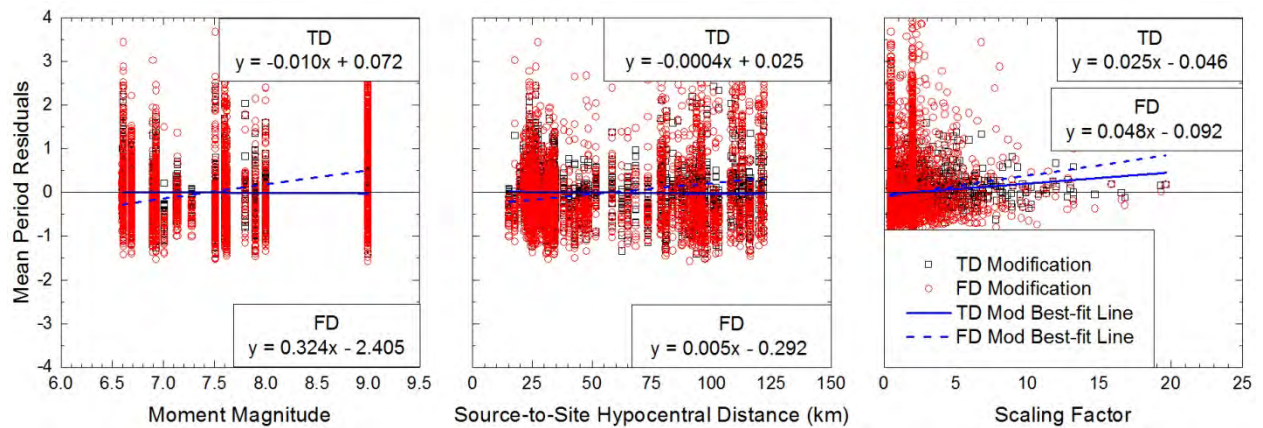
Figure B.6. Residuals of the motions in scenarios I and II for the regression equations developed for mean period plotted against moment magnitude, source-to-site hypocentral distance, and scaling factor and corresponding best-fit lines.

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APPENDIX C

Goodness-of-Fit Values of Time Histories for Different Metrics versus Spectral Mismatch

Metrics for Different Period Ranges
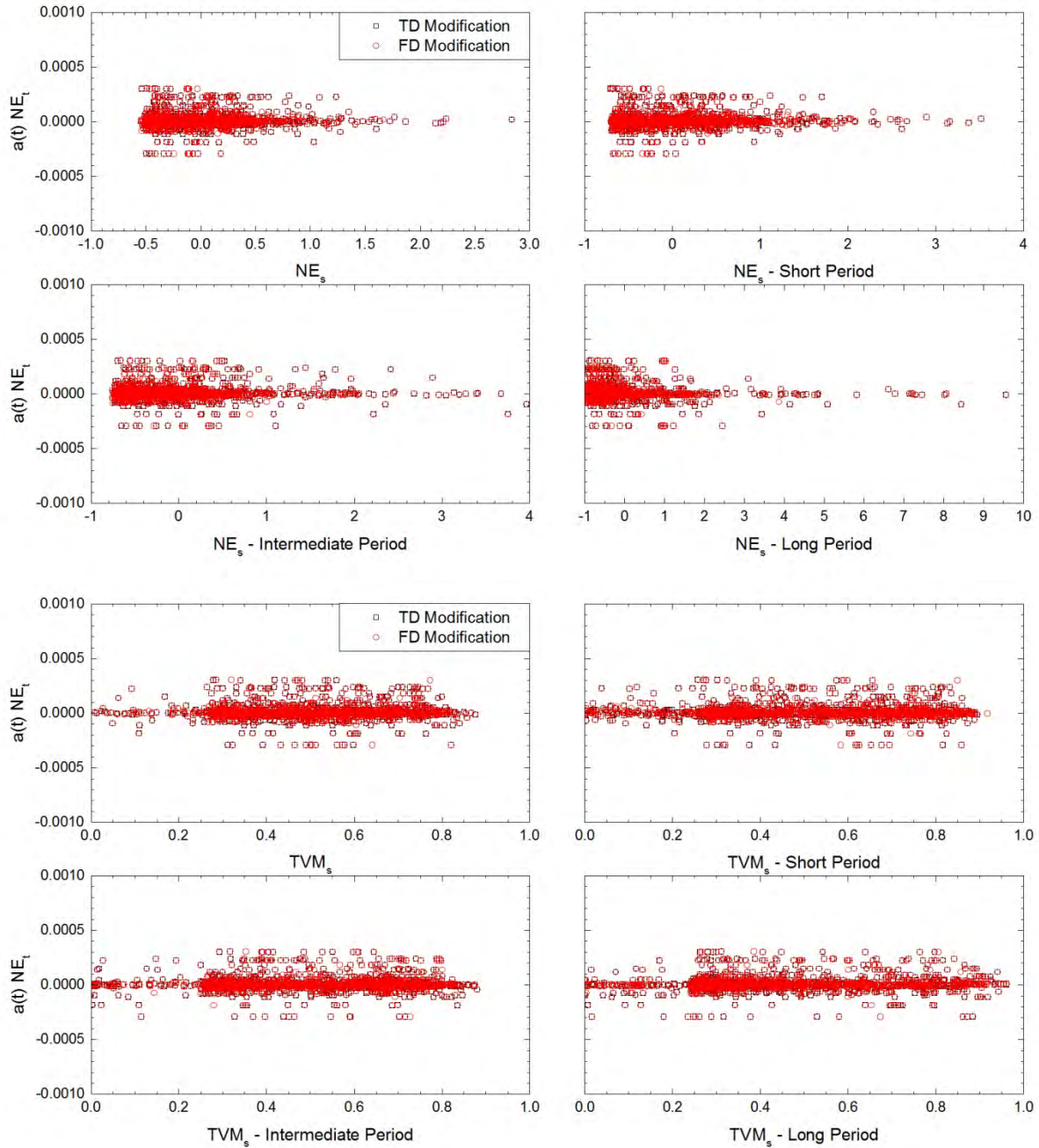
Figure C.1. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using normalized error (NE_t) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.1. continued.

Figure C.2. Goodness-of-fit values of acceleration time histories (*a*(*t*)) of the motions in scenario I calculated using the tanh validation metric (*TVM_t*) plotted against spectral mismatch calculated using normalized error (*NE_s*), the tanh validation metric (*TVM_s*), the inverse modified root mean squared error (*imRMSE_s*), and the complementary error function metric (*ERFCM_s*) for the different period ranges.

Figure C.2. continued.

Figure C.3. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using the inverse modified root mean squared error ($imRMSE_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.3. continued.

Figure C.4. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using the complementary error function metric ($ERFCM_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

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Figure C.4. continued.

Figure C.5. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using the Anderson C1 metric ($AC1_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.5. continued.

Figure C.6. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using the Anderson C10 metric ($AC10_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.6. continued.

Figure C.7. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using average coherence plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.7. continued.

Figure C.8. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using normalized error (NE_t) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
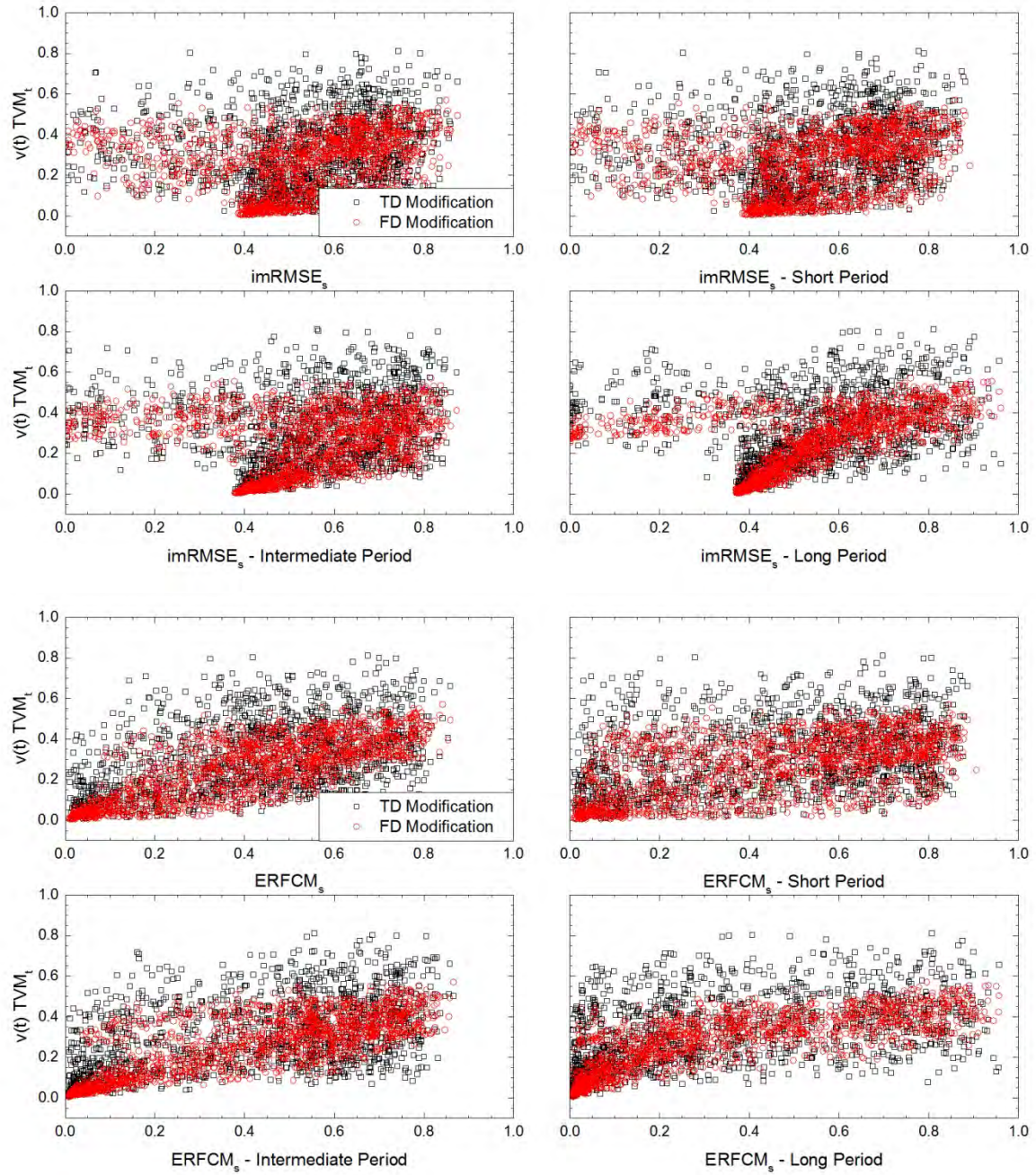
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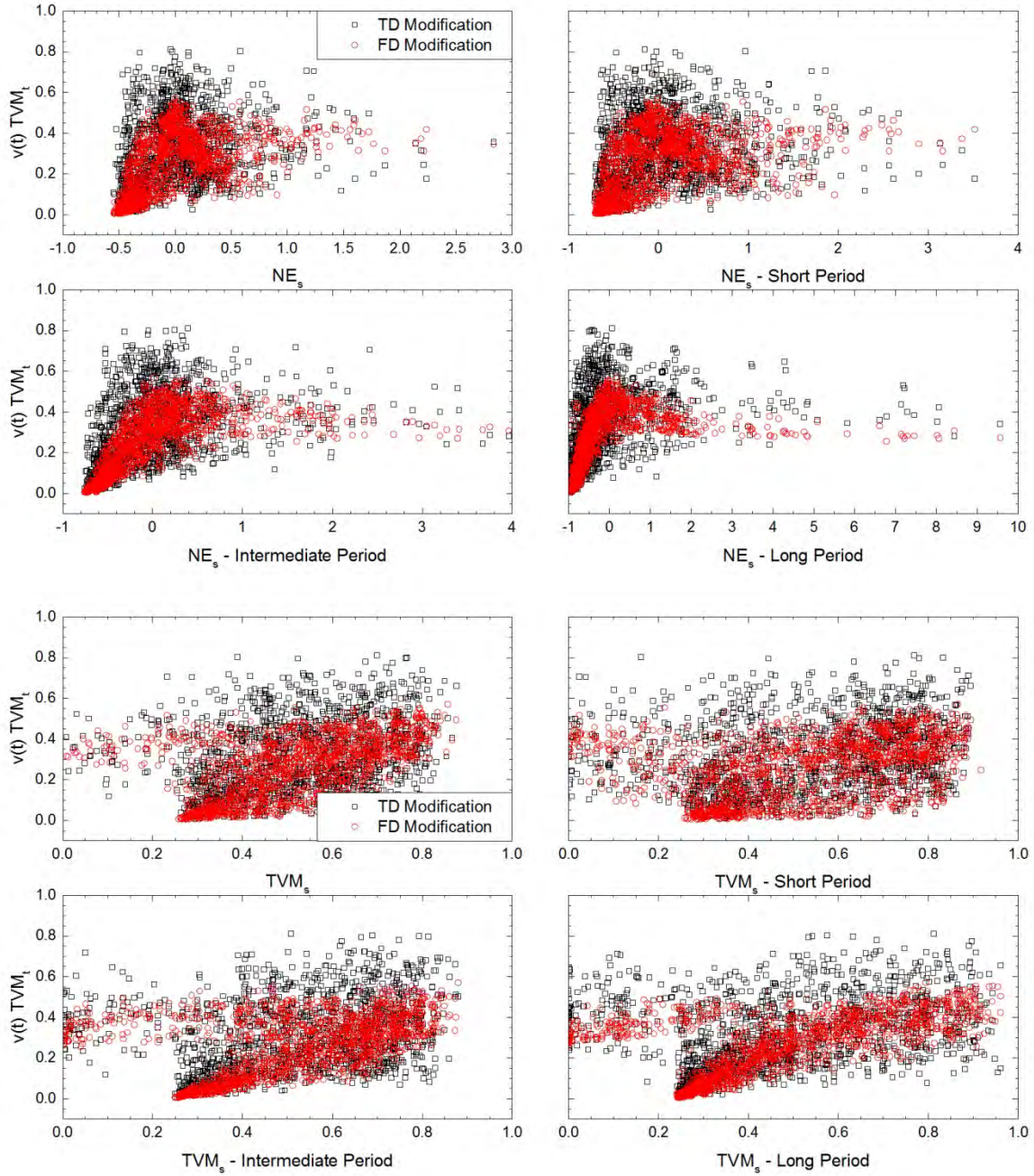
Figure C.9. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using the tanh validation metric (TVM_t) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.9. continued.

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Figure C.10. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using the inverse modified root mean squared error ($imRMSE_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

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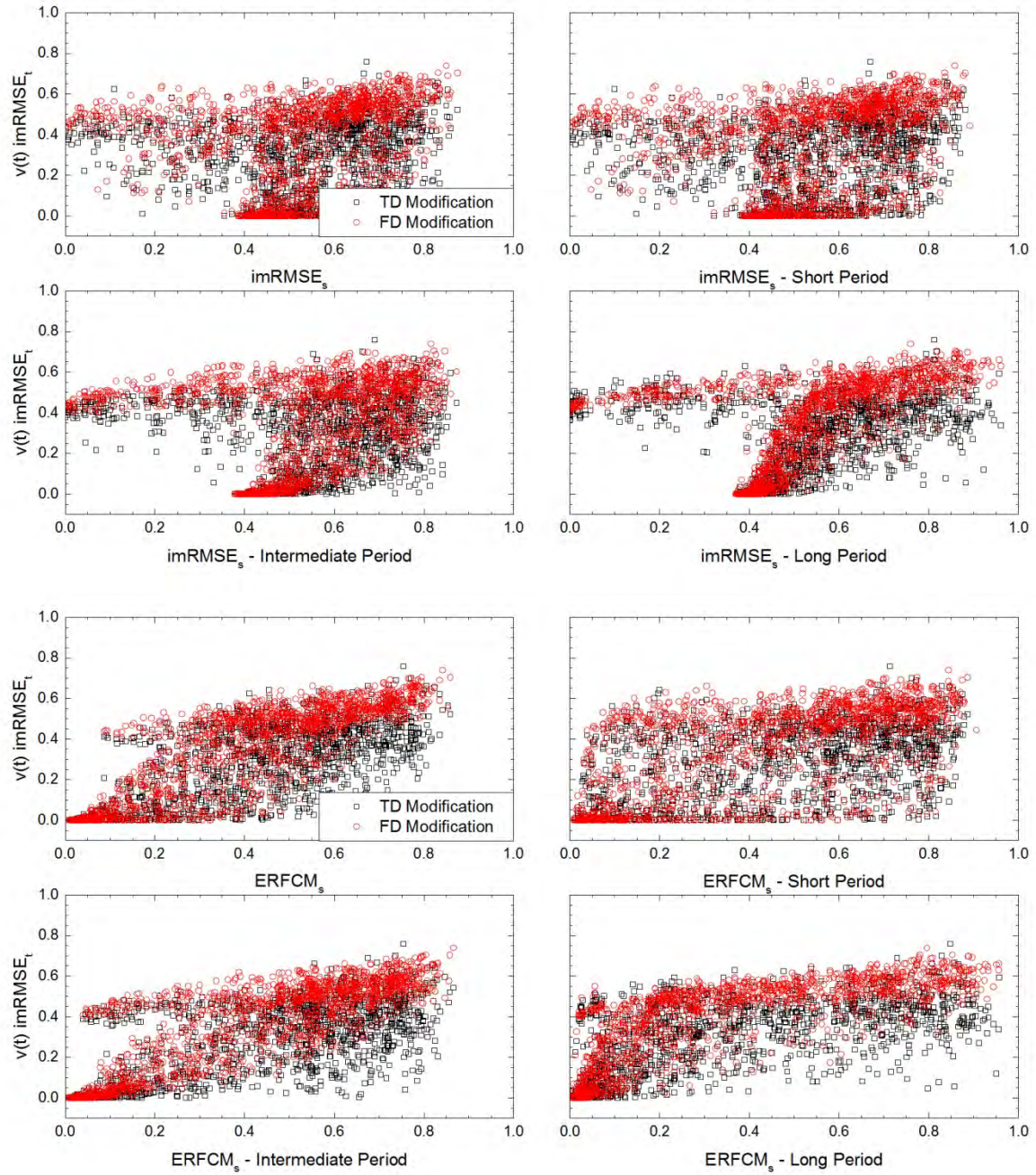
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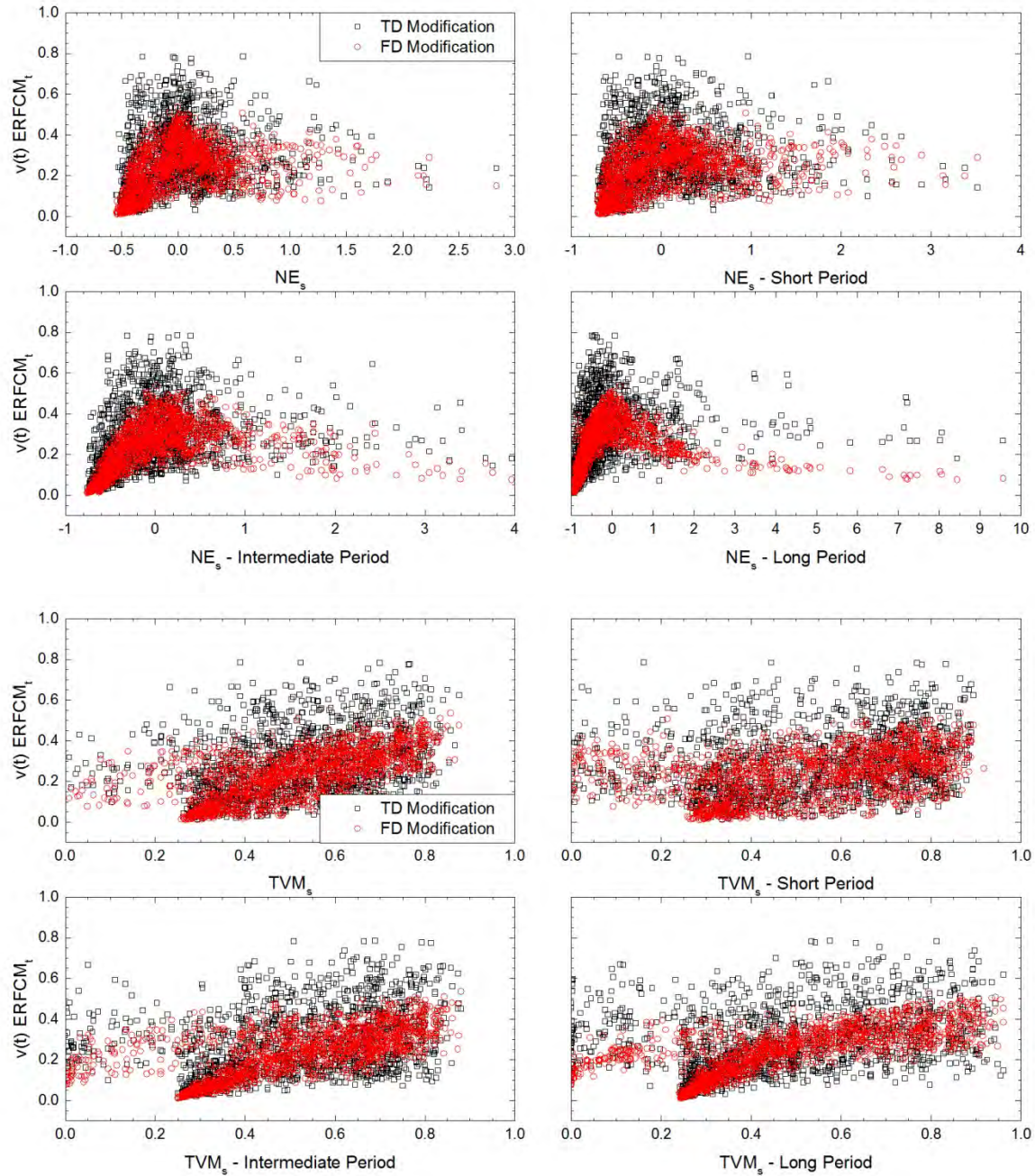
Figure C.11. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using the complementary error function metric ($ERFCM_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

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Figure C.11. continued.

Figure C.12. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using the Anderson C1 metric ($AC1_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

Figure C.12. continued.
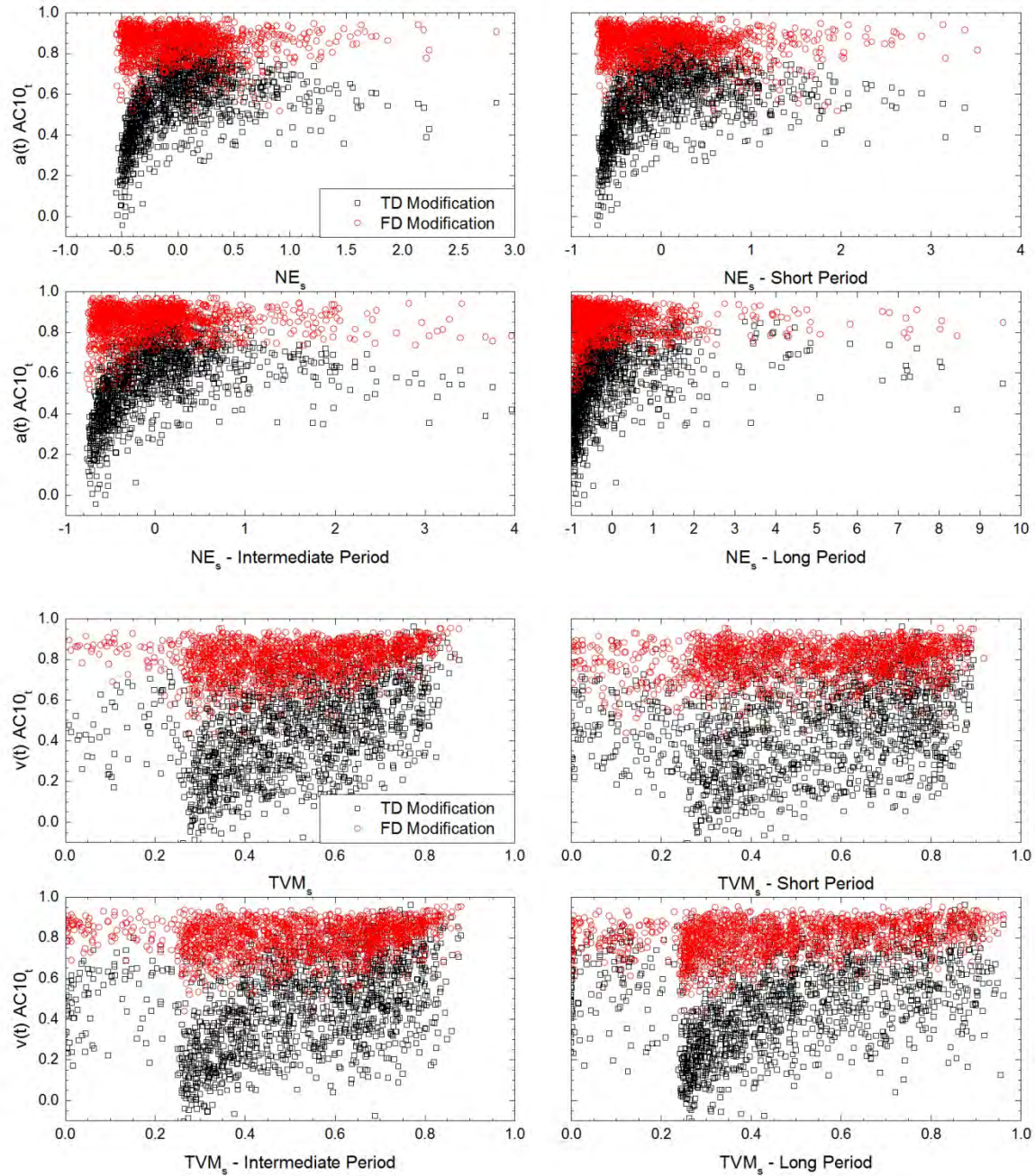
Figure C.13. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using the Anderson C10 metric ($AC10_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
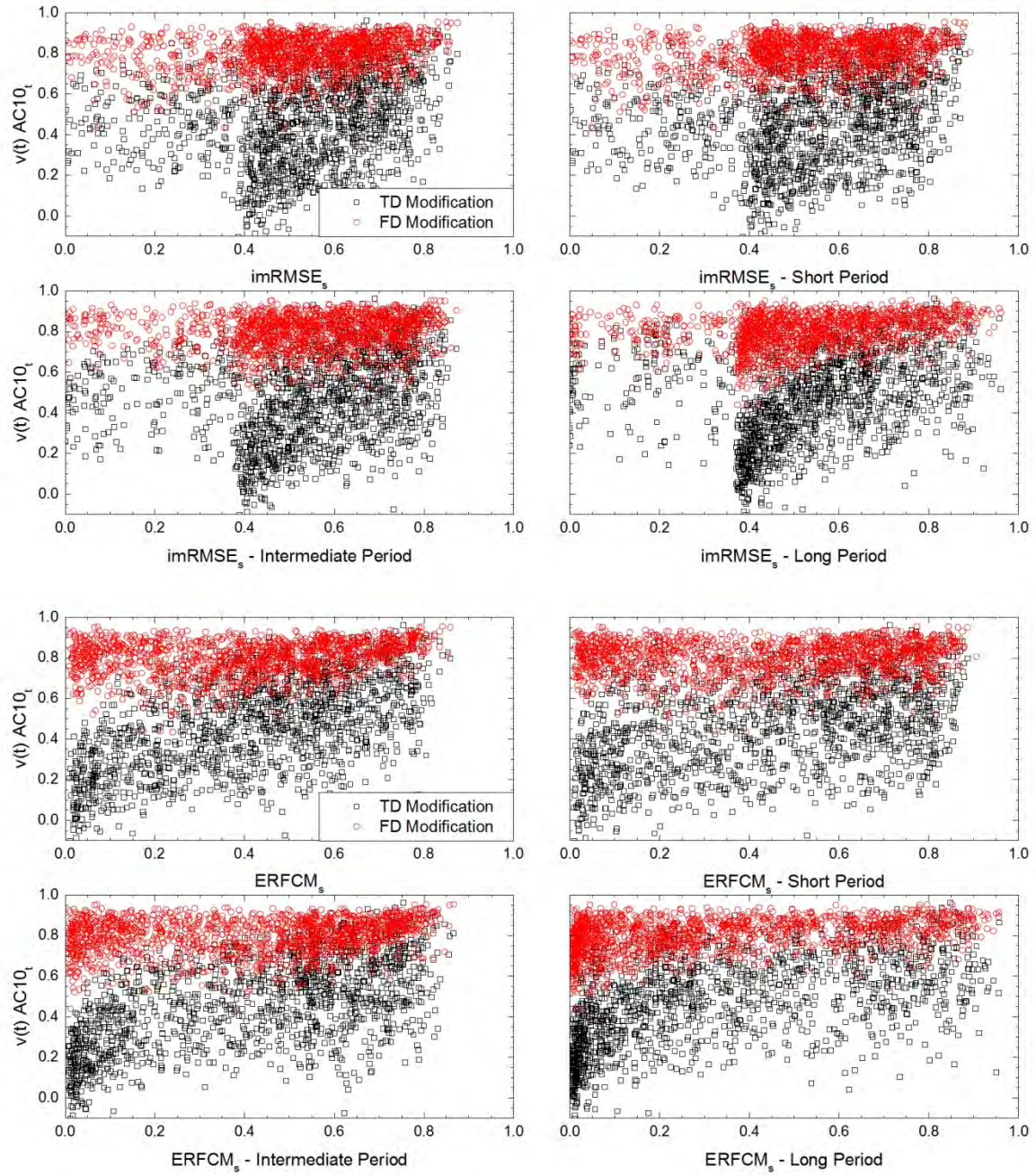
Figure C.13. continued.

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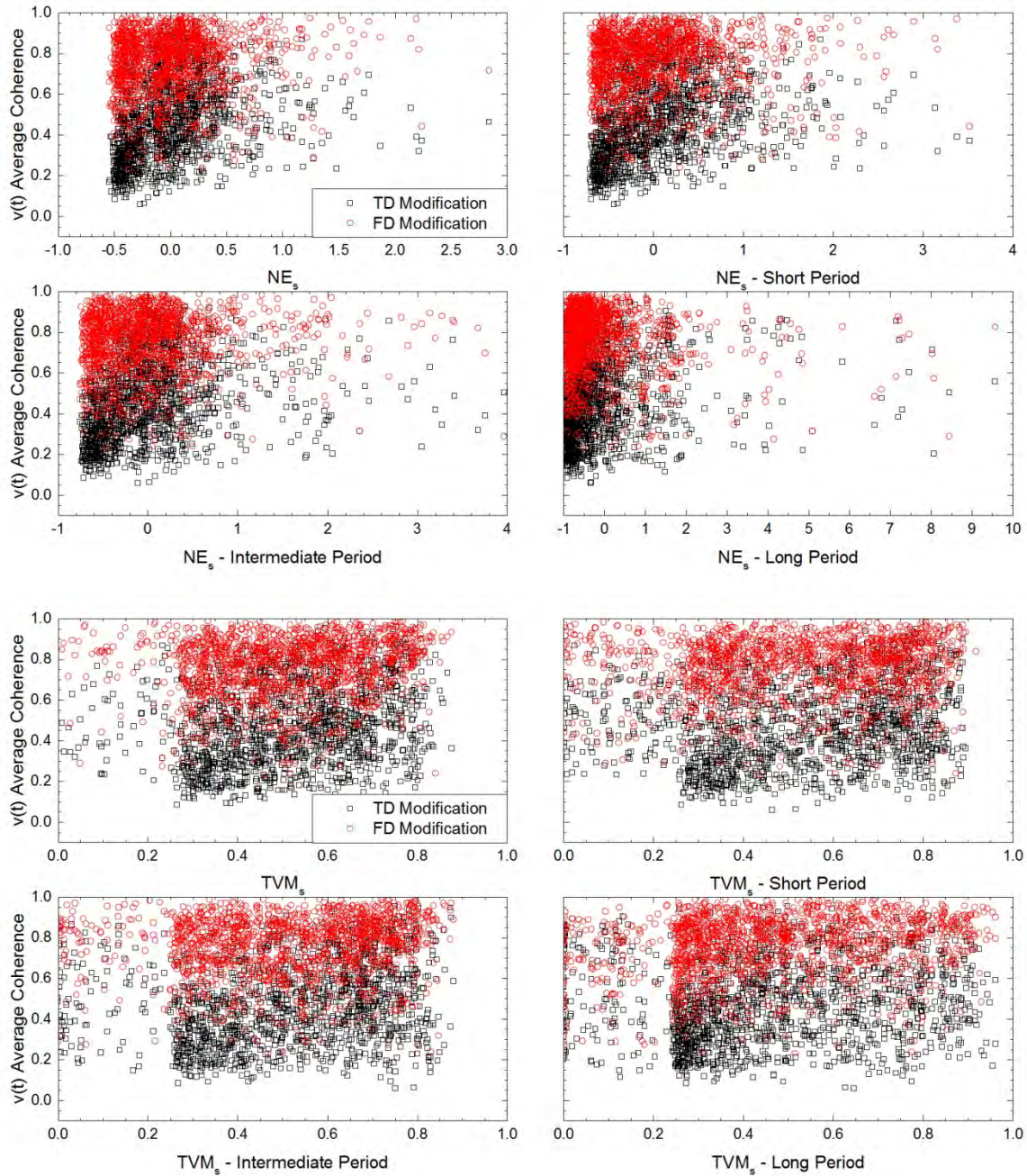
Figure C.14. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using average coherence plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
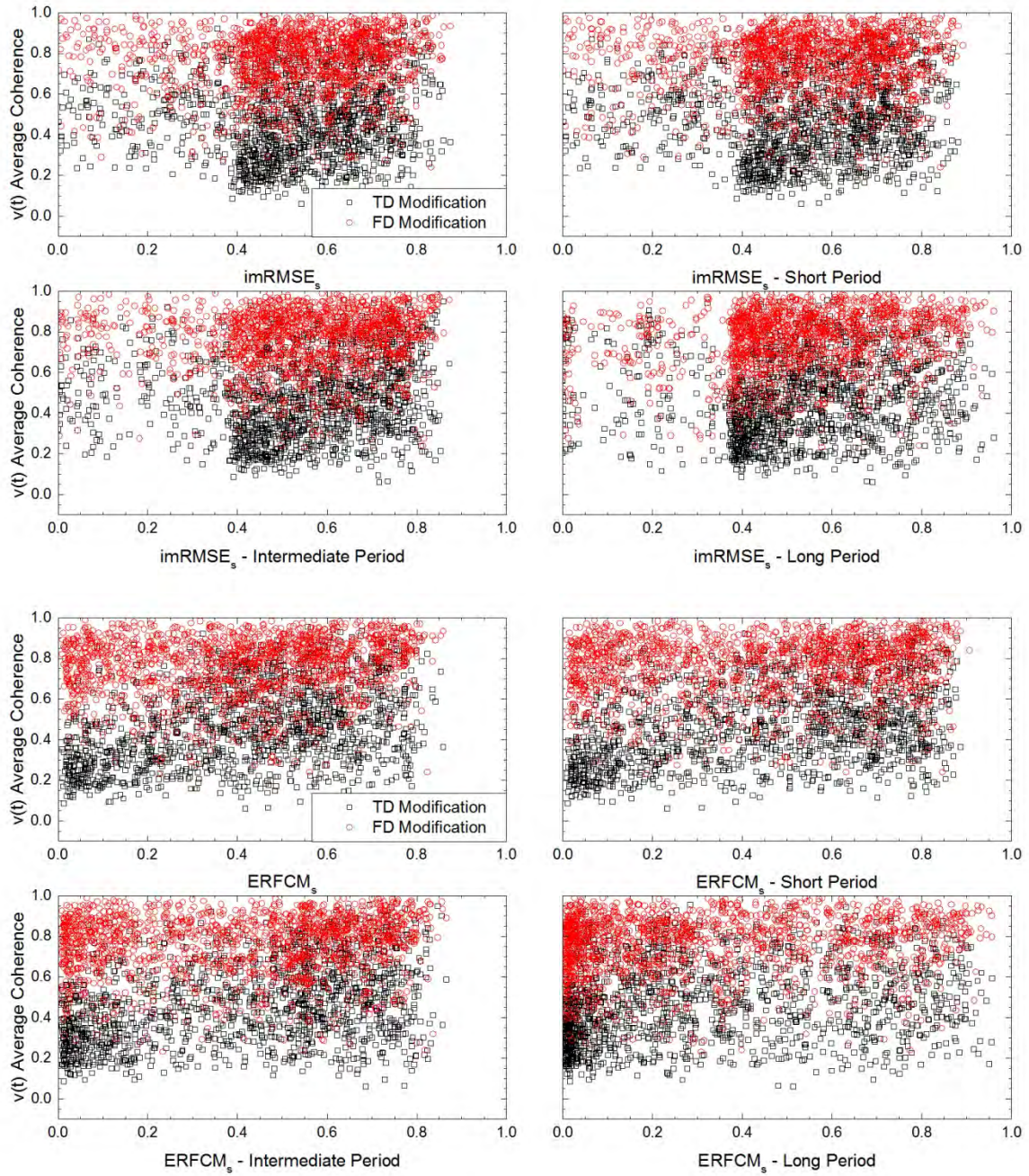
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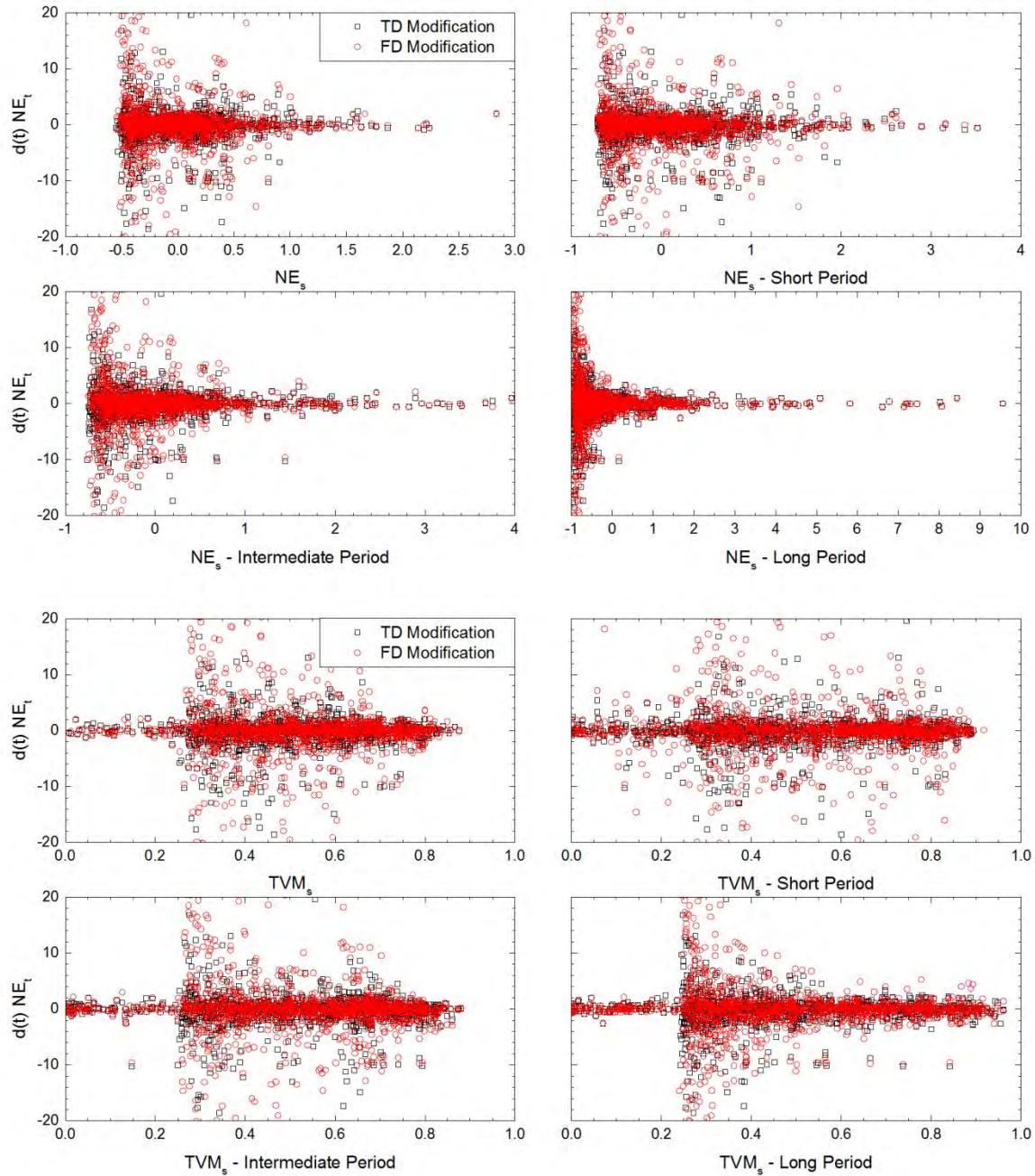
Figure C.15. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using normalized error (NE_t) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
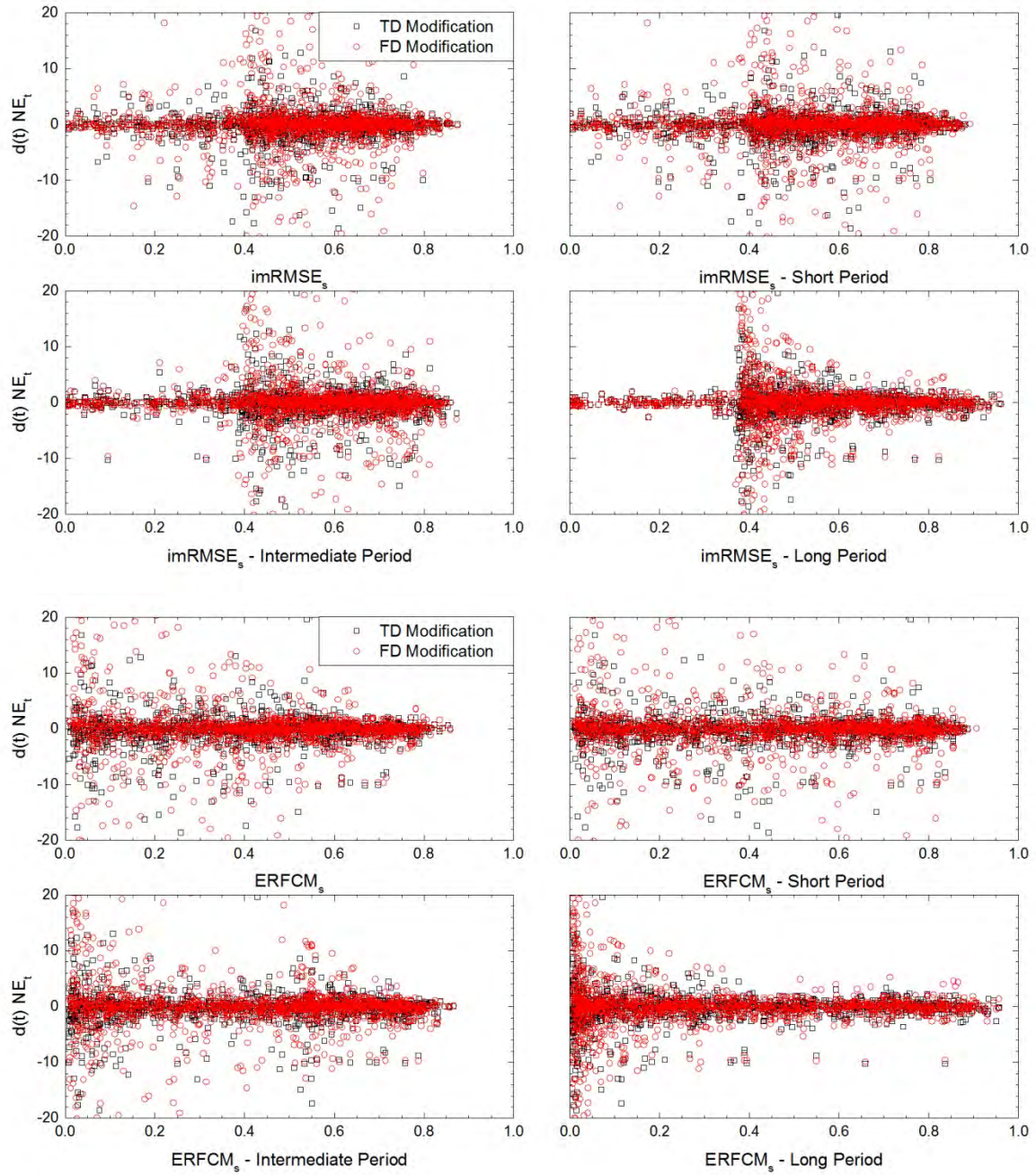
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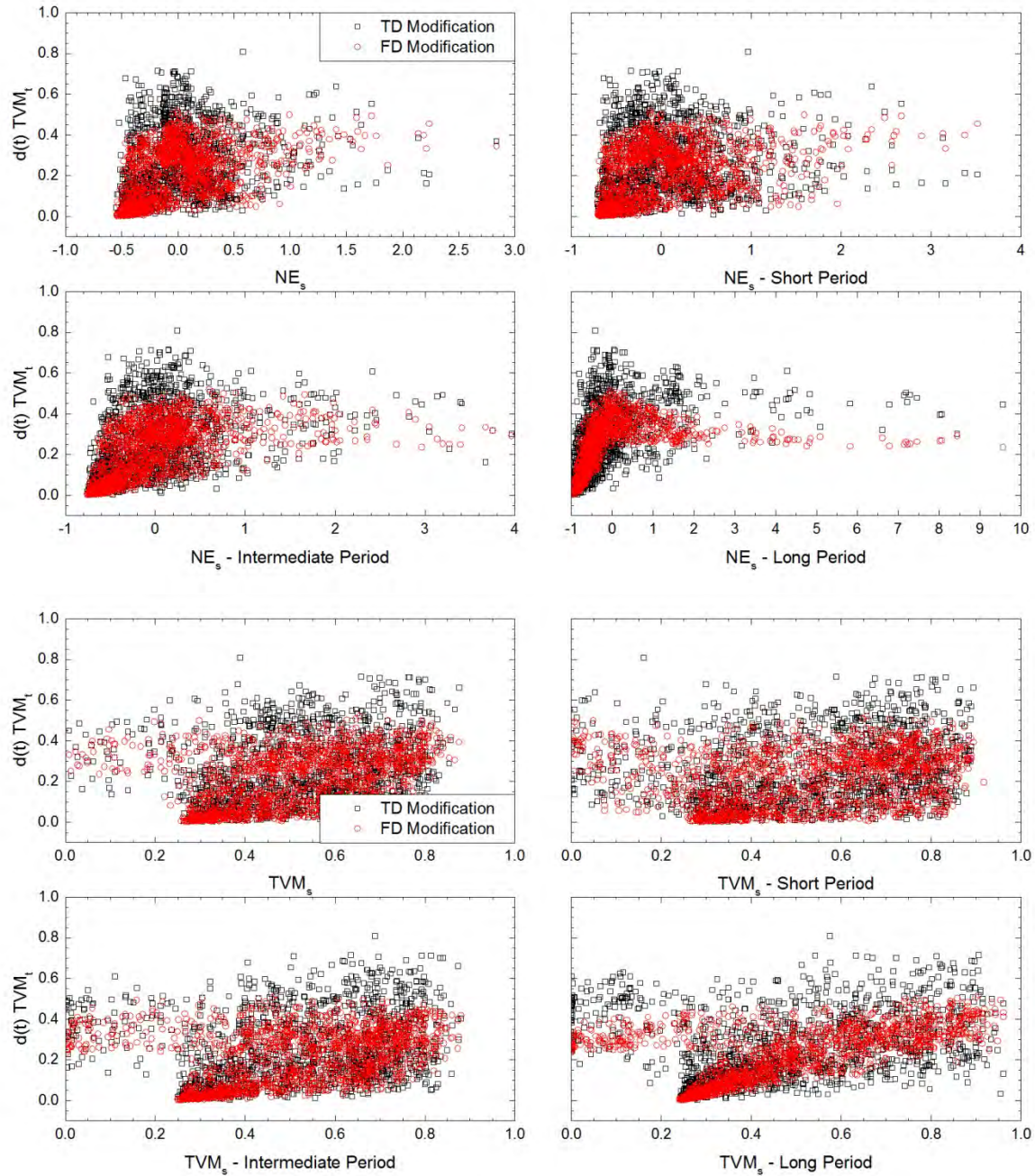
Figure C.16. Goodness-of-fit values of displacement time histories (*d*(*t*)) of the motions in scenario I calculated using the tanh validation metric (*TVM*$_t$) plotted against spectral mismatch calculated using normalized error (*NE*$_s$), the tanh validation metric (*TVM*$_s$), the inverse modified root mean squared error (*imRMSE*$_s$), and the complementary error function metric (*ERFCM*$_s$) for the different period ranges.
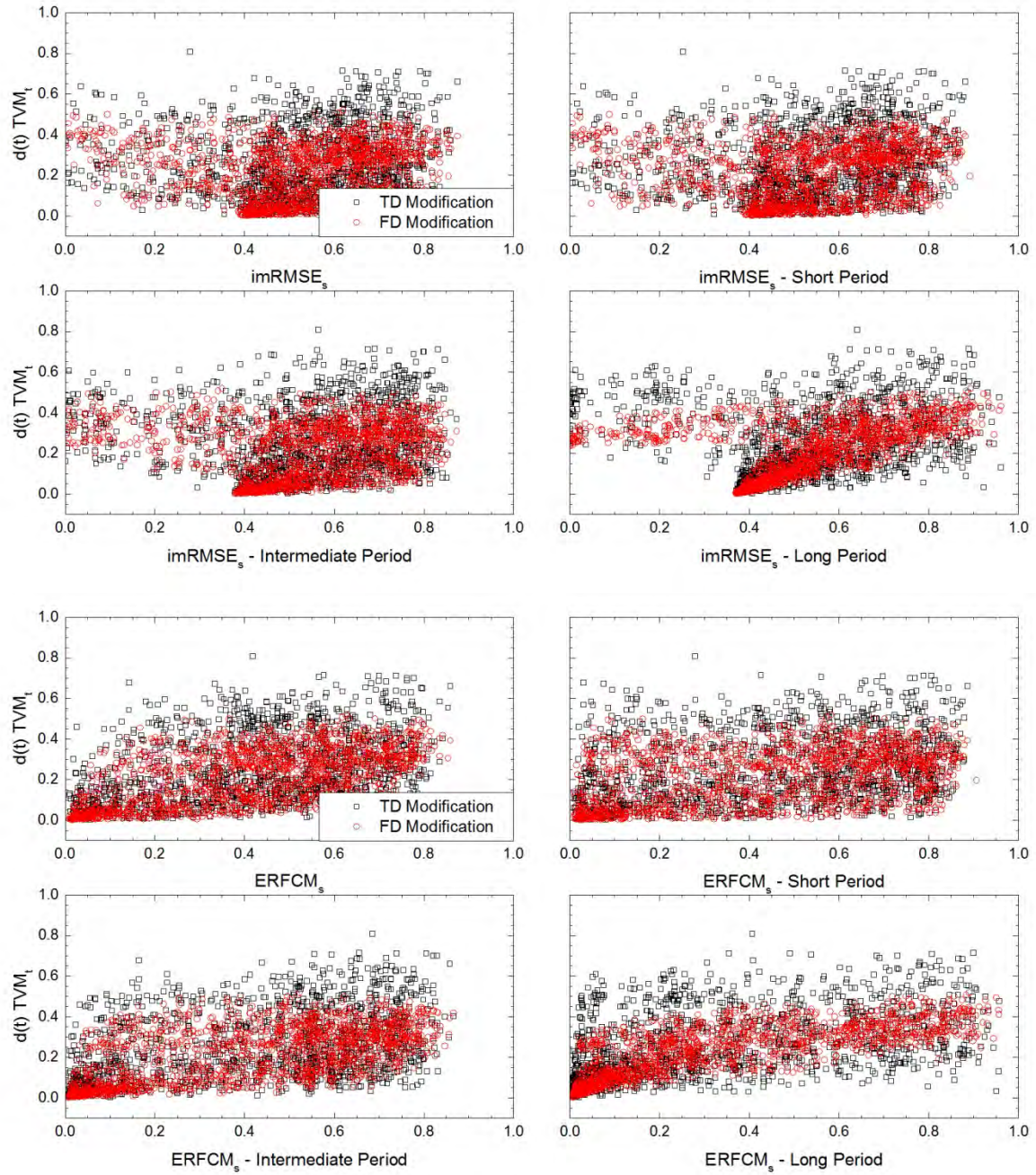
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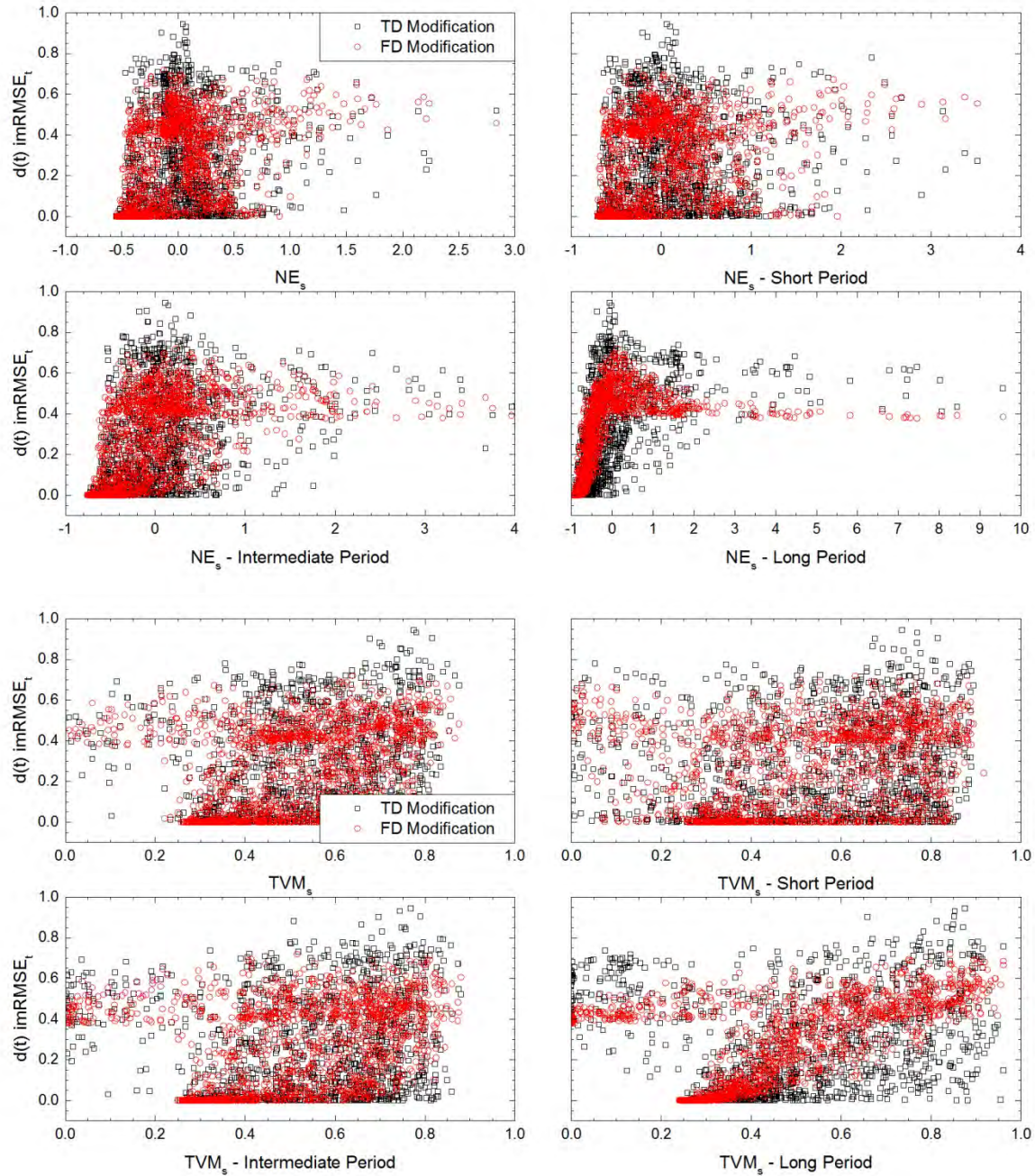
Figure C.17. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using the inverse modified root mean squared error ($imRMSE_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
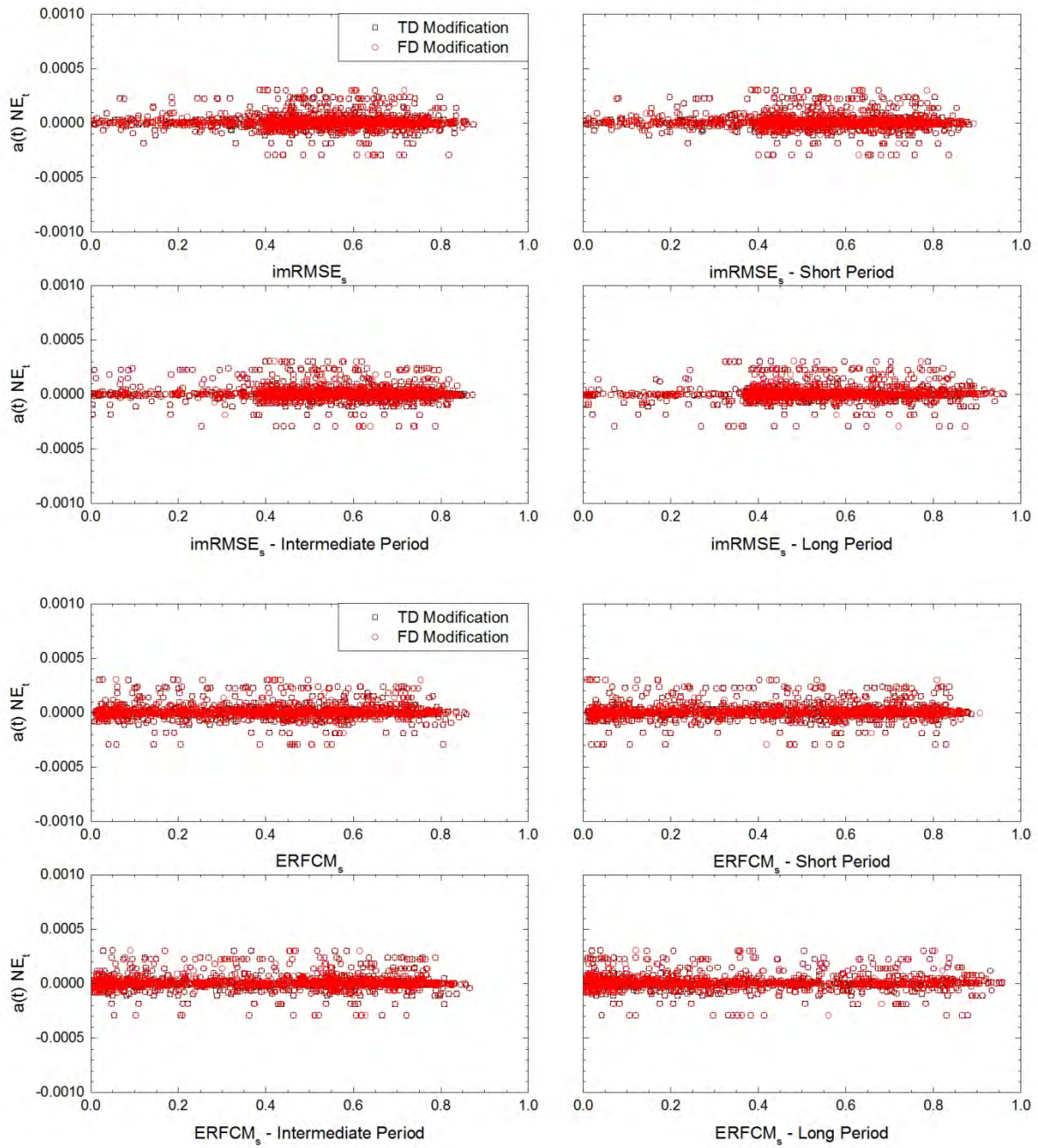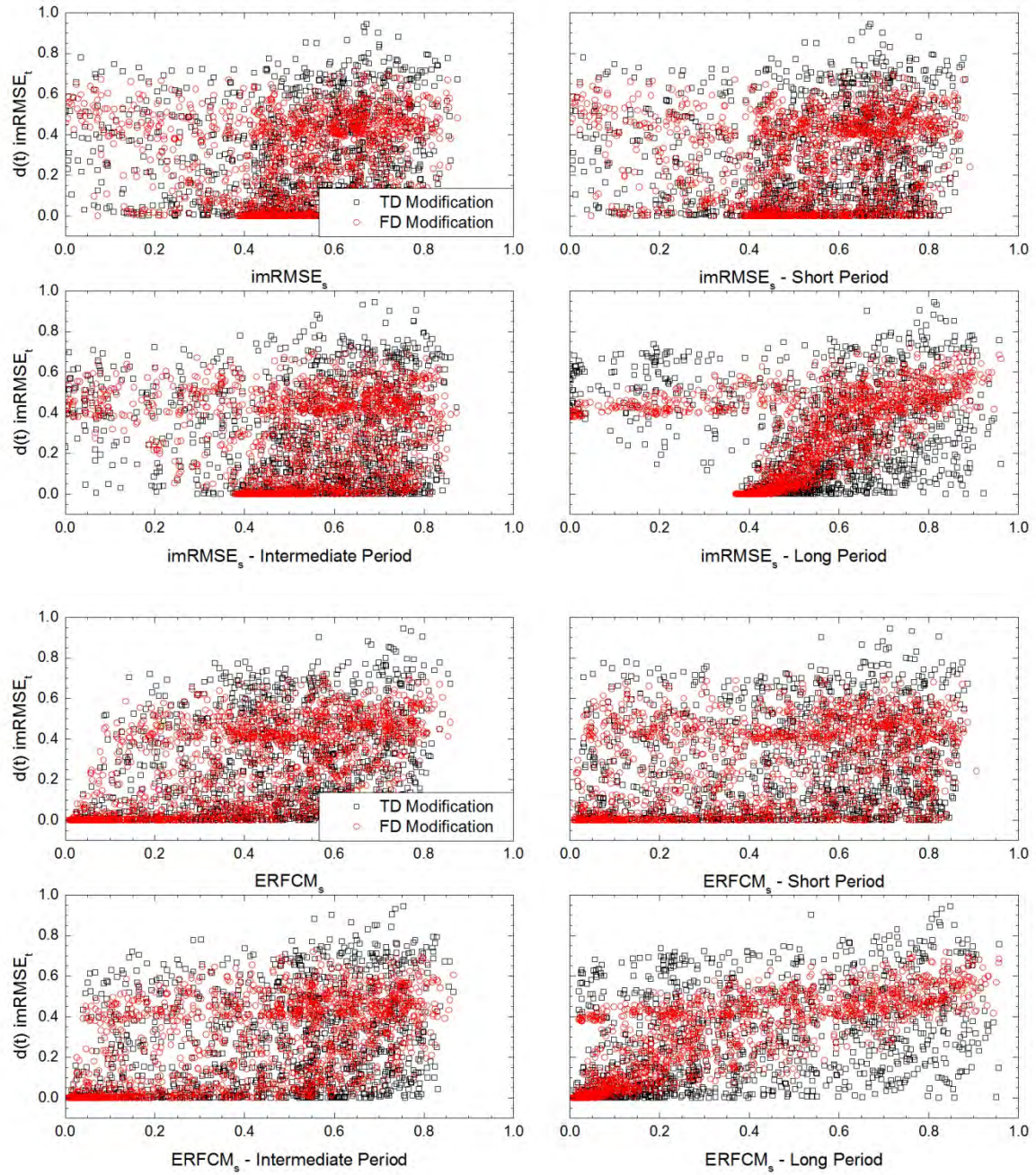
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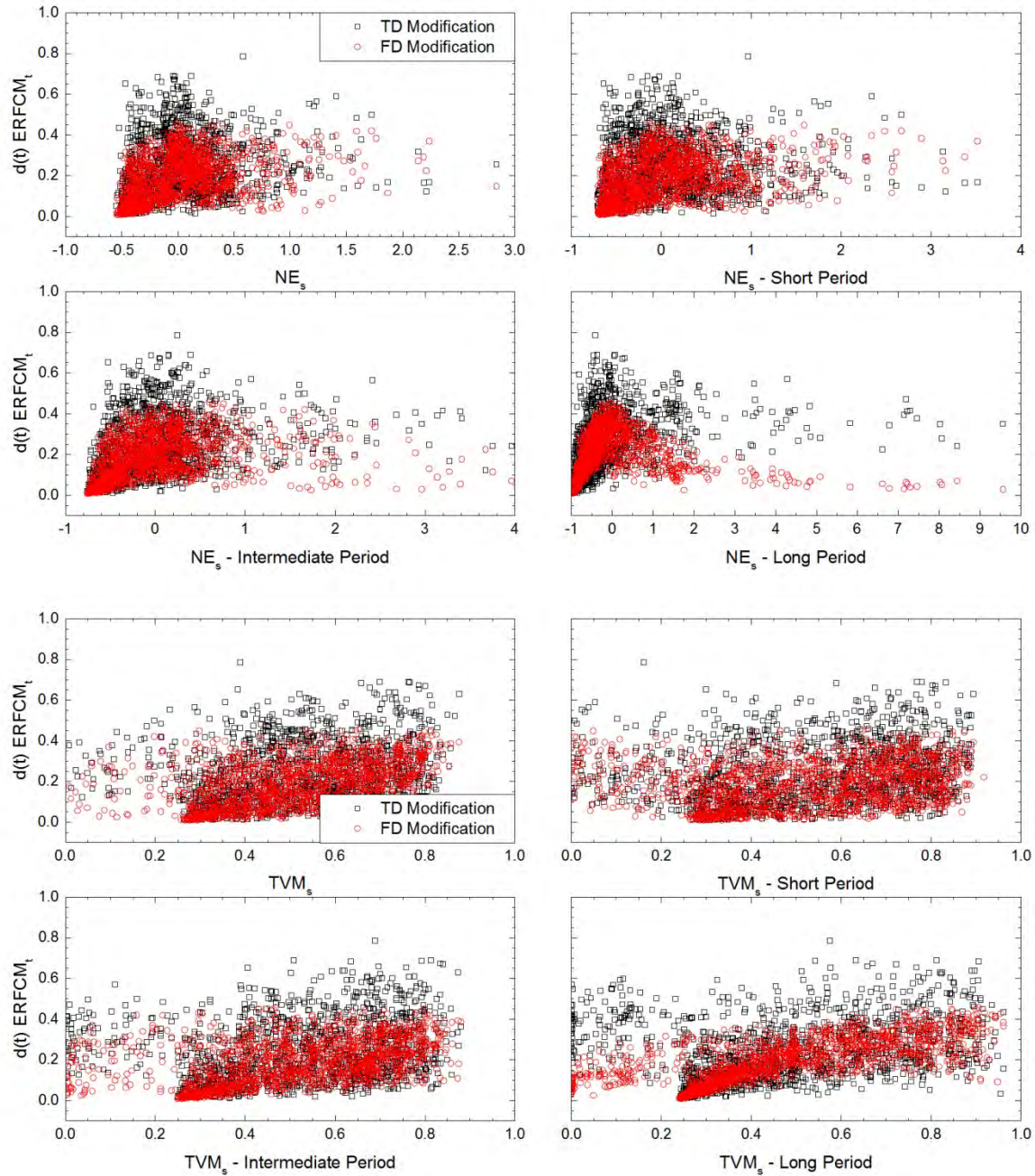
Figure C.18. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using the complementary error function metric ($ERFCM_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
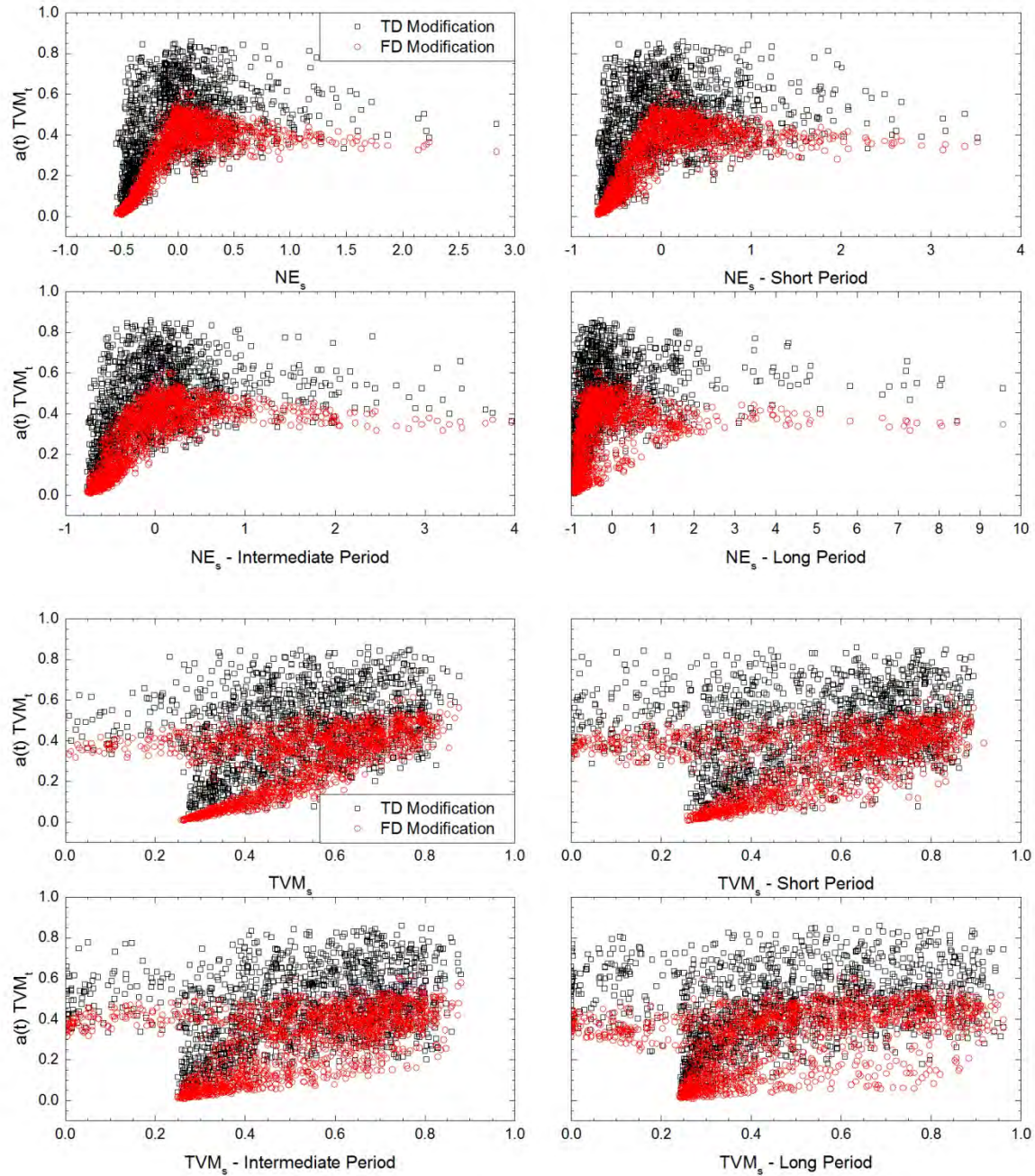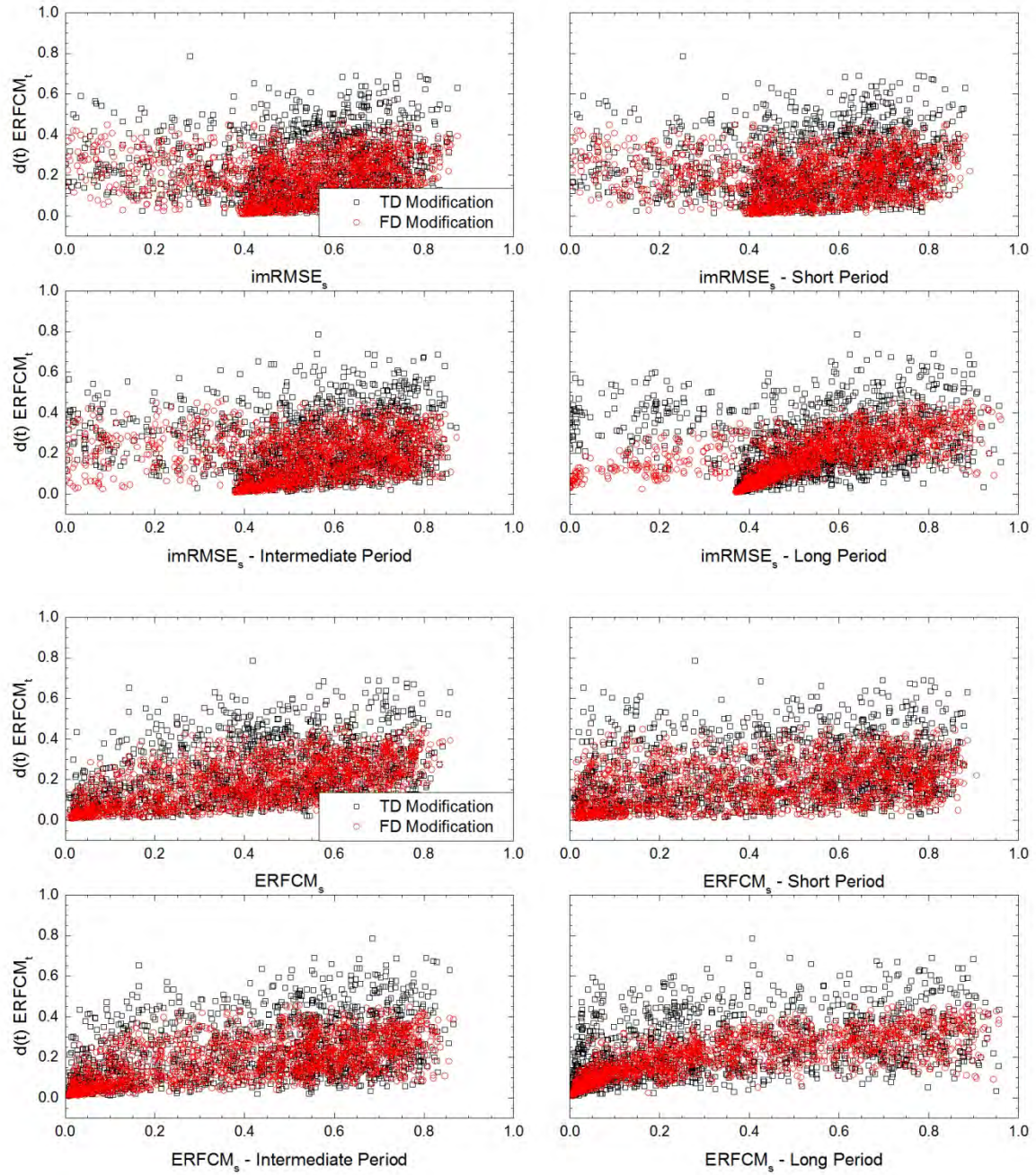
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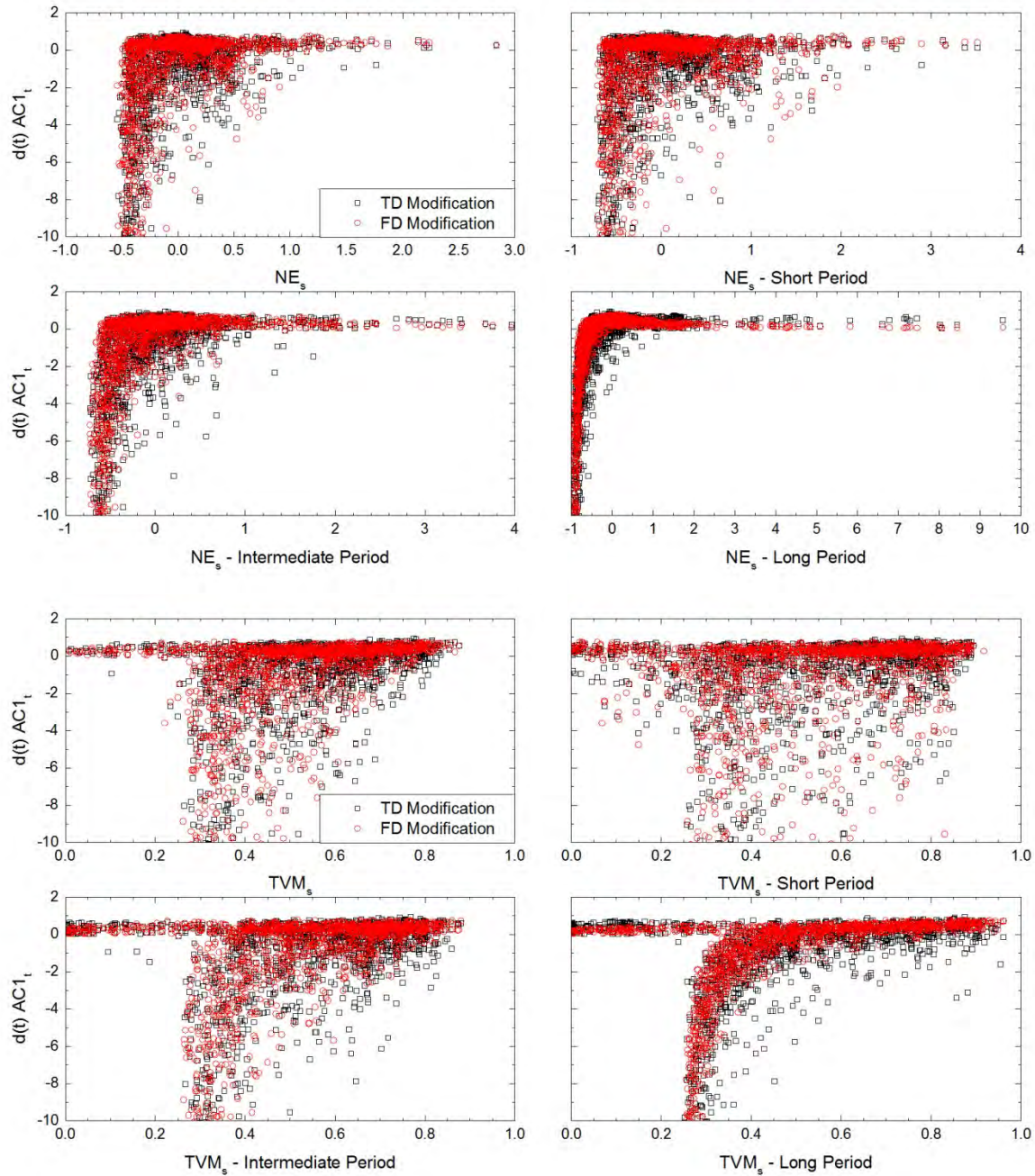
Figure C.19. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using the Anderson C1 metric ($AC1_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
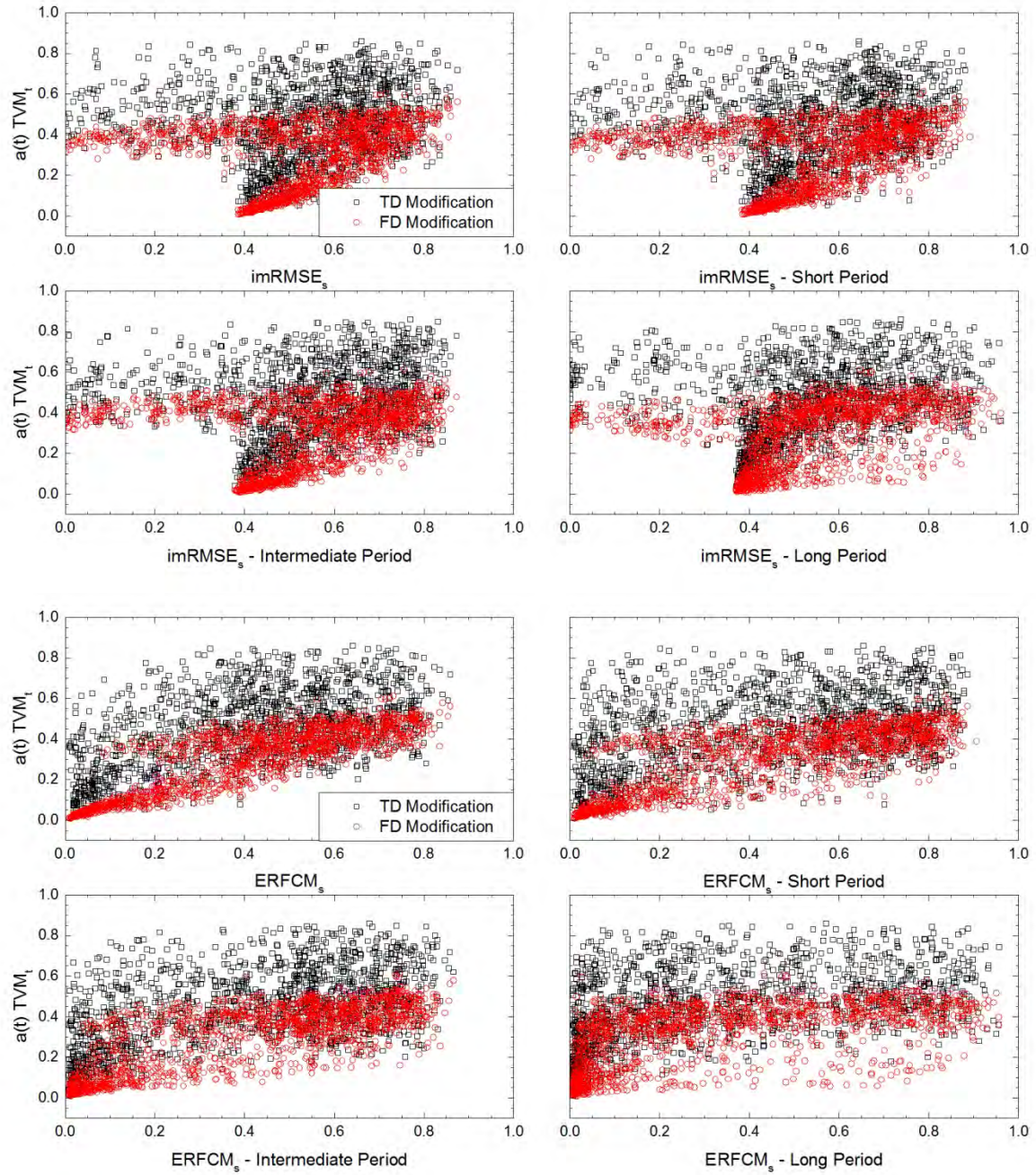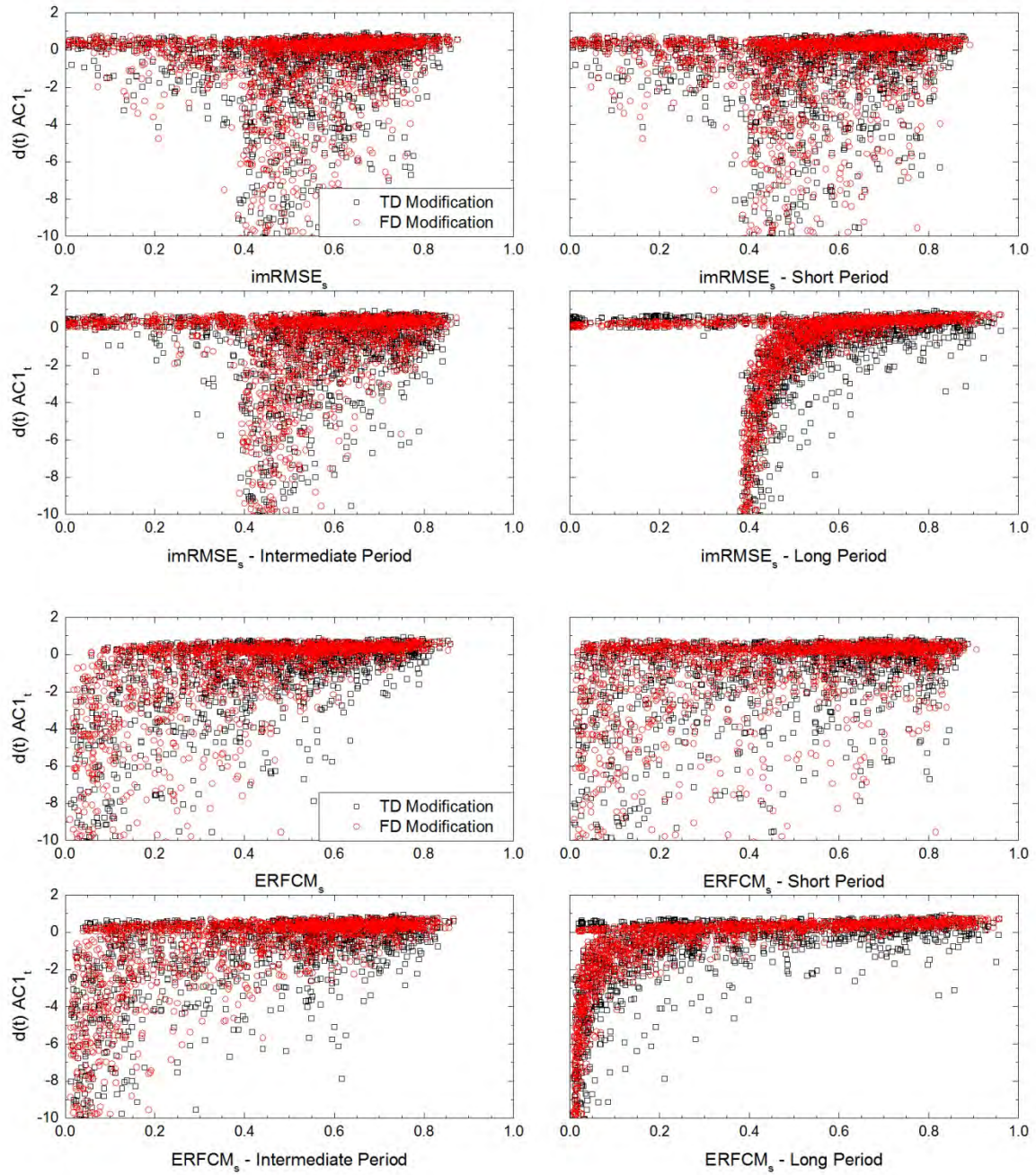
Figure C.19. continued.

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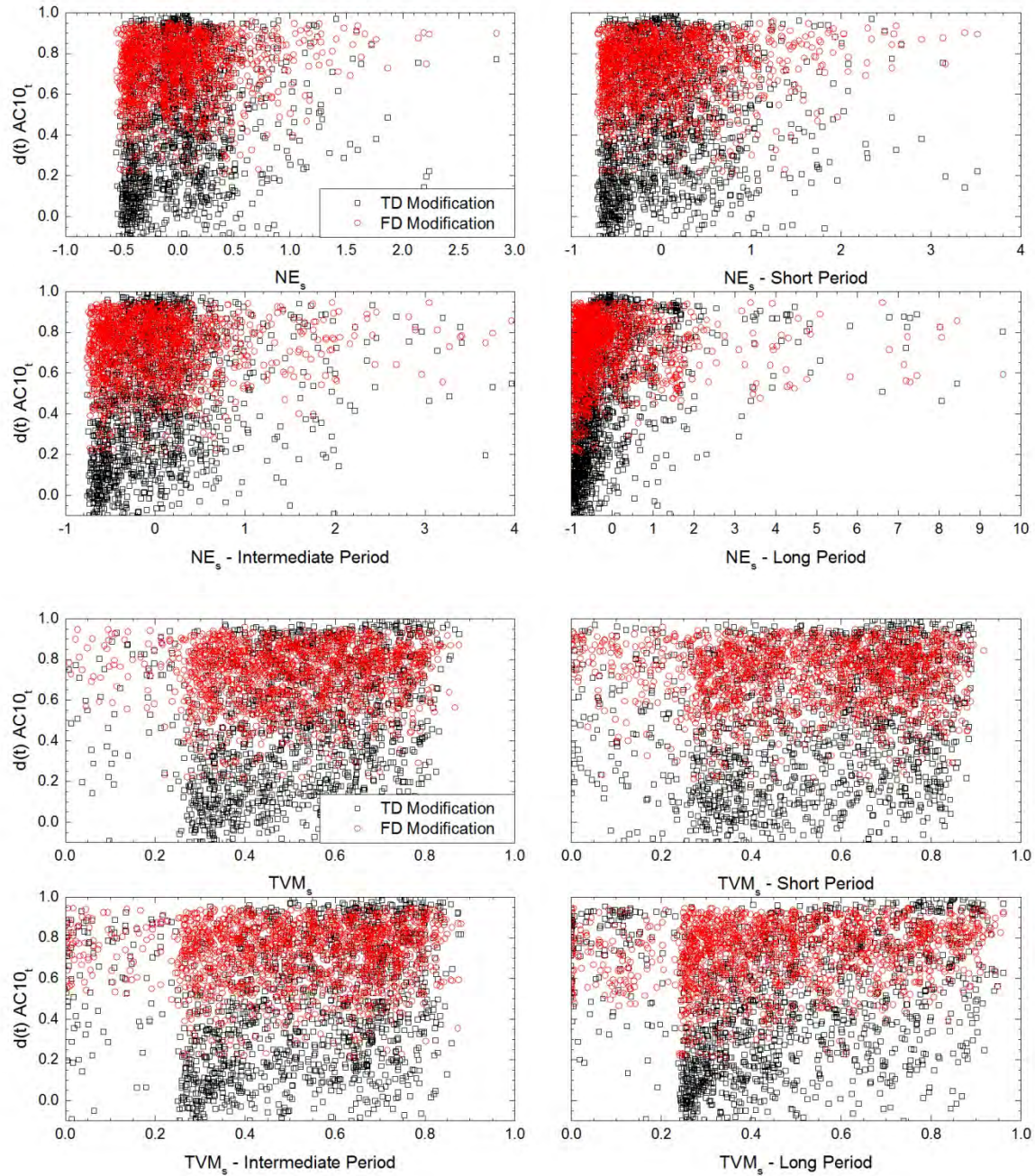
Figure C.20. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using the Anderson C10 metric ($AC10_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
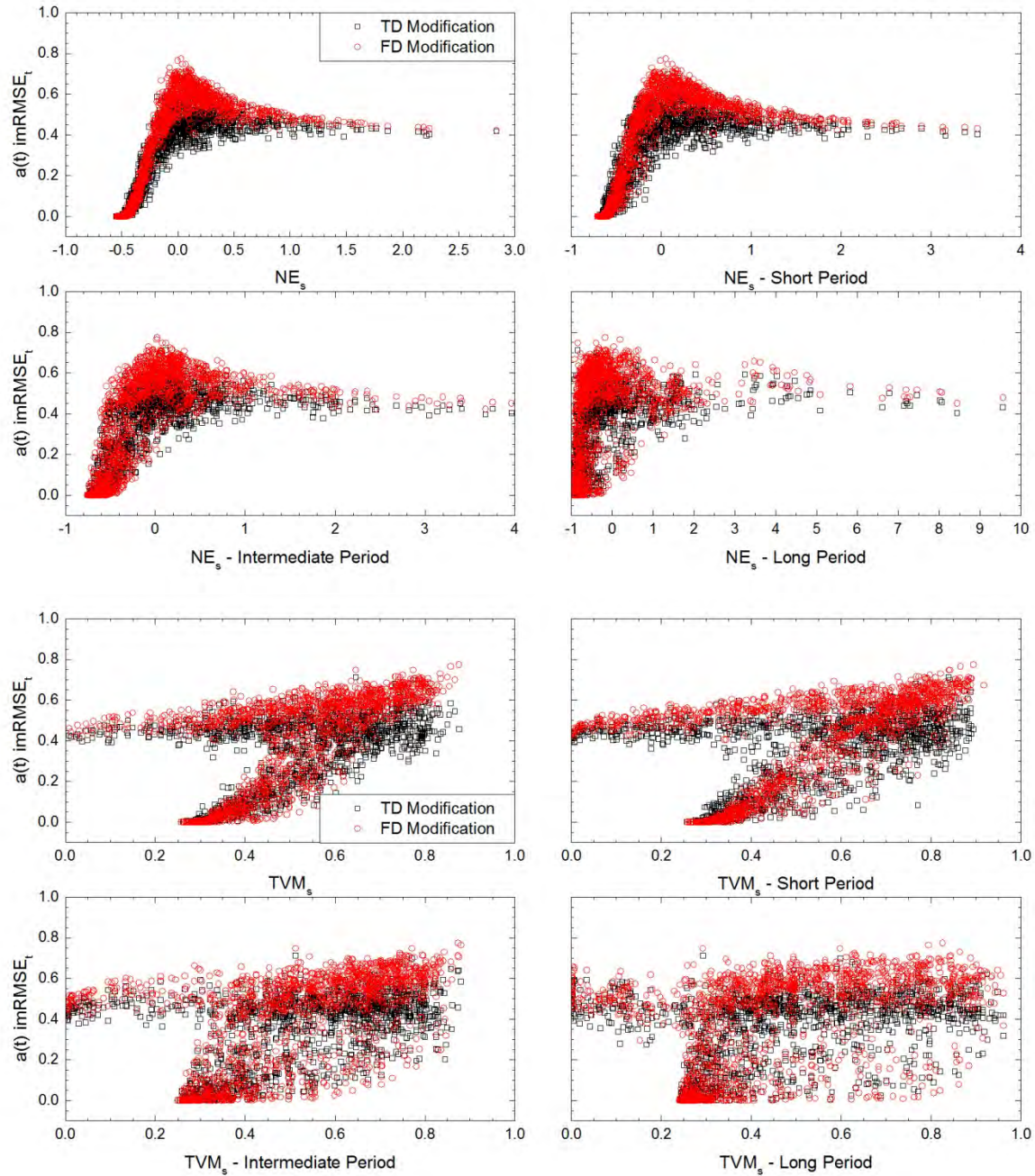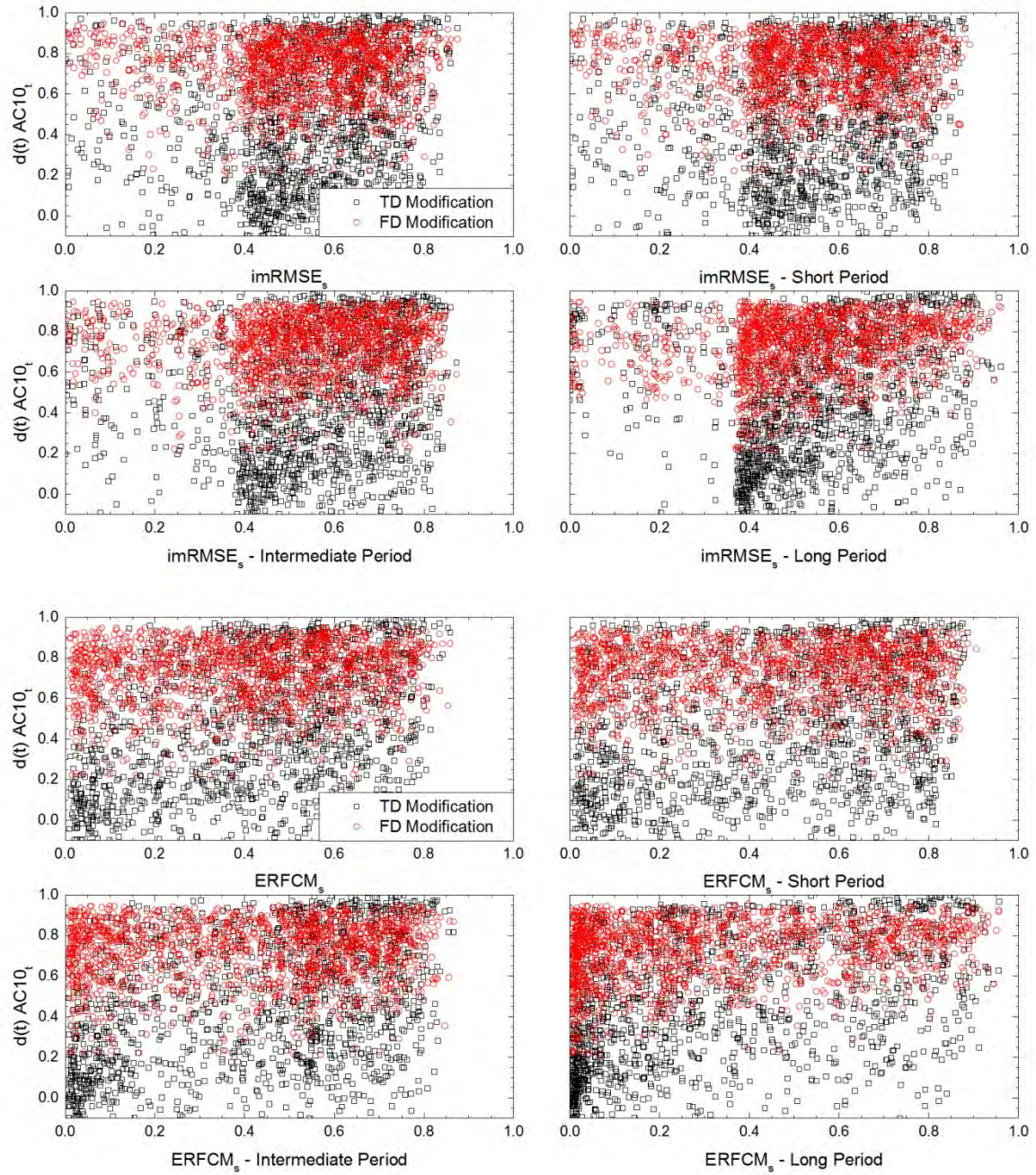
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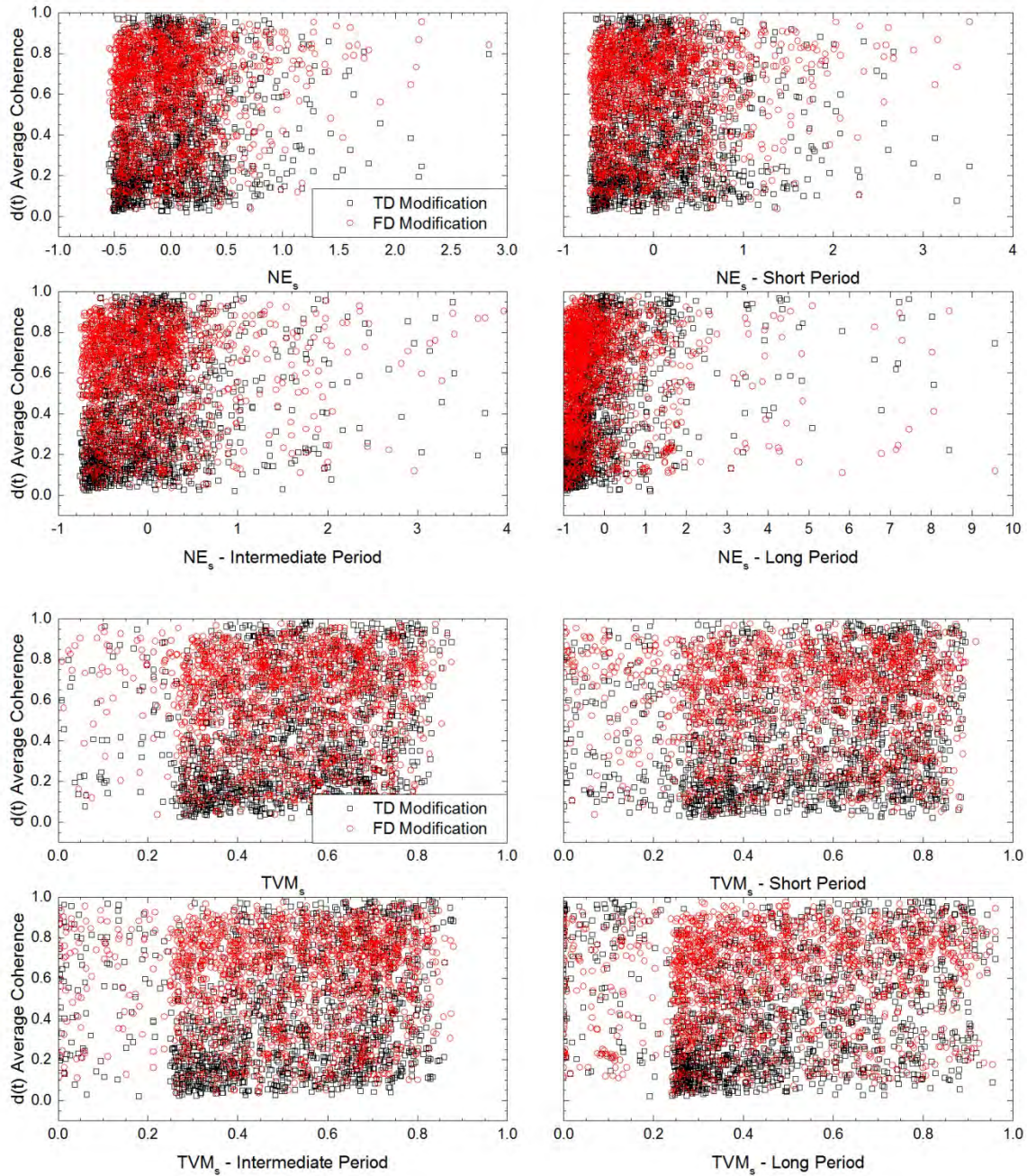
Figure C.21. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using average coherence plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
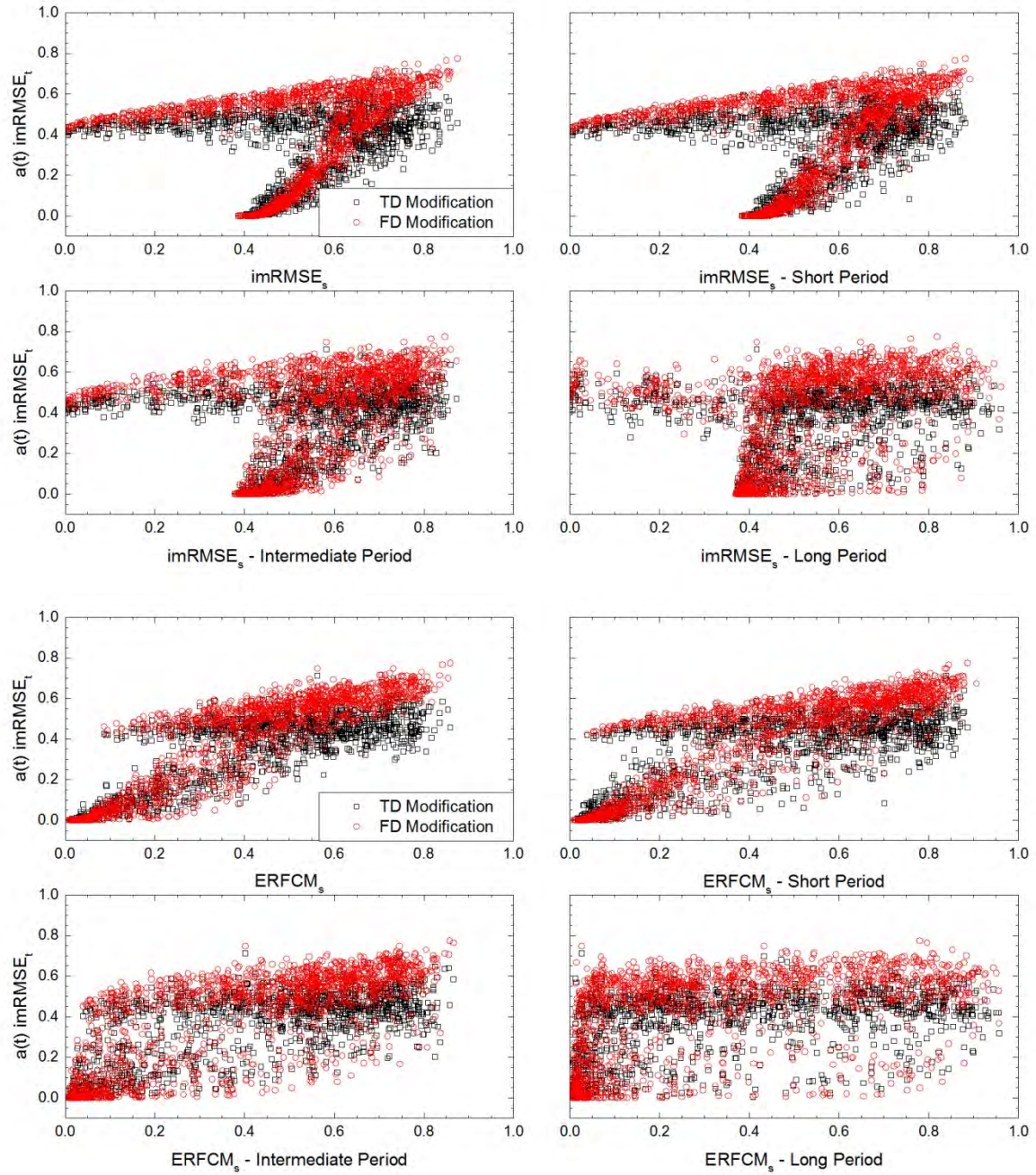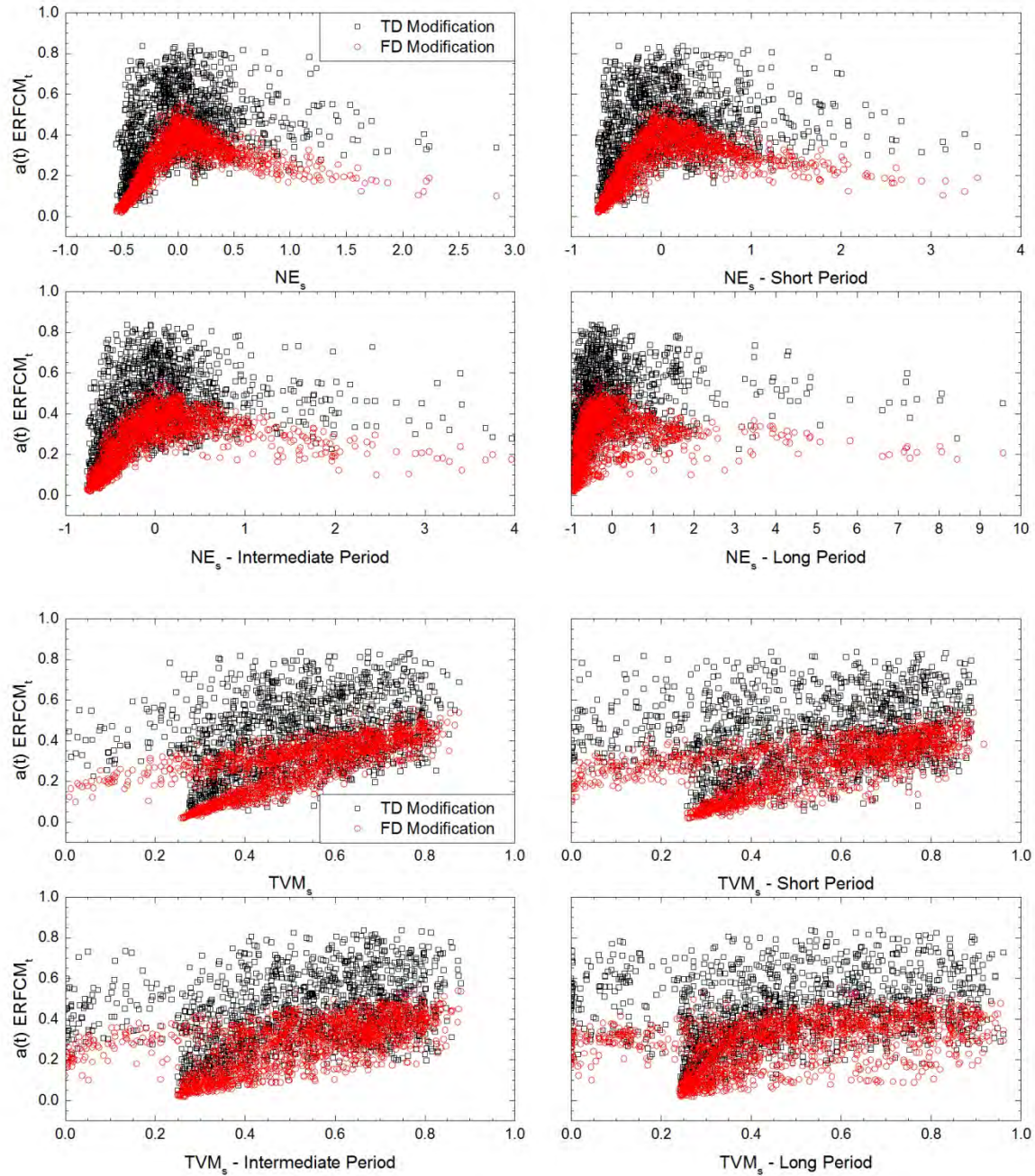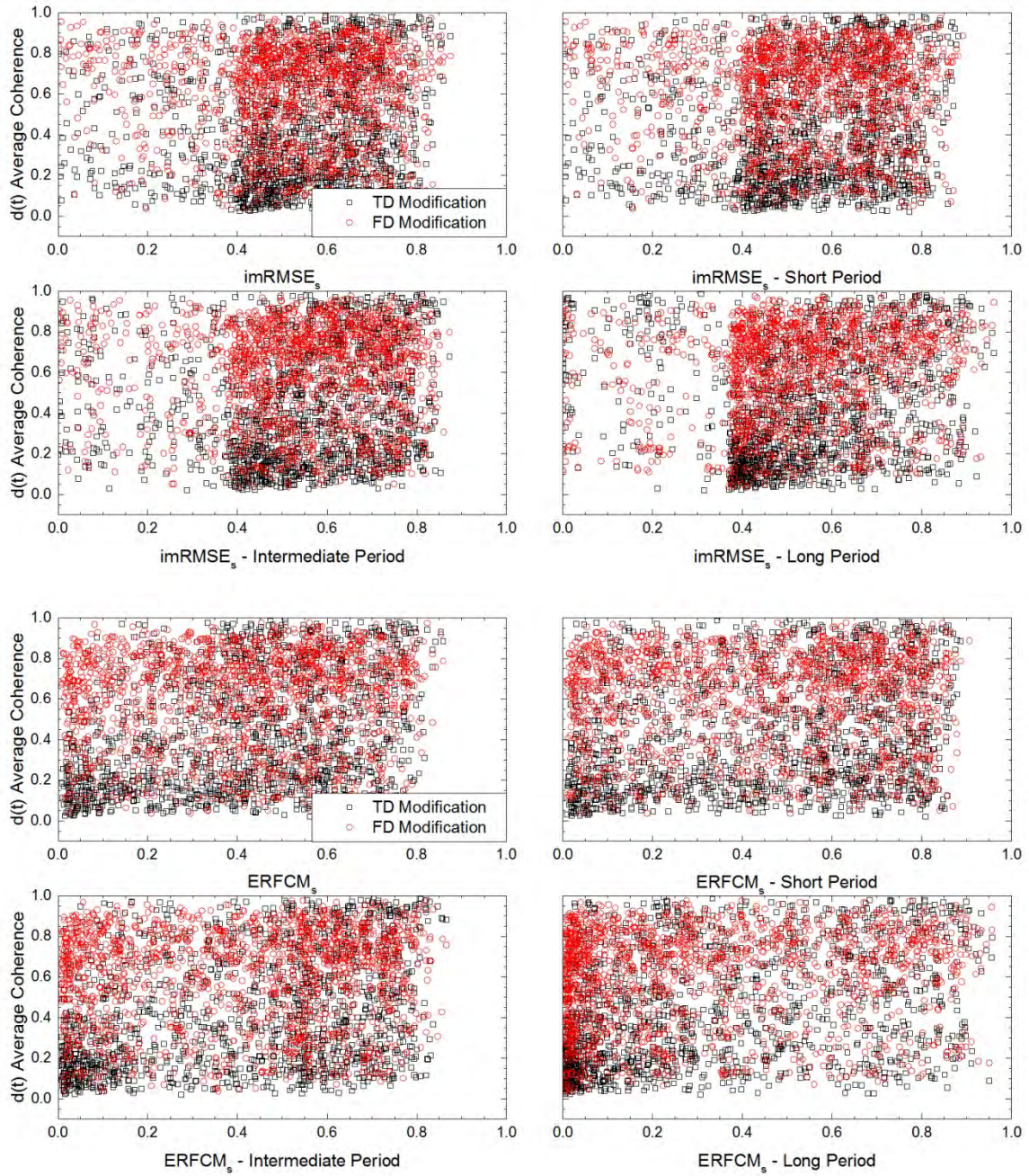
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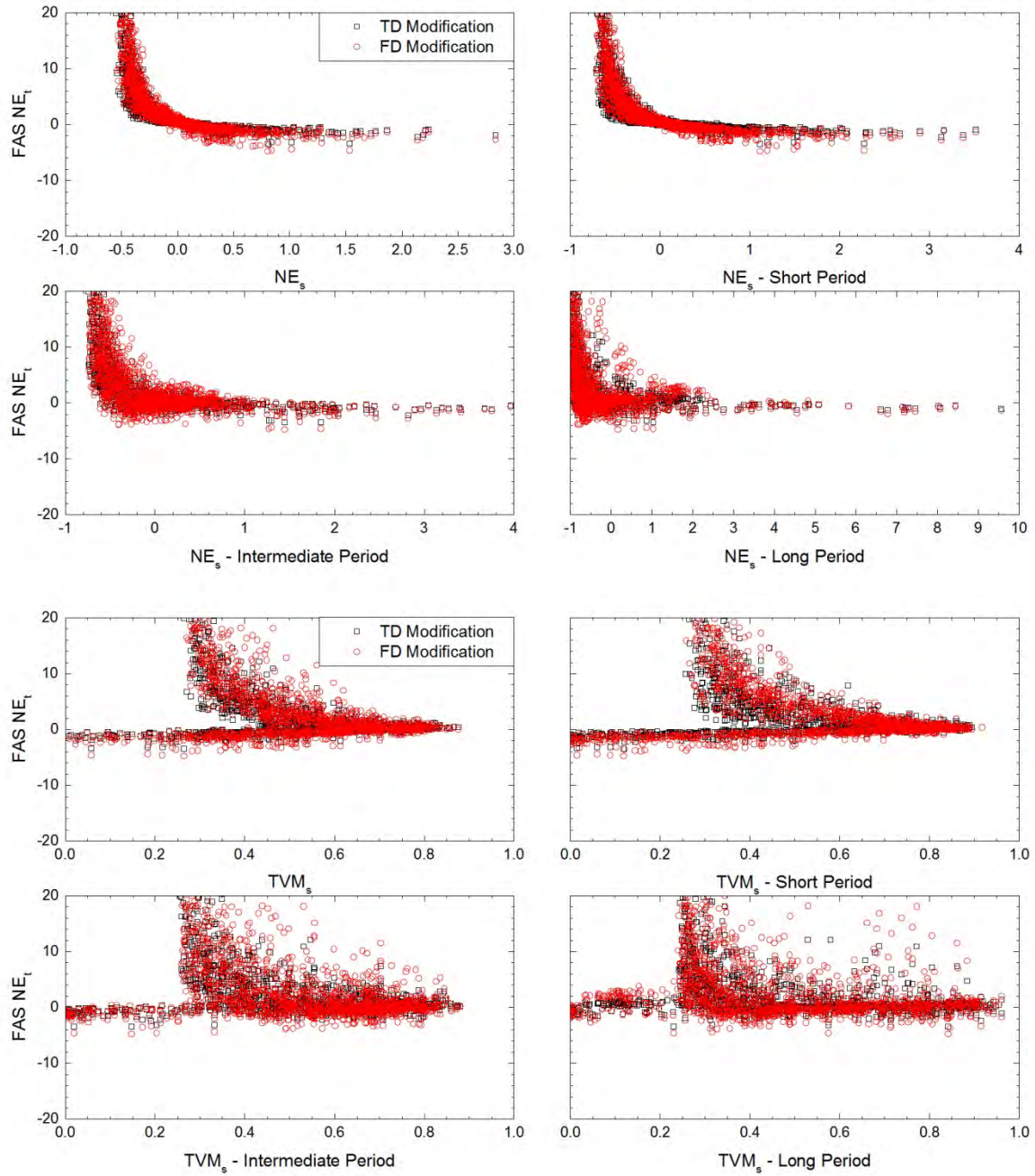
Figure C.22. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using normalized error (*NE$_t$*) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.
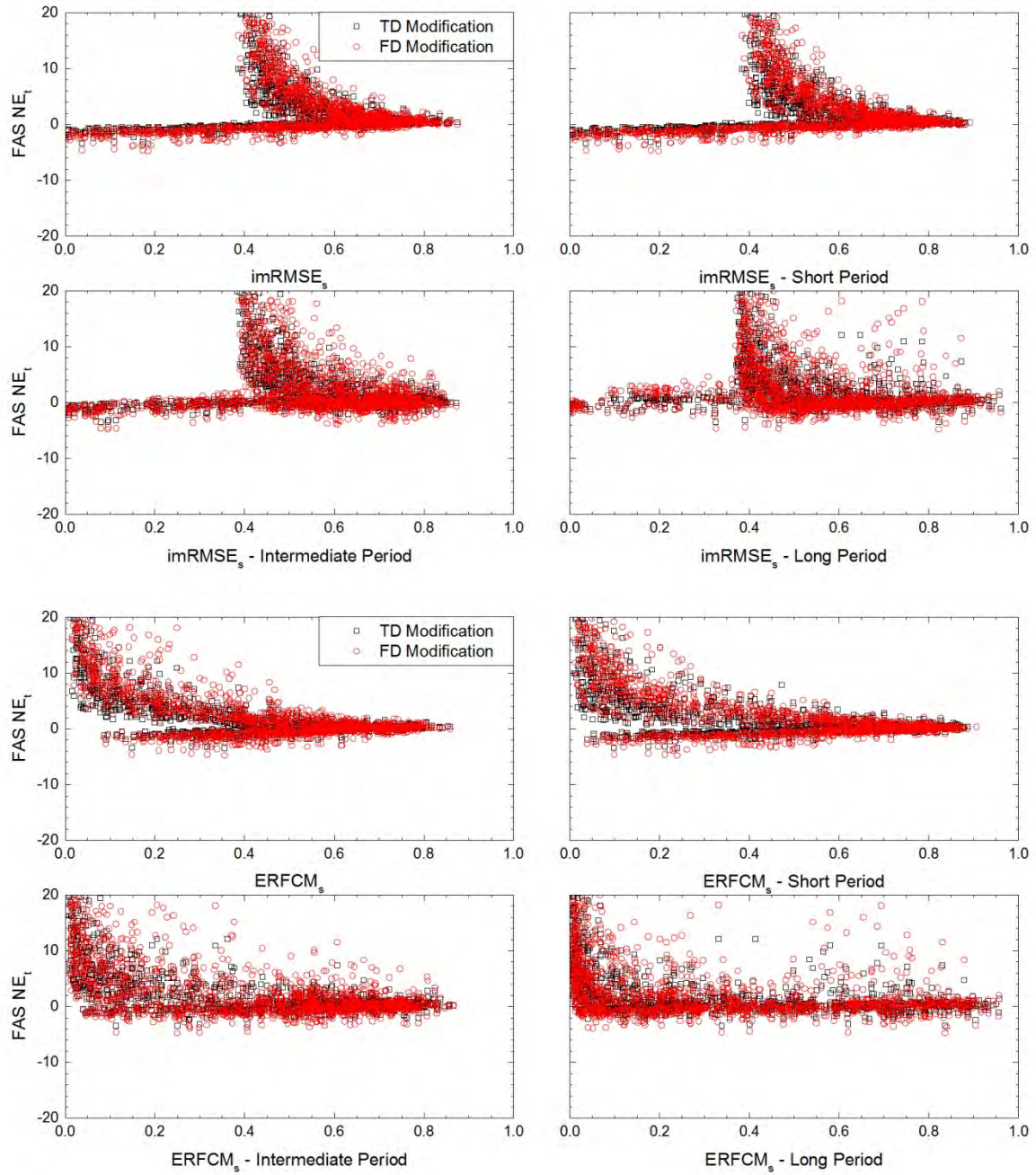
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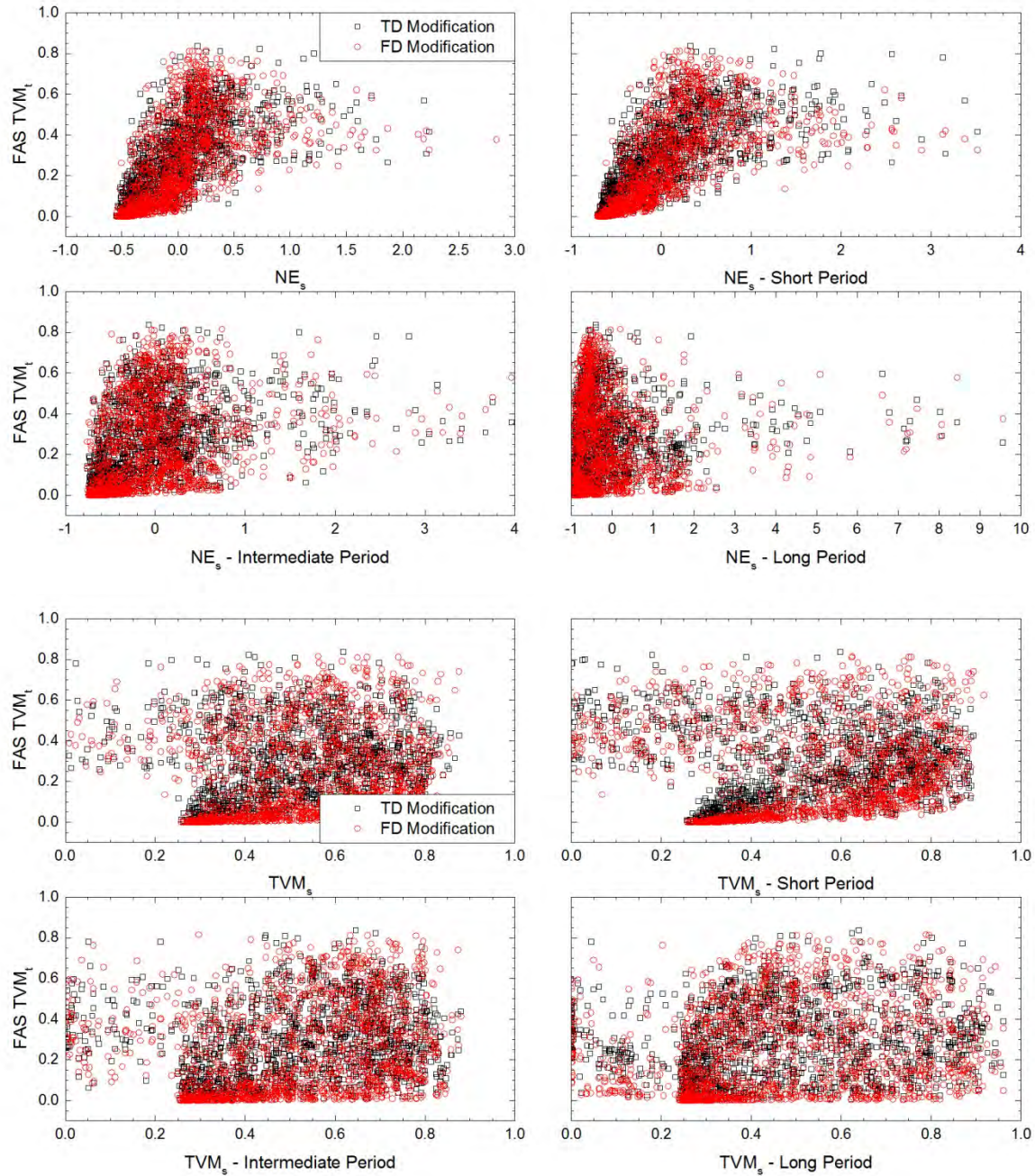
Figure C.23. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using the tanh validation metric (*TVM$_t$*) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.
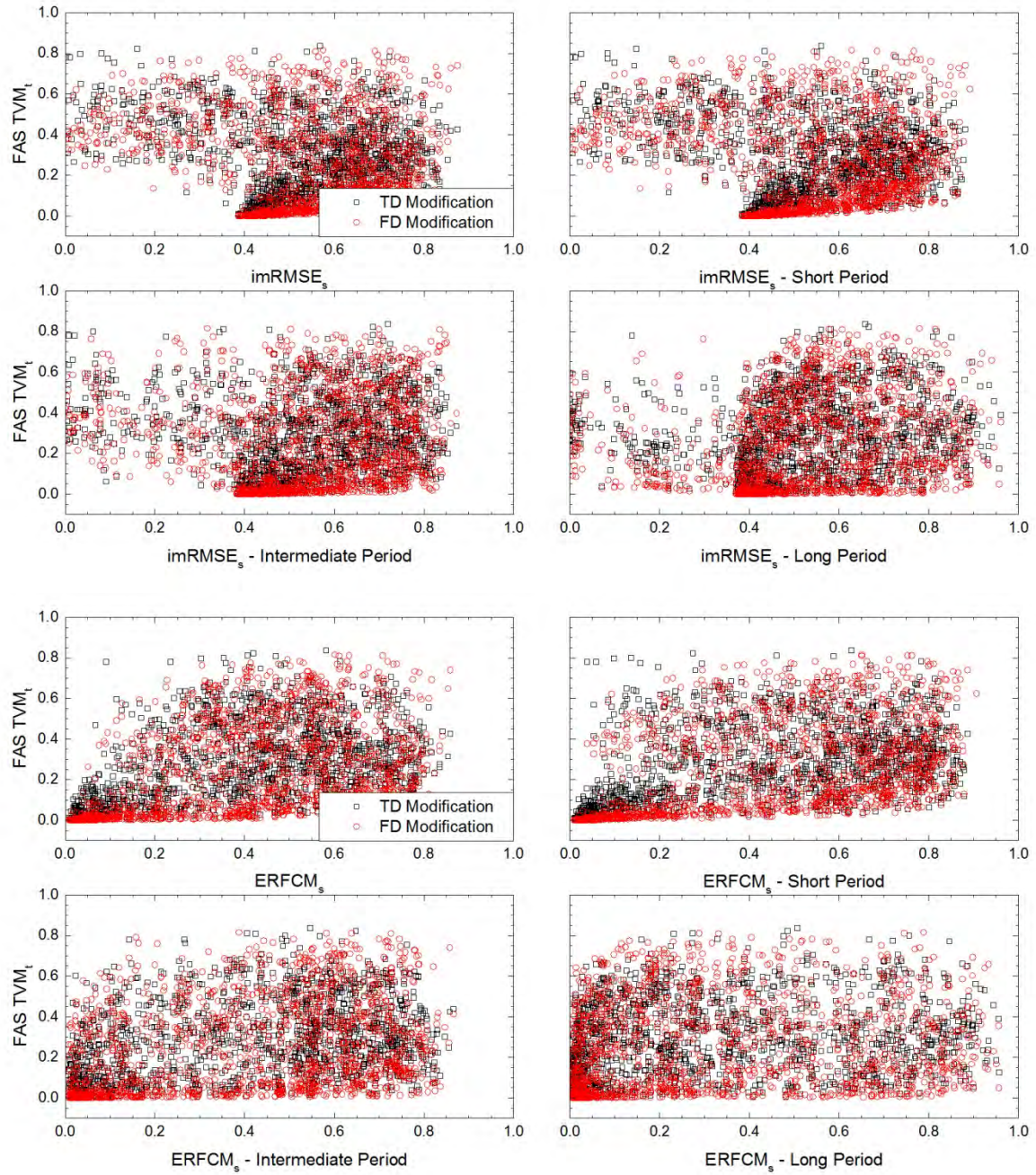
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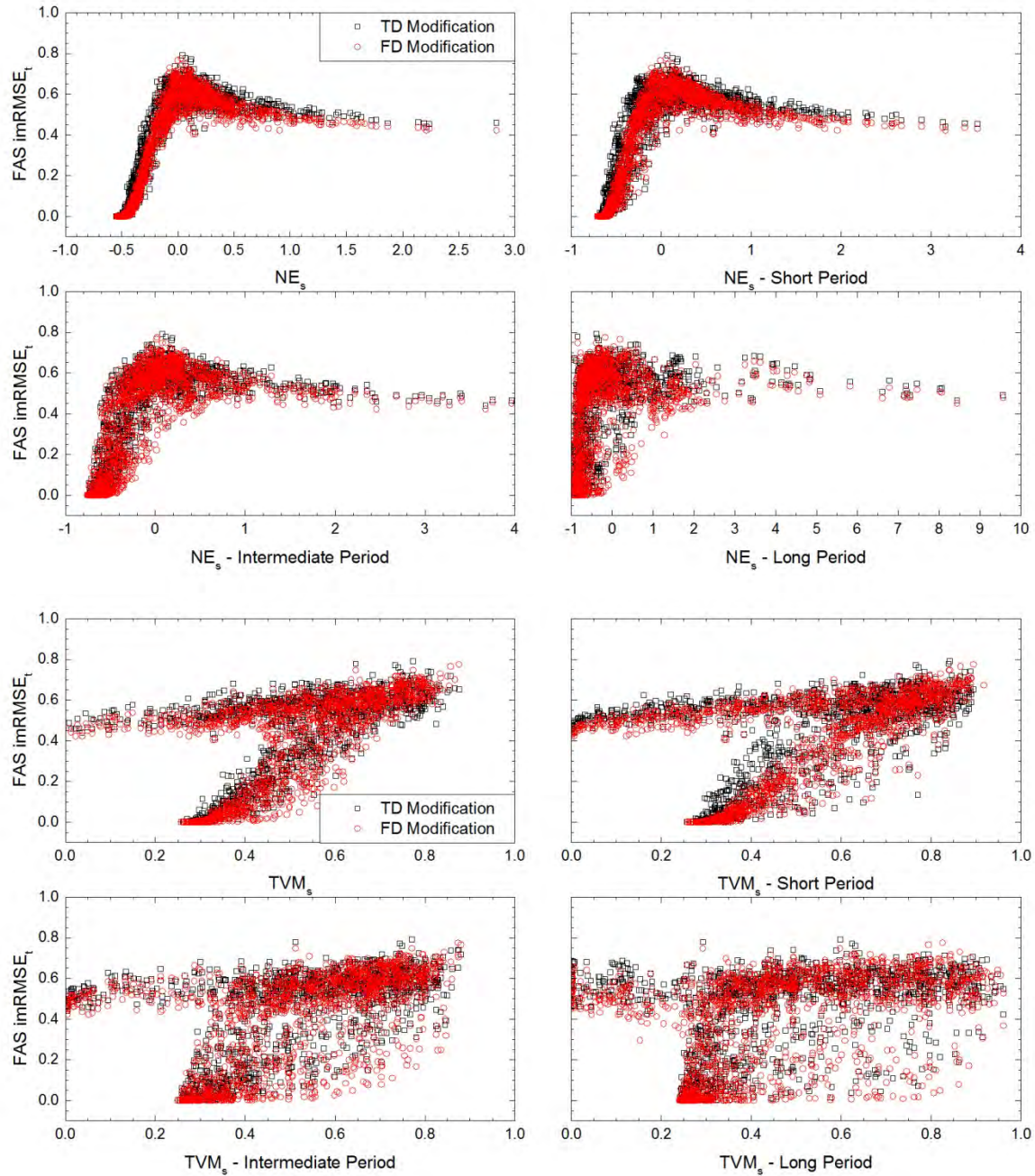
Figure C.24. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using the inverse modified root mean squared error (*imRMSE$_t$*) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.
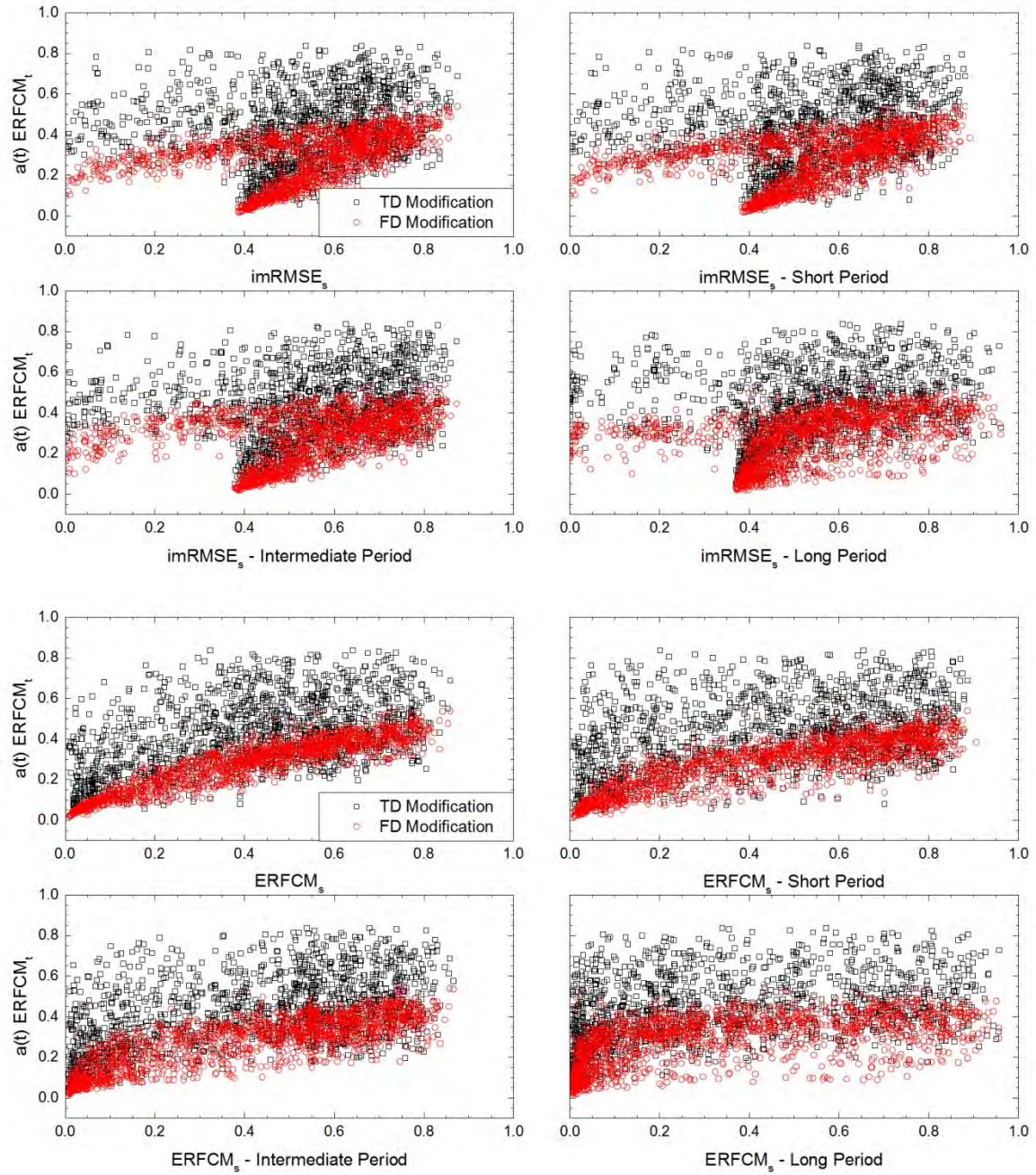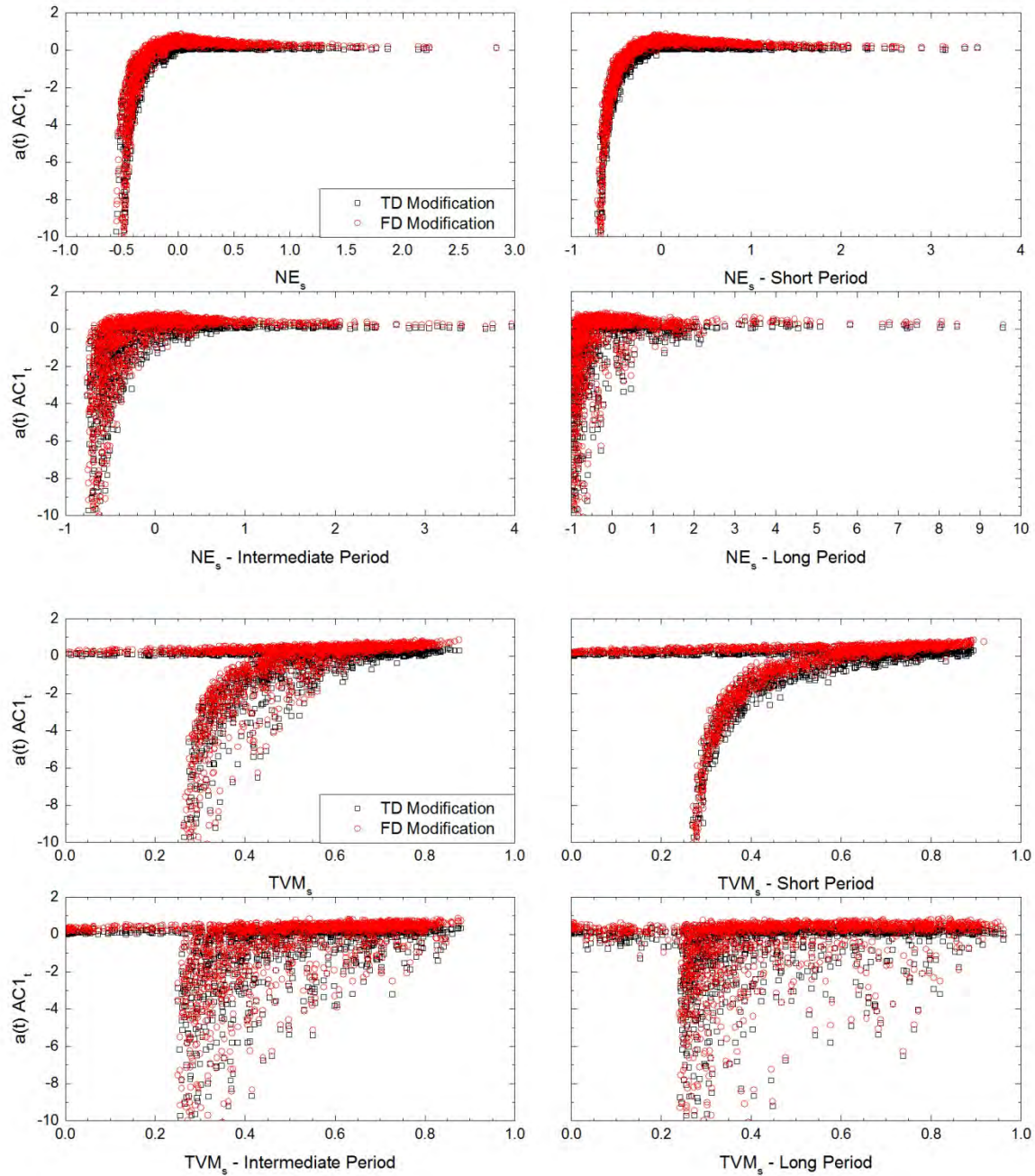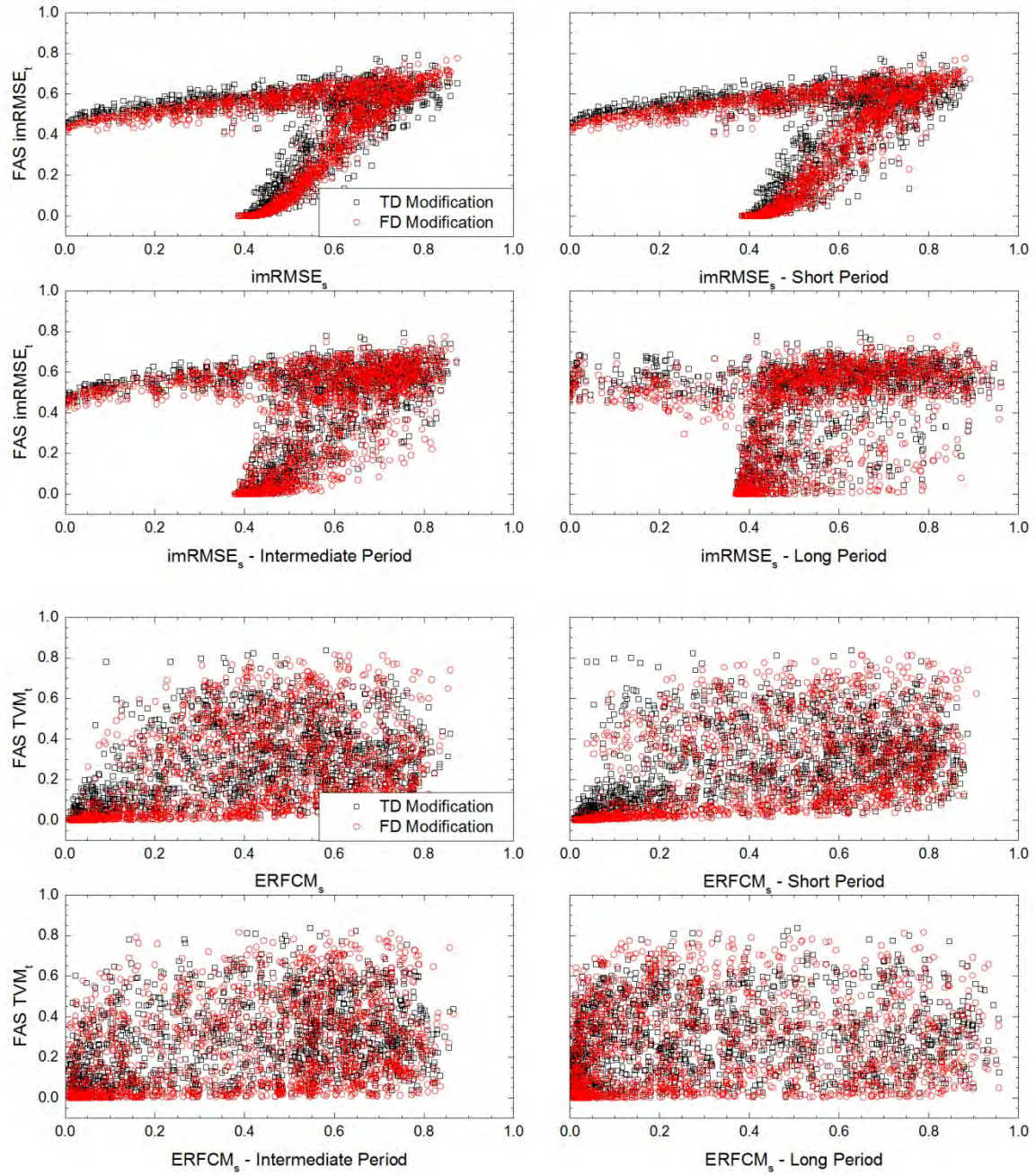
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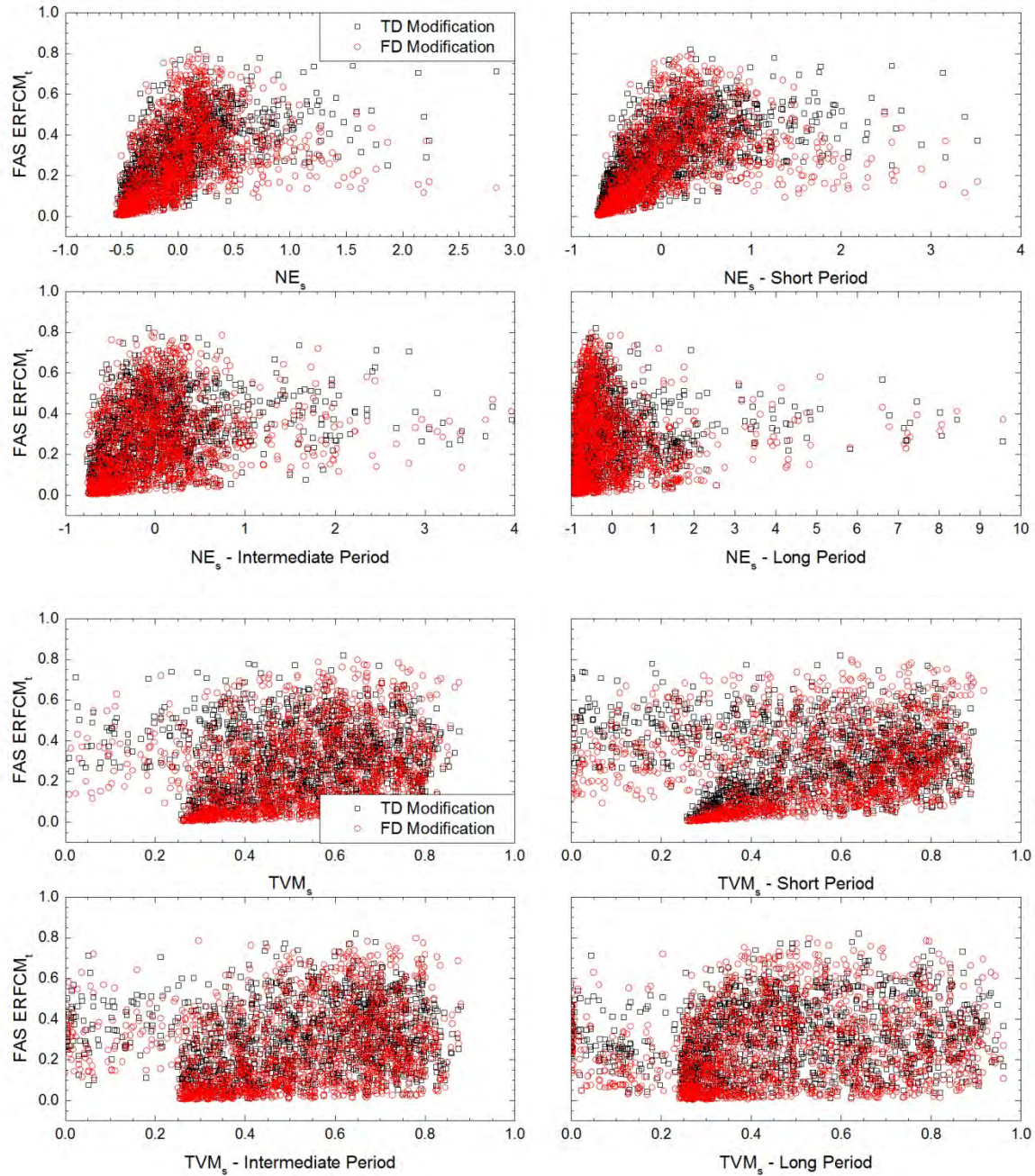
Figure C.25. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using the complementary error function metric (*ERFCM$_t$*) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.
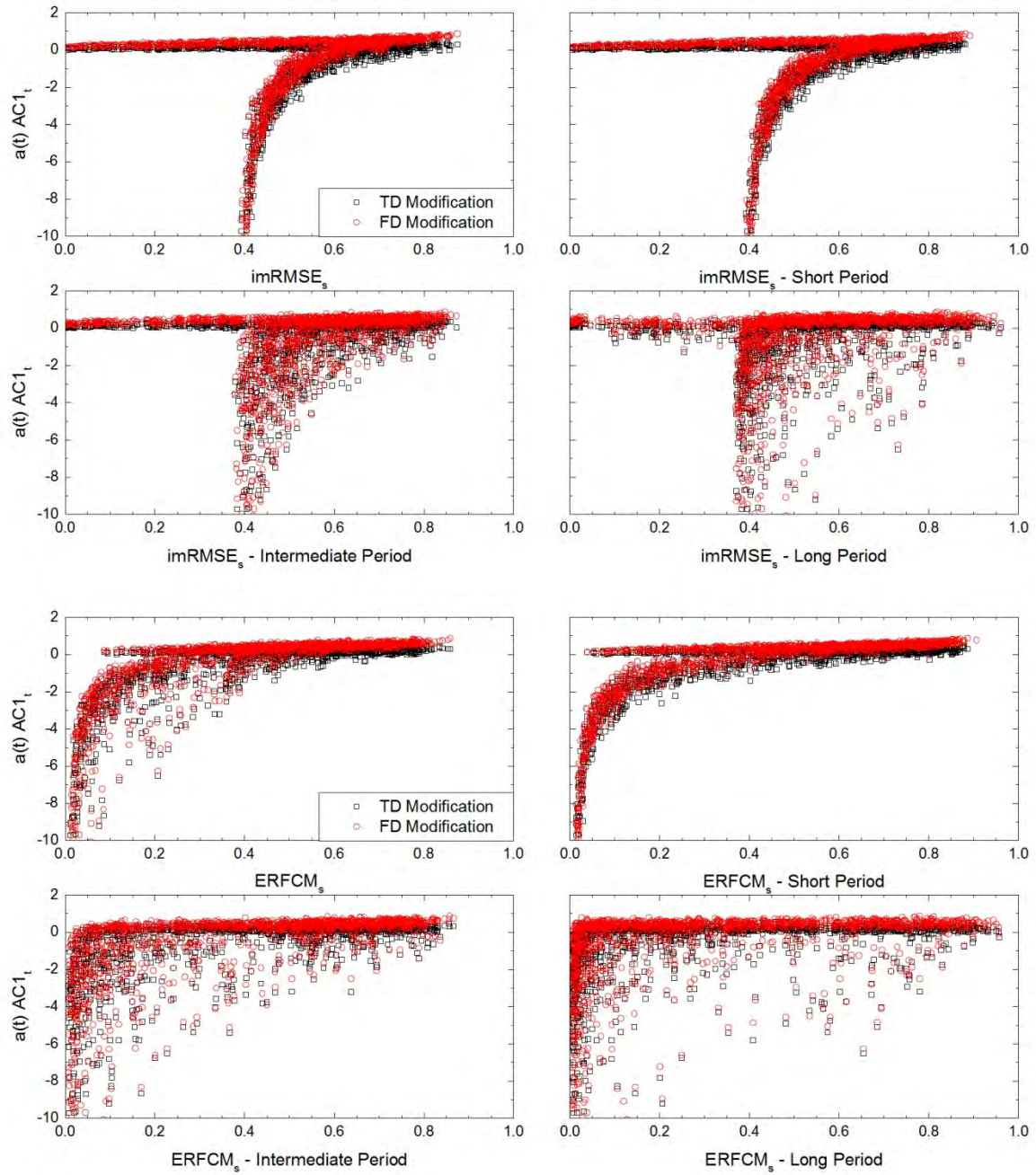
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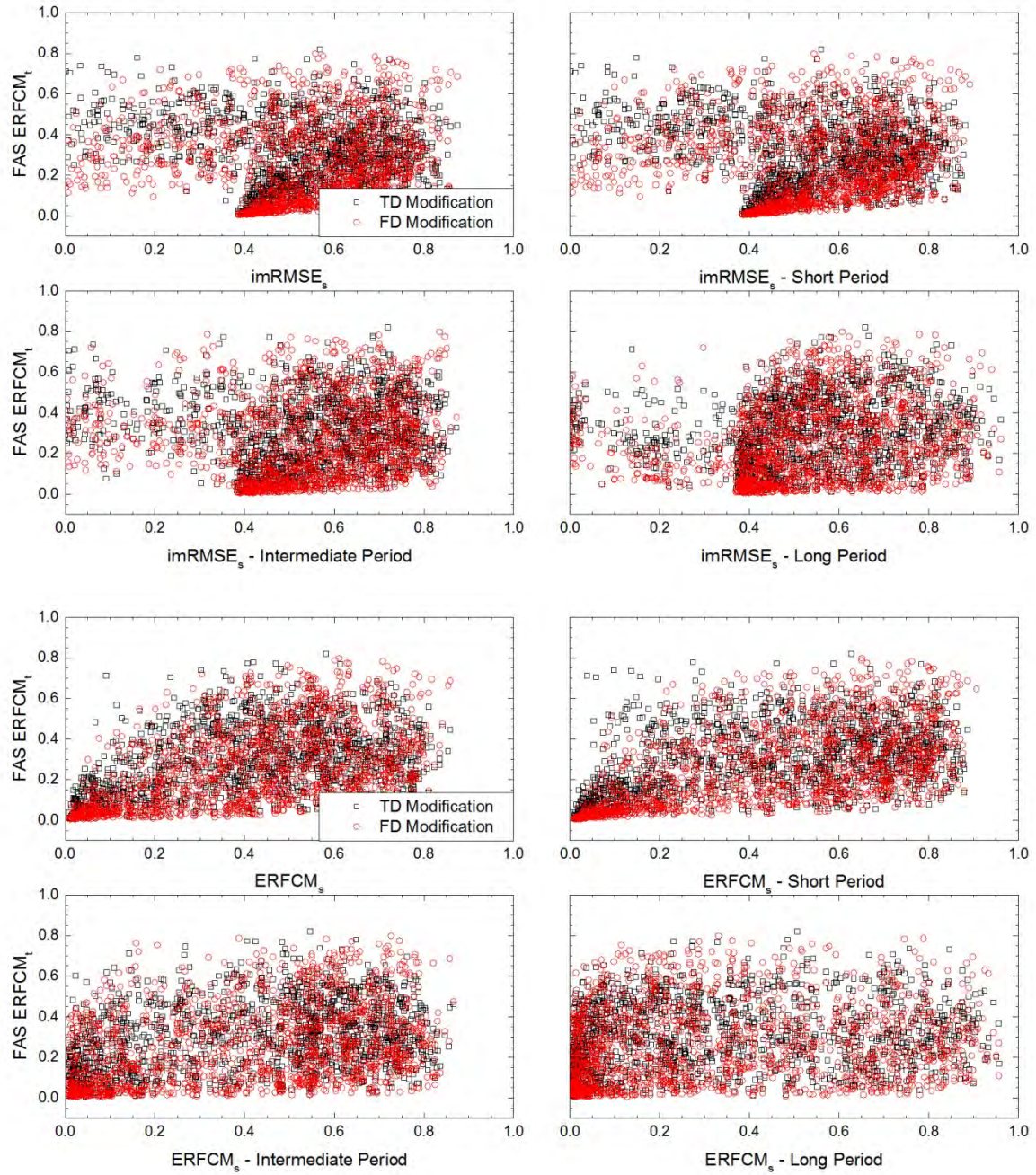
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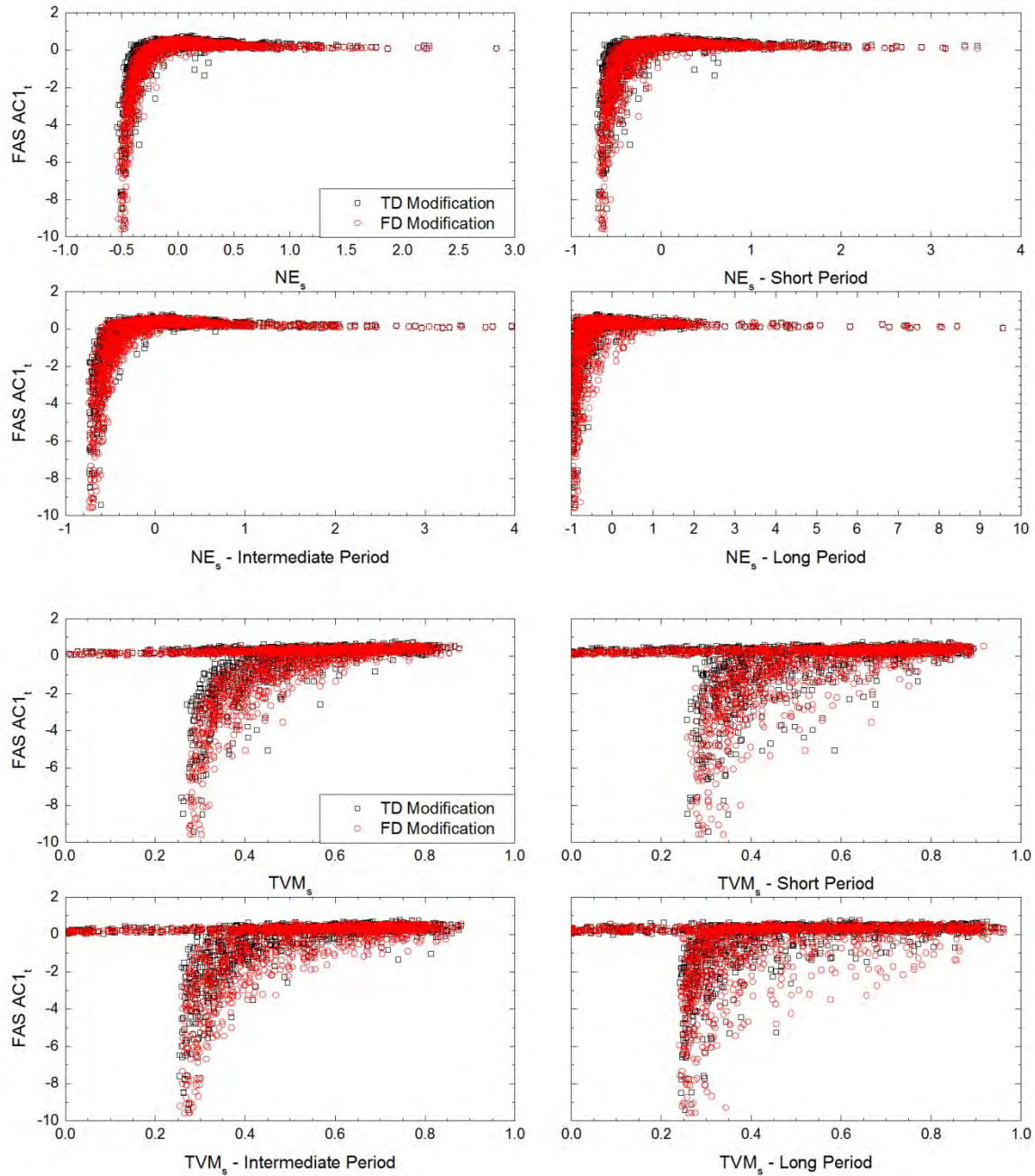
Figure C.26. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using the Anderson C1 metric (*AC*1$_t$) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.
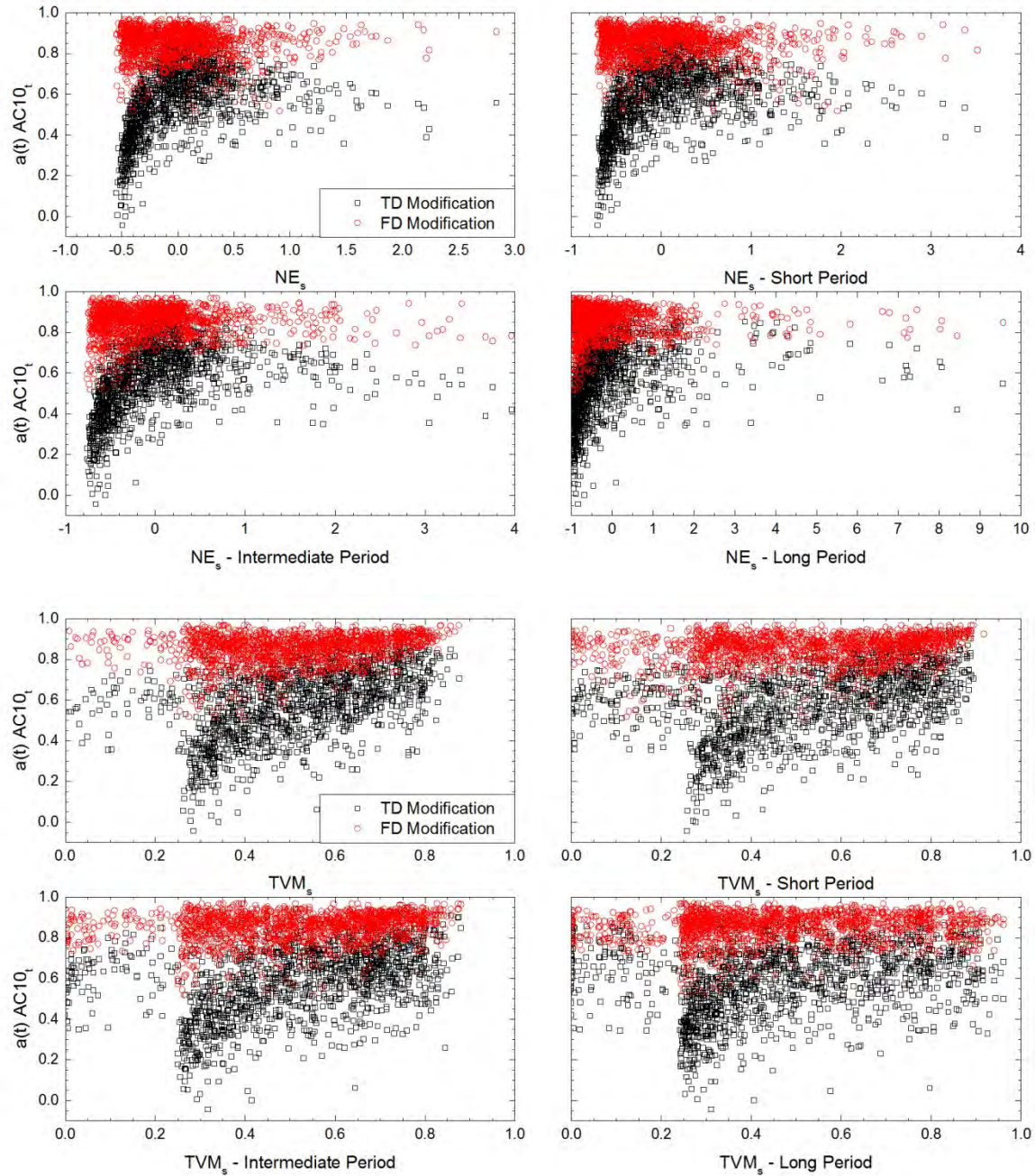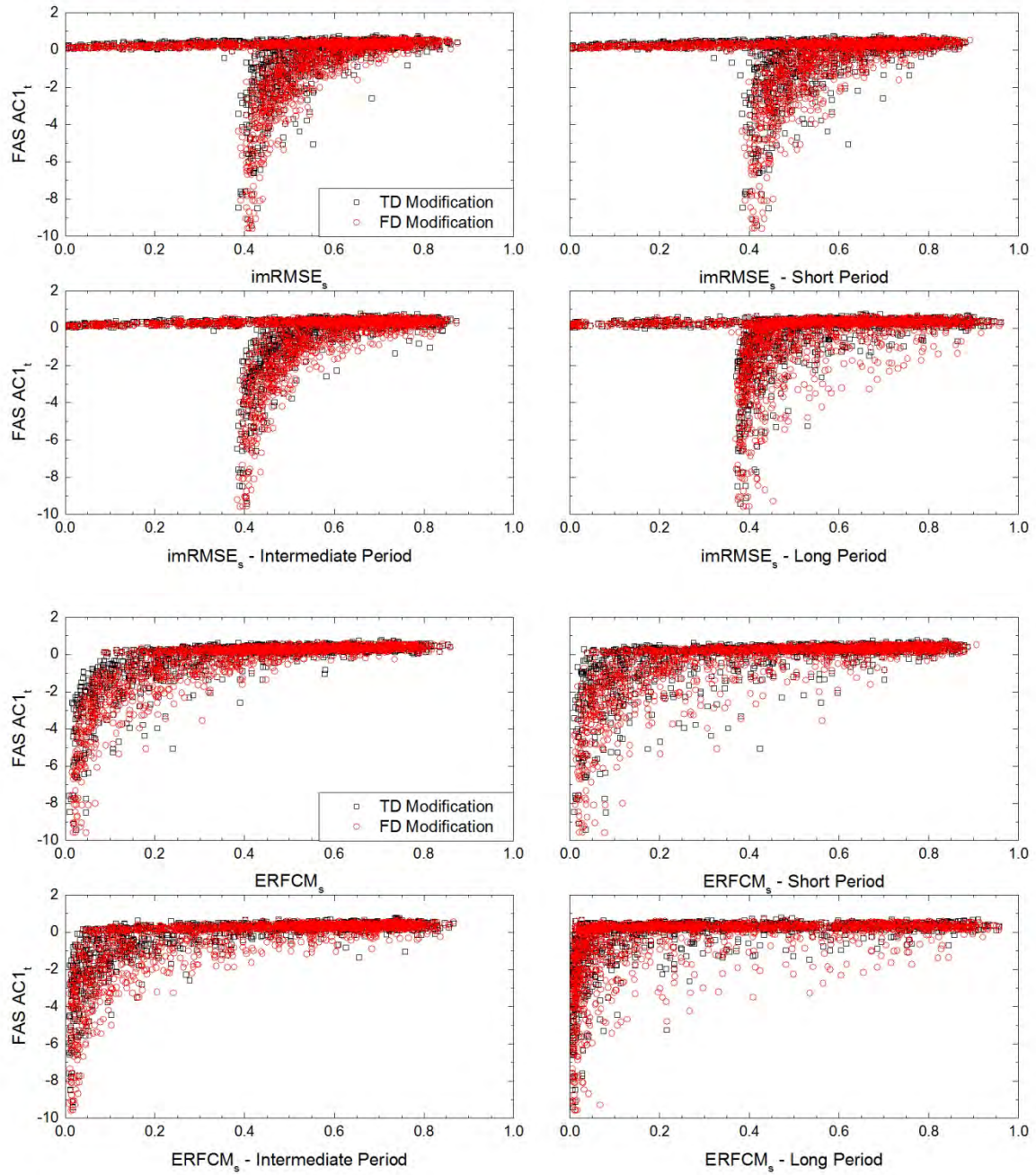
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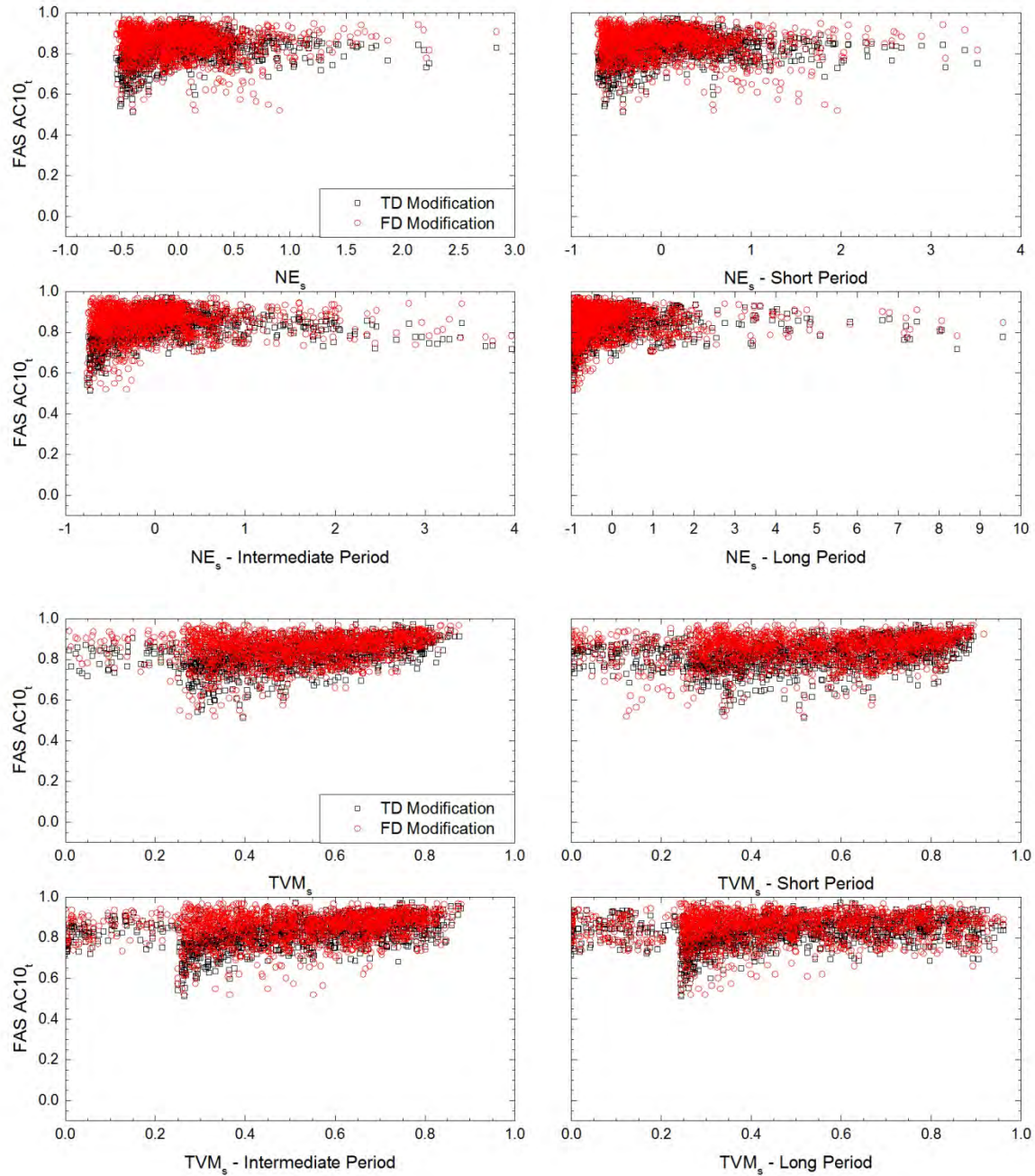
Figure C.27. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using the Anderson C10 metric (*AC*10$_t$) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.
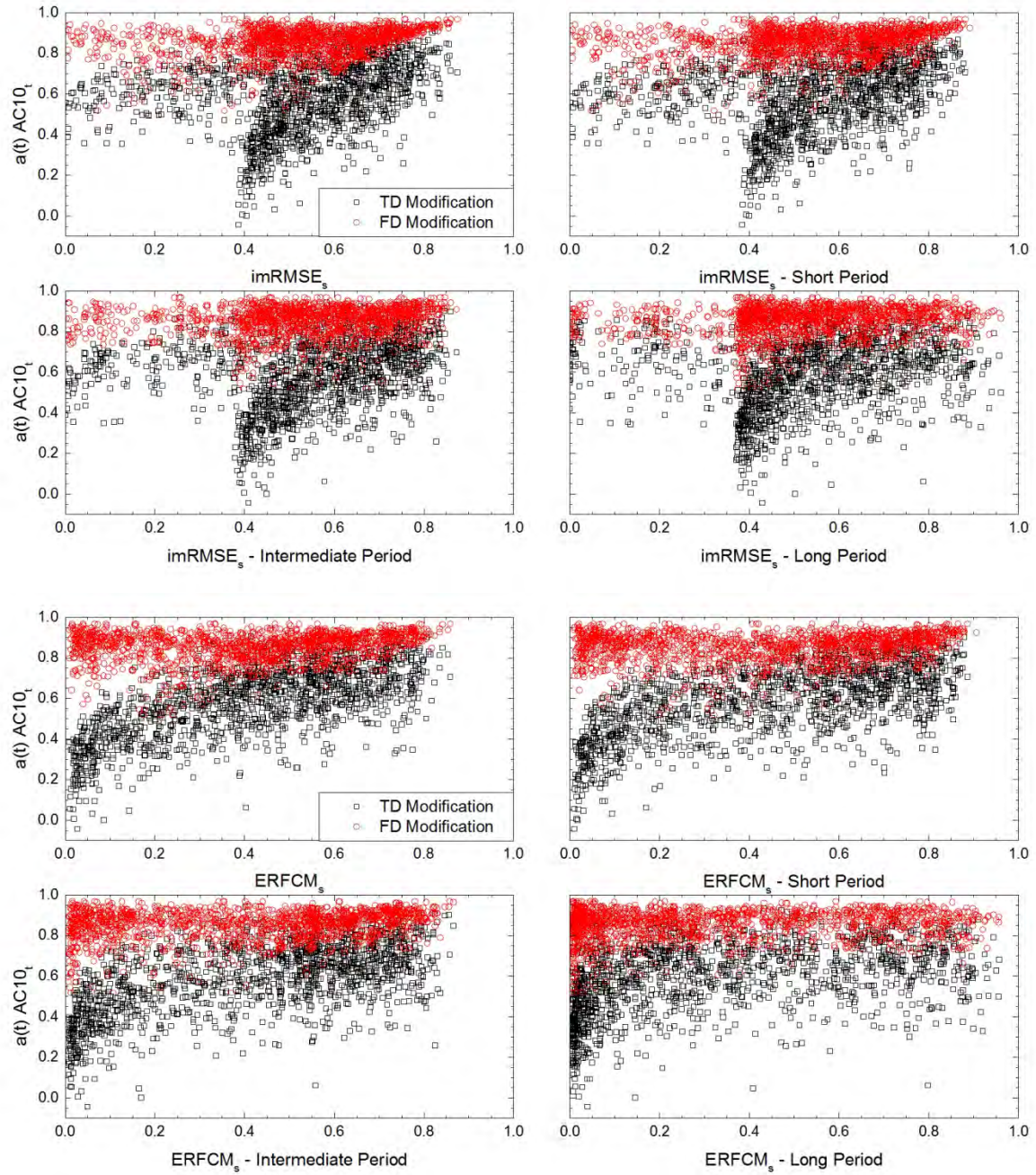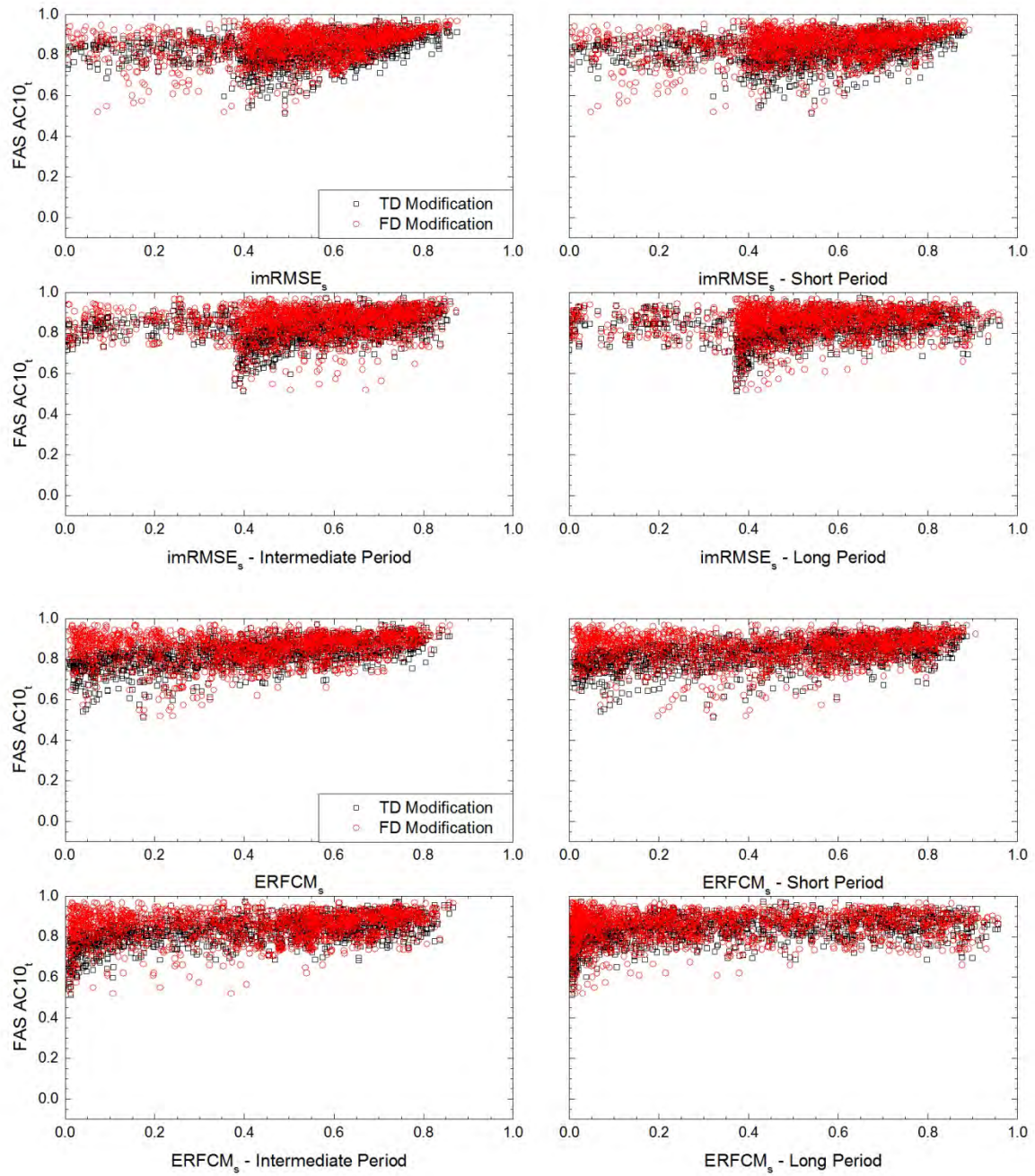
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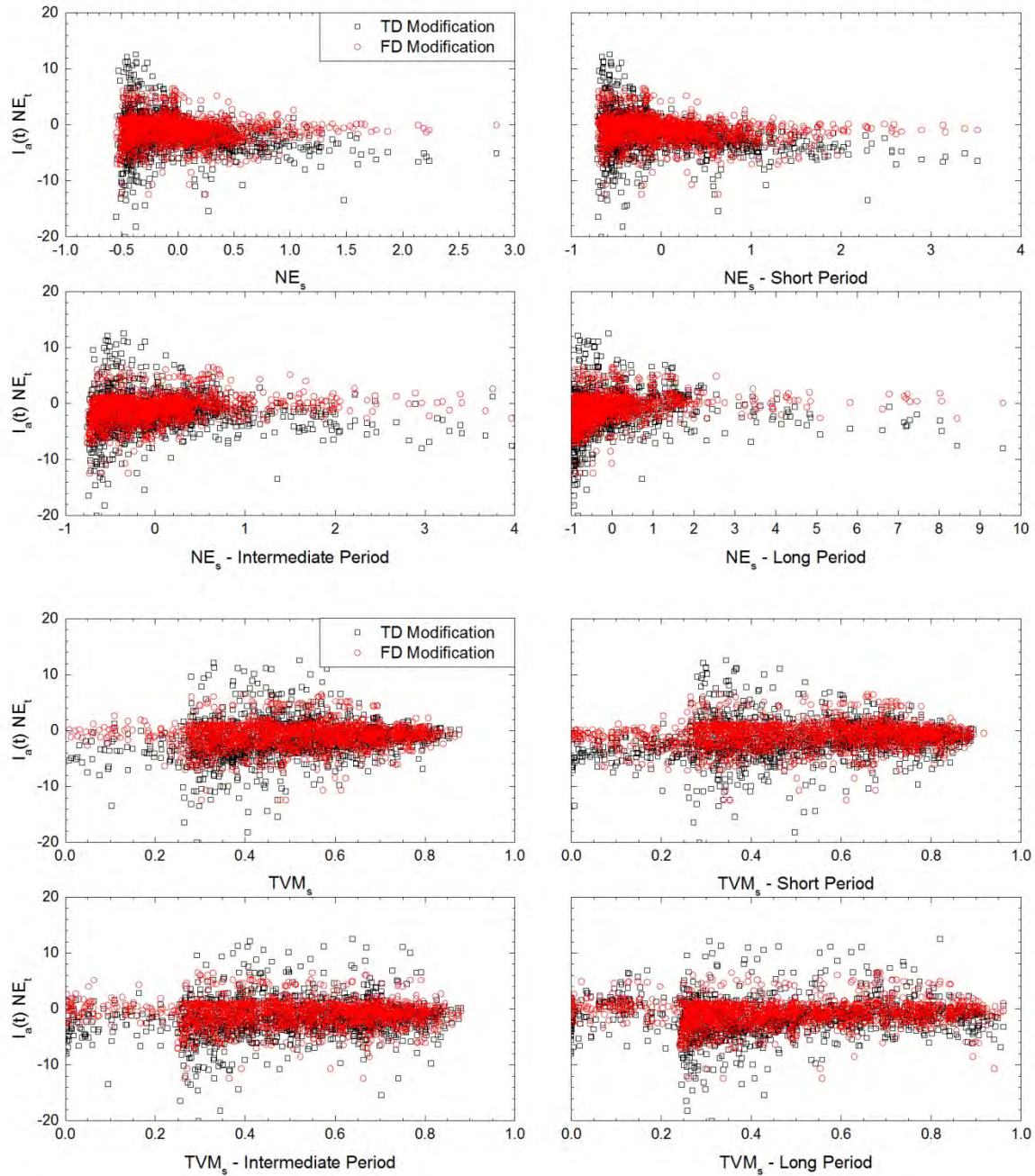
Figure C.28. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using normalized error (NE_t) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
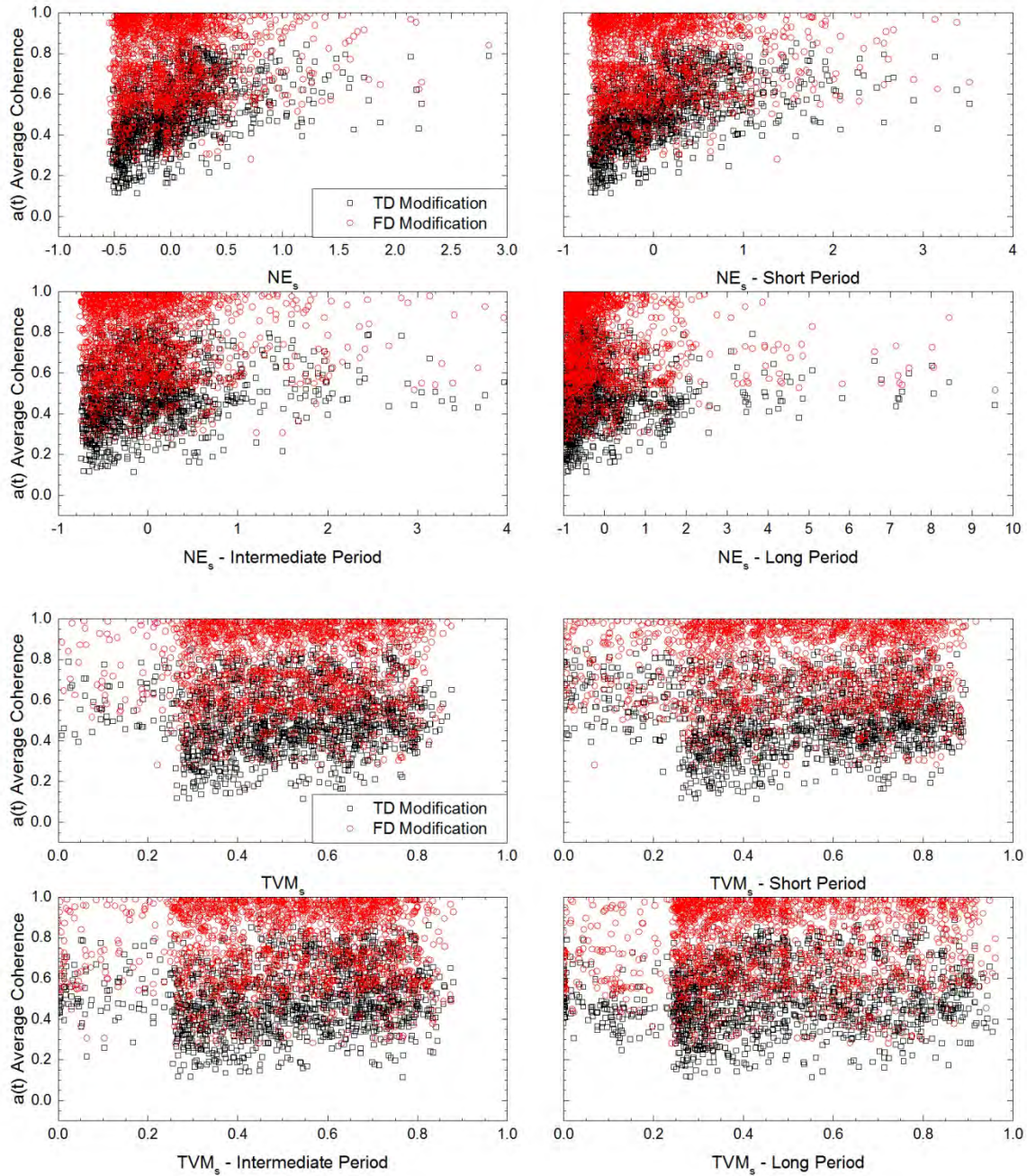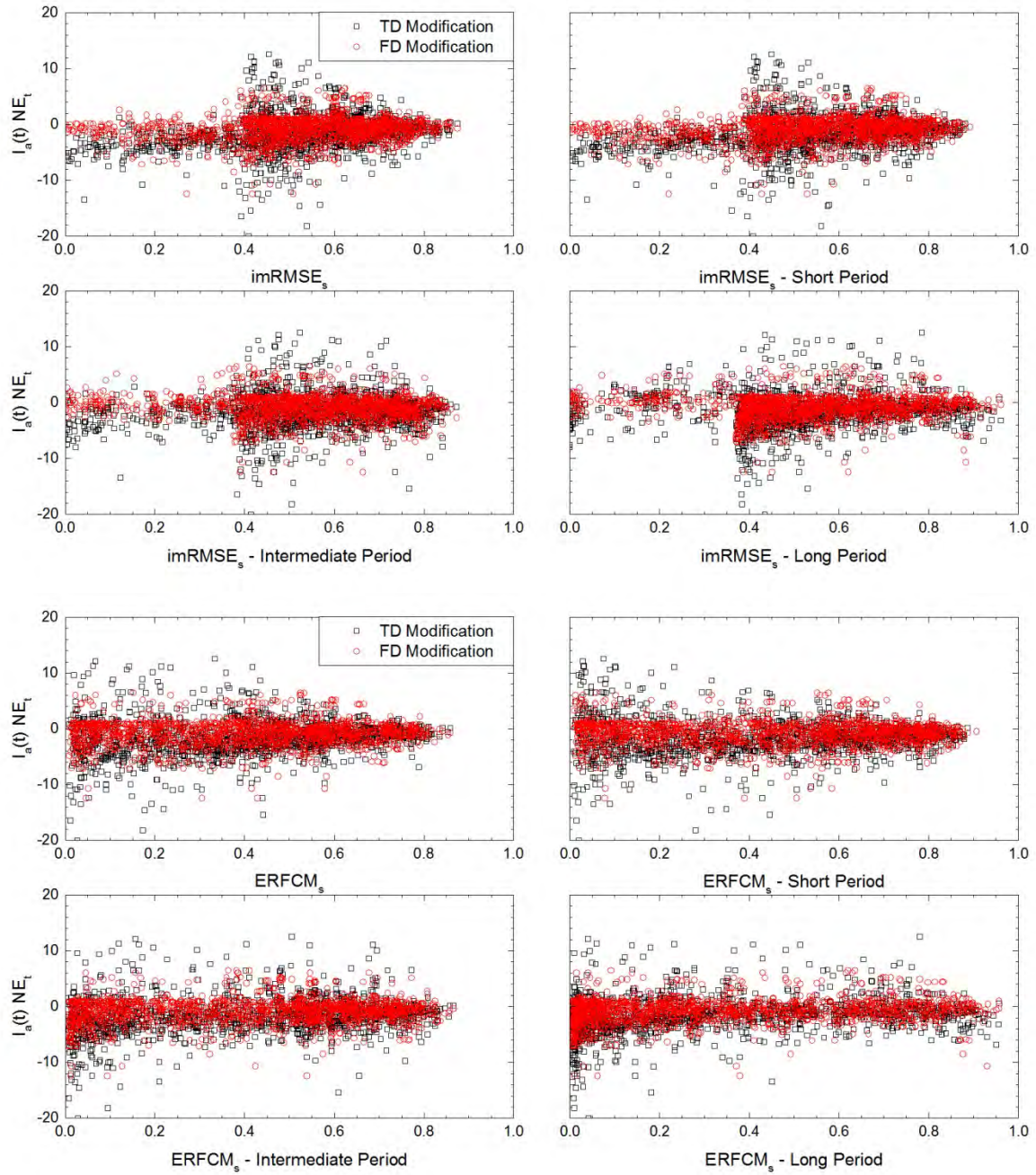
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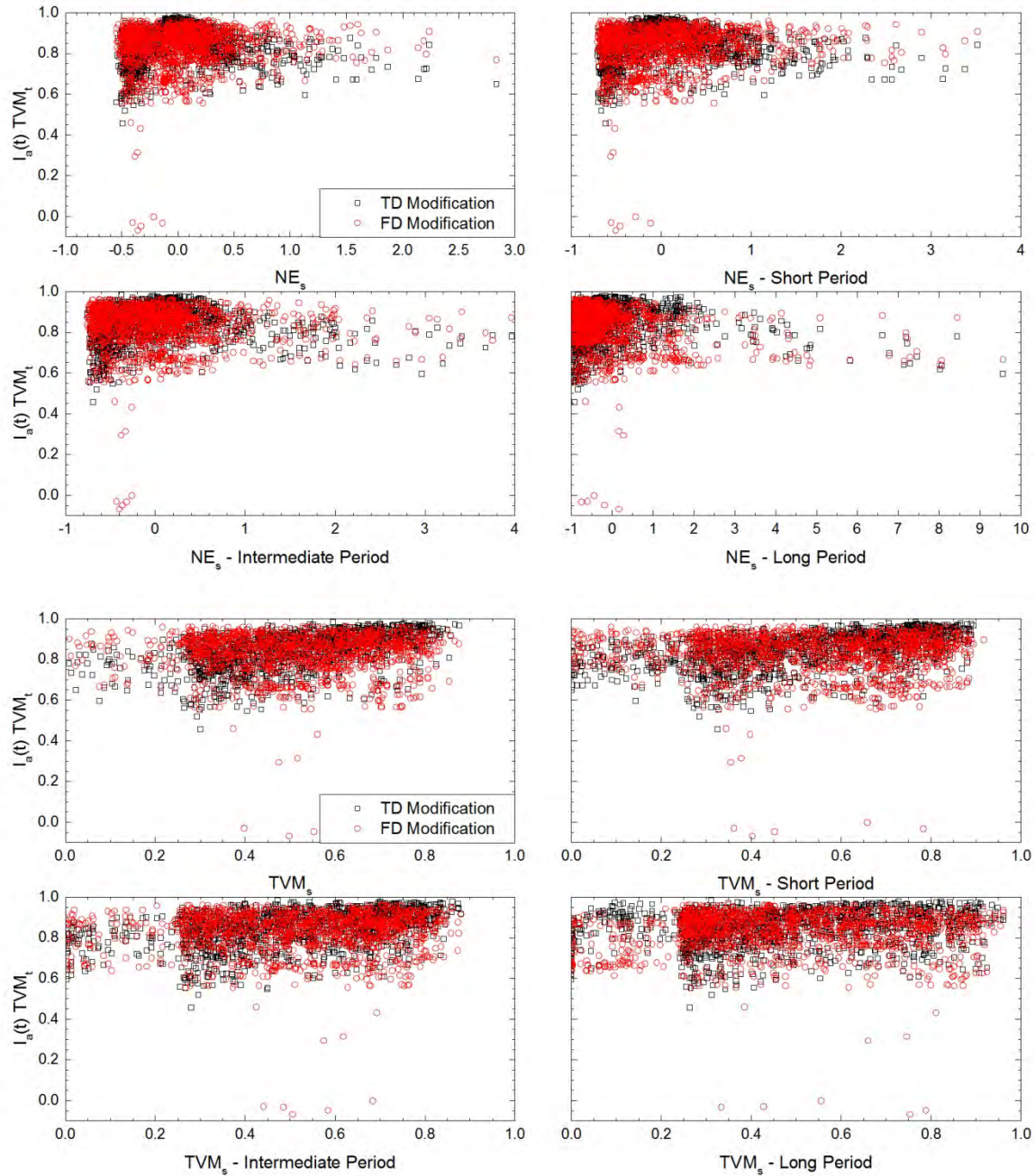
Figure C.29. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using the tanh validation metric (TVM_t) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
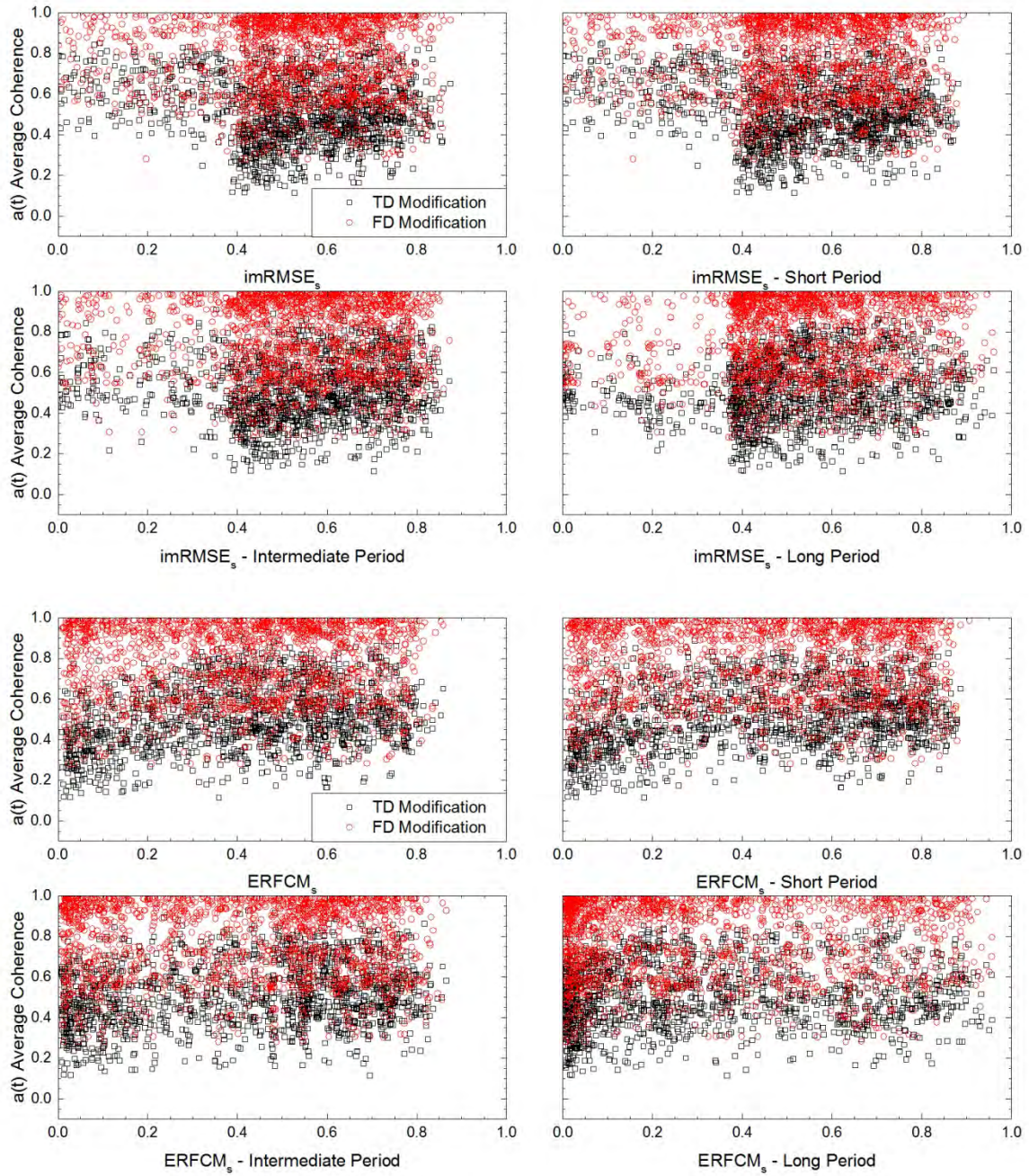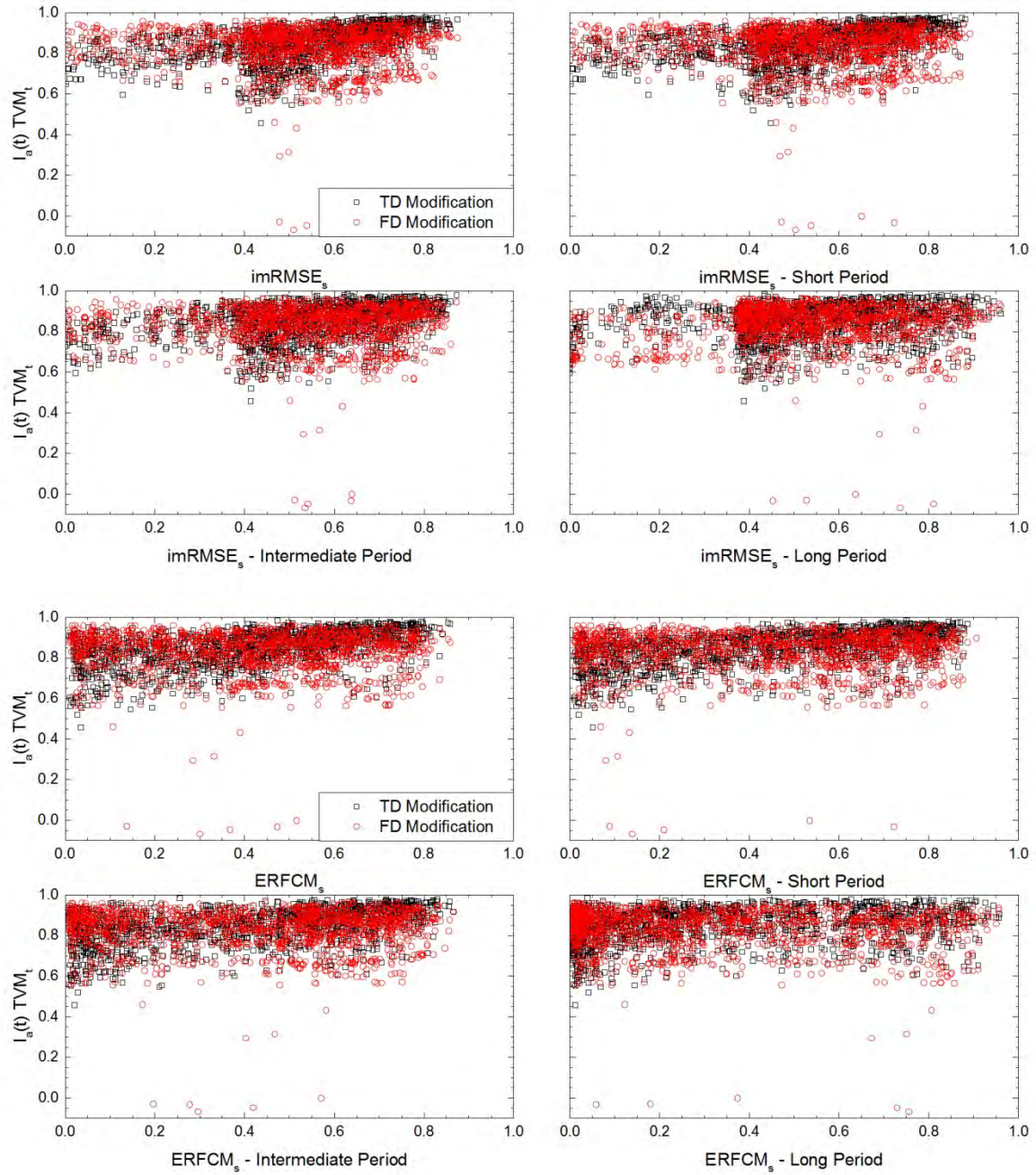
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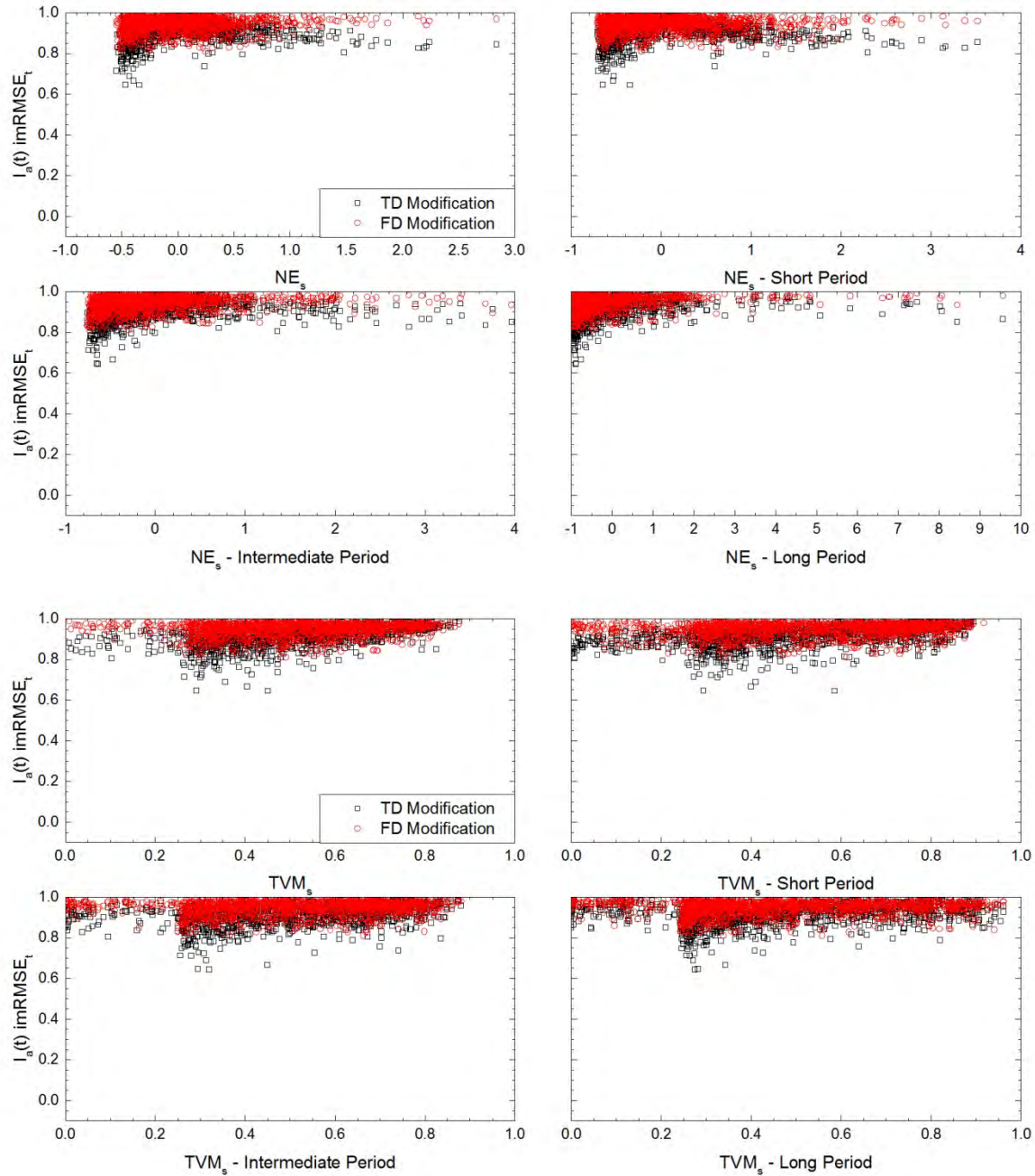
Figure C.30. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using the inverse modified root mean squared error ($imRMSE_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

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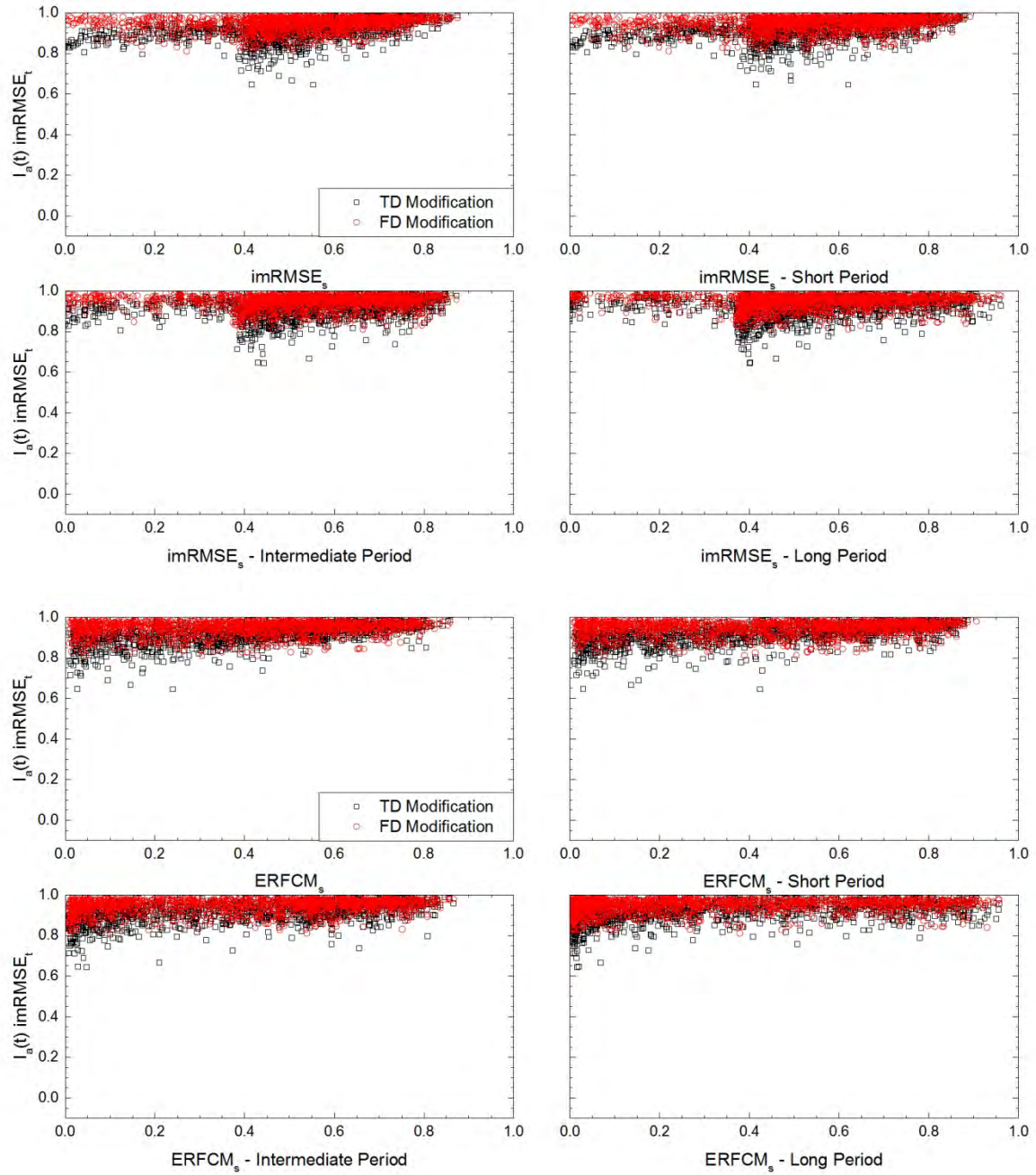
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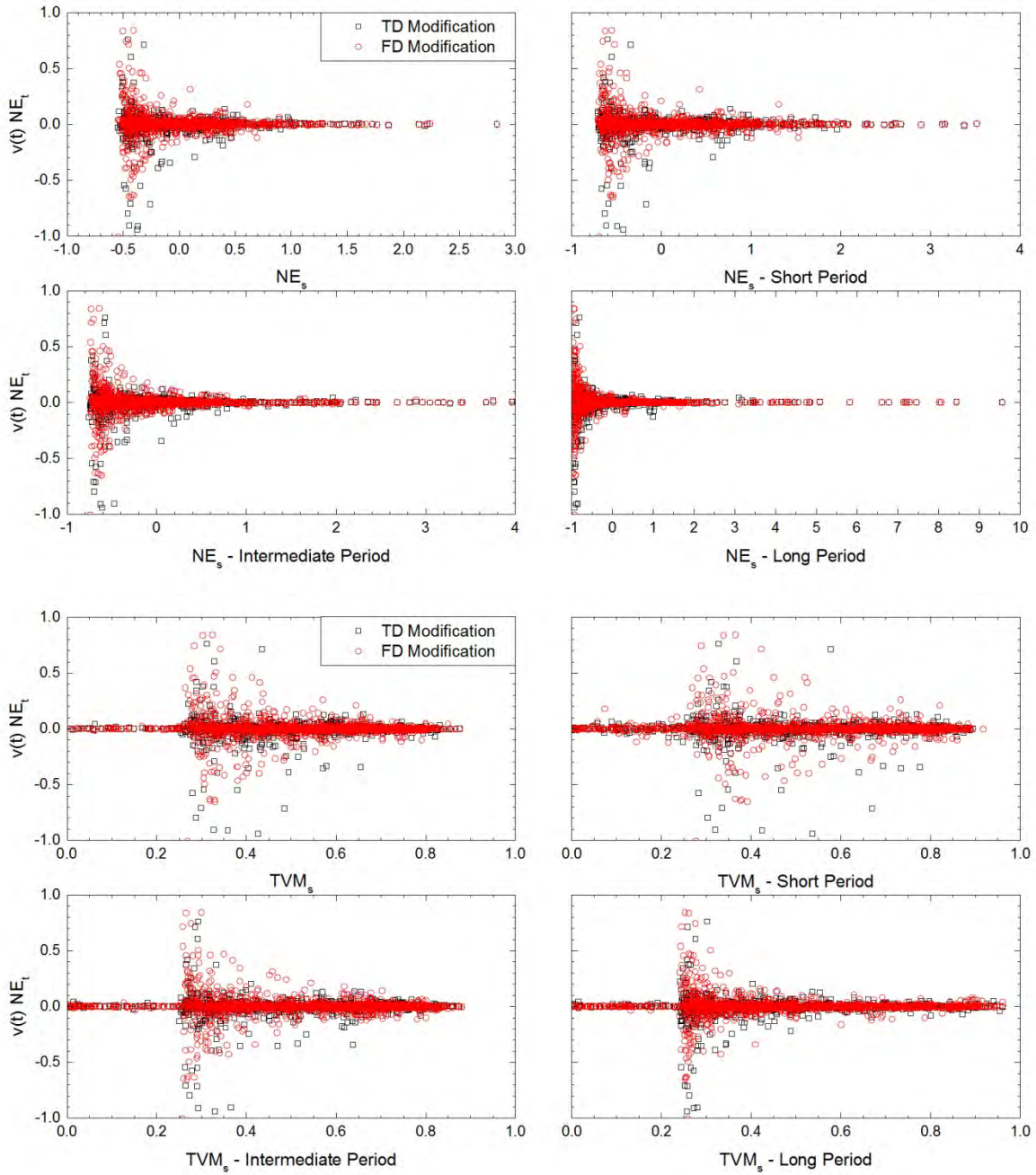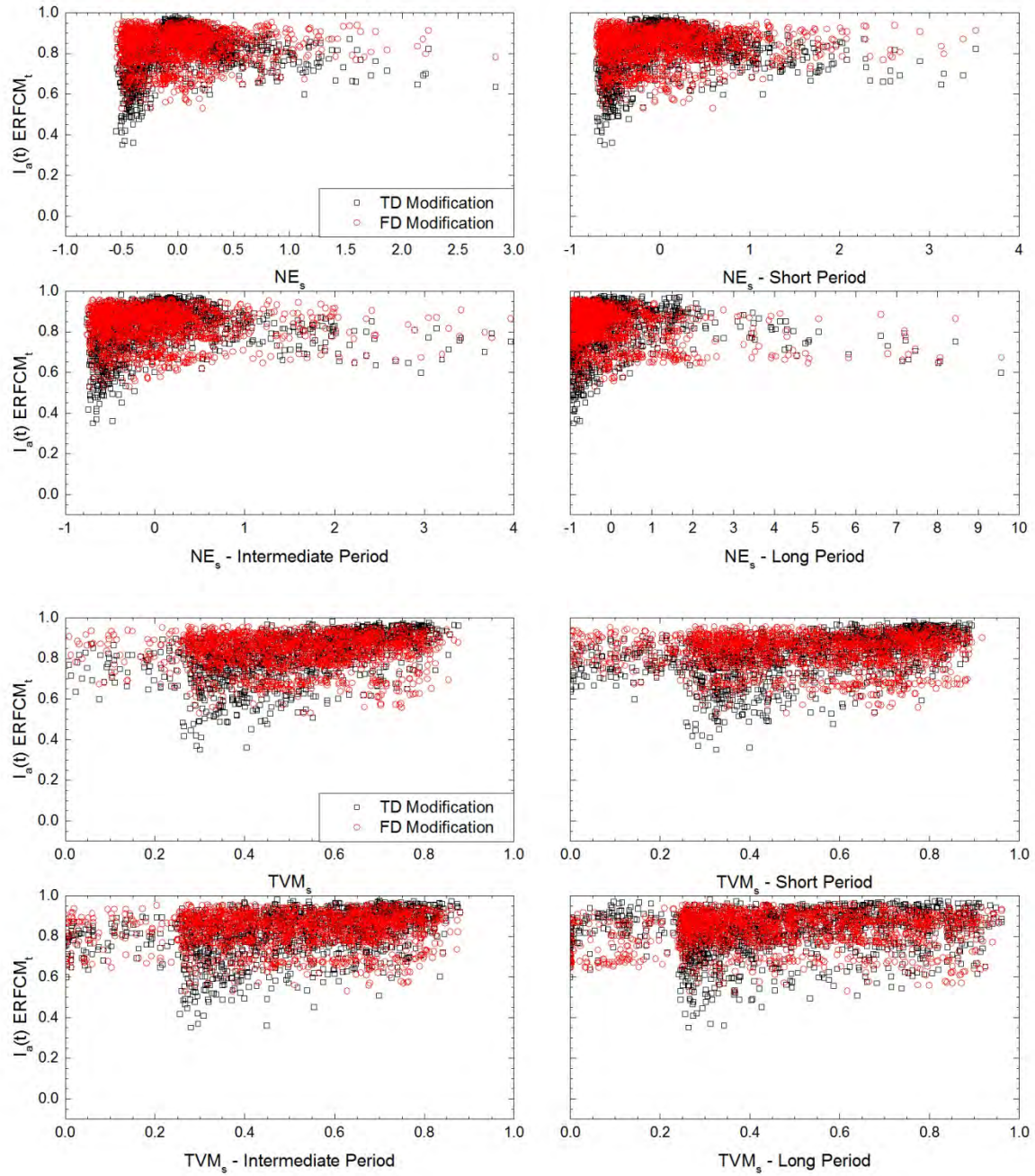
Figure C.31. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using the complementary error function metric ($ERFCM_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.

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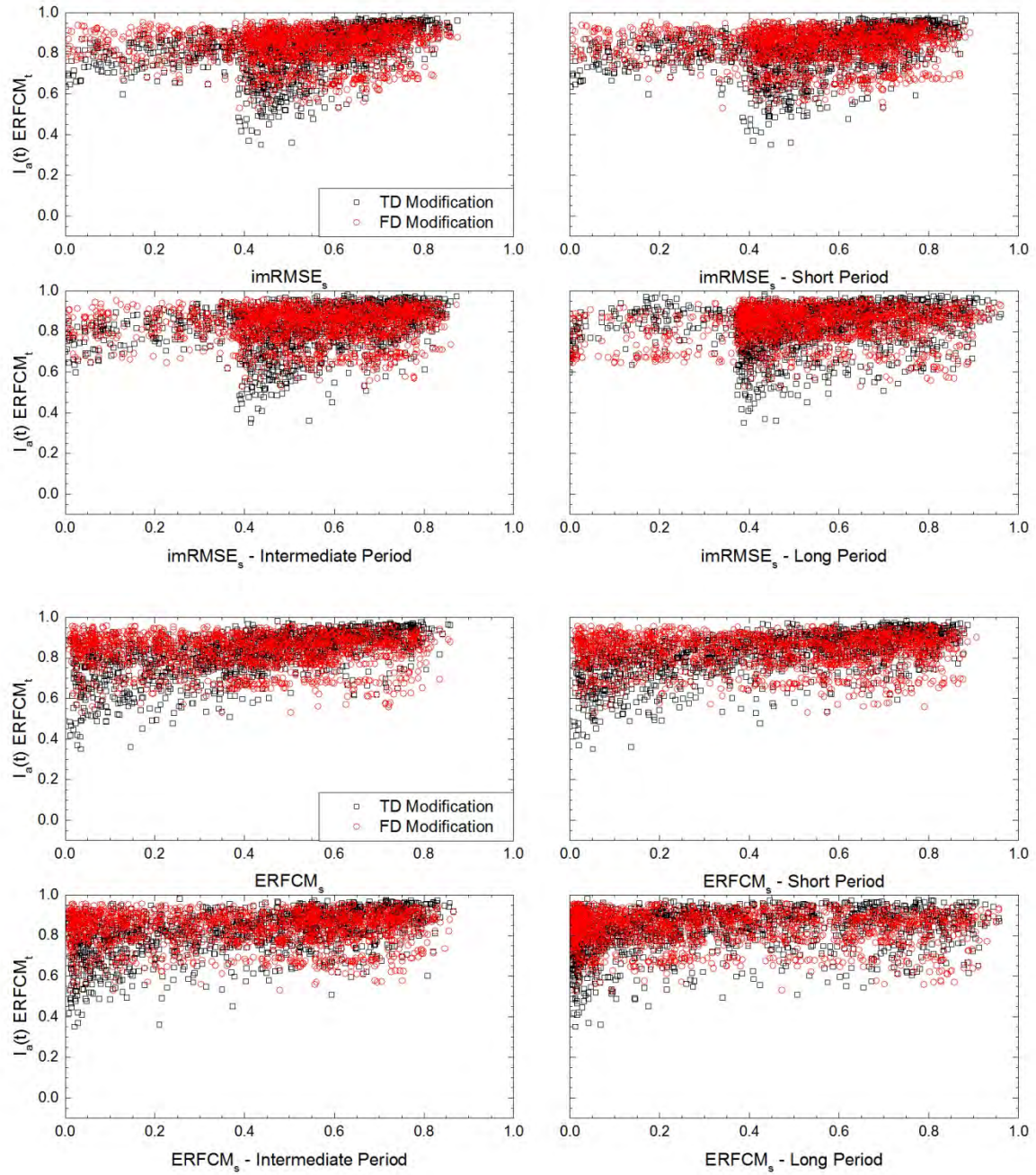
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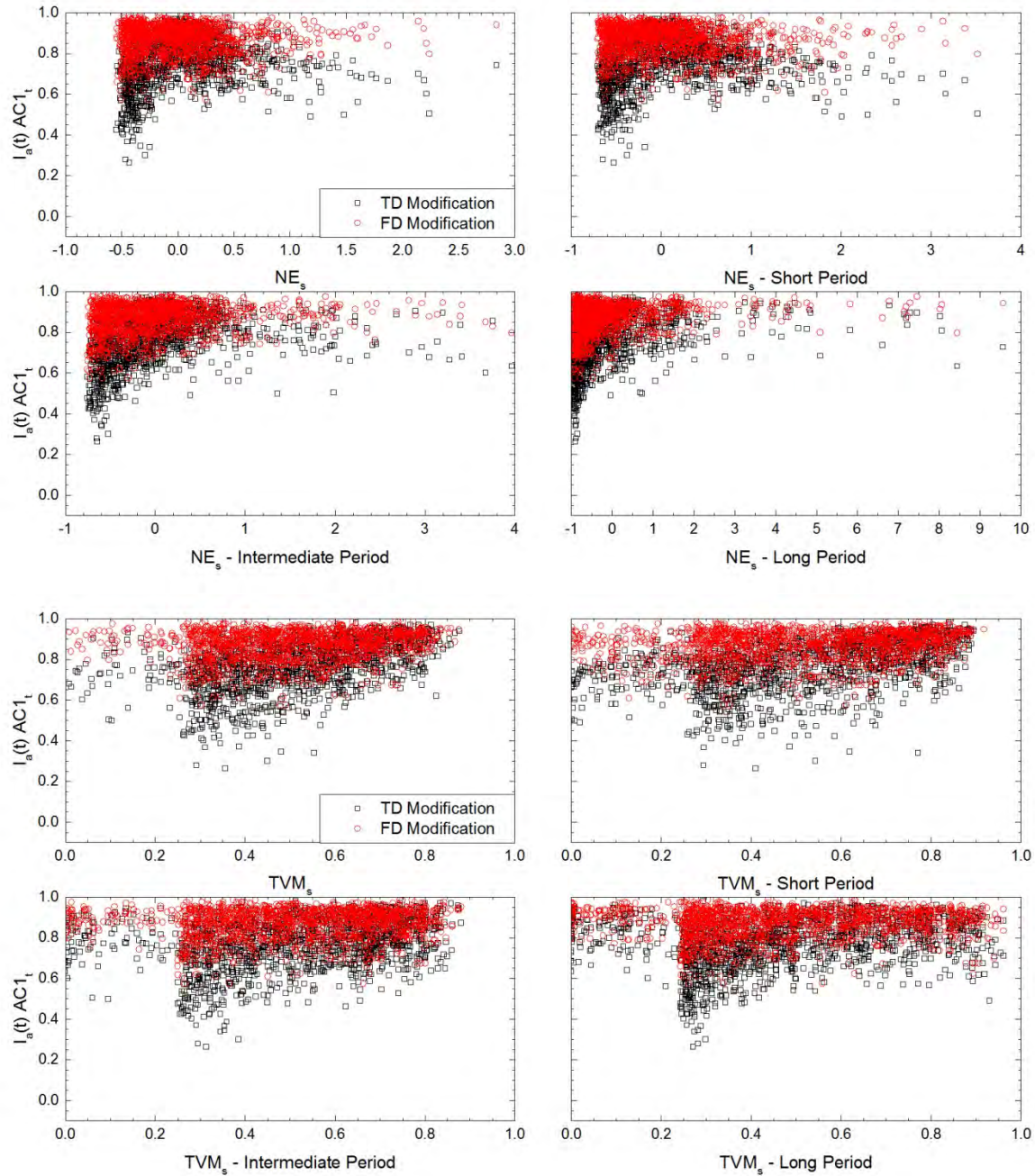
Figure C.32. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using the Anderson C1 metric ($AC1_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
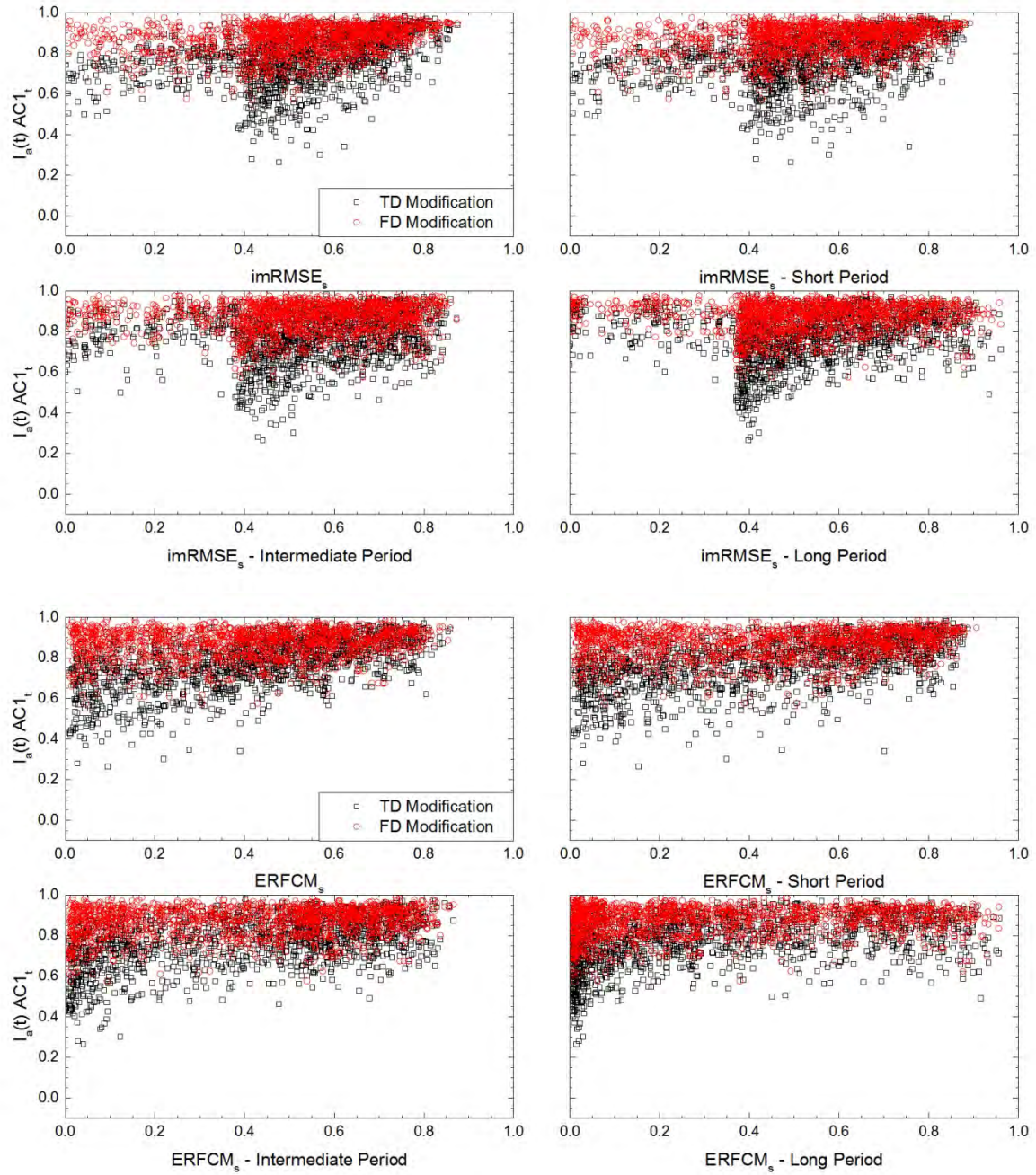
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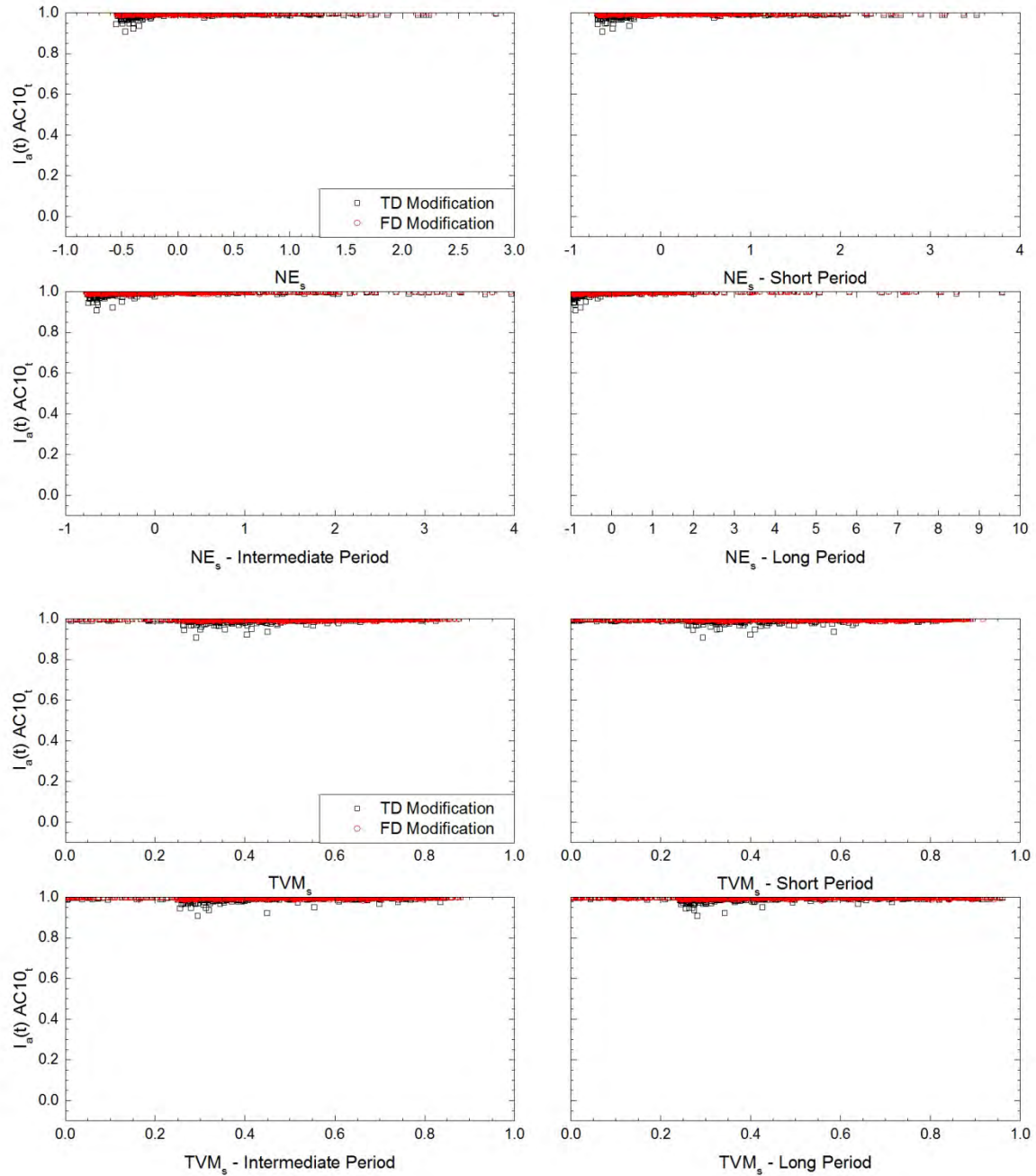
Figure C.33. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using the Anderson C10 metric ($AC10_t$) plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
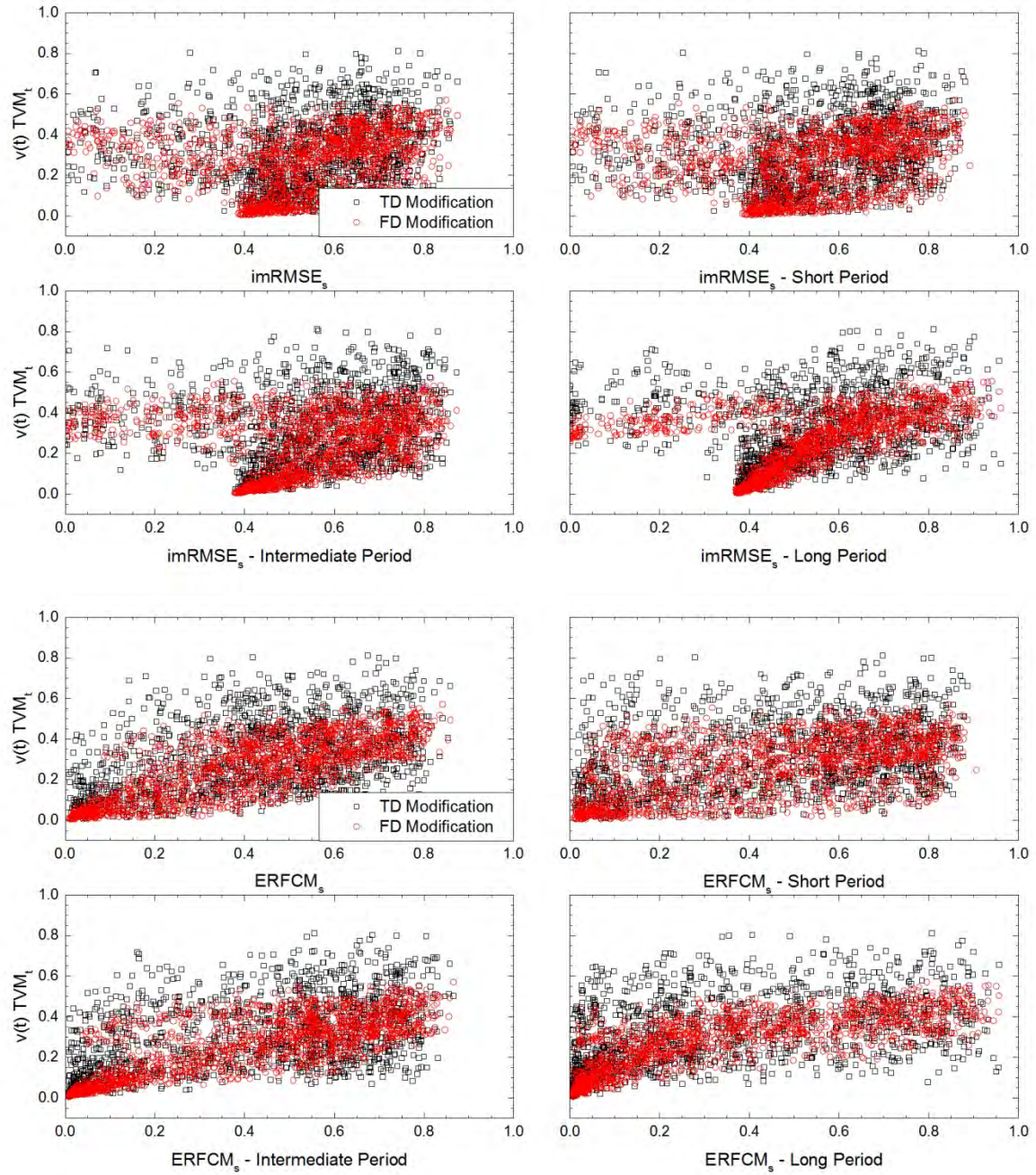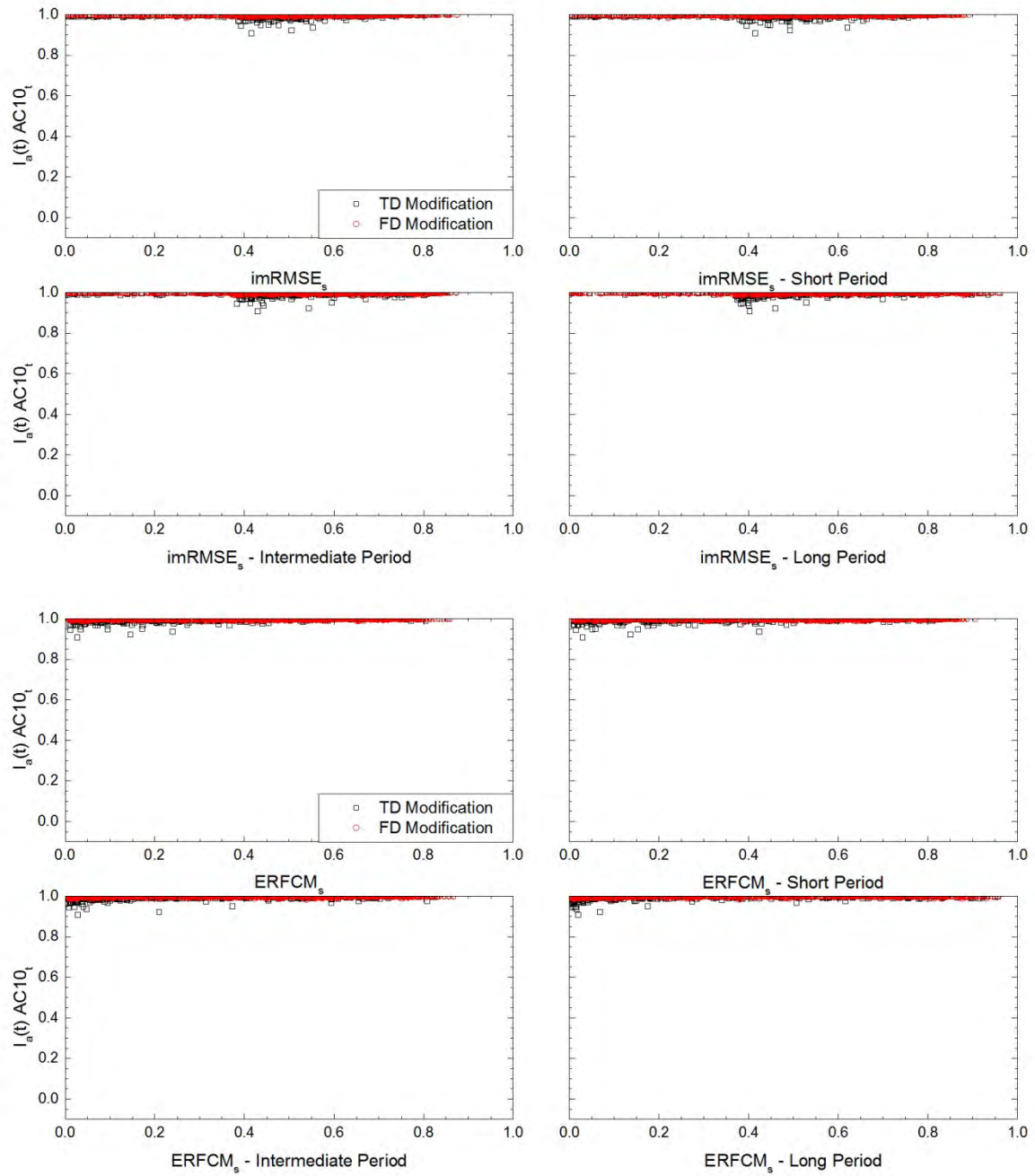
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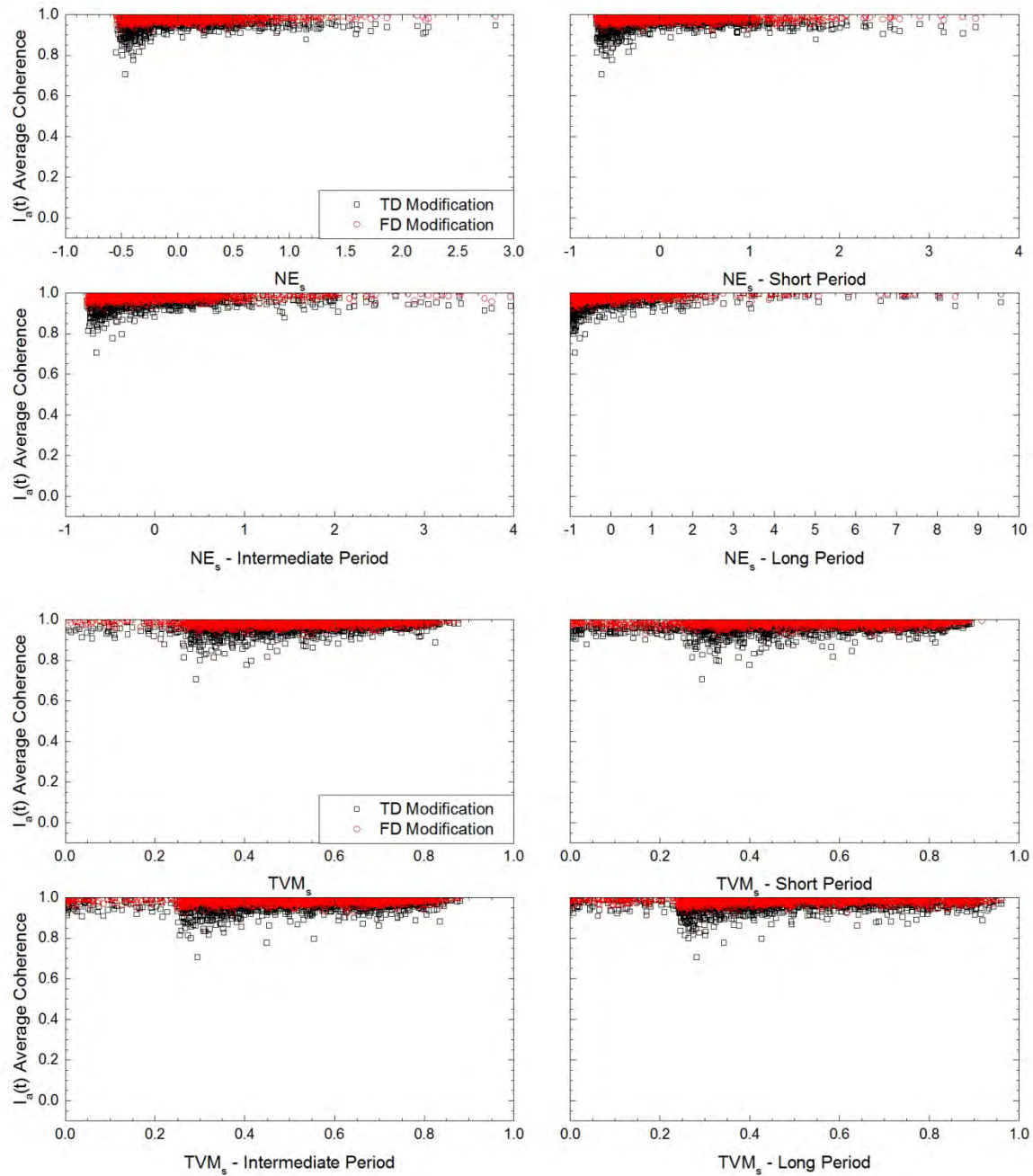
Figure C.34. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using average coherence plotted against spectral mismatch calculated using normalized error (NE_s), the tanh validation metric (TVM_s), the inverse modified root mean squared error ($imRMSE_s$), and the complementary error function metric ($ERFCM_s$) for the different period ranges.
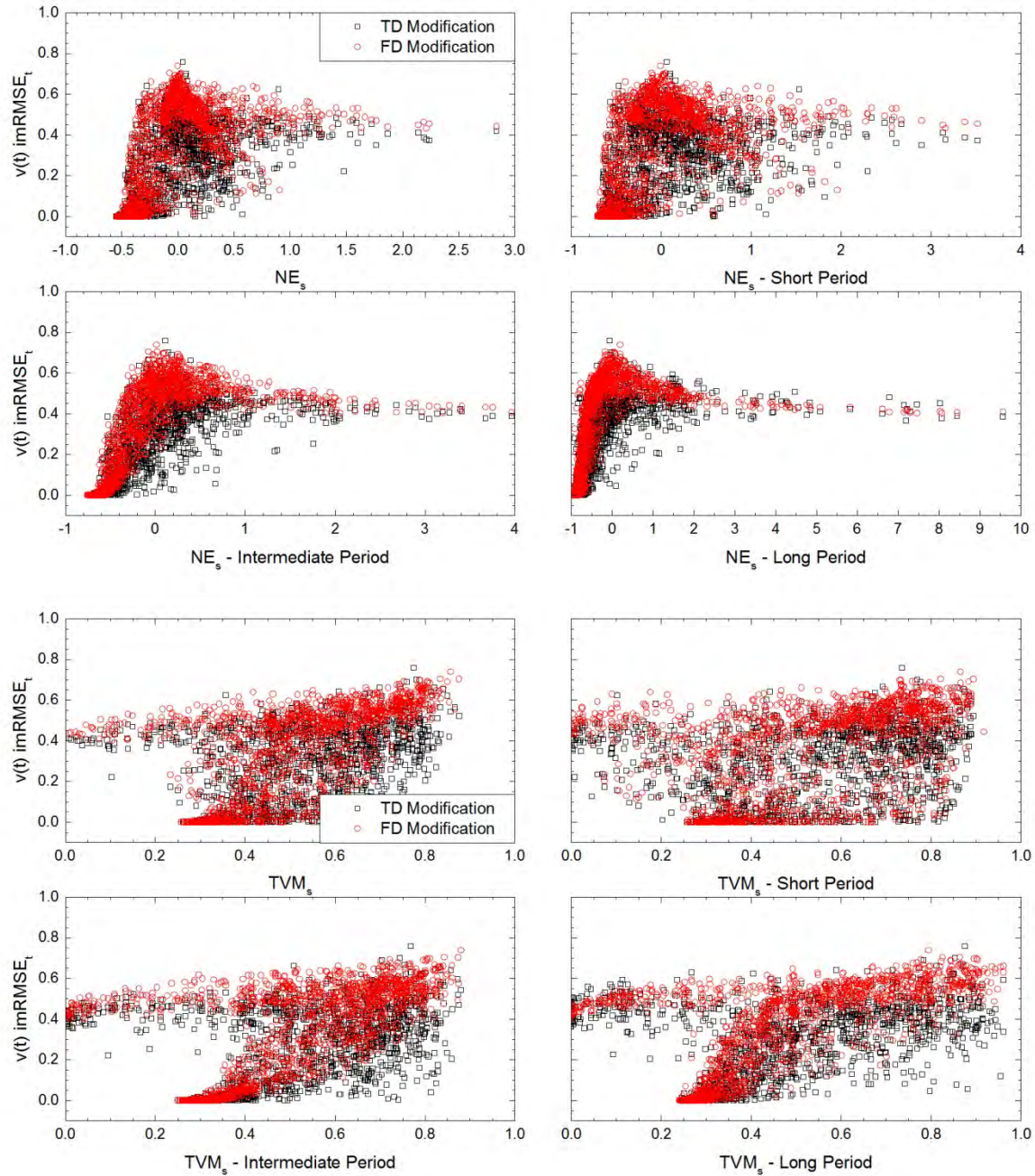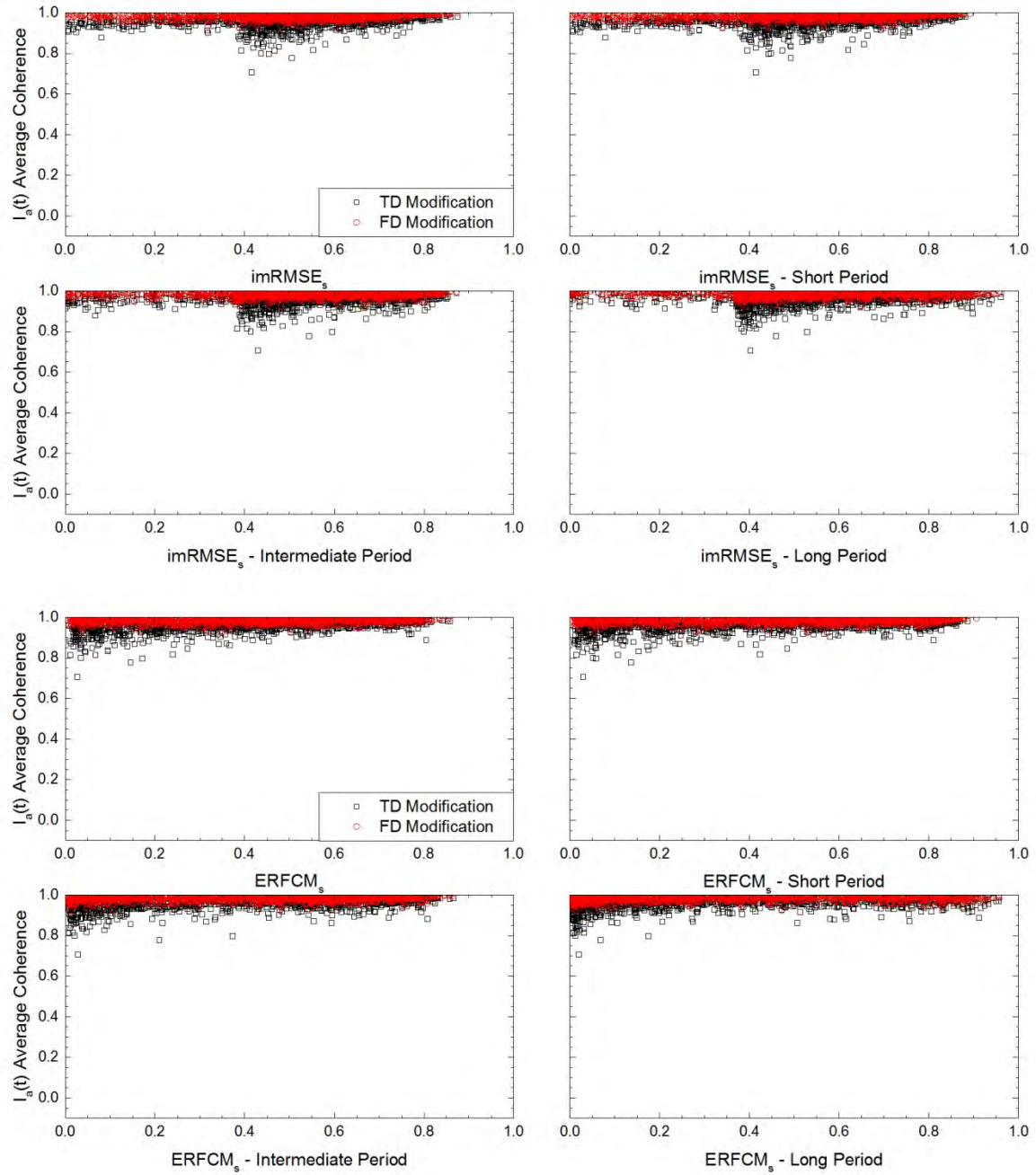
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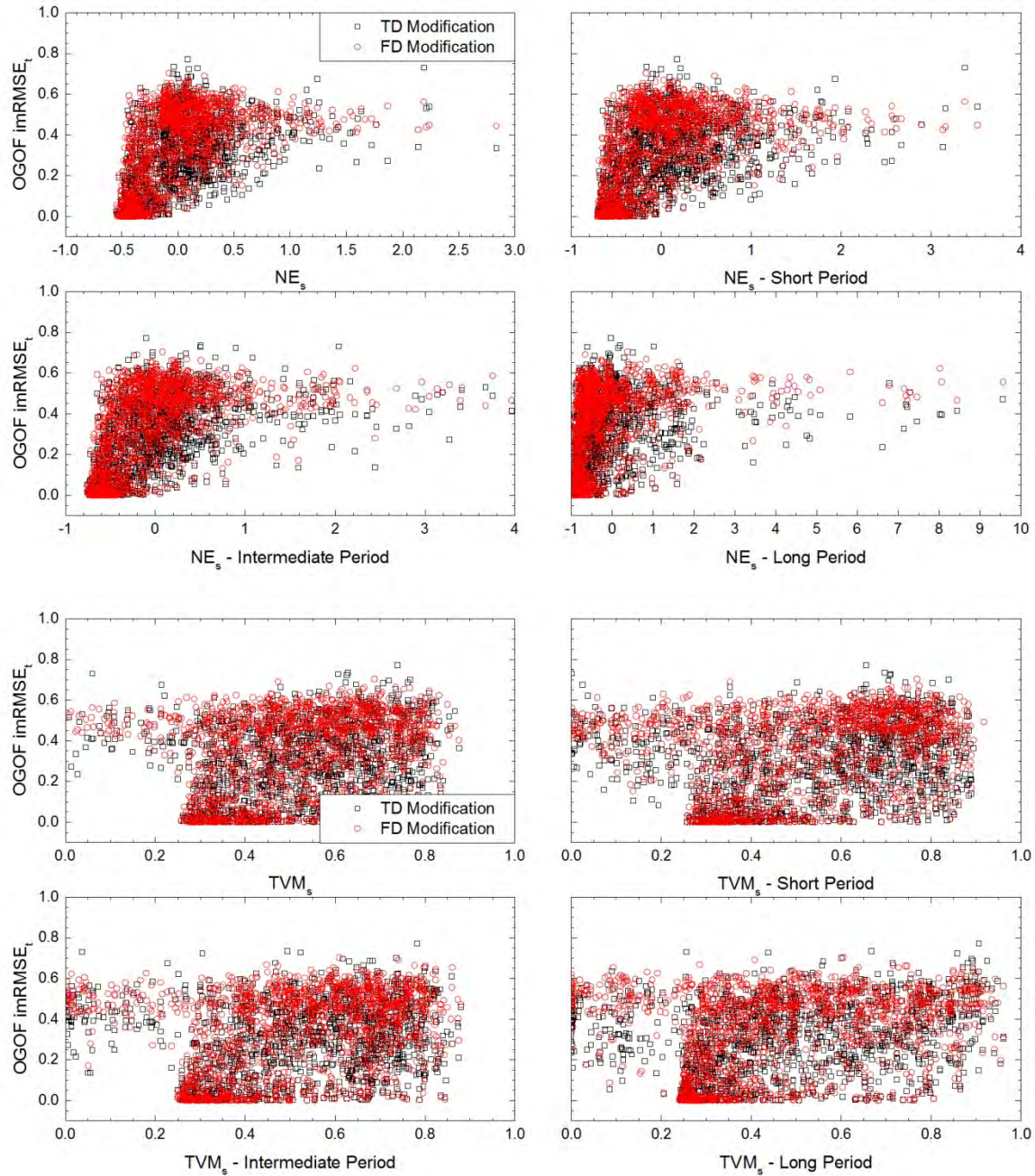
Figure C.35. Overall goodness-of-fit (*OGOF*) values of the motions in scenario I calculated using the inverse modified root mean squared error (*imRMSE$_t$*) plotted against spectral mismatch calculated using normalized error (*NE$_s$*), the tanh validation metric (*TVM$_s$*), the inverse modified root mean squared error (*imRMSE$_s$*), and the complementary error function metric (*ERFCM$_s$*) for the different period ranges.

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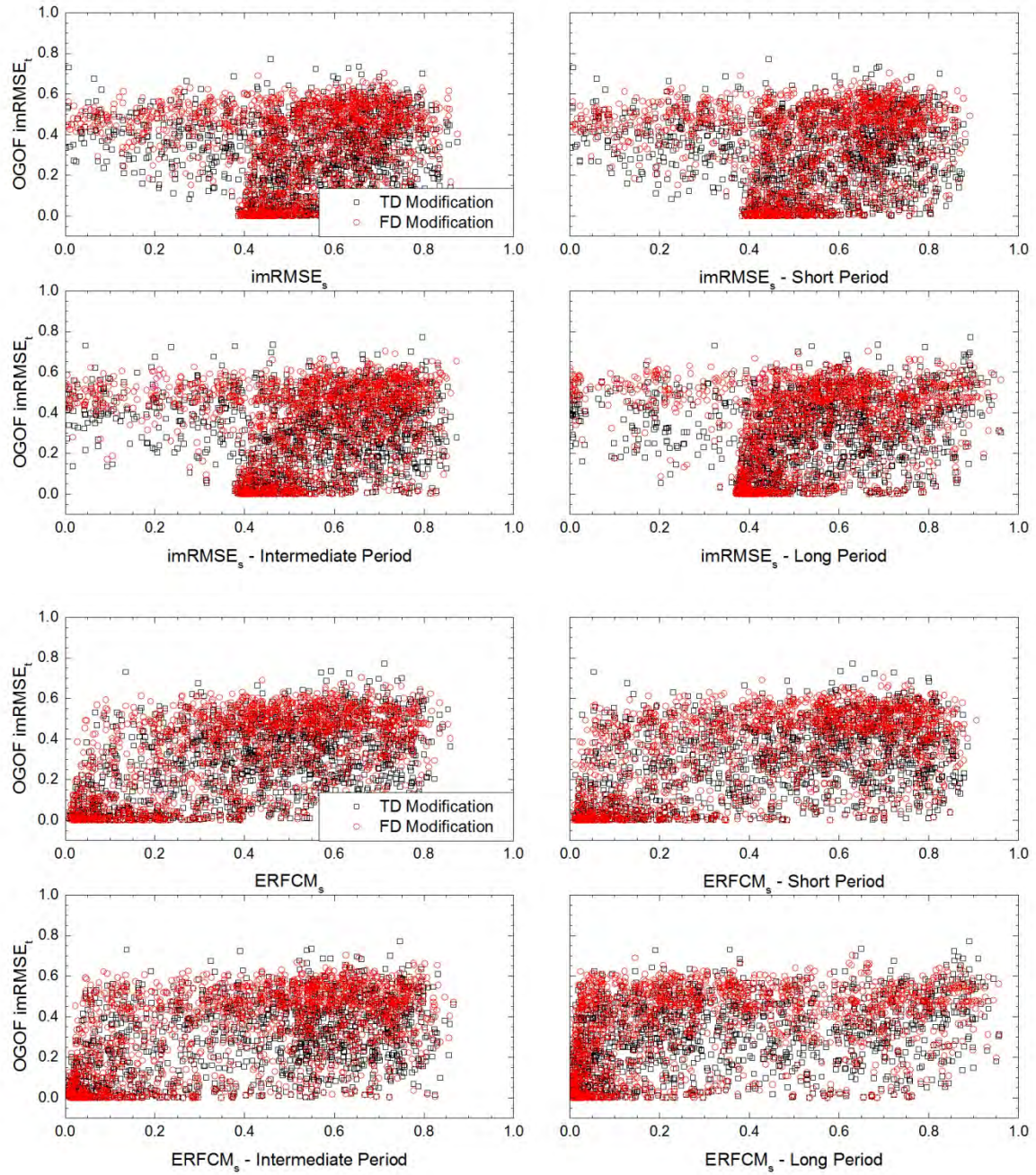
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APPENDIX D

Goodness-of-Fit Values of Time Histories for Different Metrics versus Modified-to-Scaled Ground Motion Characteristic Ratios
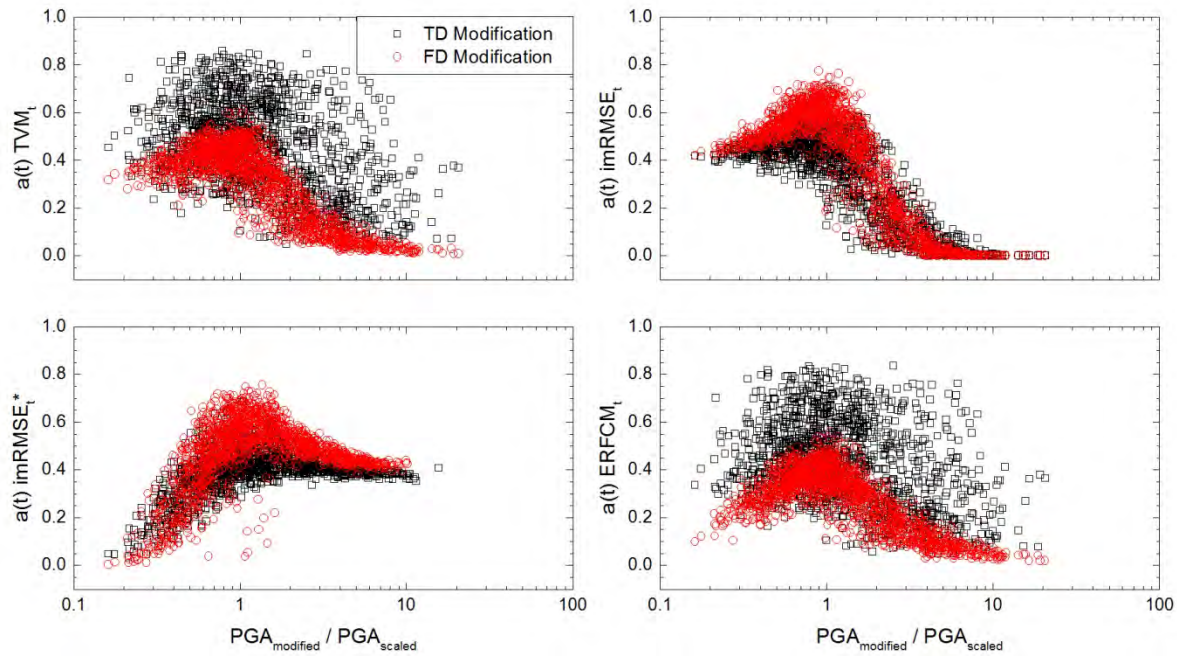
Figure D.1. Goodness-of-fit values of acceleration time histories ($a(t)$) of the motions in scenario I calculated using the tanh validation metric (TVM_t), the original and alternative inverse modified root mean squared error ($imRMSE_t$ and $imRMSE_t^*$, respectively), and the complementary error function metric ($ERFCM_t$) plotted against the modified-to-scaled peak ground acceleration (PGA), peak ground velocity (PGV), peak ground displacement (PGD), Arias intensity (I_a), cumulative absolute velocity (CAV), significant duration (D_{5-95}), and mean period (T_m) ratios.
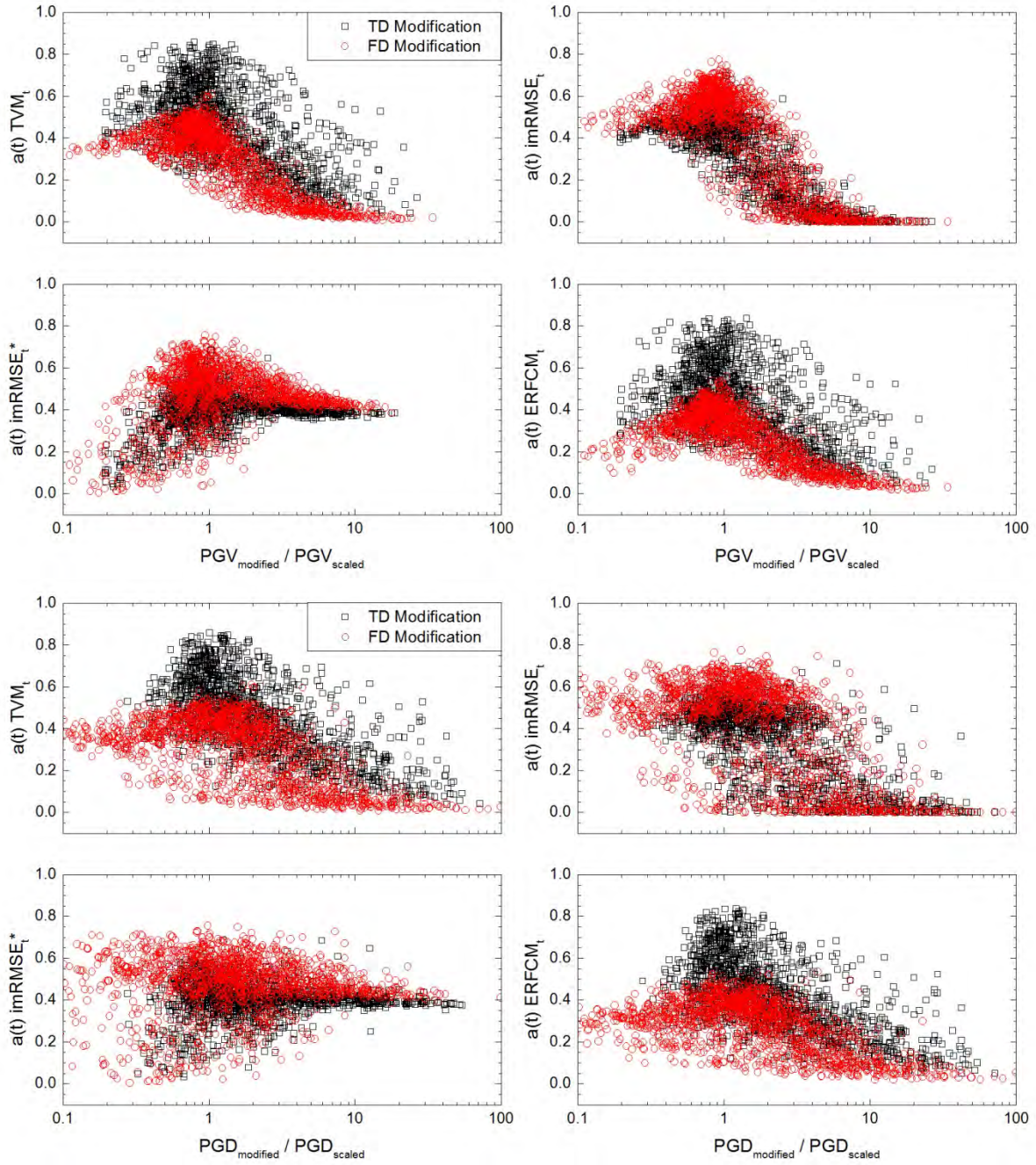
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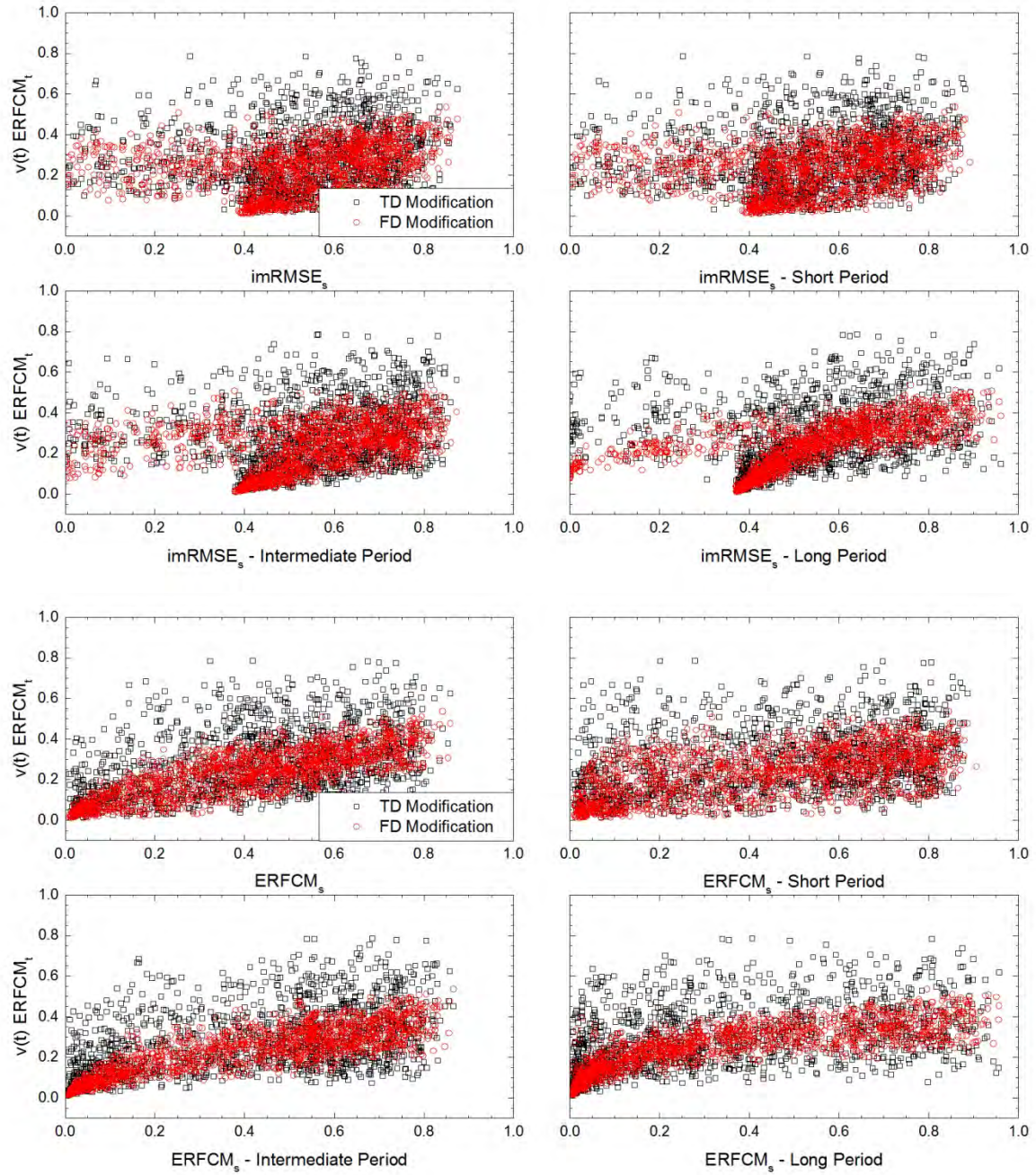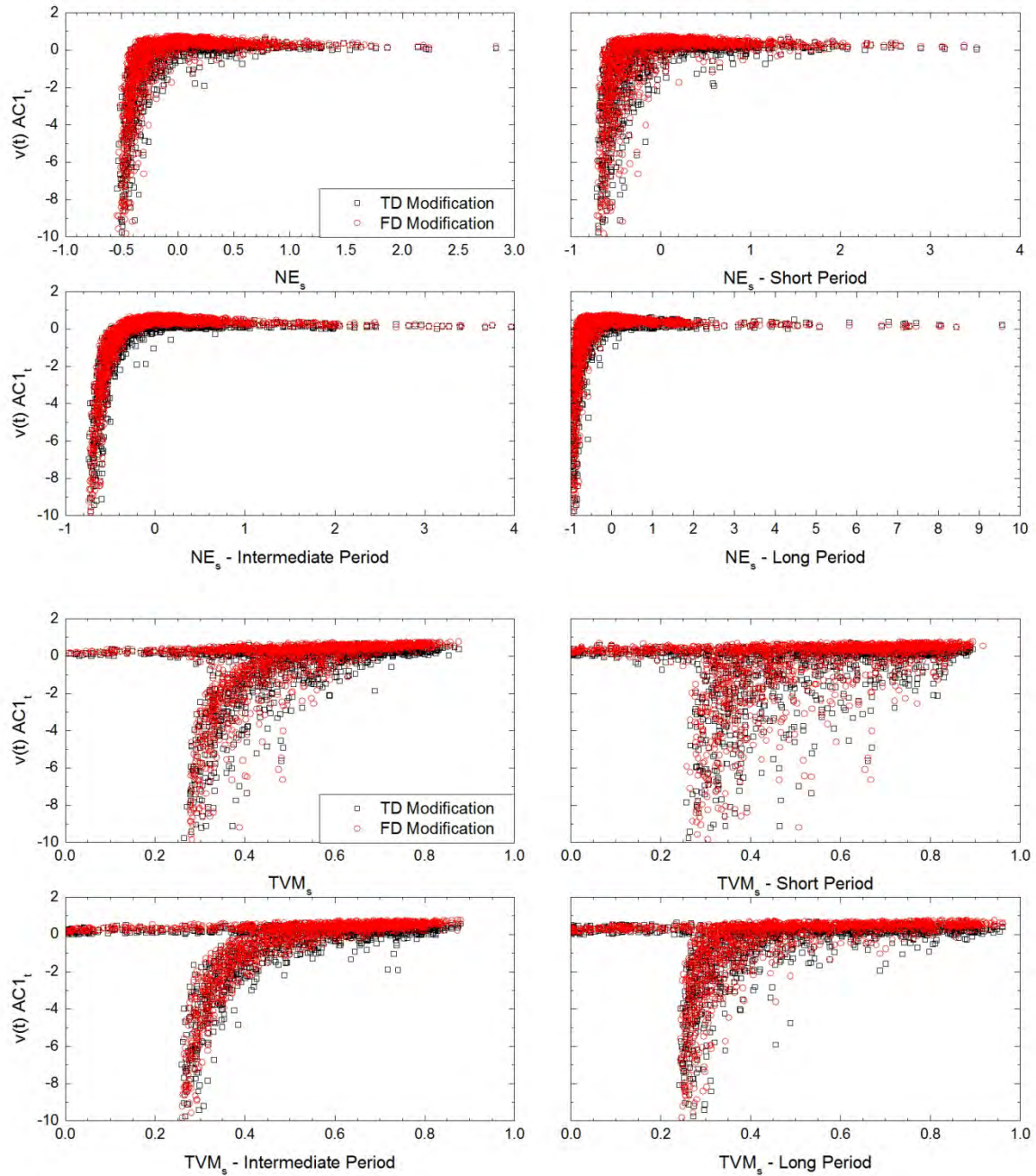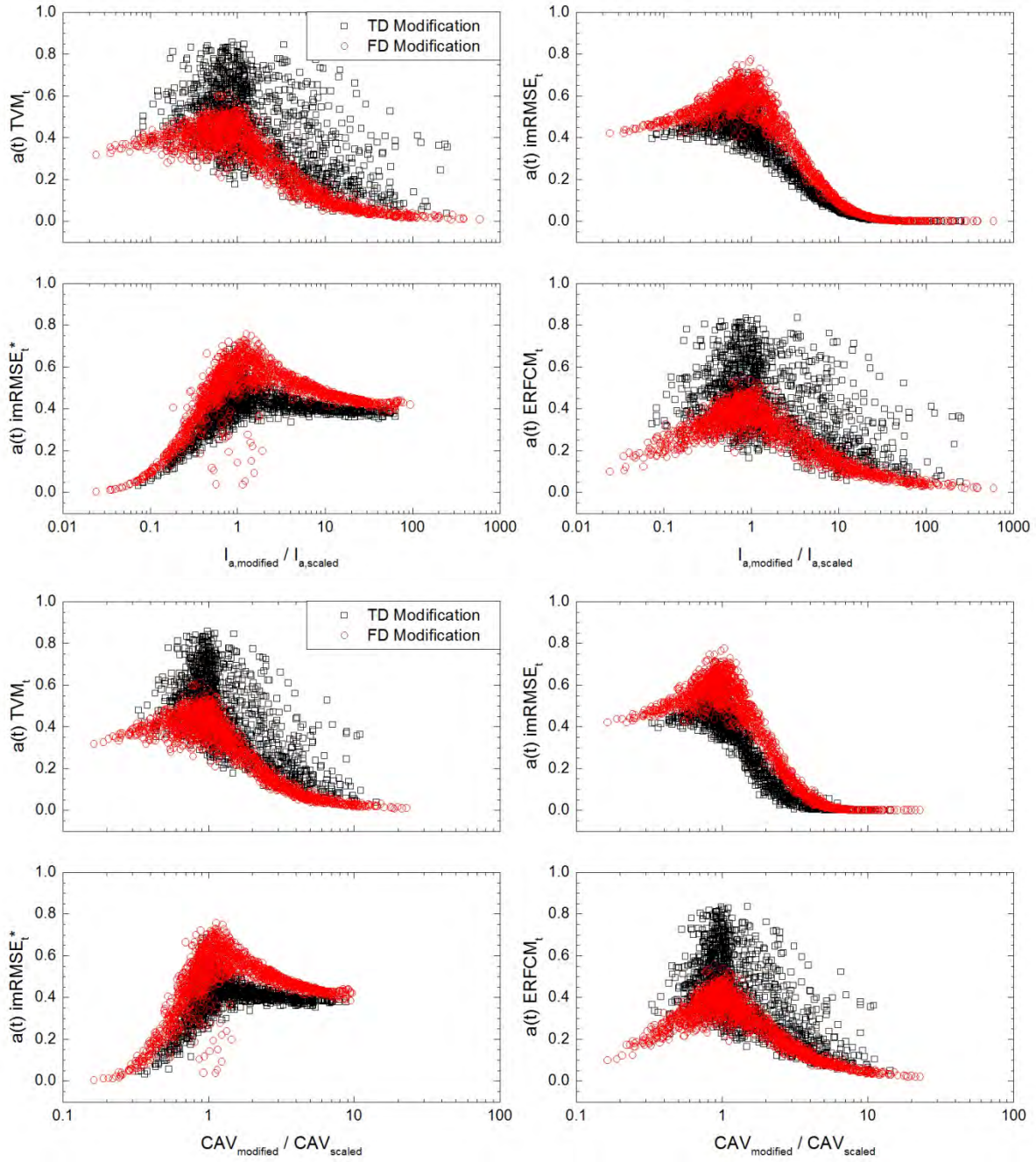
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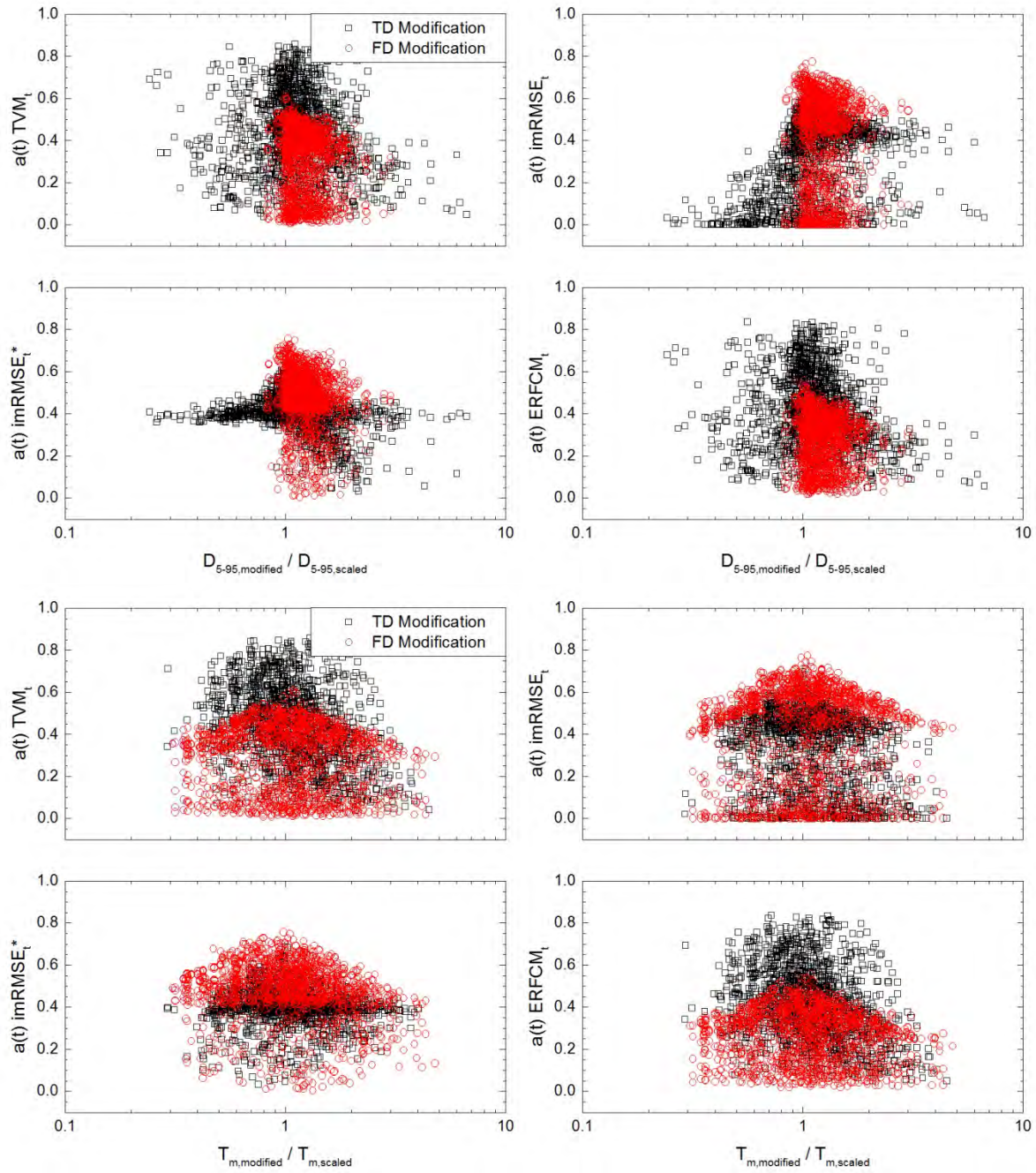
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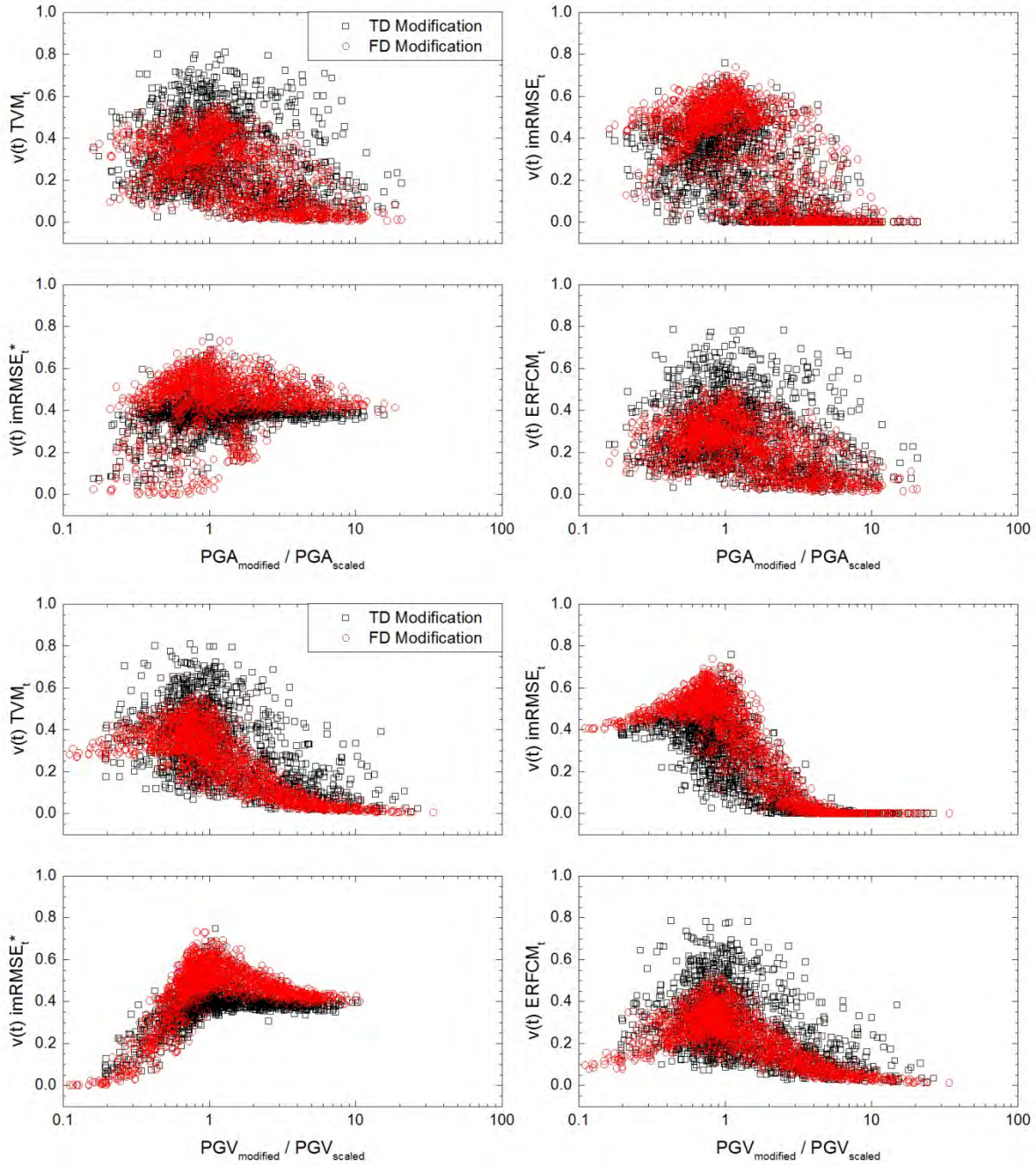
Figure D.2. Goodness-of-fit values of velocity time histories ($v(t)$) of the motions in scenario I calculated using the tanh validation metric (TVM_t), the original and alternative inverse modified root mean squared error ($imRMSE_t$ and $imRMSE_t^*$, respectively), and the complementary error function metric ($ERFCM_t$) plotted against the modified-to-scaled peak ground acceleration (PGA), peak ground velocity (PGV), peak ground displacement (PGD), Arias intensity (I_a), cumulative absolute velocity (CAV), significant duration (D_{5-95}), and mean period (T_m) ratios.

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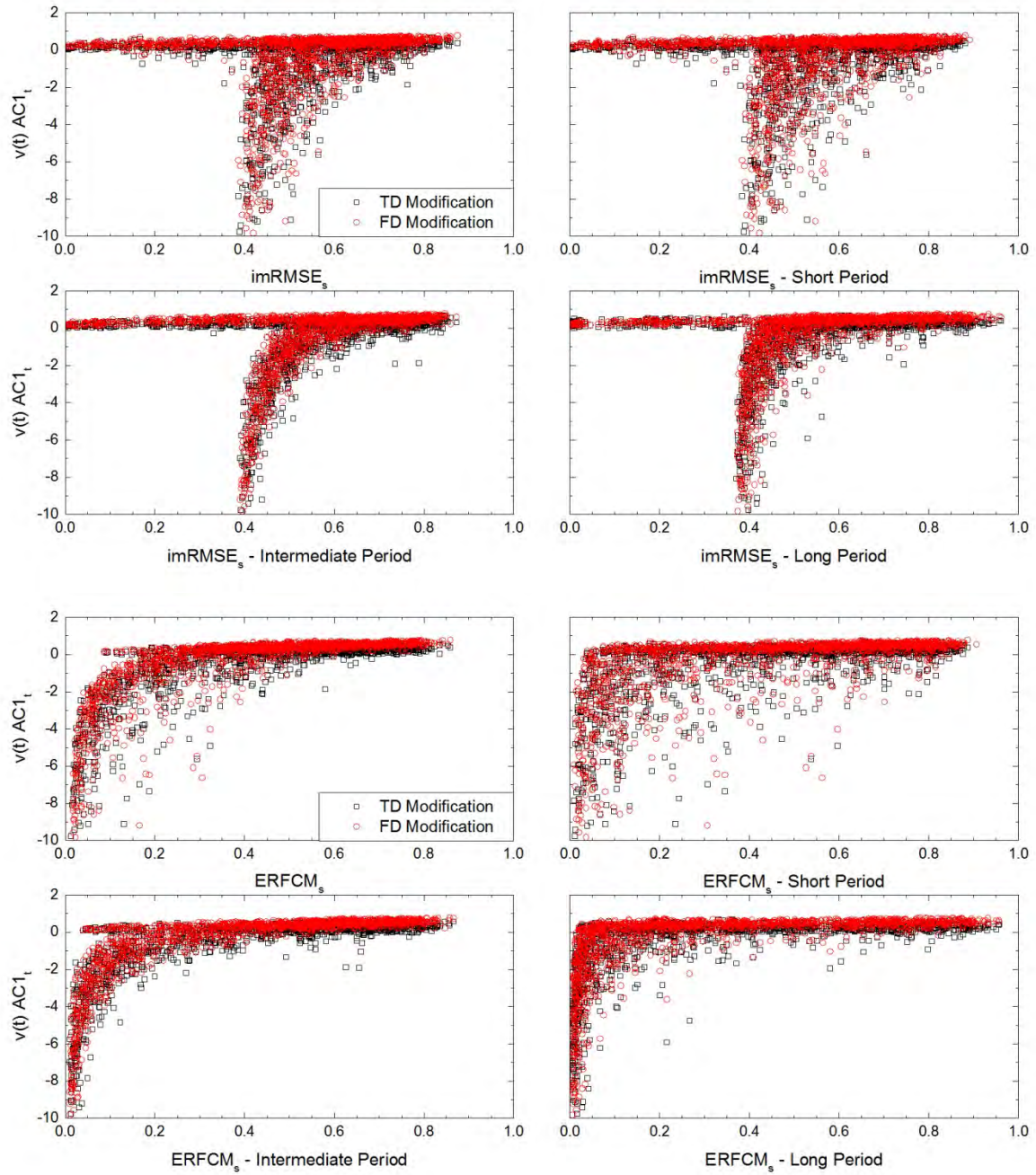
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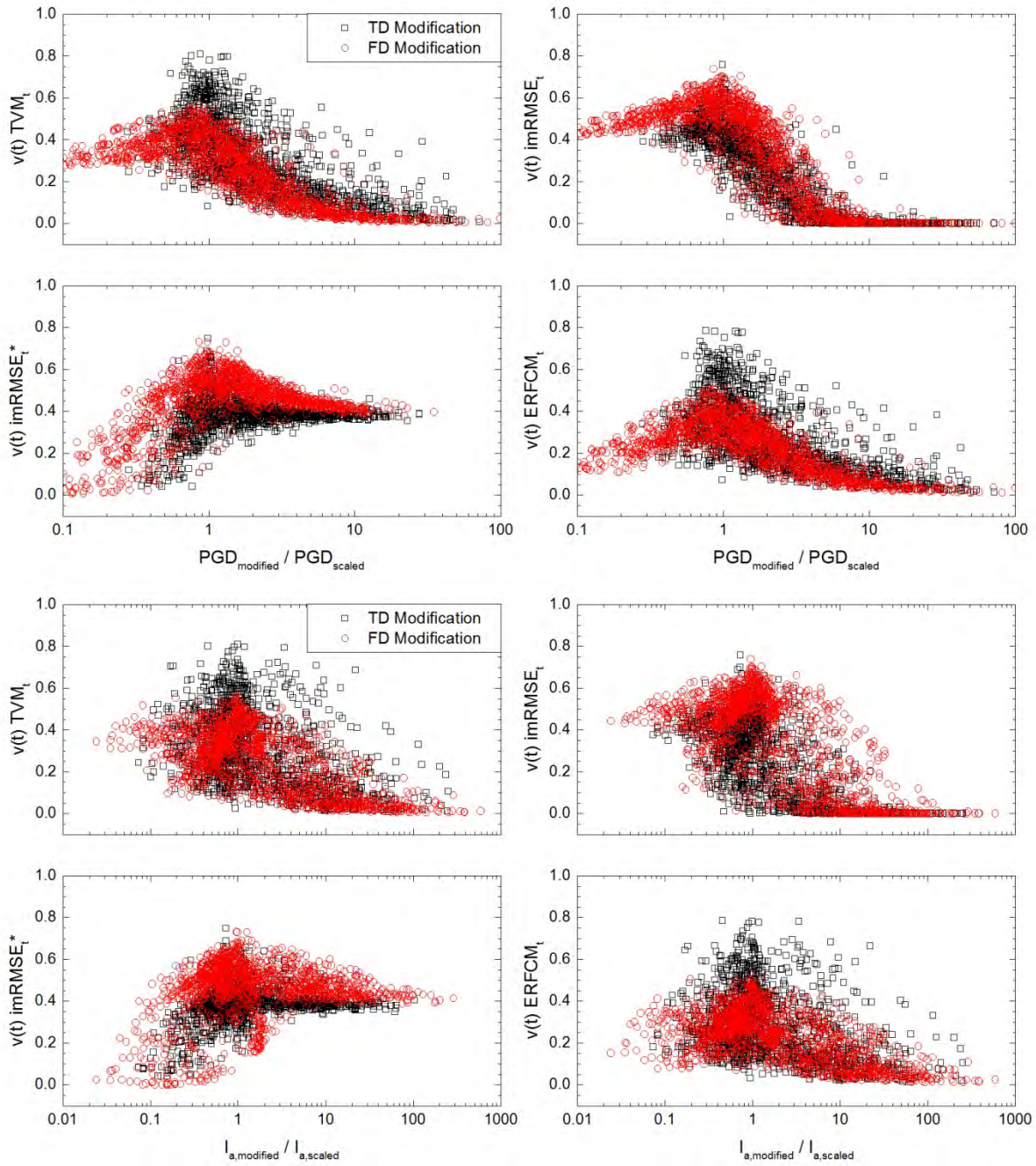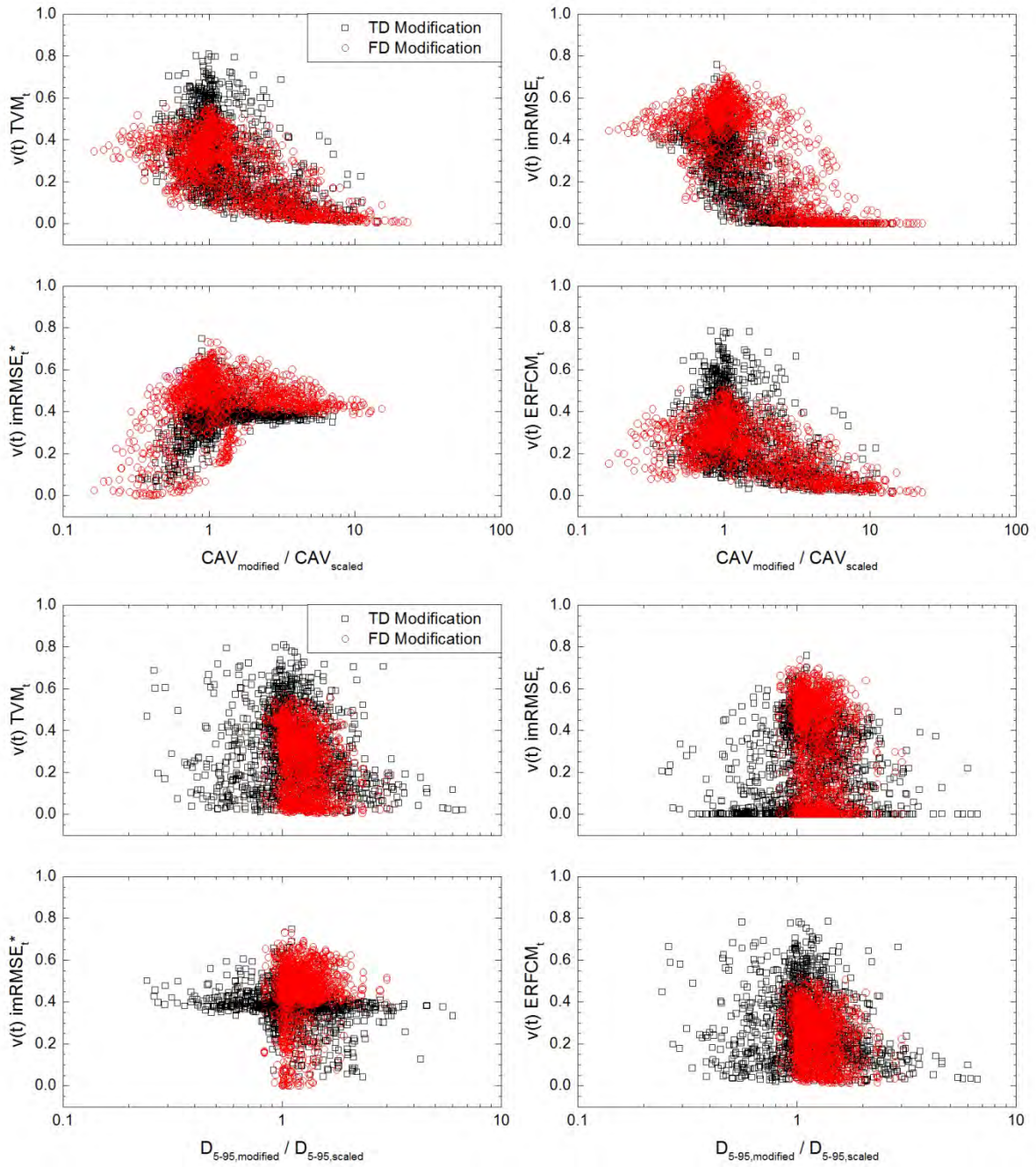
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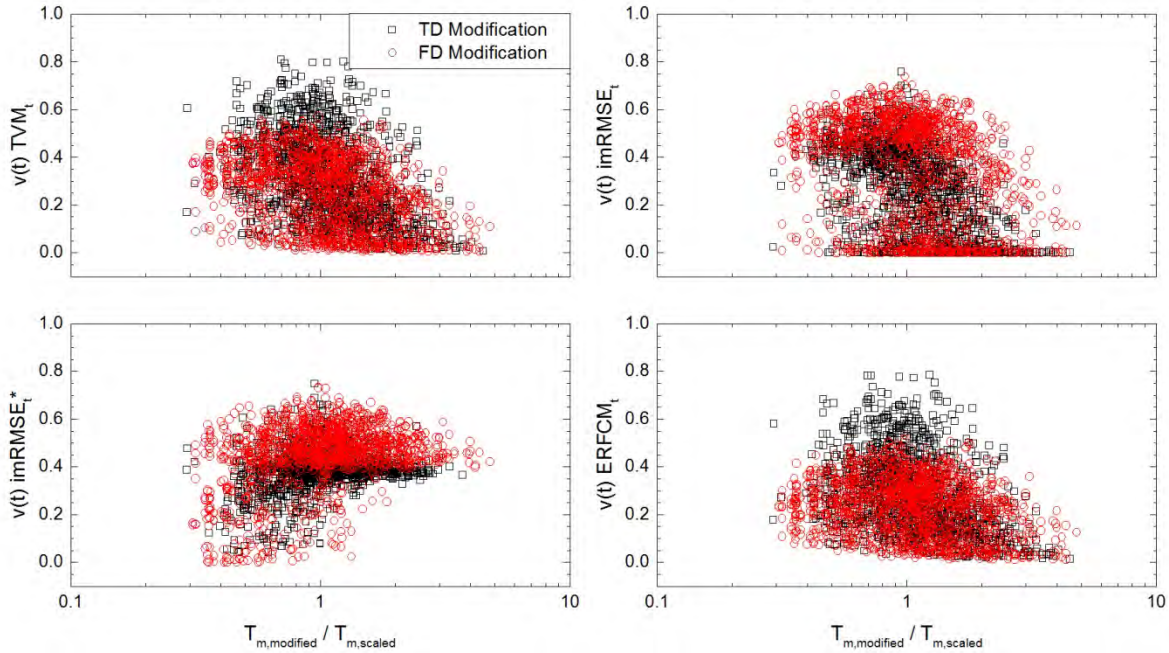
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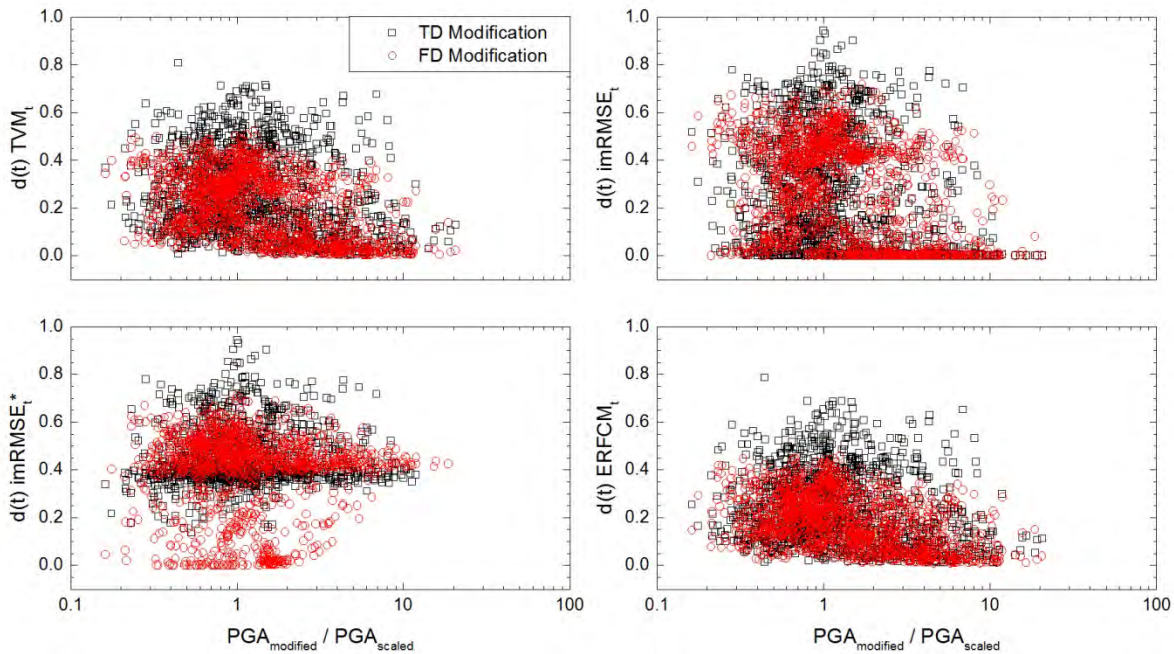
Figure D.3. Goodness-of-fit values of displacement time histories ($d(t)$) of the motions in scenario I calculated using the tanh validation metric (TVM_t), the original and alternative inverse modified root mean squared error ($imRMSE_t$ and $imRMSE_t^*$, respectively), and the complementary error function metric ($ERFCM_t$) plotted against the modified-to-scaled peak ground acceleration (PGA), peak ground velocity (PGV), peak ground displacement (PGD), Arias intensity (I_a), cumulative absolute velocity (CAV), significant duration (D_{5-95}), and mean period (T_m) ratios.

406
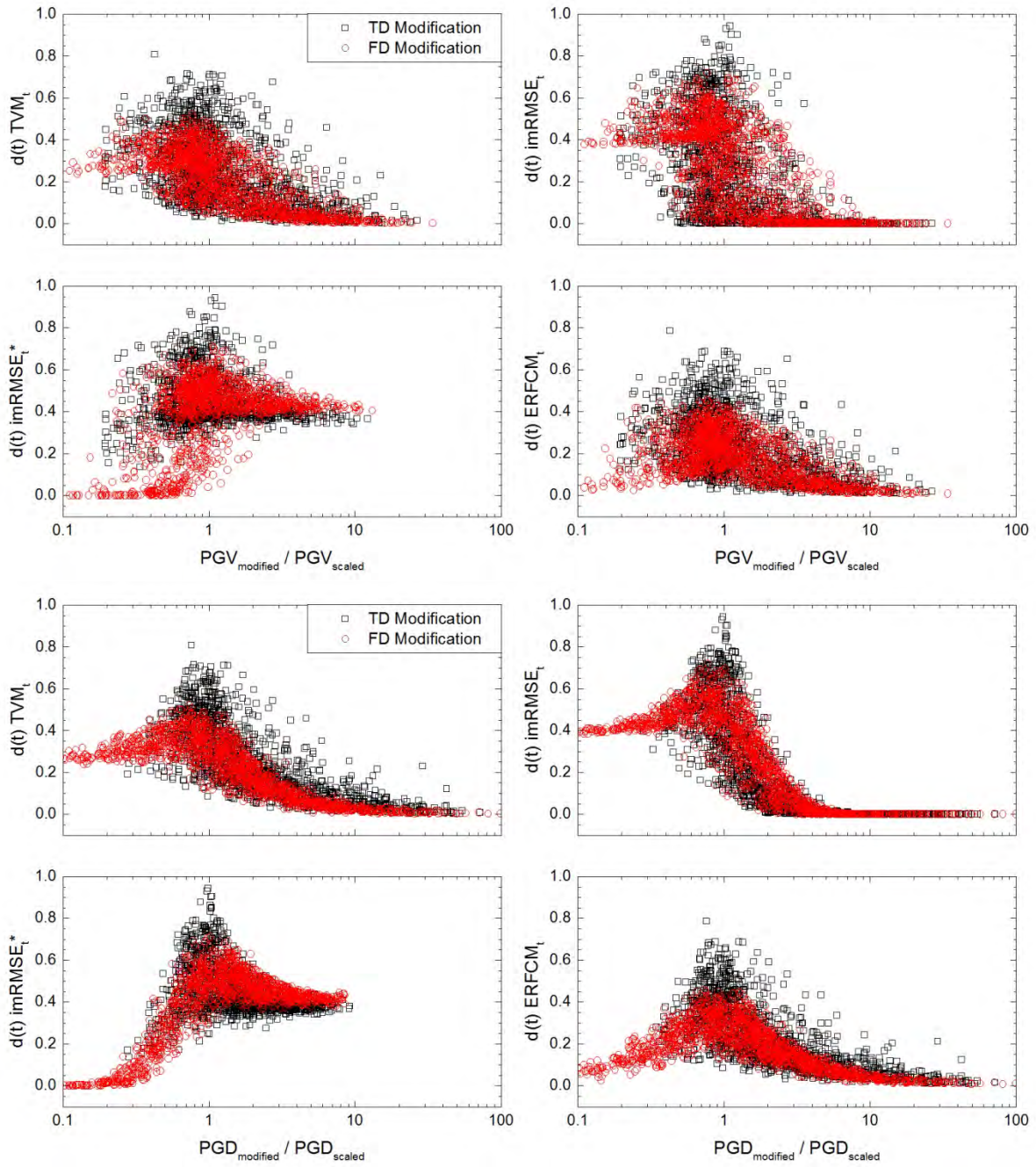
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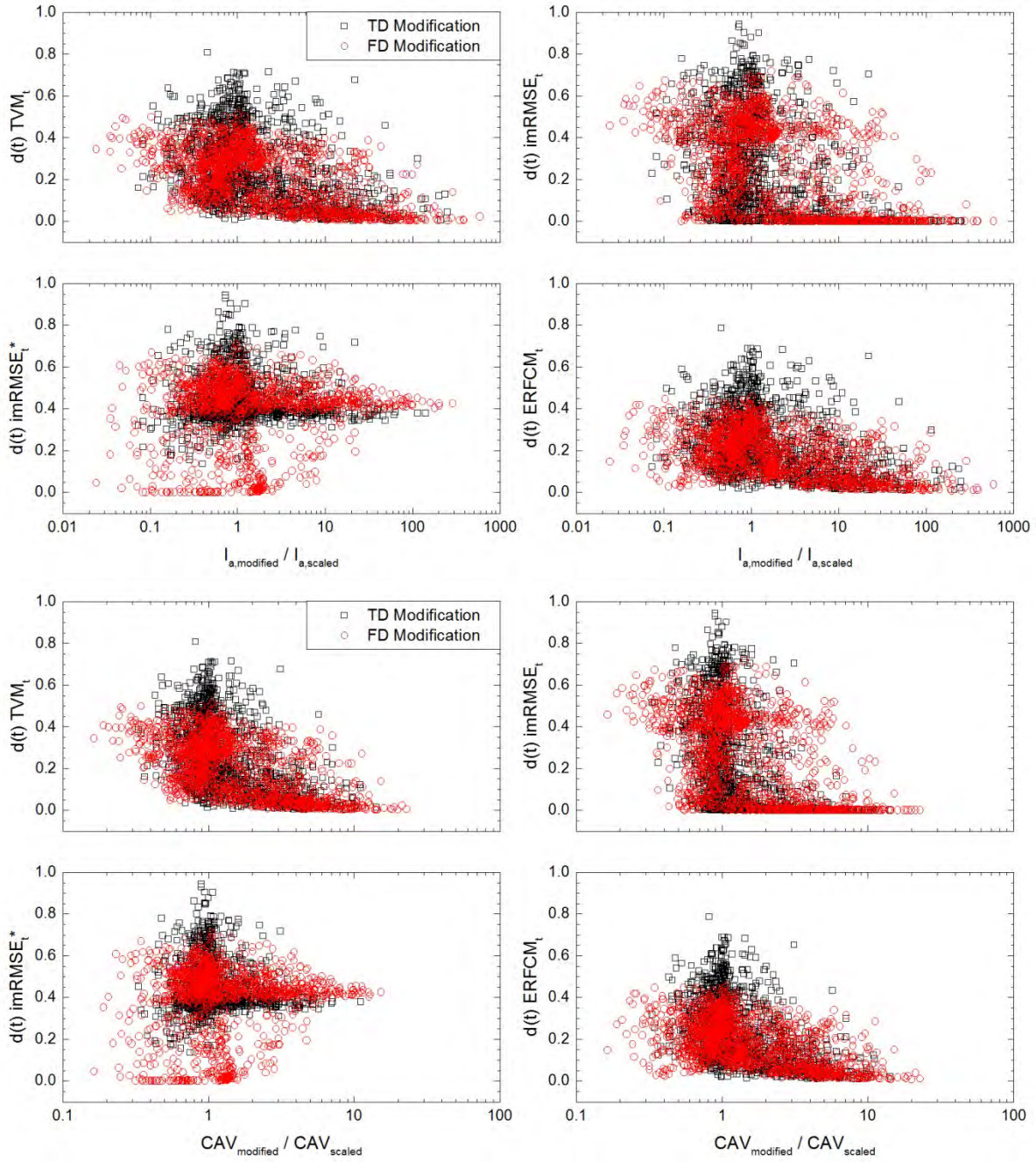
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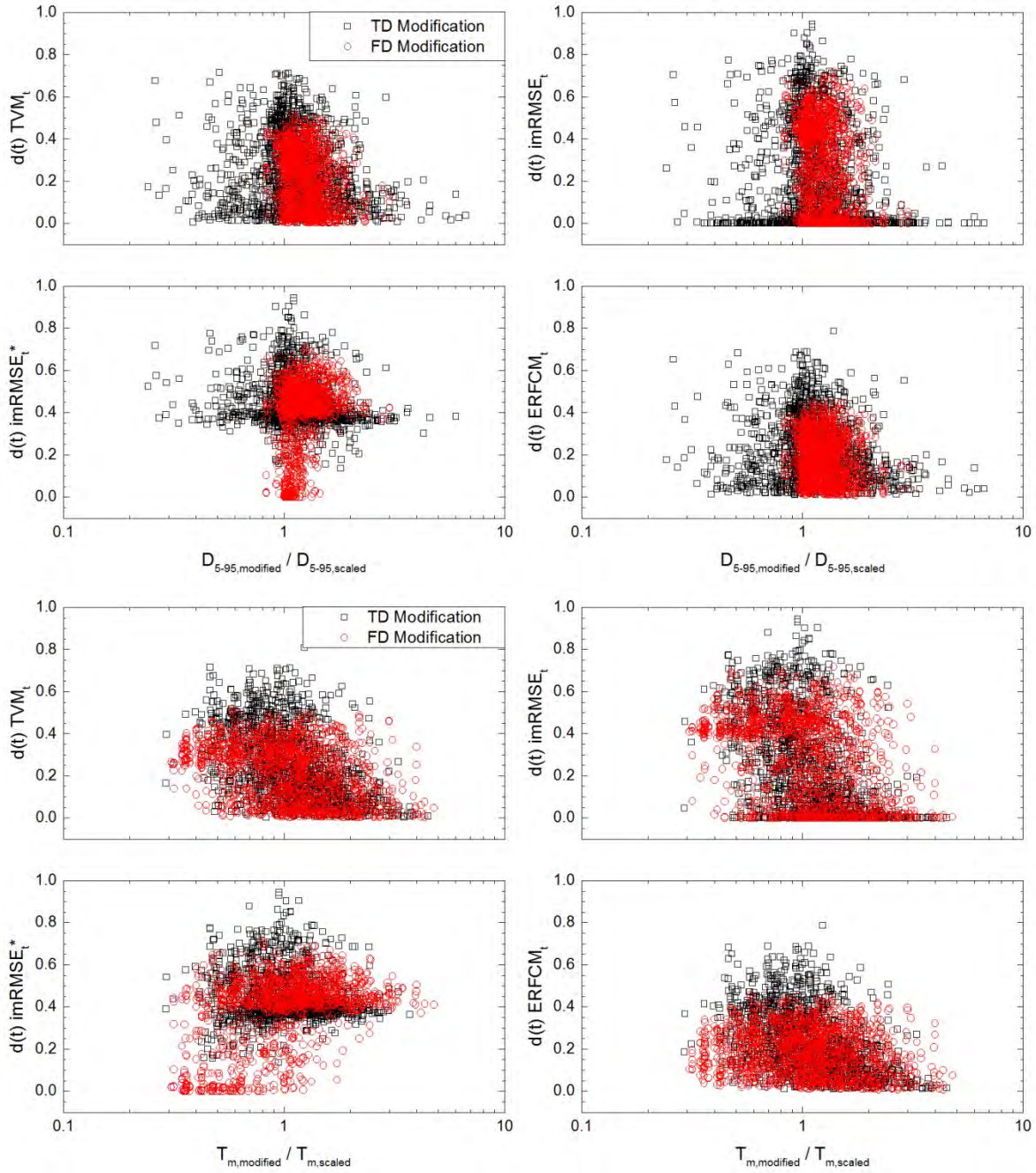
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Figure D.4. Goodness-of-fit values of Fourier amplitude spectra (*FAS*) of the motions in scenario I calculated using the tanh validation metric (*TVM_t*), the inverse modified root mean squared error (*imRMSE_t*), and the complementary error function metric (*ERFCM_t*) plotted against the modified-to-scaled peak ground acceleration (*PGA*), peak ground velocity (*PGV*), peak ground displacement (*PGD*), Arias intensity (I_a), cumulative absolute velocity (*CAV*), significant duration ($D_{5\text{-}95}$), and mean period (T_m) ratios.

410
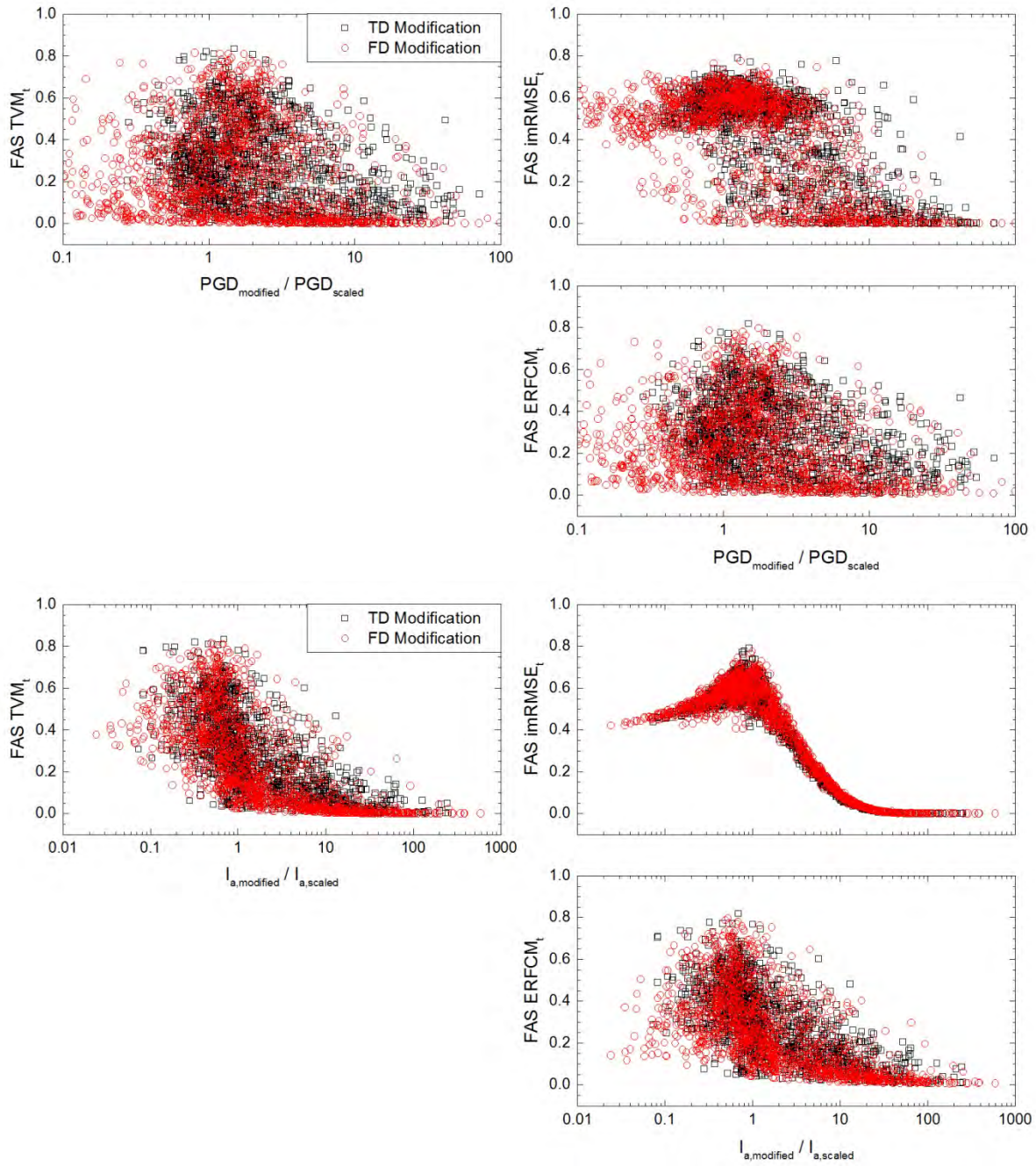
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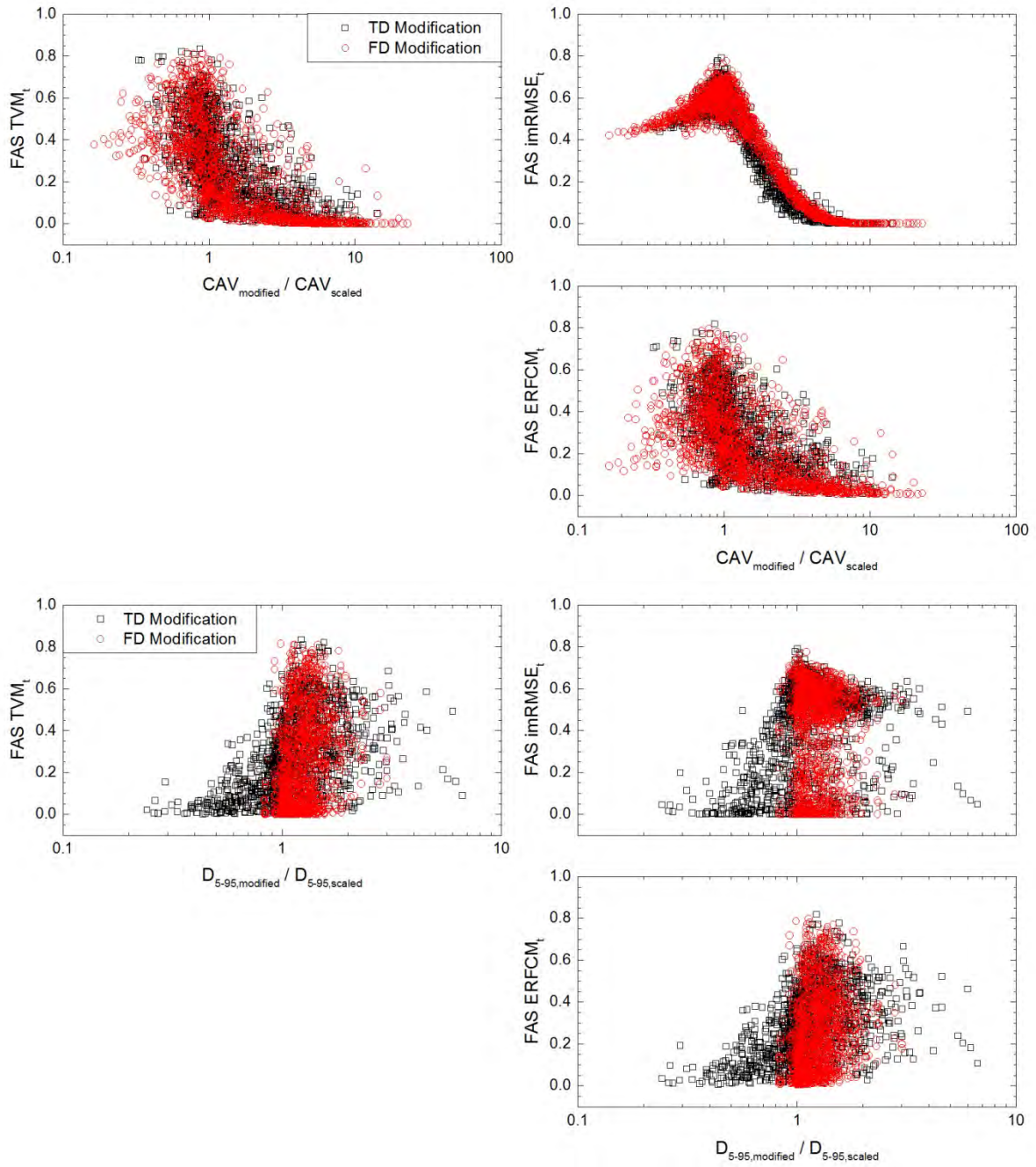
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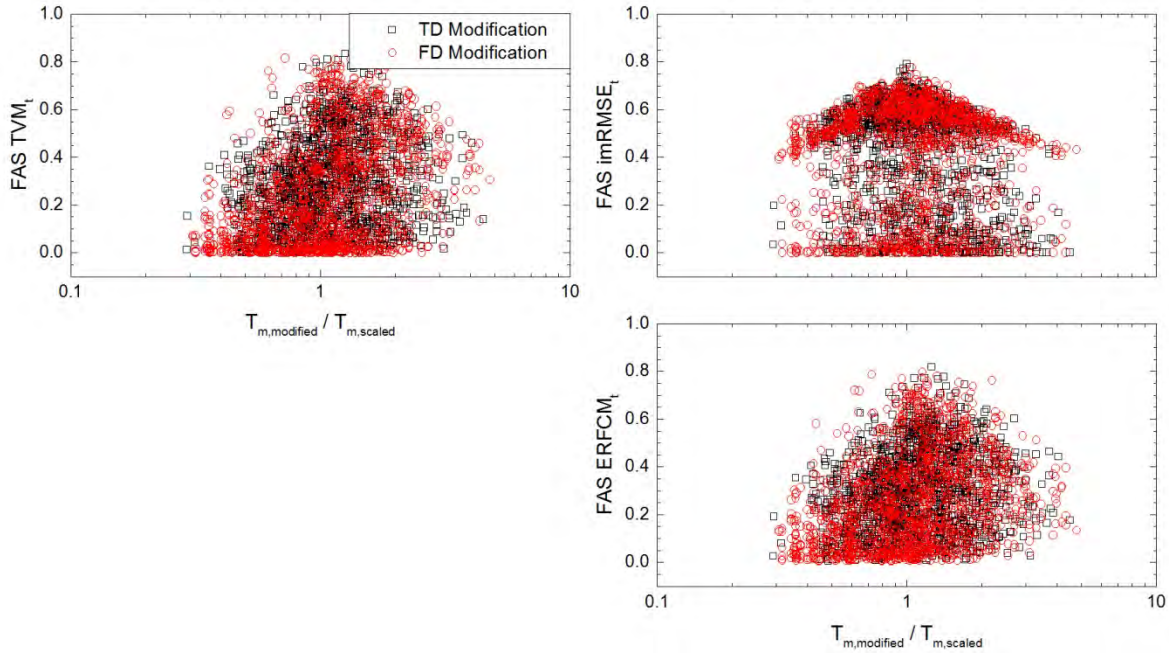
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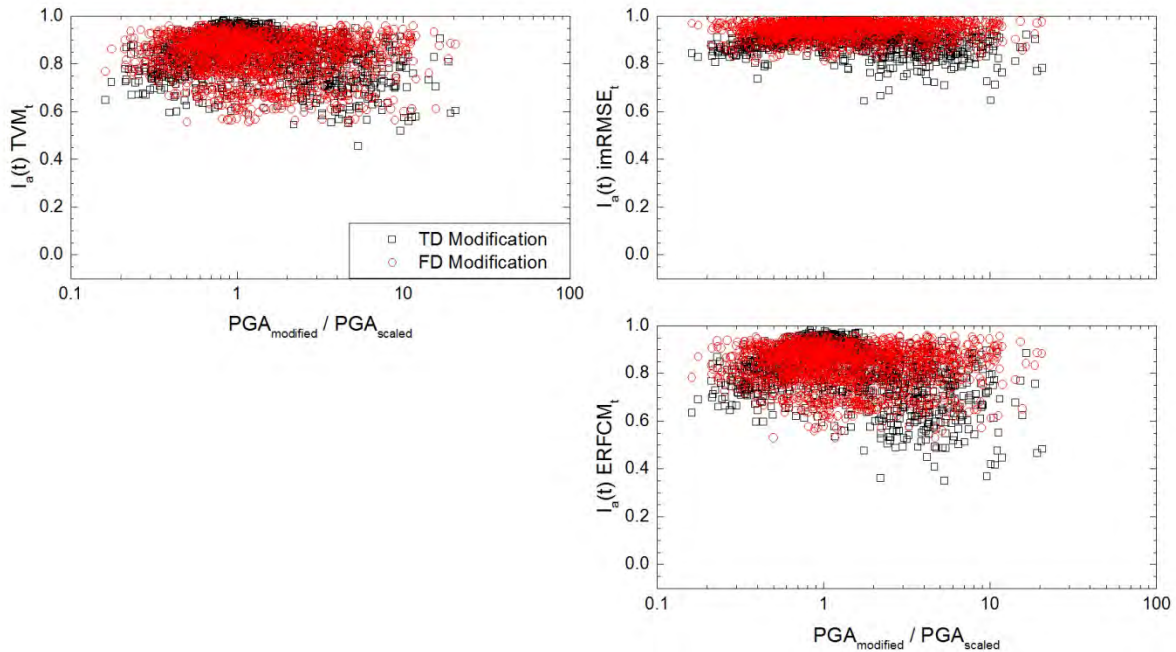
Figure D.5. Goodness-of-fit values of Arias intensity buildups ($I_a(t)$) of the motions in scenario I calculated using the tanh validation metric (TVM_t), the inverse modified root mean squared error ($imRMSE_t$), and the complementary error function metric ($ERFCM_t$) plotted against the modified-to-scaled peak ground acceleration (PGA), peak ground velocity (PGV), peak ground displacement (PGD), Arias intensity (I_a), cumulative absolute velocity (CAV), significant duration (D_{5-95}), and mean period (T_m) ratios.

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Figure D.5. continued.

414
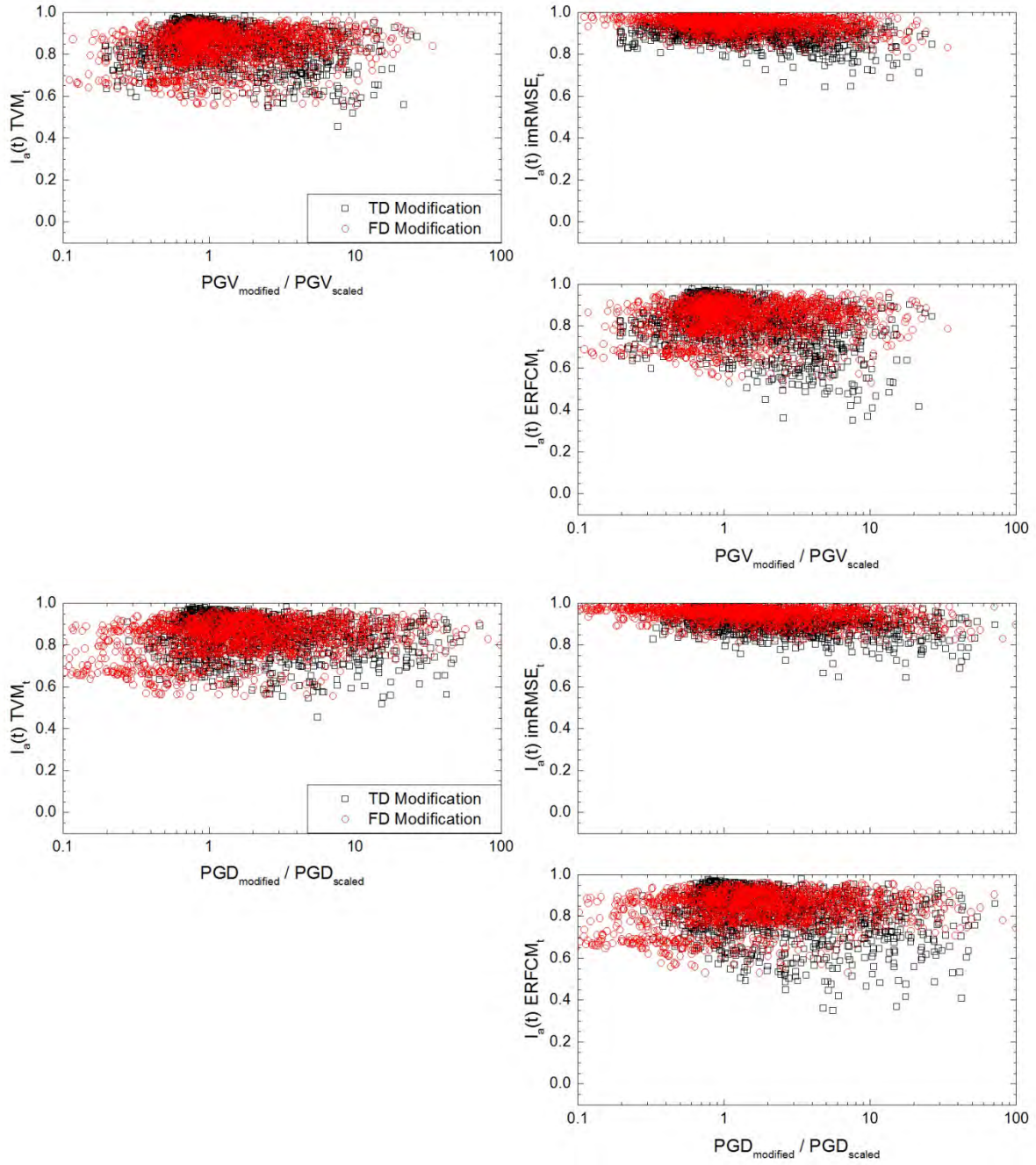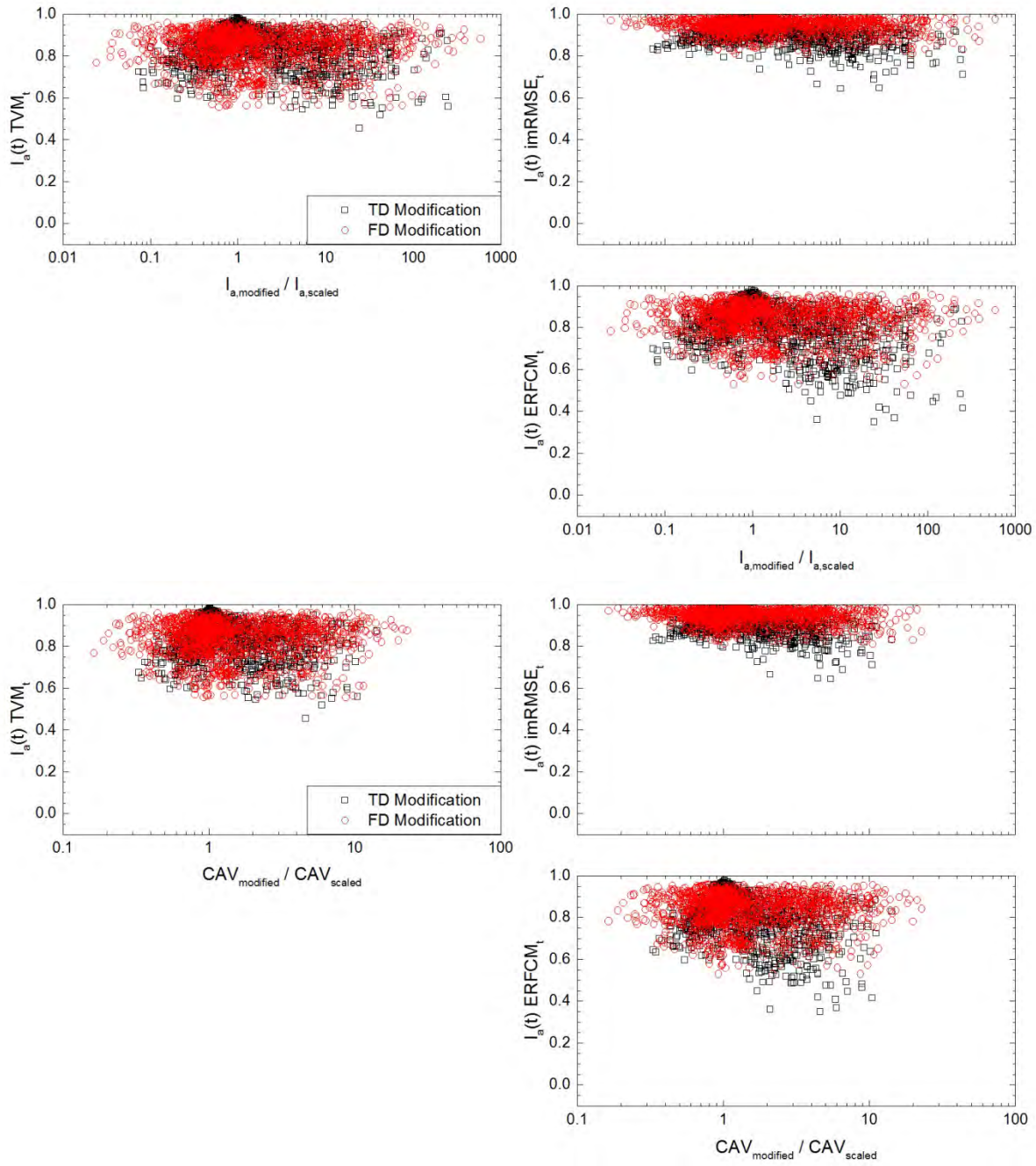
Figure D.5. continued.
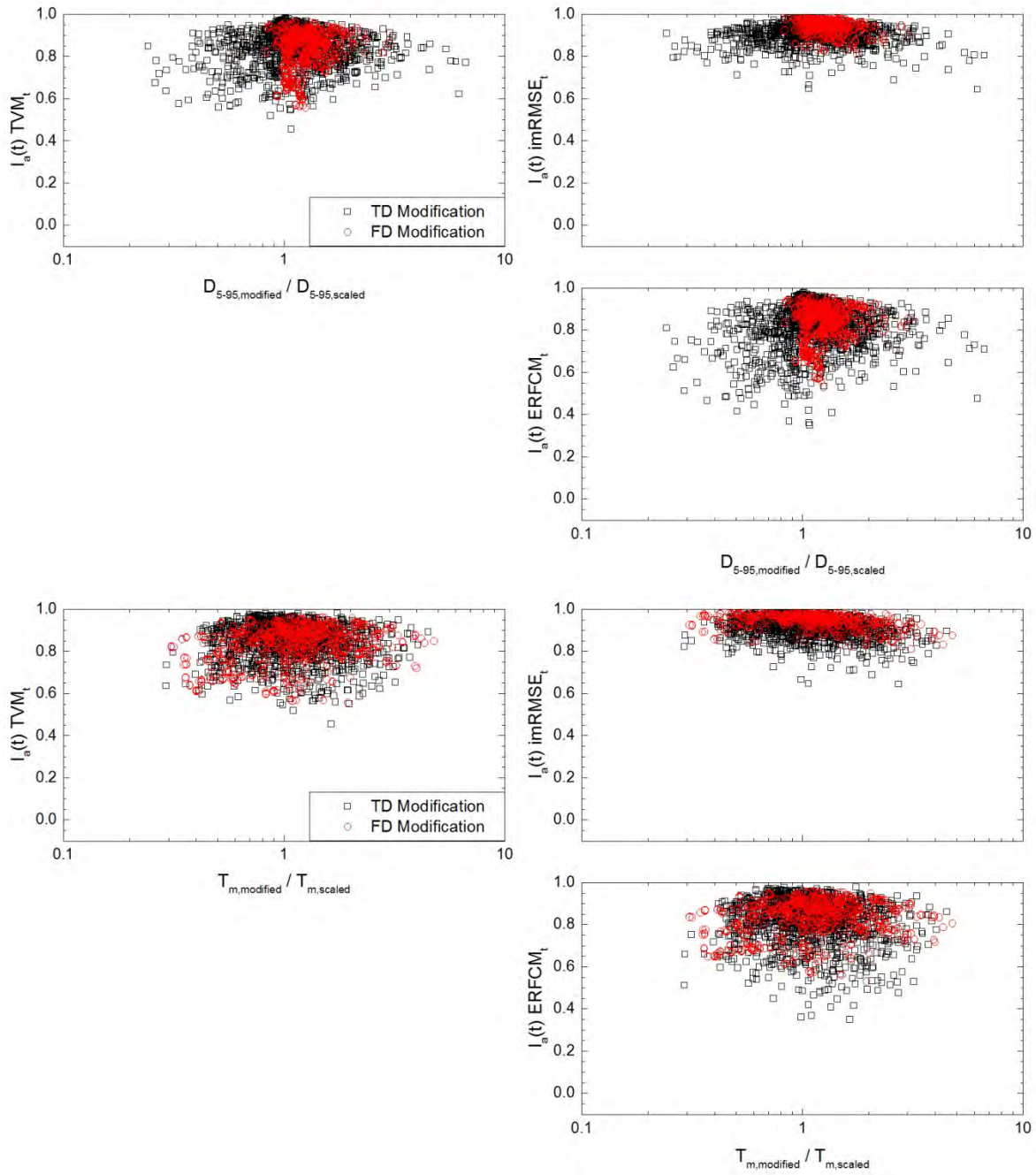
Figure D.5. continued.
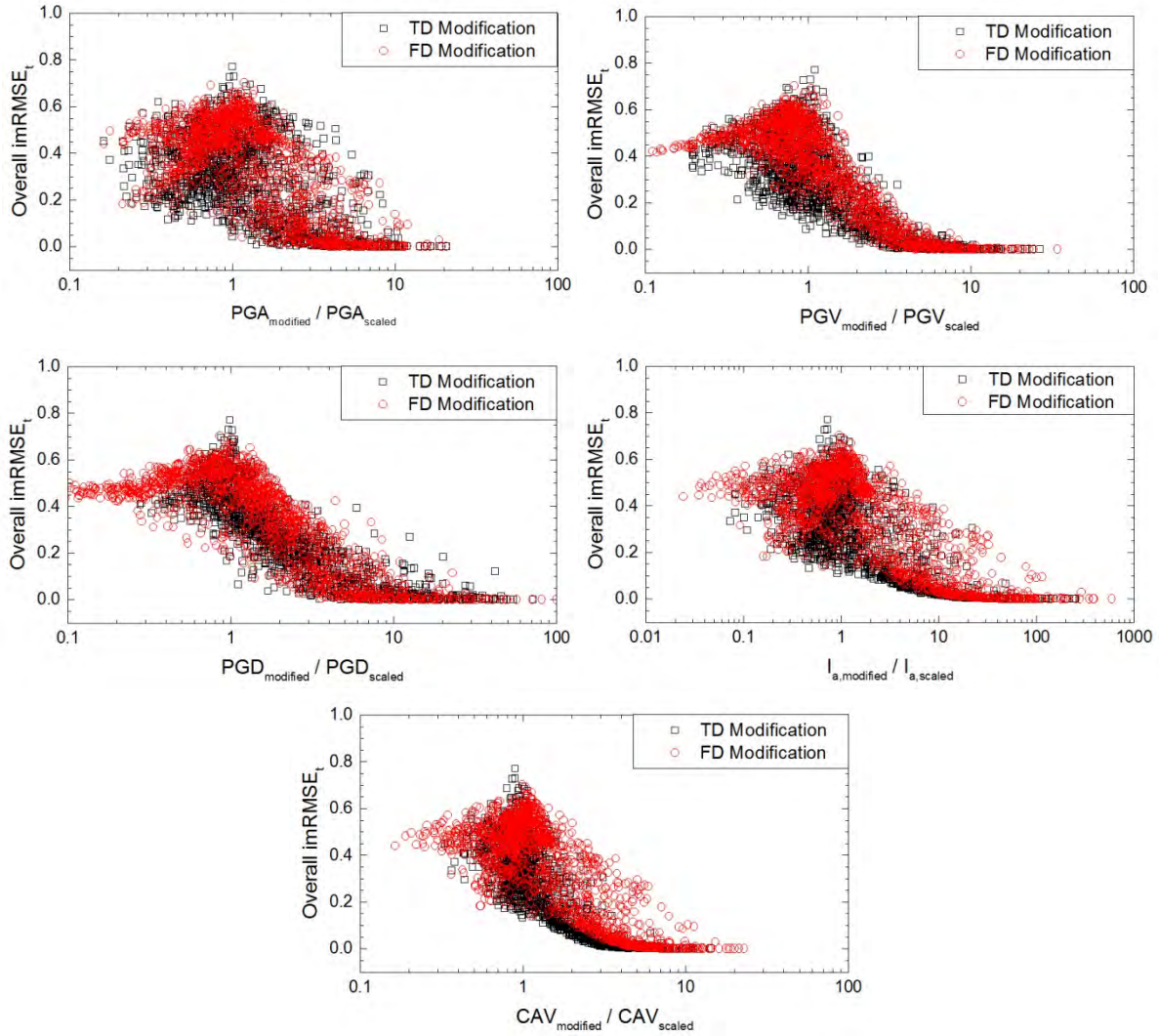
Figure D.6. Overall goodness-of-fit values (*OGOF*) of the motions in scenario I calculated using the inverse modified root mean squared error (*imRMSE$_t$*) plotted against the modified-to-scaled peak ground acceleration (*PGA*), peak ground velocity (*PGV*), peak ground displacement (*PGD*), Arias intensity (*I$_a$*), and cumulative absolute velocity (*CAV*) ratios.

APPENDIX E

Results for Visual Assessment

Table E.1. Qualitative rankings assigned to acceleration ($a(t)$), velocity ($v(t)$), and displacement ($d(t)$) time histories of the TD- and FD-modified motions in scenario I based on the visual examination.

Motion No.		CMS			MA			2% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
1	TD	3	4	5	3	3	1	1	1	1
	FD	4	5	3	5	5	5	5	4	3
2	TD	1	2	2	1	2	1	1	2	1
	FD	3	4	3	5	5	4	3	3	3
3	TD	4	3	3	NA	NA	NA	2	3	1
	FD	4	3	3	2	3	3	3	3	3
4	TD	4	5	5	3	5	5	4	3	3
	FD	5	5	5	5	5	4	5	4	4
5	TD	3	3	2	2	2	1	4	2	1
	FD	3	4	5	3	4	5	4	5	4
6	TD	4	4	5	2	3	2	1	1	1
	FD	5	4	3	3	3	2	4	4	3
7	TD	2	2	2	1	1	1	3	3	4
	FD	4	5	5	5	5	5	5	5	5
8	TD	3	3	2	2	3	2	4	5	5
	FD	4	4	3	4	5	4	5	4	2
9	TD	1	1	1	3	4	5	3	5	5
	FD	2	3	3	5	3	3	5	4	4
10	TD	1	1	1	1	2	1	1	1	1
	FD	4	3	4	5	3	3	4	5	3
11	TD	2	2	2	2	2	1	1	1	1
	FD	3	3	2	2	3	2	3	3	2
12	TD	2	3	5	1	1	1	1	1	1
	FD	3	3	3	3	3	4	3	3	4
13	TD	2	2	1	2	2	1	1	1	1
	FD	2	2	1	2	2	1	1	2	2
14	TD	3	2	2	4	3	2	3	2	2
	FD	3	3	4	3	3	3	3	3	4
15	TD	2	3	3	3	3	2	3	3	3
	FD	3	3	4	3	3	3	3	3	3

NA – Motion matched to this target spectrum was rejected

Motion No.		CMS			MA			2% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
16	TD	2	3	5	4	4	3	1	2	2
	FD	4	4	4	5	5	4	5	4	3
17	TD	1	2	2	2	2	1	2	2	2
	FD	1	2	4	3	3	2	4	3	3
18	TD	2	2	5	2	3	2	1	1	1
	FD	3	3	4	4	4	4	5	5	4
19	TD	3	2	1	3	2	1	2	2	3
	FD	4	4	4	3	5	4	3	5	3
20	TD	2	2	2	1	2	2	2	2	3
	FD	3	3	3	2	3	3	2	3	3
21	TD	4	4	4	2	3	2	1	2	1
	FD	5	5	4	4	5	4	5	4	4
22	TD	1	2	2	2	2	3	2	3	3
	FD	3	4	4	2	3	3	3	3	3
23	TD	2	2	4	4	2	1	2	2	1
	FD	1	4	3	3	4	4	1	3	3
24	TD	1	1	1	2	4	5	1	1	1
	FD	2	2	3	2	2	2	3	2	3
25	TD	1	1	1	1	1	1	1	1	1
	FD	3	3	4	3	3	3	3	3	2
26	TD	3	3	3	1	1	1	3	4	4
	FD	4	3	3	3	4	3	4	4	3
27	TD	2	3	5	2	3	5	NA	NA	NA
	FD	4	3	2	4	2	2	4	2	2
28	TD	3	2	4	2	2	2	3	2	2
	FD	3	2	2	3	2	2	4	2	2
29	TD	2	3	5	2	2	4	2	2	5
	FD	2	2	1	2	2	2	2	2	2
30	TD	2	3	5	1	3	4	2	3	5
	FD	2	2	2	2	2	2	2	3	2
31	TD	1	3	5	1	2	4	2	3	5
	FD	4	3	2	3	2	1	4	3	2
32	TD	3	3	5	2	3	5	4	3	4
	FD	4	2	1	4	2	2	4	2	2
33	TD	3	4	5	3	3	5	2	3	5
	FD	4	2	1	4	2	1	5	2	2
34	TD	3	3	4	2	3	5	1	2	2
	FD	3	3	2	4	4	2	4	4	3
35	TD	2	2	4	1	2	3	2	1	1
	FD	4	3	2	4	3	2	3	4	3

NA – Motion matched to this target spectrum was rejected

Table E.1. continued.

Motion No.		CMS			MA			2% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
36	TD	4	3	4	2	2	4	3	2	4
	FD	4	3	1	5	2	2	4	2	2
37	TD	3	4	5	4	5	5	3	5	5
	FD	3	3	3	3	3	3	4	4	2
38	TD	3	5	5	3	3	3	3	5	5
	FD	4	3	3	4	4	3	4	4	3
39	TD	3	4	5	3	5	5	1	2	4
	FD	3	2	2	3	3	3	4	4	2
40	TD	1	1	1	2	1	1	4	2	2
	FD	3	3	3	4	3	3	5	4	3
41	TD	4	3	5	3	3	4	1	1	1
	FD	5	3	2	4	3	2	5	3	2
42	TD	3	3	4	2	3	5	4	3	5
	FD	4	4	4	4	3	3	3	2	3
43	TD	3	3	4	4	2	2	4	5	5
	FD	5	4	3	5	3	3	5	4	3
44	TD	3	2	3	4	2	2	3	1	1
	FD	3	3	4	5	3	2	5	3	4
45	TD	3	3	3	3	5	5	1	1	1
	FD	5	3	2	3	3	2	3	3	2
46	TD	3	3	2	3	4	4	1	1	1
	FD	4	5	5	2	2	3	2	3	4
47	TD	NA	NA	NA	1	2	3	2	2	2
	FD	2	2	2	2	2	2	2	2	3
48	TD	2	1	1	1	1	1	2	2	2
	FD	4	4	3	2	2	2	2	2	2
49	TD	2	3	2	2	2	2	1	1	1
	FD	5	4	3	2	2	2	3	2	3
50	TD	4	3	2	2	2	1	2	2	2
	FD	5	4	3	3	3	2	3	3	3
51	TD	2	2	1	2	1	1	2	2	2
	FD	2	2	1	5	2	1	4	2	1
52	TD	3	4	4	3	1	1	5	3	2
	FD	3	4	1	5	3	1	5	3	2
53	TD	1	1	1	2	2	1	2	4	4
	FD	3	3	3	4	2	1	4	3	2
54	TD	4	2	1	3	2	1	3	3	2
	FD	5	3	1	4	2	1	4	3	2
55	TD	1	2	2	1	3	2	1	2	1
	FD	4	5	4	4	5	4	4	5	4

NA – Motion matched to this target spectrum was rejected

Motion No.		CMS			MA			2% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
56	TD	1	2	1	1	1	1	1	2	1
	FD	3	4	3	4	4	1	4	3	1
57	TD	2	4	4	2	2	1	2	3	2
	FD	3	3	3	2	2	1	2	3	2
58	TD	3	5	5	1	1	1	1	1	1
	FD	3	3	3	3	3	2	3	3	3
59	TD	3	3	3	2	1	1	3	2	1
	FD	4	2	2	2	2	1	3	2	2
60	TD	2	3	2	3	3	2	3	2	3
	FD	5	3	3	3	3	1	3	2	2
61	TD	1	2	1	1	1	1	2	1	2
	FD	1	2	1	2	2	1	2	1	2
62	TD	1	1	1	1	1	1	1	1	1
	FD	2	3	4	2	3	2	2	3	4
63	TD	2	2	2	2	1	1	NA	NA	NA
	FD	3	2	2	1	1	1	1	1	1
64	TD	1	1	1	2	4	3	1	1	1
	FD	3	4	3	2	1	1	2	3	3
65	TD	4	5	5	2	2	1	1	1	1
	FD	4	3	3	4	3	2	5	4	3
66	TD	2	4	4	3	4	2	2	3	3
	FD	4	3	4	3	3	4	4	4	5
67	TD	1	1	1	1	1	1	1	1	1
	FD	2	3	2	2	2	1	2	2	2
68	TD	1	1	1	1	1	1	2	3	2
	FD	2	3	4	2	1	1	2	2	1
69	TD	2	3	4	NA	NA	NA	2	2	3
	FD	2	2	2	1	2	2	3	2	3
70	TD	2	3	2	2	3	4	2	2	3
	FD	5	4	4	4	5	4	4	5	4
71	TD	1	1	1	1	1	1	1	1	1
	FD	3	5	4	4	5	4	4	5	4
72	TD	2	4	4	3	4	3	4	4	2
	FD	4	5	4	5	5	4	5	5	4
73	TD	1	1	1	1	1	1	1	1	1
	FD	2	3	4	3	3	4	5	4	4
74	TD	2	2	3	1	1	1	1	1	1
	FD	3	4	5	2	3	3	4	5	5
75	TD	3	3	4	4	2	1	3	2	1
	FD	4	3	2	3	2	1	5	2	2

NA – Motion matched to this target spectrum was rejected

Motion No.		CMS			MA			2% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
76	TD	2	2	2	4	3	3	2	2	3
	FD	3	3	2	4	2	1	3	2	2
77	TD	4	5	5	4	5	4	4	5	4
	FD	3	3	2	4	3	2	5	3	3
78	TD	4	4	4	1	1	1	4	2	2
	FD	4	5	3	4	5	3	4	4	3
79	TD	1	2	1	4	3	3	2	2	2
	FD	5	5	4	5	5	5	5	4	4
80	TD	1	1	1	3	3	4	3	3	3
	FD	5	4	3	3	4	2	5	5	4
81	TD	1	1	3	2	3	3	1	1	1
	FD	3	5	5	2	2	3	2	4	5
82	TD	1	2	3	1	1	1	1	1	1
	FD	3	3	2	1	2	2	2	3	2
83	TD	2	2	5	2	3	5	3	2	4
	FD	2	3	3	3	3	3	4	2	4
84	TD	2	2	3	1	2	2	1	1	1
	FD	2	3	4	2	2	1	4	2	3
85	TD	2	3	4	1	1	1	1	1	1
	FD	3	2	3	3	2	2	3	2	2
86	TD	1	1	1	1	1	1	2	2	2
	FD	2	3	3	3	3	3	2	3	4
87	TD	1	1	2	3	3	2	NA	NA	NA
	FD	3	3	3	3	3	3	3	3	2
88	TD	3	3	2	4	4	5	4	2	3
	FD	3	4	4	4	4	4	4	3	5
89	TD	3	4	4	2	2	2	3	3	2
	FD	3	3	2	2	2	2	2	3	3
90	TD	3	4	4	2	2	2	1	2	1
	FD	3	2	3	1	2	2	2	3	3
91	TD	4	2	2	5	4	5	4	3	3
	FD	4	4	4	4	3	3	4	4	4
92	TD	4	4	3	4	3	2	1	2	1
	FD	4	5	4	3	3	3	4	3	3
93	TD	NA	NA	NA	NA	NA	NA	2	3	2
	FD	3	3	2	2	3	2	3	3	2
94	TD	3	5	5	1	2	2	2	4	5
	FD	4	4	3	2	4	3	3	5	4
95	TD	1	1	1	1	2	1	3	4	5
	FD	4	4	4	5	4	3	5	4	4

NA – Motion matched to this target spectrum was rejected

Motion No.		CMS			MA			2% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
96	TD	1	2	4	1	2	2	3	2	2
	FD	2	3	3	2	3	2	3	3	2
97	TD	1	1	1	5	5	5	5	5	5
	FD	5	5	2	3	3	2	5	4	3
98	TD	3	3	1	1	3	2	4	3	3
	FD	2	5	5	2	3	4	4	4	3
99	TD	1	1	1	2	1	1	1	1	1
	FD	2	3	3	2	2	3	3	3	4
100	TD	2	1	2	2	1	1	1	1	1
	FD	2	2	3	2	2	2	3	3	4
101	TD	4	4	5	1	2	1	3	4	3
	FD	3	5	4	3	5	3	4	4	4
102	TD	3	3	3	3	3	4	1	1	1
	FD	4	5	5	3	5	4	3	5	5
103	TD	1	2	2	1	1	1	1	2	1
	FD	5	4	3	3	3	1	3	4	1
104	TD	1	2	1	1	1	1	3	2	2
	FD	3	4	4	2	3	2	3	2	2
105	TD	3	4	3	4	4	4	4	5	5
	FD	4	5	5	4	3	4	4	5	4
106	TD	1	1	1	4	3	3	3	2	2
	FD	4	3	3	3	4	2	4	4	2
107	TD	1	1	1	1	1	1	1	1	1
	FD	3	3	3	3	2	3	3	2	3
108	TD	1	1	1	3	2	1	1	1	1
	FD	4	3	3	2	2	1	4	3	3

Table E.2. Qualitative rankings assigned to acceleration ($a(t)$), velocity ($v(t)$), and displacement ($d(t)$) time histories of the TD- and FD-modified motions in scenario II based on the visual examination.

Motion No.		CMS $a(t)$	$v(t)$	$d(t)$	2% UHS $a(t)$	$v(t)$	$d(t)$	10% UHS $a(t)$	$v(t)$	$d(t)$
1	TD	2	2	1	NA	NA	NA	2	3	1
	FD	2	3	2	3	4	2	2	4	4
2	TD	2	2	1	NA	NA	NA	2	2	1
	FD	2	2	1	3	3	3	2	3	3
3	TD	4	4	5	5	5	5	4	5	5
	FD	3	2	2	4	2	2	3	2	2
4	TD	4	5	5	4	4	5	3	4	5
	FD	3	2	1	4	2	1	3	2	2
5	TD	4	3	3	3	3	3	5	4	5
	FD	4	2	2	3	3	2	4	5	2
6	TD	3	3	3	3	4	4	4	5	5
	FD	4	2	2	3	3	2	3	3	2
7	TD	4	4	3	4	4	5	4	3	3
	FD	3	2	1	3	2	2	4	3	2
8	TD	3	5	3	2	4	5	3	4	4
	FD	2	2	1	2	2	2	4	3	2
9	TD	5	5	5	3	2	2	1	1	1
	FD	5	3	2	3	2	1	4	2	2
10	TD	4	2	3	3	4	5	3	3	4
	FD	4	3	2	3	3	2	4	3	1
11	TD	3	3	2	3	4	5	3	3	3
	FD	3	3	4	3	4	4	4	4	5
12	TD	5	3	3	1	1	1	4	5	5
	FD	4	4	3	3	3	3	4	3	3
13	TD	4	4	5	3	4	5	4	4	4
	FD	5	2	1	4	2	1	3	2	1
14	TD	4	5	4	3	3	5	NA	NA	NA
	FD	2	2	1	4	2	2	3	2	1
15	TD	3	3	5	3	4	5	3	3	5
	FD	2	2	3	2	3	3	2	2	2
16	TD	3	3	3	3	4	5	3	3	2
	FD	2	3	3	3	3	2	3	3	3
17	TD	4	5	3	3	2	2	3	2	2
	FD	3	2	1	3	2	2	4	2	2
18	TD	4	4	5	3	4	5	NA	NA	NA
	FD	2	2	2	3	2	2	5	2	1
19	TD	NA	NA	NA	2	3	2	NA	NA	NA
	FD	2	2	3	4	2	2	4	3	3
20	TD	2	3	2	3	3	4	4	3	3
	FD	2	2	2	3	2	2	4	2	2

NA – Motion matched to this target spectrum was rejected

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Motion No.		CMS			2% UHS			10% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
21	TD	4	4	5	3	3	4	4	4	4
	FD	2	3	2	2	2	2	5	3	2
22	TD	5	5	5	4	5	5	4	5	5
	FD	4	3	2	4	2	2	4	3	2
23	TD	5	5	5	3	1	1	4	4	5
	FD	4	5	1	3	5	3	3	3	2
24	TD	5	5	2	4	5	2	5	5	5
	FD	5	5	4	5	5	2	4	5	4
25	TD	2	2	1	3	2	3	4	4	5
	FD	2	3	2	2	2	2	2	3	2
26	TD	5	4	4	5	5	5	4	4	4
	FD	2	4	2	4	4	2	3	4	3
27	TD	3	4	3	1	1	1	4	3	3
	FD	1	4	2	3	4	3	3	4	2
28	TD	3	4	4	2	3	4	4	3	4
	FD	3	2	2	3	2	2	3	2	2
29	TD	4	2	1	3	2	2	3	1	1
	FD	3	2	2	4	2	2	4	2	3
30	TD	1	2	1	2	3	4	3	3	4
	FD	2	2	1	2	2	2	3	2	2
31	TD	3	3	3	2	2	2	4	3	3
	FD	2	3	2	2	3	2	2	3	2
32	TD	3	3	3	NA	NA	NA	2	3	4
	FD	4	3	2	3	3	2	2	4	2
33	TD	3	3	3	3	4	5	2	3	3
	FD	2	2	1	2	2	1	2	3	2
34	TD	2	2	2	2	2	2	2	2	3
	FD	2	3	2	2	2	2	2	3	2
35	TD	NA	NA	NA	NA	NA	NA	3	2	1
	FD	NA	NA	NA	3	4	3	4	4	3
36	TD	2	2	1	1	1	1	2	2	1
	FD	2	3	1	3	2	2	2	3	2
37	TD	4	4	4	4	3	4	5	4	4
	FD	5	2	2	5	2	1	5	3	2
38	TD	4	3	5	1	2	3	4	4	4
	FD	4	2	2	3	2	2	4	3	2
39	TD	1	2	1	3	3	4	3	3	4
	FD	2	1	1	2	1	1	2	1	1
40	TD	1	1	1	2	1	2	3	3	4
	FD	3	2	2	3	2	2	3	2	1

NA – Motion matched to this target spectrum was rejected

Table E.2. continued.

Motion No.		CMS			2% UHS			10% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
41	TD	2	3	5	3	2	3	2	4	5
	FD	2	2	1	2	2	1	2	2	1
42	TD	2	3	1	2	2	1	3	3	4
	FD	2	2	1	2	2	1	2	2	2
43	TD	2	4	5	2	4	5	2	4	5
	FD	4	2	1	4	2	2	4	2	1
44	TD	NA	NA	NA	4	4	5	2	4	4
	FD	2	2	1	3	2	1	2	2	1
45	TD	1	2	3	4	3	3	2	3	4
	FD	2	2	2	3	3	2	3	2	1
46	TD	2	3	2	2	3	4	1	3	3
	FD	2	2	1	2	2	2	2	2	1
47	TD	2	2	2	1	1	1	3	3	5
	FD	3	2	3	2	3	3	3	4	4
48	TD	3	4	5	3	4	4	3	2	2
	FD	3	3	4	3	3	4	3	4	4
49	TD	3	4	2	2	2	1	1	1	1
	FD	3	3	1	3	2	2	2	4	3
50	TD	2	4	2	1	2	1	1	2	1
	FD	2	3	1	3	2	2	1	4	2
51	TD	3	2	3	4	5	5	4	4	5
	FD	4	3	3	4	3	2	4	4	3
52	TD	4	4	4	1	1	1	1	1	1
	FD	3	4	3	4	4	3	3	4	3
53	TD	4	3	1	5	5	5	4	3	4
	FD	4	4	3	4	3	2	3	3	3
54	TD	4	4	2	3	4	3	3	3	2
	FD	4	3	1	4	4	2	4	4	3
55	TD	3	2	2	4	5	5	3	3	3
	FD	4	2	2	3	3	2	4	4	3
56	TD	1	2	1	2	2	2	1	2	2
	FD	2	2	2	4	3	2	3	3	3
57	TD	3	2	2	3	1	1	4	3	2
	FD	3	2	2	3	2	2	2	2	2
58	TD	4	4	3	5	4	4	3	2	1
	FD	3	2	2	5	2	2	4	3	2
59	TD	2	3	3	3	3	3	3	3	3
	FD	2	2	1	4	2	2	3	2	1
60	TD	1	2	2	2	3	2	2	3	4
	FD	3	2	1	2	2	2	4	2	1

NA – Motion matched to this target spectrum was rejected

Table E.2. continued.

Motion No.		CMS			2% UHS			10% UHS		
		$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$	$a(t)$	$v(t)$	$d(t)$
61	TD	1	1	1	NA	NA	NA	2	1	1
	FD	4	4	3	3	2	2	3	3	4
62	TD	3	3	2	2	2	2	2	2	1
	FD	3	2	2	3	2	2	2	2	2
63	TD	1	2	1	NA	NA	NA	NA	NA	NA
	FD	2	3	1	3	3	1	2	4	3
64	TD	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FD	2	3	2	3	3	2	2	2	3
65	TD	4	3	3	4	5	5	5	3	2
	FD	3	3	2	3	4	2	4	4	2
66	TD	3	3	3	1	1	1	5	3	2
	FD	5	3	2	5	4	2	5	5	4
67	TD	4	3	2	3	3	3	4	4	3
	FD	4	2	1	3	3	3	4	3	1
68	TD	4	4	1	3	3	3	2	3	2
	FD	4	3	1	3	2	3	4	2	1
69	TD	2	2	2	1	1	1	5	5	5
	FD	2	2	1	2	3	3	2	5	3
70	TD	1	1	1	4	4	2	4	4	5
	FD	4	3	1	4	4	2	4	4	3
71	TD	1	2	3	3	3	5	2	4	3
	FD	2	2	3	2	2	3	2	3	3
72	TD	3	2	1	4	3	5	4	5	5
	FD	2	3	3	2	3	3	4	4	3
73	TD	3	3	1	2	2	1	3	2	1
	FD	NA	NA	NA	3	2	1	3	3	1
74	TD	1	1	1	2	1	1	2	3	3
	FD	2	1	1	3	3	1	2	3	3
75	TD	4	2	1	2	1	1	5	3	2
	FD	4	3	2	4	3	2	5	4	3
76	TD	3	4	5	4	4	4	5	3	3
	FD	3	2	2	2	3	2	3	3	2
77	TD	3	1	1	3	1	1	4	3	4
	FD	3	2	3	3	3	2	3	3	3
78	TD	4	3	3	4	2	1	3	3	2
	FD	4	2	2	3	2	1	2	2	1
79	TD	4	2	2	4	5	5	2	2	2
	FD	3	3	3	4	5	3	3	4	4
80	TD	1	2	1	1	2	1	1	2	1
	FD	5	4	4	5	5	4	5	5	5

NA – Motion matched to this target spectrum was rejected

Table E.2. continued.

Motion No.		CMS			2% UHS			10% UHS		
		a(t)	*v(t)*	*d(t)*	*a(t)*	*v(t)*	*d(t)*	*a(t)*	*v(t)*	*d(t)*
81	TD	1	4	1	NA	NA	NA	NA	NA	NA
	FD	1	3	2	2	3	2	1	3	2
82	TD	3	3	1	NA	NA	NA	3	2	1
	FD	3	3	1	3	3	2	3	4	1
83	TD	5	4	5	4	5	2	4	3	4
	FD	4	4	1	2	3	2	3	4	3
84	TD	4	5	5	3	2	2	4	5	5
	FD	3	3	1	4	3	2	5	4	3
85	TD	3	1	1	1	1	1	1	1	1
	FD	3	4	3	3	3	3	3	4	5
86	TD	1	1	1	1	2	2	2	2	1
	FD	2	2	3	3	2	2	3	3	3
87	TD	NA	NA	NA	1	2	1	2	1	1
	FD	2	3	2	3	3	2	2	4	3
88	TD	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FD	2	3	2	2	3	2	1	3	2
89	TD	3	3	3	3	3	3	4	3	3
	FD	4	3	3	3	3	2	5	5	3
90	TD	4	3	3	4	3	2	4	4	4
	FD	4	4	3	4	3	3	5	4	3
91	TD	3	3	1	2	3	1	2	3	2
	FD	2	5	1	3	3	1	1	4	3
92	TD	3	2	1	1	3	1	2	1	1
	FD	2	2	1	2	3	3	2	2	1
93	TD	3	4	5	2	1	1	1	2	1
	FD	3	3	4	3	3	3	4	5	5
94	TD	1	1	1	3	5	5	1	1	1
	FD	4	2	2	4	4	1	5	5	4
95	TD	5	5	4	NA	NA	NA	5	5	5
	FD	3	4	3	3	4	1	4	5	2
96	TD	3	2	1	4	3	1	4	2	1
	FD	3	4	1	3	3	2	5	4	3
97	TD	4	1	1	3	3	1	4	2	1
	FD	2	4	1	2	3	2	2	4	3
98	TD	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FD	1	3	2	3	2	2	1	2	3
99	TD	2	3	1	3	1	1	2	3	3
	FD	2	4	1	2	2	2	2	4	3
100	TD	NA	NA	NA	NA	NA	NA	2	3	2
	FD	1	3	2	3	3	2	2	3	2

NA – Motion matched to this target spectrum was rejected

File Name: 1006 UCL090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.58   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.278	0.439	0.344	0.344
PGV (cm/s)	21.9	34.6	27.5	36.5
PGD (cm)	4.1	6.5	6.6	9.5
I_a (cm/s)	87	218	189	157
D_{5-95} (s)	11.3	11.3	12.5	20.0
CAV (cm/s)	820	1296	1281	1332
T_m (s)	0.34	0.34	0.44	0.61

Figure E.1. One-page output images for motions in scenario I matched to the conditional mean spectrum (CMS), from motion number 1 to 108, generated by the GMM program.

429

	Original	Scaled	TDMod	FDMod
PGA (g)	0.474	0.488	0.344	0.344
PGV (cm/s)	22.0	22.7	35.5	33.2
PGD (cm)	7.3	7.6	13.6	8.9
I_a (cm/s)	165	175	174	138
D_{5-95} (s)	10.2	10.2	11.1	15.6
CAV (cm/s)	1083	1115	1237	1156
T_m (s)	0.36	0.36	0.47	0.59

Figure E.1. continued.

430

File Name: 1008 W15090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.57   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.104	0.267	0.344	0.344
PGV (cm/s)	11.6	29.8	24.9	26.8
PGD (cm)	5.7	14.8	20.4	12.6
I_a (cm/s)	23	149	173	196
D_{5-95} (s)	20.8	20.8	19.7	22.1
CAV (cm/s)	482	1240	1329	1492
T_m (s)	0.71	0.71	0.58	0.61

Figure E.1. continued.

431

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.383	0.344	0.344
PGV (cm/s)	13.4	32.2	28.4	29.8
PGD (cm)	3.3	7.9	8.3	10.4
I_a (cm/s)	28	163	174	162
D_{5-95} (s)	18.3	18.3	18.3	20.2
CAV (cm/s)	530	1277	1311	1322
T_m (s)	0.58	0.58	0.57	0.61

Figure E.1. continued.

432

File Name: 1009 5082A-235   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.27   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

Original — Scaled — TDMod — FDMod

	Original	Scaled	TDMod	FDMod
PGA (g)	0.254	0.322	0.344	0.344
PGV (cm/s)	32.8	41.7	32.1	37.3
PGD (cm)	11.3	14.3	12.7	10.9
I_a (cm/s)	82	132	157	183
D_{5-95} (s)	15.0	15.0	15.6	16.0
CAV (cm/s)	892	1133	1291	1421
T_m (s)	0.61	0.61	0.60	0.56

Target — Scaled — TDMod — FDMod

Figure E.1. continued.

433

File Name: 1009 5082A-325   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.66   Target Spectrum Matched: targetCMS.txt   FD poly: 5   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.253	0.419	0.344	0.344
PGV (cm/s)	18.7	31.0	33.1	30.0
PGD (cm)	7.8	13.0	12.2	8.9
I_a (cm/s)	69	192	173	138
D_{5-95} (s)	13.3	13.3	14.0	21.1
CAV (cm/s)	796	1322	1319	1245
T_m (s)	0.43	0.43	0.50	0.61

Figure E.1. continued.

434

File Name: 1010 5082-235   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.12   Target Spectrum Matched: targetCMS.txt   FD poly: 7   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.303	0.339	0.344	0.344
PGV (cm/s)	33.0	36.9	33.1	34.7
PGD (cm)	10.1	11.3	22.5	10.0
I_a (cm/s)	86	107	144	118
D_{5-95} (s)	13.5	13.5	15.8	16.9
CAV (cm/s)	824	923	1189	1070
T_m (s)	0.58	0.58	0.61	0.69

Figure E.1. continued.

435

File Name: 1010 5082-325   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.13   Target Spectrum Matched: targetCMS.txt   FD poly: 9   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.383	0.433	0.344	0.344
PGV (cm/s)	21.2	24.0	24.8	25.2
PGD (cm)	4.7	5.3	11.7	8.6
I_a (cm/s)	108	137	145	122
D_{5-95} (s)	10.5	10.5	13.2	21.6
CAV (cm/s)	863	975	1146	1157
T_m (s)	0.44	0.44	0.60	0.68

Figure E.1. continued.

436

	Original	Scaled	TDMod	FDMod
PGA (g)	0.112	0.392	0.344	0.344
PGV (cm/s)	8.7	30.2	28.0	34.9
PGD (cm)	1.8	6.2	17.0	11.1
I_a (cm/s)	14	174	164	115
D_{5-95} (s)	8.8	8.8	10.6	12.1
CAV (cm/s)	284	990	1085	854
T_m (s)	0.32	0.32	0.47	0.55

Figure E.1. continued.

437

File Name: 1011 WON185   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.91   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.172	0.501	0.343	0.344
PGV (cm/s)	11.8	34.3	31.2	34.8
PGD (cm)	2.8	8.1	23.0	10.1
I_a (cm/s)	20	170	157	96
D_{5-95} (s)	6.7	6.7	11.7	10.7
CAV (cm/s)	307	892	1050	756
T_m (s)	0.45	0.45	0.54	0.61

Figure E.1. continued.

438

File Name: 1012 LA0000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.64   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.261	0.429	0.344	0.344
PGV (cm/s)	27.4	44.9	31.5	36.6
PGD (cm)	4.8	7.9	9.7	10.4
I_a (cm/s)	98	264	169	126
D_{5-95} (s)	8.1	8.1	10.5	12.5
CAV (cm/s)	798	1309	1186	1069
T_m (s)	0.43	0.43	0.50	0.58

Figure E.1. continued.

439

File Name: 1012 LA0090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.42   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.388	0.551	0.344	0.344
PGV (cm/s)	38.0	53.9	32.8	48.3
PGD (cm)	4.6	6.5	6.4	7.1
I_a (cm/s)	107	215	158	105
D_{5-95} (s)	8.0	8.0	9.5	10.9
CAV (cm/s)	782	1110	1089	919
T_m (s)	0.38	0.38	0.49	0.59

Figure E.1. continued.

440

File Name: 1016 NYA090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.13   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.178	0.558	0.345	0.344
PGV (cm/s)	12.5	39.1	34.2	25.0
PGD (cm)	1.1	3.6	8.9	8.8
I_a (cm/s)	45	439	202	149
D_{5-95} (s)	9.7	9.7	12.1	12.8
CAV (cm/s)	504	1578	1235	1041
T_m (s)	0.37	0.37	0.49	0.56

Figure E.1. continued.

441

File Name: 1016 NYA180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.21   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.511	0.344	0.344
PGV (cm/s)	11.3	36.2	34.2	32.7
PGD (cm)	3.0	9.6	11.9	13.2
I_a (cm/s)	29	298	187	155
D_{5-95} (s)	11.0	11.0	13.4	13.2
CAV (cm/s)	418	1343	1177	1041
T_m (s)	0.35	0.35	0.51	0.55

Figure E.1. continued.

442

File Name: 1042 CWC180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.25   Target Spectrum Matched: targetCMS.txt   FD poly: 6   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.298	0.373	0.348	0.344
PGV (cm/s)	25.0	31.2	28.1	33.4
PGD (cm)	6.3	7.9	8.5	10.2
I_a (cm/s)	120	188	161	170
D_{5-95} (s)	15.0	15.0	15.3	16.6
CAV (cm/s)	884	1105	1055	1148
T_m (s)	0.53	0.53	0.58	0.62

Figure E.1. continued.

443

	Original	Scaled	TDMod	FDMod
PGA (g)	0.271	0.306	0.344	0.343
PGV (cm/s)	22.2	25.1	26.8	26.2
PGD (cm)	11.5	13.0	13.0	12.2
I_a (cm/s)	118	150	164	170
D_{5-95} (s)	16.4	16.4	15.9	16.5
CAV (cm/s)	897	1014	1084	1108
T_m (s)	0.55	0.55	0.59	0.58

Figure E.1. continued.

444

File Name: 1049 SUN190   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.28   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.469	0.600	0.342	0.344
PGV (cm/s)	30.9	39.6	27.7	36.9
PGD (cm)	5.2	6.7	16.0	9.8
I_a (cm/s)	184	302	162	112
D_{5-95} (s)	8.0	8.0	11.8	12.6
CAV (cm/s)	984	1260	1092	867
T_m (s)	0.32	0.32	0.53	0.59

Figure E.1. continued.

445

	Original	Scaled	TDMod	FDMod
PGA (g)	0.197	0.368	0.344	0.344
PGV (cm/s)	14.9	27.9	27.0	27.5
PGD (cm)	5.6	10.4	10.4	9.7
I_a (cm/s)	65	226	212	155
D_{5-95} (s)	10.5	10.5	12.2	12.1
CAV (cm/s)	641	1199	1272	1051
T_m (s)	0.34	0.34	0.43	0.53

Figure E.1. continued.

446

File Name: 1057 SAR000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.39   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.324	0.344	0.344
PGV (cm/s)	18.6	44.4	30.0	34.3
PGD (cm)	4.5	10.8	16.7	8.3
I_a (cm/s)	32	182	189	185
D_{5-95} (s)	17.1	17.1	17.4	20.2
CAV (cm/s)	548	1310	1382	1371
T_m (s)	0.66	0.66	0.58	0.56

Figure E.1. continued.

447

Figure E.1. continued.

448

	Original	Scaled	TDMod	FDMod
PGA (g)	0.127	0.291	0.344	0.344
PGV (cm/s)	13.8	31.7	39.8	26.1
PGD (cm)	5.5	12.8	14.5	11.0
I_a (cm/s)	35	186	166	178
D_{5-95} (s)	15.9	15.9	17.4	16.4
CAV (cm/s)	534	1228	1172	1213
T_m (s)	0.59	0.59	0.59	0.58

Figure E.1. continued.

449

File Name: 1083 GLE260   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.16   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.157	0.340	0.344	0.344
PGV (cm/s)	14.4	31.2	27.7	25.2
PGD (cm)	4.4	9.4	12.6	11.1
I_a (cm/s)	46	214	159	156
D_{5-95} (s)	11.8	11.8	16.4	17.6
CAV (cm/s)	565	1221	1150	1142
T_m (s)	0.67	0.67	0.60	0.57

Figure E.1. continued.

450

File Name: 1089 5081-270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.80   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.193	0.541	0.344	0.344
PGV (cm/s)	12.0	33.7	30.6	32.9
PGD (cm)	2.3	6.6	7.4	7.9
I_a (cm/s)	51	399	198	151
D_{5-95} (s)	10.1	10.1	12.7	12.0
CAV (cm/s)	551	1542	1220	1091
T_m (s)	0.27	0.27	0.43	0.56

Figure E.1. continued.

451

	Original	Scaled	TDMod	FDMod
PGA (g)	0.332	0.588	0.311	0.344
PGV (cm/s)	15.6	27.6	28.3	23.8
PGD (cm)	4.1	7.3	16.1	9.2
I_a (cm/s)	104	325	187	131
D_{5-95} (s)	8.8	8.8	14.2	11.8
CAV (cm/s)	776	1374	1249	968
T_m (s)	0.30	0.30	0.51	0.57

Figure E.1. continued.

452

Figure E.1. continued.

453

File Name: 1111 NIS090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.85   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.503	0.427	0.344	0.344
PGV (cm/s)	36.6	31.1	29.6	29.0
PGD (cm)	11.3	9.6	18.9	9.2
I_a (cm/s)	227	164	136	139
D_{5-95} (s)	11.2	11.2	12.9	13.7
CAV (cm/s)	1196	1017	1011	1109
T_m (s)	0.52	0.52	0.55	0.61

Figure E.1. continued.

454

File Name: 1193 CHY024-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.85   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.278	0.236	0.344	0.344
PGV (cm/s)	52.9	45.0	38.1	28.2
PGD (cm)	43.6	37.1	33.7	12.8
I_a (cm/s)	183	132	167	244
D_{5-95} (s)	24.1	24.1	23.0	27.4
CAV (cm/s)	1643	1397	1518	1985
T_m (s)	0.87	0.87	0.59	0.53

Figure E.1. continued.

455

File Name: 1193 CHY024-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.11   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.175	0.195	0.344	0.344
PGV (cm/s)	49.0	54.4	36.1	27.8
PGD (cm)	31.1	34.5	22.4	8.8
I_a (cm/s)	119	147	198	261
D_{5-95} (s)	26.9	26.9	26.8	28.7
CAV (cm/s)	1384	1536	1704	2091
T_m (s)	0.84	0.84	0.60	0.54

Figure E.1. continued.

456

File Name: 1541 TCU116-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.14   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.184	0.210	0.344	0.344
PGV (cm/s)	48.7	55.5	35.2	26.1
PGD (cm)	49.2	56.1	47.3	7.0
I_a (cm/s)	157	203	212	301
D_{5-95} (s)	29.0	29.0	28.3	32.0
CAV (cm/s)	1679	1914	1864	2365
T_m (s)	0.97	0.97	0.67	0.56

Figure E.1. continued.

457

File Name: 1541 TCU116-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.26   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.186	0.344	0.344
PGV (cm/s)	45.4	57.2	35.5	27.9
PGD (cm)	30.1	37.9	29.0	10.4
I_a (cm/s)	113	179	212	308
D_{5-95} (s)	33.3	33.3	30.8	33.9
CAV (cm/s)	1473	1856	1912	2458
T_m (s)	1.04	1.04	0.63	0.55

Figure E.1. continued.

458

File Name: 1545 TCU120-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.98   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.221	0.344	0.344
PGV (cm/s)	63.2	61.9	34.8	28.6
PGD (cm)	54.1	53.0	37.1	11.9
I_a (cm/s)	200	192	207	343
D_{5-95} (s)	32.6	32.6	31.3	33.9
CAV (cm/s)	1897	1859	1859	2524
T_m (s)	1.06	1.06	0.61	0.50

Figure E.1. continued.

459

Figure E.1. continued.

460

File Name: 1546 TCU122-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.07   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.220	0.235	0.344	0.344
PGV (cm/s)	42.5	45.5	36.5	25.7
PGD (cm)	43.0	46.1	43.2	7.3
I_a (cm/s)	144	165	222	288
D_{5-95} (s)	30.8	30.8	28.7	31.3
CAV (cm/s)	1577	1688	1891	2246
T_m (s)	0.71	0.71	0.55	0.54

Figure E.1. continued.

461

File Name: 1546 TCU122-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.06   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.261	0.276	0.344	0.344
PGV (cm/s)	34.1	36.1	31.0	30.0
PGD (cm)	36.1	38.3	20.5	17.2
I_a (cm/s)	154	173	206	282
D_{5-95} (s)	30.3	30.3	29.0	32.2
CAV (cm/s)	1562	1656	1731	2179
T_m (s)	0.68	0.68	0.55	0.49

Figure E.1. continued.

462

File Name: 1551 TCU138-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.03   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.232	0.344	0.344
PGV (cm/s)	40.9	42.1	38.5	35.8
PGD (cm)	26.1	26.9	24.9	7.4
I_a (cm/s)	167	177	200	306
D_{5-95} (s)	32.1	32.1	31.1	33.2
CAV (cm/s)	1883	1940	2001	2623
T_m (s)	0.96	0.96	0.65	0.49

Figure E.1. continued.

463

File Name: 1551 TCU138-W   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.15   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.195	0.224	0.344	0.344
PGV (cm/s)	41.0	47.1	41.0	32.6
PGD (cm)	36.4	41.9	33.5	7.5
I_a (cm/s)	160	212	256	360
D_{5-95} (s)	34.1	34.1	32.1	35.5
CAV (cm/s)	1852	2130	2251	2819
T_m (s)	0.71	0.71	0.57	0.49

Figure E.1. continued.

464

File Name: 1614 1061-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.93   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.392	0.344	0.344
PGV (cm/s)	13.7	40.1	35.9	36.5
PGD (cm)	8.2	24.0	17.9	10.4
I_a (cm/s)	25	211	175	169
D_{5-95} (s)	15.6	15.6	16.3	19.0
CAV (cm/s)	433	1267	1263	1309
T_m (s)	0.41	0.41	0.53	0.62

Figure E.1. continued.

465

File Name: 1614 1061-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.39   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.107	0.361	0.344	0.344
PGV (cm/s)	11.5	39.0	43.8	38.8
PGD (cm)	8.2	27.8	29.2	10.8
I_a (cm/s)	23	261	216	195
D_{5-95} (s)	15.6	15.6	16.4	16.6
CAV (cm/s)	443	1501	1414	1366
T_m (s)	0.41	0.41	0.48	0.53

Figure E.1. continued.

466

File Name: 1618 531-E   Start and End Taper Percentage: 1.0% and 5.0%
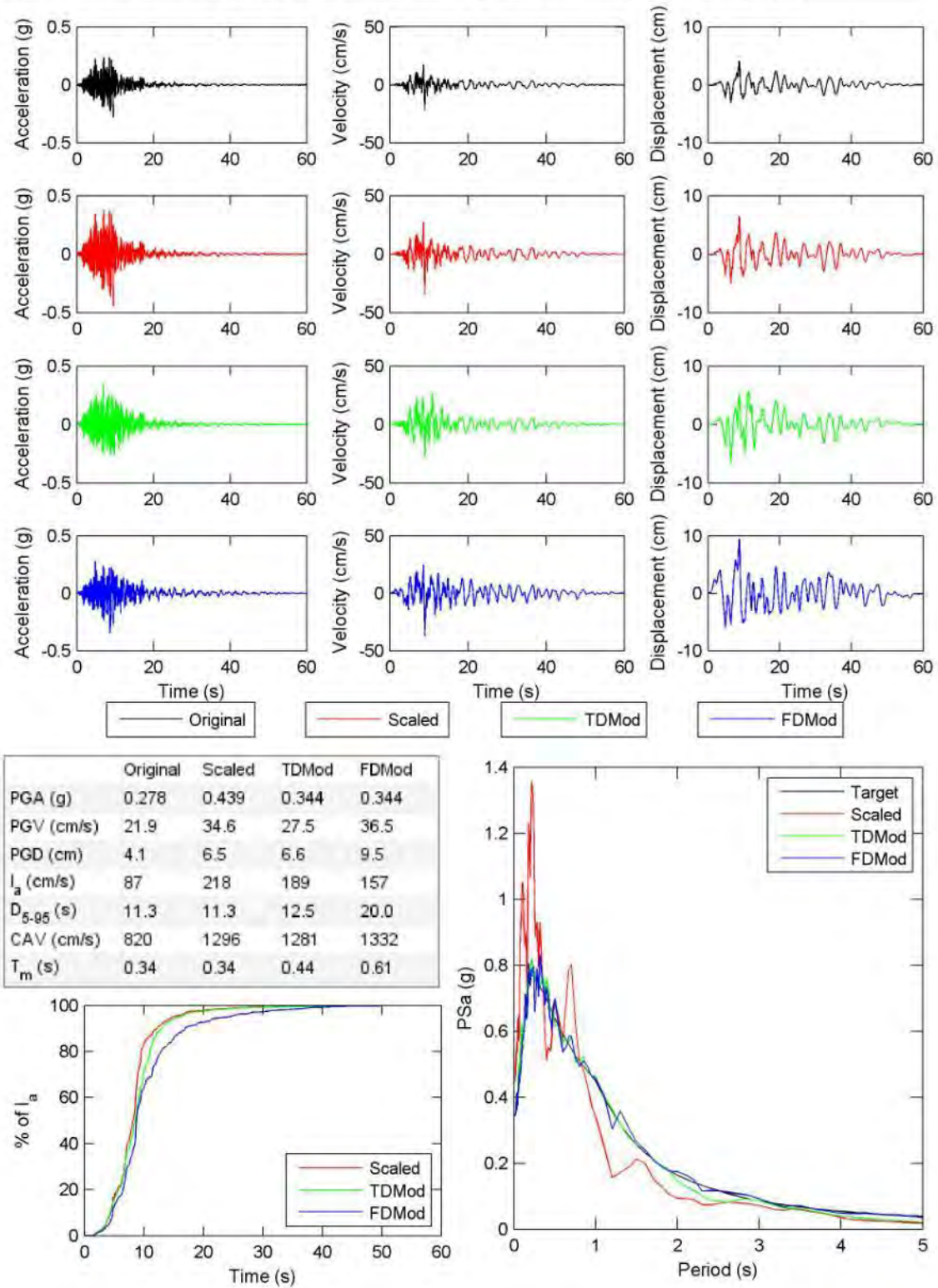Scale Factor: 2.72   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4
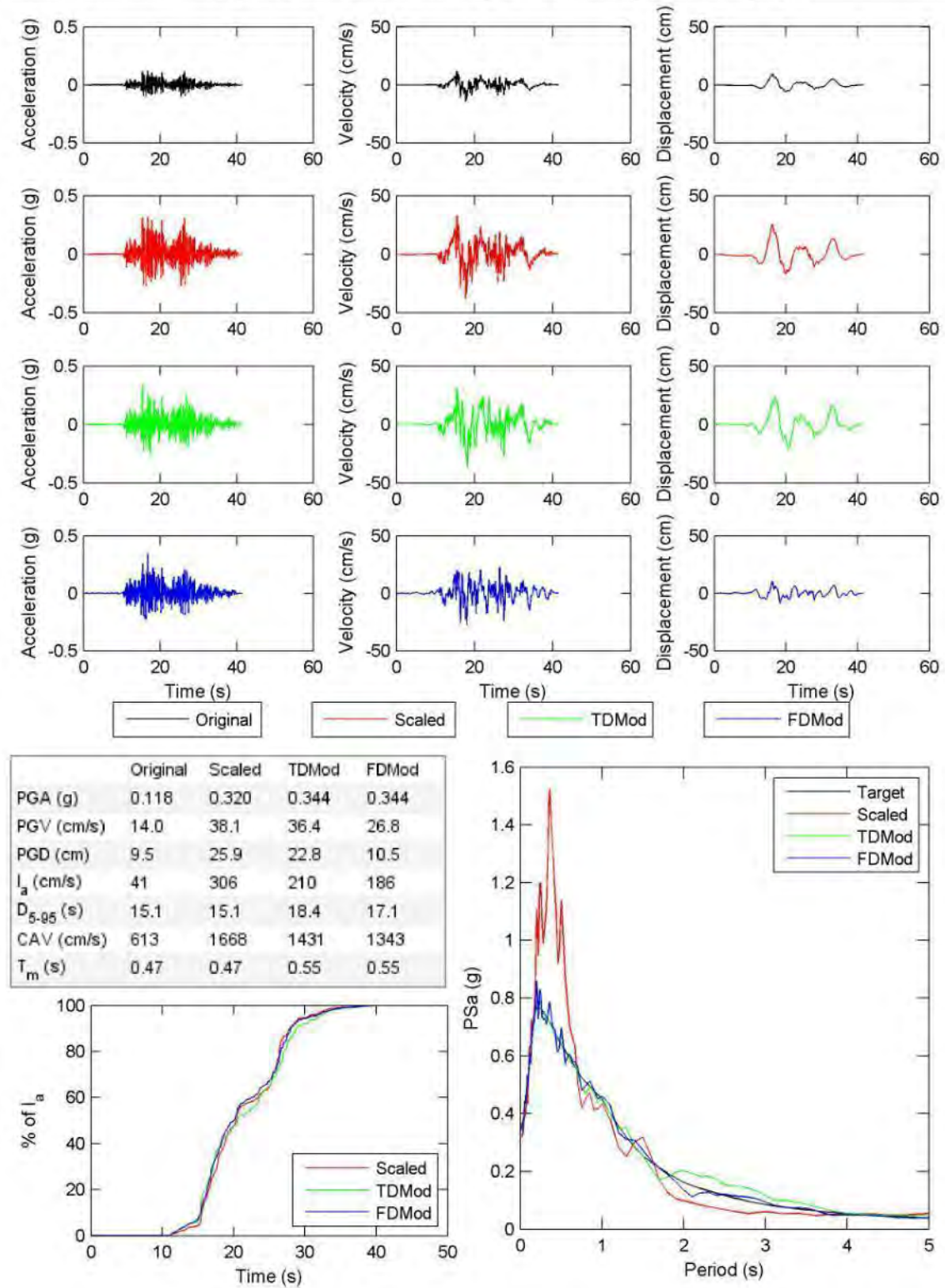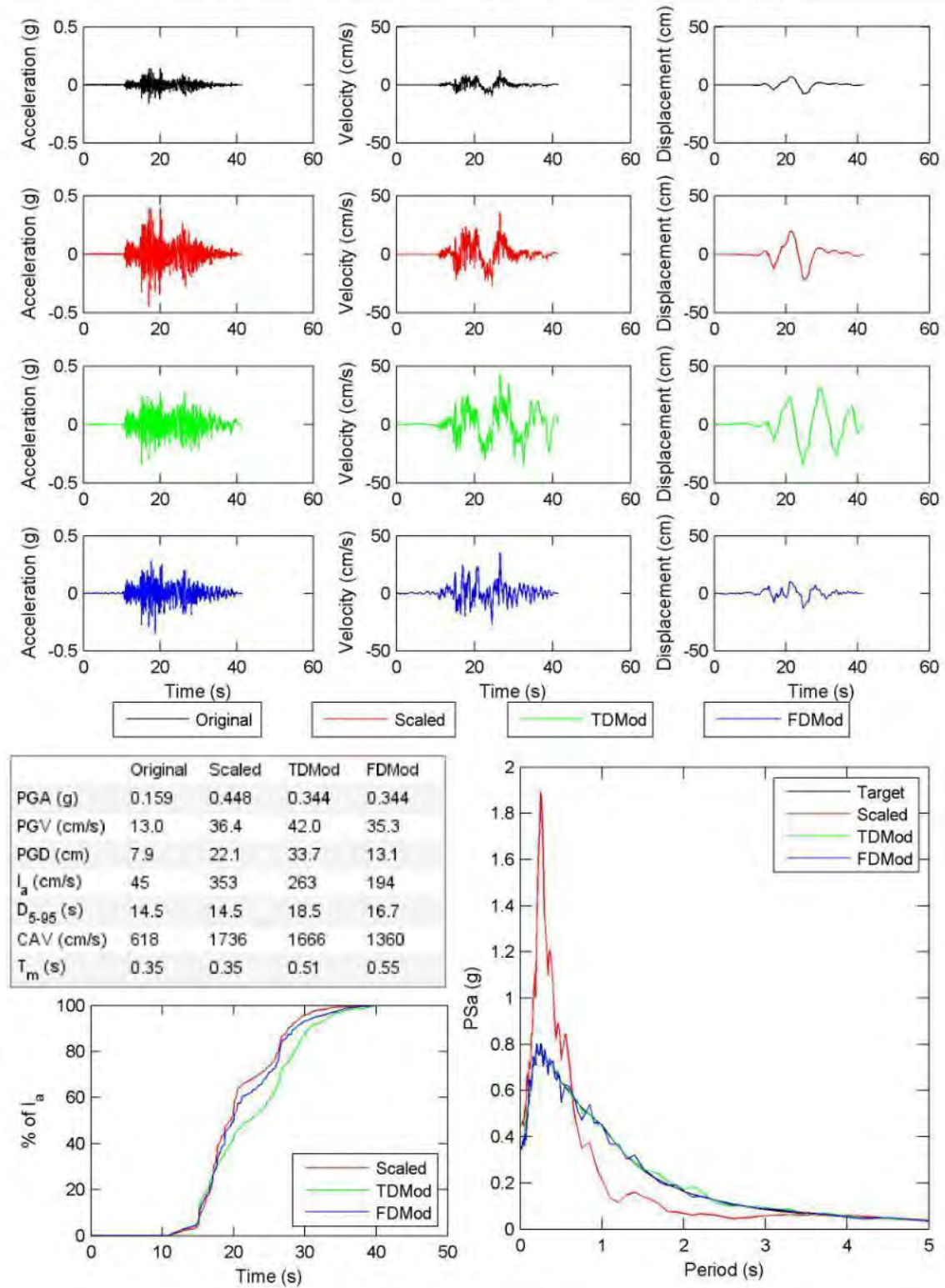
	Original	Scaled	TDMod	FDMod
PGA (g)	0.118	0.320	0.344	0.344
PGV (cm/s)	14.0	38.1	36.4	26.8
PGD (cm)	9.5	25.9	22.8	10.5
I_a (cm/s)	41	306	210	186
D_{5-95} (s)	15.1	15.1	18.4	17.1
CAV (cm/s)	613	1668	1431	1343
T_m (s)	0.47	0.47	0.55	0.55

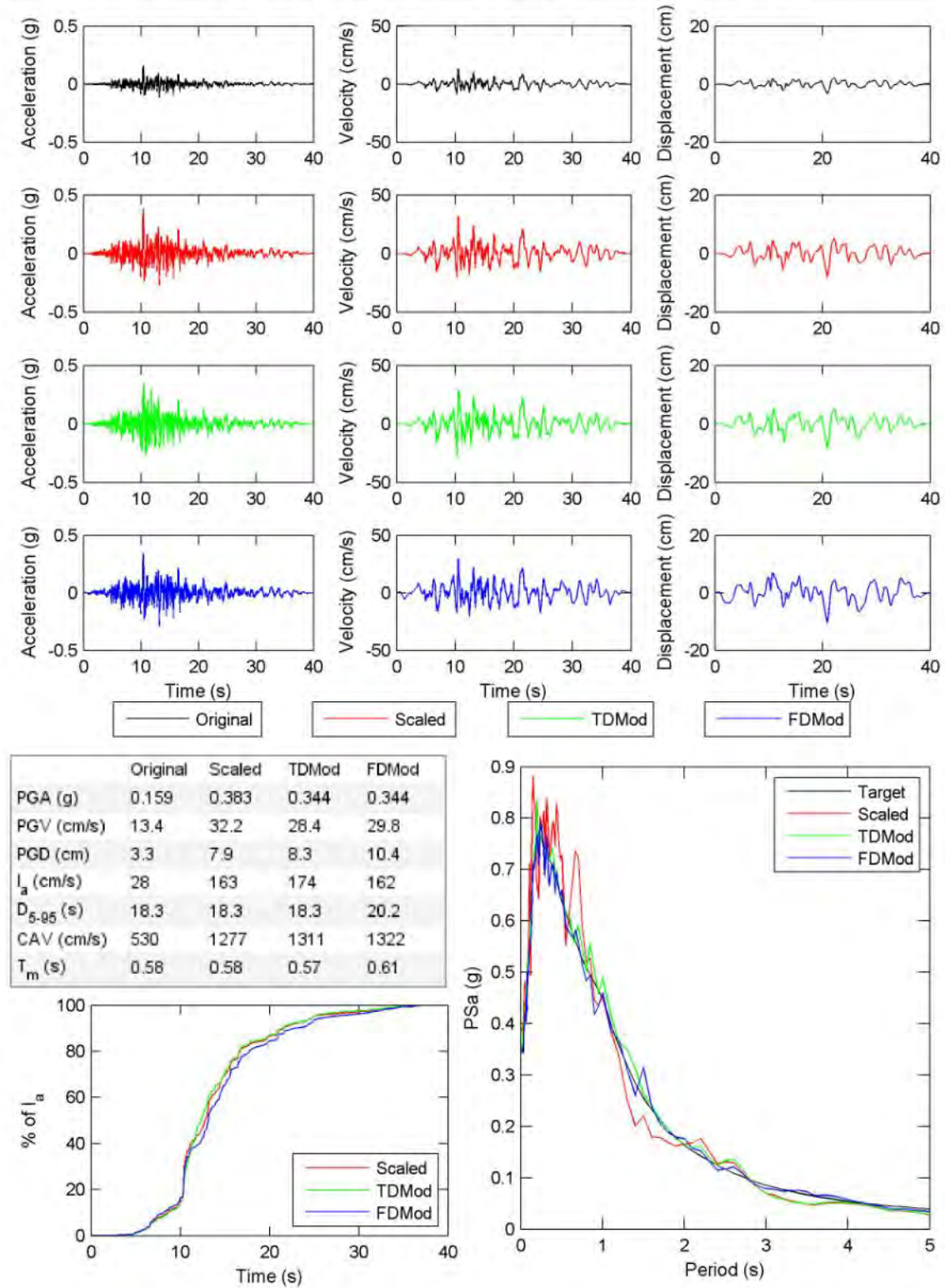**Figure E.1.** continued.

467

File Name: 1618 531-N   Start and End Taper Percentage: 1.0% and 5.0%
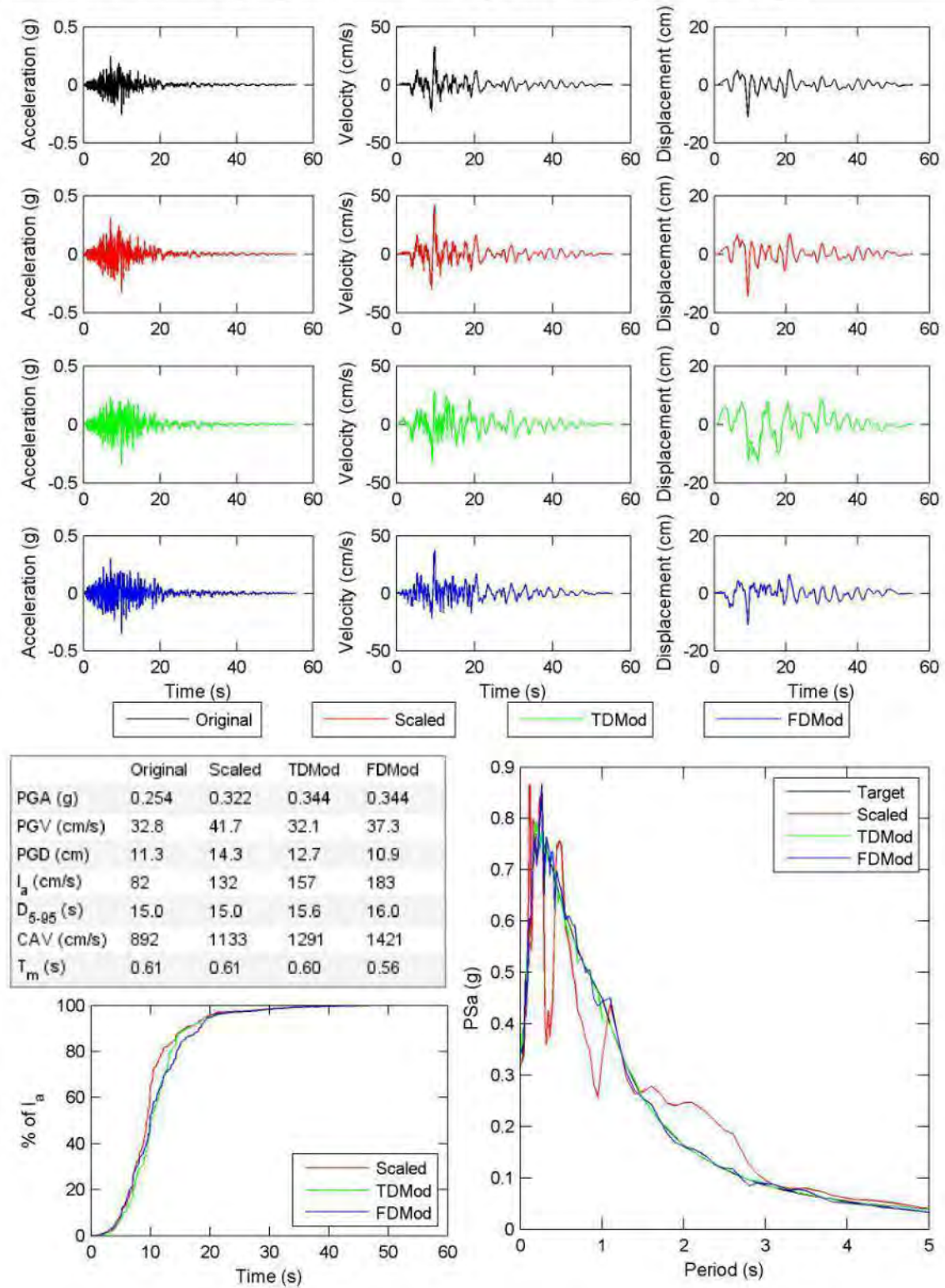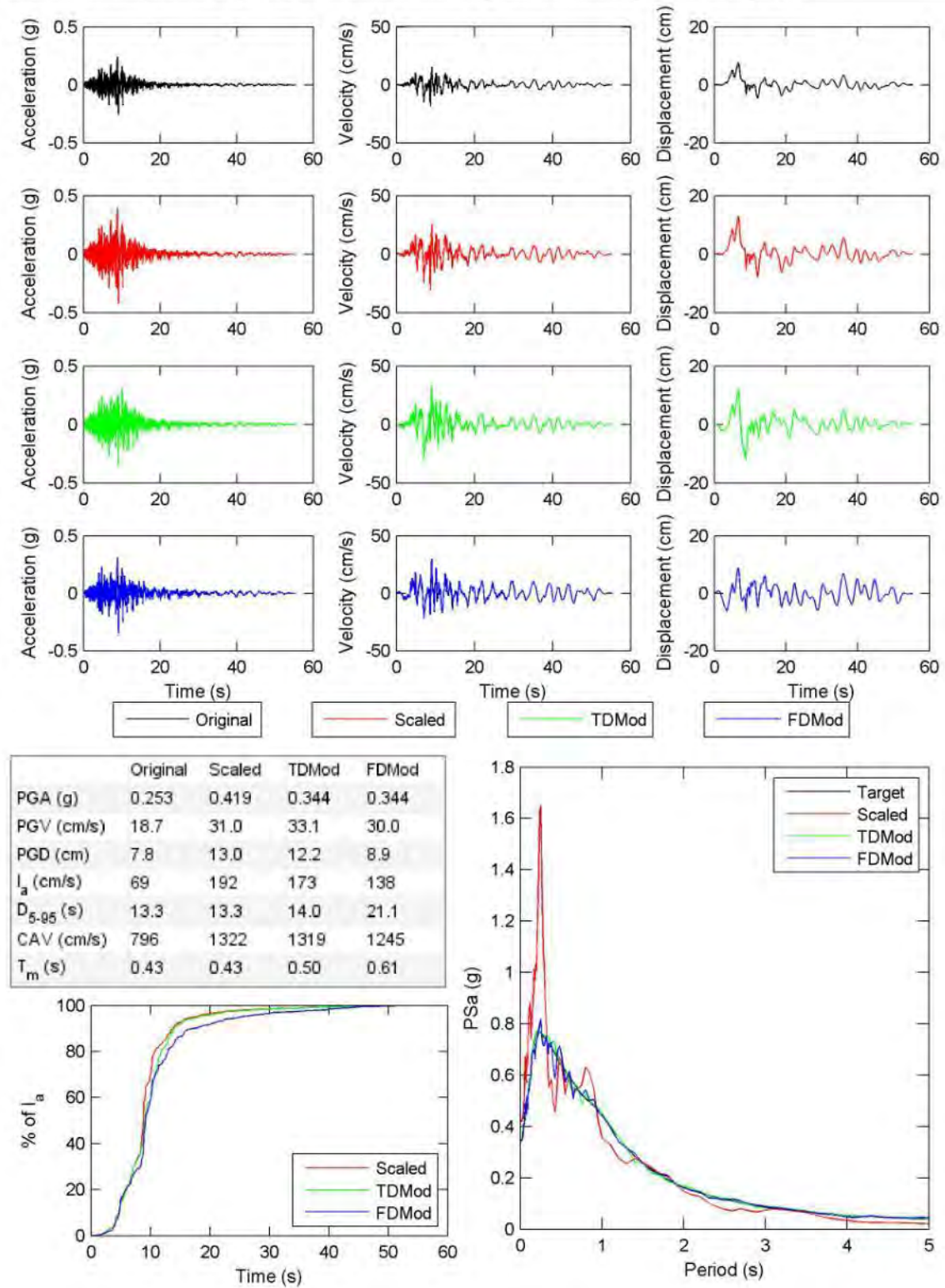Scale Factor: 2.81   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.448	0.344	0.344
PGV (cm/s)	13.0	36.4	42.0	35.3
PGD (cm)	7.9	22.1	33.7	13.1
I_a (cm/s)	45	353	263	194
D_{5-95} (s)	14.5	14.5	18.5	16.7
CAV (cm/s)	618	1736	1666	1360
T_m (s)	0.35	0.35	0.51	0.55

Figure E.1. continued.

468

	Original	Scaled	TDMod	FDMod
PGA (g)	0.266	0.364	0.344	0.344
PGV (cm/s)	28.6	39.1	29.6	27.4
PGD (cm)	22.5	30.9	23.5	11.1
I_a (cm/s)	83	156	156	160
D_{5-95} (s)	11.7	11.7	12.2	12.8
CAV (cm/s)	794	1088	1101	1147
T_m (s)	0.61	0.61	0.56	0.55

Figure E.1. continued.

469

	Original	Scaled	TDMod	FDMod
PGA (g)	0.337	0.327	0.344	0.344
PGV (cm/s)	41.7	40.5	36.0	31.2
PGD (cm)	14.0	13.5	10.9	11.8
I_a (cm/s)	187	176	170	163
D_{5-95} (s)	9.7	9.7	11.1	13.0
CAV (cm/s)	1179	1143	1183	1205
T_m (s)	0.63	0.63	0.55	0.55

Figure E.1. continued.

470

File Name: 284 A-AUL000   Start and End Taper Percentage: 1.0% and 5.0%
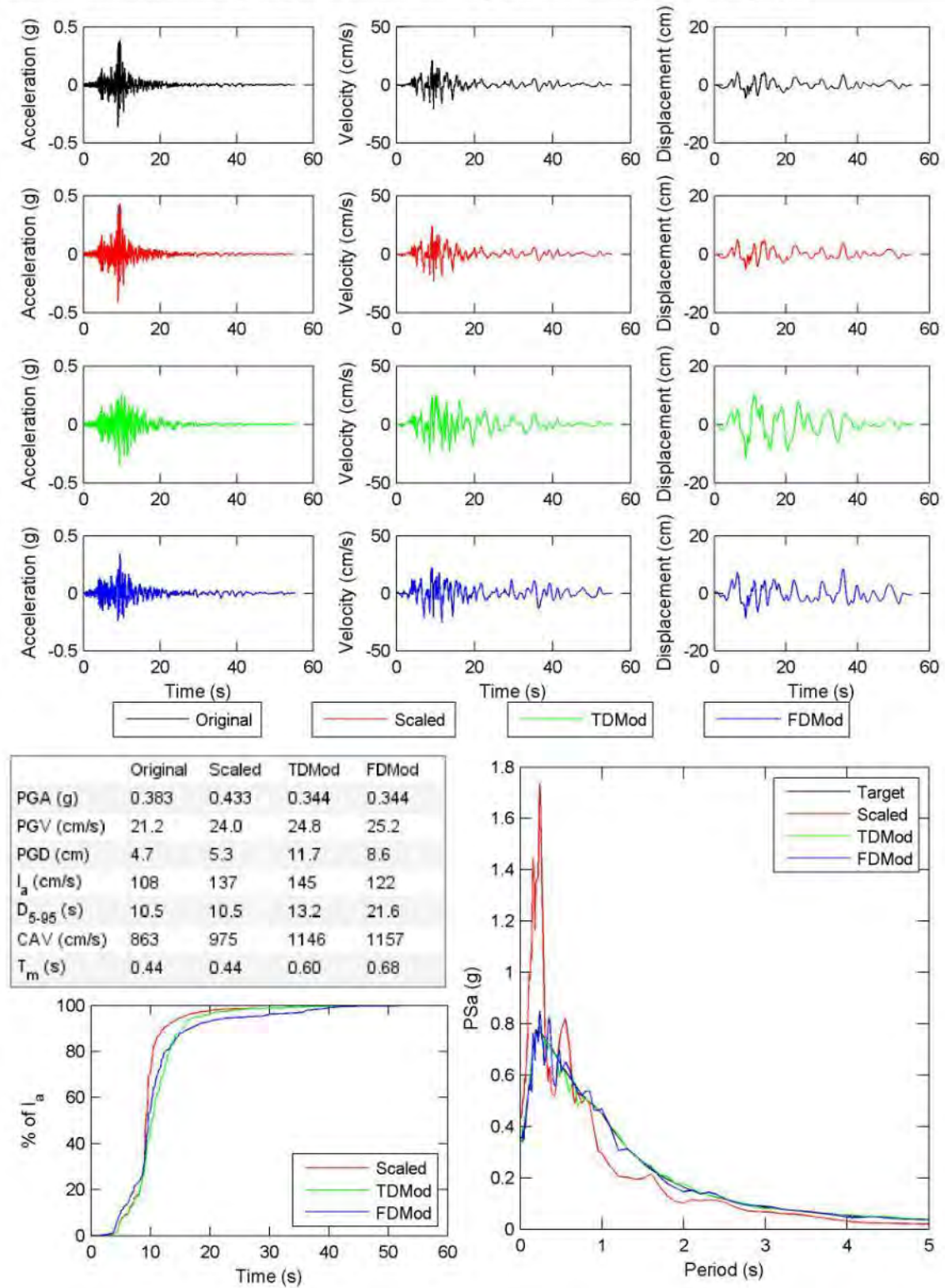Scale Factor: 5.58   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.058	0.321	0.344	0.344
PGV (cm/s)	5.2	28.8	25.6	25.7
PGD (cm)	3.2	17.8	13.6	9.6
I_a (cm/s)	6	174	195	200
D_{5-95} (s)	19.0	19.0	17.7	21.1
CAV (cm/s)	234	1305	1386	1465
T_m (s)	0.45	0.45	0.51	0.56

Figure E.1. continued.

471

File Name: 284 A-AUL270   Start and End Taper Percentage: 1.0% and 5.0%
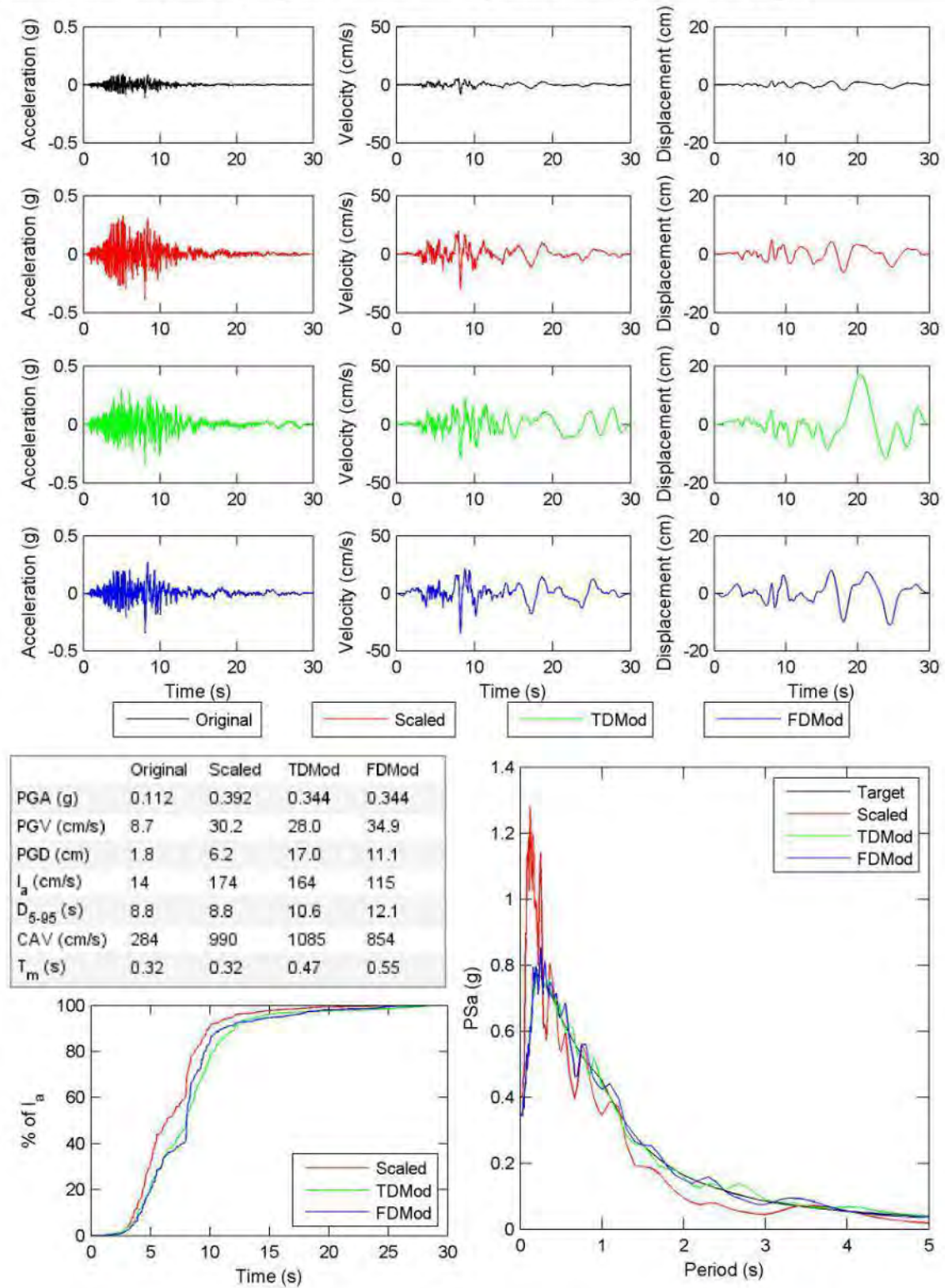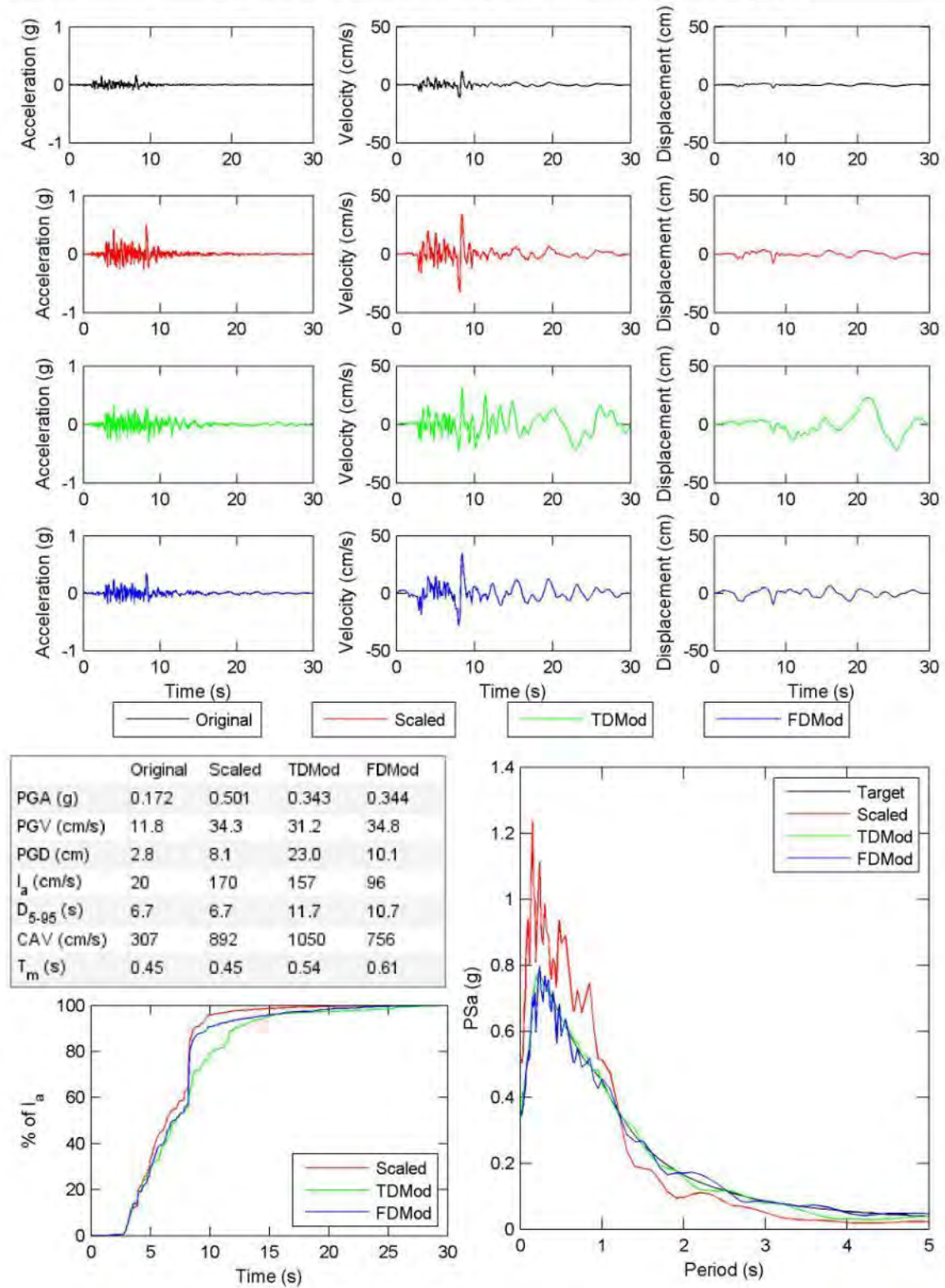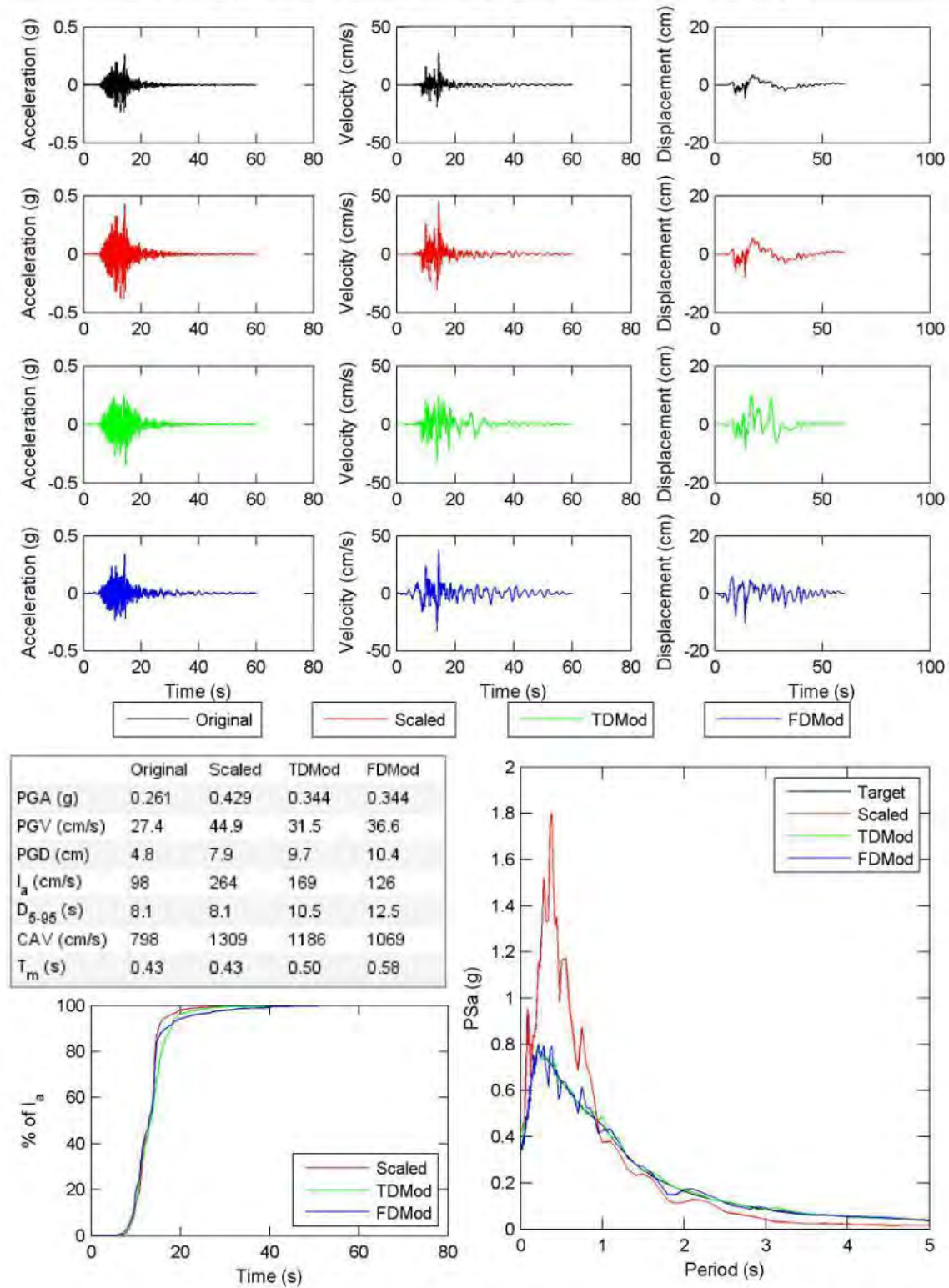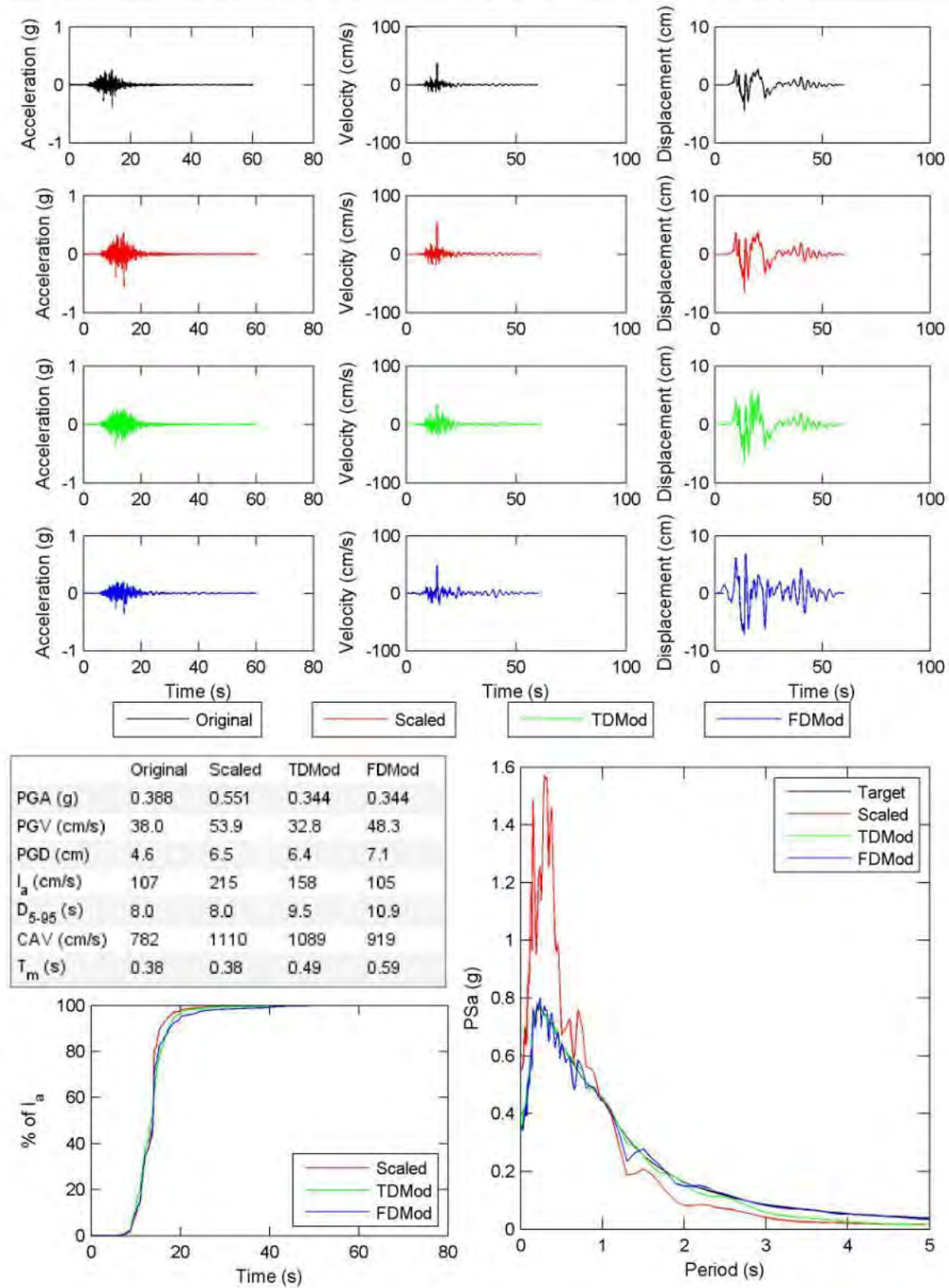Scale Factor: 4.93   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.062	0.308	0.344	0.344
PGV (cm/s)	6.1	30.1	35.6	31.1
PGD (cm)	3.7	18.2	18.3	15.0
I_a (cm/s)	7	160	181	197
D_{5-95} (s)	19.2	19.2	19.1	20.6
CAV (cm/s)	259	1279	1349	1473
T_m (s)	0.49	0.49	0.51	0.53

Figure E.1. continued.

472

Figure E.1. continued.

473

	Original	Scaled	TDMod	FDMod
PGA (g)	0.202	0.299	0.344	0.344
PGV (cm/s)	31.9	47.2	36.7	30.8
PGD (cm)	9.6	14.2	17.8	9.9
I_a (cm/s)	43	95	135	143
D_{5-95} (s)	16.1	16.1	15.0	21.3
CAV (cm/s)	568	840	1023	1138
T_m (s)	0.95	0.95	0.63	0.55

Figure E.1. continued.

474

File Name: 286 A-BIS000   Start and End Taper Percentage: 1.0% and 5.0%
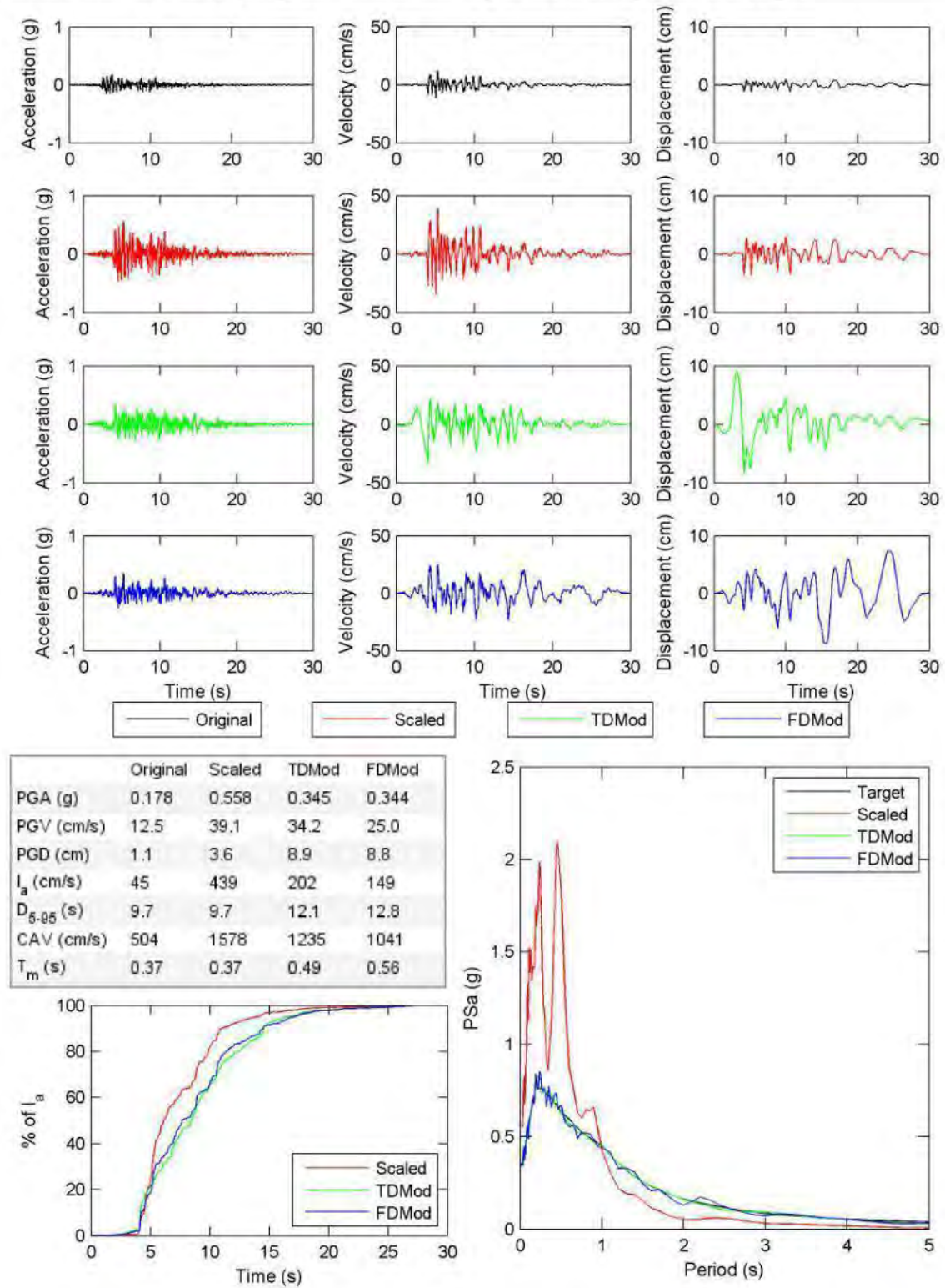Scale Factor: 2.46   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.100	0.247	0.344	0.344
PGV (cm/s)	23.5	57.8	35.8	30.0
PGD (cm)	14.8	36.3	33.3	10.4
I_a (cm/s)	19	114	146	219
D_{5-95} (s)	24.2	24.2	22.8	26.2
CAV (cm/s)	473	1164	1206	1681
T_m (s)	1.19	1.19	0.71	0.57

Figure E.1. continued.

475

File Name: 286 A-BIS270   Start and End Taper Percentage: 1.0% and 5.0%
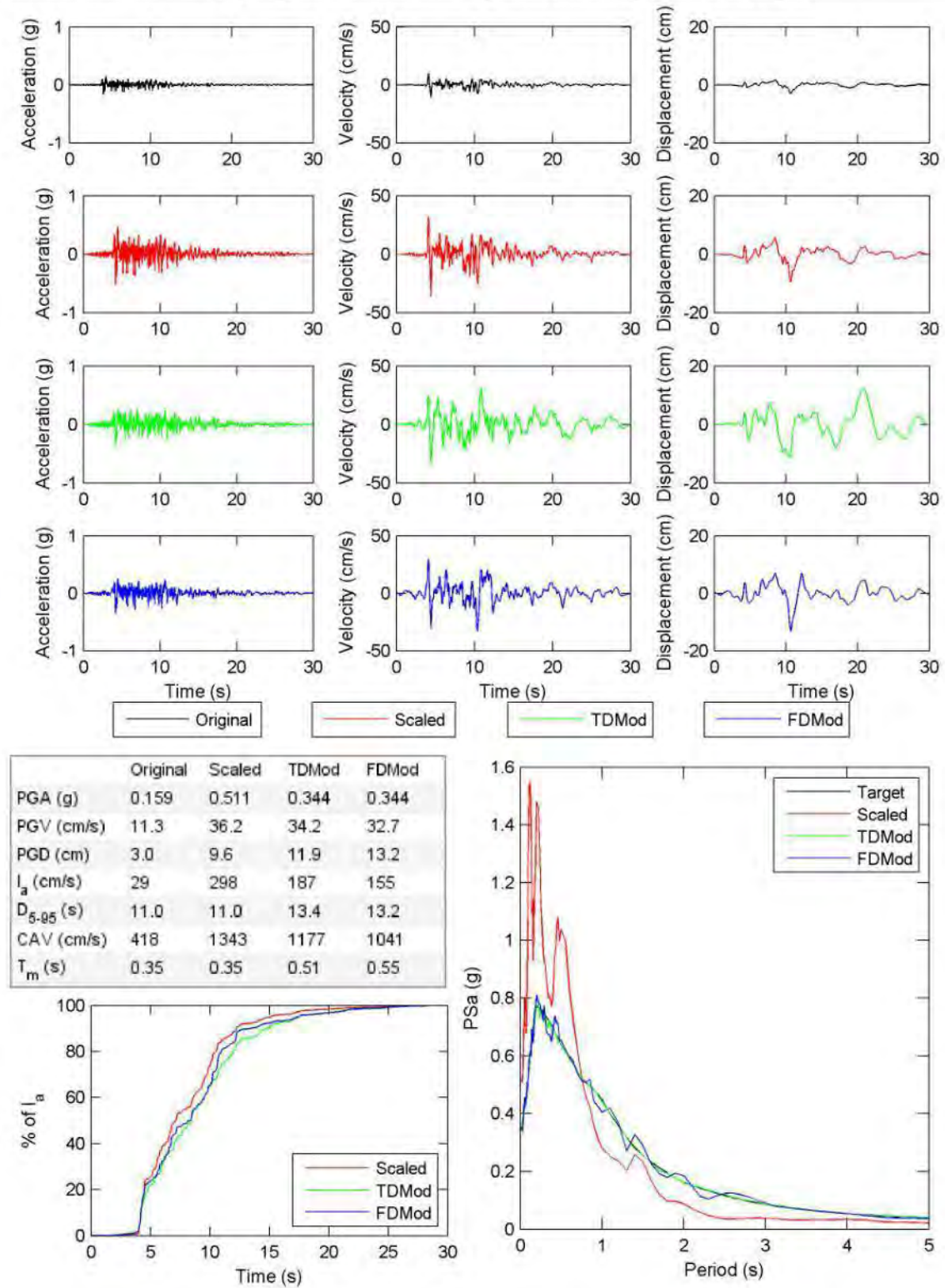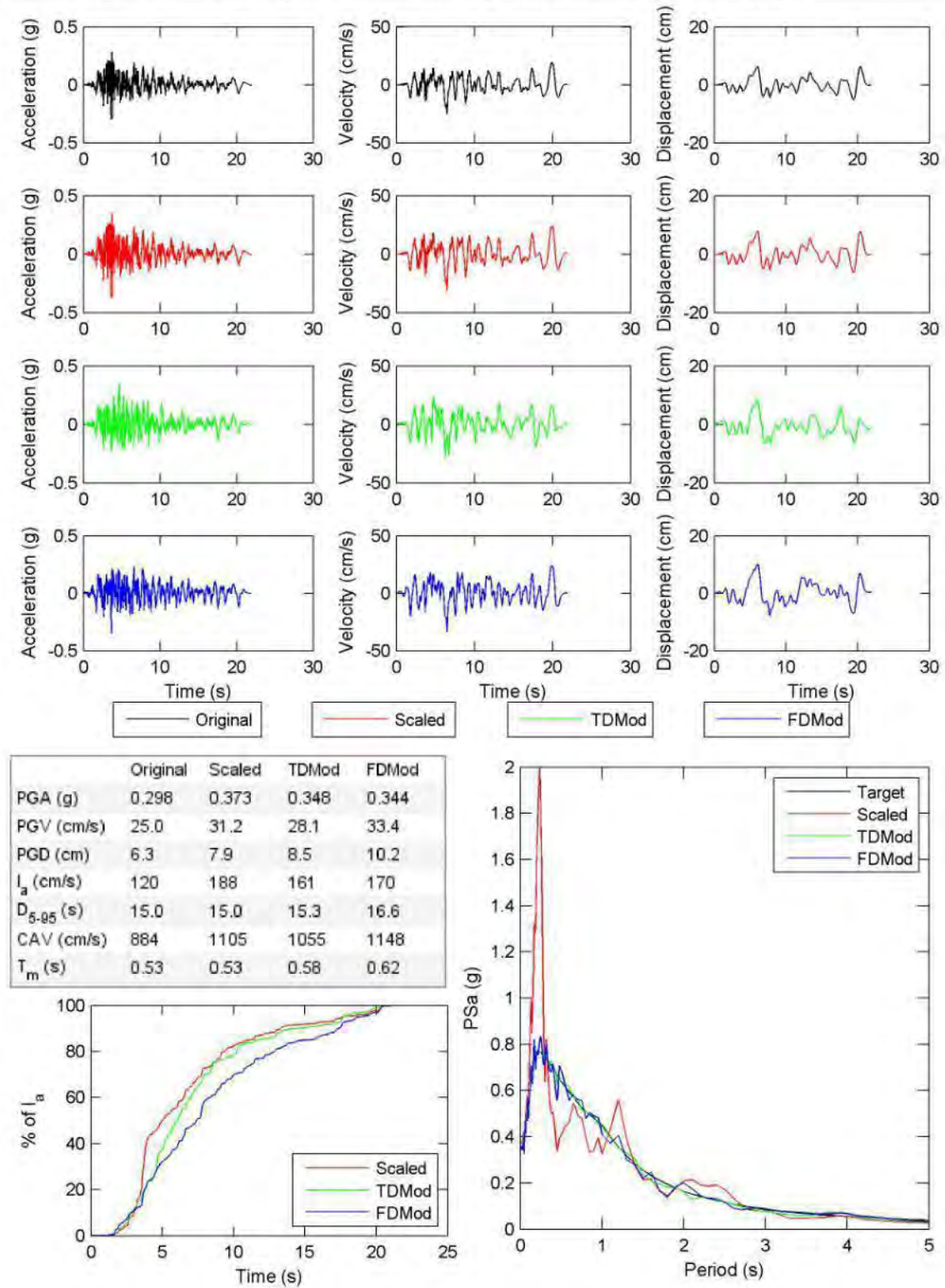Scale Factor: 3.74   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.083	0.311	0.344	0.344
PGV (cm/s)	12.5	46.7	36.0	34.2
PGD (cm)	2.9	10.9	24.0	9.1
I_a (cm/s)	14	194	182	194
D_{5-95} (s)	26.1	26.1	24.5	26.2
CAV (cm/s)	410	1533	1477	1569
T_m (s)	1.01	1.01	0.63	0.59

Figure E.1. continued.

476

	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.265	0.344	0.344
PGV (cm/s)	16.4	32.9	25.3	26.4
PGD (cm)	4.7	9.4	13.8	9.9
I_a (cm/s)	58	231	201	214
D_{5-95} (s)	23.3	23.3	24.3	25.5
CAV (cm/s)	819	1637	1529	1620
T_m (s)	0.75	0.75	0.61	0.57

Figure E.1. continued.

477

File Name: 289 A-CTR270   Start and End Taper Percentage: 1.0% and 5.0%
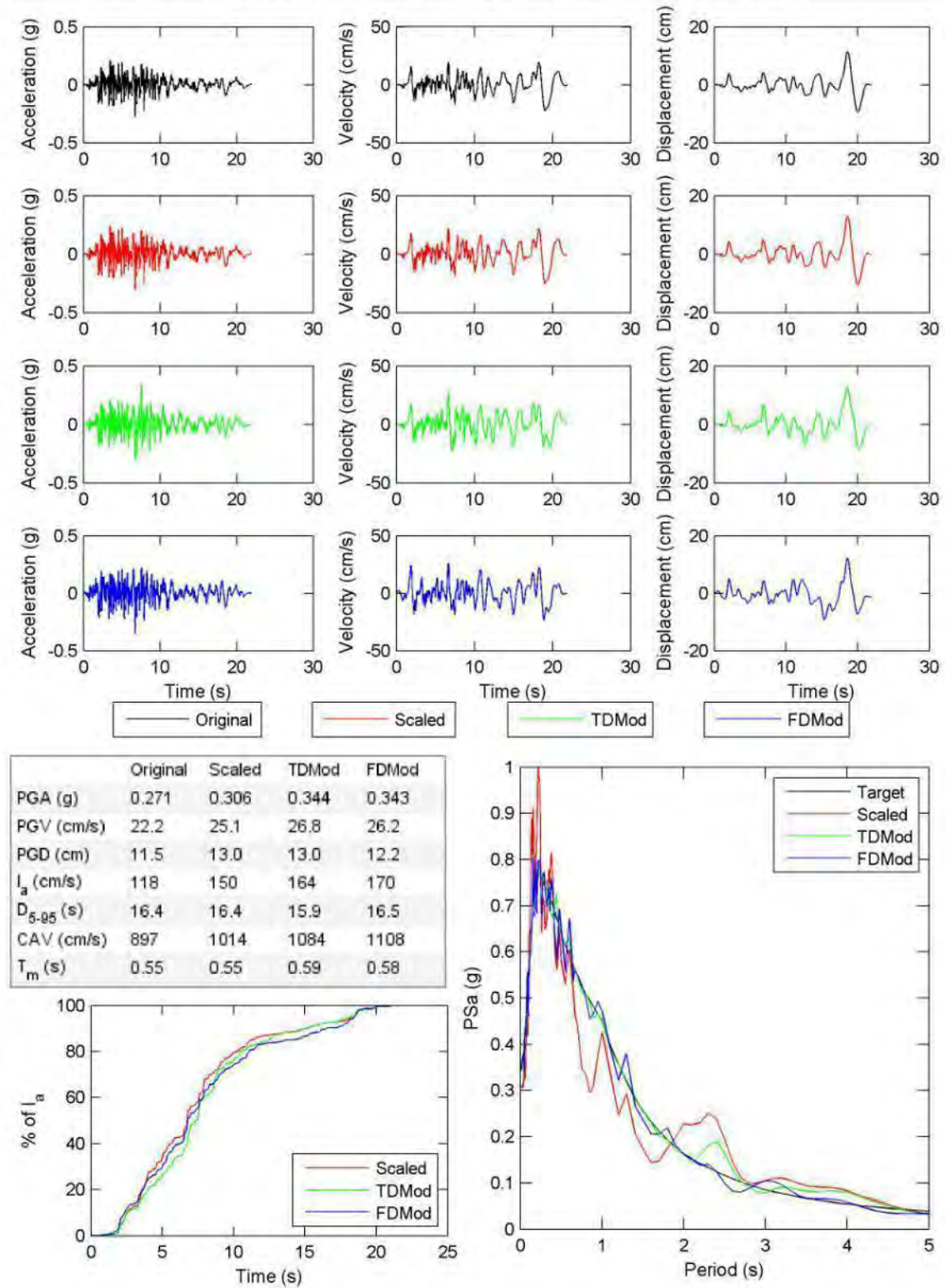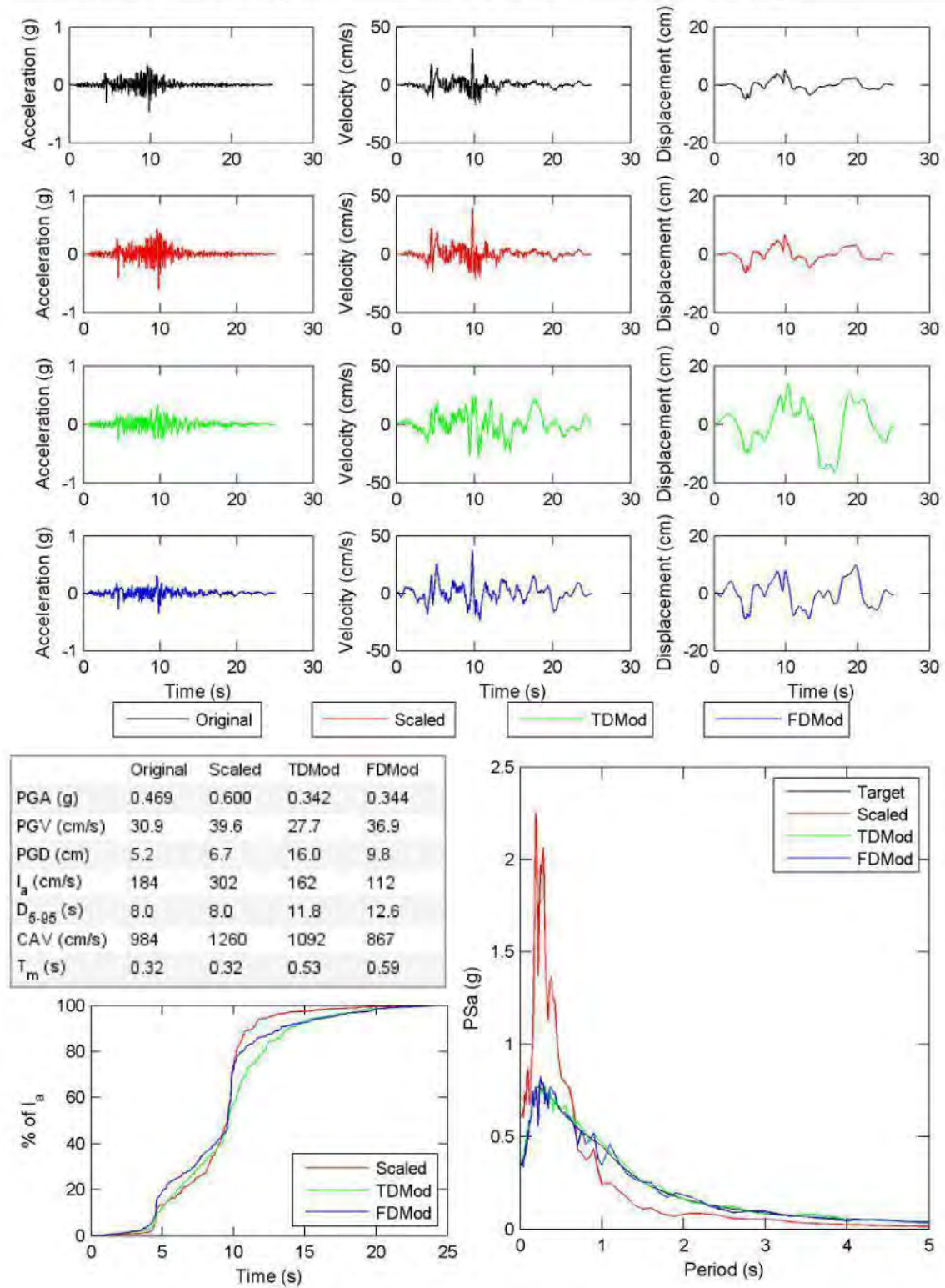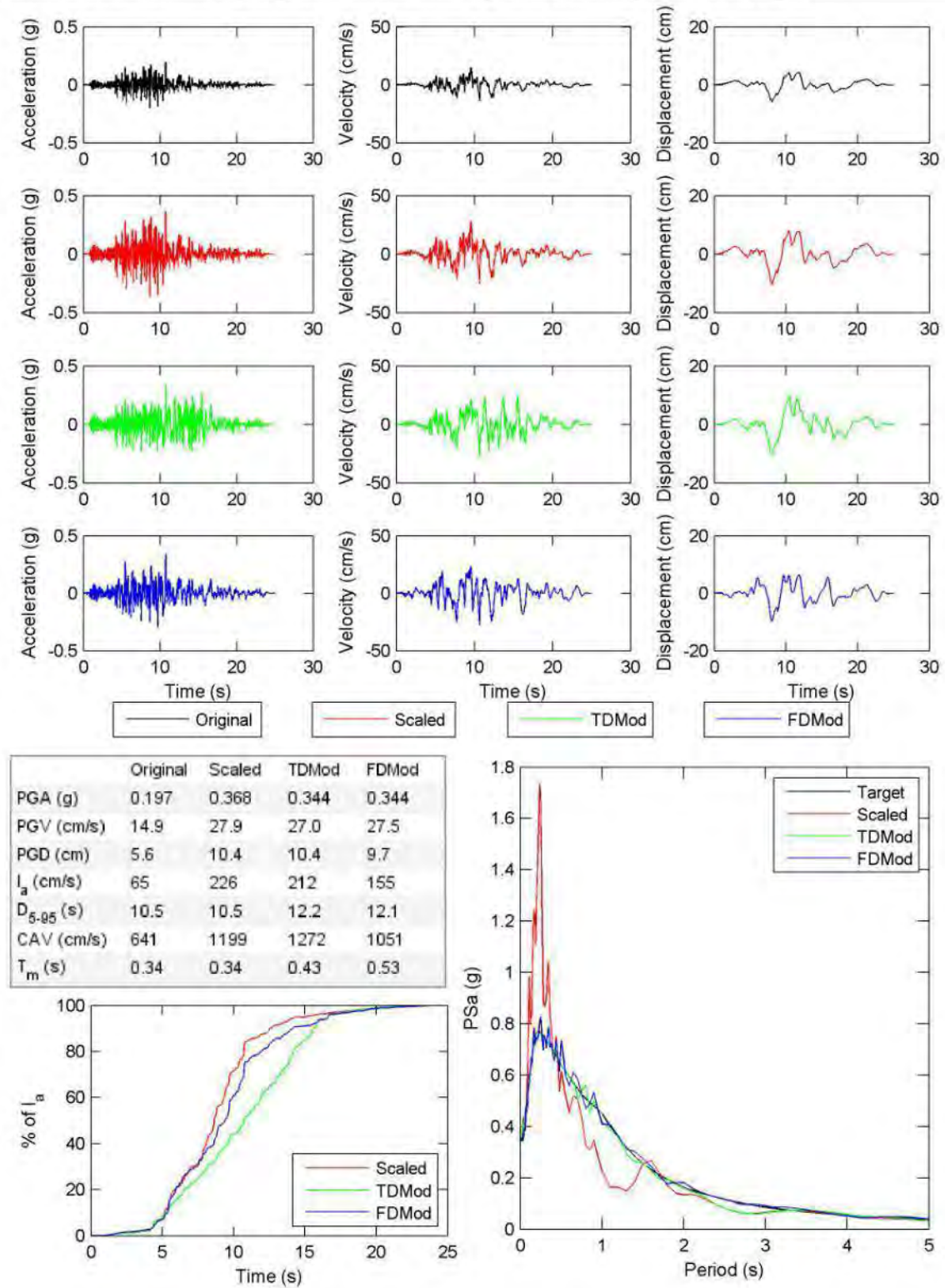Scale Factor: 1.75   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 9

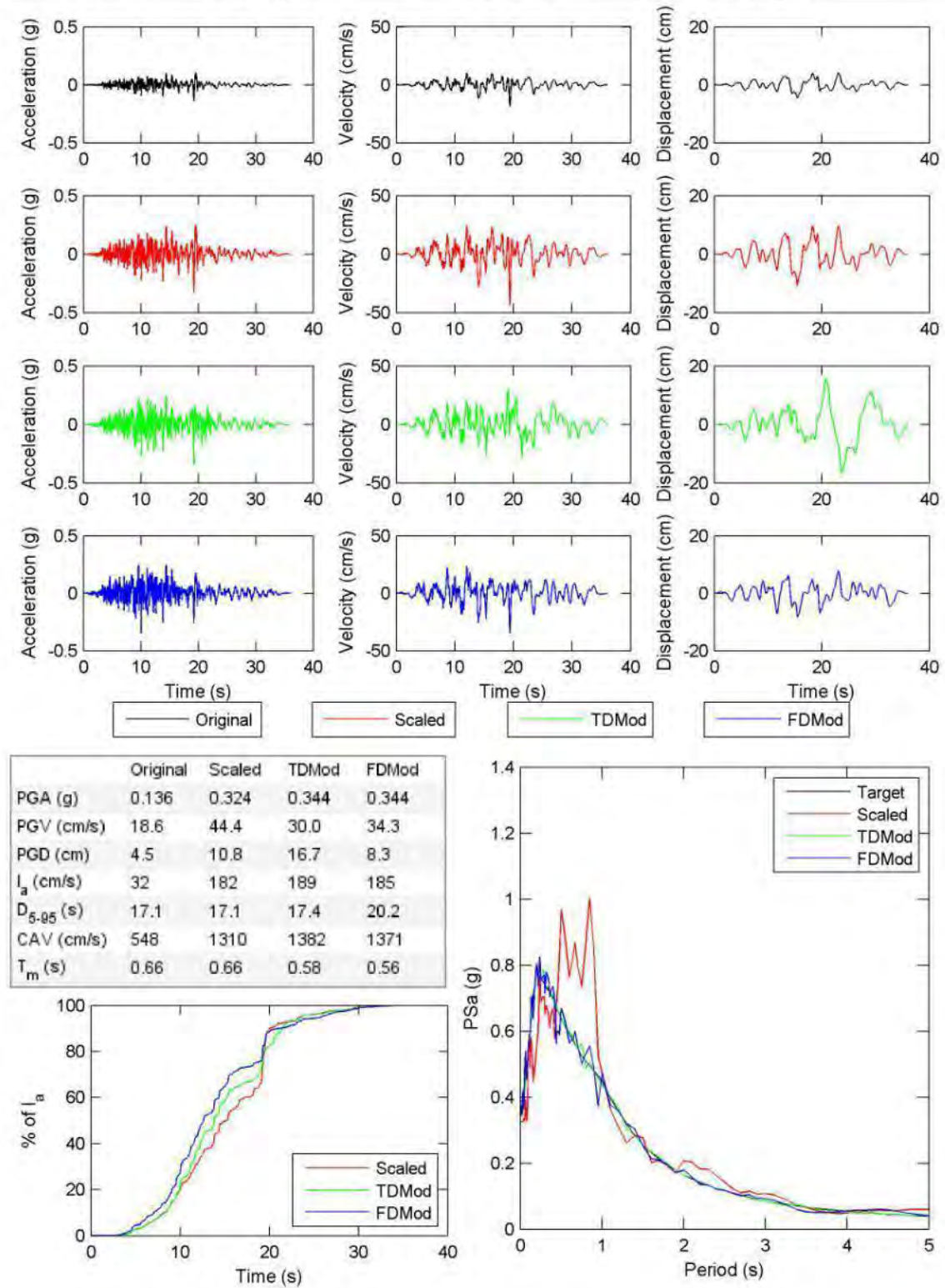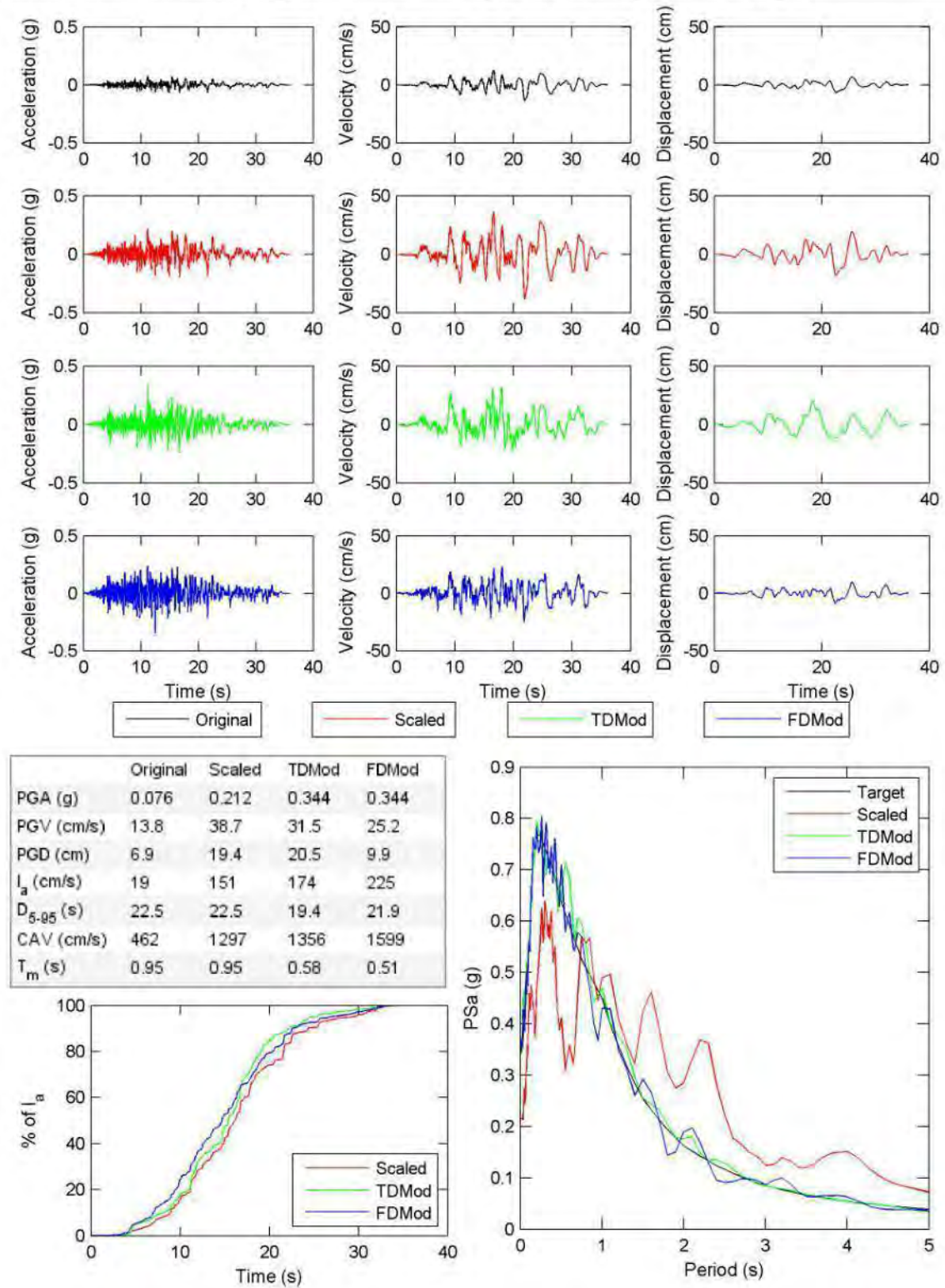|	Original	Scaled	TDMod	FDMod
PGA (g)	0.176	0.307	0.343	0.344
PGV (cm/s)	18.4	32.2	30.5	27.3
PGD (cm)	4.9	8.6	12.3	10.4
I_a (cm/s)	81	249	228	254
D_{5-95} (s)	24.2	24.2	24.6	25.1
CAV (cm/s)	979	1713	1676	1775
T_m (s)	0.74	0.74	0.62	0.53

Figure E.1. continued.

478

	Original	Scaled	TDMod	FDMod
PGA (g)	0.106	0.609	0.344	0.344
PGV (cm/s)	6.3	36.4	25.2	27.9
PGD (cm)	0.6	3.7	11.6	11.0
I_a (cm/s)	35	1162	482	289
D_{5-95} (s)	24.5	24.5	26.2	25.0
CAV (cm/s)	663	3811	2571	1918
T_m (s)	0.34	0.34	0.40	0.49

Figure E.1. continued.

479

	Original	Scaled	TDMod	FDMod
PGA (g)	0.104	0.413	0.344	0.344
PGV (cm/s)	6.1	24.2	31.3	26.9
PGD (cm)	1.2	4.9	8.0	8.1
I_a (cm/s)	32	507	390	308
D_{5-95} (s)	25.0	25.0	25.8	25.2
CAV (cm/s)	639	2551	2306	2041
T_m (s)	0.33	0.33	0.39	0.50

Figure E.1. continued.

480

	Original	Scaled	TDMod	FDMod
PGA (g)	0.324	0.706	0.346	0.344
PGV (cm/s)	15.6	34.1	39.9	39.8
PGD (cm)	2.4	5.3	27.9	11.4
I_a (cm/s)	68	325	184	136
D_{5-95} (s)	14.5	14.5	18.7	19.8
CAV (cm/s)	661	1440	1285	1080
T_m (s)	0.35	0.35	0.52	0.66

Figure E.1. continued.

	Original	Scaled	TDMod	FDMod
PGA (g)	0.268	0.507	0.343	0.339
PGV (cm/s)	25.8	48.8	39.9	41.6
PGD (cm)	4.9	9.2	14.1	9.5
I_a (cm/s)	95	338	206	151
D_{5-95} (s)	15.4	15.4	18.1	16.8
CAV (cm/s)	873	1651	1388	1153
T_m (s)	0.48	0.48	0.56	0.57

Figure E.1. continued.

482

File Name: 587 A-MAT083   Start and End Taper Percentage: 1.0% and 5.0%
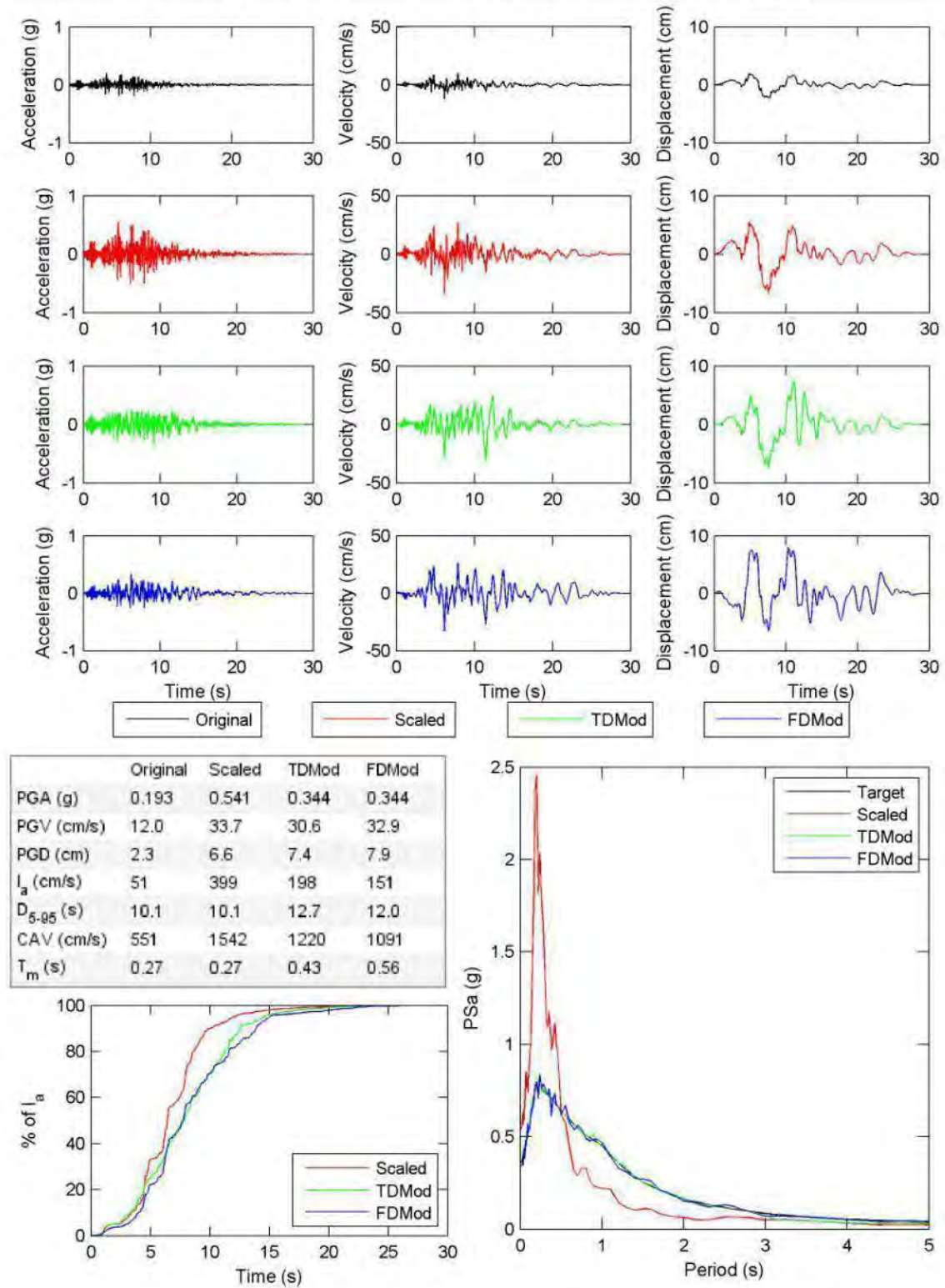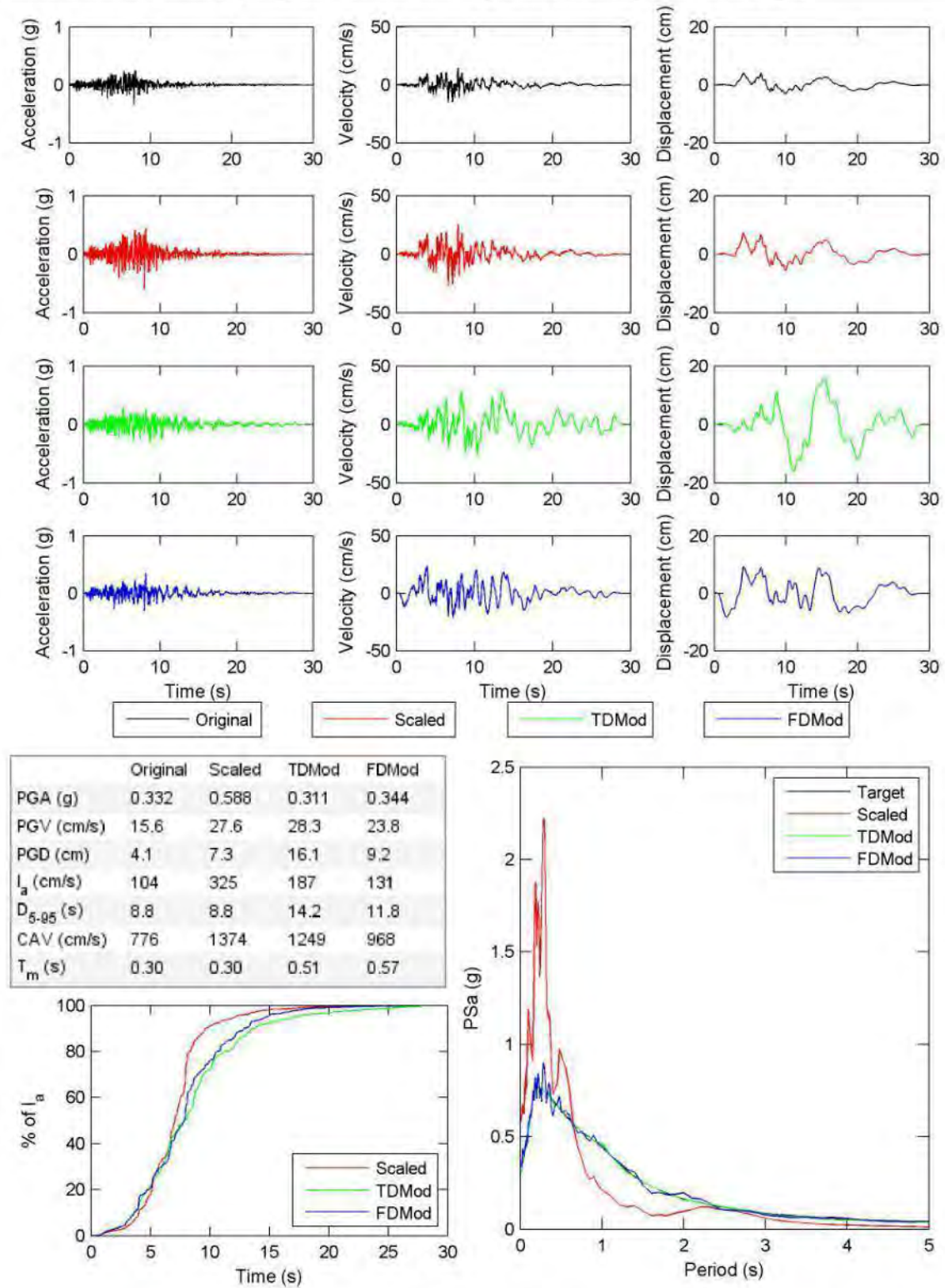Scale Factor: 1.36   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.256	0.348	0.344	0.344
PGV (cm/s)	21.7	29.5	34.1	37.0
PGD (cm)	6.4	8.7	12.9	8.3
I_a (cm/s)	65	121	164	109
D_{5-95} (s)	6.2	6.2	8.5	7.8
CAV (cm/s)	546	742	980	770
T_m (s)	0.47	0.47	0.51	0.56

Figure E.1. continued.

483

File Name: 587 A-MAT353   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.61   Target Spectrum Matched: targetCMS.txt   FD poly: 9   TD poly: 4
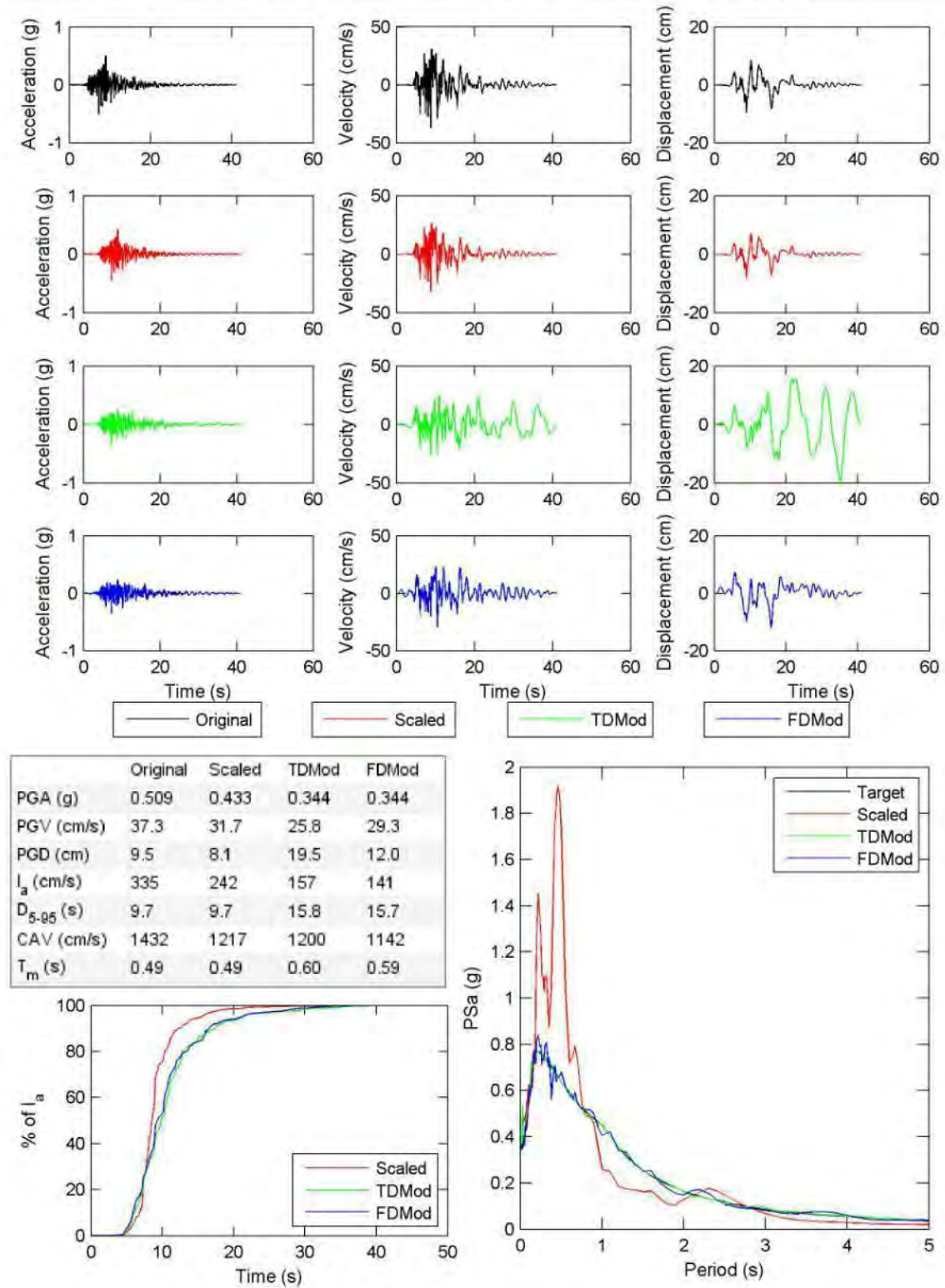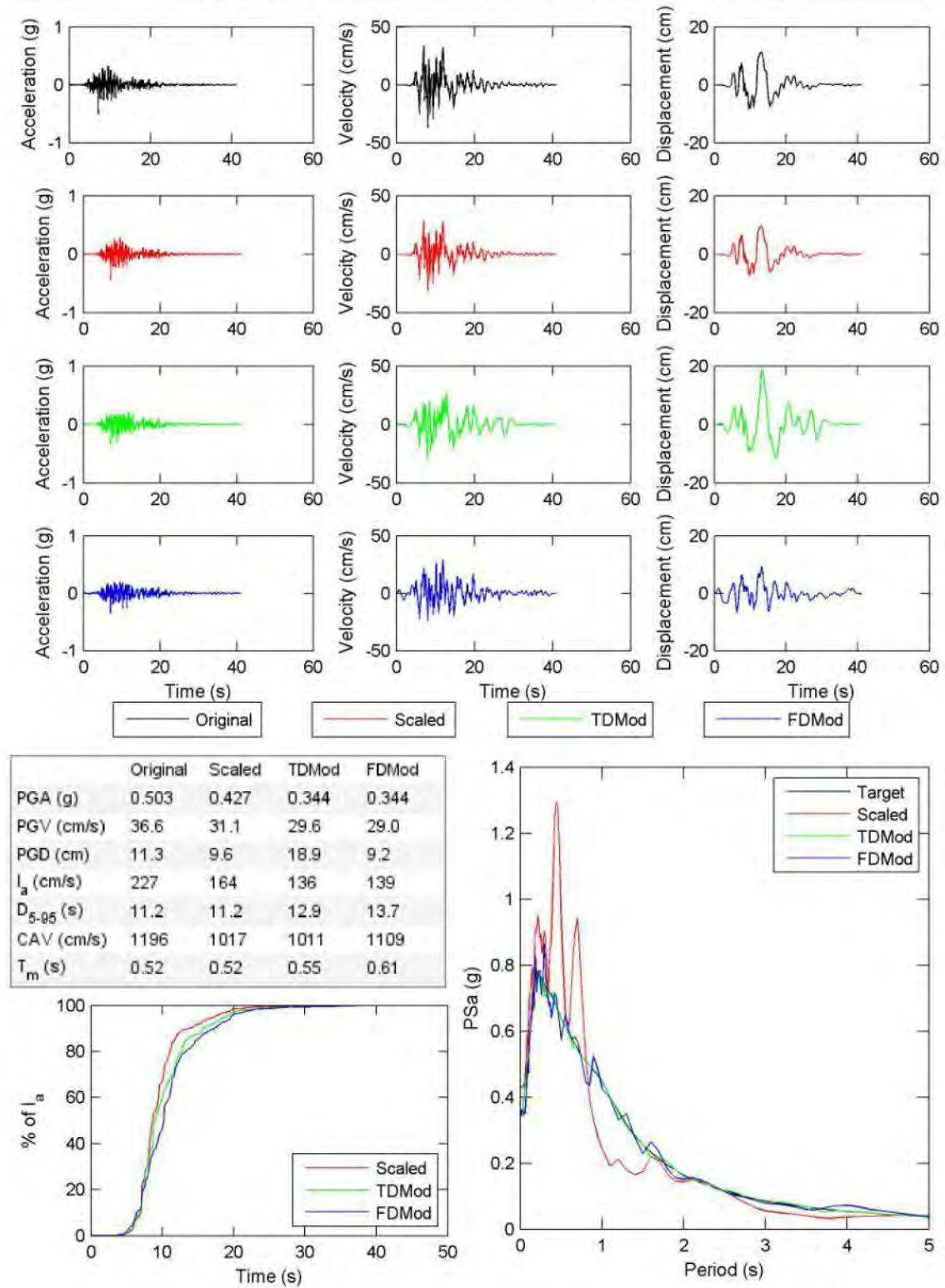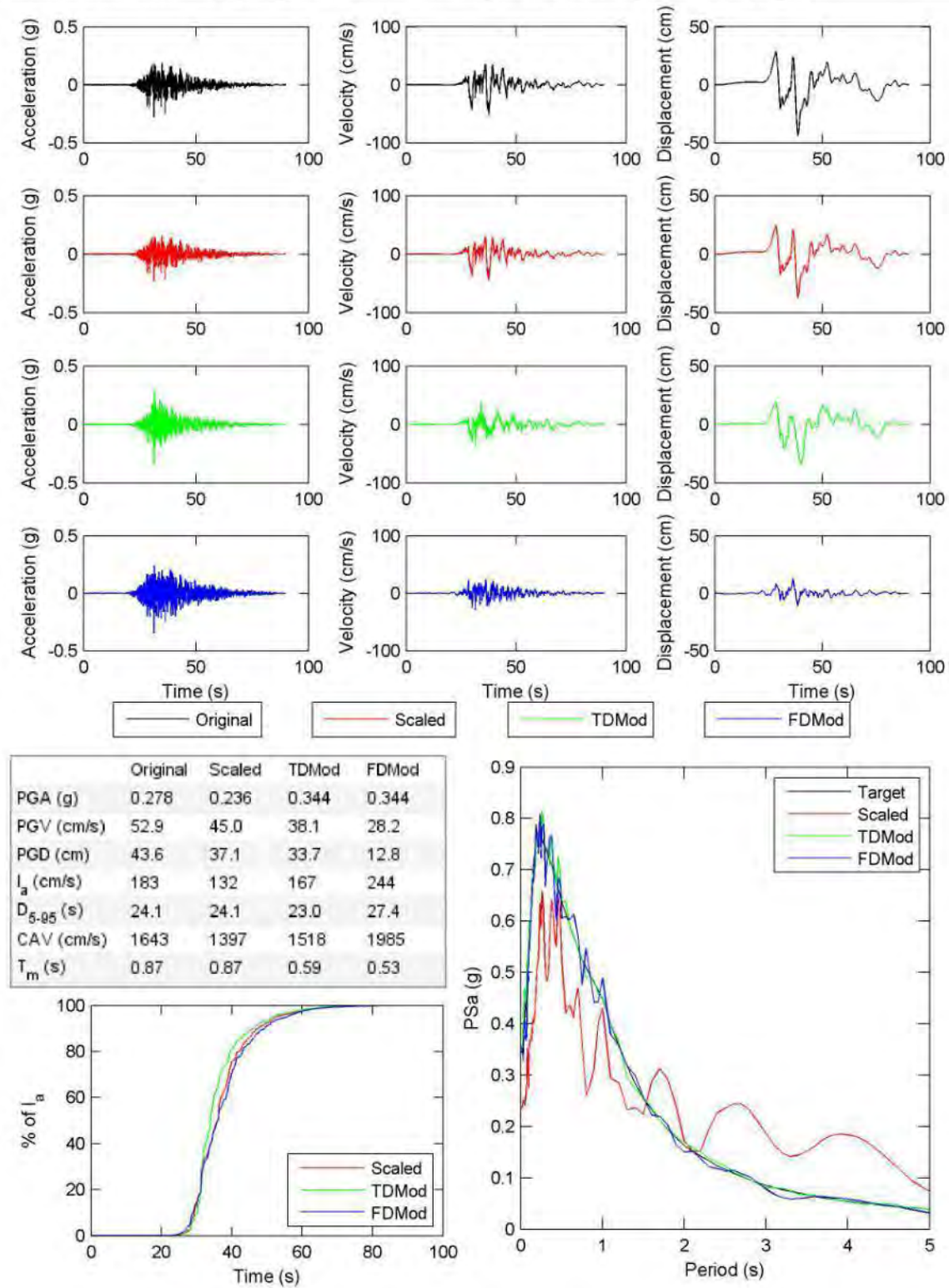

	Original	Scaled	TDMod	FDMod
PGA (g)	0.344	0.554	0.344	0.344
PGV (cm/s)	21.6	34.8	25.5	26.9
PGD (cm)	2.7	4.3	7.0	7.8
I_a (cm/s)	69	180	137	107
D_{5-95} (s)	6.3	6.3	9.7	9.9
CAV (cm/s)	532	857	937	802
T_m (s)	0.45	0.45	0.58	0.63

Figure E.1. continued.

484

	Original	Scaled	TDMod	FDMod
PGA (g)	0.071	0.532	0.345	0.344
PGV (cm/s)	4.7	34.9	38.2	32.1
PGD (cm)	0.7	5.1	6.6	10.7
I_a (cm/s)	4	247	162	141
D_{5-95} (s)	12.8	12.8	14.9	18.7
CAV (cm/s)	159	1186	1095	1100
T_m (s)	0.31	0.31	0.45	0.61

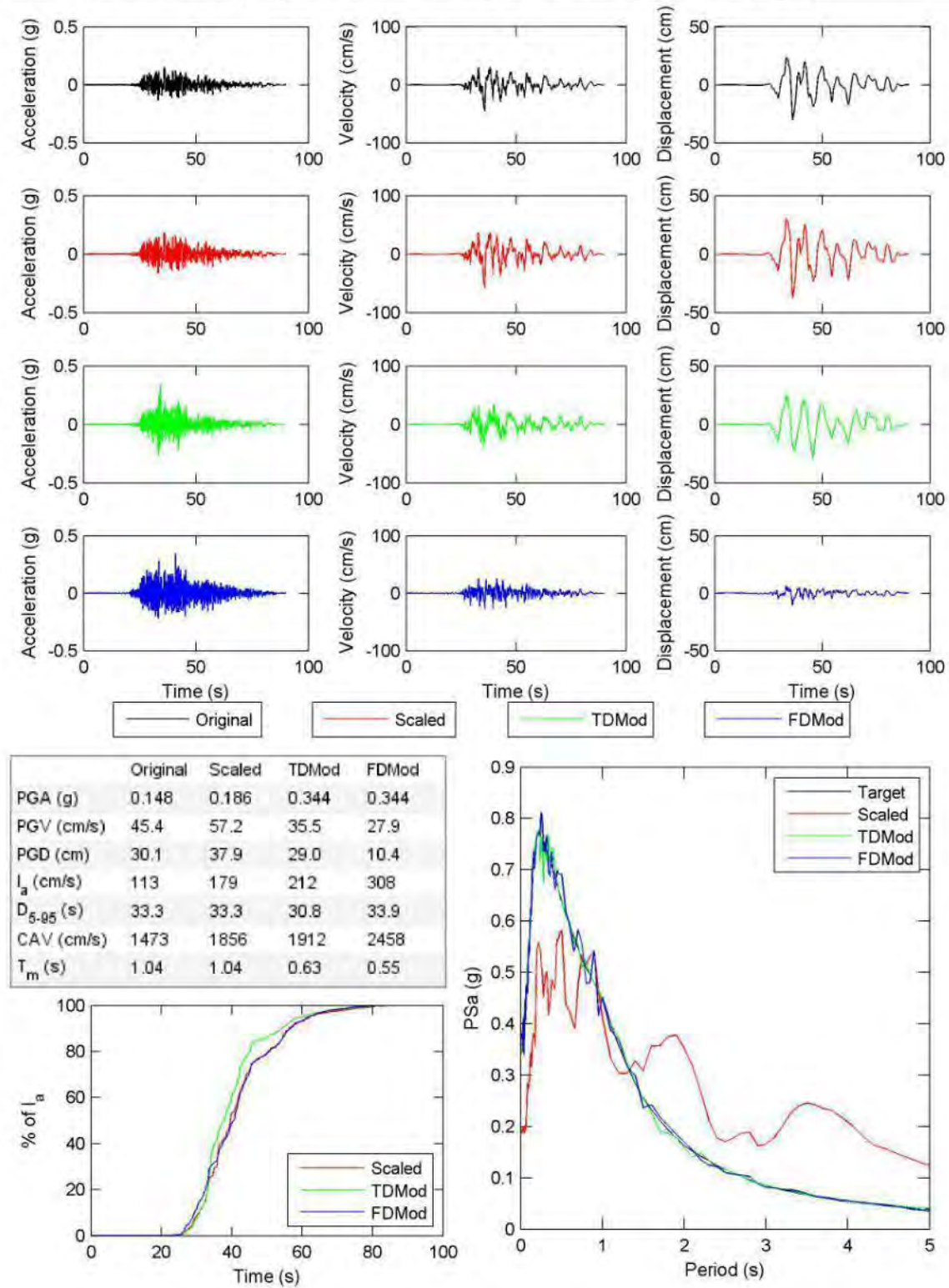**Figure E.1.** continued.

485

File Name: 63 FTR326   Start and End Taper Percentage: 1.0% and 5.0%
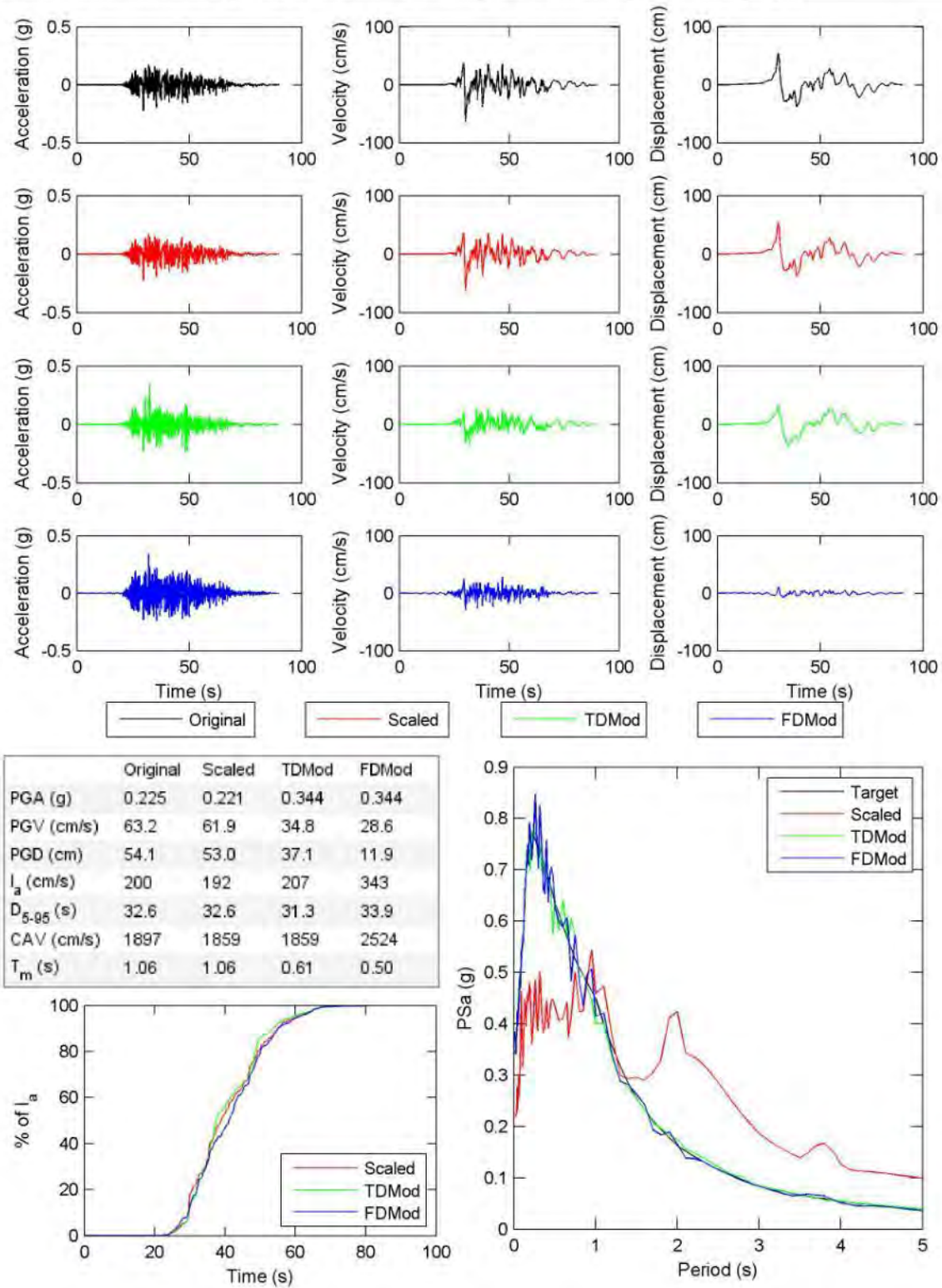Scale Factor: 5.83   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

Original   —   Scaled   —   TDMod   —   FDMod
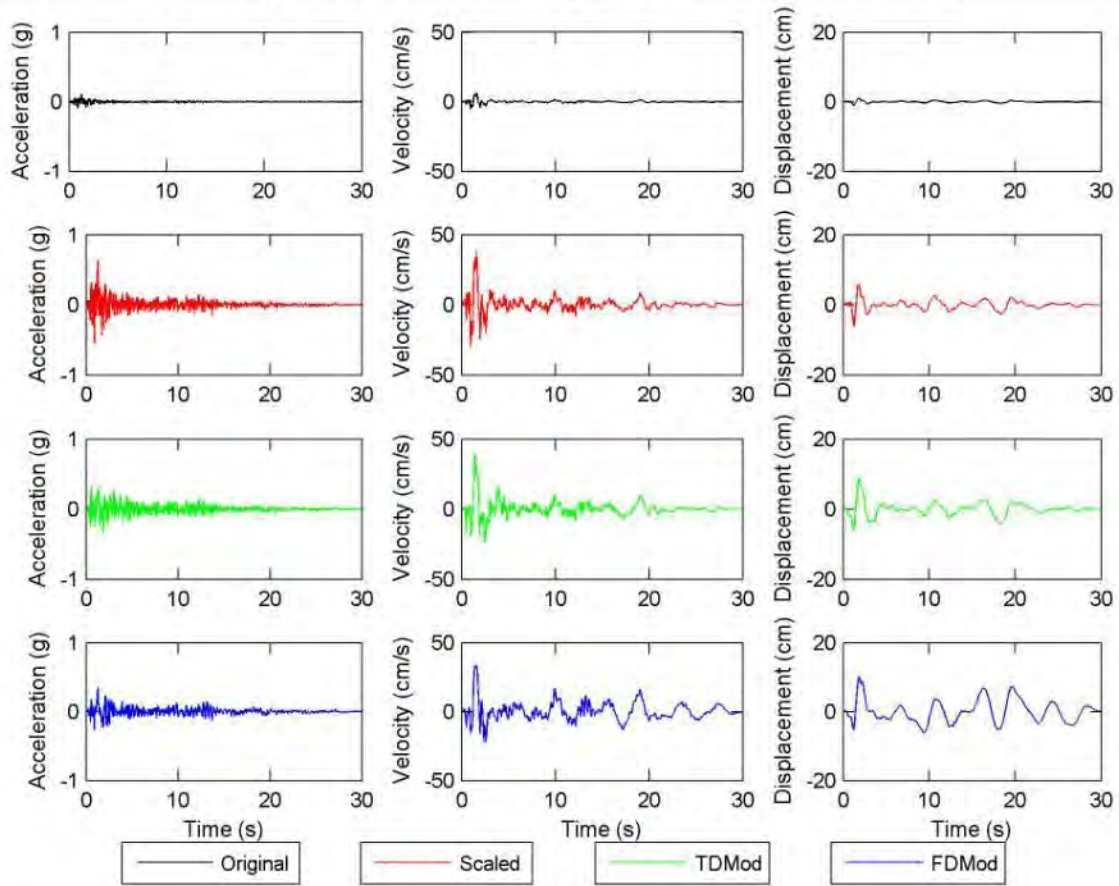
	Original	Scaled	TDMod	FDMod
PGA (g)	0.109	0.633	0.344	0.344
PGV (cm/s)	6.4	37.5	39.5	33.8
PGD (cm)	1.1	6.3	8.7	10.1
I_a (cm/s)	6	203	135	109
D_{5-95} (s)	12.4	12.4	13.4	16.5
CAV (cm/s)	176	1026	942	890
T_m (s)	0.36	0.36	0.44	0.54

Figure E.1. continued.

486

	Original	Scaled	TDMod	FDMod
PGA (g)	0.145	0.436	0.344	0.344
PGV (cm/s)	17.3	52.2	34.6	32.5
PGD (cm)	2.9	8.7	8.0	7.6
I_a (cm/s)	24	216	145	173
D_{5-95} (s)	14.2	14.2	15.8	17.7
CAV (cm/s)	402	1213	1077	1230
T_m (s)	0.70	0.70	0.57	0.48

Figure E.1. continued.

487

File Name: 70 L01111   Start and End Taper Percentage: 1.0% and 5.0%
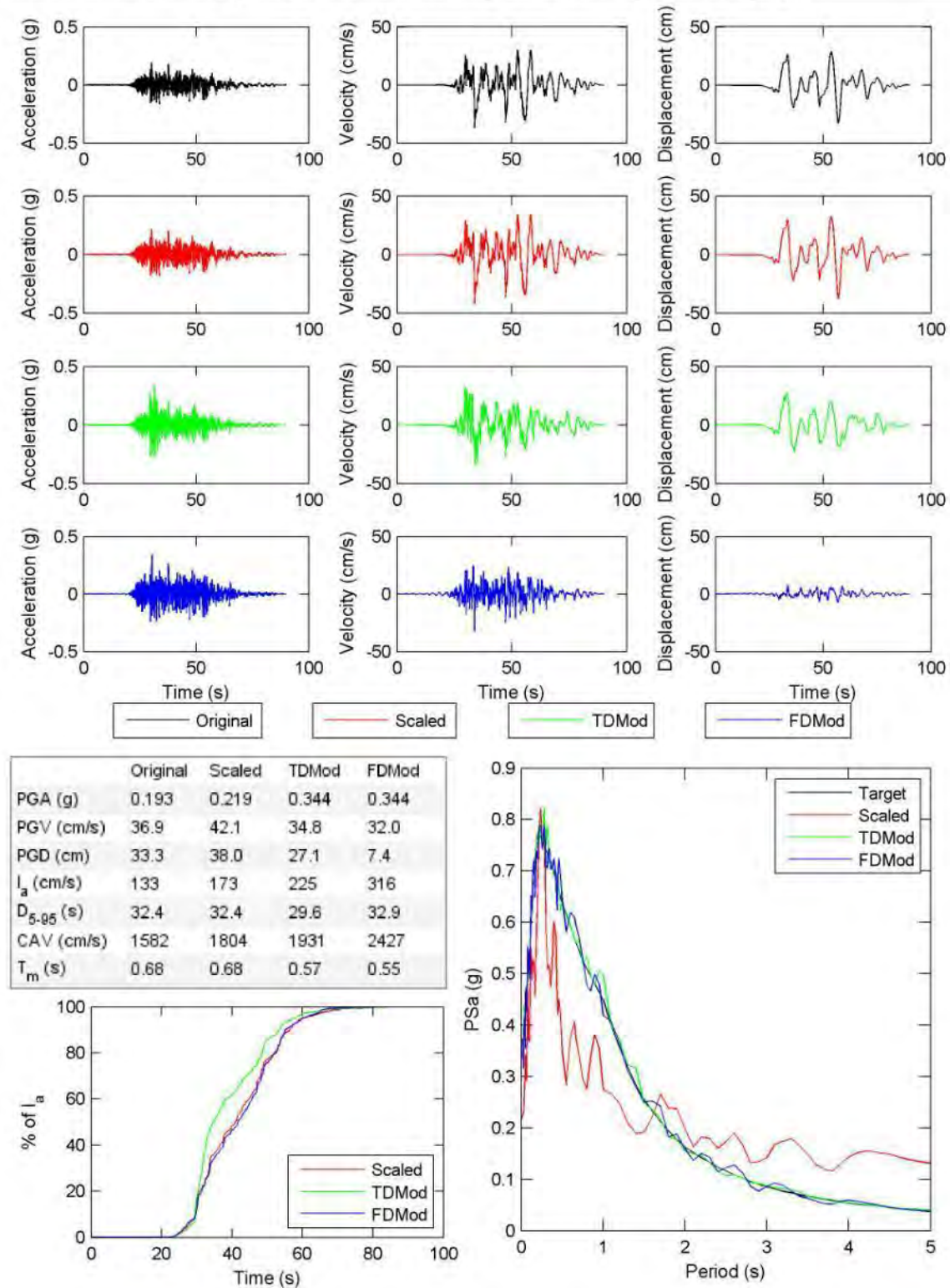Scale Factor: 3.57   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

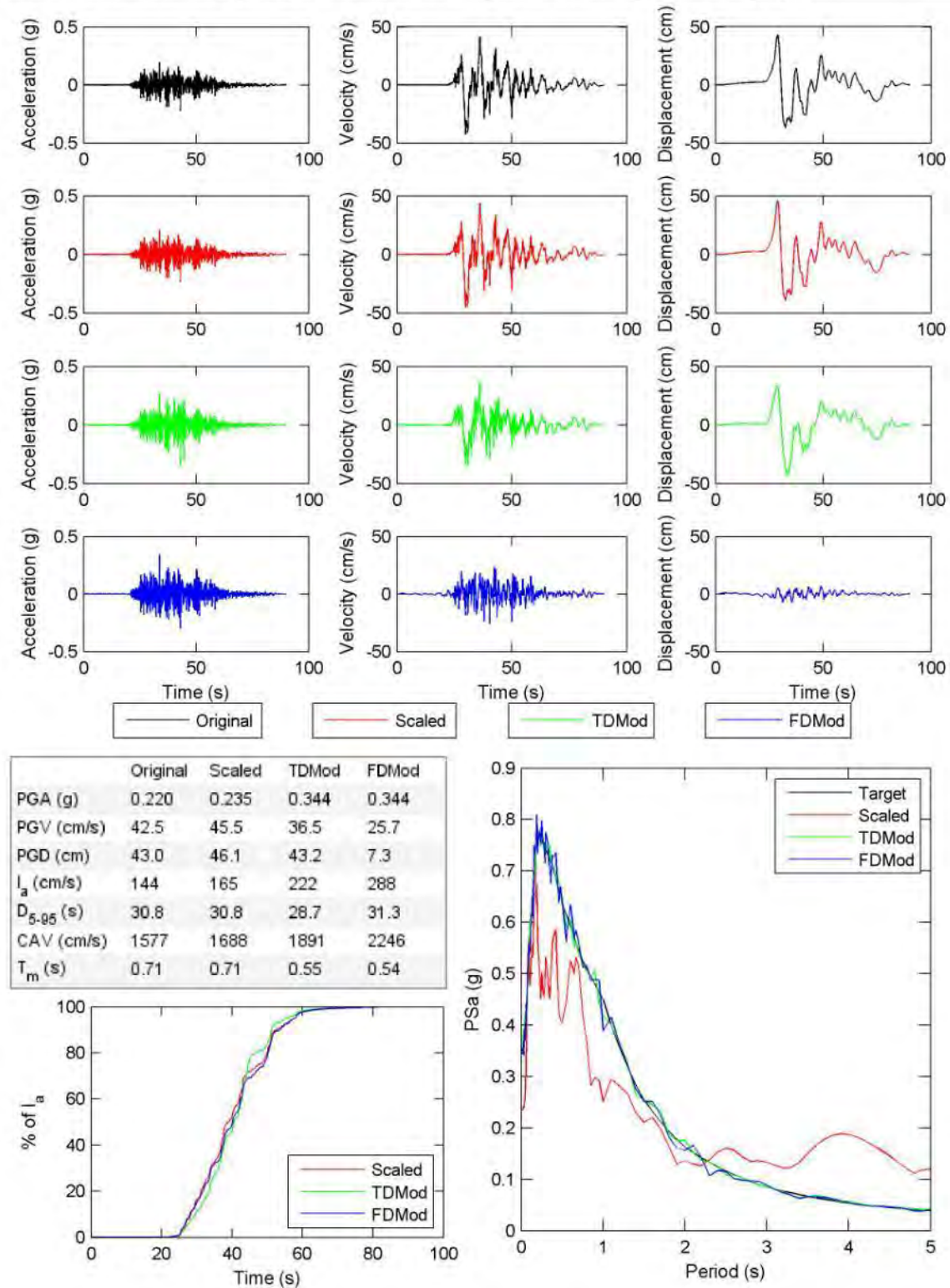|	Original	Scaled	TDMod	FDMod
PGA (g)	0.110	0.394	0.344	0.344
PGV (cm/s)	14.0	50.0	30.5	32.3
PGD (cm)	1.9	6.8	8.2	10.1
I_a (cm/s)	19	236	226	165
D_{5-95} (s)	17.1	17.1	16.7	18.3
CAV (cm/s)	400	1428	1424	1251
T_m (s)	0.55	0.55	0.49	0.50

Figure E.1. continued.

488

File Name: 71 L12021   Start and End Taper Percentage: 1.0% and 5.0%
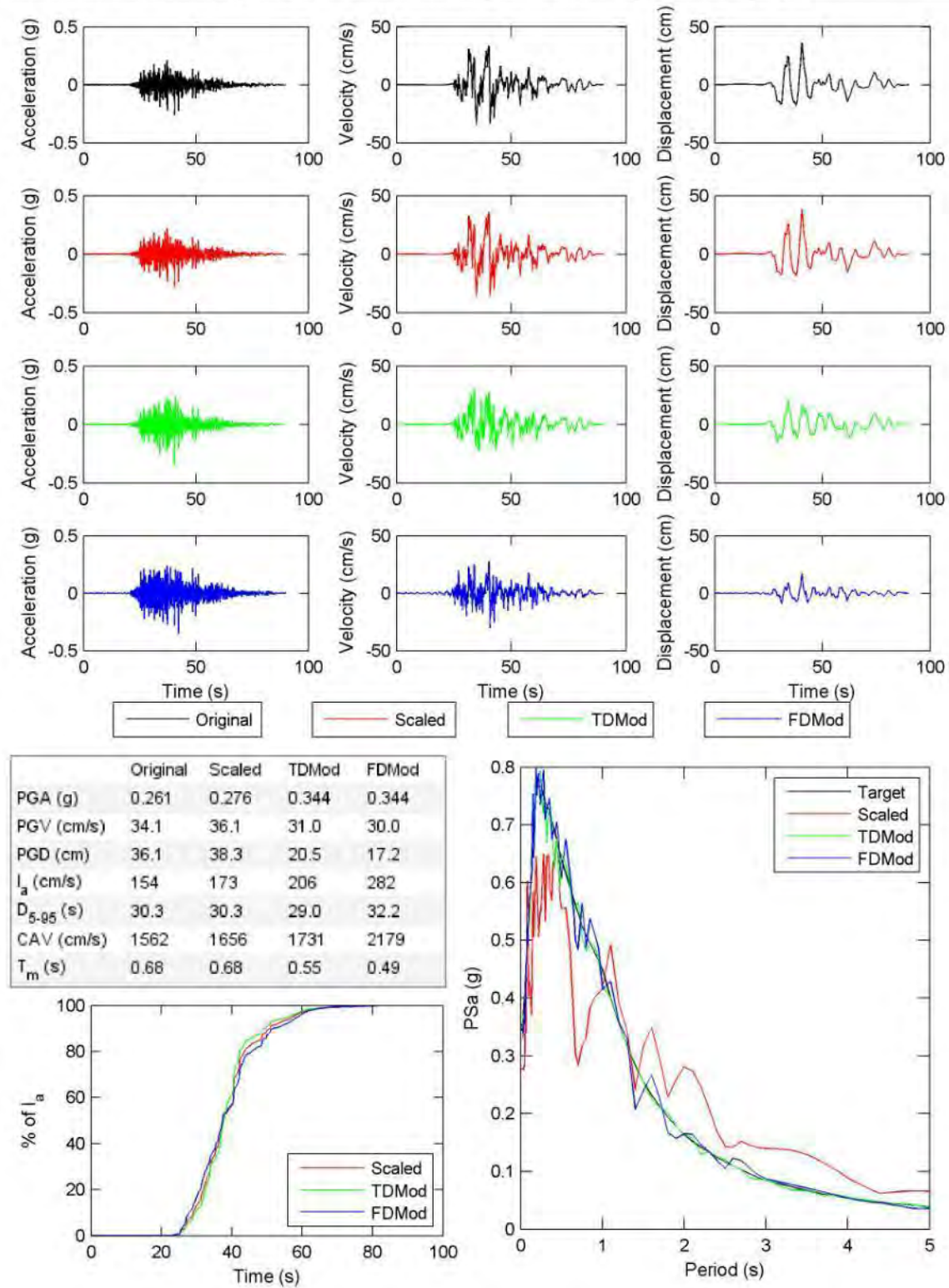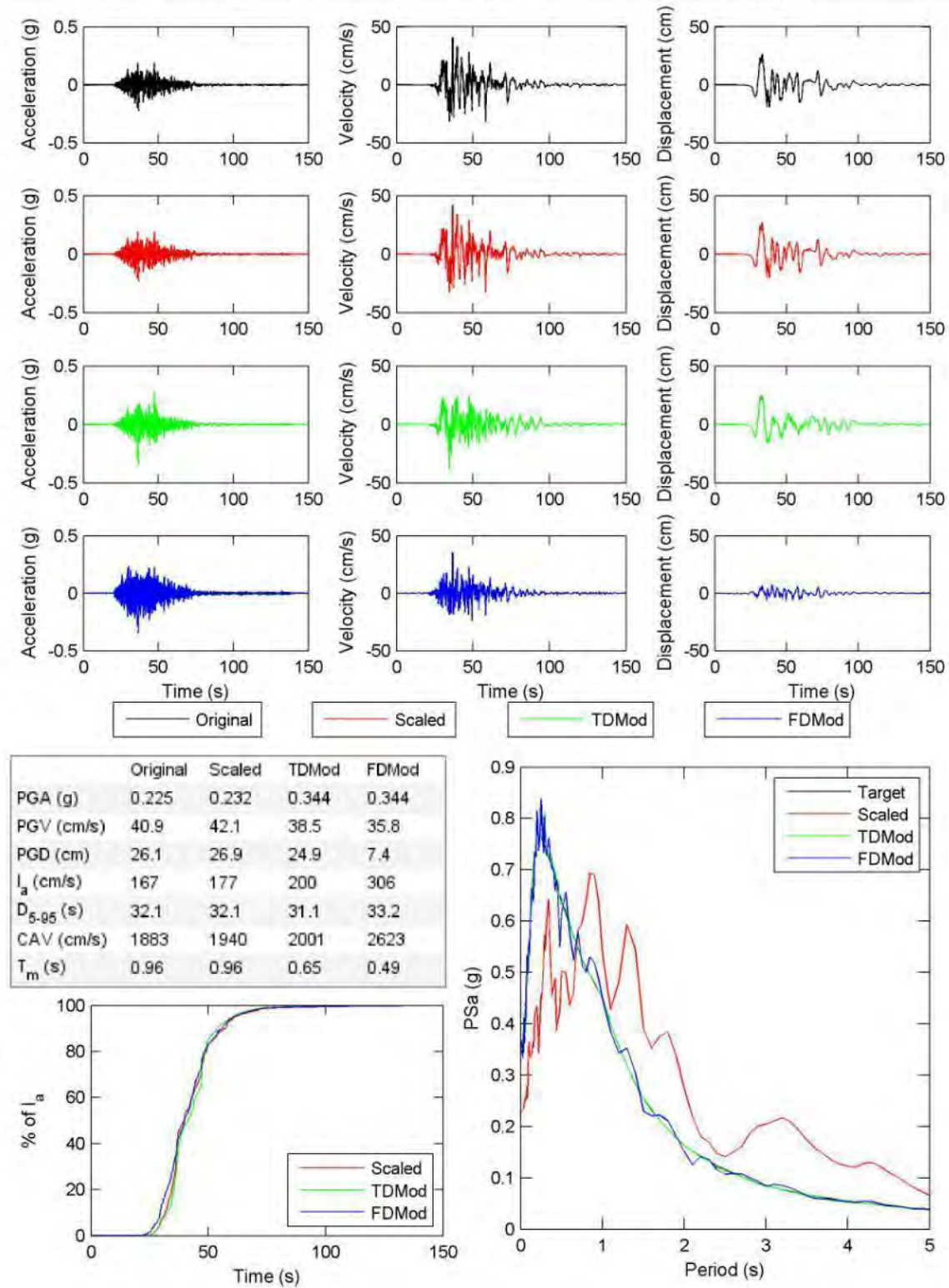Scale Factor: 2.53   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.366	0.925	0.343	0.343
PGV (cm/s)	16.9	42.7	32.9	32.3
PGD (cm)	1.7	4.3	11.5	9.4
I_a (cm/s)	93	592	186	109
D_{5-95} (s)	10.7	10.7	14.9	16.9
CAV (cm/s)	696	1762	1274	934
T_m (s)	0.22	0.22	0.43	0.67

Figure E.1. continued.

489

	Original	Scaled	TDMod	FDMod
PGA (g)	0.283	0.681	0.315	0.343
PGV (cm/s)	12.6	30.4	54.7	33.1
PGD (cm)	3.0	7.3	93.7	10.3
I_a (cm/s)	78	456	214	121
D_{5-95} (s)	11.9	11.9	29.2	14.8
CAV (cm/s)	642	1547	1541	986
T_m (s)	0.22	0.22	0.50	0.65

Figure E.1. continued.

490

	Original	Scaled	TDMod	FDMod
PGA (g)	0.192	0.817	0.344	0.345
PGV (cm/s)	5.6	23.8	30.9	28.4
PGD (cm)	0.9	3.8	10.4	9.0
I_a (cm/s)	25	449	212	106
D_{5-95} (s)	12.7	12.7	15.9	16.4
CAV (cm/s)	395	1680	1393	939
T_m (s)	0.20	0.20	0.45	0.62

Figure E.1. continued.

491

	Original	Scaled	TDMod	FDMod
PGA (g)	0.153	0.565	0.344	0.344
PGV (cm/s)	8.4	31.0	35.0	31.5
PGD (cm)	1.9	7.0	13.2	9.0
I_a (cm/s)	21	283	169	117
D_{5-95} (s)	12.9	12.9	14.9	14.0
CAV (cm/s)	363	1344	1212	917
T_m (s)	0.26	0.26	0.41	0.53

Figure E.1. continued.

492

	Original	Scaled	TDMod	FDMod
PGA (g)	0.244	0.376	0.344	0.344
PGV (cm/s)	20.3	31.2	31.1	25.0
PGD (cm)	7.7	11.8	14.1	9.6
I_a (cm/s)	80	189	160	147
D_{5-95} (s)	10.5	10.5	10.8	13.4
CAV (cm/s)	715	1101	1067	1083
T_m (s)	0.46	0.46	0.50	0.57

Figure E.1. continued.

493

File Name: 739 AND340   Start and End Taper Percentage: 1.0% and 5.0%
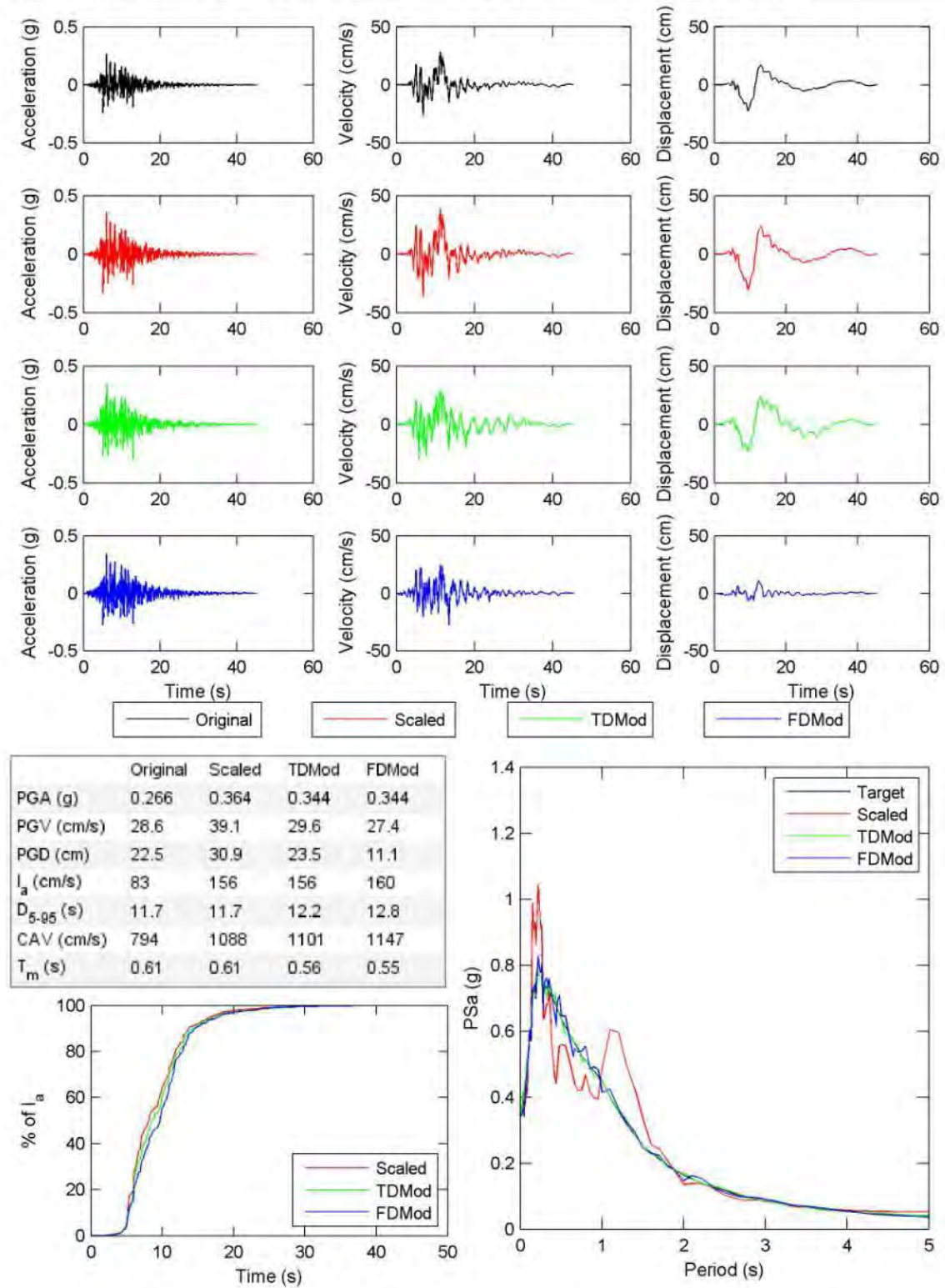Scale Factor: 1.69   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.240	0.405	0.344	0.344
PGV (cm/s)	18.4	31.1	32.7	32.4
PGD (cm)	6.7	11.3	16.0	13.4
I_a (cm/s)	80	229	168	156
D_{5-95} (s)	10.9	10.9	12.6	14.3
CAV (cm/s)	721	1219	1141	1182
T_m (s)	0.47	0.47	0.54	0.58

Figure E.1. continued.

494

File Name: 73 L09021   Start and End Taper Percentage: 1.0% and 5.0%
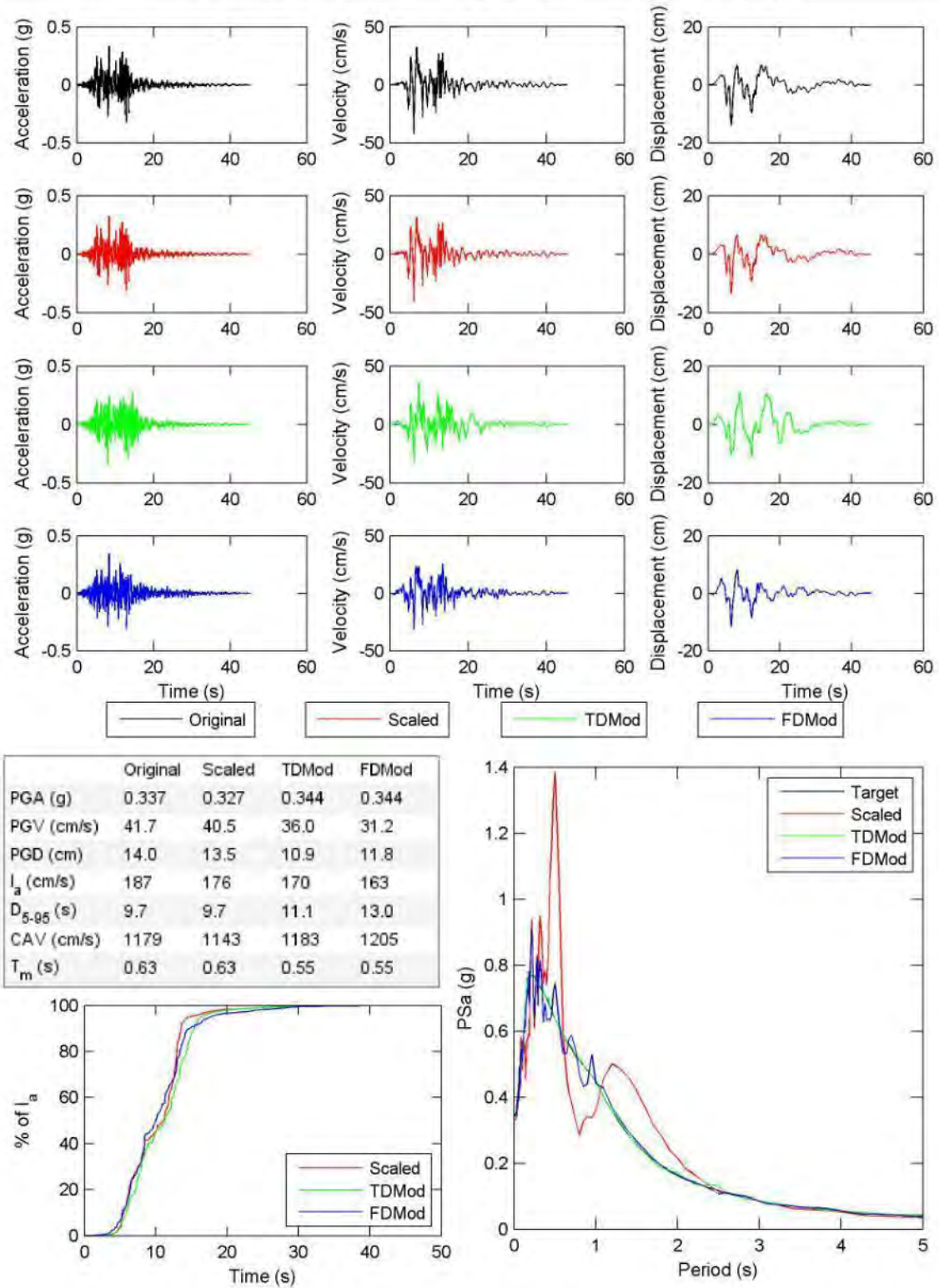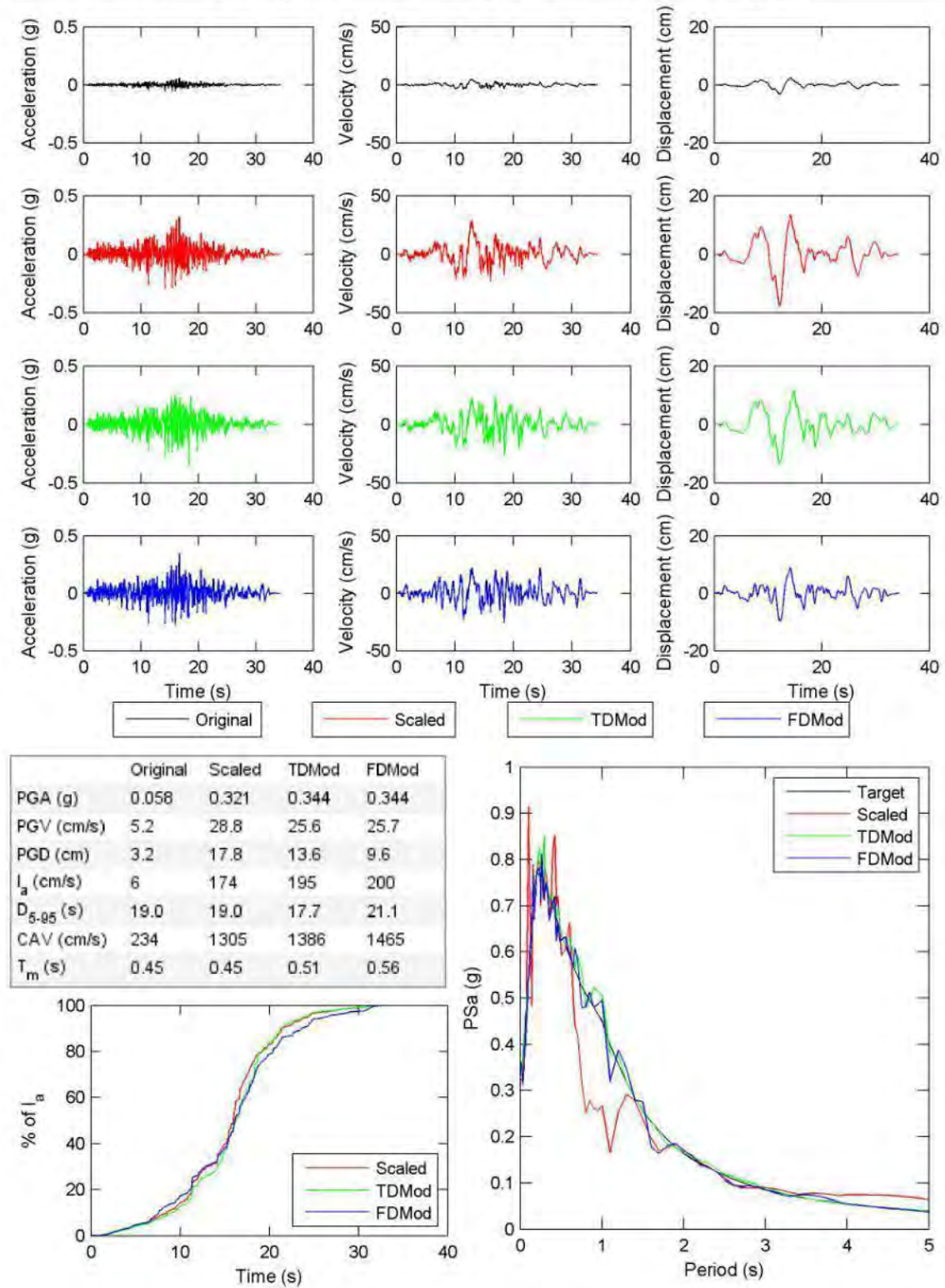Scale Factor: 4.83   Target Spectrum Matched: targetCMS.txt   FD poly: 6   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.157	0.760	0.337	0.341
PGV (cm/s)	4.5	21.7	27.3	31.3
PGD (cm)	1.2	6.0	16.7	8.7
I_a (cm/s)	15	352	177	132
D_{5-95} (s)	9.4	9.4	15.9	18.4
CAV (cm/s)	269	1298	1207	1043
T_m (s)	0.22	0.22	0.56	0.64

Figure E.1. continued.

495

File Name: 73 L09291   Start and End Taper Percentage: 1.0% and 5.0%
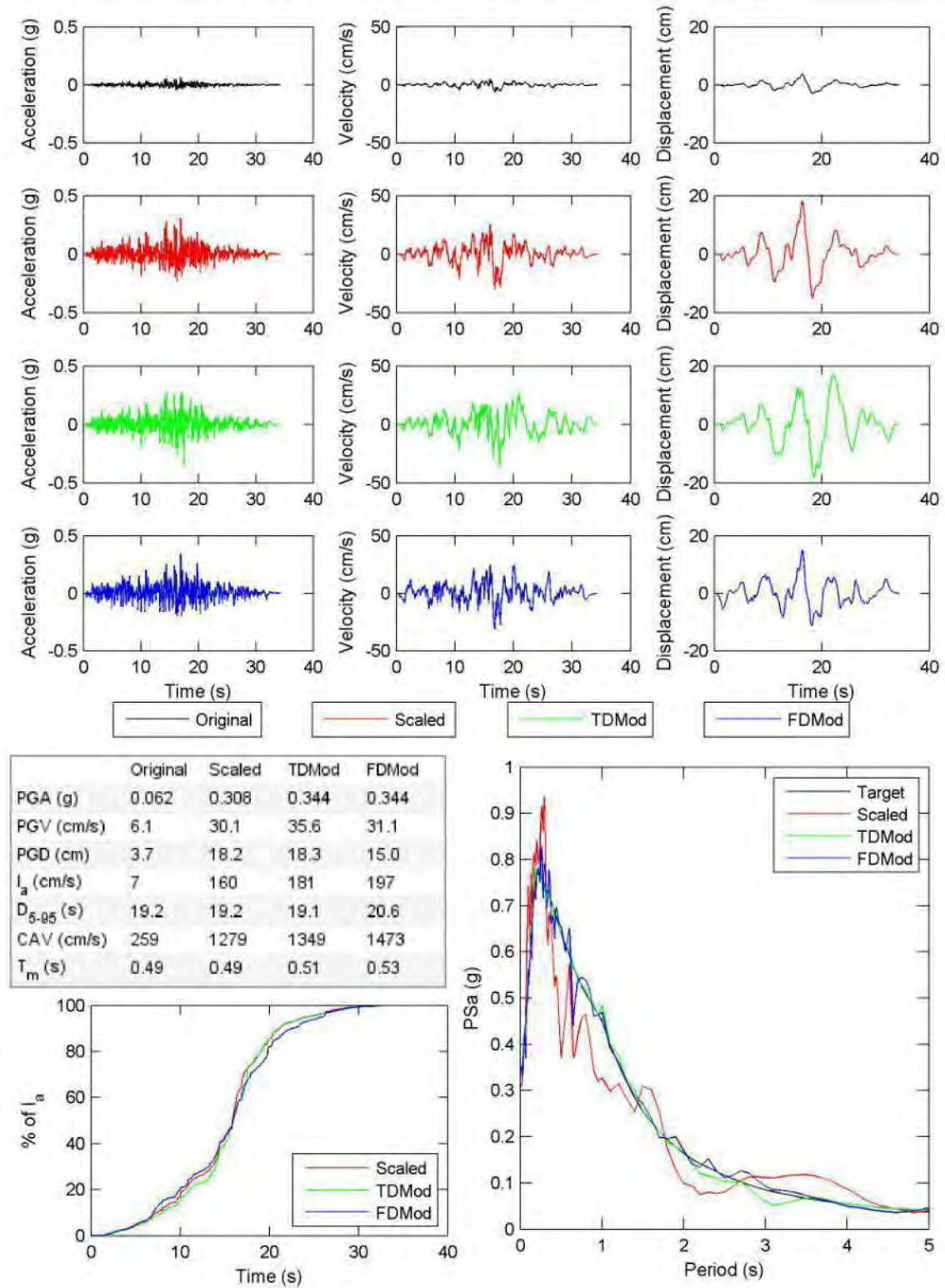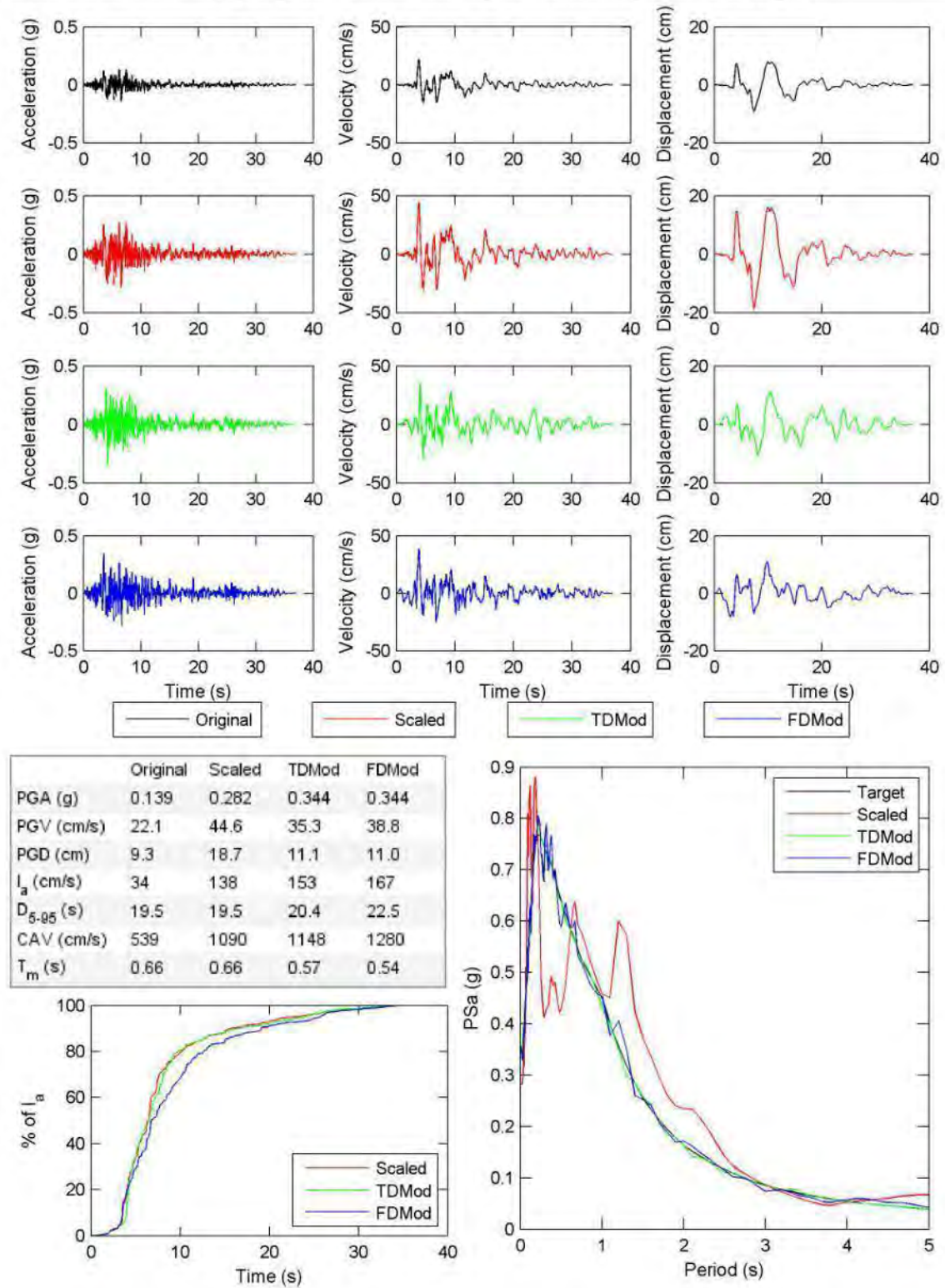Scale Factor: 5.04   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.675	0.344	0.343
PGV (cm/s)	3.8	19.4	26.3	33.7
PGD (cm)	1.1	5.5	17.0	8.9
I_a (cm/s)	11	271	173	138
D_{5-95} (s)	11.8	11.8	13.1	17.4
CAV (cm/s)	232	1170	1151	1100
T_m (s)	0.20	0.20	0.53	0.66

Figure E.1. continued.

496

	Original	Scaled	TDMod	FDMod
PGA (g)	0.064	0.236	0.344	0.344
PGV (cm/s)	12.2	45.0	32.3	32.6
PGD (cm)	11.8	43.6	33.0	8.3
I_a (cm/s)	9	128	146	199
D_{5-95} (s)	15.6	15.6	12.8	14.9
CAV (cm/s)	295	1090	1083	1344
T_m (s)	1.20	1.20	0.63	0.52

Figure E.1. continued.

497

	Original	Scaled	TDMod	FDMod
PGA (g)	0.077	0.265	0.345	0.343
PGV (cm/s)	10.0	34.6	27.3	32.5
PGD (cm)	5.5	19.0	14.3	11.4
I_a (cm/s)	9	103	150	148
D_{5-95} (s)	12.7	12.7	11.4	11.0
CAV (cm/s)	266	914	1107	1063
T_m (s)	0.81	0.81	0.64	0.58

Figure E.1. continued.

498

Figure E.1. continued.

499

	Original	Scaled	TDMod	FDMod
PGA (g)	0.325	0.481	0.344	0.345
PGV (cm/s)	22.2	32.9	49.5	44.9
PGD (cm)	4.6	6.8	10.8	11.4
I_a (cm/s)	70	154	95	71
D_{5-95} (s)	4.8	4.8	6.7	8.9
CAV (cm/s)	512	758	699	616
T_m (s)	0.32	0.32	0.54	0.67

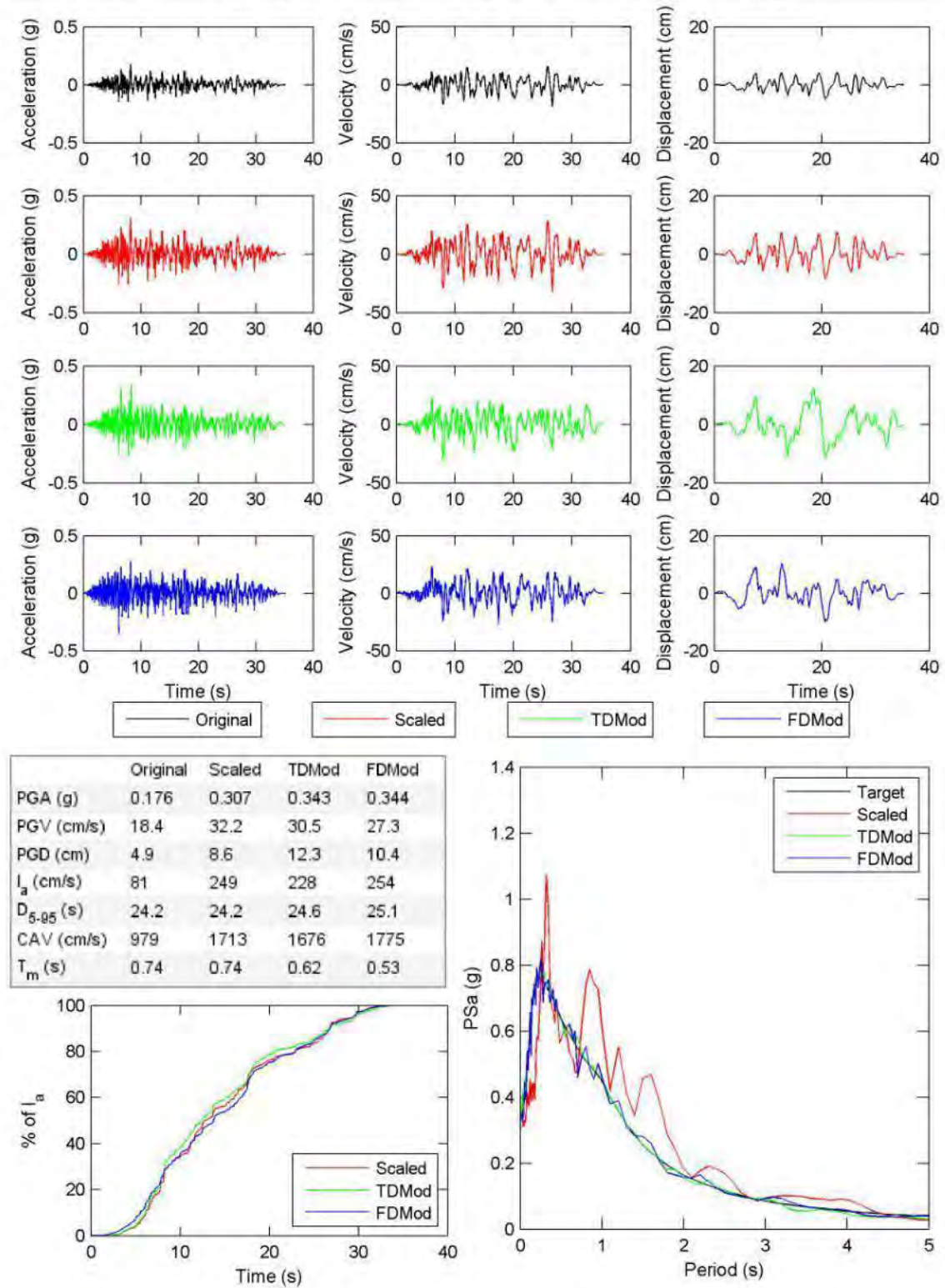**Figure E.1.** continued.

500

File Name: 765 G01000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.18   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.411	0.485	0.344	0.344
PGV (cm/s)	31.6	37.2	29.6	44.5
PGD (cm)	6.3	7.5	12.2	13.5
I_a (cm/s)	106	147	119	97
D_{5-95} (s)	6.5	6.5	9.7	11.8
CAV (cm/s)	660	778	878	822
T_m (s)	0.29	0.29	0.54	0.69

Figure E.1. continued.

501

File Name: 765 G01090   Start and End Taper Percentage: 1.0% and 5.0%
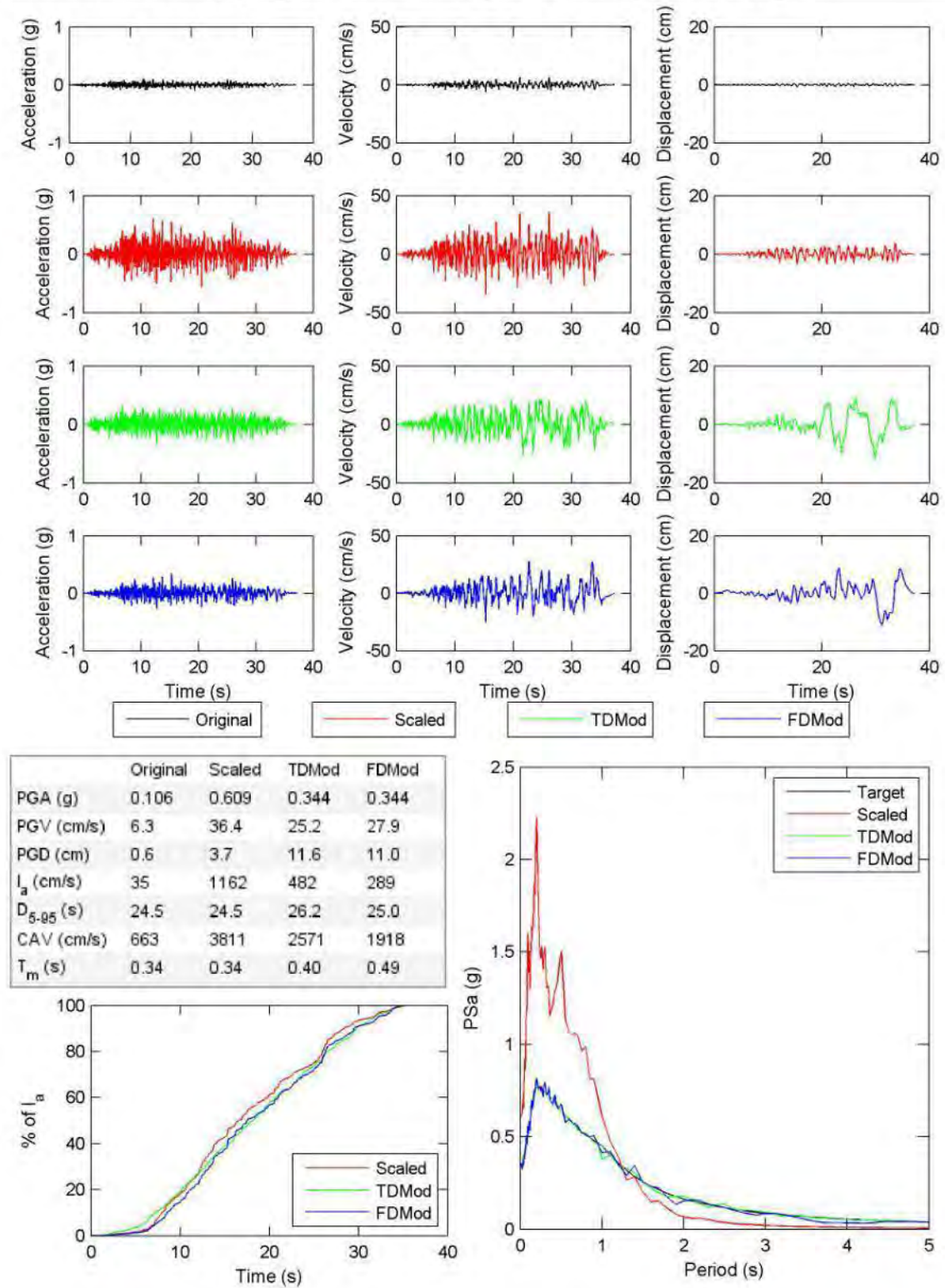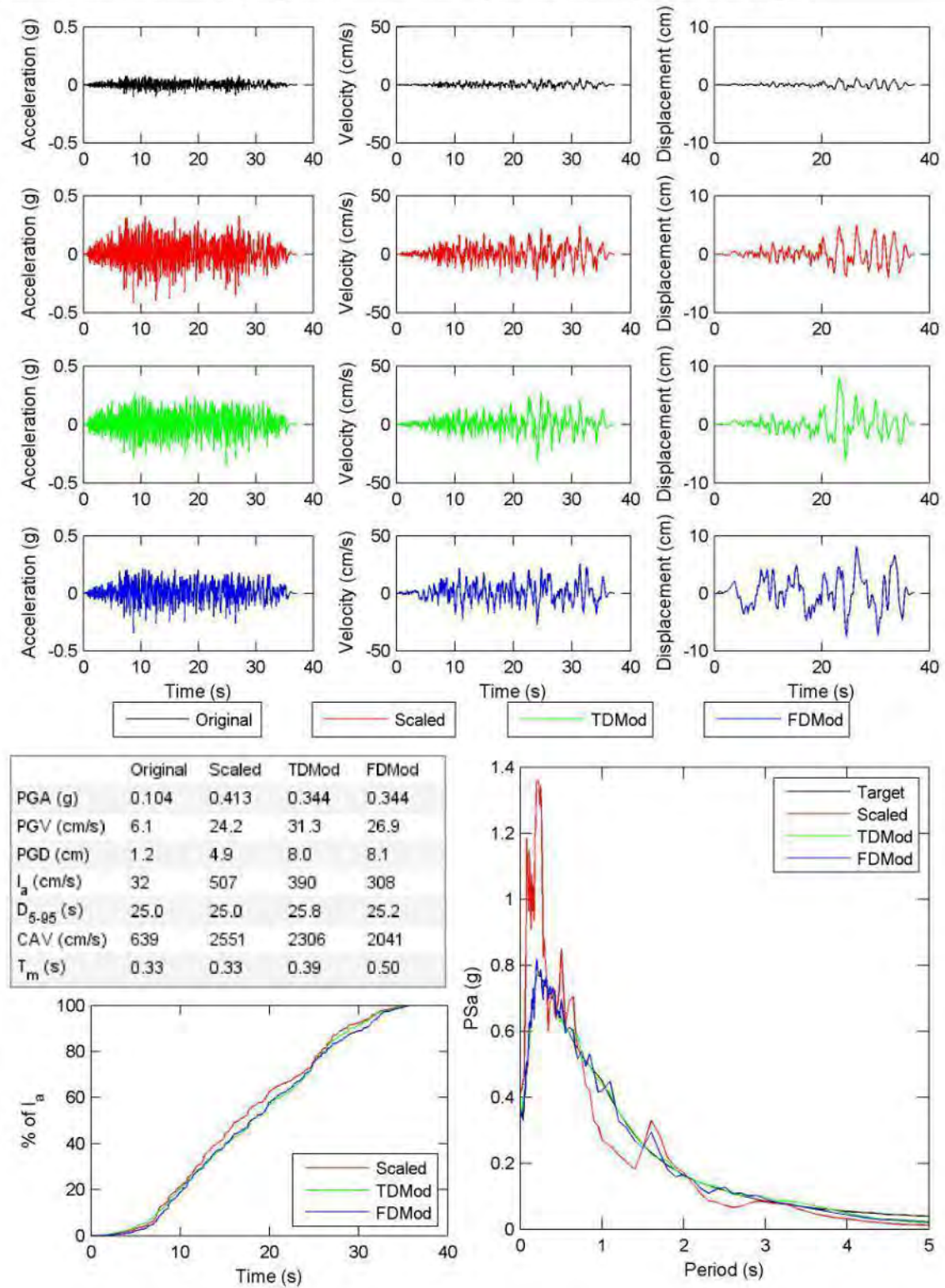Scale Factor: 0.94   Target Spectrum Matched: targetCMS.txt   FD poly: 6   TD poly: 7

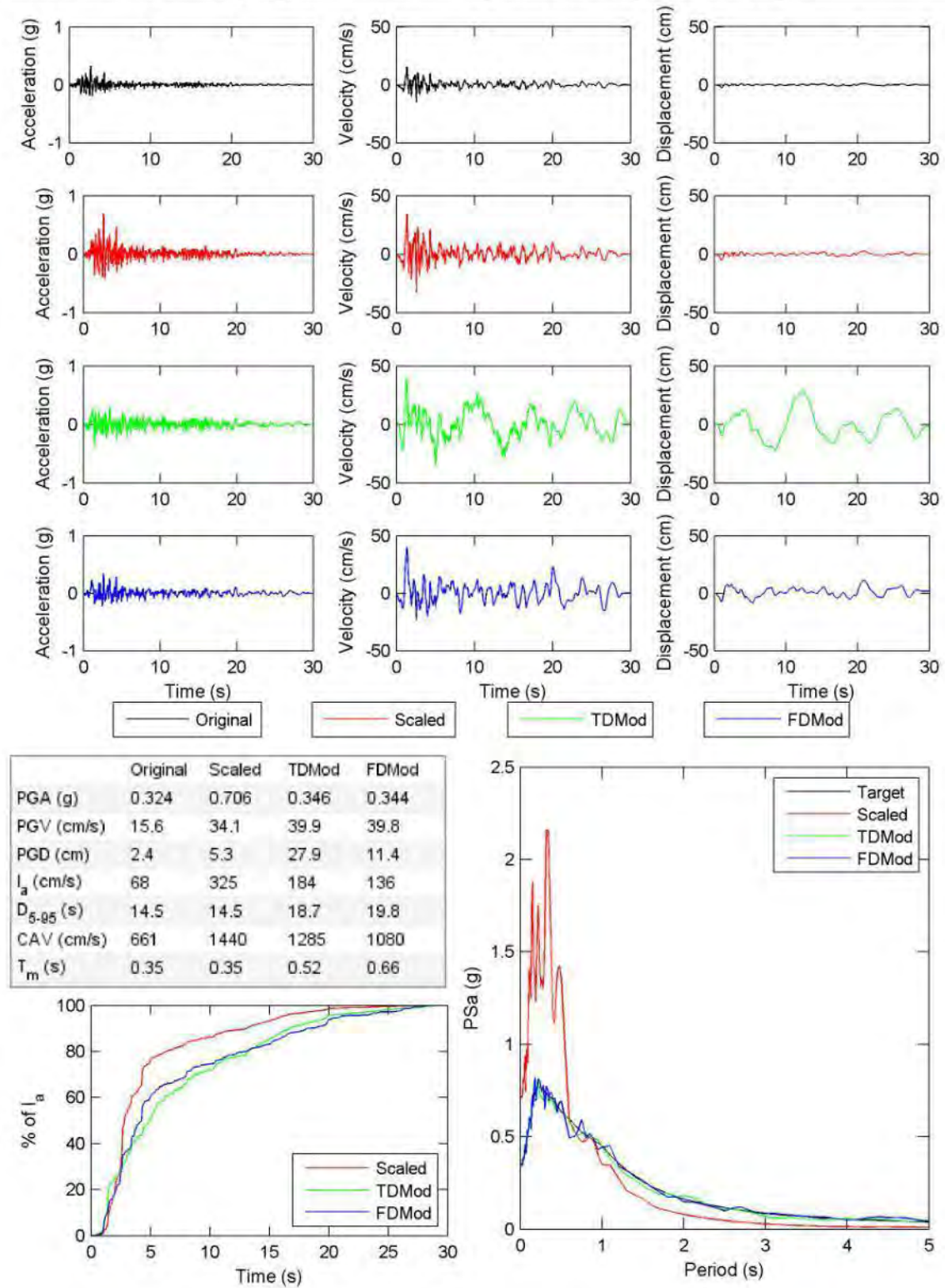|	Original	Scaled	TDMod	FDMod
PGA (g)	0.473	0.445	0.344	0.344
PGV (cm/s)	33.9	31.8	33.3	37.6
PGD (cm)	8.0	7.6	10.6	11.2
I_a (cm/s)	168	148	114	88
D_{5-95} (s)	3.7	3.7	5.1	6.2
CAV (cm/s)	731	687	726	660
T_m (s)	0.39	0.39	0.51	0.61

Figure E.1. continued.

502

File Name: 78 PDL120   Start and End Taper Percentage: 1.0% and 5.0%
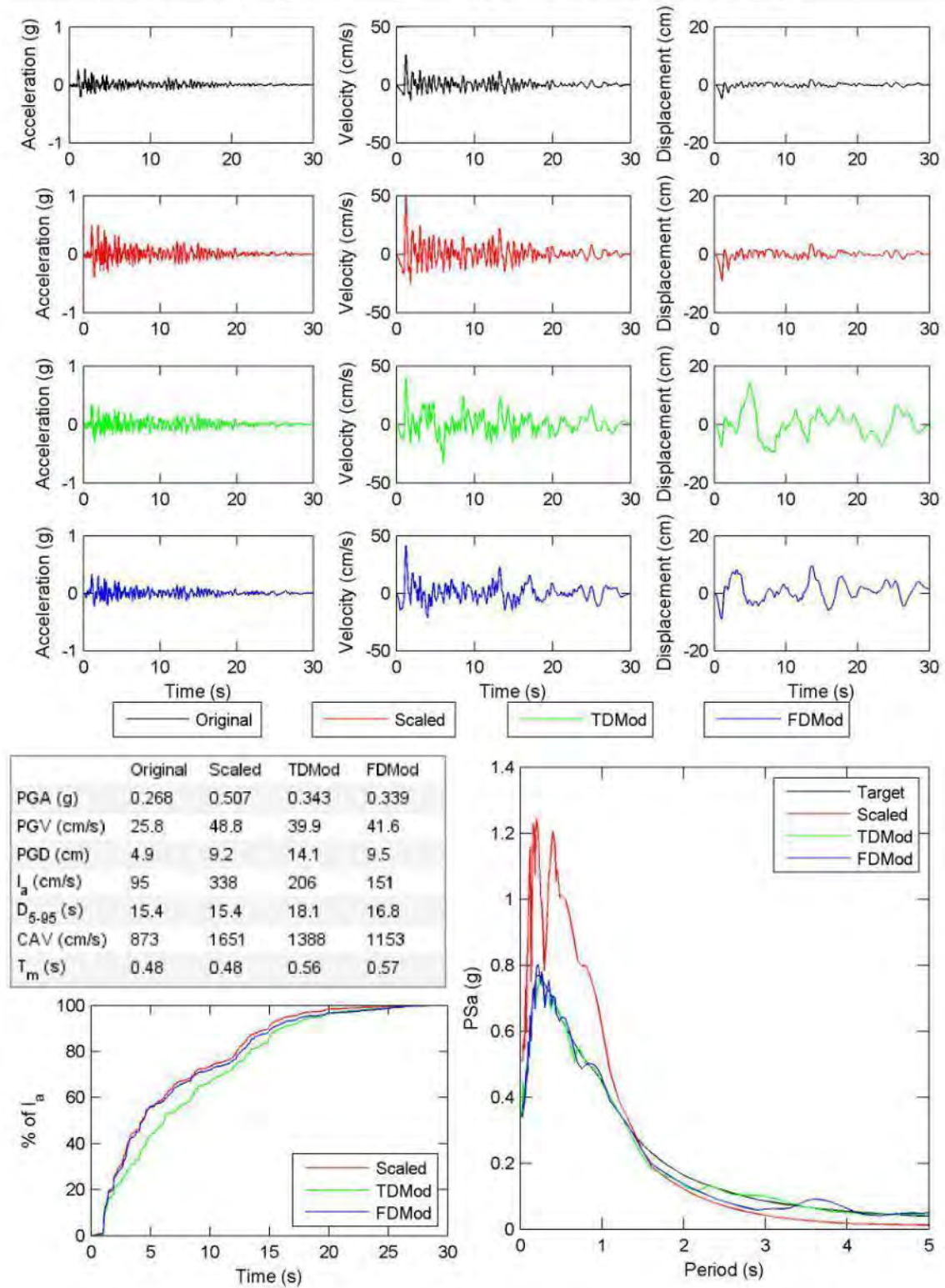Scale Factor: 2.83   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.121	0.342	0.344	0.344
PGV (cm/s)	12.3	34.8	30.4	27.4
PGD (cm)	2.6	7.4	10.1	15.2
I_a (cm/s)	31	250	200	203
D_{5-95} (s)	17.4	17.4	16.9	18.2
CAV (cm/s)	522	1476	1337	1379
T_m (s)	0.59	0.59	0.55	0.56

Figure E.1. continued.

503

	Original	Scaled	TDMod	FDMod
PGA (g)	0.151	0.505	0.344	0.346
PGV (cm/s)	8.1	27.0	30.8	27.4
PGD (cm)	1.9	6.2	11.2	12.2
I_a (cm/s)	24	266	204	192
D_{5-95} (s)	17.3	17.3	18.8	20.8
CAV (cm/s)	443	1480	1371	1406
T_m (s)	0.47	0.47	0.52	0.59

Figure E.1. continued.

504

	Original	Scaled	TDMod	FDMod
PGA (g)	0.275	0.398	0.344	0.344
PGV (cm/s)	26.2	37.9	43.1	33.5
PGD (cm)	13.4	19.4	24.4	8.4
I_a (cm/s)	131	275	197	164
D_{5-95} (s)	10.1	10.1	11.3	12.1
CAV (cm/s)	975	1414	1284	1202
T_m (s)	0.31	0.31	0.41	0.54

Figure E.1. continued.

505

	Original	Scaled	TDMod	FDMod
PGA (g)	0.228	0.376	0.344	0.344
PGV (cm/s)	20.9	34.4	30.9	31.6
PGD (cm)	6.2	10.3	14.0	10.3
I_a (cm/s)	100	272	215	164
D_{5-95} (s)	10.1	10.1	11.4	13.4
CAV (cm/s)	880	1452	1340	1249
T_m (s)	0.36	0.36	0.46	0.52

Figure E.1. continued.

506

File Name: 802 STG000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.82   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.512	0.420	0.344	0.344
PGV (cm/s)	41.2	33.7	35.3	27.8
PGD (cm)	16.2	13.3	17.0	13.4
I_a (cm/s)	145	98	114	105
D_{5-95} (s)	9.4	9.4	11.2	9.5
CAV (cm/s)	911	747	884	798
T_m (s)	0.62	0.62	0.58	0.57

Figure E.1. continued.

507

File Name: 802 STG090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.89   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.324	0.289	0.344	0.344
PGV (cm/s)	42.6	37.9	40.3	33.7
PGD (cm)	27.6	24.6	16.4	11.5
I_a (cm/s)	109	86	124	121
D_{5-95} (s)	8.3	8.3	10.0	12.3
CAV (cm/s)	809	720	930	931
T_m (s)	0.54	0.54	0.60	0.60

Figure E.1. continued.

508

File Name: 803 WVC000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.04   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.255	0.265	0.344	0.344
PGV (cm/s)	42.4	44.1	34.3	30.8
PGD (cm)	19.5	20.3	16.1	13.1
I_a (cm/s)	108	117	139	142
D_{5-95} (s)	11.1	11.1	11.9	15.7
CAV (cm/s)	890	926	1033	1119
T_m (s)	0.84	0.84	0.59	0.54

Figure E.1. continued.

509

	Original	Scaled	TDMod	FDMod
PGA (g)	0.332	0.269	0.344	0.344
PGV (cm/s)	61.5	49.8	30.6	28.7
PGD (cm)	36.3	29.4	31.0	8.9
I_a (cm/s)	124	81	125	124
D_{5-95} (s)	10.7	10.7	12.9	12.6
CAV (cm/s)	888	720	989	962
T_m (s)	0.97	0.97	0.63	0.57

Figure E.1. continued.

510

File Name: 809 UC2000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.85   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.311	0.576	0.344	0.344
PGV (cm/s)	12.5	23.1	31.0	26.6
PGD (cm)	5.9	11.0	12.7	9.8
I_a (cm/s)	86	293	189	149
D_{5-95} (s)	9.0	9.0	11.1	11.9
CAV (cm/s)	679	1256	1115	1006
T_m (s)	0.20	0.20	0.42	0.60

Figure E.1. continued.

511

File Name: 809 UC2090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.56   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 6
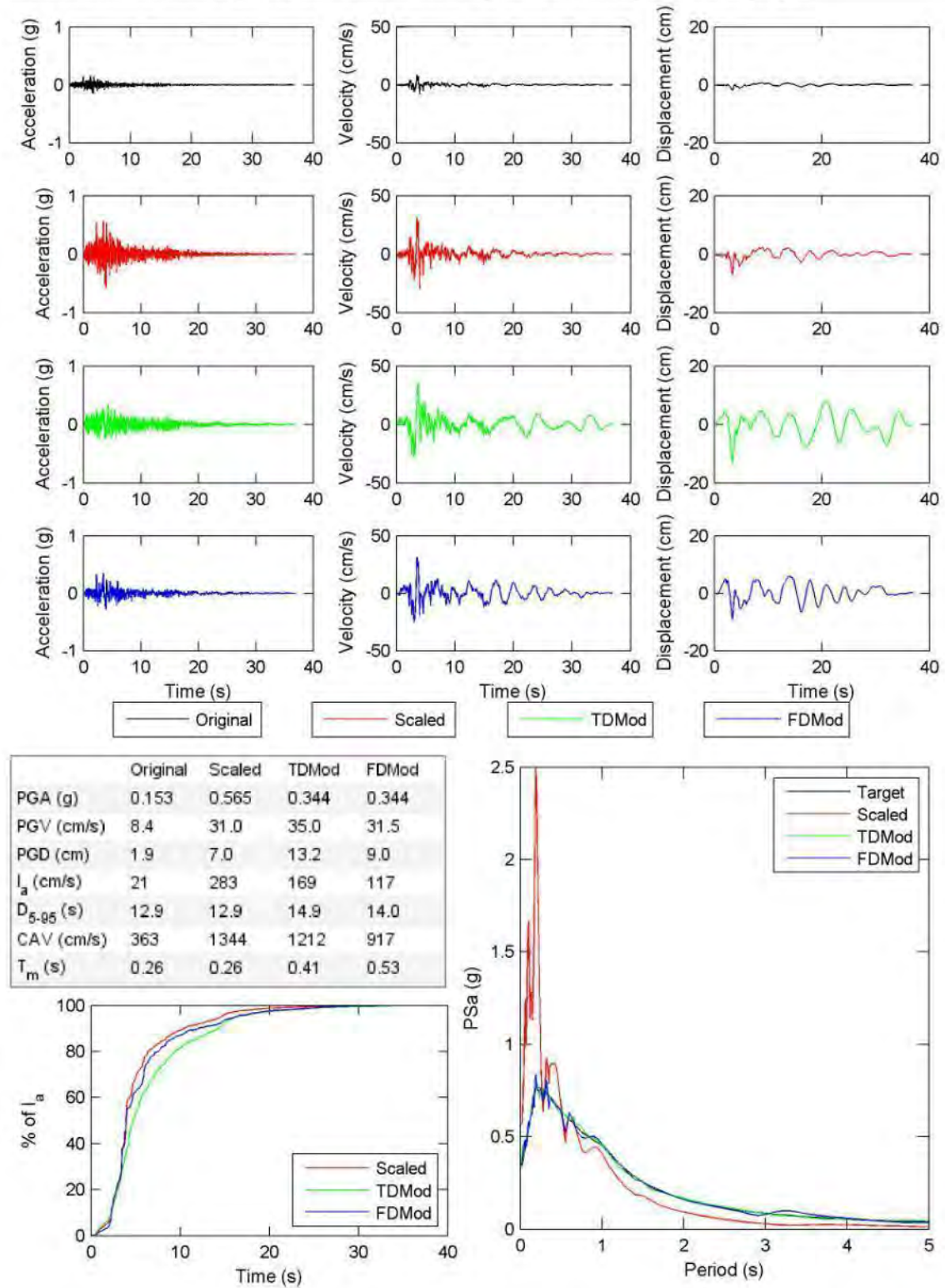

	Original	Scaled	TDMod	FDMod
PGA (g)	0.386	0.602	0.346	0.344
PGV (cm/s)	15.4	24.0	44.1	29.7
PGD (cm)	5.1	7.9	25.4	16.8
I_a (cm/s)	158	385	205	151
D_{5-95} (s)	8.6	8.6	11.6	10.8
CAV (cm/s)	932	1453	1193	1005
T_m (s)	0.22	0.22	0.40	0.54

Figure E.1. continued.

512

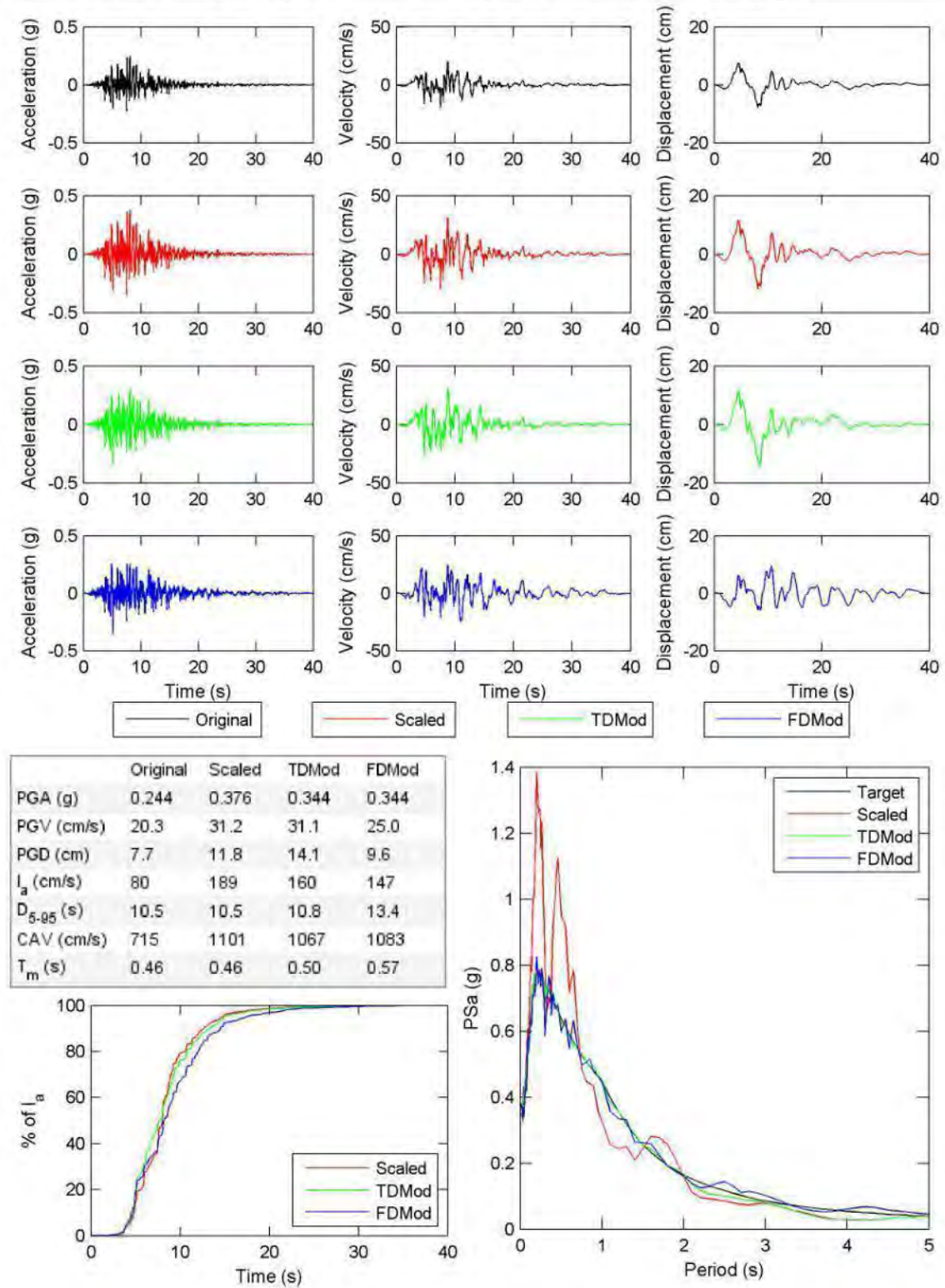|	Original	Scaled	TDMod	FDMod
PGA (g)	0.450	0.621	0.344	0.344
PGV (cm/s)	18.7	25.8	33.4	33.3
PGD (cm)	3.8	5.3	7.2	15.1
I_a (cm/s)	266	507	213	150
D_{5-95} (s)	9.5	9.5	12.9	12.3
CAV (cm/s)	1310	1808	1328	1099
T_m (s)	0.27	0.27	0.41	0.54

Figure E.1. continued.

513

File Name: 810 LOB090   Start and End Taper Percentage: 1.0% and 5.0%
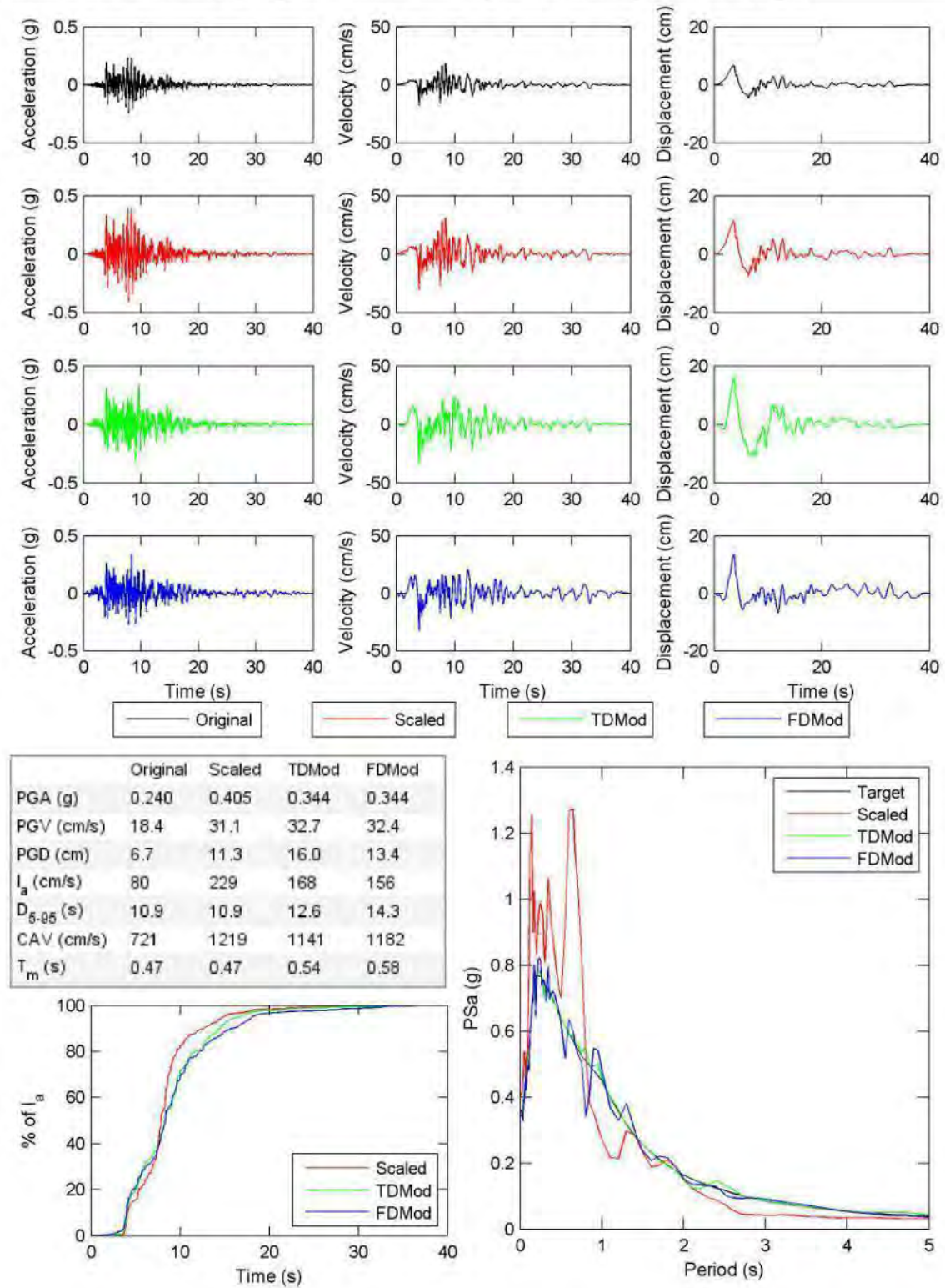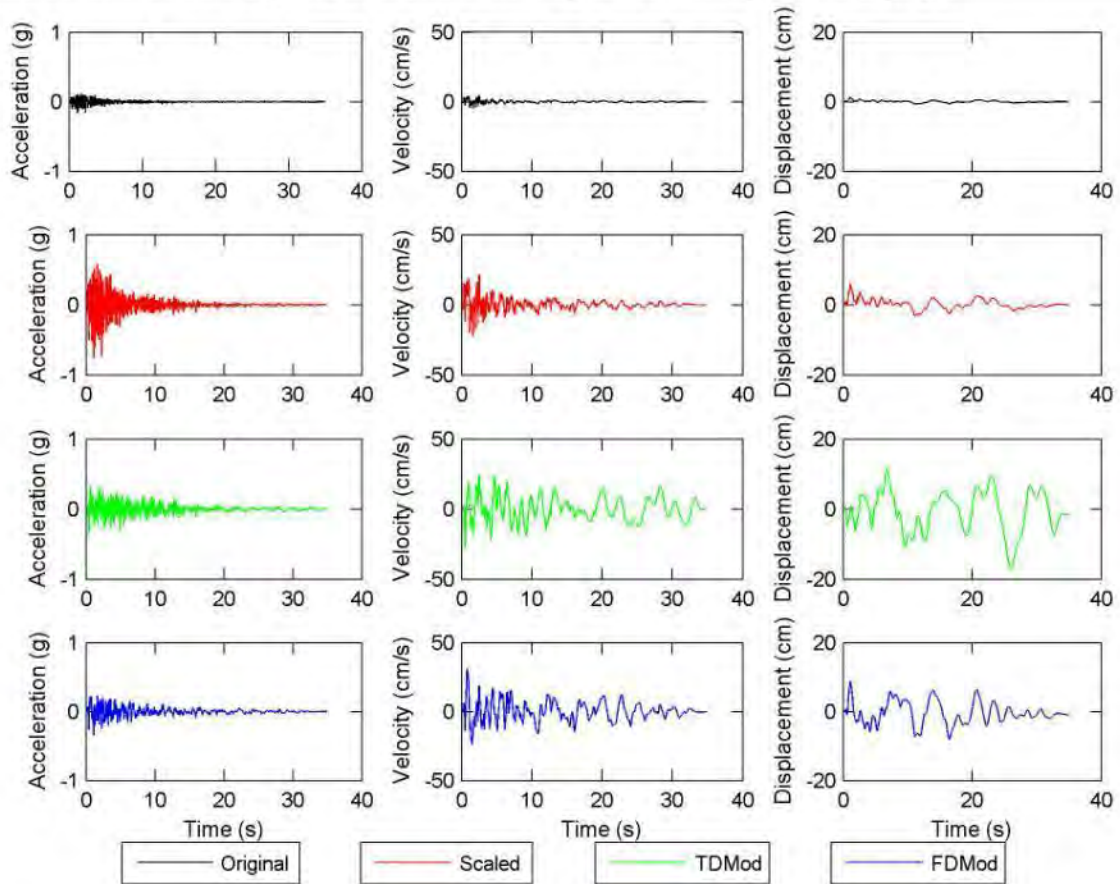Scale Factor: 1.57   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.395	0.620	0.344	0.344
PGV (cm/s)	17.5	27.5	43.2	29.3
PGD (cm)	5.0	7.9	26.1	11.3
I_a (cm/s)	204	502	216	165
D_{5-95} (s)	9.7	9.7	14.3	14.7
CAV (cm/s)	1169	1835	1419	1189
T_m (s)	0.22	0.22	0.44	0.57

Figure E.1. continued.

514

	Original	Scaled	TDMod	FDMod
PGA (g)	0.398	0.402	0.346	0.344
PGV (cm/s)	30.8	31.1	26.4	28.0
PGD (cm)	6.6	6.7	9.2	11.0
I_a (cm/s)	371	378	218	145
D_{5-95} (s)	10.5	10.5	14.0	11.3
CAV (cm/s)	1551	1567	1286	978
T_m (s)	0.28	0.28	0.44	0.47

Figure E.1. continued.

515

	Original	Scaled	TDMod	FDMod
PGA (g)	0.672	0.484	0.344	0.344
PGV (cm/s)	35.0	25.2	30.8	27.5
PGD (cm)	8.4	6.0	13.4	7.6
I_a (cm/s)	627	325	219	179
D_{5-95} (s)	11.0	11.0	13.3	13.1
CAV (cm/s)	2025	1458	1263	1150
T_m (s)	0.27	0.27	0.44	0.50

Figure E.1. continued.

516

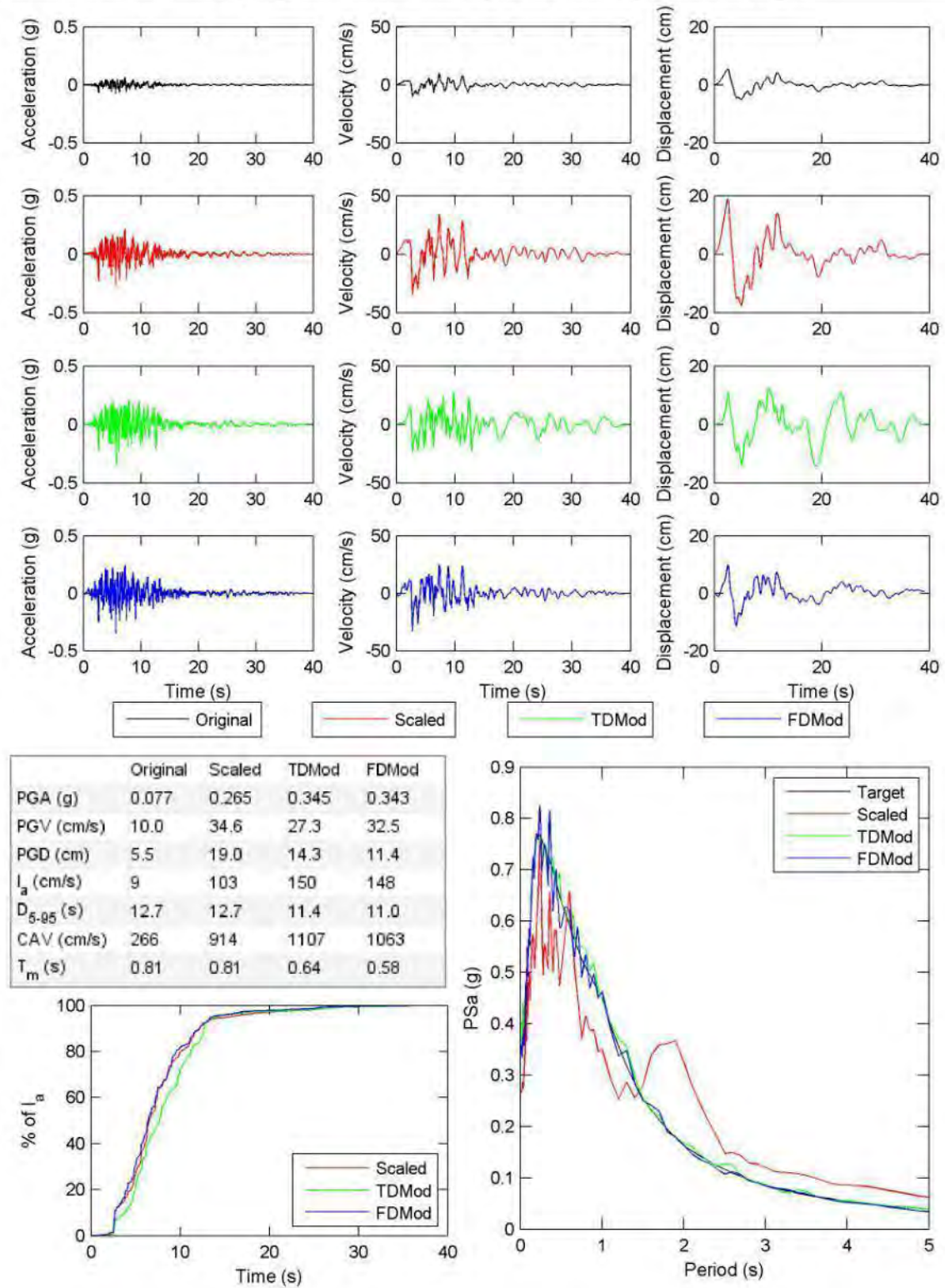|	Original	Scaled	TDMod	FDMod
PGA (g)	0.116	0.239	0.343	0.344
PGV (cm/s)	29.9	61.7	53.6	34.7
PGD (cm)	27.5	56.7	42.2	12.7
I_a (cm/s)	26	111	152	198
D_{5-95} (s)	18.7	18.7	16.4	20.3
CAV (cm/s)	517	1065	1202	1501
T_m (s)	1.02	1.02	0.61	0.54

Figure E.1. continued.

517

File Name: 827 FOR090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.00   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.114	0.228	0.344	0.344
PGV (cm/s)	21.7	43.4	31.8	27.5
PGD (cm)	12.7	25.5	19.2	9.7
I_a (cm/s)	24	96	121	169
D_{5-95} (s)	18.2	18.2	17.6	19.2
CAV (cm/s)	492	983	1044	1372
T_m (s)	1.10	1.10	0.68	0.56

Figure E.1. continued.

518

File Name: 864 JOS000   Start and End Taper Percentage: 1.0% and 5.0%
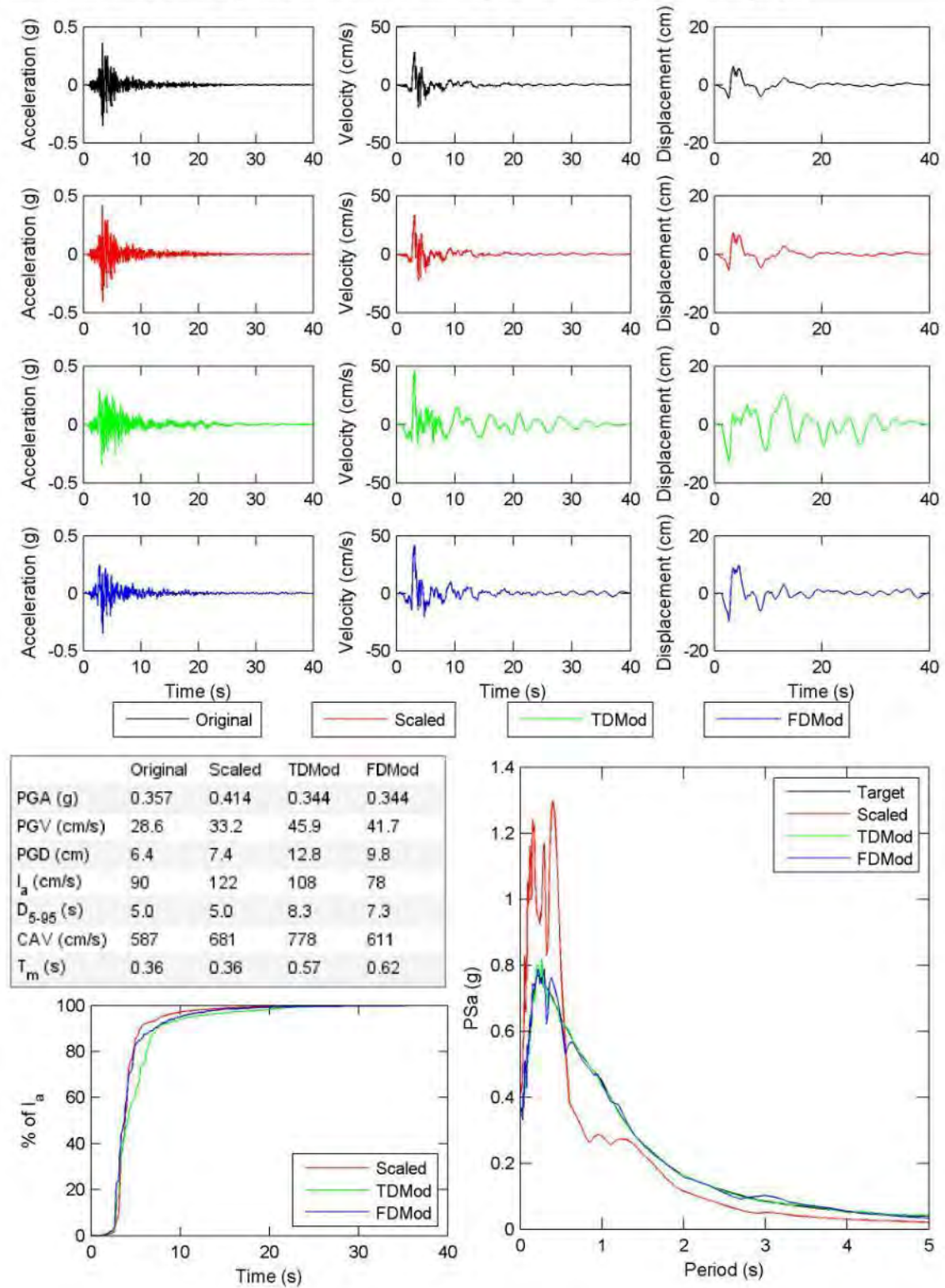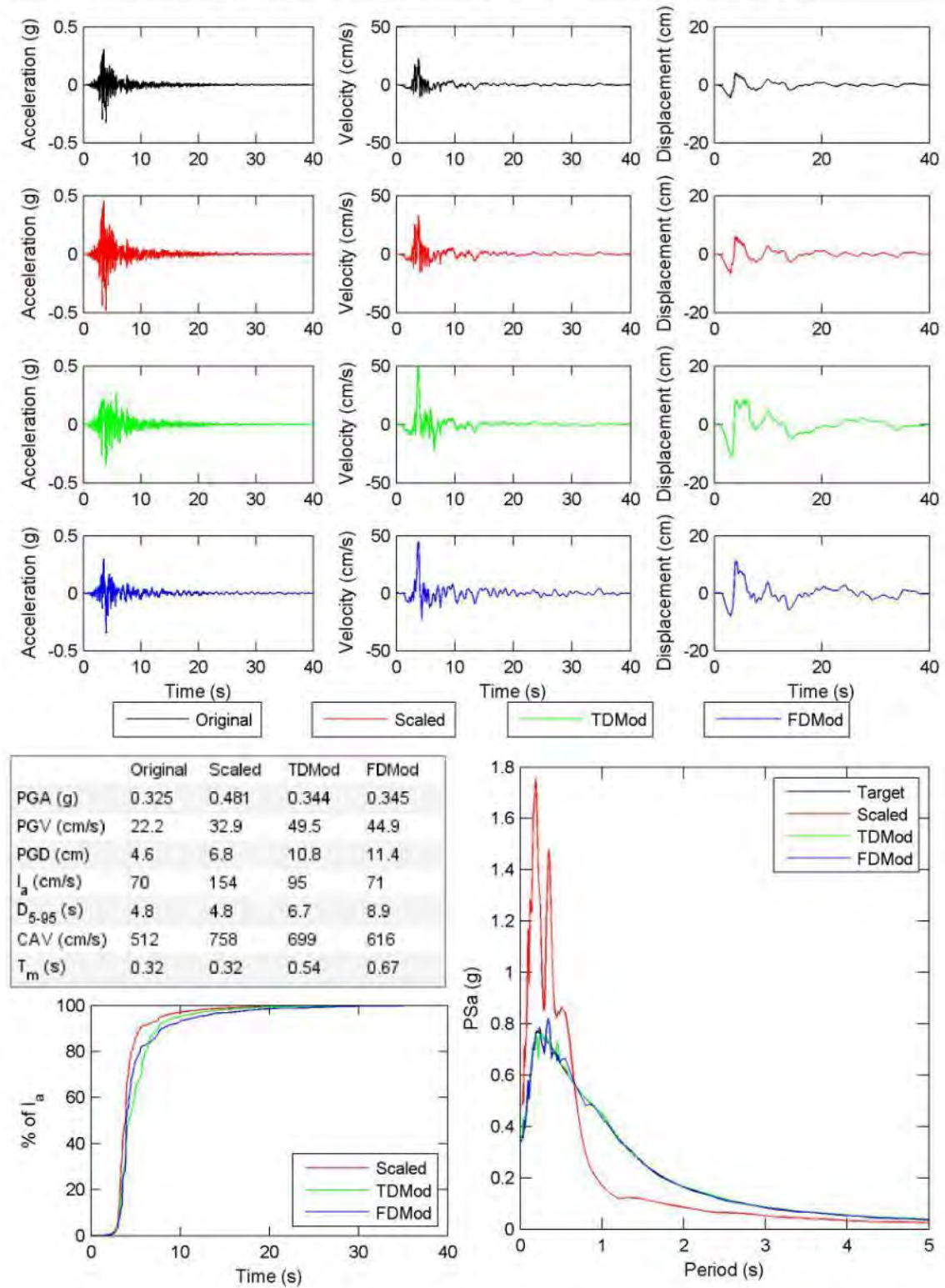Scale Factor: 1.32   Target Spectrum Matched: targetCMS.txt   FD poly: 6   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.274	0.361	0.344	0.344
PGV (cm/s)	27.5	36.2	26.5	30.7
PGD (cm)	9.5	12.6	13.7	9.2
I_a (cm/s)	165	287	236	256
D_{5-95} (s)	27.2	27.2	30.3	28.6
CAV (cm/s)	1533	2024	1867	1927
T_m (s)	0.72	0.72	0.63	0.53

Figure E.1. continued.

519

File Name: 864 JOS090   Start and End Taper Percentage: 1.0% and 5.0%
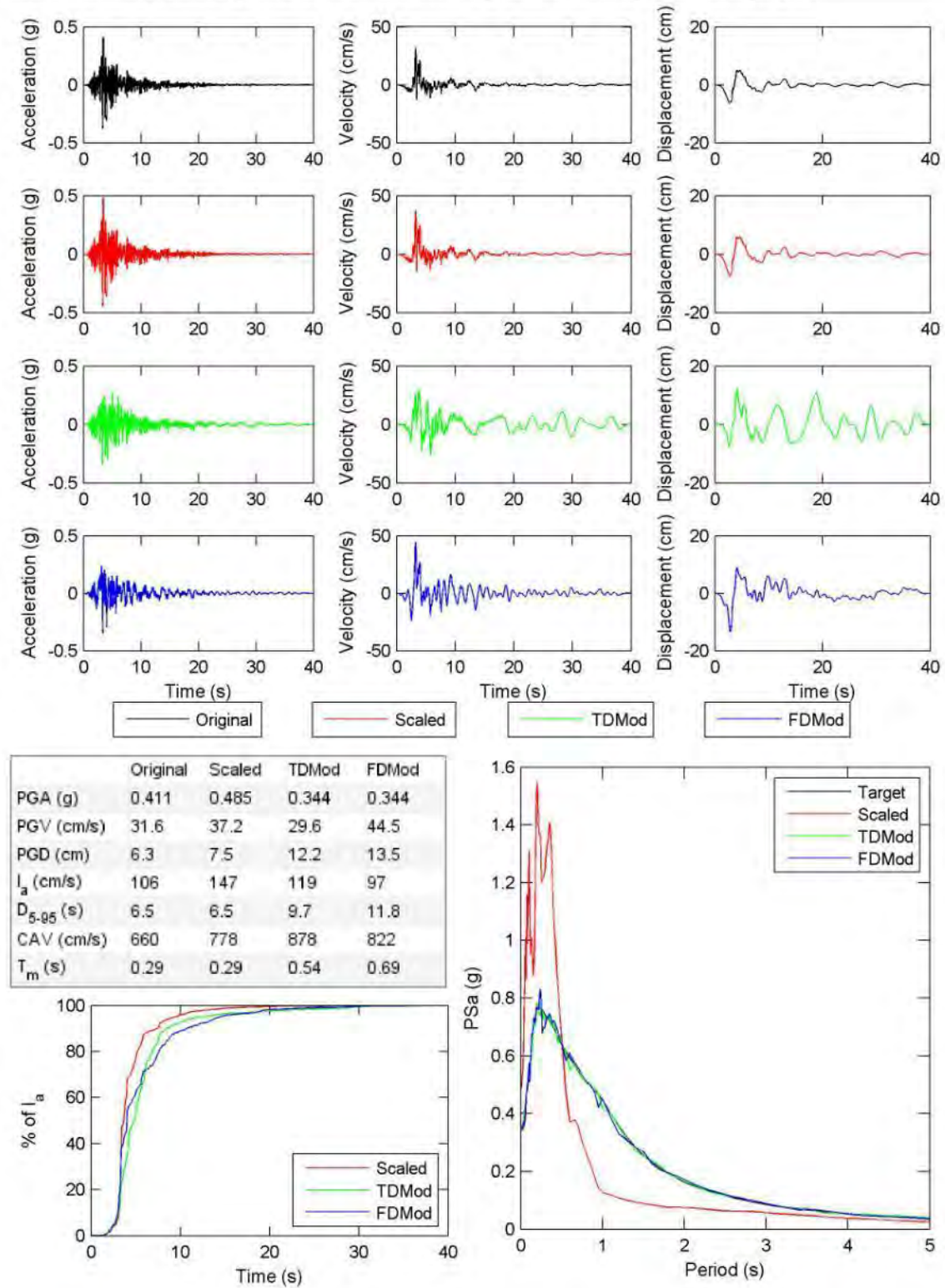Scale Factor: 1.06   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 6

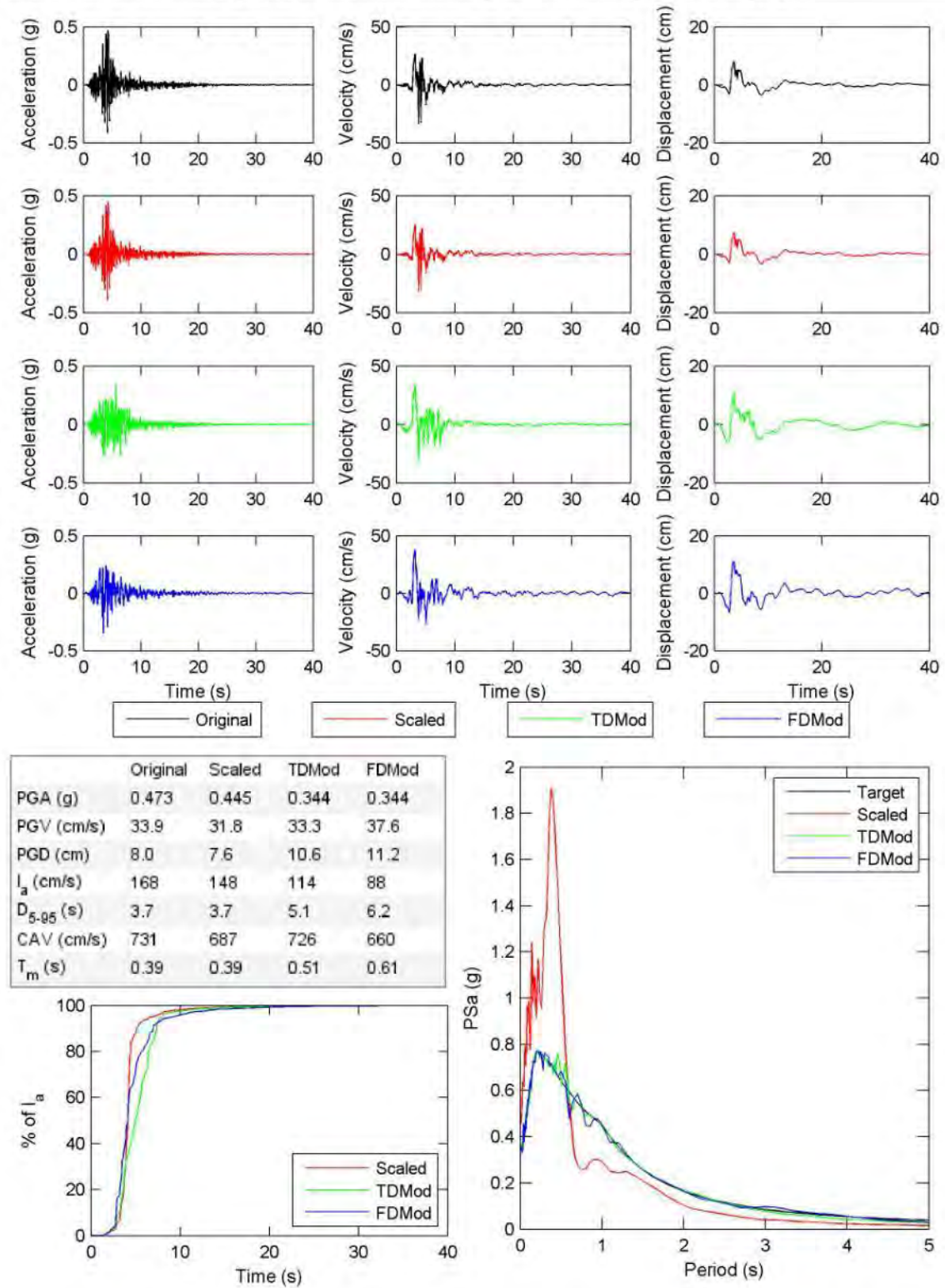|	Original	Scaled	TDMod	FDMod
PGA (g)	0.284	0.301	0.344	0.344
PGV (cm/s)	43.1	45.6	32.2	35.5
PGD (cm)	14.3	15.2	11.0	9.4
I_a (cm/s)	235	264	245	285
D_{5-95} (s)	26.1	26.1	26.6	28.0
CAV (cm/s)	1747	1852	1809	2019
T_m (s)	0.77	0.77	0.58	0.49

Figure E.1. continued.

520

File Name: 88 FSD172 Start and End Taper Percentage: 1.0% and 5.0%
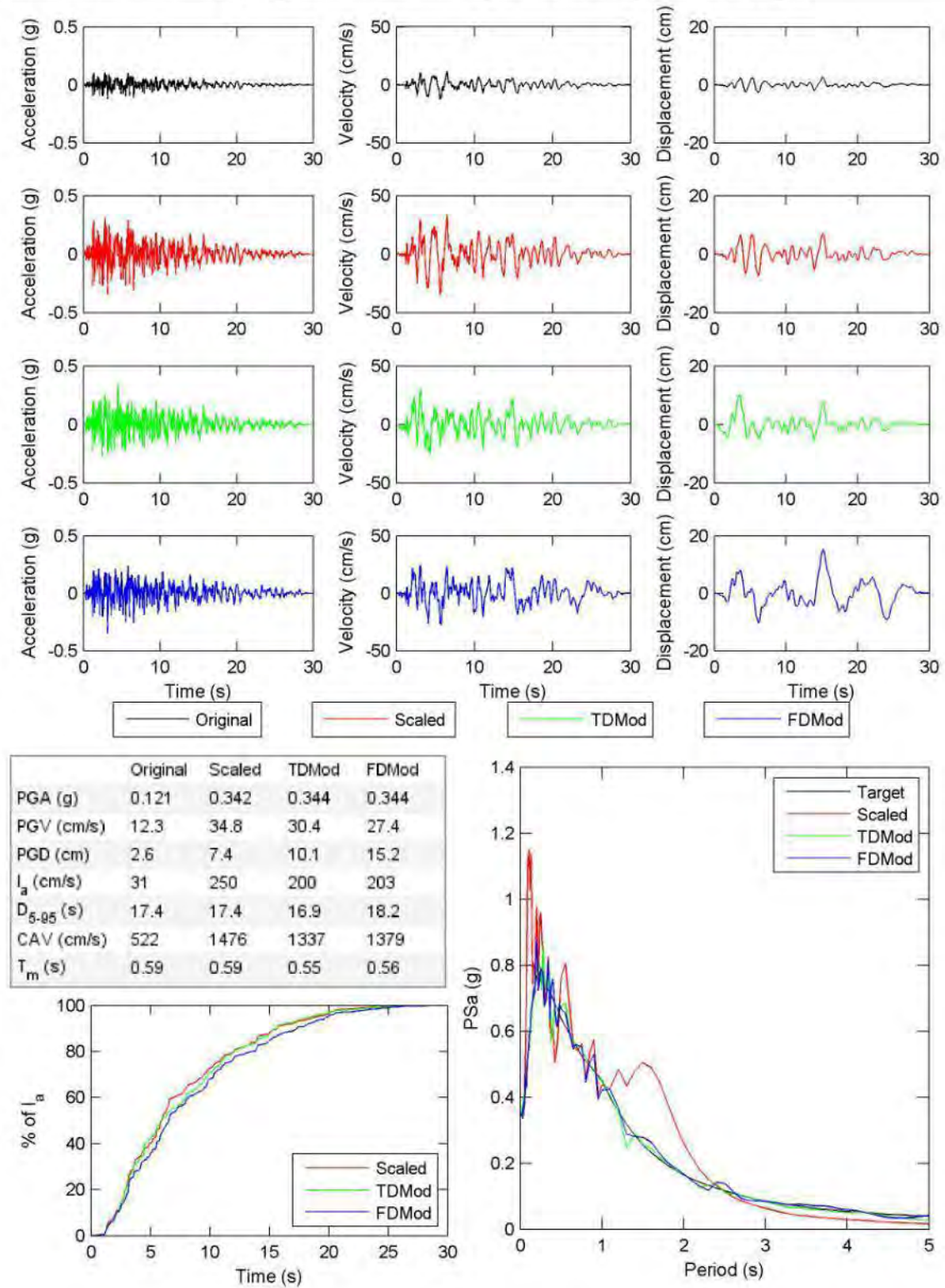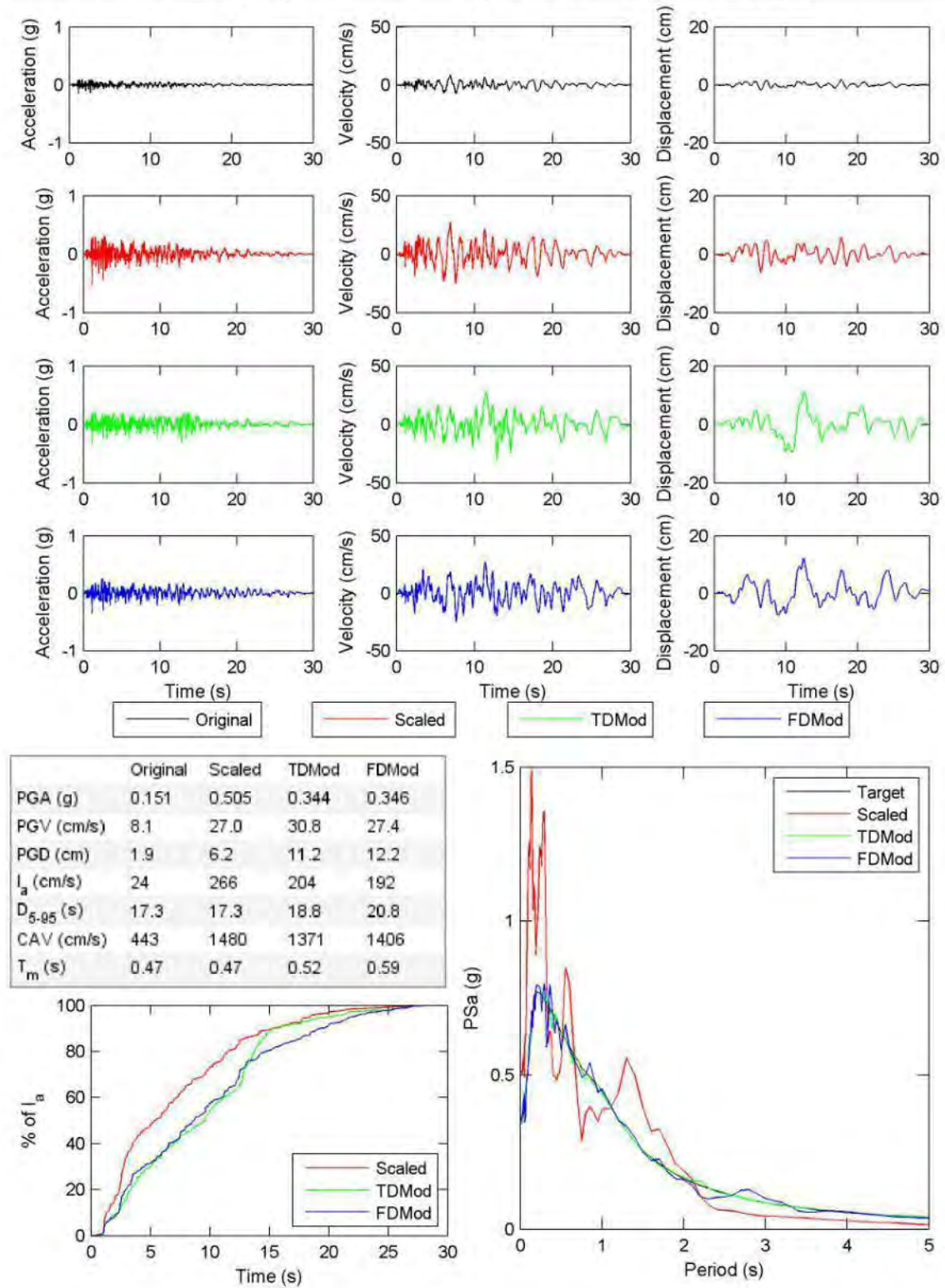Scale Factor: 2.40 Target Spectrum Matched: targetCMS.txt FD poly: 6 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.356	0.344	0.343
PGV (cm/s)	9.4	22.5	29.0	25.3
PGD (cm)	6.9	16.6	19.3	6.8
I_a (cm/s)	20	114	154	161
D_{5-95} (s)	23.5	23.5	17.7	24.4
CAV (cm/s)	418	1004	1137	1345
T_m (s)	0.46	0.46	0.57	0.65

Figure E.1. continued.

521

File Name: 88 FSD262   Start and End Taper Percentage: 1.0% and 5.0%
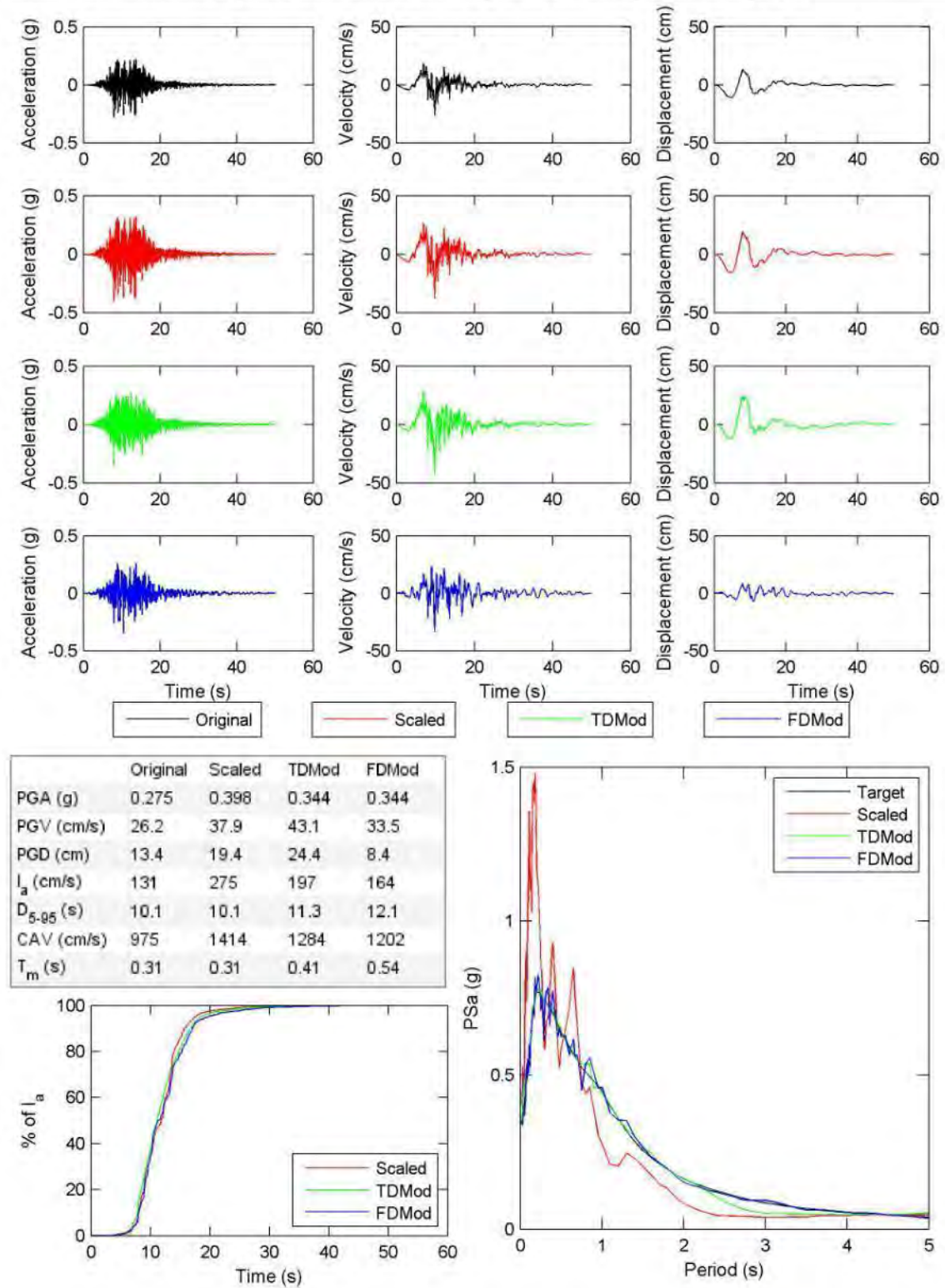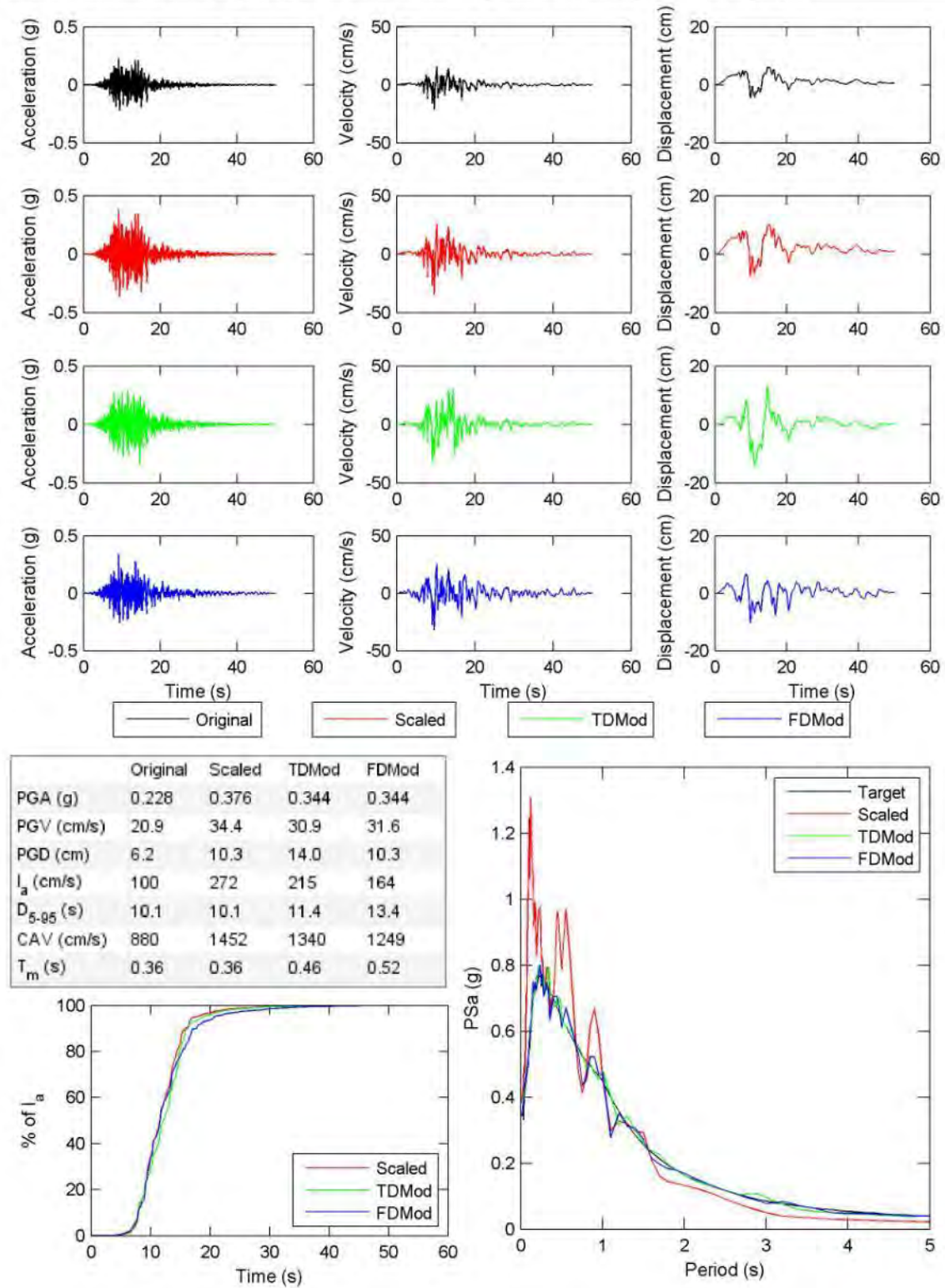Scale Factor: 3.22   Target Spectrum Matched: targetCMS.txt   FD poly: 6   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.152	0.489	0.344	0.340
PGV (cm/s)	6.5	20.9	25.6	24.6
PGD (cm)	3.5	11.2	12.4	9.4
I_a (cm/s)	20	205	182	163
D_{5-95} (s)	16.3	16.3	16.9	23.4
CAV (cm/s)	388	1249	1323	1348
T_m (s)	0.30	0.30	0.55	0.68

Figure E.1. continued.

522

	Original	Scaled	TDMod	FDMod
PGA (g)	0.617	0.555	0.345	0.344
PGV (cm/s)	40.7	36.7	26.3	40.3
PGD (cm)	8.6	7.7	7.5	13.6
I_a (cm/s)	299	242	166	125
D_{5-95} (s)	7.6	7.6	10.0	8.4
CAV (cm/s)	1195	1076	1052	824
T_m (s)	0.32	0.32	0.51	0.52

Figure E.1. continued.

523

	Original	Scaled	TDMod	FDMod
PGA (g)	0.444	0.538	0.344	0.344
PGV (cm/s)	30.1	36.4	29.6	31.3
PGD (cm)	4.8	5.8	6.7	11.5
I_a (cm/s)	234	342	211	135
D_{5-95} (s)	7.8	7.8	11.7	12.1
CAV (cm/s)	1090	1319	1217	966
T_m (s)	0.33	0.33	0.48	0.58

Figure E.1. continued.

524

	Original	Scaled	TDMod	FDMod
PGA (g)	0.120	0.407	0.344	0.344
PGV (cm/s)	9.5	32.4	30.9	29.9
PGD (cm)	2.3	7.7	13.8	10.5
I_a (cm/s)	22	250	188	171
D_{5-95} (s)	11.7	11.7	13.9	13.4
CAV (cm/s)	378	1284	1223	1153
T_m (s)	0.43	0.43	0.55	0.57

Figure E.1. continued.

525

	Original	Scaled	TDMod	FDMod
PGA (g)	0.163	0.492	0.344	0.344
PGV (cm/s)	8.5	25.5	30.7	29.6
PGD (cm)	1.8	5.5	11.4	7.6
I_a (cm/s)	33	298	176	162
D_{5-95} (s)	8.0	8.0	12.3	14.5
CAV (cm/s)	425	1280	1119	1134
T_m (s)	0.32	0.32	0.52	0.59

Figure E.1. continued.

526

File Name: 974 GLP177   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.14   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 8

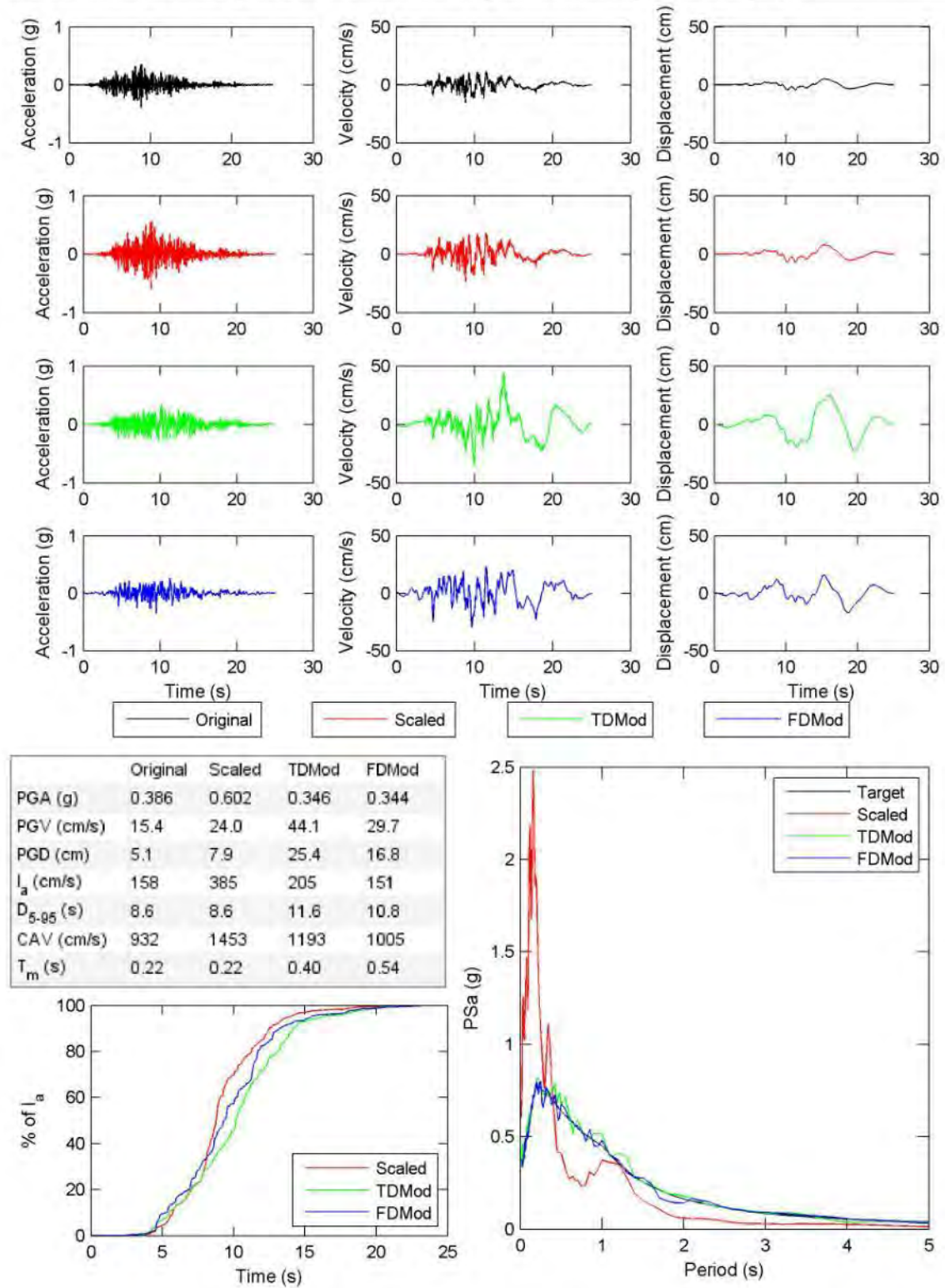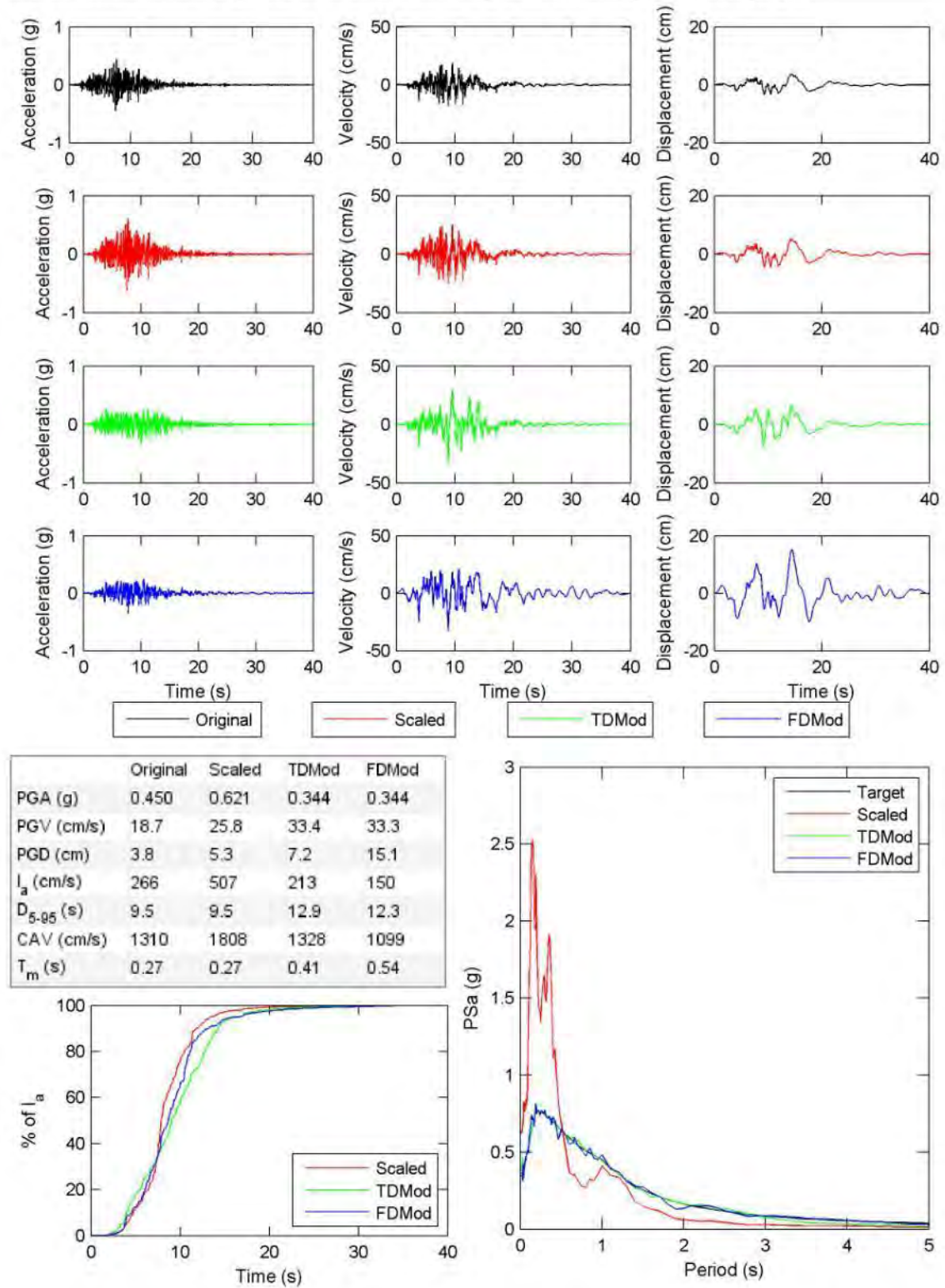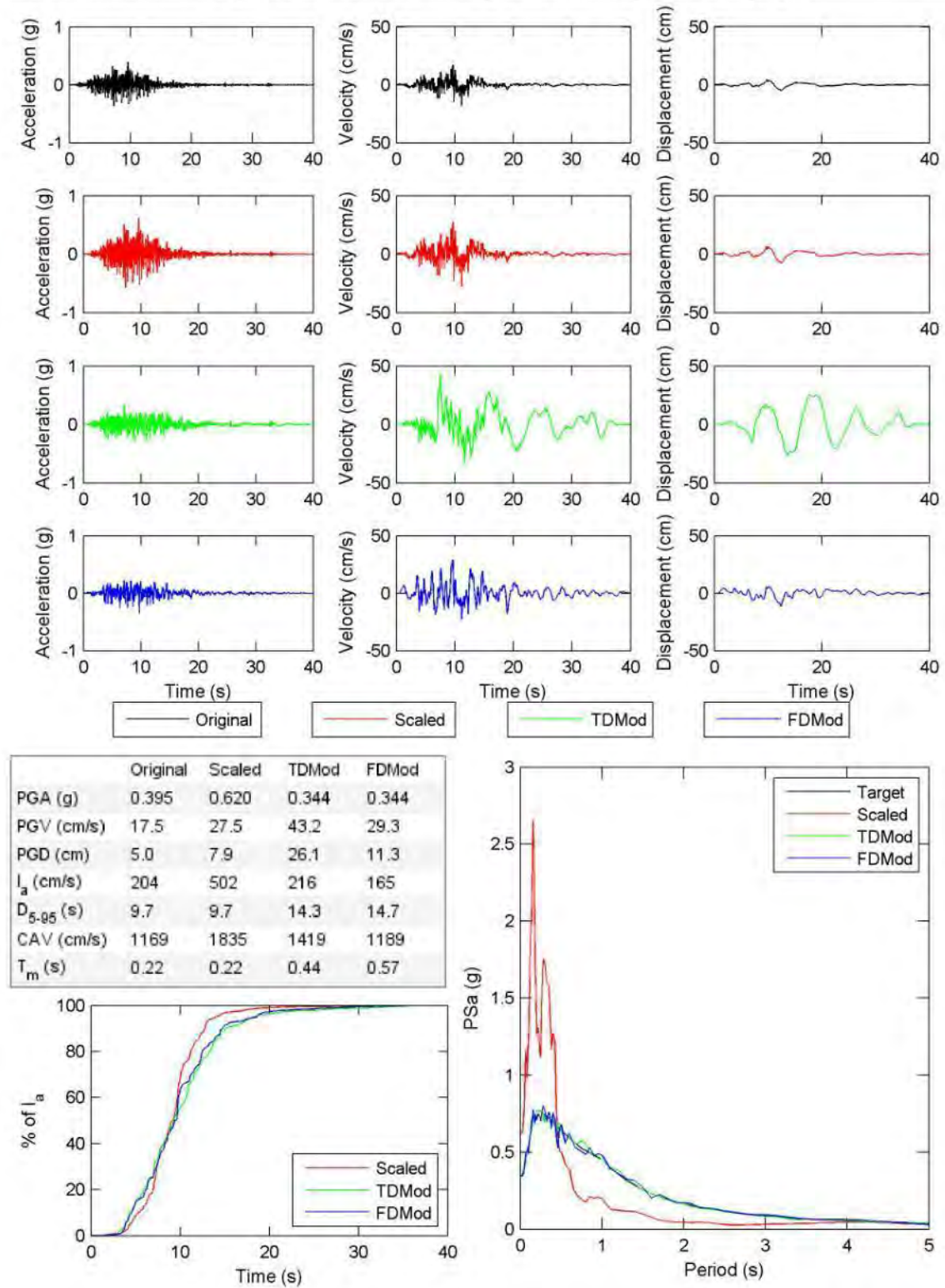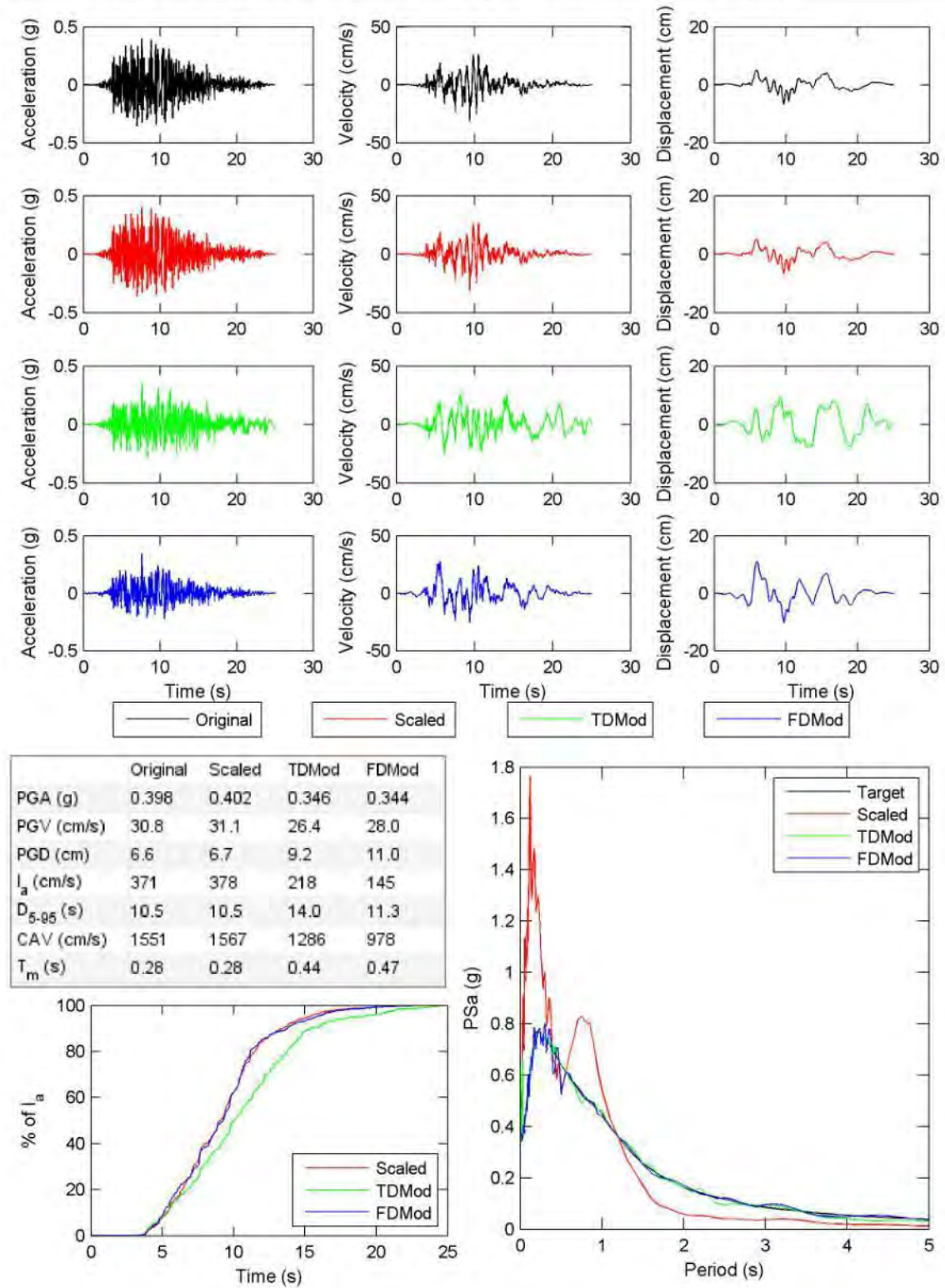|	Original	Scaled	TDMod	FDMod
PGA (g)	0.357	0.764	0.343	0.344
PGV (cm/s)	12.2	26.2	34.6	25.2
PGD (cm)	1.9	4.2	13.2	10.1
I_a (cm/s)	117	537	219	153
D_{5-95} (s)	9.5	9.5	14.9	14.4
CAV (cm/s)	812	1739	1342	1122
T_m (s)	0.27	0.27	0.44	0.61
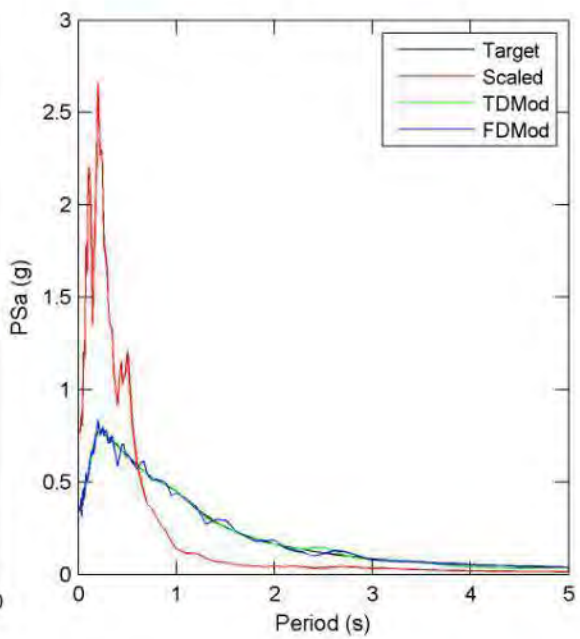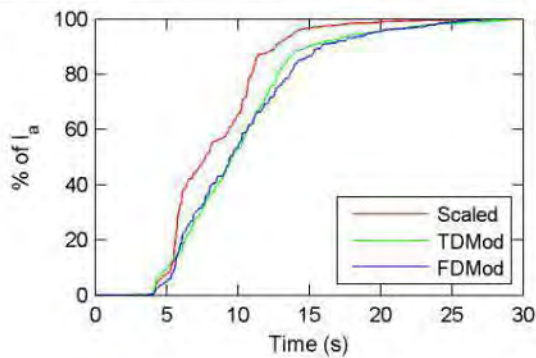
Figure E.1. continued.

527

Figure E.1. continued.

528

File Name: 986 0638-195   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.86   Target Spectrum Matched: targetCMS.txt   FD poly: 9   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.186	0.346	0.344	0.343
PGV (cm/s)	23.7	44.1	26.1	34.8
PGD (cm)	5.9	10.9	8.1	8.5
I_a (cm/s)	45	156	155	147
D_{5-95} (s)	11.4	11.4	11.2	12.4
CAV (cm/s)	606	1127	1122	1142
T_m (s)	0.63	0.63	0.53	0.54
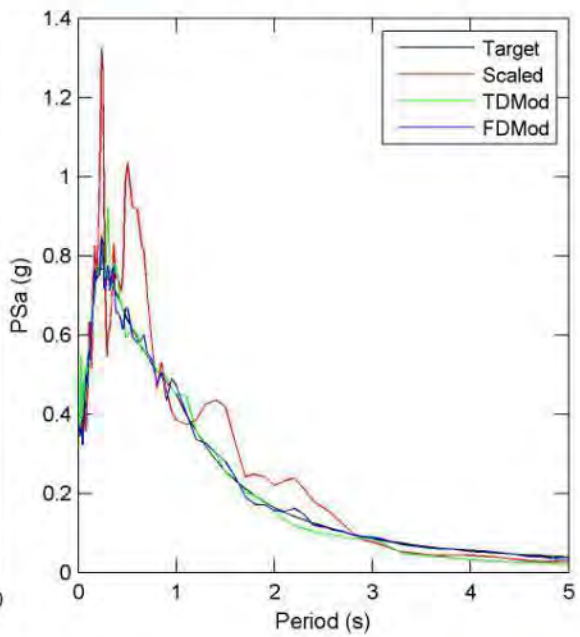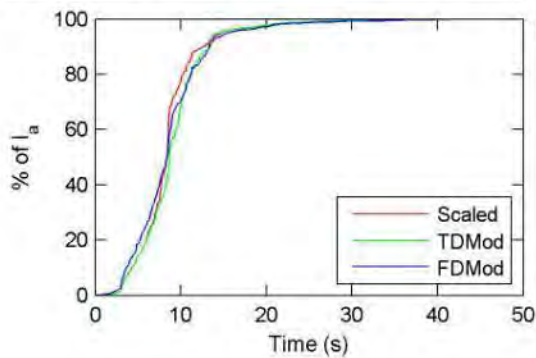
Figure E.1. continued.
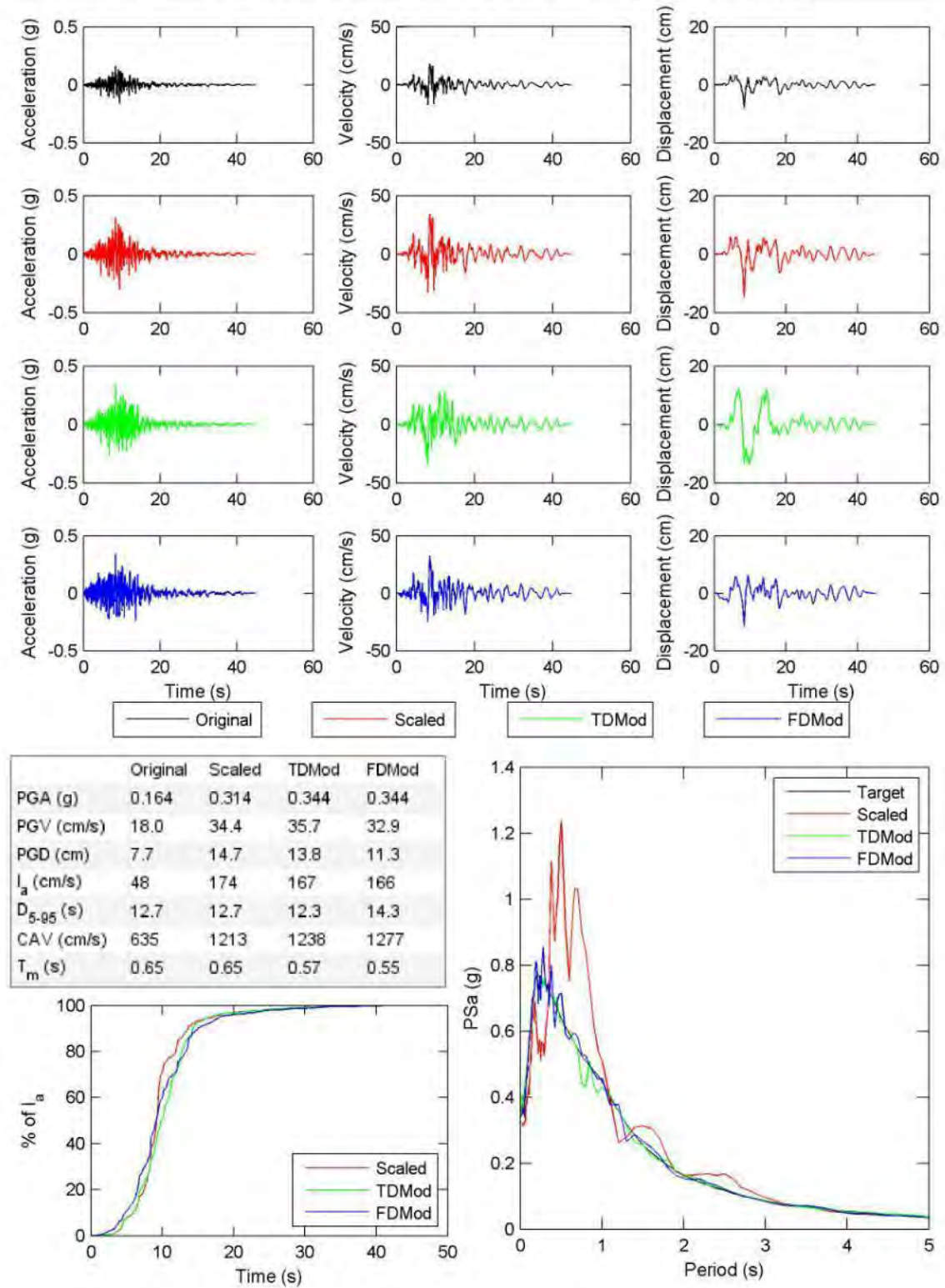
529

File Name: 986 0638-285   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.91   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4
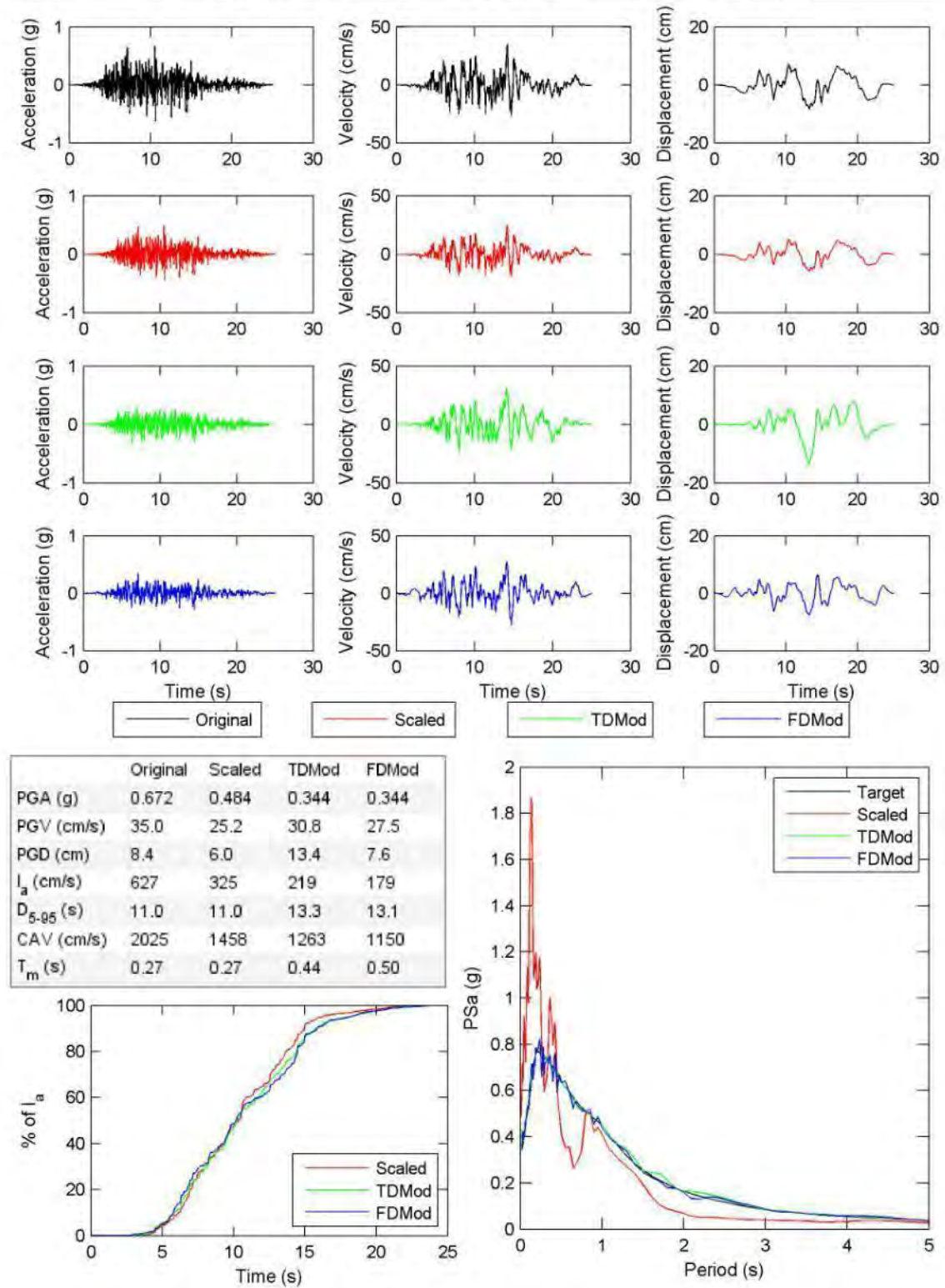

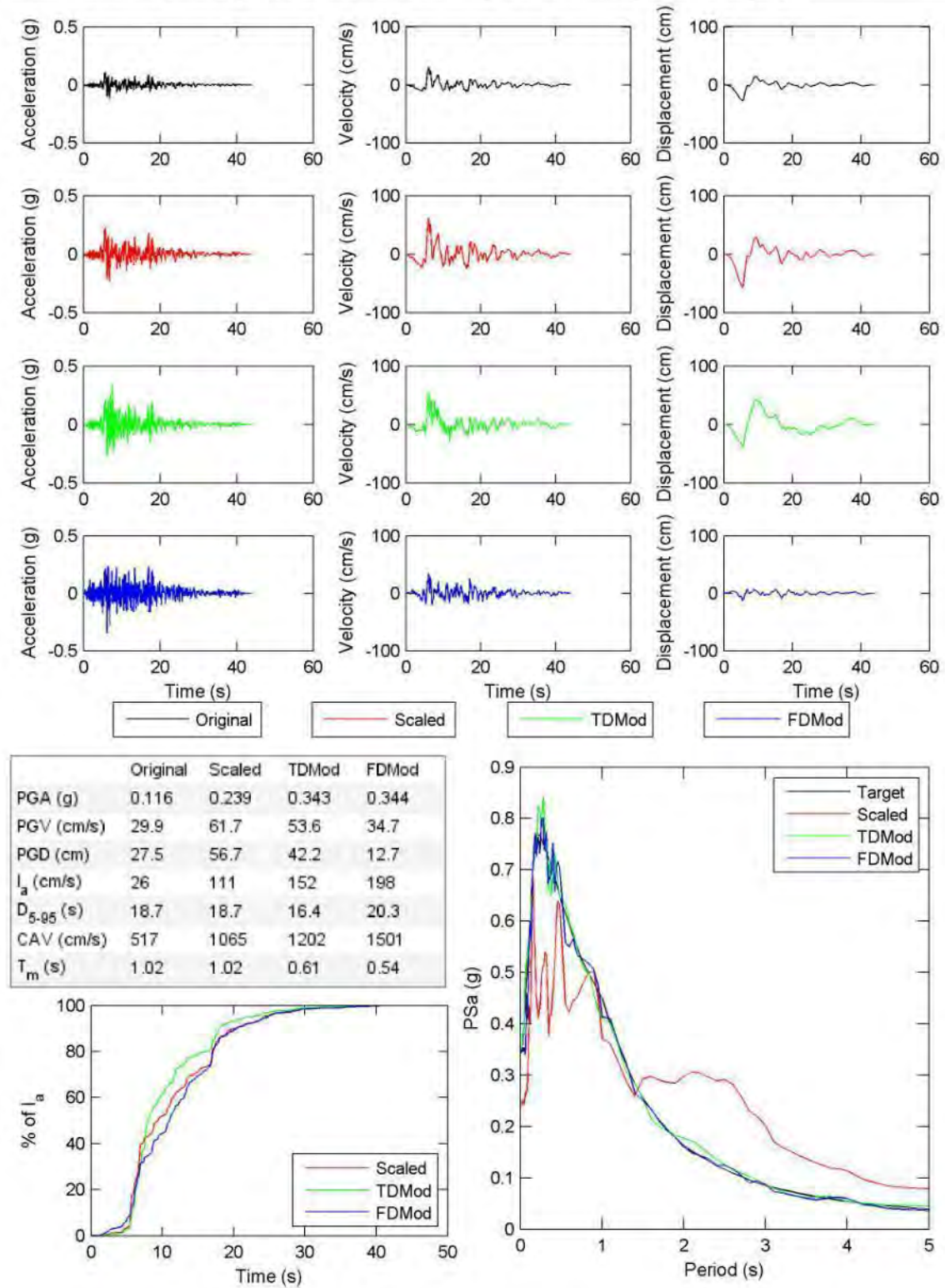|	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.314	0.344	0.344
PGV (cm/s)	18.0	34.4	35.7	32.9
PGD (cm)	7.7	14.7	13.8	11.3
I_a (cm/s)	48	174	167	166
D_{5-95} (s)	12.7	12.7	12.3	14.3
CAV (cm/s)	635	1213	1238	1277
T_m (s)	0.65	0.65	0.57	0.55

Figure E.1. continued.

530

File Name: 989 CHL070   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.92   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 8
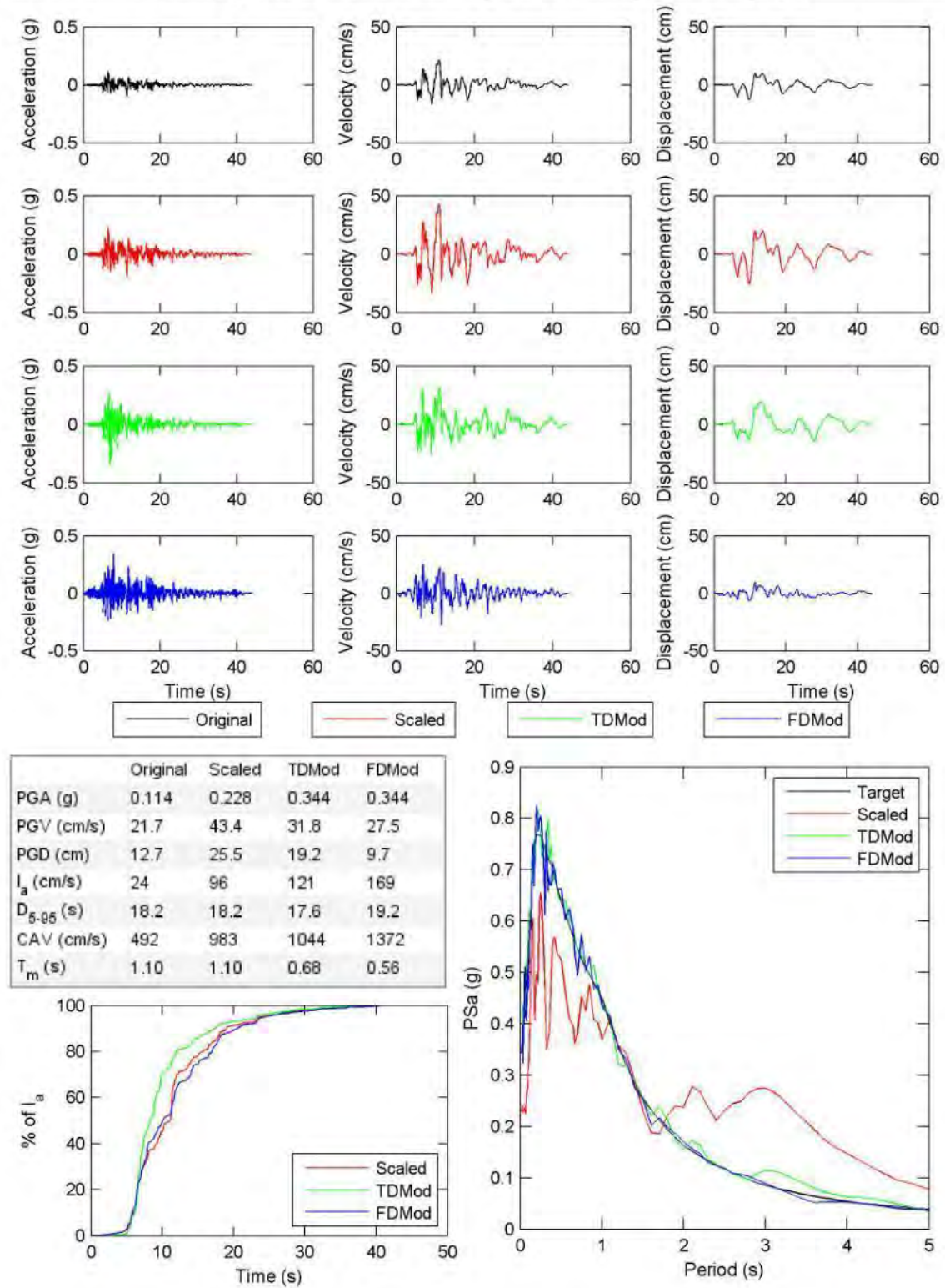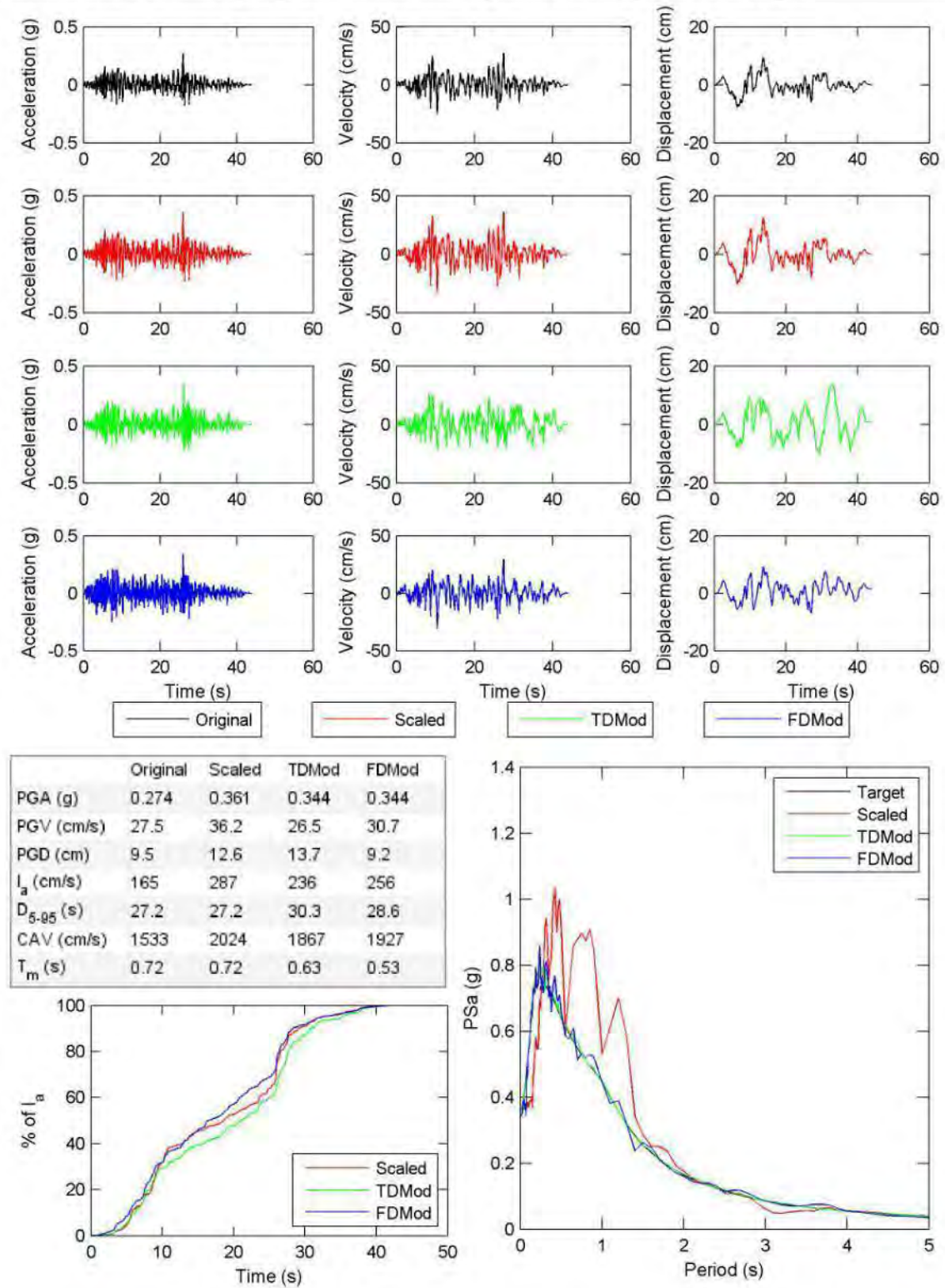

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.433	0.344	0.344
PGV (cm/s)	16.6	31.8	25.8	29.6
PGD (cm)	3.4	6.5	8.2	6.8
I_a (cm/s)	61	227	165	130
D_{5-95} (s)	9.1	9.1	14.1	11.9
CAV (cm/s)	621	1193	1161	979
T_m (s)	0.49	0.49	0.59	0.58

Figure E.1. continued.

531

File Name: 989 CHL160   Start and End Taper Percentage: 1.0% and 5.0%
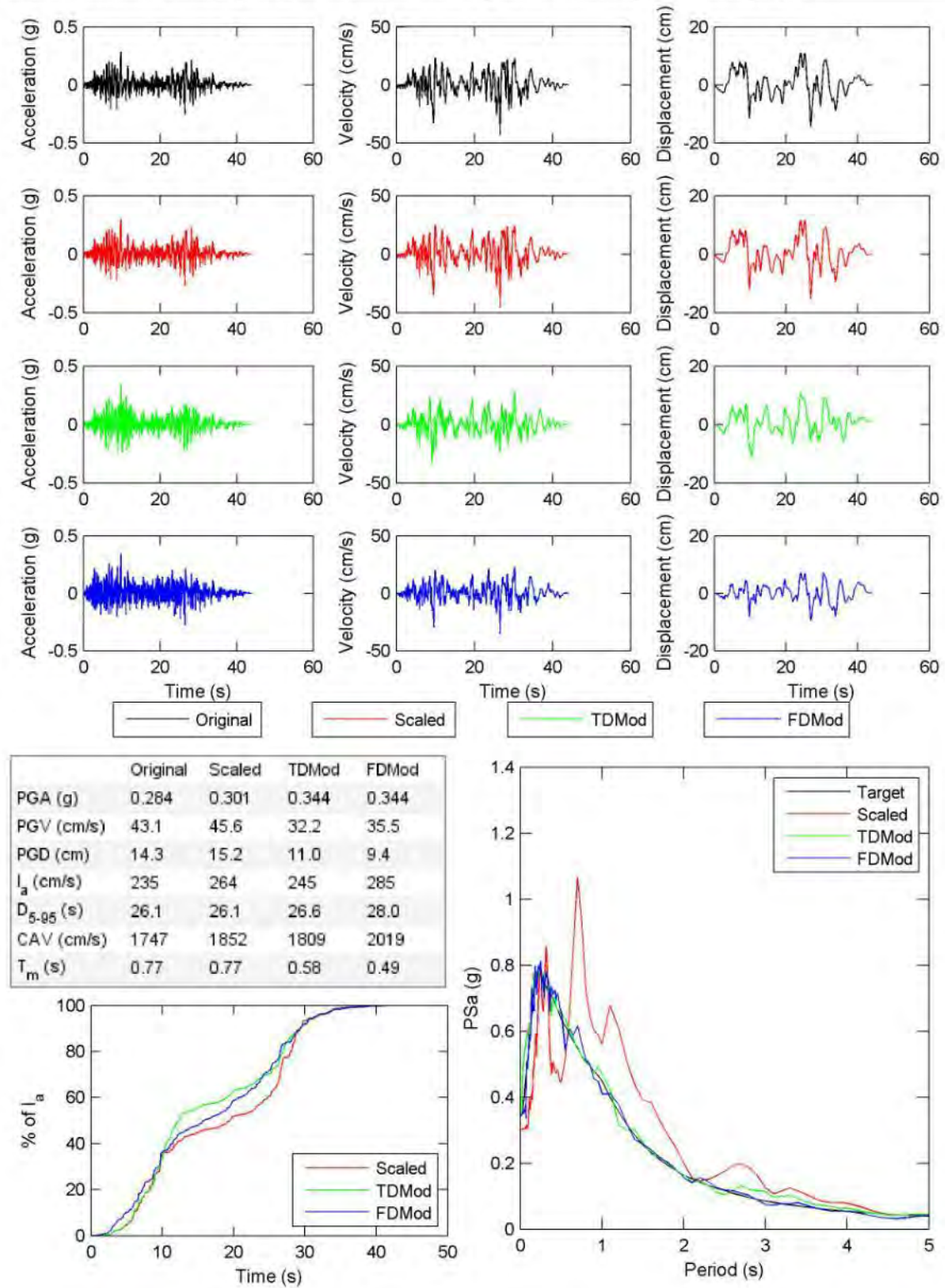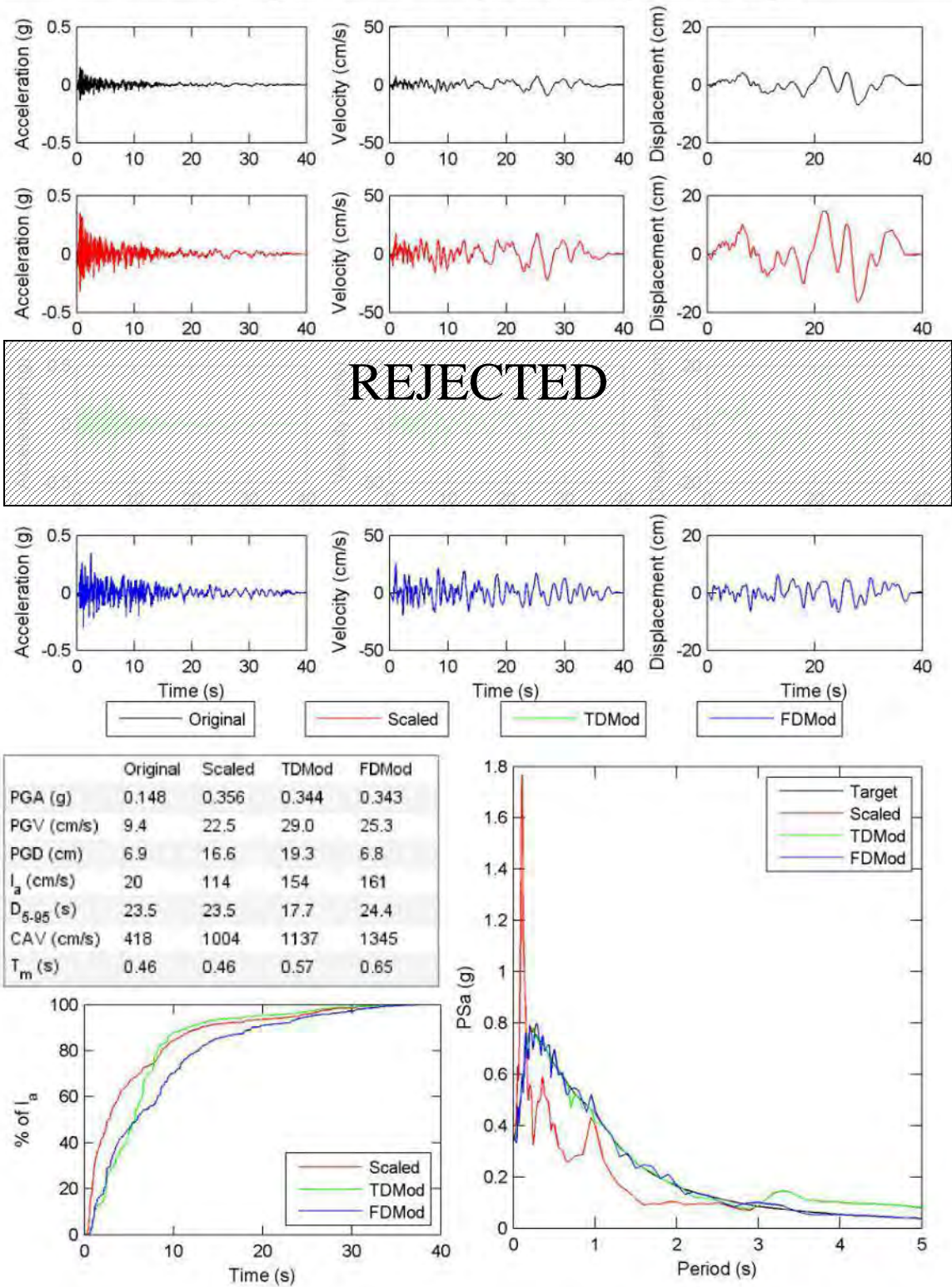Scale Factor: 1.83   Target Spectrum Matched: targetCMS.txt   FD poly: 5   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.185	0.339	0.344	0.344
PGV (cm/s)	27.1	49.5	32.2	38.8
PGD (cm)	5.8	10.6	13.0	8.2
I_a (cm/s)	65	217	145	119
D_{5-95} (s)	6.9	6.9	9.5	9.0
CAV (cm/s)	582	1066	985	870
T_m (s)	0.63	0.63	0.59	0.51

Figure E.1. continued.

532
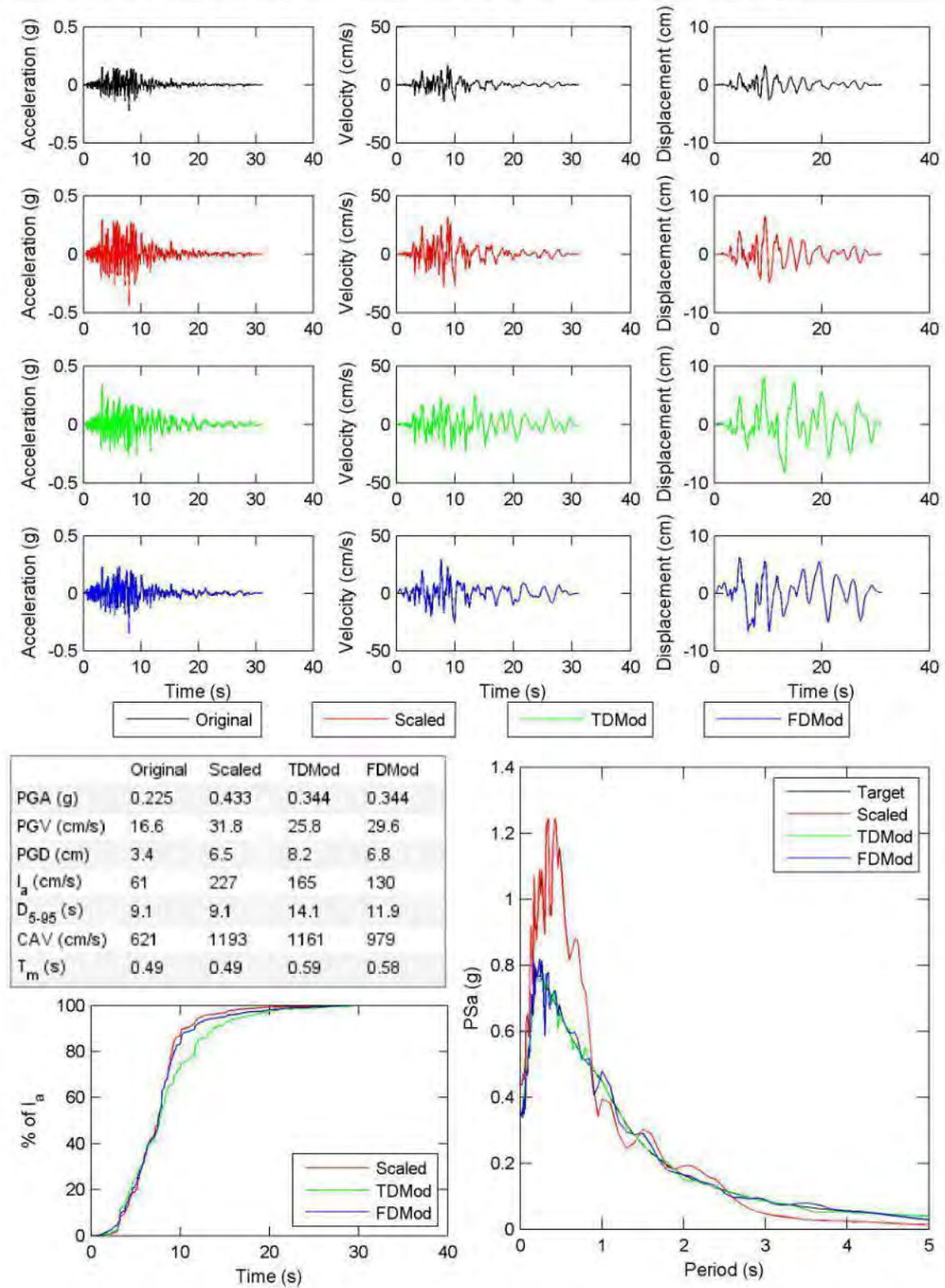
File Name: 993 FLE144   Start and End Taper Percentage: 1.0% and 5.0%
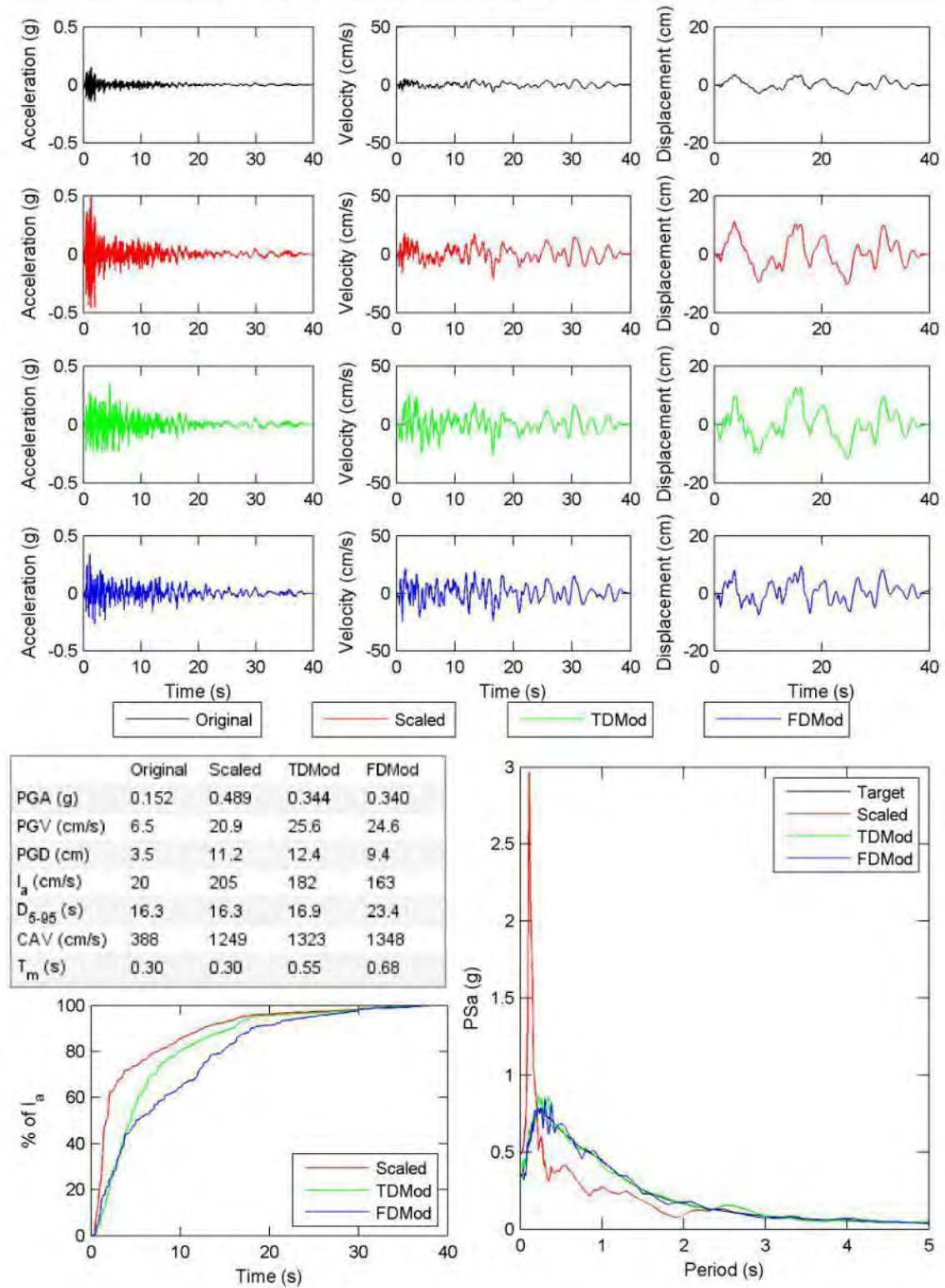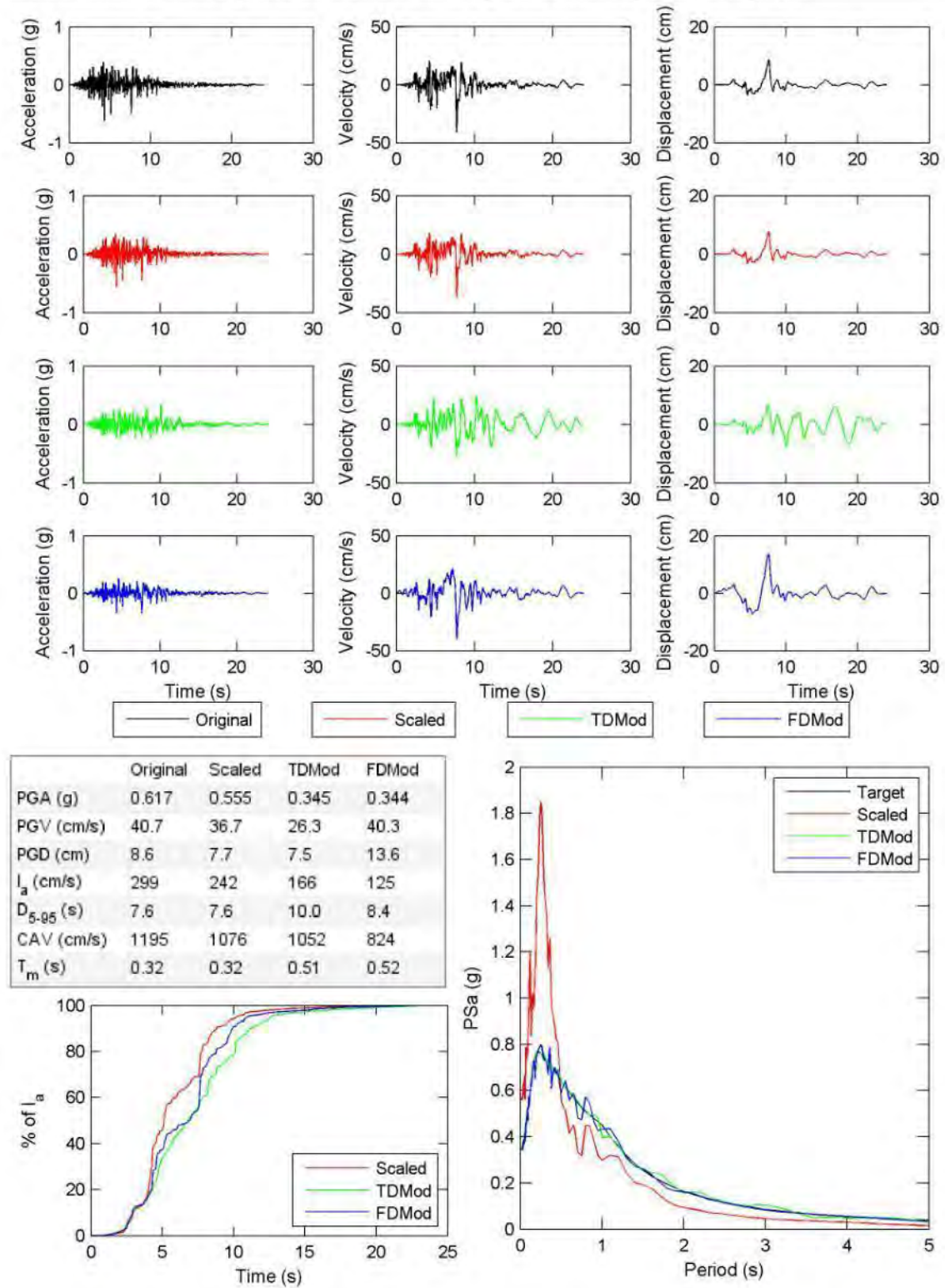Scale Factor: 2.33   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.162	0.377	0.344	0.344
PGV (cm/s)	10.7	25.0	26.6	32.7
PGD (cm)	2.9	6.7	7.2	9.1
I_a (cm/s)	51	277	193	166
D_{5-95} (s)	11.7	11.7	13.8	16.3
CAV (cm/s)	607	1414	1264	1213
T_m (s)	0.42	0.42	0.52	0.58

Figure E.1. continued.

533

File Name: 993 FLE234   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.85   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 7
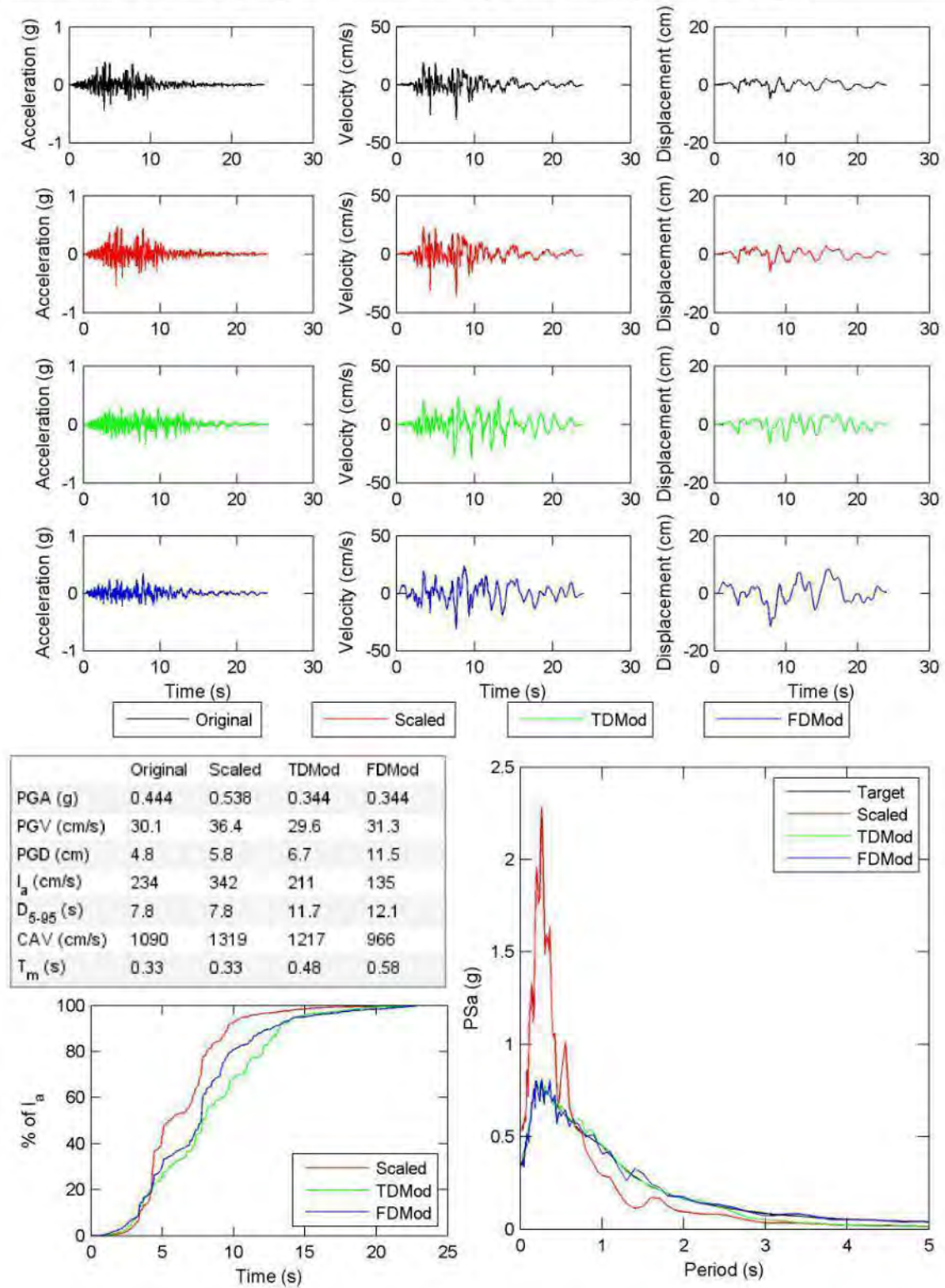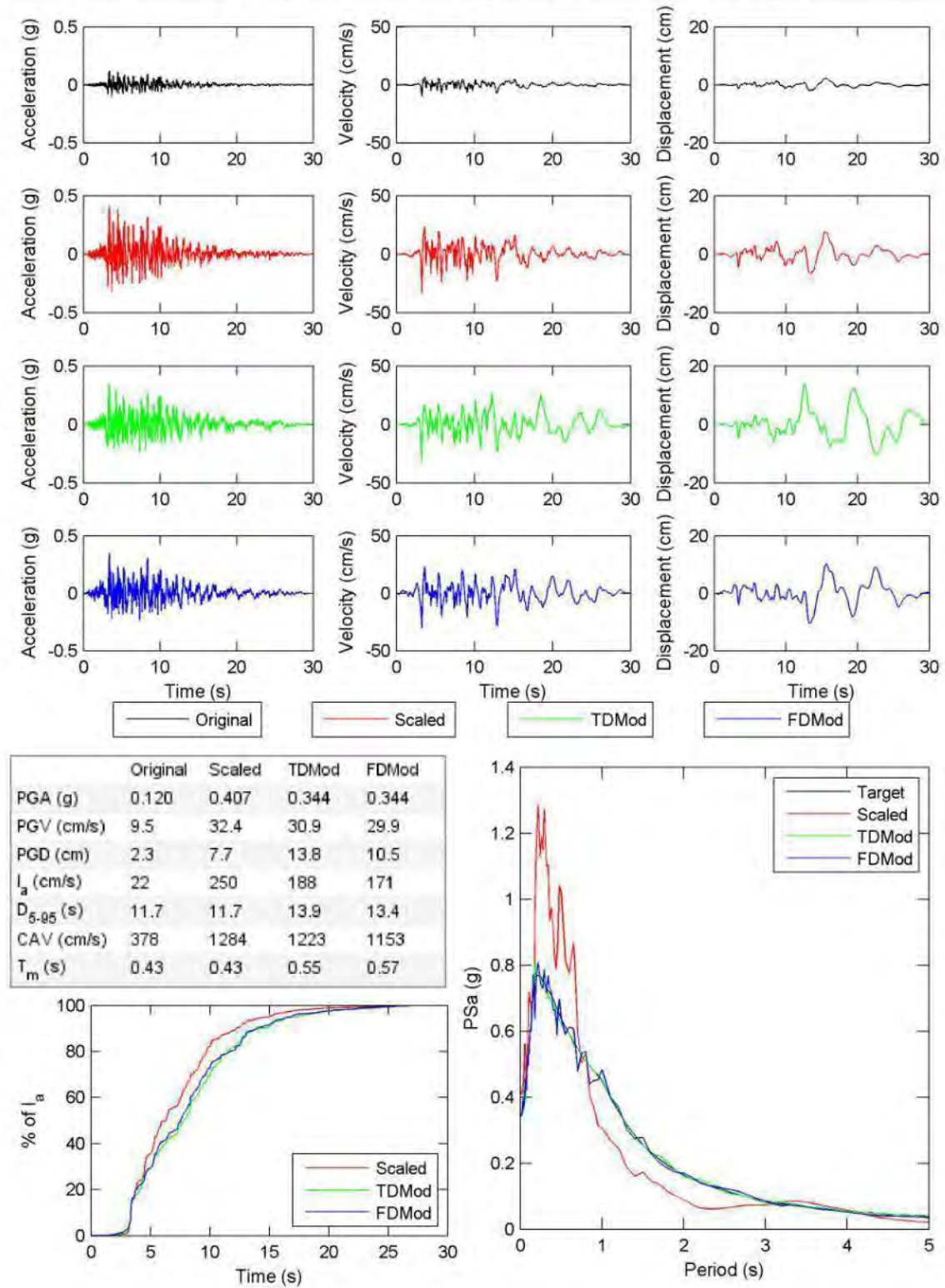

	Original	Scaled	TDMod	FDMod
PGA (g)	0.240	0.445	0.344	0.344
PGV (cm/s)	26.2	48.5	32.2	33.8
PGD (cm)	3.6	6.7	9.4	8.3
I_a (cm/s)	65	222	176	153
D_{5-95} (s)	11.8	11.8	15.0	19.2
CAV (cm/s)	620	1148	1147	1144
T_m (s)	0.52	0.52	0.56	0.60

Figure E.1. continued.

534

File Name: 994 0141-270   Start and End Taper Percentage: 1.0% and 5.0%
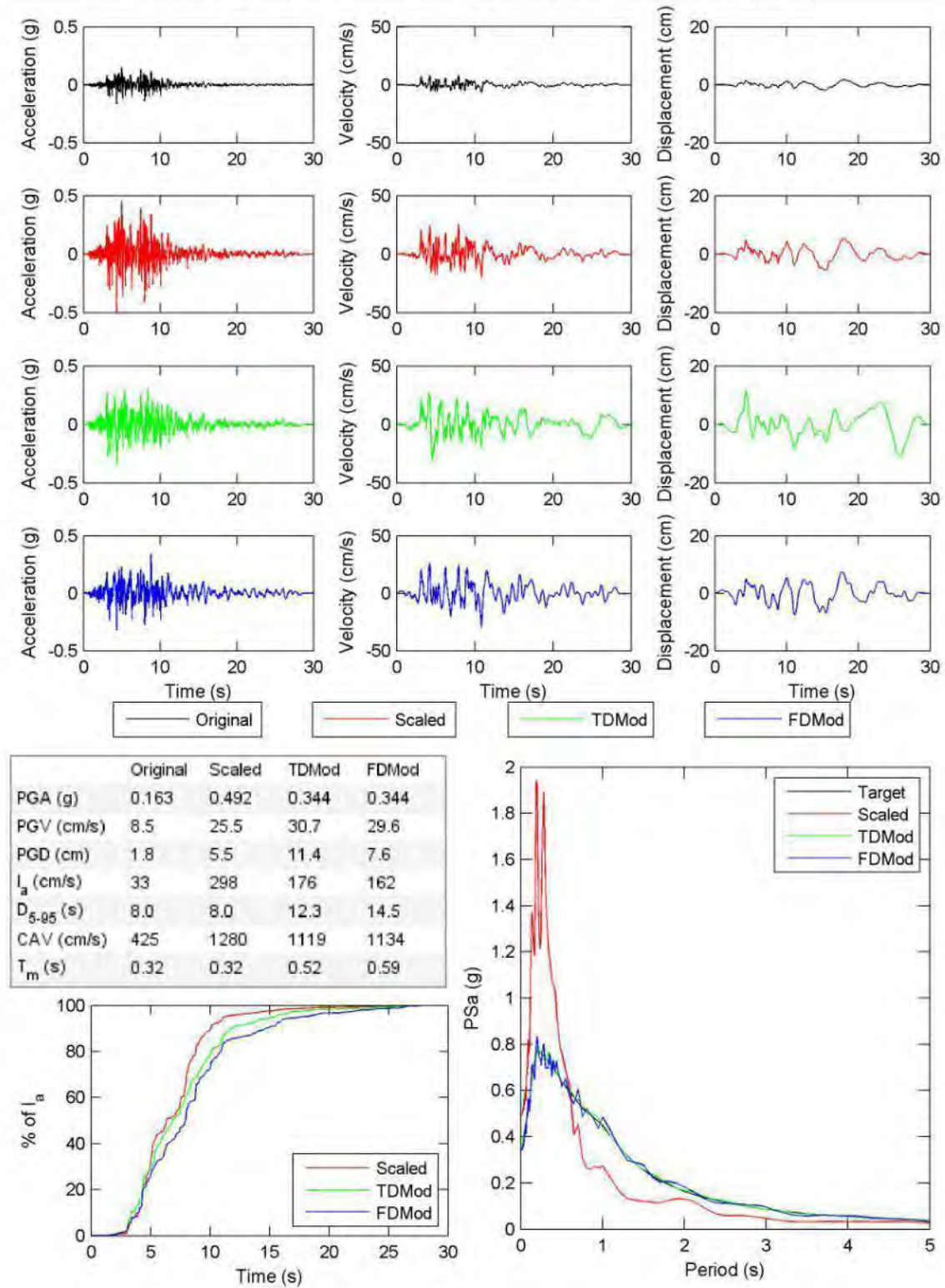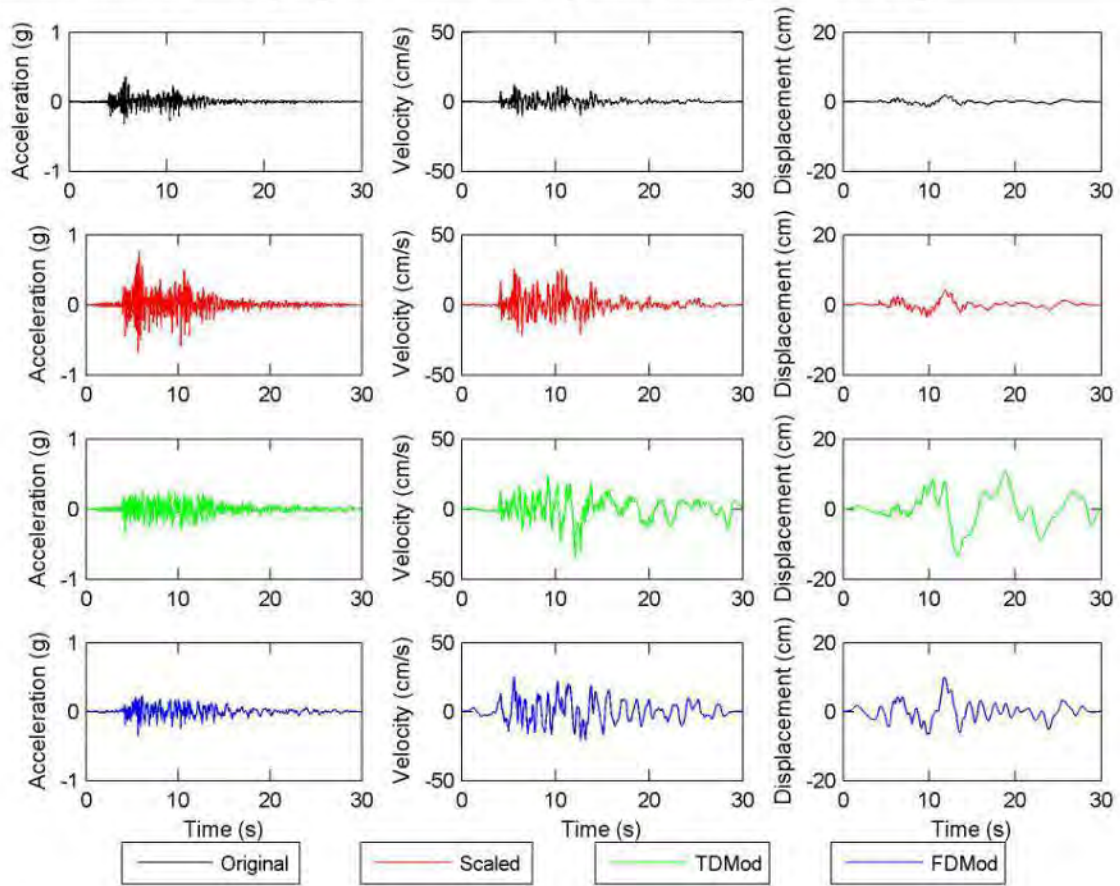Scale Factor: 1.55   Target Spectrum Matched: targetCMS.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.289	0.448	0.344	0.344
PGV (cm/s)	26.5	41.1	25.0	27.5
PGD (cm)	3.9	6.0	11.5	10.5
I_a (cm/s)	152	365	185	146
D_{5-95} (s)	8.9	8.9	13.2	19.1
CAV (cm/s)	1006	1560	1312	1193
T_m (s)	0.43	0.43	0.50	0.57

Figure E.1. continued.

535

File Name: 994 0141-360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.51   Target Spectrum Matched: targetCMS.txt   FD poly: 6   TD poly: 6

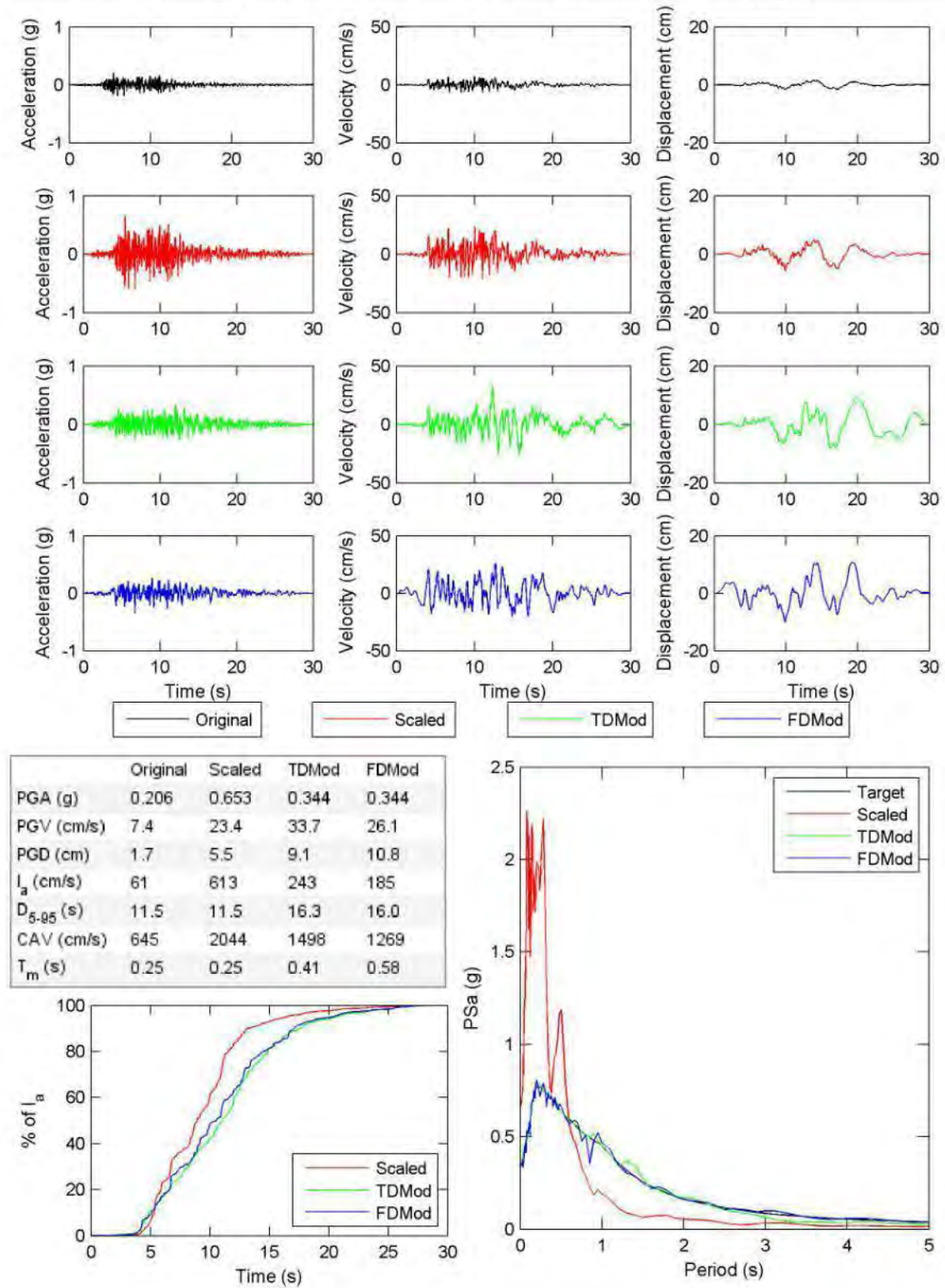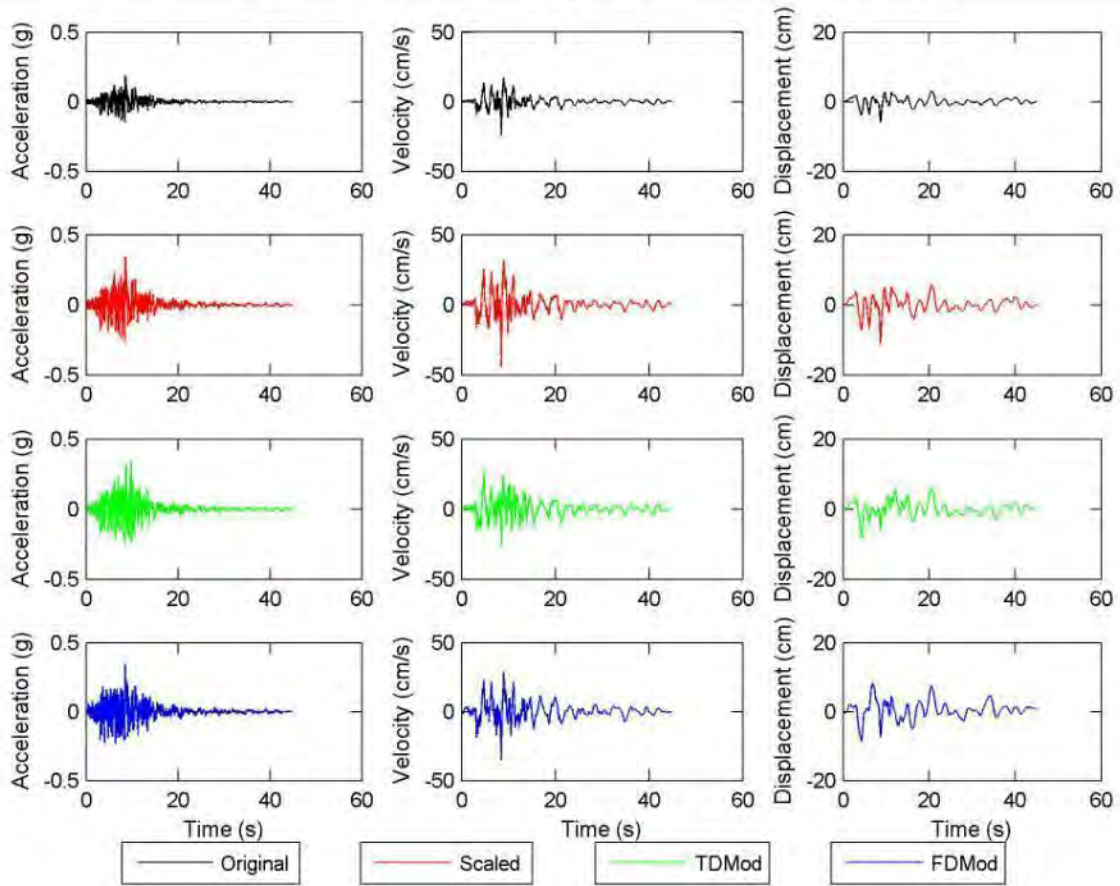|	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.411	0.344	0.344
PGV (cm/s)	13.5	34.0	26.8	23.8
PGD (cm)	2.4	6.0	14.2	7.5
I_a (cm/s)	41	258	178	166
D_{5-95} (s)	11.9	11.9	15.5	15.6
CAV (cm/s)	585	1469	1354	1272
T_m (s)	0.50	0.50	0.55	0.52

Figure E.1. continued.

536

File Name: 1006 UCL090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.88   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.278	0.245	0.218	0.218
PGV (cm/s)	21.9	19.3	14.1	16.2
PGD (cm)	4.1	3.6	5.6	4.9
I_a (cm/s)	87	68	63	55
D_{5-95} (s)	11.3	11.3	13.0	15.5
CAV (cm/s)	820	722	775	735
T_m (s)	0.34	0.34	0.38	0.41

Figure E.2. One-page output images for motions in scenario I matched to the mean attenuation relationship spectrum (MA), from motion number 1 to 108, generated by the GMM program.

537

File Name: 1006 UCL360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.57   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.474	0.270	0.218	0.218
PGV (cm/s)	22.0	12.6	12.4	14.8
PGD (cm)	7.3	4.2	5.0	5.3
I_a (cm/s)	165	53	53	47
D_{5-95} (s)	10.2	10.2	12.9	13.0
CAV (cm/s)	1083	617	709	644
T_m (s)	0.36	0.36	0.42	0.40

Figure E.2. continued.

538

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.104	0.149	0.218	0.218
PGV (cm/s)	11.6	16.6	13.1	11.3
PGD (cm)	5.7	8.2	7.9	6.8
I_a (cm/s)	23	46	52	60
D_{5-95} (s)	20.8	20.8	20.4	21.4
CAV (cm/s)	482	690	713	802
T_m (s)	0.71	0.71	0.55	0.44

Figure E.2. continued.

539

Figure E.2. continued.

540

	Original	Scaled	TDMod	FDMod
PGA (g)	0.254	0.180	0.218	0.218
PGV (cm/s)	32.8	23.3	14.7	17.3
PGD (cm)	11.3	8.0	8.6	5.6
I_a (cm/s)	82	41	50	57
D_{5-95} (s)	15.0	15.0	15.8	15.3
CAV (cm/s)	892	633	723	764
T_m (s)	0.61	0.61	0.48	0.40

Figure E.2. continued.

541

	Original	Scaled	TDMod	FDMod
PGA (g)	0.253	0.235	0.218	0.218
PGV (cm/s)	18.7	17.4	13.3	13.3
PGD (cm)	7.8	7.3	6.0	5.0
I_a (cm/s)	69	60	58	49
D_{5-95} (s)	13.3	13.3	14.5	18.7
CAV (cm/s)	796	740	777	733
T_m (s)	0.43	0.43	0.41	0.42

Figure E.2. continued.

542

File Name: 1010 5082-235   Start and End Taper Percentage: 1.0% and 5.0%
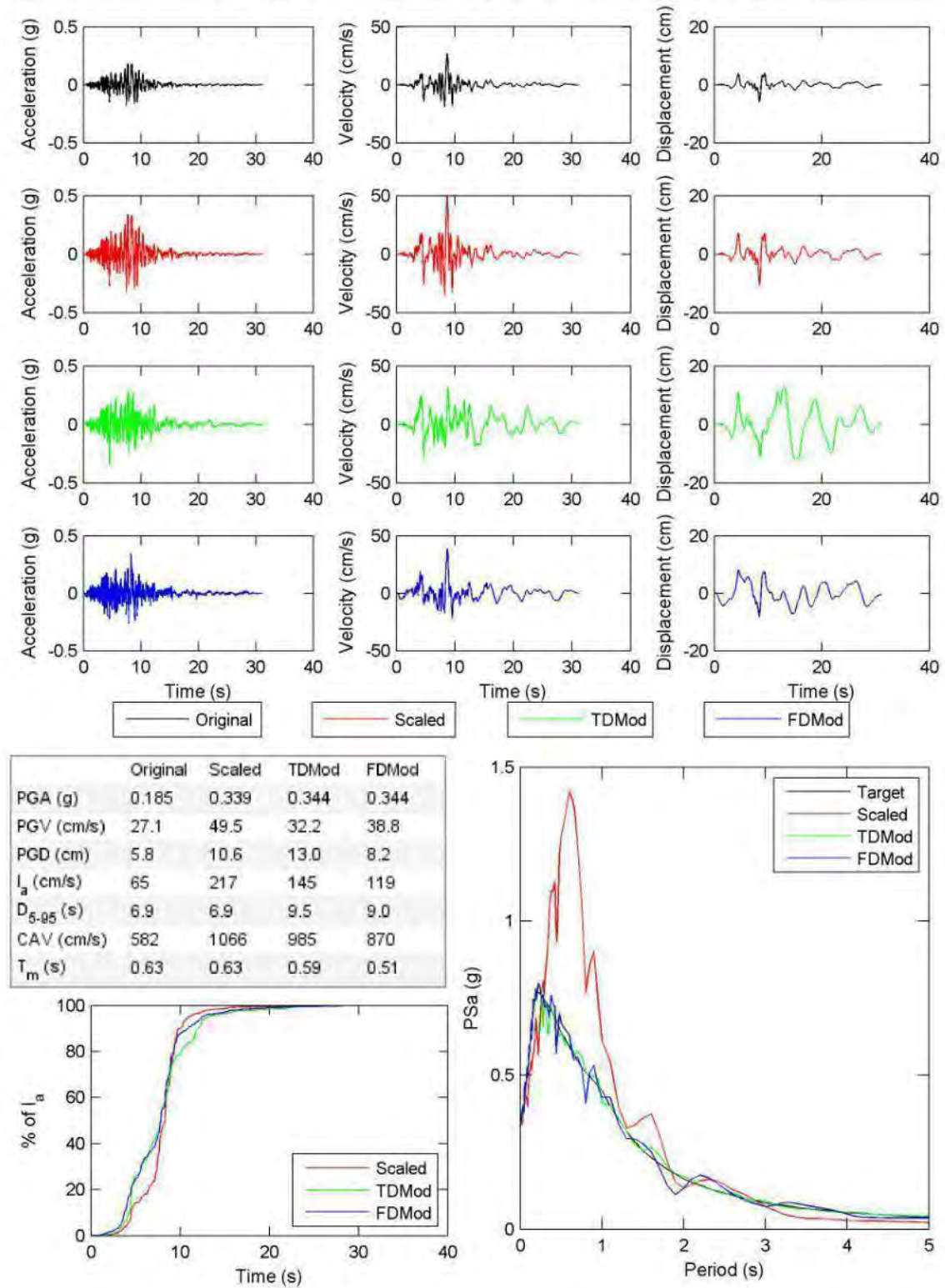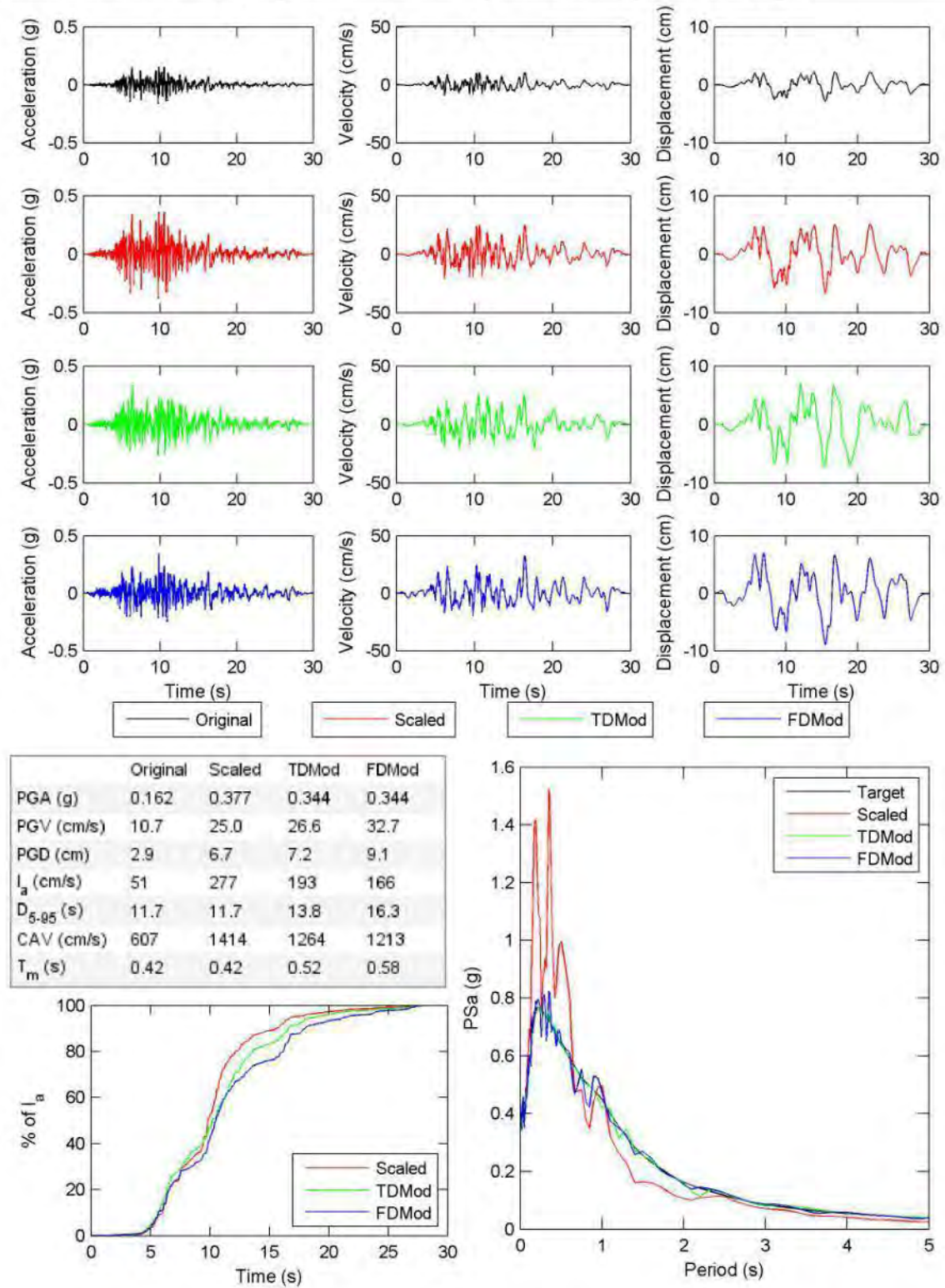Scale Factor: 0.62   Target Spectrum Matched: targetAttenMed.txt   FD poly: 7   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.303	0.188	0.218	0.218
PGV (cm/s)	33.0	20.4	15.4	16.5
PGD (cm)	10.1	6.2	7.8	5.1
I_a (cm/s)	86	33	43	34
D_{5-95} (s)	13.5	13.5	14.9	16.2
CAV (cm/s)	824	511	638	558
T_m (s)	0.58	0.58	0.48	0.53

Figure E.2. continued.

543

File Name: 1010 5082-325   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.63   Target Spectrum Matched: targetAttenMed.txt   FD poly: 8   TD poly: 4
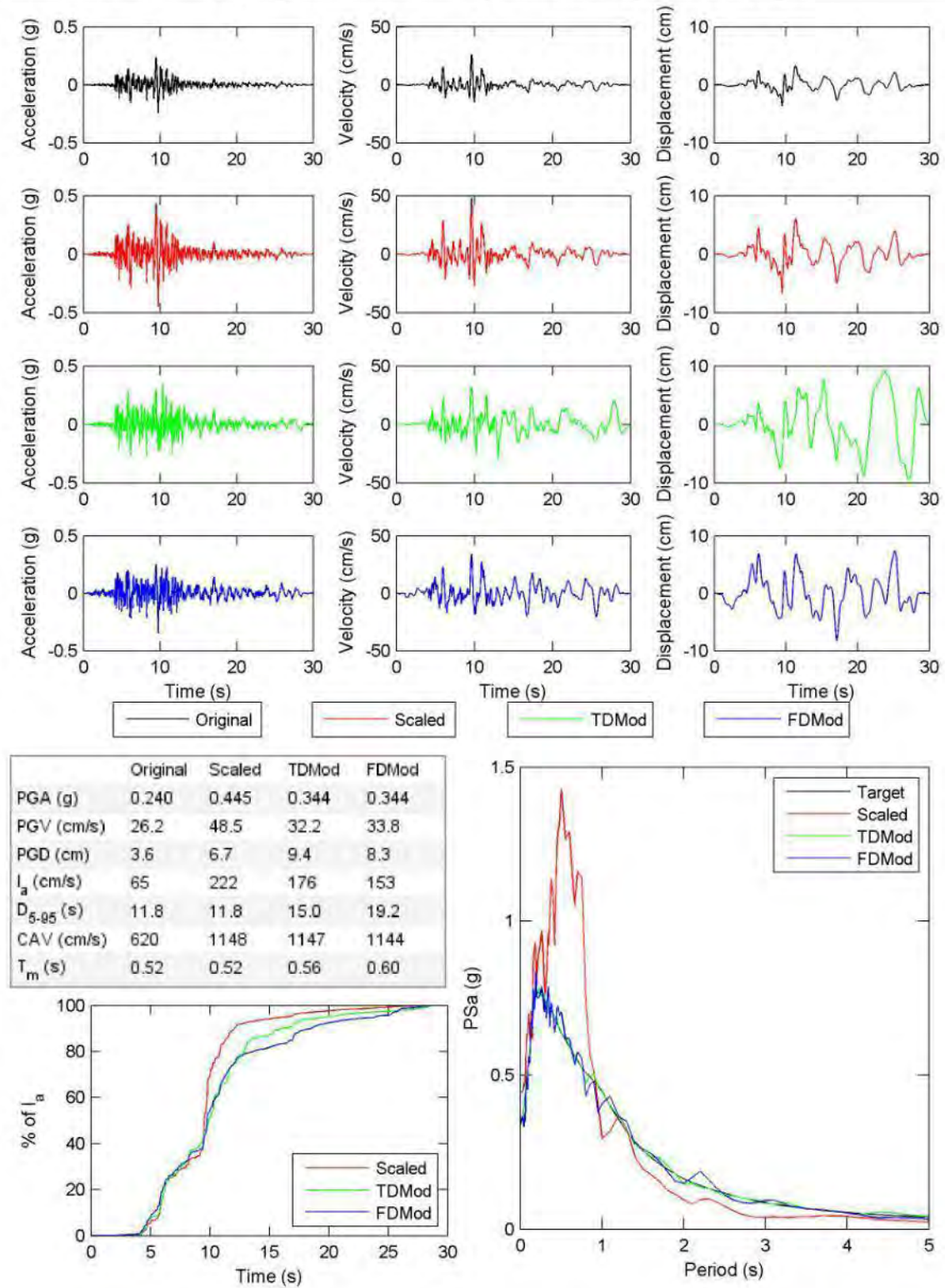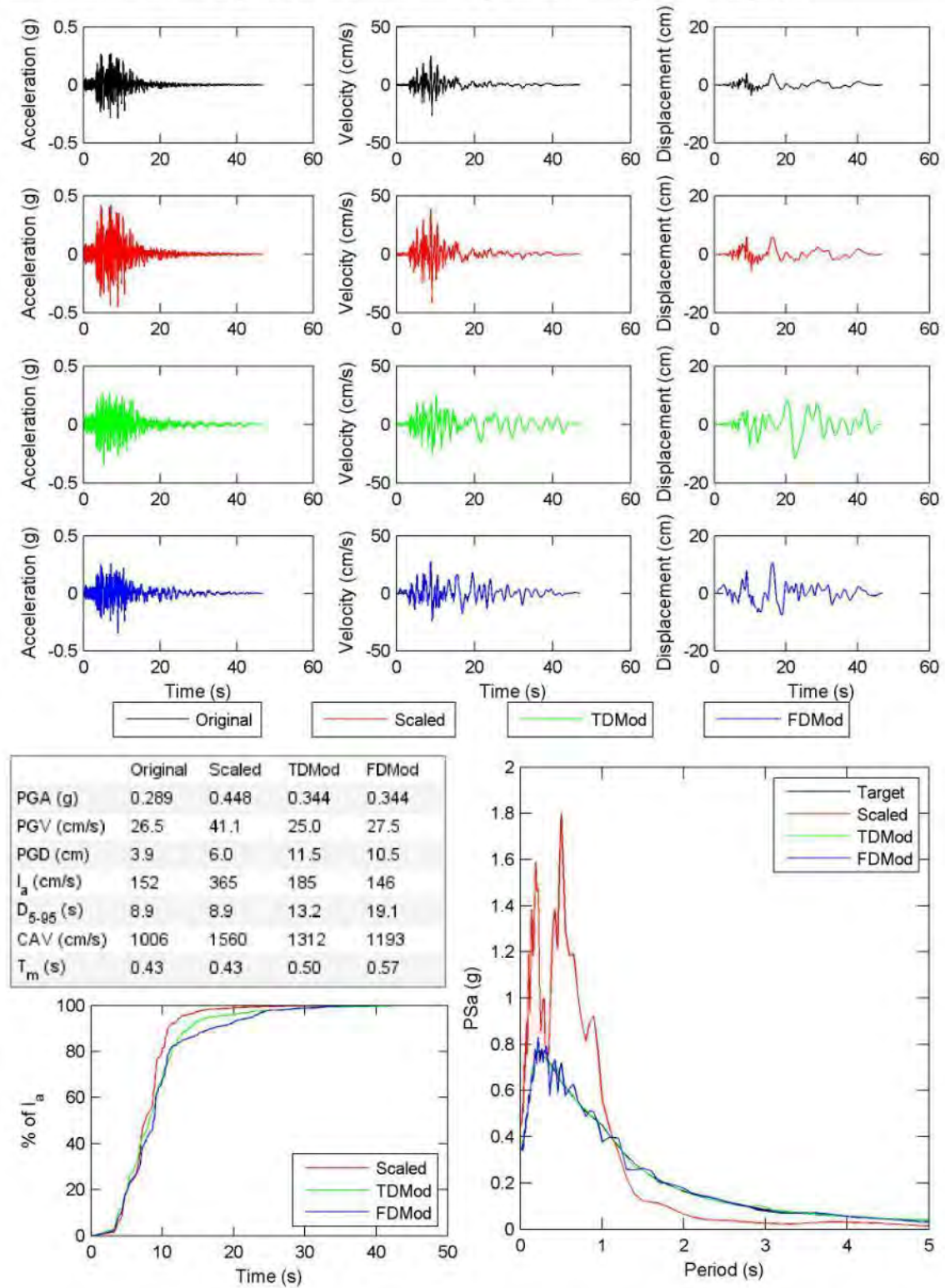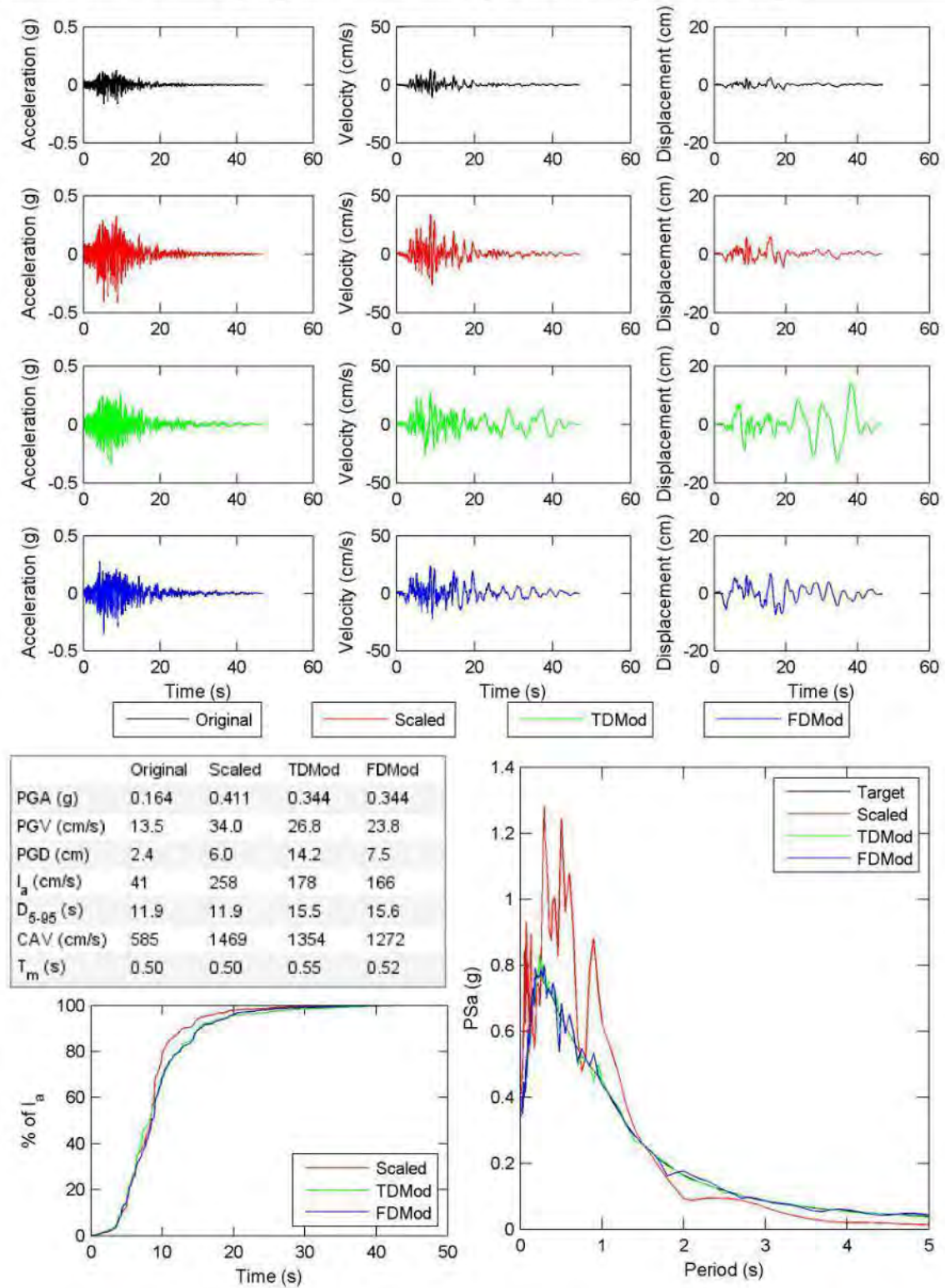

	Original	Scaled	TDMod	FDMod
PGA (g)	0.383	0.241	0.218	0.218
PGV (cm/s)	21.2	13.4	12.0	11.7
PGD (cm)	4.7	2.9	5.1	4.8
I_a (cm/s)	108	43	41	36
D_{5-95} (s)	10.5	10.5	12.2	16.4
CAV (cm/s)	863	543	585	603
T_m (s)	0.44	0.44	0.48	0.50

Figure E.2. continued.

544

	Original	Scaled	TDMod	FDMod
PGA (g)	0.112	0.219	0.218	0.218
PGV (cm/s)	8.7	16.9	11.9	14.6
PGD (cm)	1.8	3.5	3.3	6.3
I_a (cm/s)	14	54	52	40
D_{5-95} (s)	8.8	8.8	9.3	10.8
CAV (cm/s)	284	553	577	500
T_m (s)	0.32	0.32	0.36	0.39

Figure E.2. continued.

545

	Original	Scaled	TDMod	FDMod
PGA (g)	0.172	0.279	0.218	0.218
PGV (cm/s)	11.8	19.1	14.6	15.0
PGD (cm)	2.8	4.5	7.6	5.4
I_a (cm/s)	20	53	47	35
D_{5-95} (s)	6.7	6.7	9.8	9.8
CAV (cm/s)	307	497	525	452
T_m (s)	0.45	0.45	0.42	0.43

Figure E.2. continued.

546

File Name: 1012 LA0000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.91   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
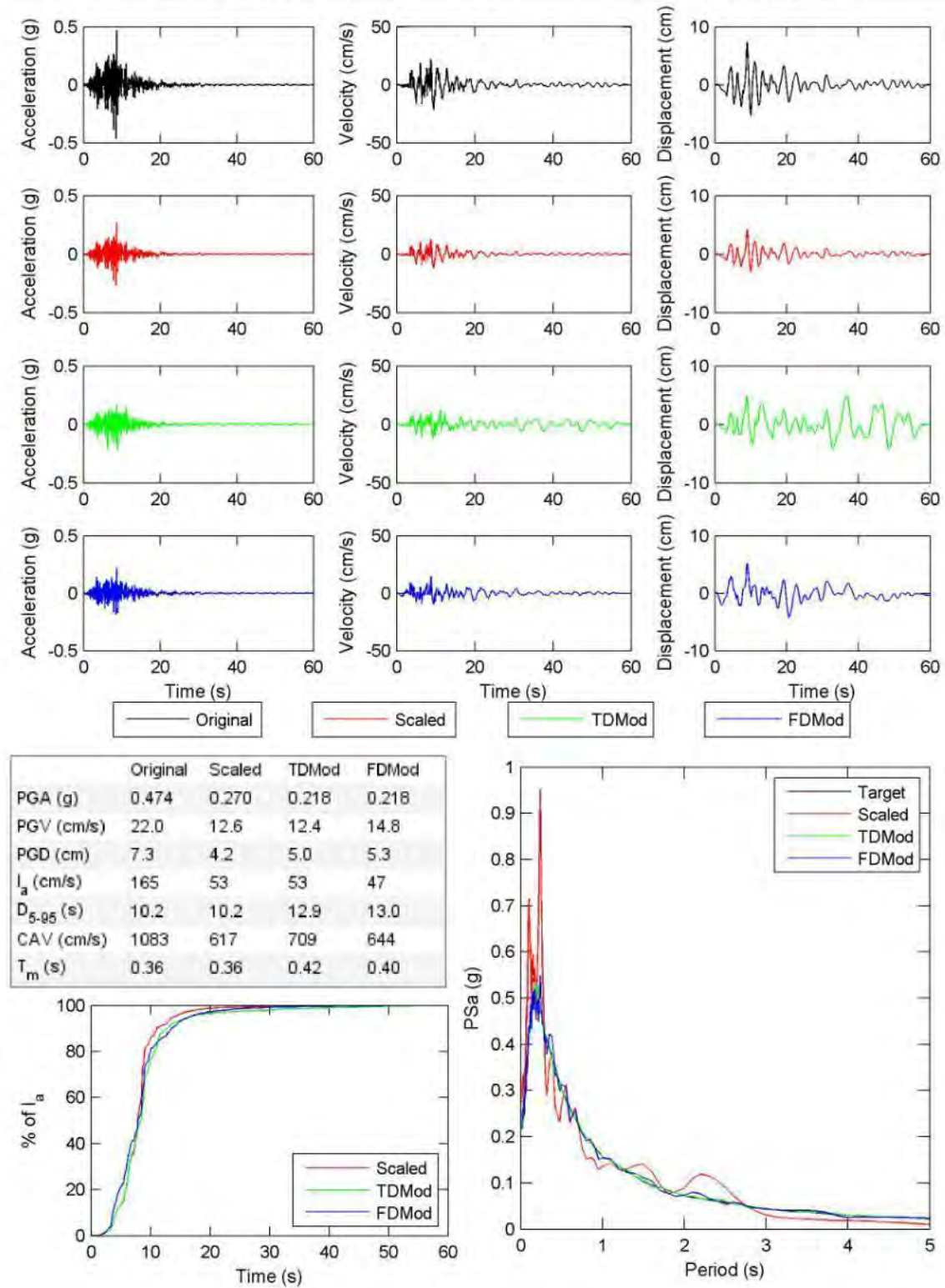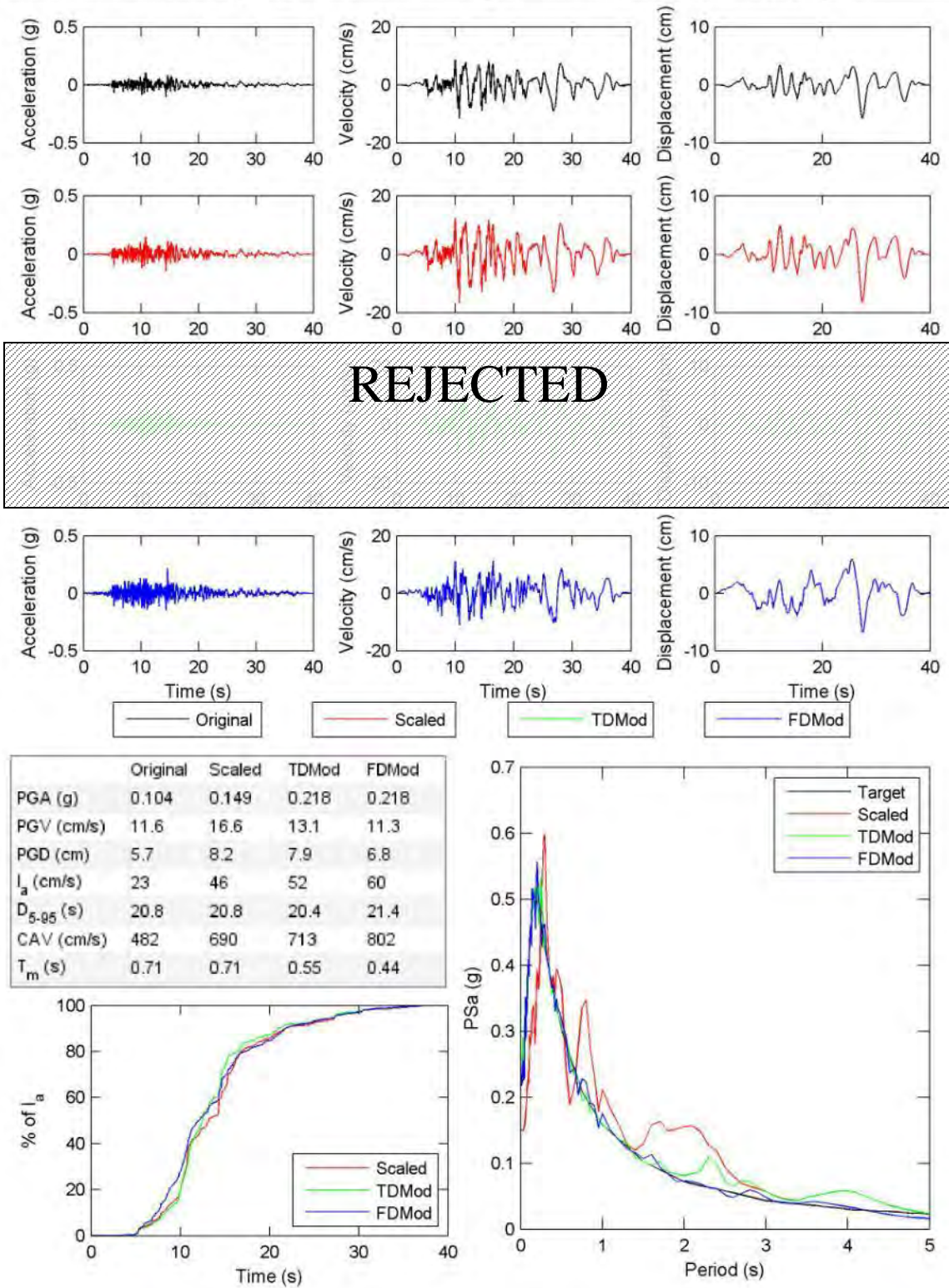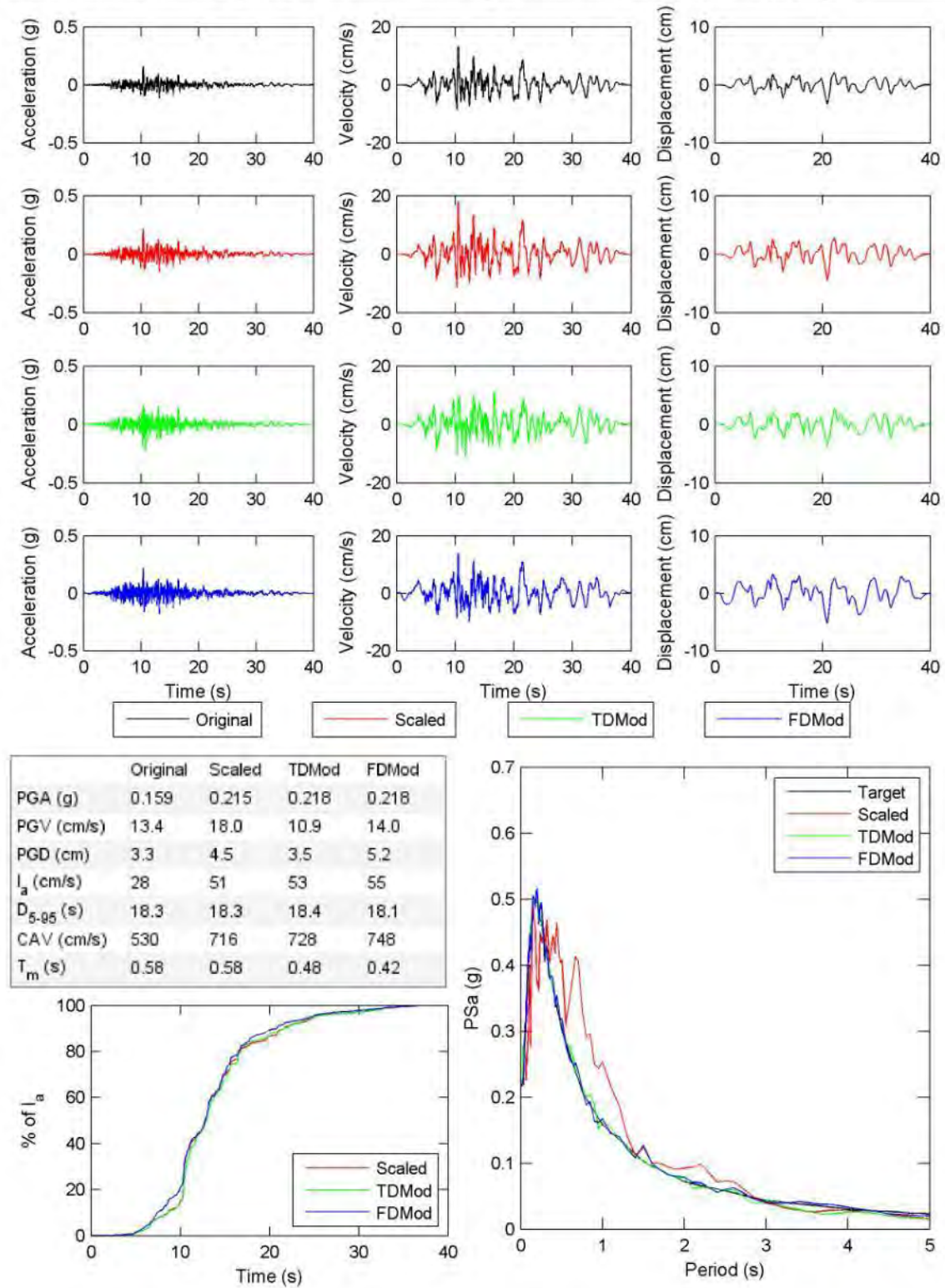

	Original	Scaled	TDMod	FDMod
PGA (g)	0.261	0.238	0.218	0.218
PGV (cm/s)	27.4	24.9	16.7	15.9
PGD (cm)	4.8	4.4	10.1	5.0
I_a (cm/s)	98	81	49	44
D_{5-95} (s)	8.1	8.1	12.9	11.4
CAV (cm/s)	798	727	664	619
T_m (s)	0.43	0.43	0.44	0.41

Figure E.2. continued.

547

	Original	Scaled	TDMod	FDMod
PGA (g)	0.388	0.306	0.218	0.218
PGV (cm/s)	38.0	30.0	24.2	23.4
PGD (cm)	4.6	3.6	32.1	4.0
I_a (cm/s)	107	67	54	39
D_{5-95} (s)	8.0	8.0	25.5	10.8
CAV (cm/s)	782	618	780	552
T_m (s)	0.38	0.38	0.43	0.39

Figure E.2. continued.

548

File Name: 1016 NYA090   Start and End Taper Percentage: 1.0% and 5.0%
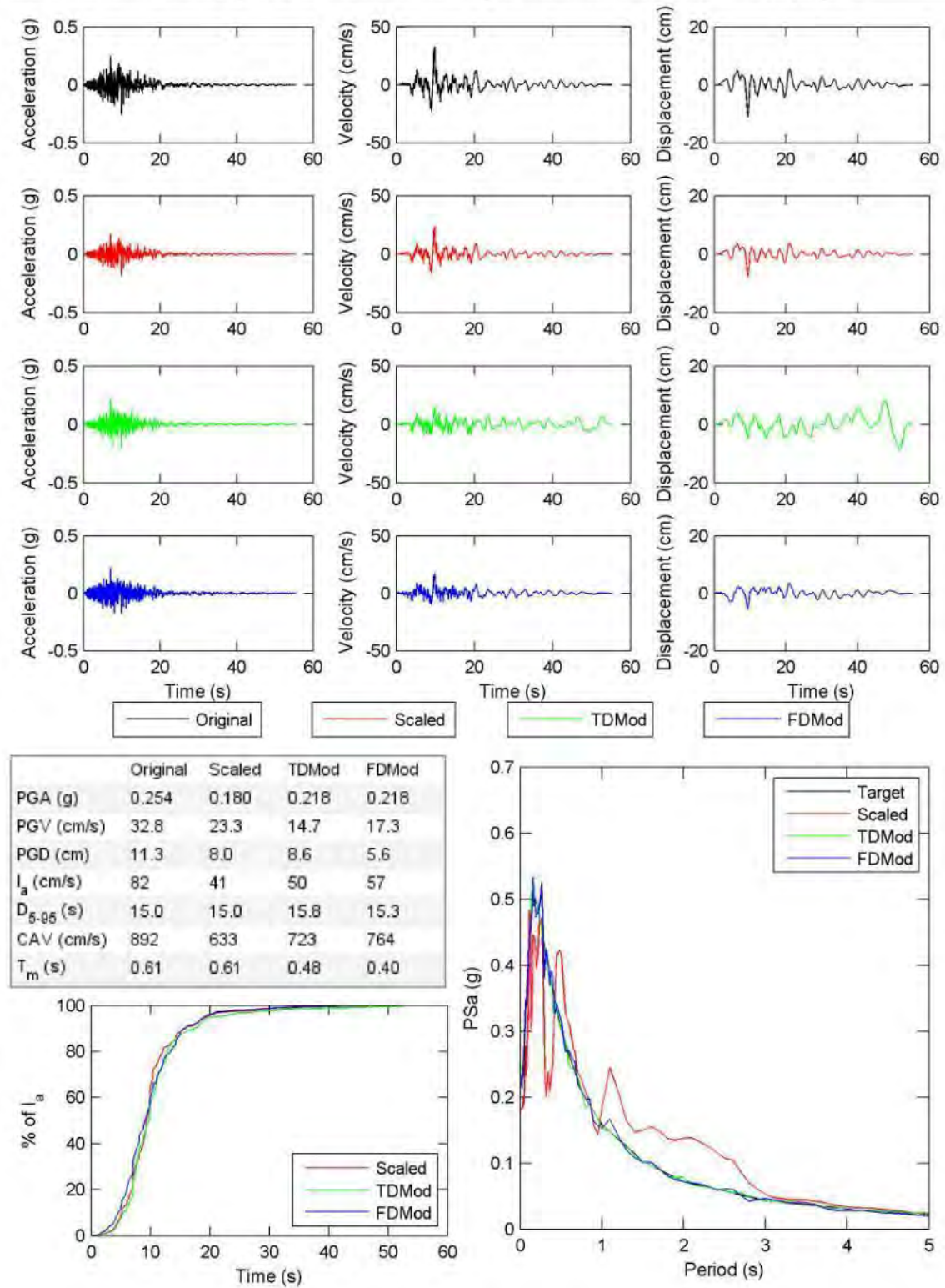Scale Factor: 1.74   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 6
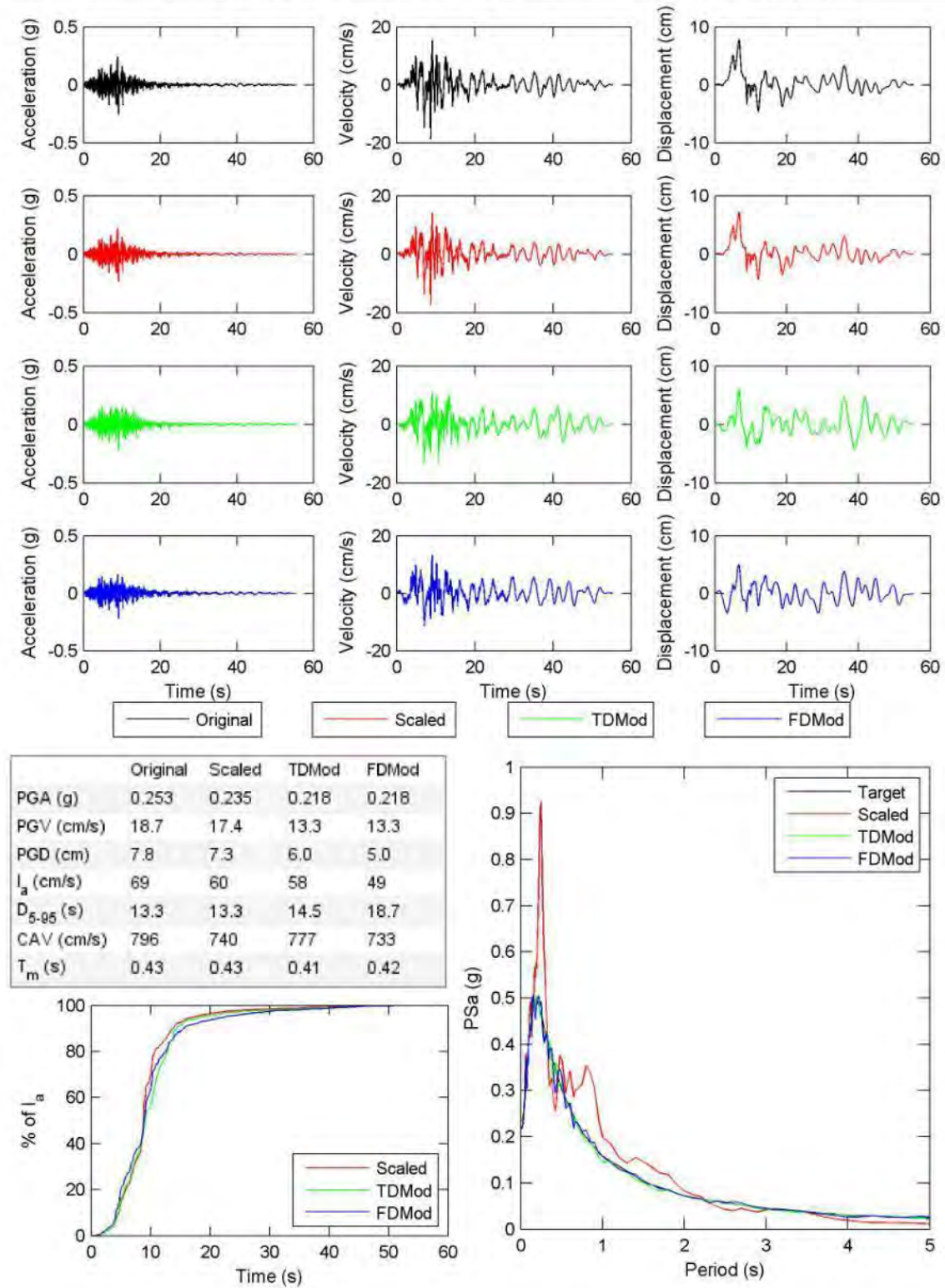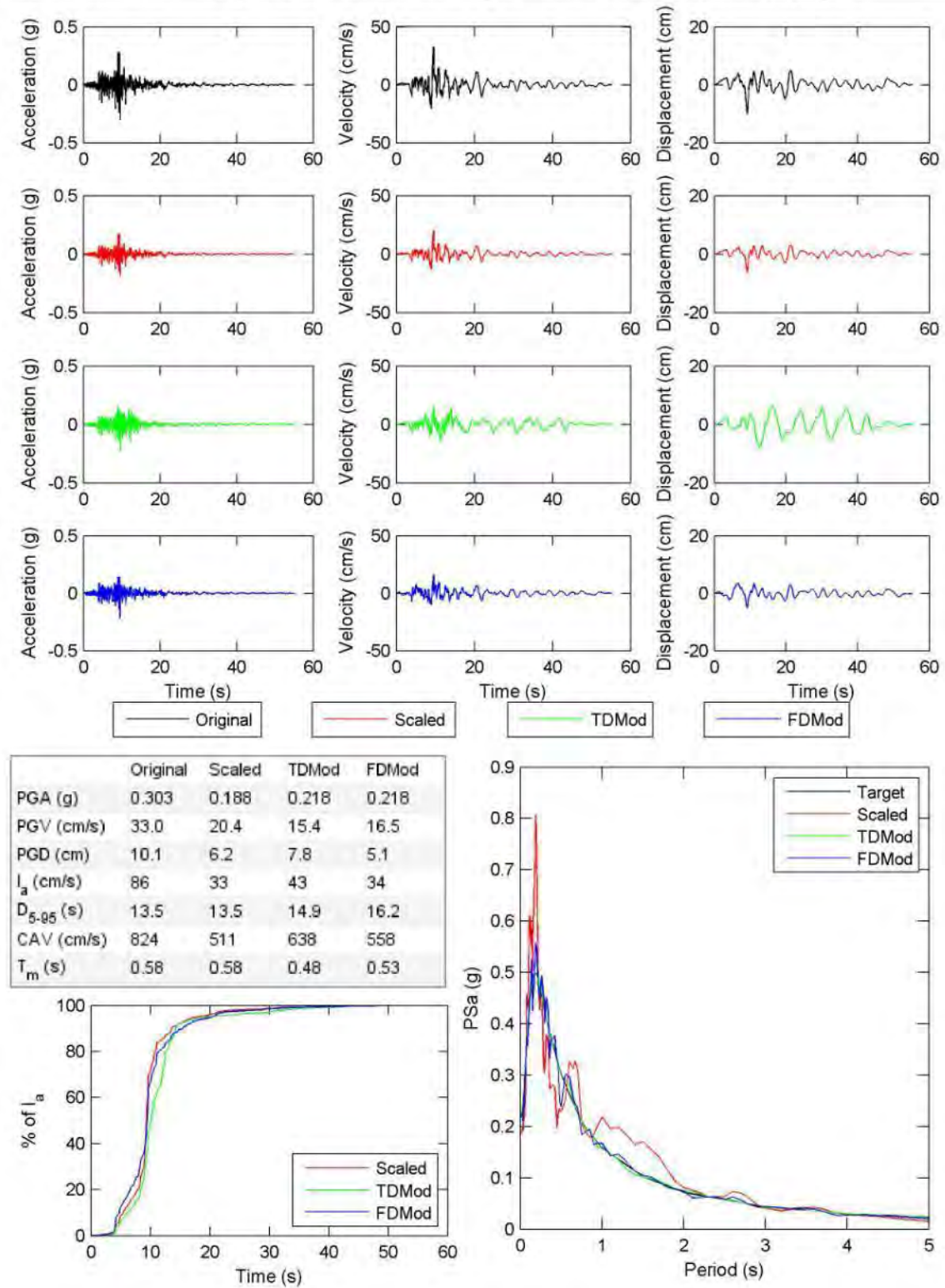

	Original	Scaled	TDMod	FDMod
PGA (g)	0.178	0.310	0.218	0.218
PGV (cm/s)	12.5	21.7	11.1	11.9
PGD (cm)	1.1	2.0	7.4	5.1
I_a (cm/s)	45	136	64	48
D_{5-95} (s)	9.7	9.7	13.8	12.4
CAV (cm/s)	504	877	712	578
T_m (s)	0.37	0.37	0.38	0.40

Figure E.2. continued.

549

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.285	0.218	0.218
PGV (cm/s)	11.3	20.2	16.4	14.6
PGD (cm)	3.0	5.4	5.7	7.3
I_a (cm/s)	29	93	59	51
D_{5-95} (s)	11.0	11.0	13.2	12.9
CAV (cm/s)	418	749	642	592
T_m (s)	0.35	0.35	0.38	0.39

Figure E.2. continued.

550

File Name: 1042 CWC180   Start and End Taper Percentage: 1.0% and 5.0%
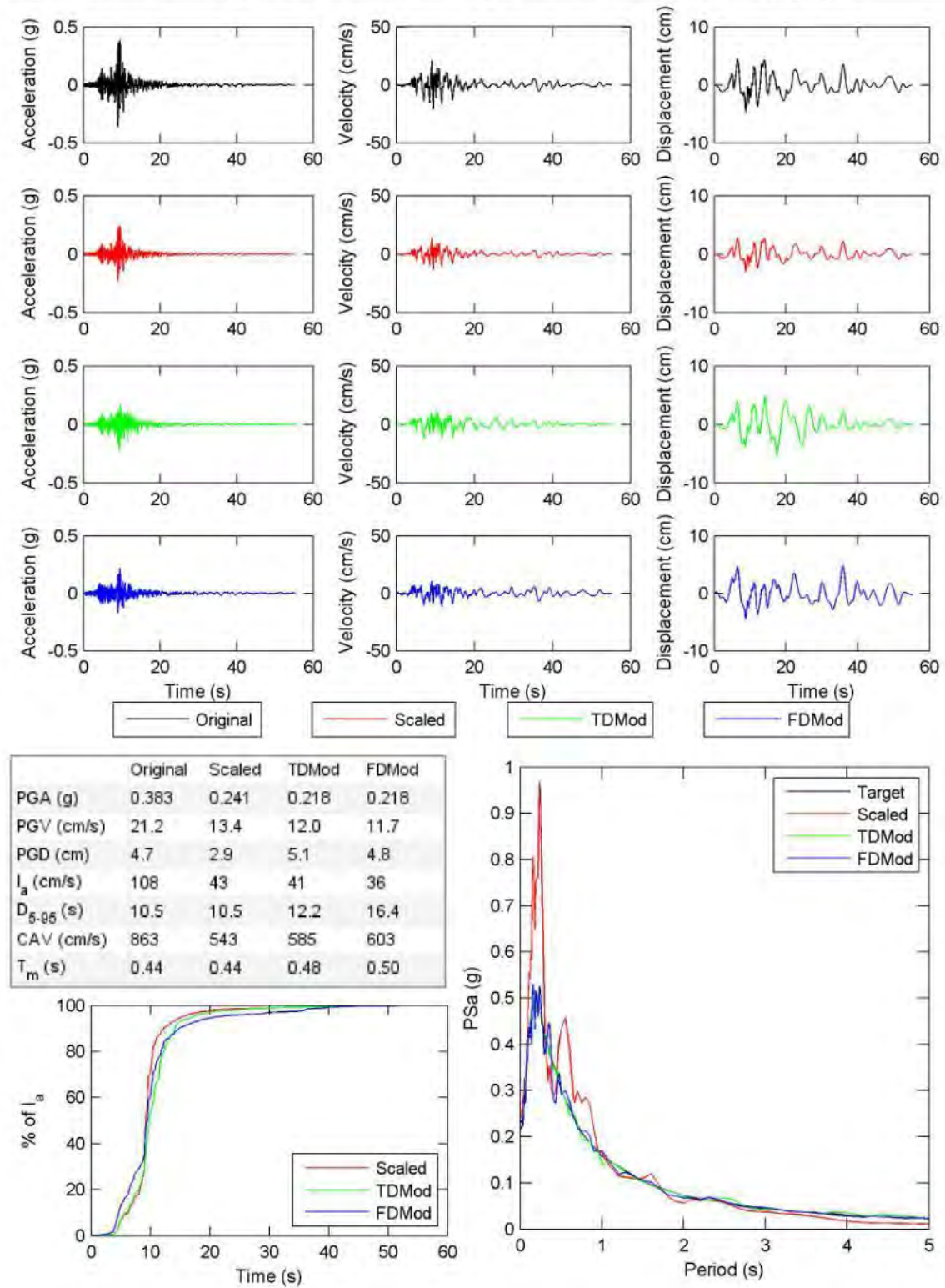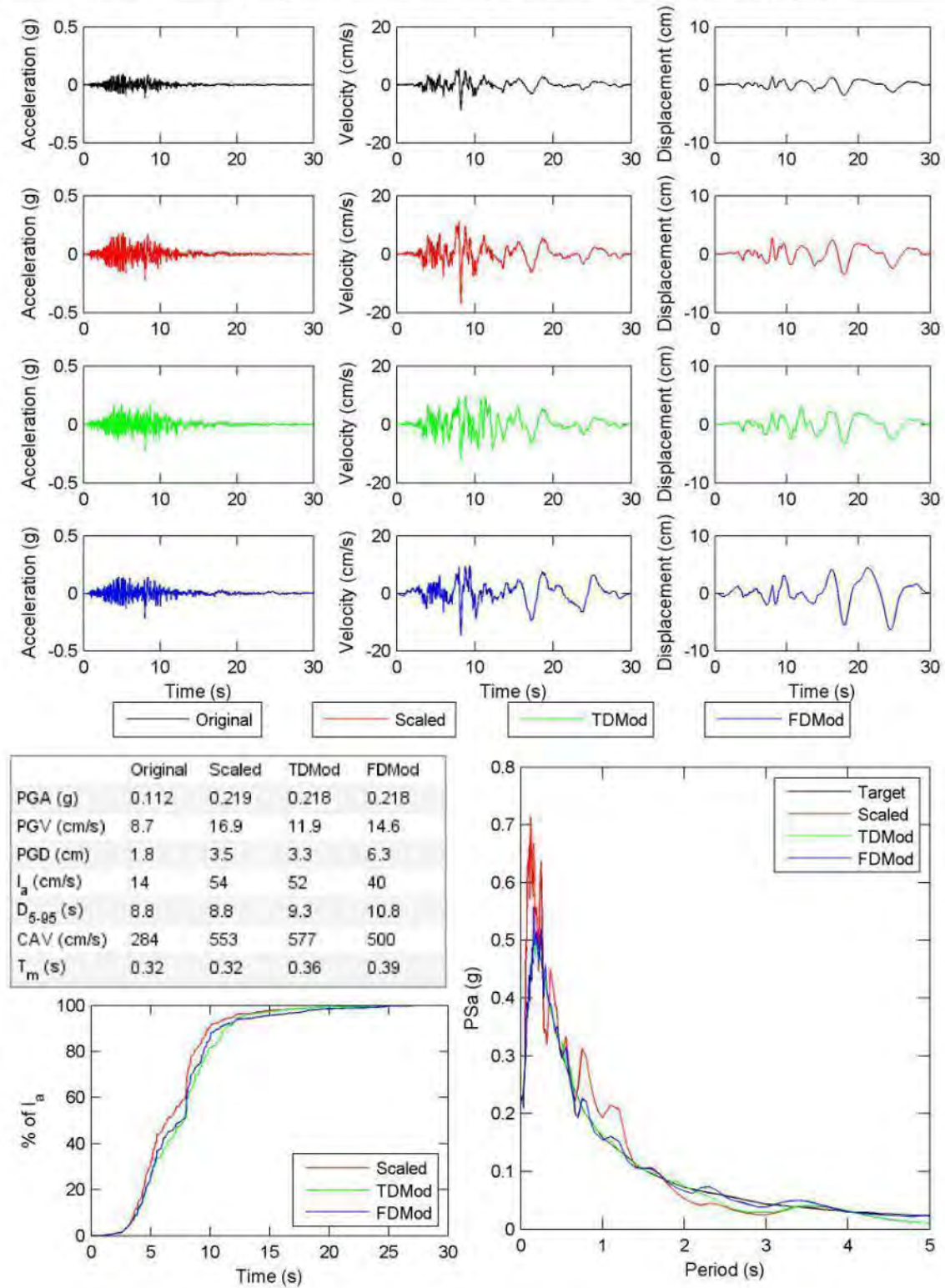Scale Factor: 0.70   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.298	0.209	0.218	0.218
PGV (cm/s)	25.0	17.5	16.2	16.5
PGD (cm)	6.3	4.4	6.5	5.1
I_a (cm/s)	120	59	47	49
D_{5-95} (s)	15.0	15.0	14.3	15.4
CAV (cm/s)	884	619	573	591
T_m (s)	0.53	0.53	0.47	0.46

Figure E.2. continued.

551

	Original	Scaled	TDMod	FDMod
PGA (g)	0.271	0.171	0.218	0.218
PGV (cm/s)	22.2	14.0	11.3	12.3
PGD (cm)	11.5	7.3	6.5	6.6
I_a (cm/s)	118	47	48	51
D_{5-95} (s)	16.4	16.4	15.6	15.4
CAV (cm/s)	897	565	568	585
T_m (s)	0.55	0.55	0.45	0.42

Figure E.2. continued.

552

	Original	Scaled	TDMod	FDMod
PGA (g)	0.469	0.333	0.218	0.218
PGV (cm/s)	30.9	22.0	15.2	16.3
PGD (cm)	5.2	3.7	4.0	6.3
I_a (cm/s)	184	93	49	39
D_{5-95} (s)	8.0	8.0	11.2	11.5
CAV (cm/s)	984	699	588	507
T_m (s)	0.32	0.32	0.41	0.40

Figure E.2. continued.

553

File Name: 1049 SUN280   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.04   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 6
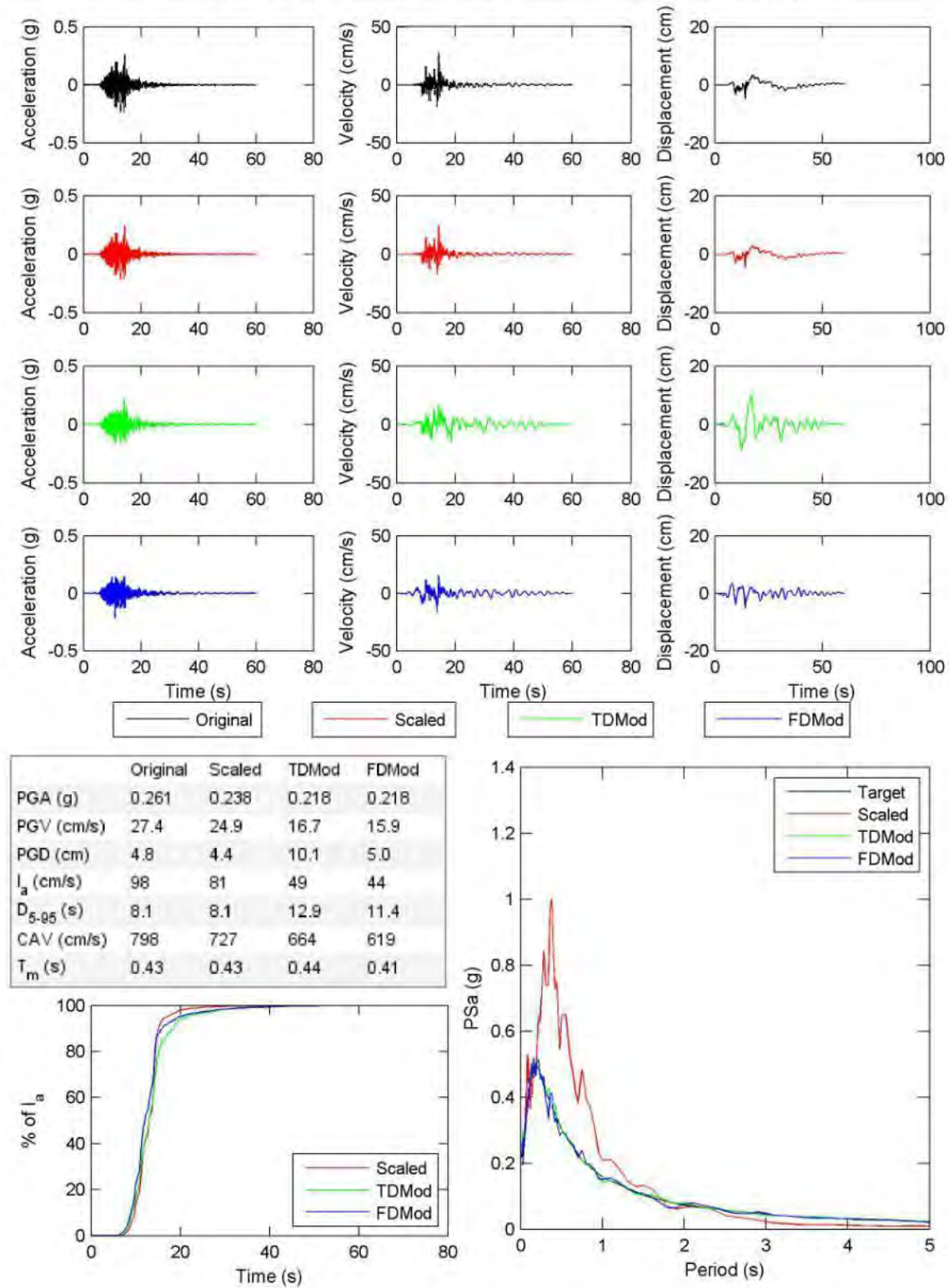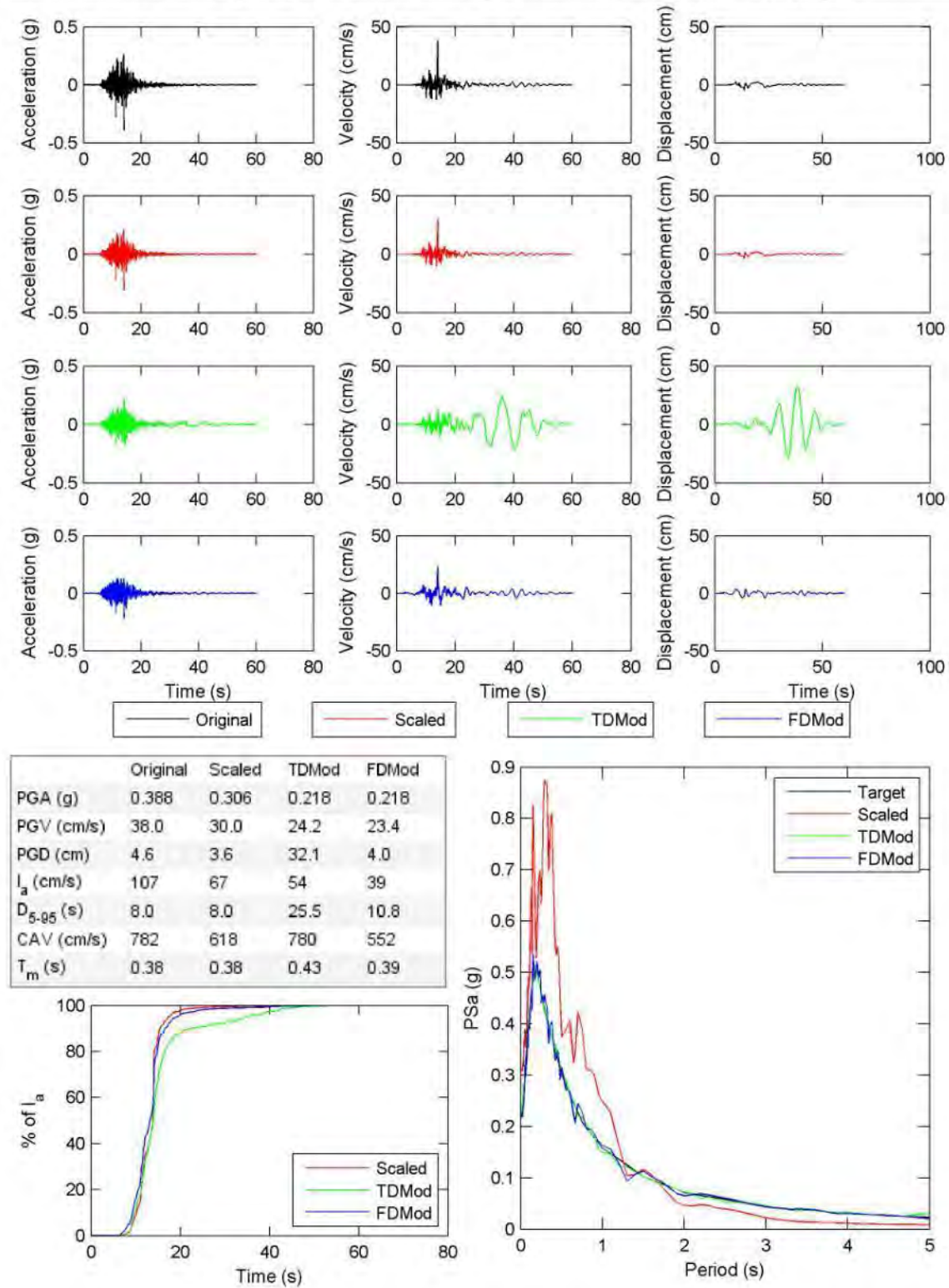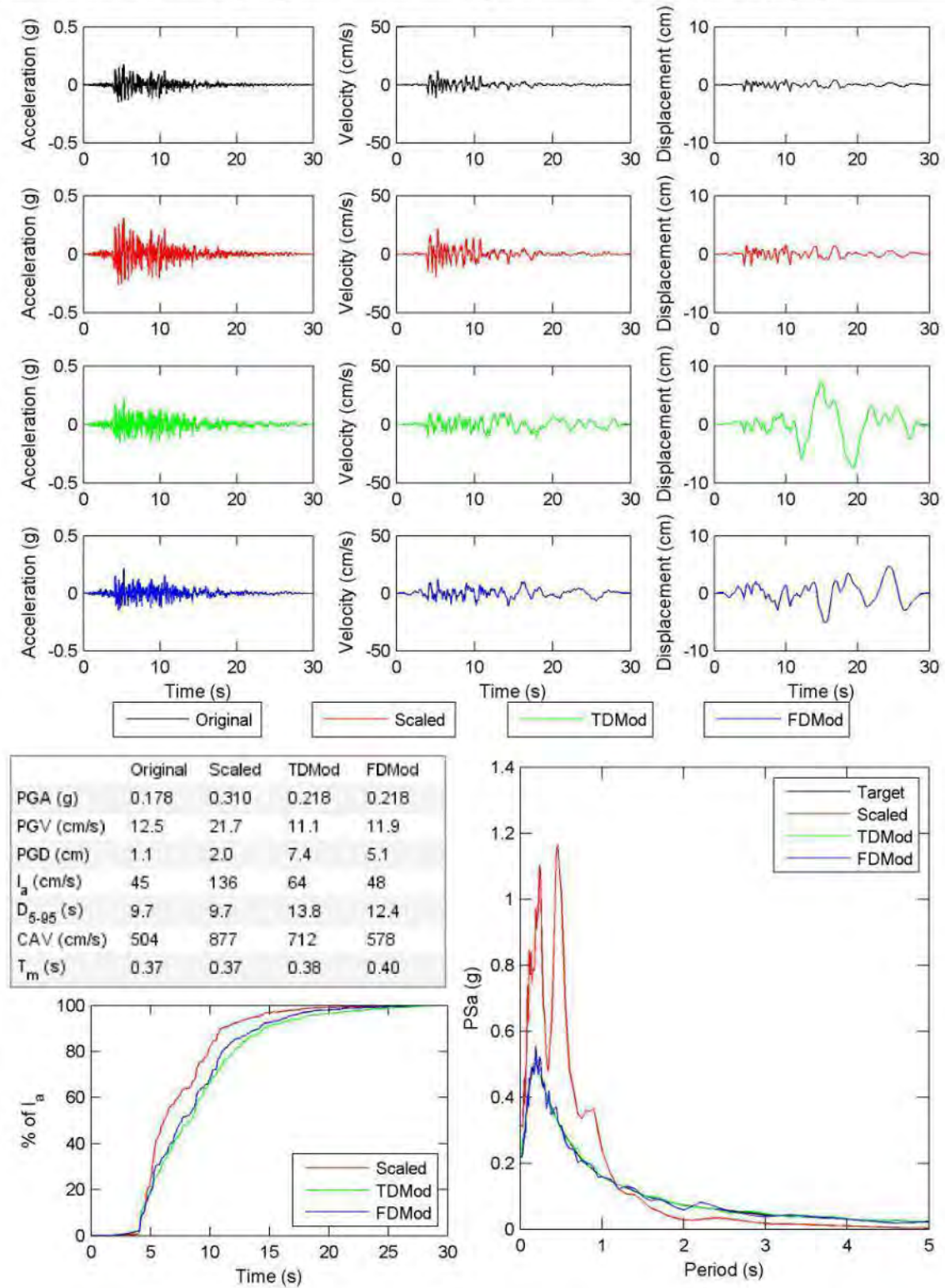

	Original	Scaled	TDMod	FDMod
PGA (g)	0.197	0.205	0.218	0.218
PGV (cm/s)	14.9	15.5	15.0	12.7
PGD (cm)	5.6	5.8	6.0	5.5
I_a (cm/s)	65	70	58	51
D_{5-95} (s)	10.5	10.5	12.3	11.6
CAV (cm/s)	641	667	640	592
T_m (s)	0.34	0.34	0.37	0.37

Figure E.2. continued.

554

	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.181	0.218	0.218
PGV (cm/s)	18.6	24.7	12.4	15.1
PGD (cm)	4.5	6.0	6.5	4.5
I_a (cm/s)	32	56	55	60
D_{5-95} (s)	17.1	17.1	19.6	17.6
CAV (cm/s)	548	729	752	765
T_m (s)	0.66	0.66	0.48	0.39

Figure E.2. continued.

555

File Name: 1057 SAR270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.56   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
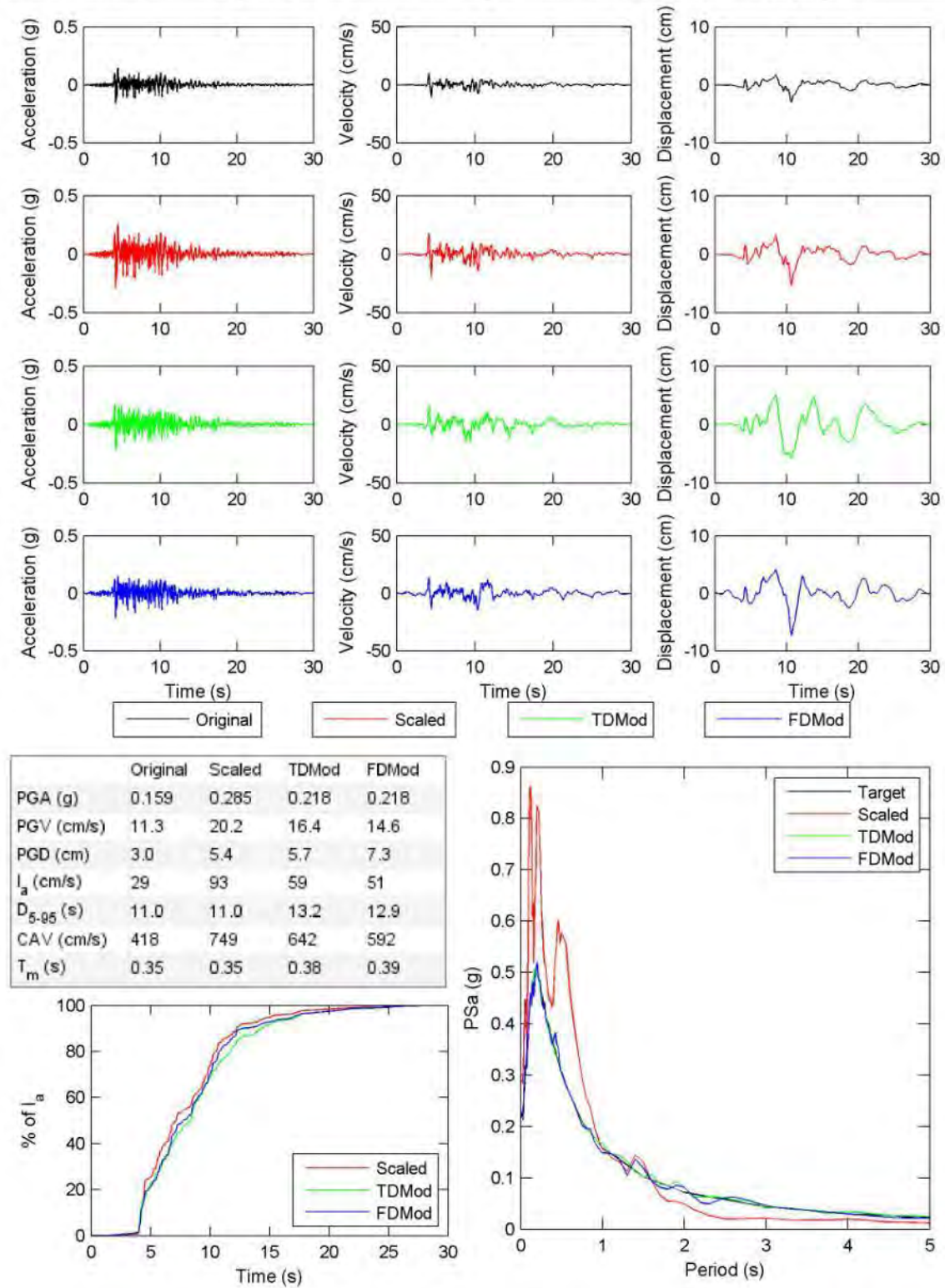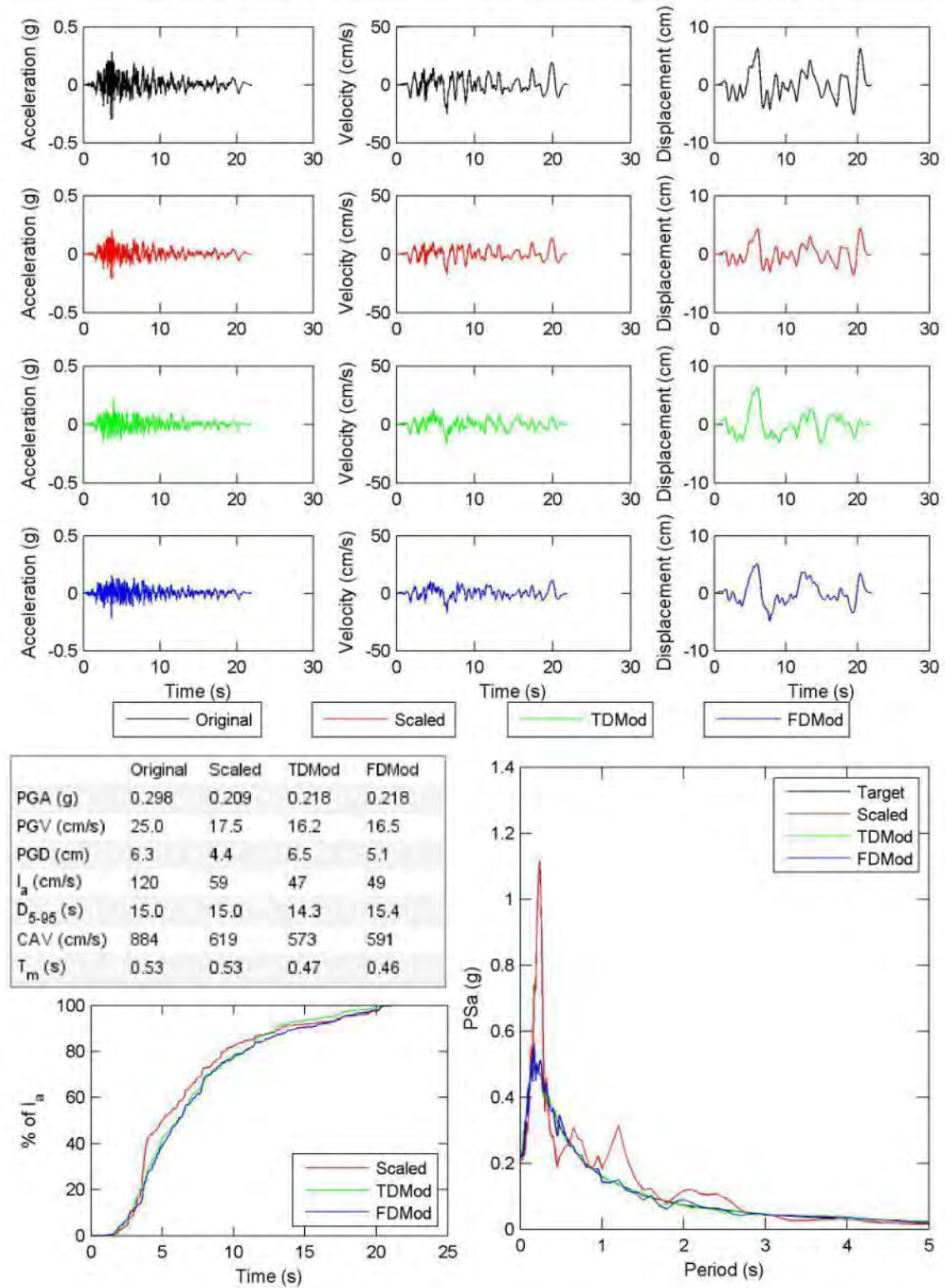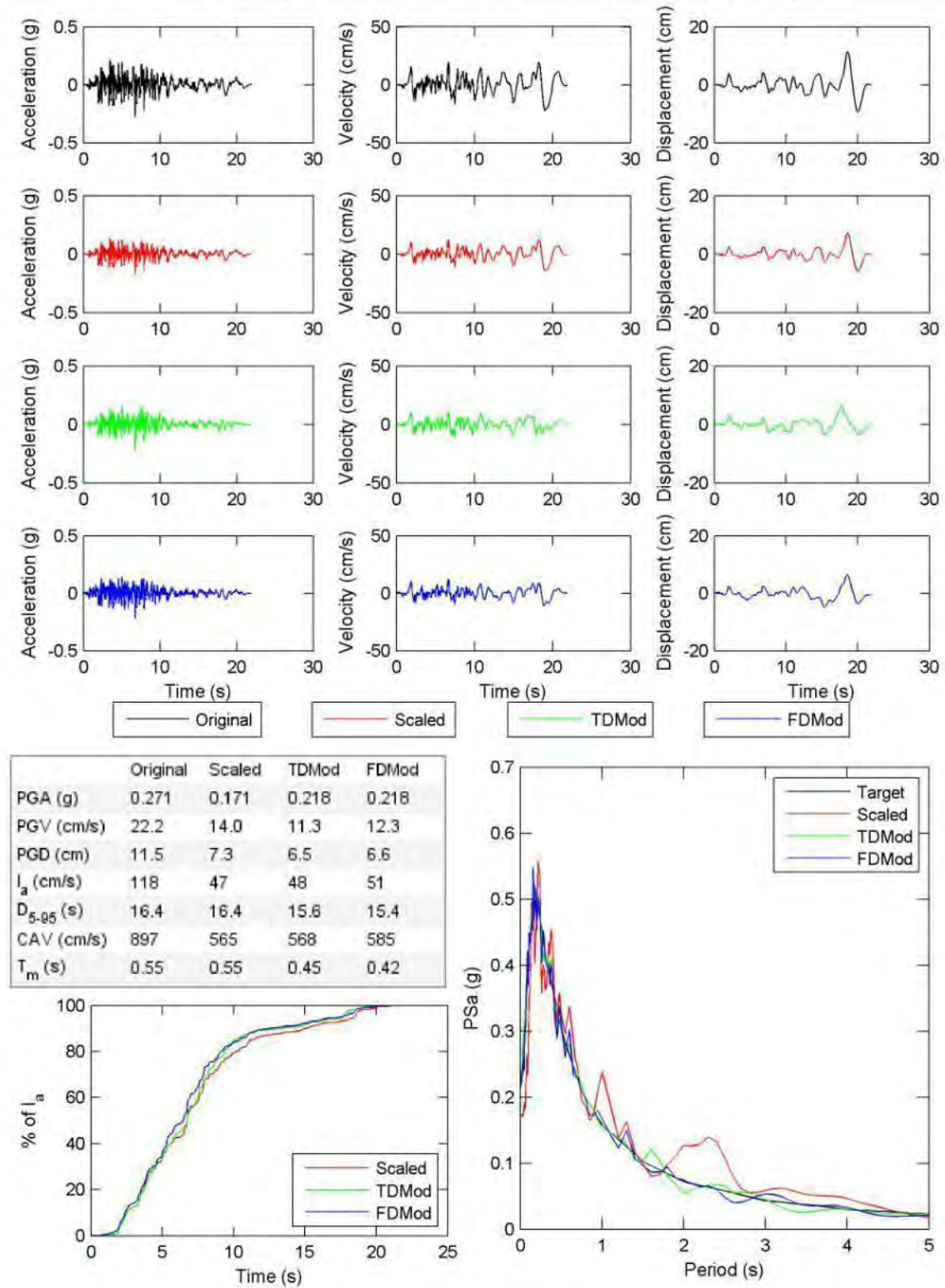
	Original	Scaled	TDMod	FDMod
PGA (g)	0.076	0.118	0.218	0.218
PGV (cm/s)	13.8	21.5	12.4	11.8
PGD (cm)	6.9	10.7	7.1	5.5
I_a (cm/s)	19	47	45	74
D_{5-95} (s)	22.5	22.5	19.7	20.9
CAV (cm/s)	462	720	674	894
T_m (s)	0.95	0.95	0.49	0.38

Figure E.2. continued.

556

	Original	Scaled	TDMod	FDMod
PGA (g)	0.127	0.162	0.218	0.218
PGV (cm/s)	13.8	17.6	15.5	12.6
PGD (cm)	5.5	7.1	7.1	6.5
I_a (cm/s)	35	58	54	55
D_{5-95} (s)	15.9	15.9	14.8	14.6
CAV (cm/s)	534	683	659	660
T_m (s)	0.59	0.59	0.45	0.42

Figure E.2. continued.

557

	Original	Scaled	TDMod	FDMod
PGA (g)	0.157	0.189	0.218	0.218
PGV (cm/s)	14.4	17.3	17.8	13.4
PGD (cm)	4.4	5.2	6.4	6.0
I_a (cm/s)	46	66	45	52
D_{5-95} (s)	11.8	11.8	13.8	15.2
CAV (cm/s)	565	678	591	654
T_m (s)	0.67	0.67	0.47	0.40

Figure E.2. continued.

558

File Name: 1089 5081-270   Start and End Taper Percentage: 1.0% and 5.0%
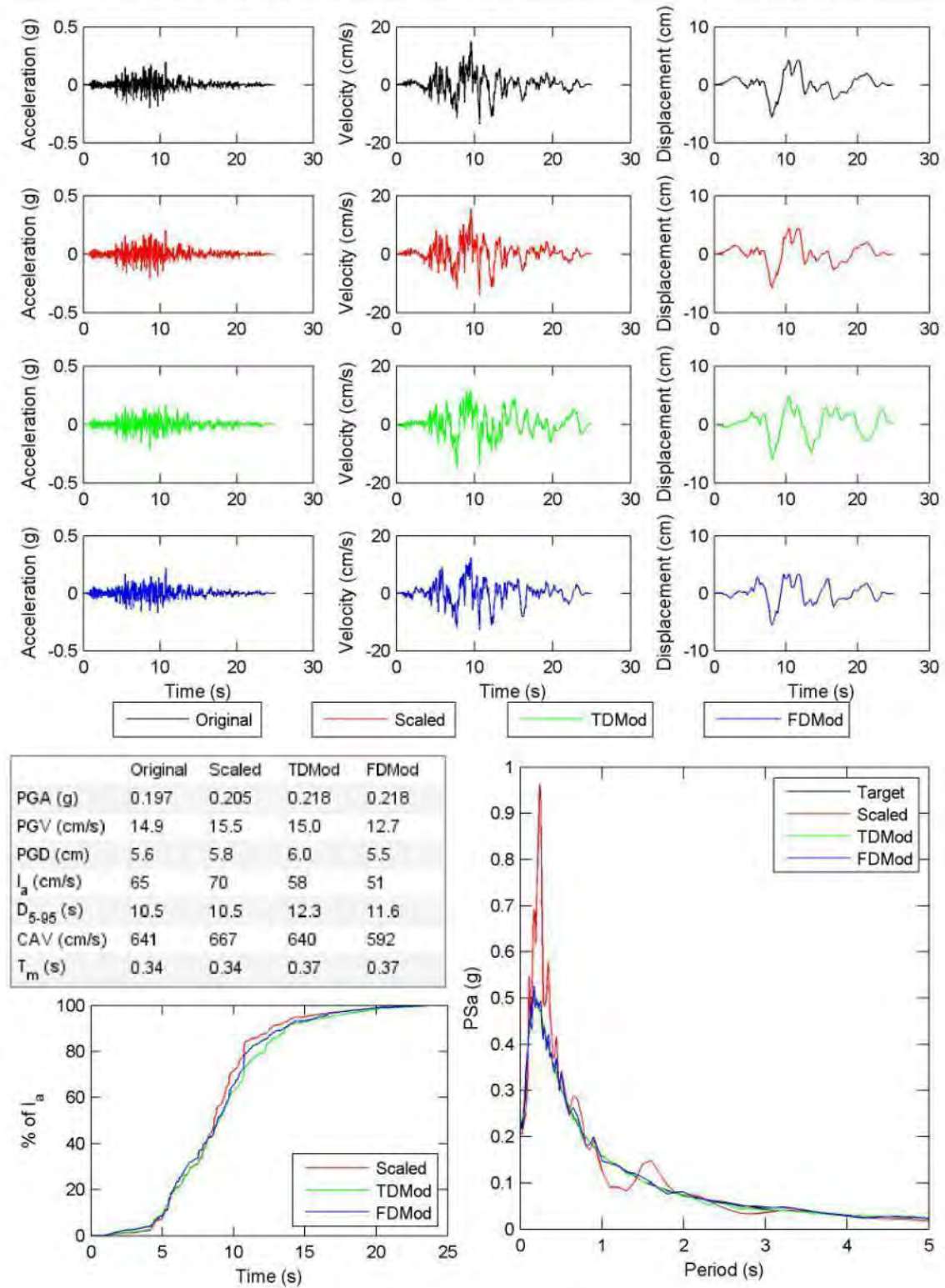Scale Factor: 1.56   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 9
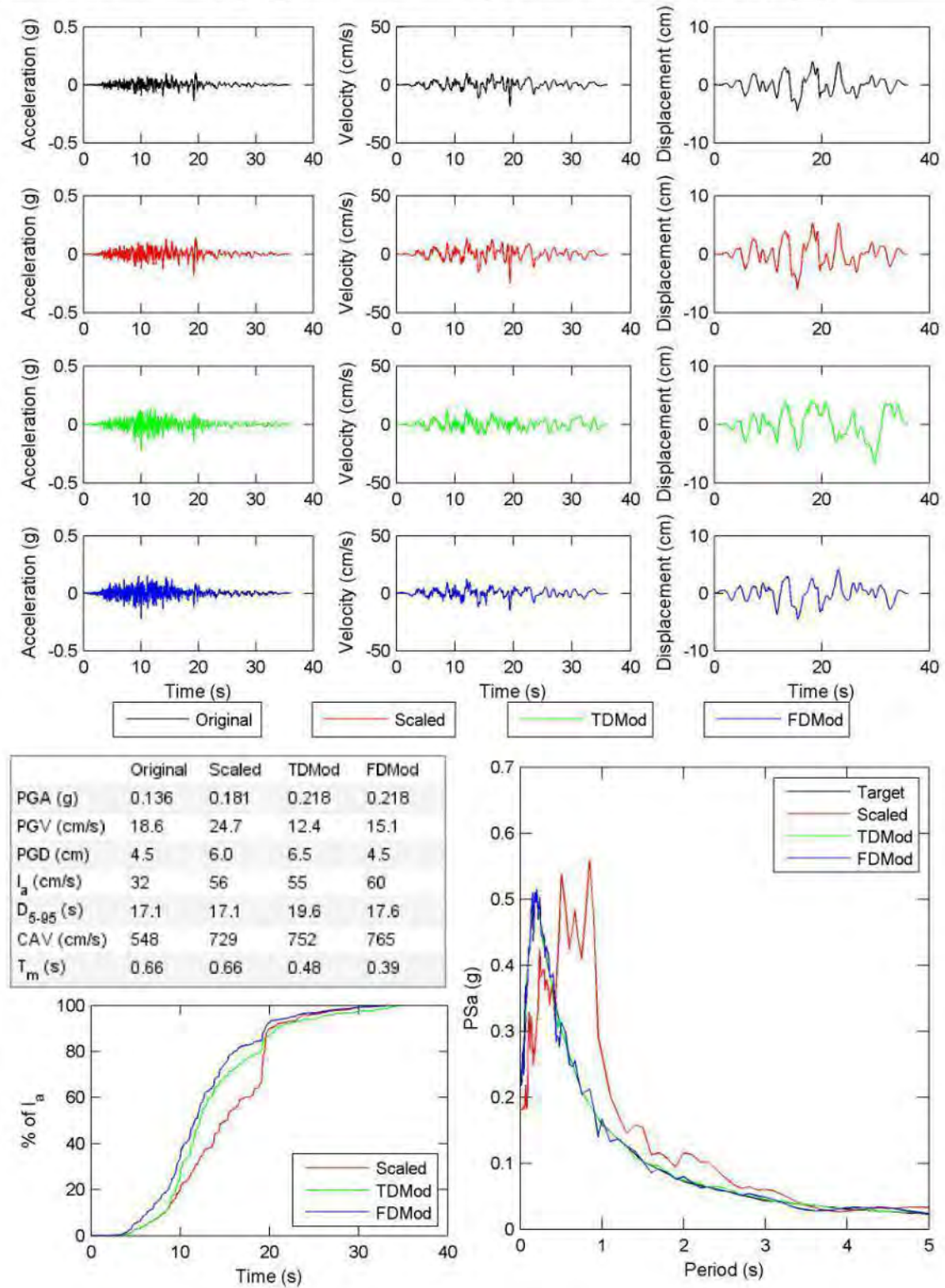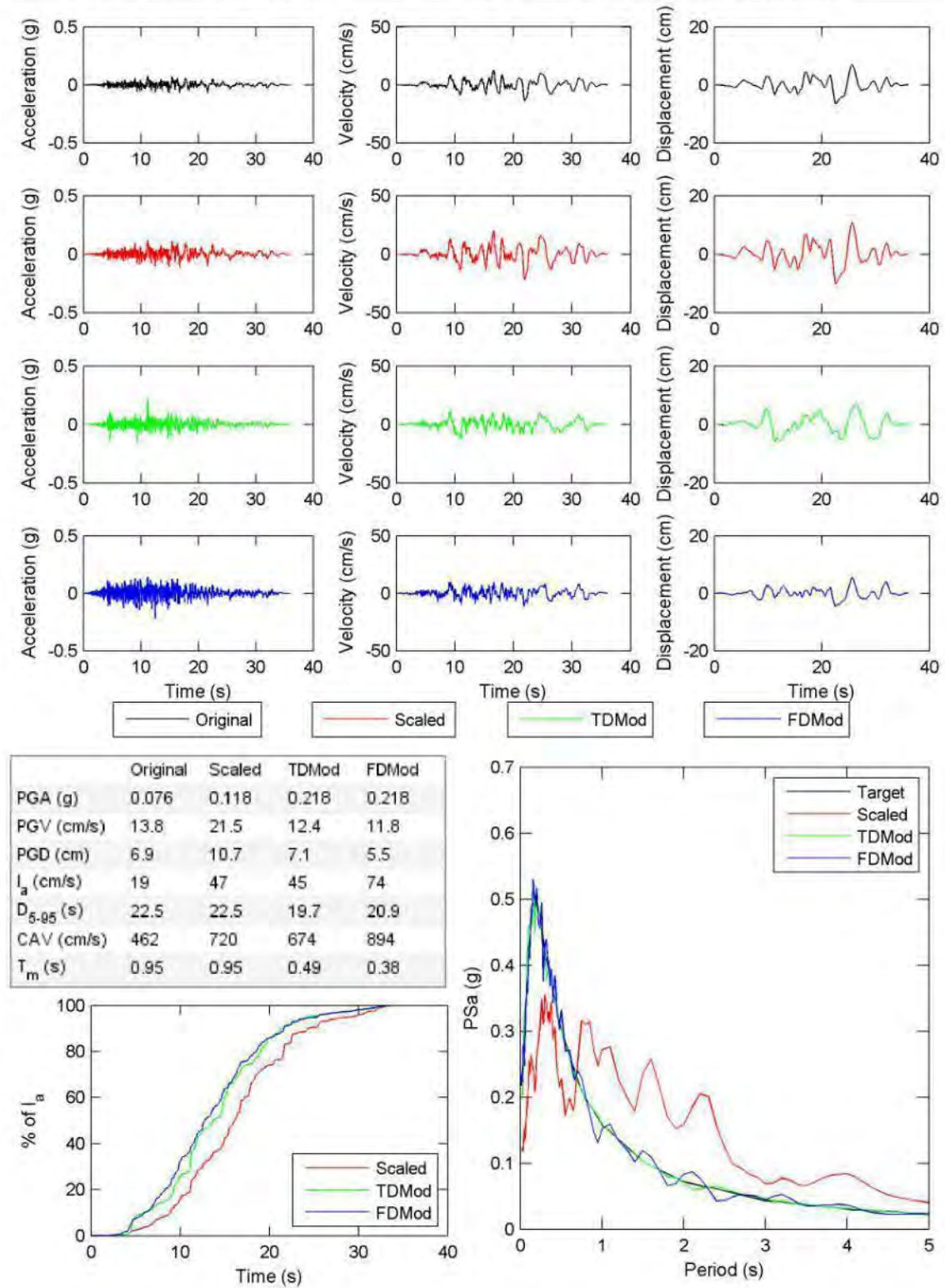

	Original	Scaled	TDMod	FDMod
PGA (g)	0.193	0.301	0.218	0.218
PGV (cm/s)	12.0	18.8	11.4	17.1
PGD (cm)	2.3	3.7	5.9	4.4
I_a (cm/s)	51	124	61	49
D_{5-95} (s)	10.1	10.1	13.9	13.1
CAV (cm/s)	551	859	682	598
T_m (s)	0.27	0.27	0.35	0.39

Figure E.2. continued.

559

	Original	Scaled	TDMod	FDMod
PGA (g)	0.332	0.329	0.218	0.218
PGV (cm/s)	15.6	15.4	13.0	11.4
PGD (cm)	4.1	4.1	3.9	5.4
I_a (cm/s)	104	102	56	43
D_{5-95} (s)	8.8	8.8	11.1	11.7
CAV (cm/s)	776	769	637	536
T_m (s)	0.30	0.30	0.37	0.40

Figure E.2. continued.

560

	Original	Scaled	TDMod	FDMod
PGA (g)	0.509	0.239	0.218	0.218
PGV (cm/s)	37.3	17.5	14.6	11.5
PGD (cm)	9.5	4.5	12.7	7.3
I_a (cm/s)	335	74	43	47
D_{5-95} (s)	9.7	9.7	15.8	13.2
CAV (cm/s)	1432	673	621	635
T_m (s)	0.49	0.49	0.50	0.40

Figure E.2. continued.

561

	Original	Scaled	TDMod	FDMod
PGA (g)	0.503	0.236	0.218	0.218
PGV (cm/s)	36.6	17.2	15.4	14.1
PGD (cm)	11.3	5.3	8.7	5.3
I_a (cm/s)	227	50	40	43
D_{5-95} (s)	11.2	11.2	13.7	14.0
CAV (cm/s)	1196	562	574	596
T_m (s)	0.52	0.52	0.52	0.45

Figure E.2. continued.

562

File Name: 1193 CHY024-E   Start and End Taper Percentage: 1.0% and 5.0%
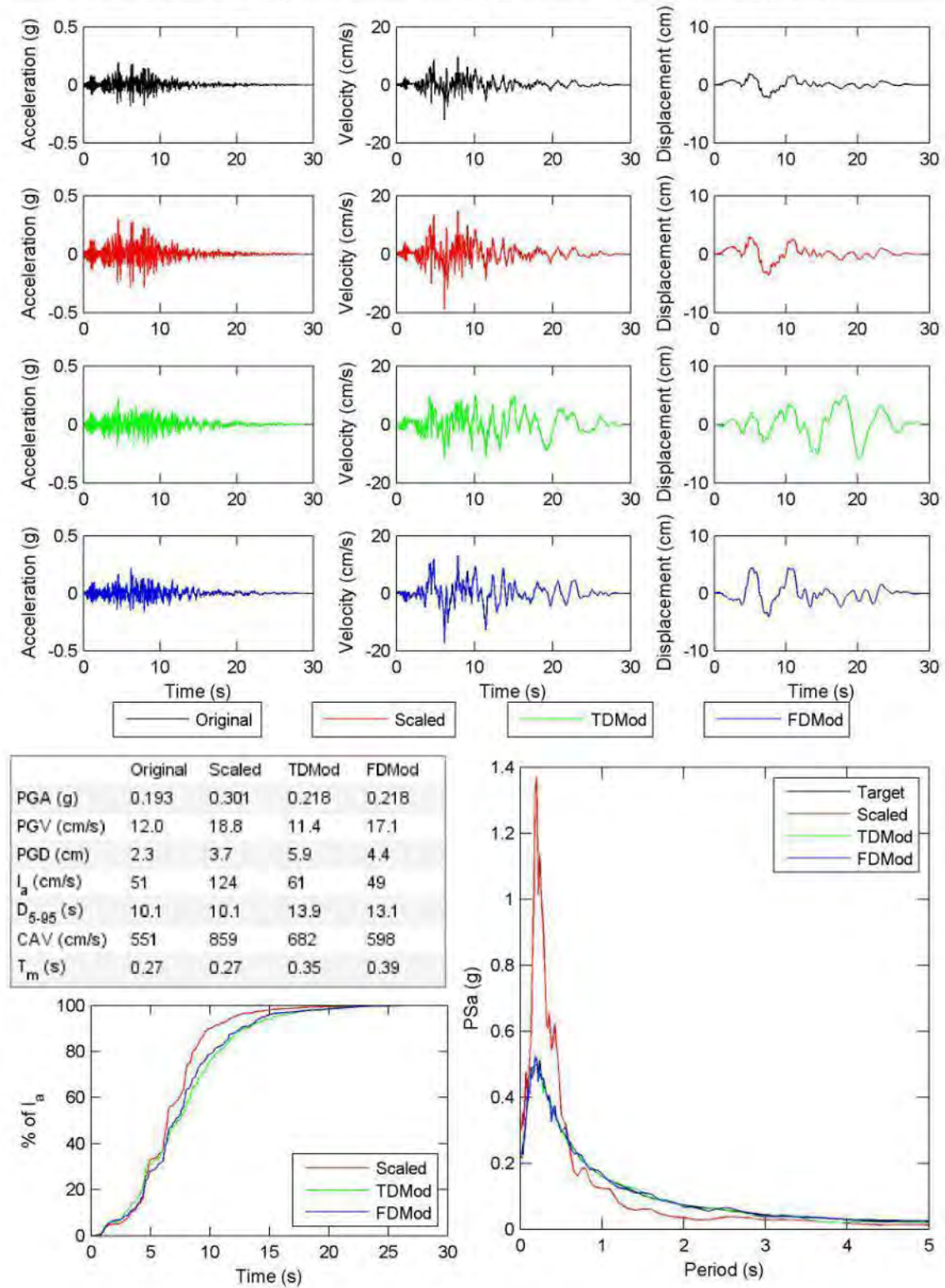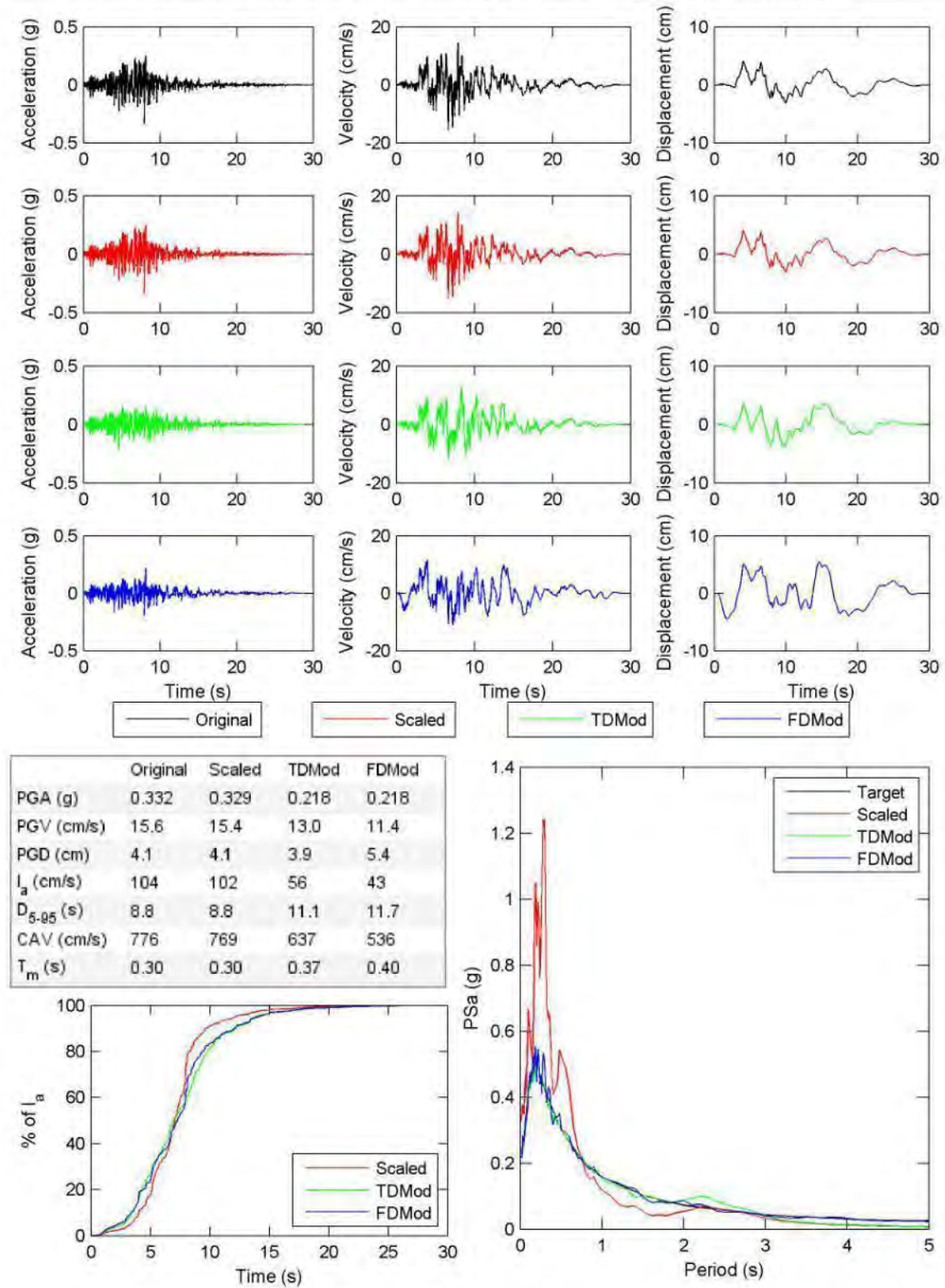Scale Factor: 0.48   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.278	0.133	0.218	0.218
PGV (cm/s)	52.9	25.4	18.3	13.3
PGD (cm)	43.6	20.9	17.2	7.6
I_a (cm/s)	183	42	52	83
D_{5-95} (s)	24.1	24.1	22.9	29.2
CAV (cm/s)	1643	789	842	1161
T_m (s)	0.87	0.87	0.50	0.37

Figure E.2. continued.

563

File Name: 1193 CHY024-N   Start and End Taper Percentage: 1.0% and 5.0%
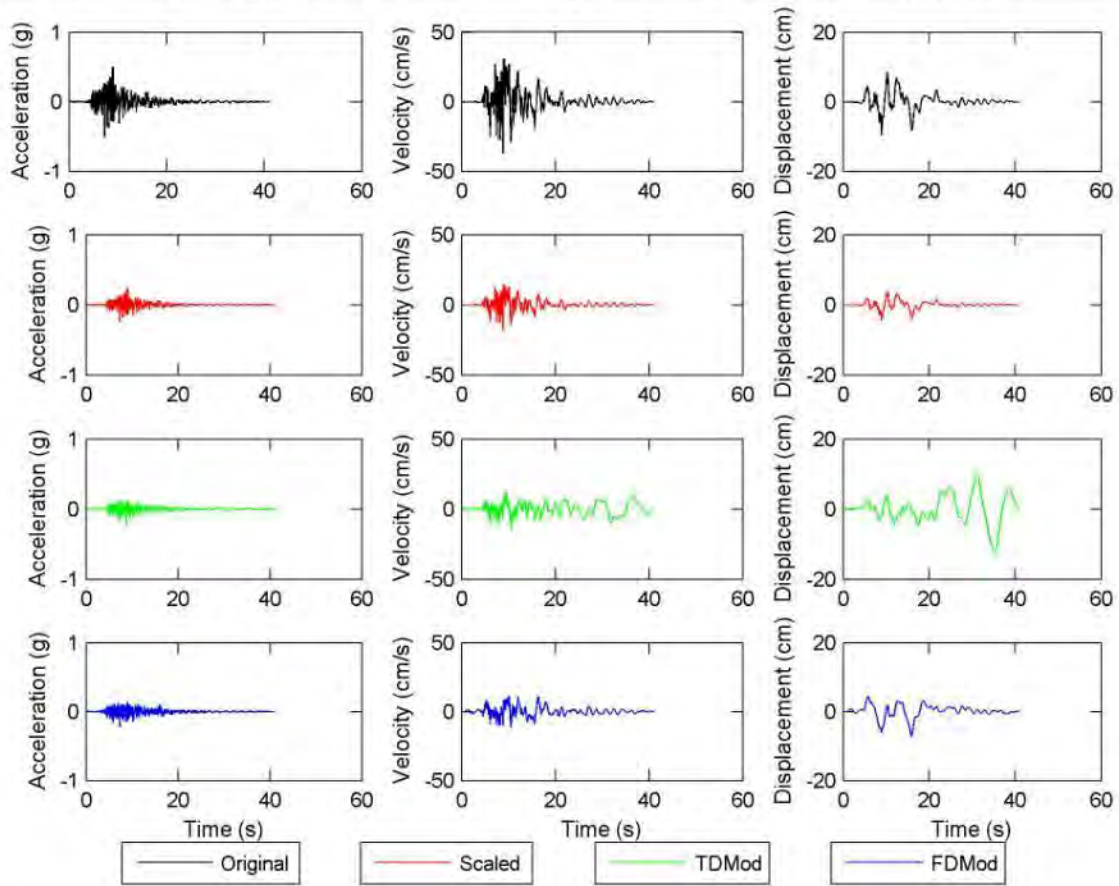Scale Factor: 0.62   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.175	0.109	0.218	0.218
PGV (cm/s)	49.0	30.4	16.6	12.2
PGD (cm)	31.1	19.3	12.0	4.6
I_a (cm/s)	119	46	54	81
D_{5-95} (s)	26.9	26.9	25.8	28.8
CAV (cm/s)	1384	858	868	1161
T_m (s)	0.84	0.84	0.50	0.39

Figure E.2. continued.

564

	Original	Scaled	TDMod	FDMod
PGA (g)	0.184	0.116	0.218	0.218
PGV (cm/s)	48.7	30.7	18.8	12.5
PGD (cm)	49.2	31.0	21.5	3.9
I_a (cm/s)	157	62	60	96
D_{5-95} (s)	29.0	29.0	28.6	31.8
CAV (cm/s)	1679	1058	986	1326
T_m (s)	0.97	0.97	0.55	0.40

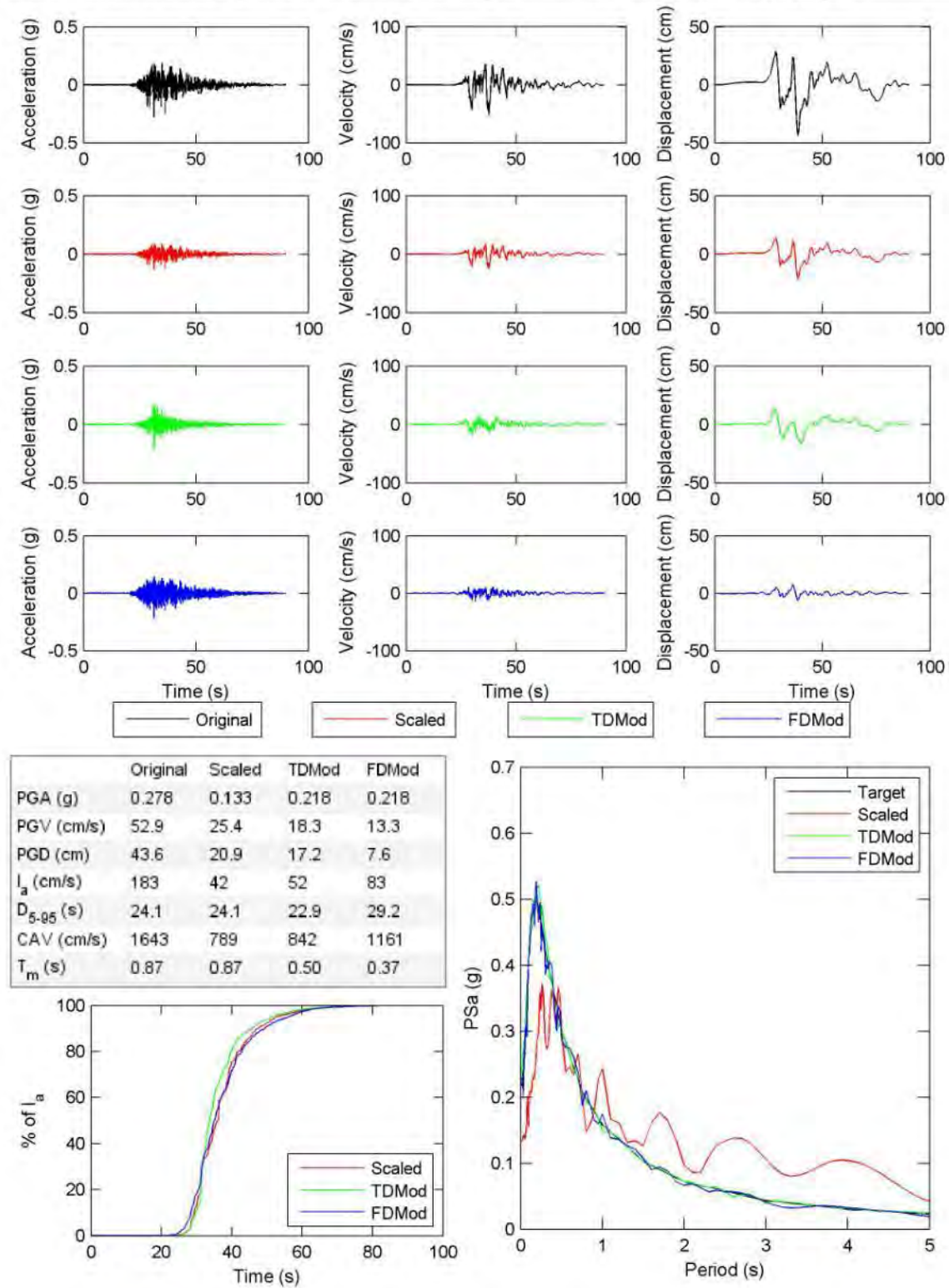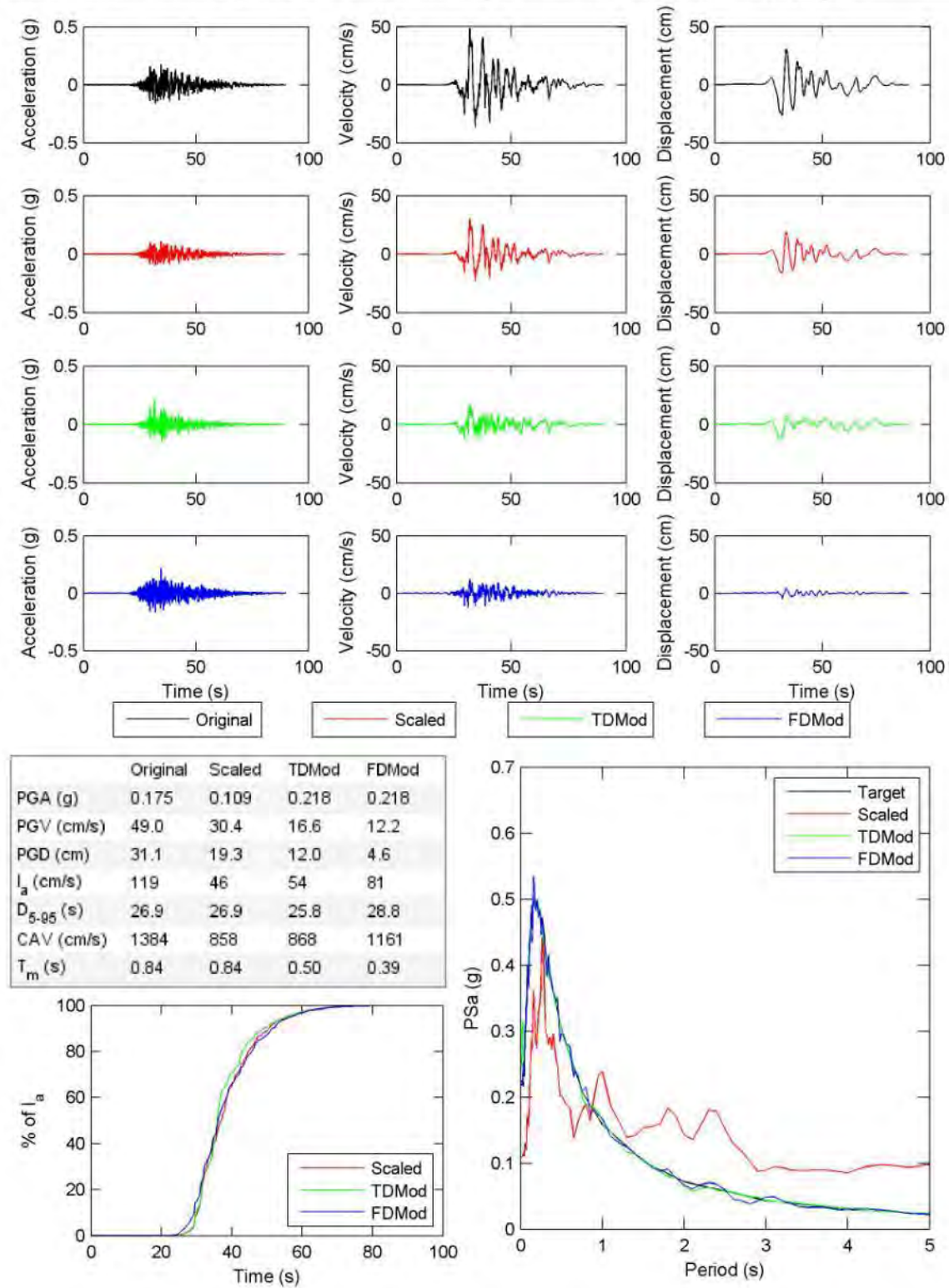**Figure E.2.** continued.

565

File Name: 1541 TCU116-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.70   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.104	0.218	0.218
PGV (cm/s)	45.4	31.8	17.6	13.5
PGD (cm)	30.1	21.1	12.6	5.8
I_a (cm/s)	113	55	67	100
D_{5-95} (s)	33.3	33.3	30.1	34.1
CAV (cm/s)	1473	1031	1054	1370
T_m (s)	1.04	1.04	0.53	0.39

Figure E.2. continued.

566

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.124	0.218	0.218
PGV (cm/s)	63.2	34.7	18.7	14.1
PGD (cm)	54.1	29.8	19.6	8.2
I_a (cm/s)	200	61	64	109
D_{5-95} (s)	32.6	32.6	32.4	32.9
CAV (cm/s)	1897	1043	1023	1420
T_m (s)	1.06	1.06	0.50	0.38

Figure E.2. continued.

567

	Original	Scaled	TDMod	FDMod
PGA (g)	0.193	0.121	0.218	0.218
PGV (cm/s)	36.9	23.3	19.2	14.6
PGD (cm)	33.3	21.0	14.6	4.2
I_a (cm/s)	133	53	69	102
D_{5-95} (s)	32.4	32.4	30.0	32.6
CAV (cm/s)	1582	997	1073	1372
T_m (s)	0.68	0.68	0.47	0.39

Figure E.2. continued.

568

	Original	Scaled	TDMod	FDMod
PGA (g)	0.220	0.132	0.218	0.218
PGV (cm/s)	42.5	25.5	20.9	12.8
PGD (cm)	43.0	25.8	28.3	3.8
I_a (cm/s)	144	52	65	90
D_{5-95} (s)	30.8	30.8	29.2	31.2
CAV (cm/s)	1577	946	1017	1246
T_m (s)	0.71	0.71	0.50	0.39

Figure E.2. continued.

569

	Original	Scaled	TDMod	FDMod
PGA (g)	0.261	0.154	0.218	0.218
PGV (cm/s)	34.1	20.1	15.9	12.7
PGD (cm)	36.1	21.3	12.7	10.0
I_a (cm/s)	154	53	64	95
D_{5-95} (s)	30.3	30.3	28.7	30.5
CAV (cm/s)	1562	922	983	1238
T_m (s)	0.68	0.68	0.47	0.35

Figure E.2. continued.

570

File Name: 1551 TCU138-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.57   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
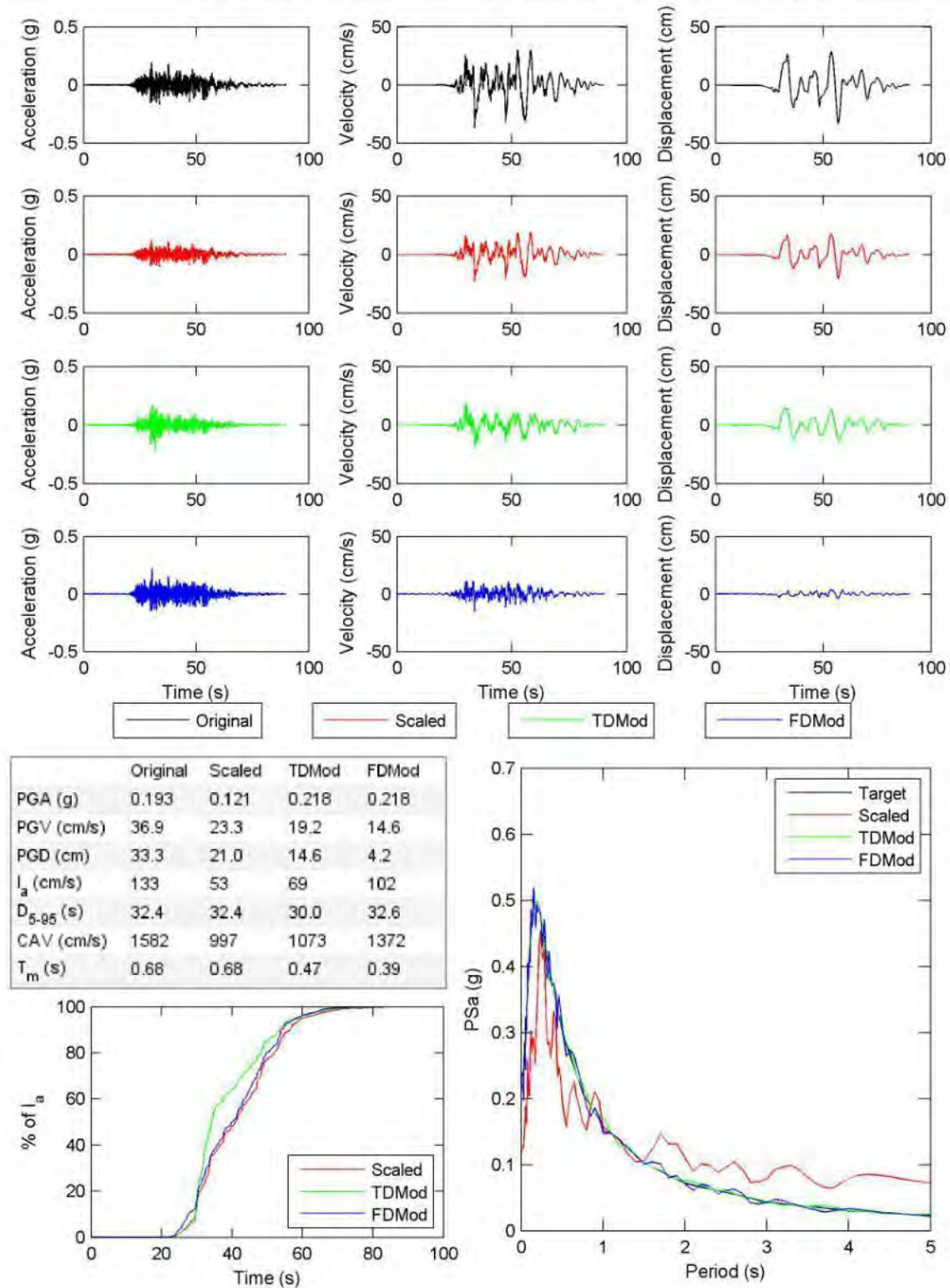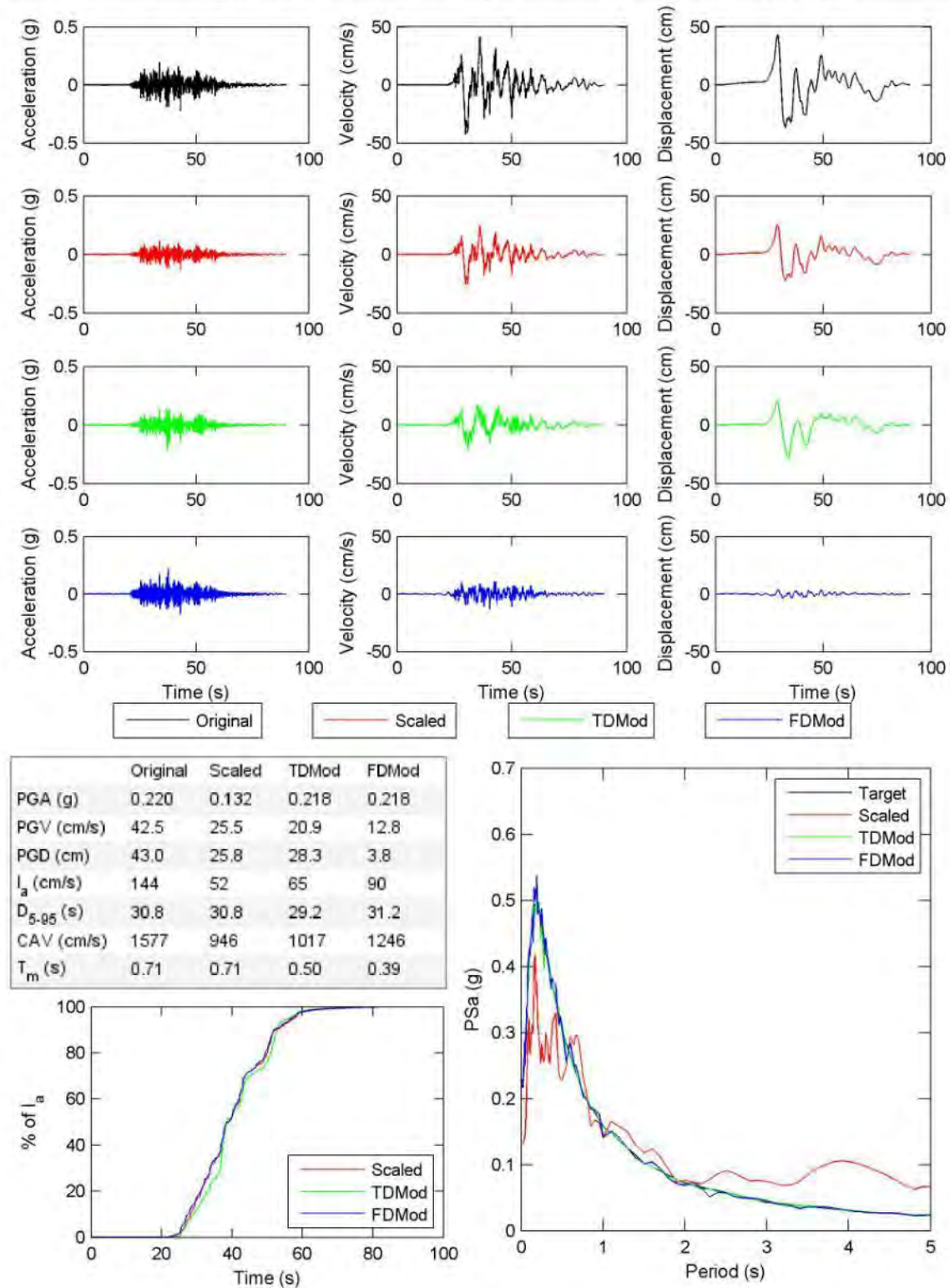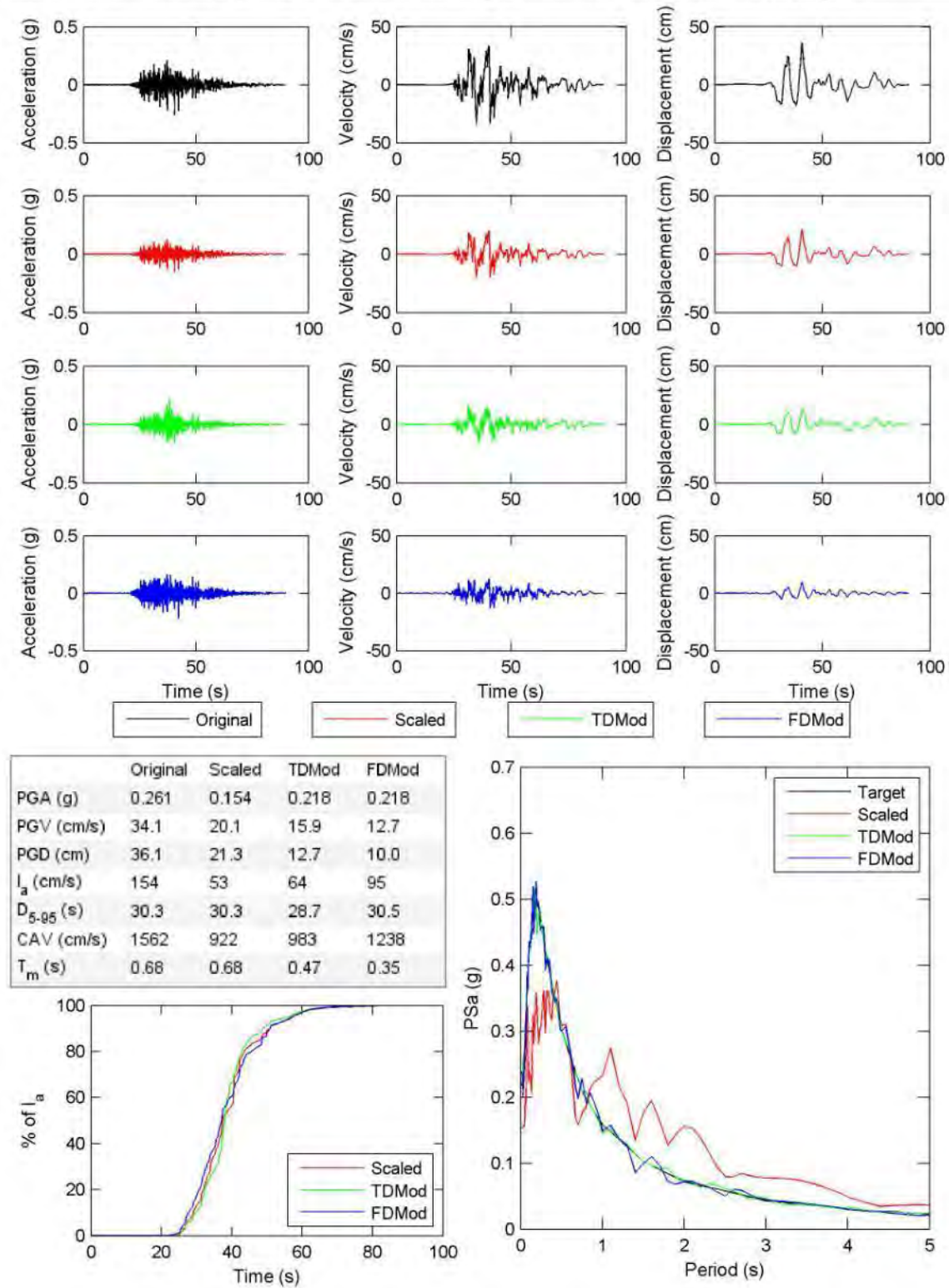

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.128	0.218	0.218
PGV (cm/s)	40.9	23.3	17.8	16.3
PGD (cm)	26.1	14.9	13.9	4.3
I_a (cm/s)	167	54	60	105
D_{5-95} (s)	32.1	32.1	31.2	34.4
CAV (cm/s)	1883	1073	1067	1545
T_m (s)	0.96	0.96	0.54	0.34

Figure E.2. continued.

571

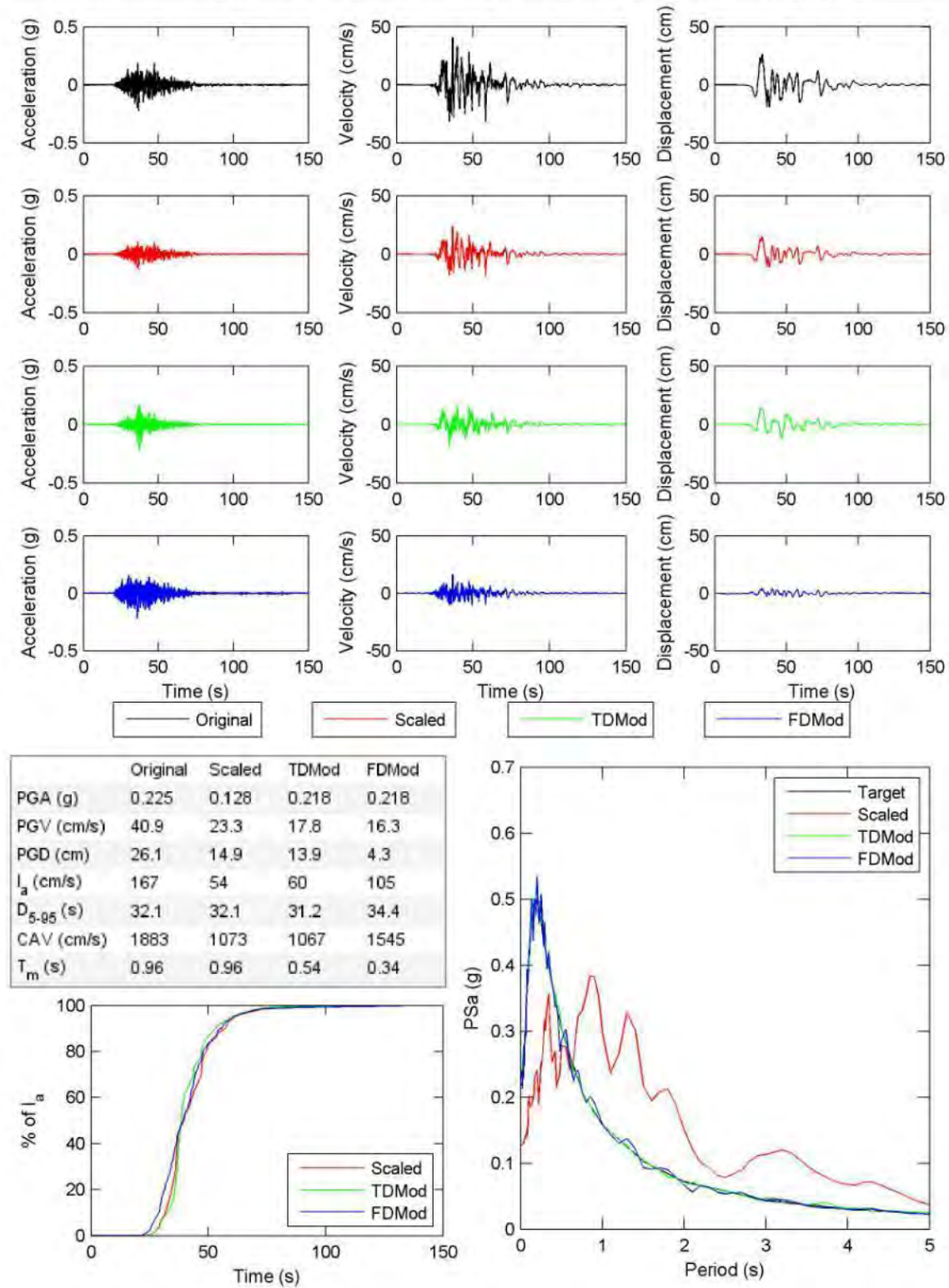|	Original	Scaled	TDMod	FDMod
PGA (g)	0.195	0.125	0.218	0.218
PGV (cm/s)	41.0	26.2	21.9	14.9
PGD (cm)	36.4	23.3	17.9	4.3
I_a (cm/s)	160	66	70	122
D_{5-95} (s)	34.1	34.1	33.8	35.4
CAV (cm/s)	1852	1185	1180	1643
T_m (s)	0.71	0.71	0.50	0.36

Figure E.2. continued.

572

File Name: 1614 1061-E   Start and End Taper Percentage: 1.0% and 5.0%
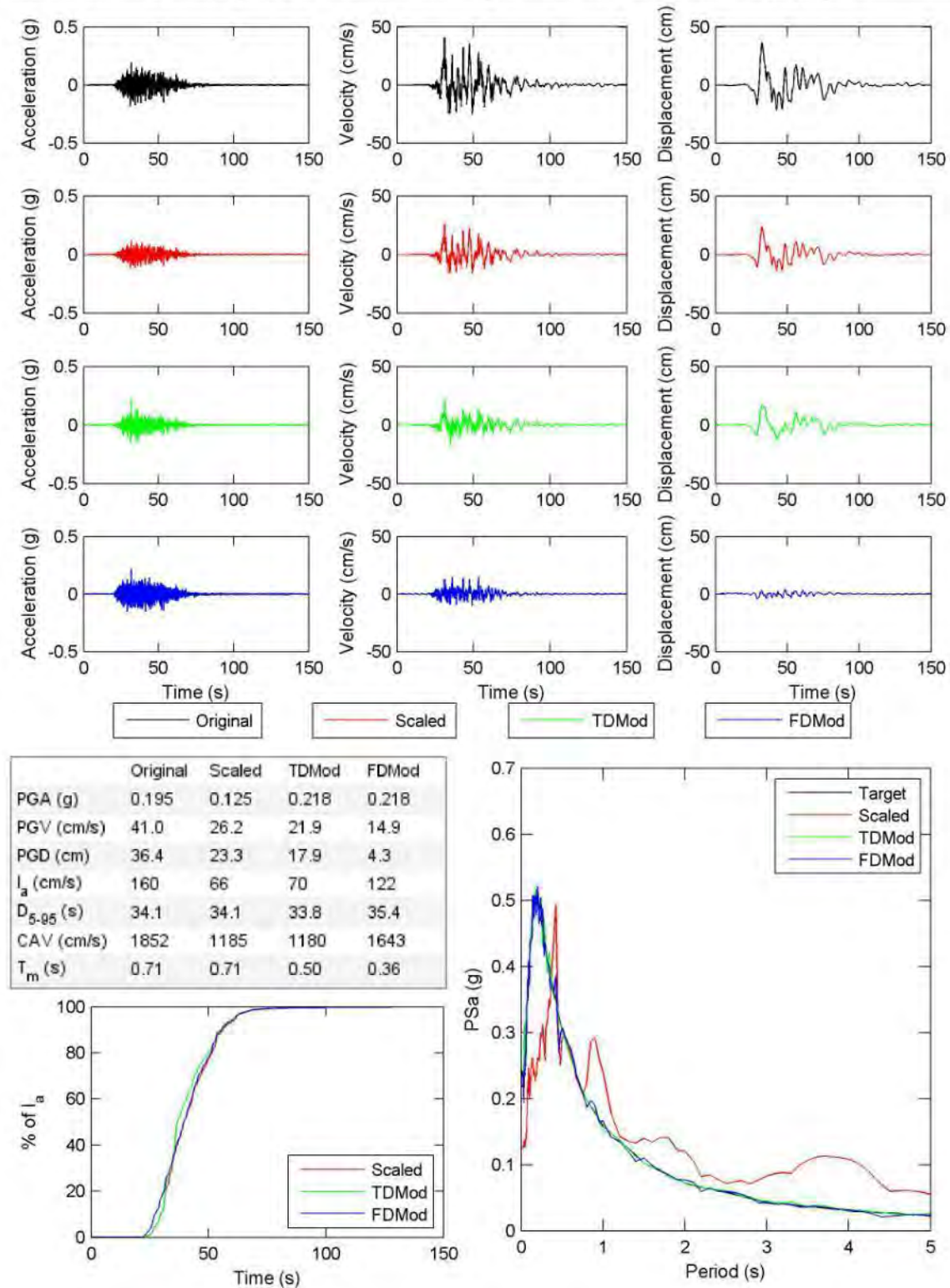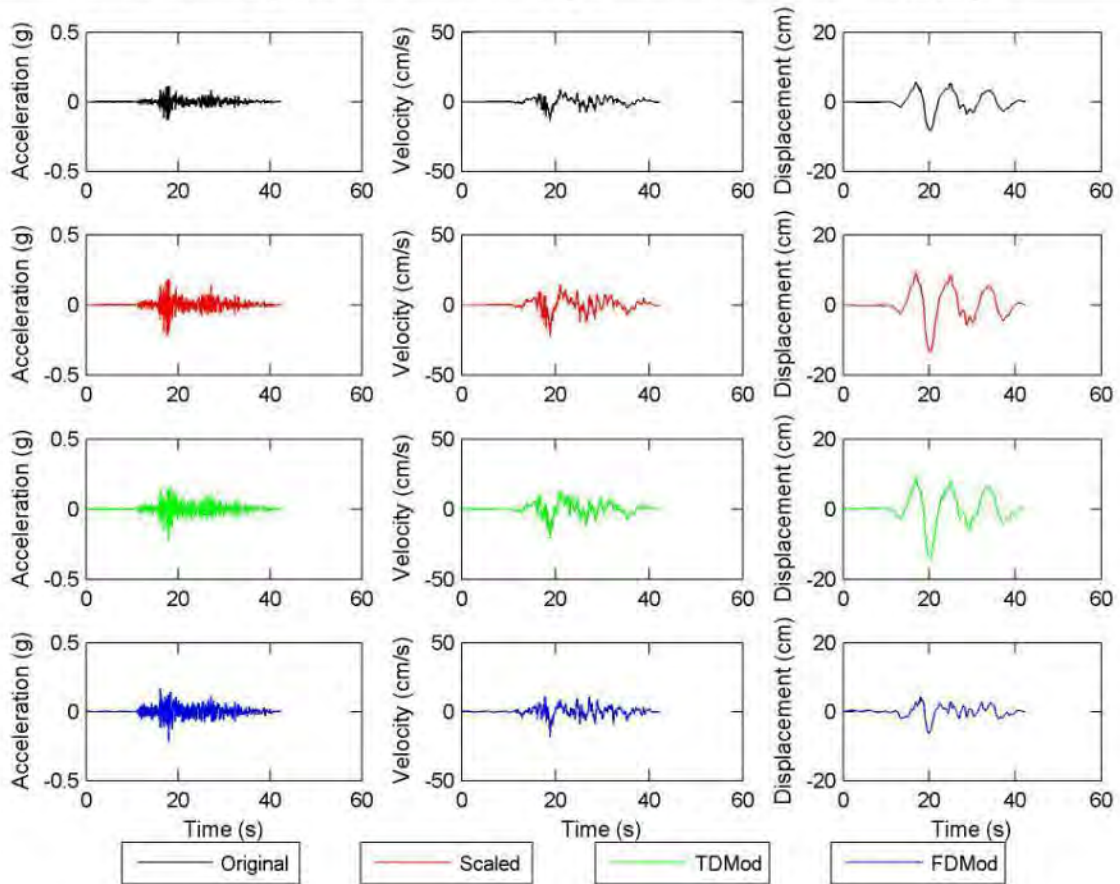Scale Factor: 1.63   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.218	0.218	0.218
PGV (cm/s)	13.7	22.3	20.6	18.5
PGD (cm)	8.2	13.4	14.0	6.1
I_a (cm/s)	25	65	52	50
D_{5-95} (s)	15.6	15.6	16.3	17.7
CAV (cm/s)	433	705	676	696
T_m (s)	0.41	0.41	0.44	0.44

Figure E.2. continued.

573

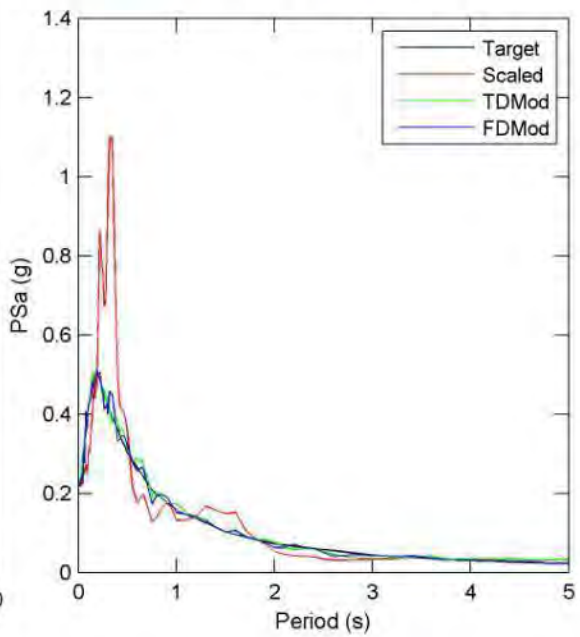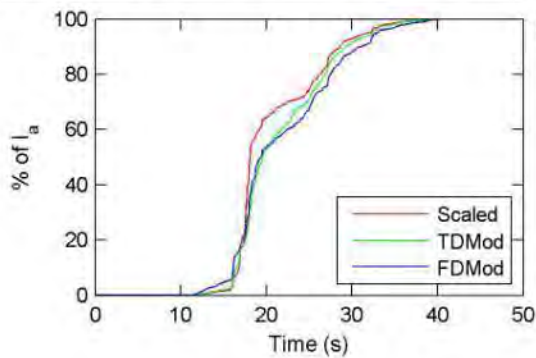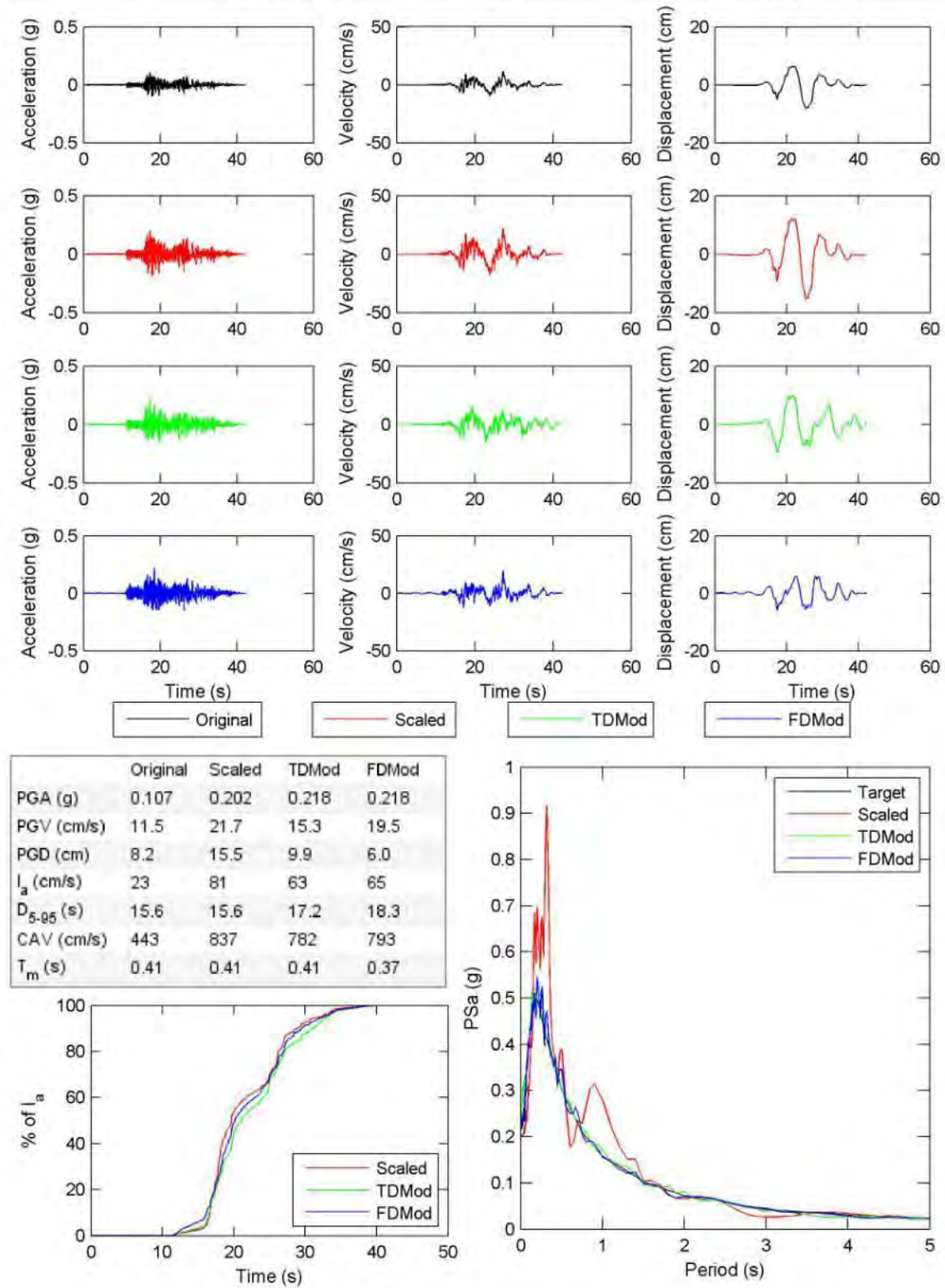|	Original	Scaled	TDMod	FDMod
PGA (g)	0.107	0.202	0.218	0.218
PGV (cm/s)	11.5	21.7	15.3	19.5
PGD (cm)	8.2	15.5	9.9	6.0
I_a (cm/s)	23	81	63	65
D_{5-95} (s)	15.6	15.6	17.2	18.3
CAV (cm/s)	443	837	782	793
T_m (s)	0.41	0.41	0.41	0.37

Figure E.2. continued.

574

File Name: 1618 531-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.52   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.118	0.179	0.218	0.218
PGV (cm/s)	14.0	21.3	16.2	13.1
PGD (cm)	9.5	14.5	14.8	5.8
I_a (cm/s)	41	96	58	60
D_{5-95} (s)	15.1	15.1	18.7	18.0
CAV (cm/s)	613	932	743	759
T_m (s)	0.47	0.47	0.44	0.39

Figure E.2. continued.

575

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.250	0.218	0.218
PGV (cm/s)	13.0	20.3	16.0	17.8
PGD (cm)	7.9	12.3	16.1	8.0
I_a (cm/s)	45	110	76	65
D_{5-95} (s)	14.5	14.5	16.9	16.9
CAV (cm/s)	618	970	888	778
T_m (s)	0.35	0.35	0.38	0.37

Figure E.2. continued.

576

File Name: 1787 HEC000   Start and End Taper Percentage: 1.0% and 5.0%
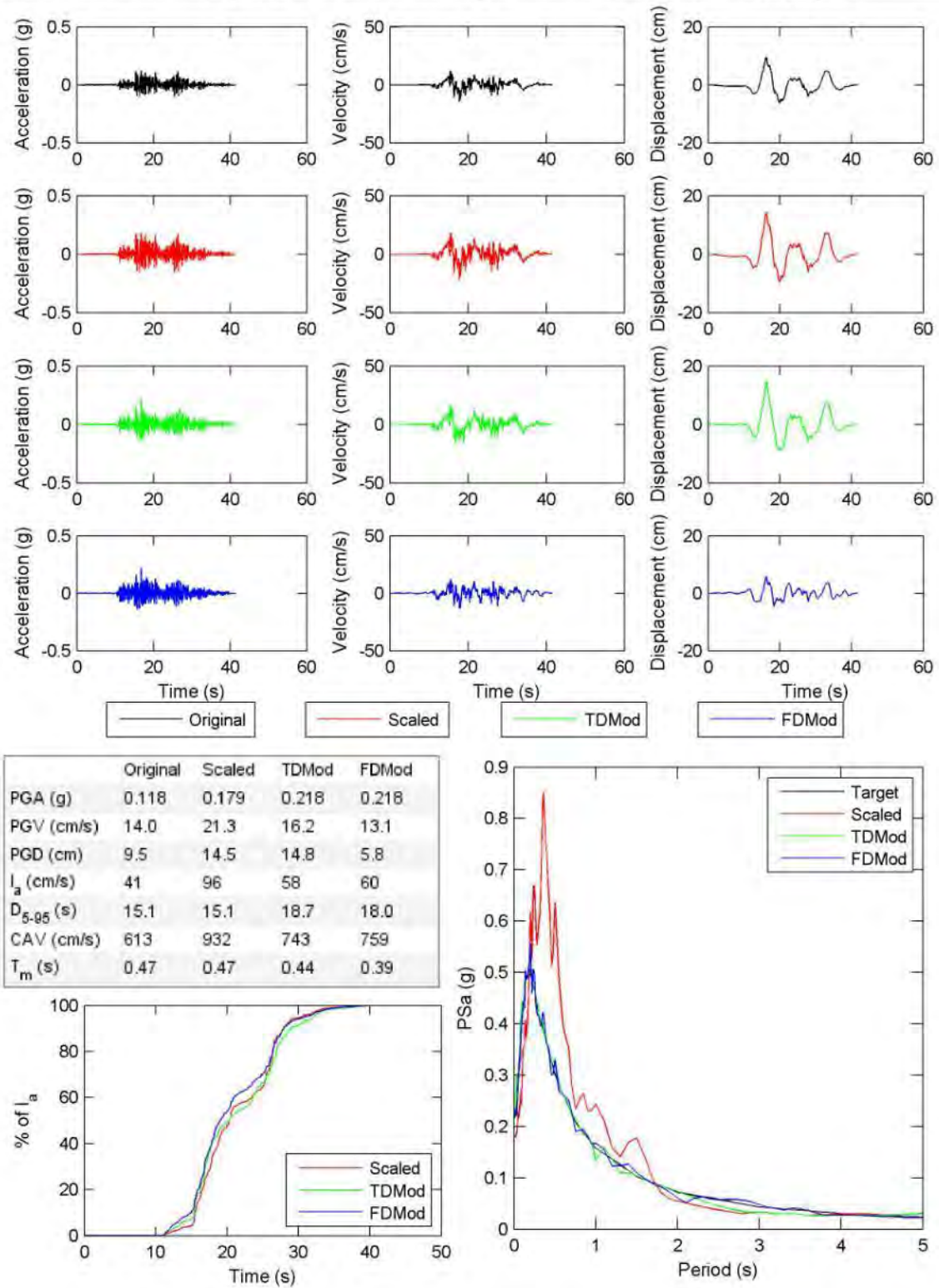Scale Factor: 0.76   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

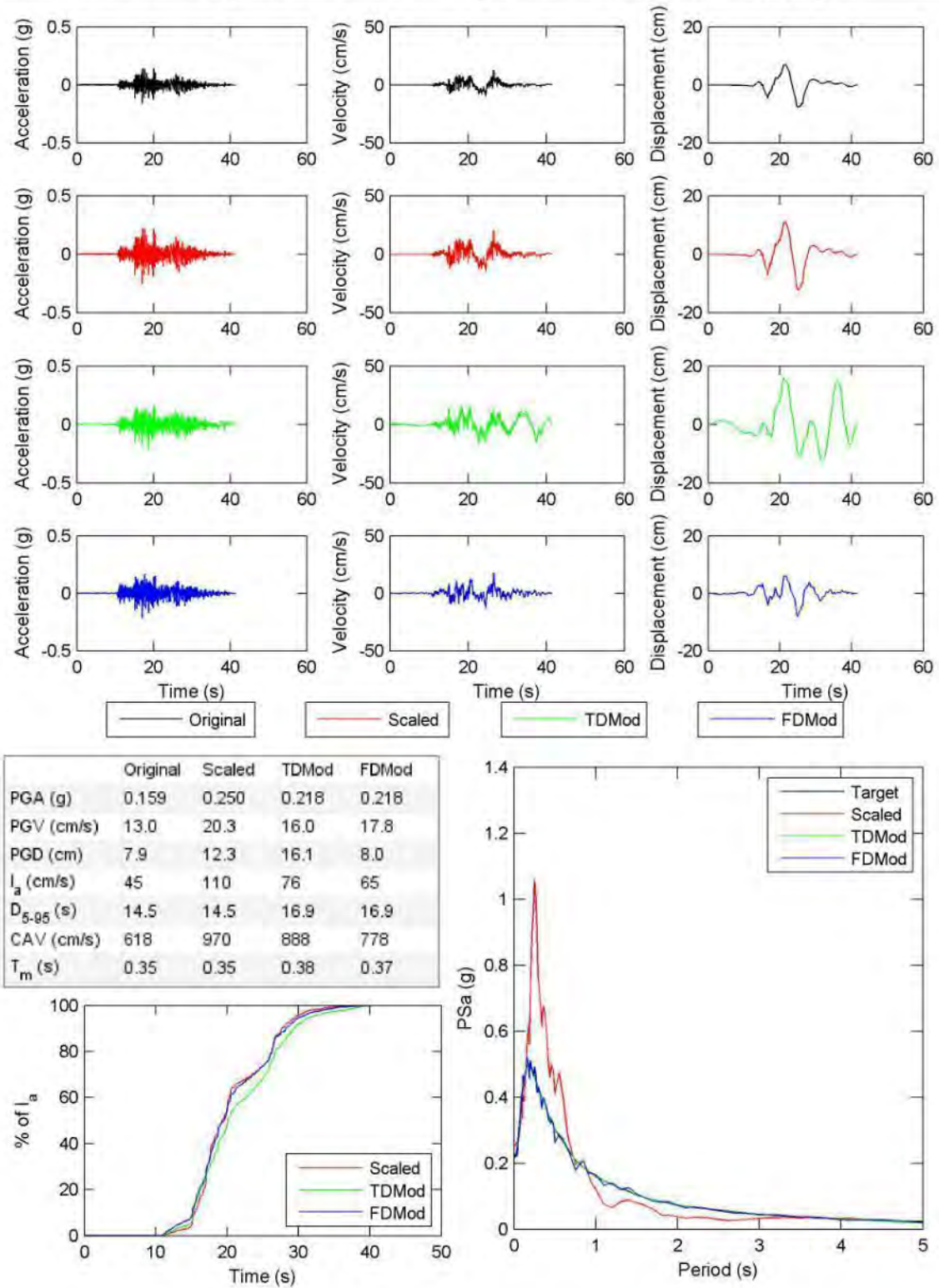|	Original	Scaled	TDMod	FDMod
PGA (g)	0.266	0.202	0.218	0.218
PGV (cm/s)	28.6	21.7	17.3	13.8
PGD (cm)	22.5	17.1	12.4	6.5
I_a (cm/s)	83	48	44	52
D_{5-95} (s)	11.7	11.7	13.1	12.5
CAV (cm/s)	794	604	590	645
T_m (s)	0.61	0.61	0.47	0.39

Figure E.2. continued.

577

File Name: 1787 HEC090   Start and End Taper Percentage: 1.0% and 5.0%
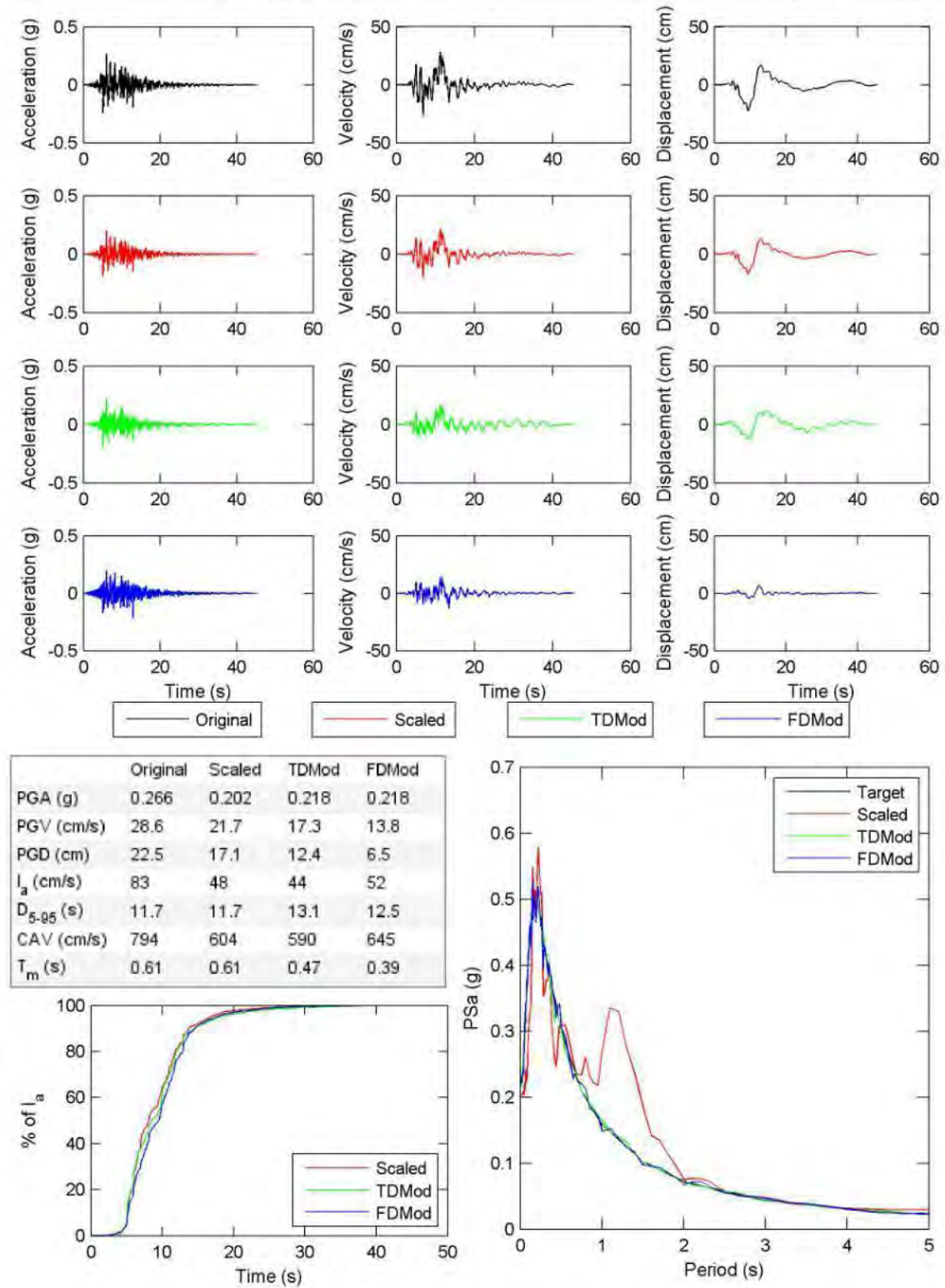Scale Factor: 0.54   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

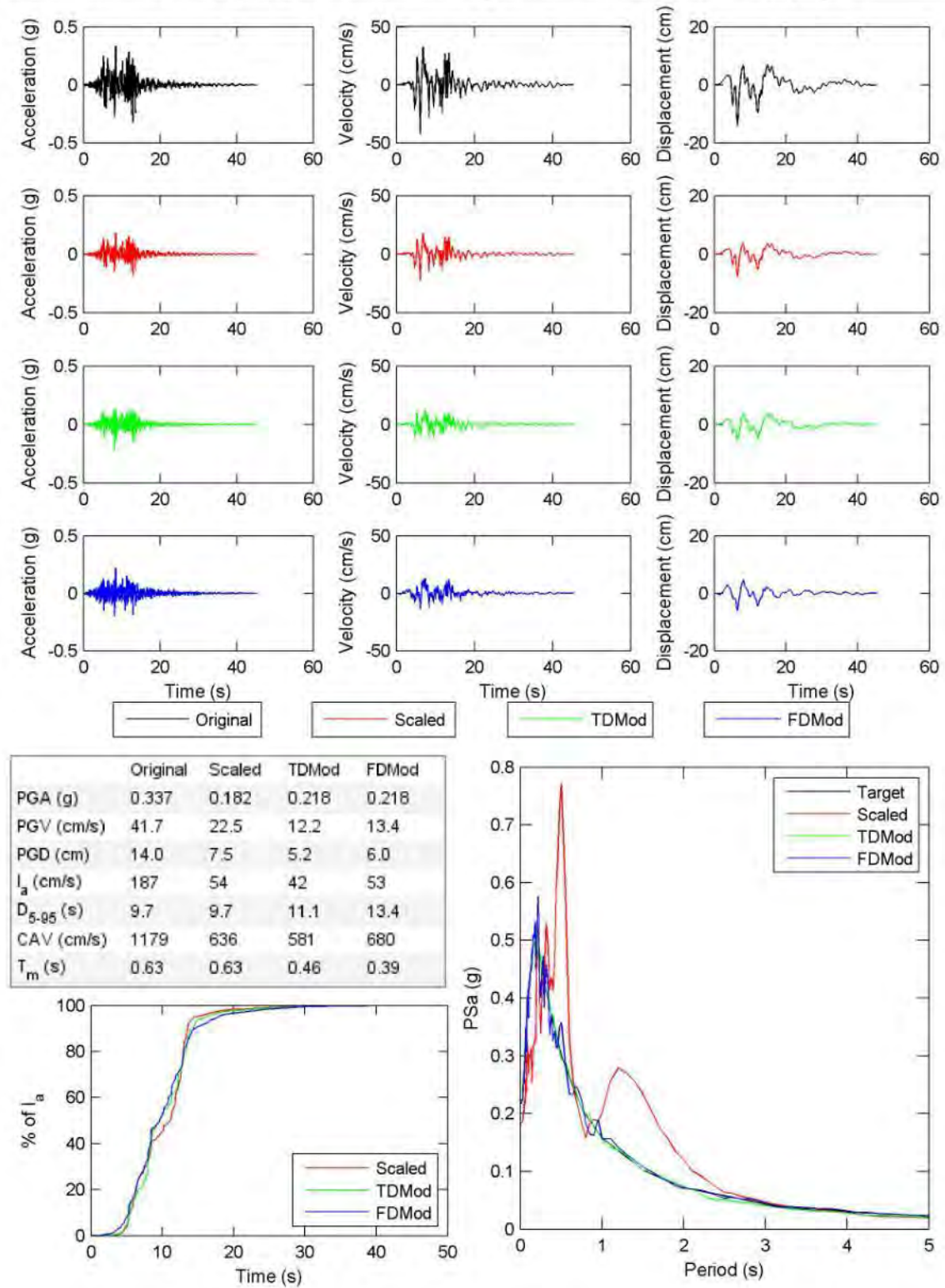|	Original	Scaled	TDMod	FDMod
PGA (g)	0.337	0.182	0.218	0.218
PGV (cm/s)	41.7	22.5	12.2	13.4
PGD (cm)	14.0	7.5	5.2	6.0
I_a (cm/s)	187	54	42	53
D_{5-95} (s)	9.7	9.7	11.1	13.4
CAV (cm/s)	1179	636	581	680
T_m (s)	0.63	0.63	0.46	0.39

Figure E.2. continued.

578

File Name: 284 A-AUL000   Start and End Taper Percentage: 1.0% and 5.0%
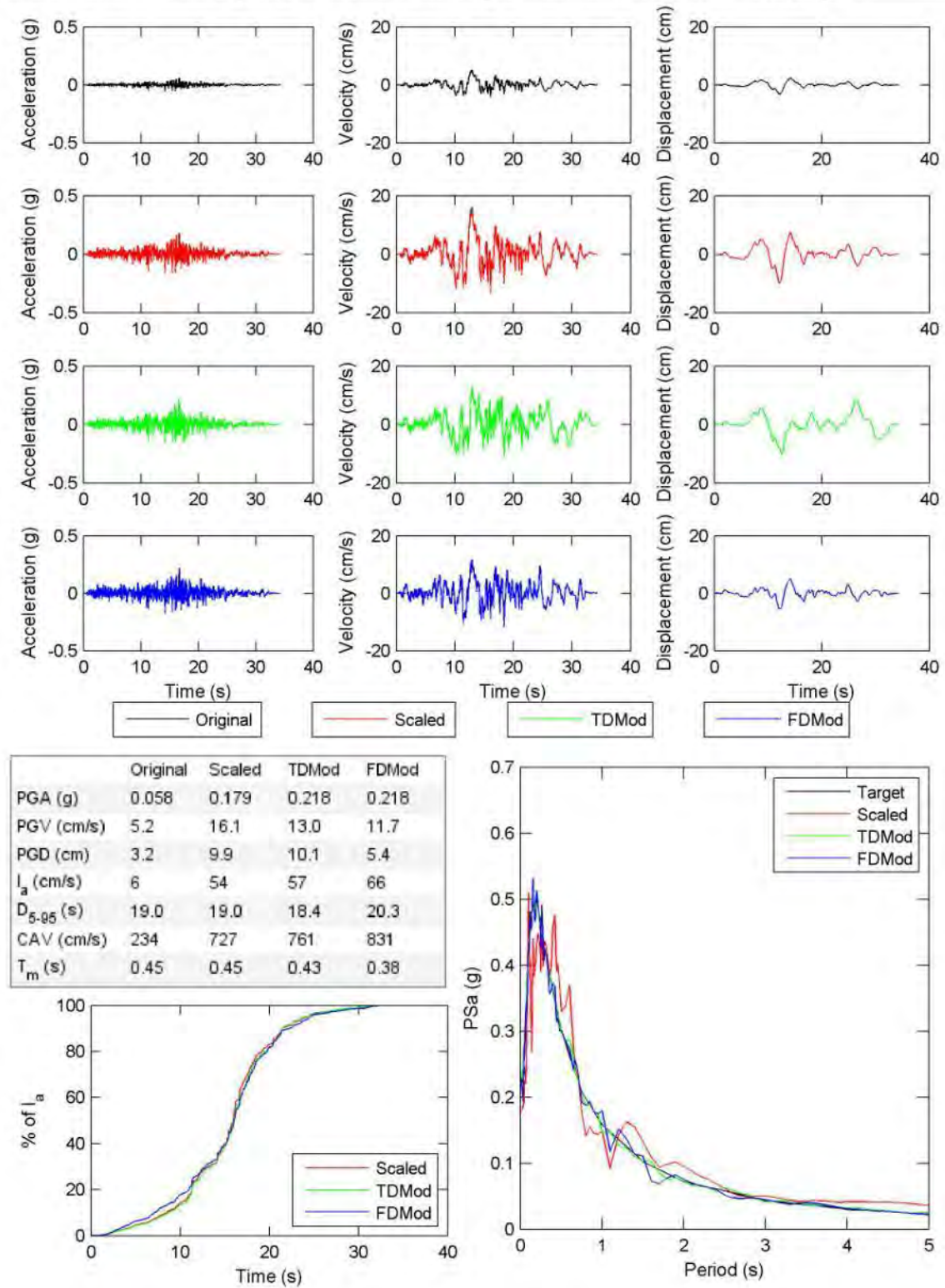Scale Factor: 3.11   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

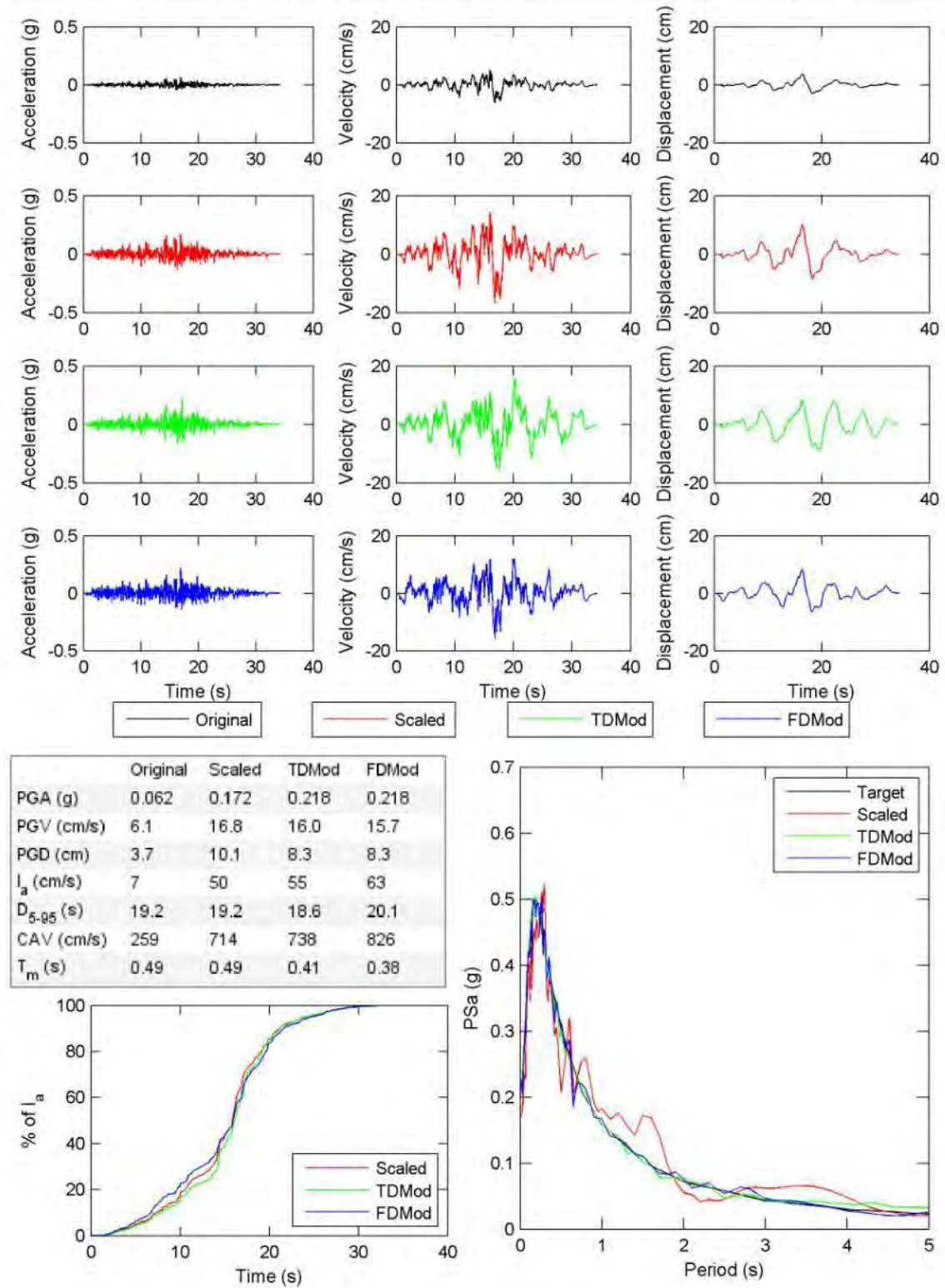|	Original	Scaled	TDMod	FDMod
PGA (g)	0.058	0.179	0.218	0.218
PGV (cm/s)	5.2	16.1	13.0	11.7
PGD (cm)	3.2	9.9	10.1	5.4
I_a (cm/s)	6	54	57	66
D_{5-95} (s)	19.0	19.0	18.4	20.3
CAV (cm/s)	234	727	761	831
T_m (s)	0.45	0.45	0.43	0.38

Figure E.2. continued.

579

Figure E.2. continued.

580

File Name: 285 A-BAG000   Start and End Taper Percentage: 1.0% and 5.0%
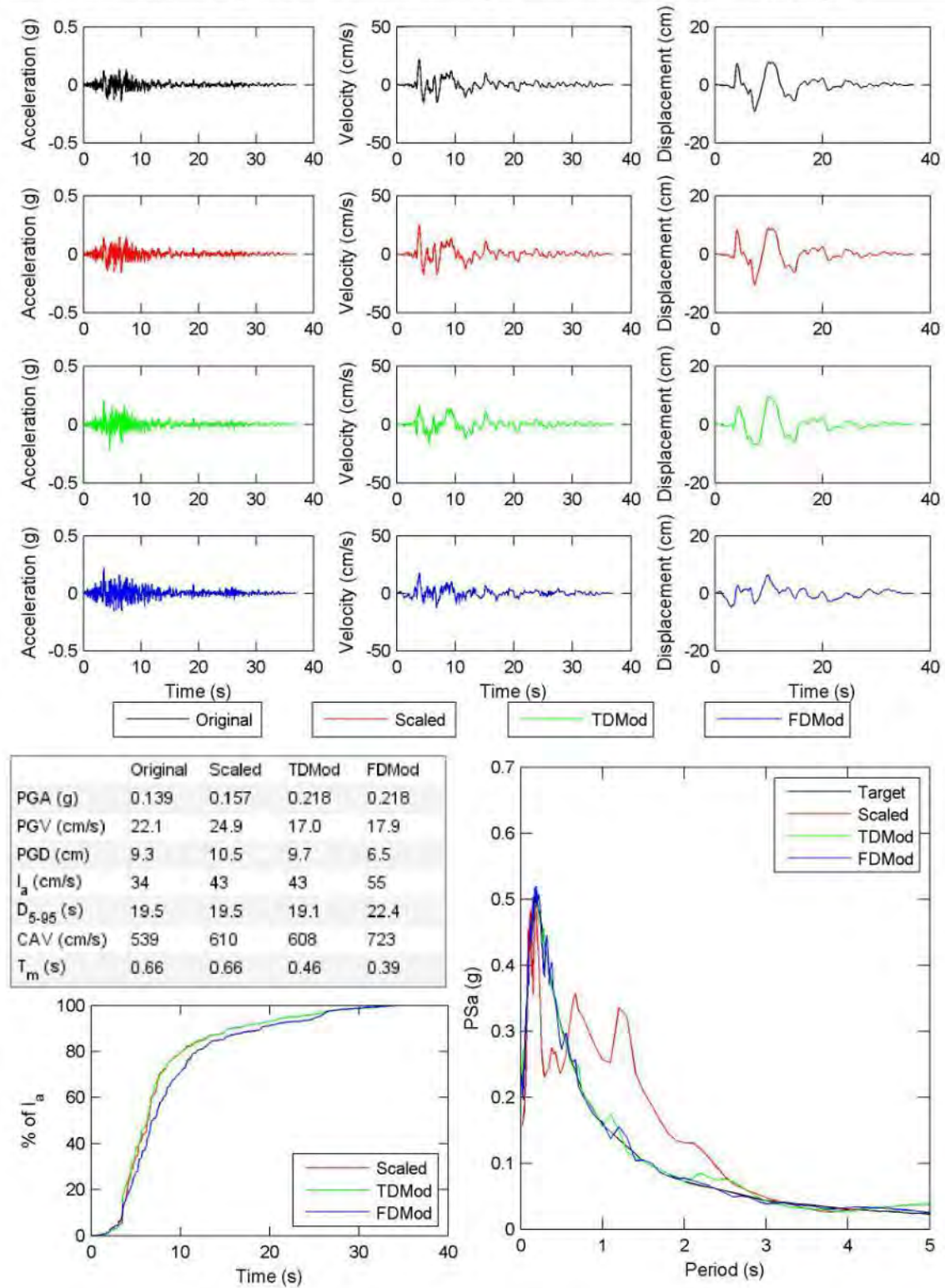Scale Factor: 1.13   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.139	0.157	0.218	0.218
PGV (cm/s)	22.1	24.9	17.0	17.9
PGD (cm)	9.3	10.5	9.7	6.5
I_a (cm/s)	34	43	43	55
D_{5-95} (s)	19.5	19.5	19.1	22.4
CAV (cm/s)	539	610	608	723
T_m (s)	0.66	0.66	0.46	0.39

Figure E.2. continued.

581

Figure E.2. continued.

582

Figure E.2. continued.

583

File Name: 286 A-BIS270   Start and End Taper Percentage: 1.0% and 5.0%
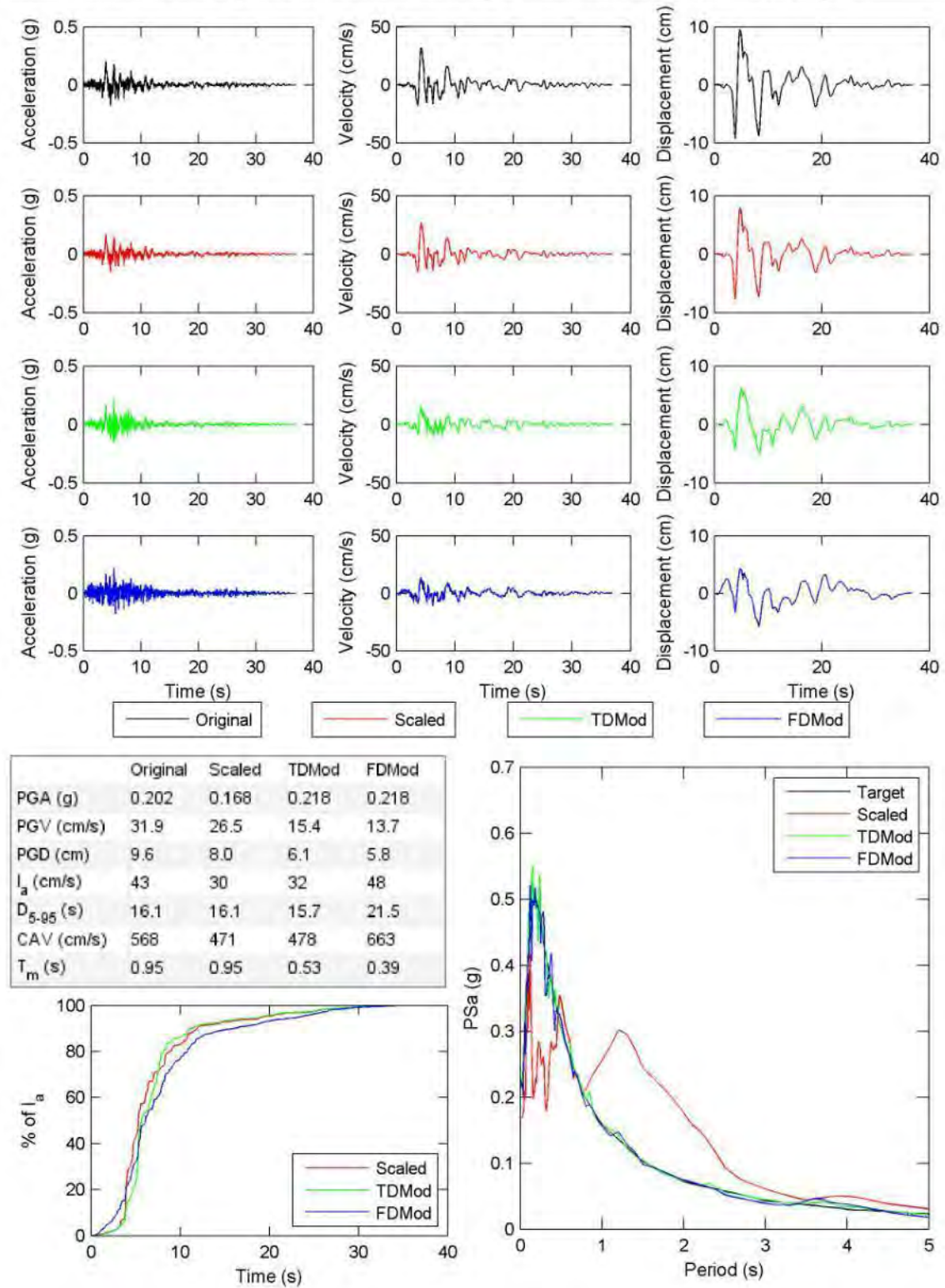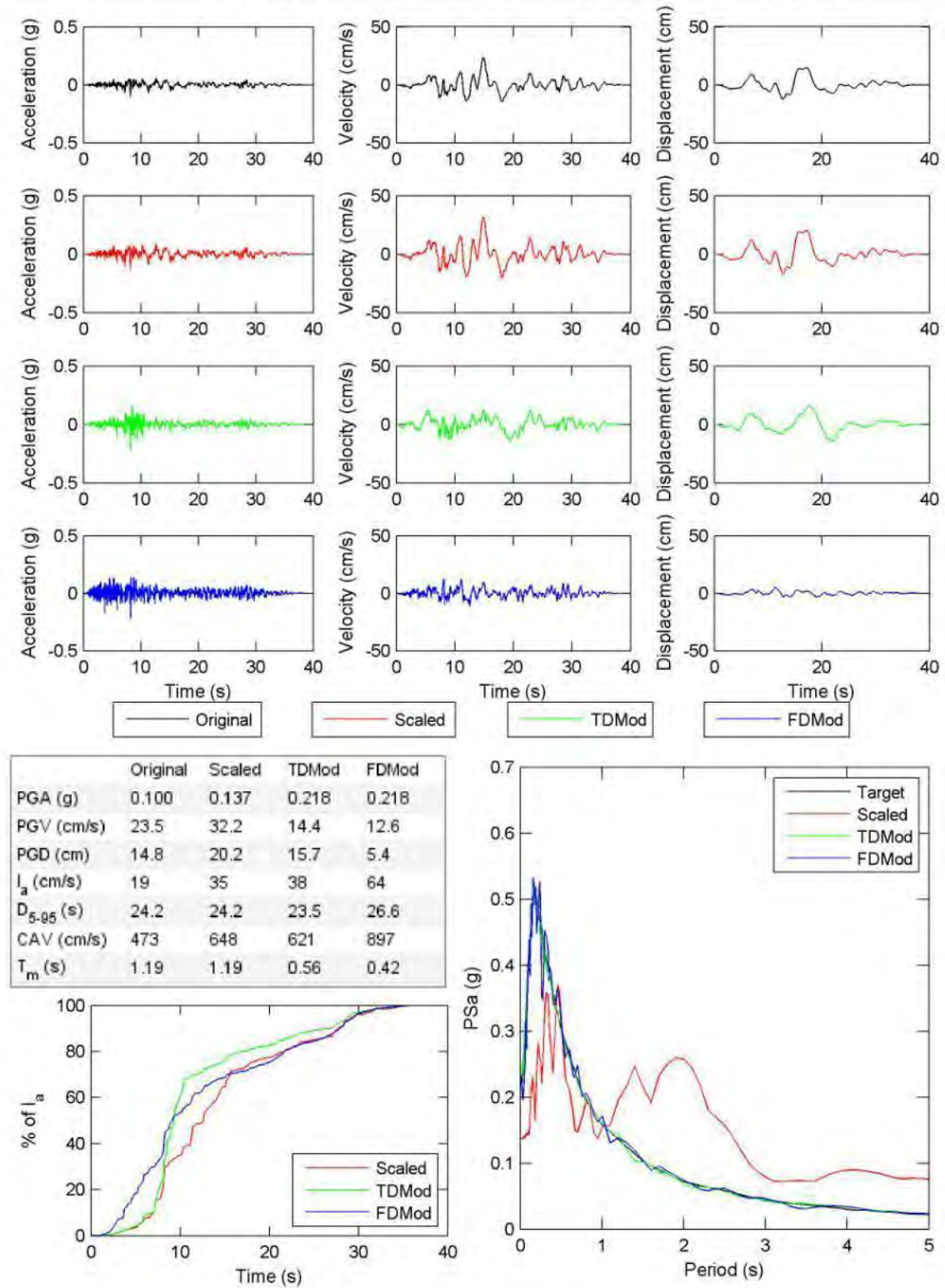Scale Factor: 2.09   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.083	0.174	0.218	0.218
PGV (cm/s)	12.5	26.1	20.0	16.4
PGD (cm)	2.9	6.1	23.0	5.1
I_a (cm/s)	14	61	49	60
D_{5-95} (s)	26.1	26.1	24.4	26.0
CAV (cm/s)	410	857	725	852
T_m (s)	1.01	1.01	0.49	0.43

Figure E.2. continued.

584

	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.147	0.218	0.218
PGV (cm/s)	16.4	18.3	12.8	12.5
PGD (cm)	4.7	5.2	4.5	5.5
I_a (cm/s)	58	71	58	64
D_{5-95} (s)	23.3	23.3	24.6	24.7
CAV (cm/s)	819	909	820	868
T_m (s)	0.75	0.75	0.52	0.43

Figure E.2. continued.

585

File Name: 289 A-CTR270   Start and End Taper Percentage: 1.0% and 5.0%
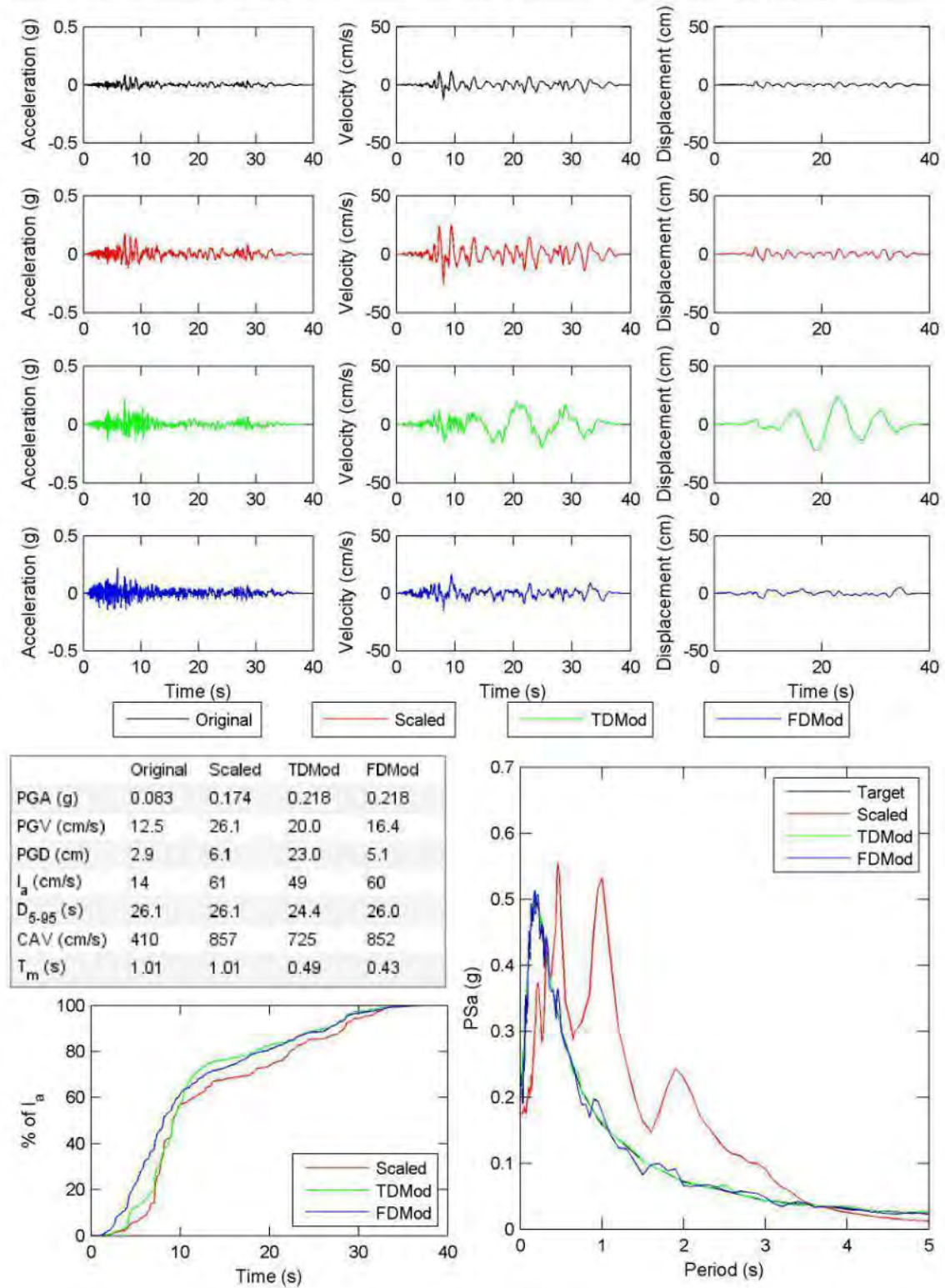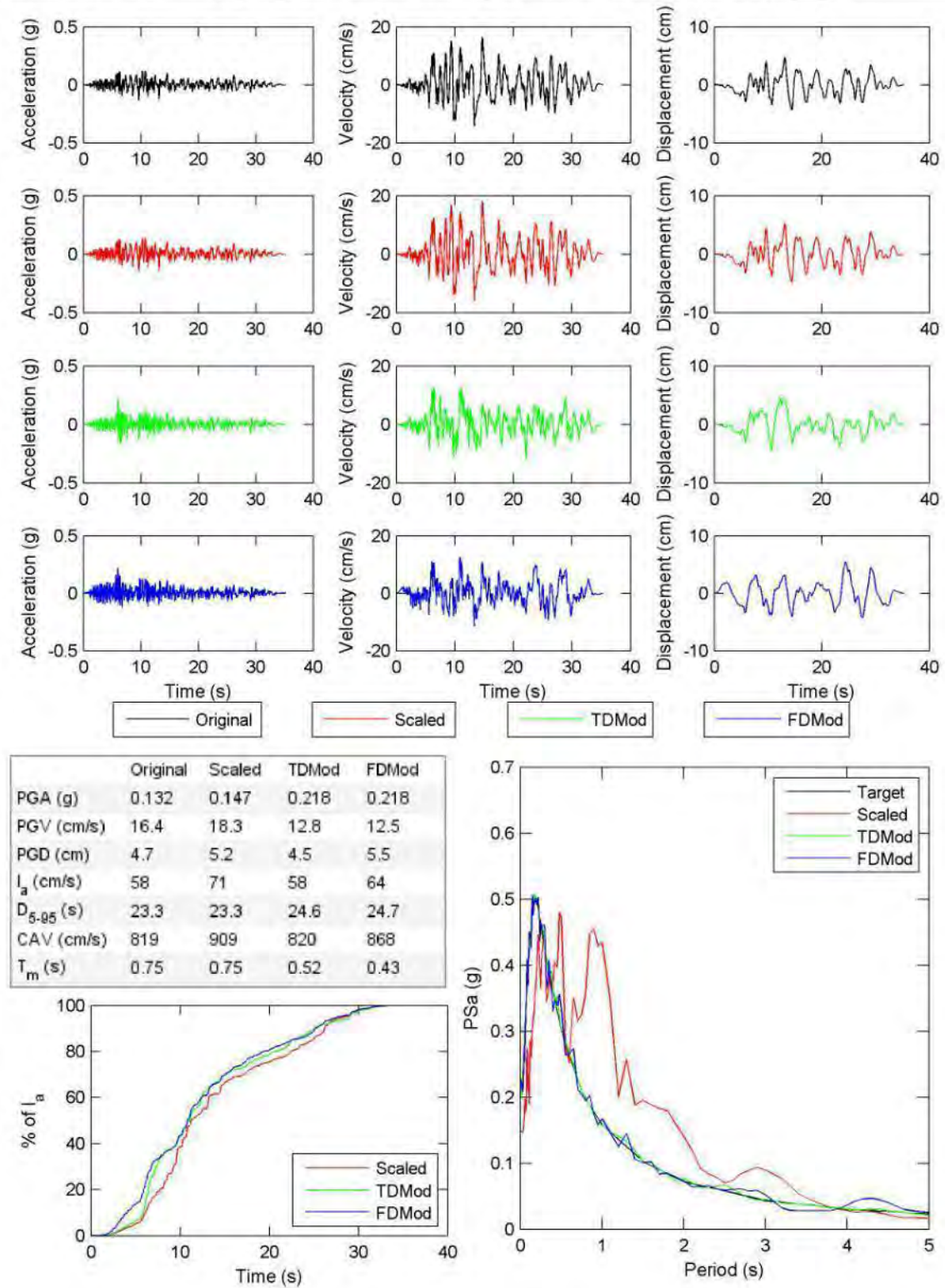Scale Factor: 0.98   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.176	0.172	0.218	0.218
PGV (cm/s)	18.4	18.0	15.4	12.3
PGD (cm)	4.9	4.8	5.5	5.7
I_a (cm/s)	81	78	60	82
D_{5-95} (s)	24.2	24.2	24.7	24.6
CAV (cm/s)	979	959	844	996
T_m (s)	0.74	0.74	0.52	0.38

Figure E.2. continued.

586

File Name: 291 A-VLT000   Start and End Taper Percentage: 1.0% and 5.0%
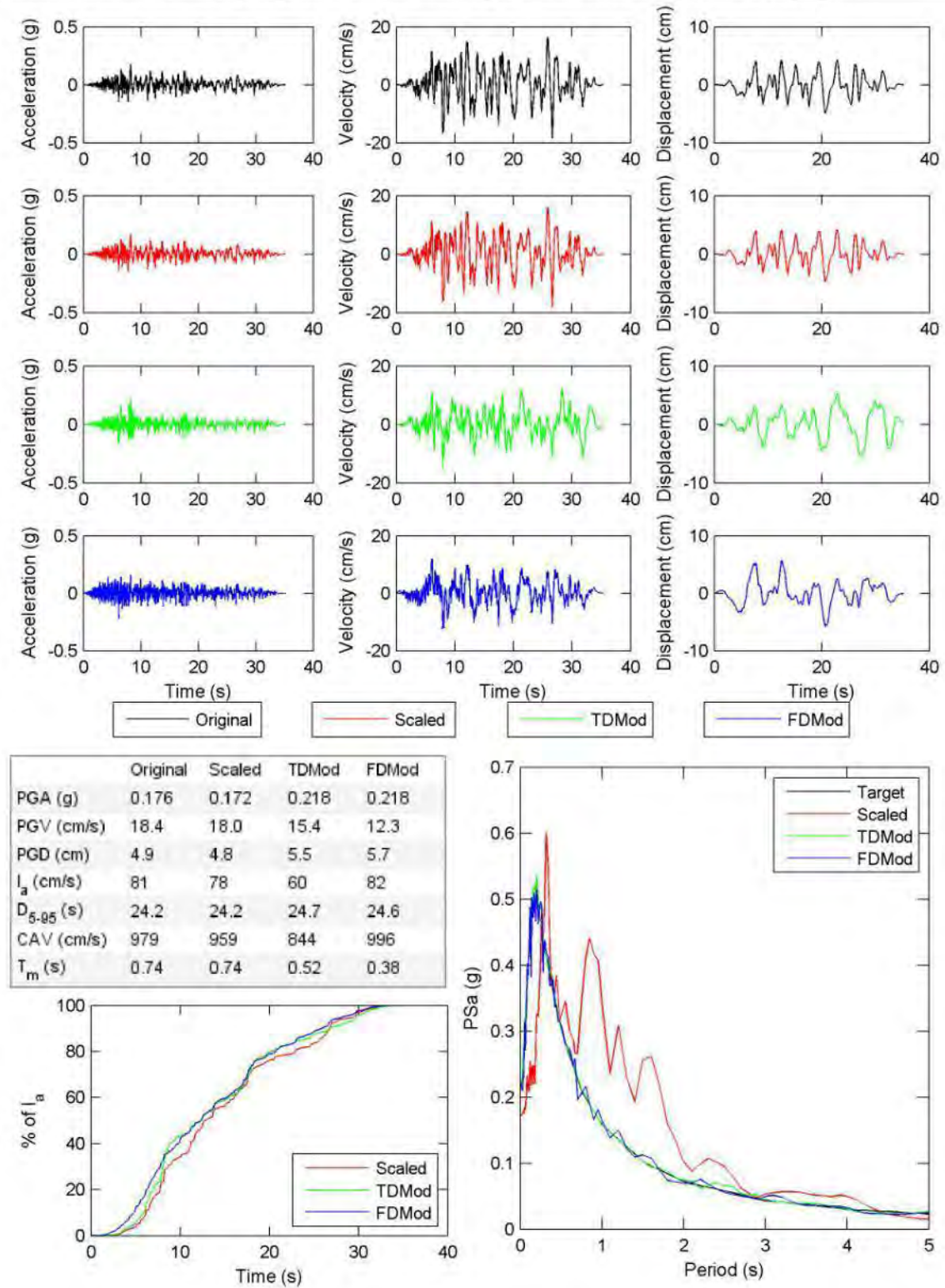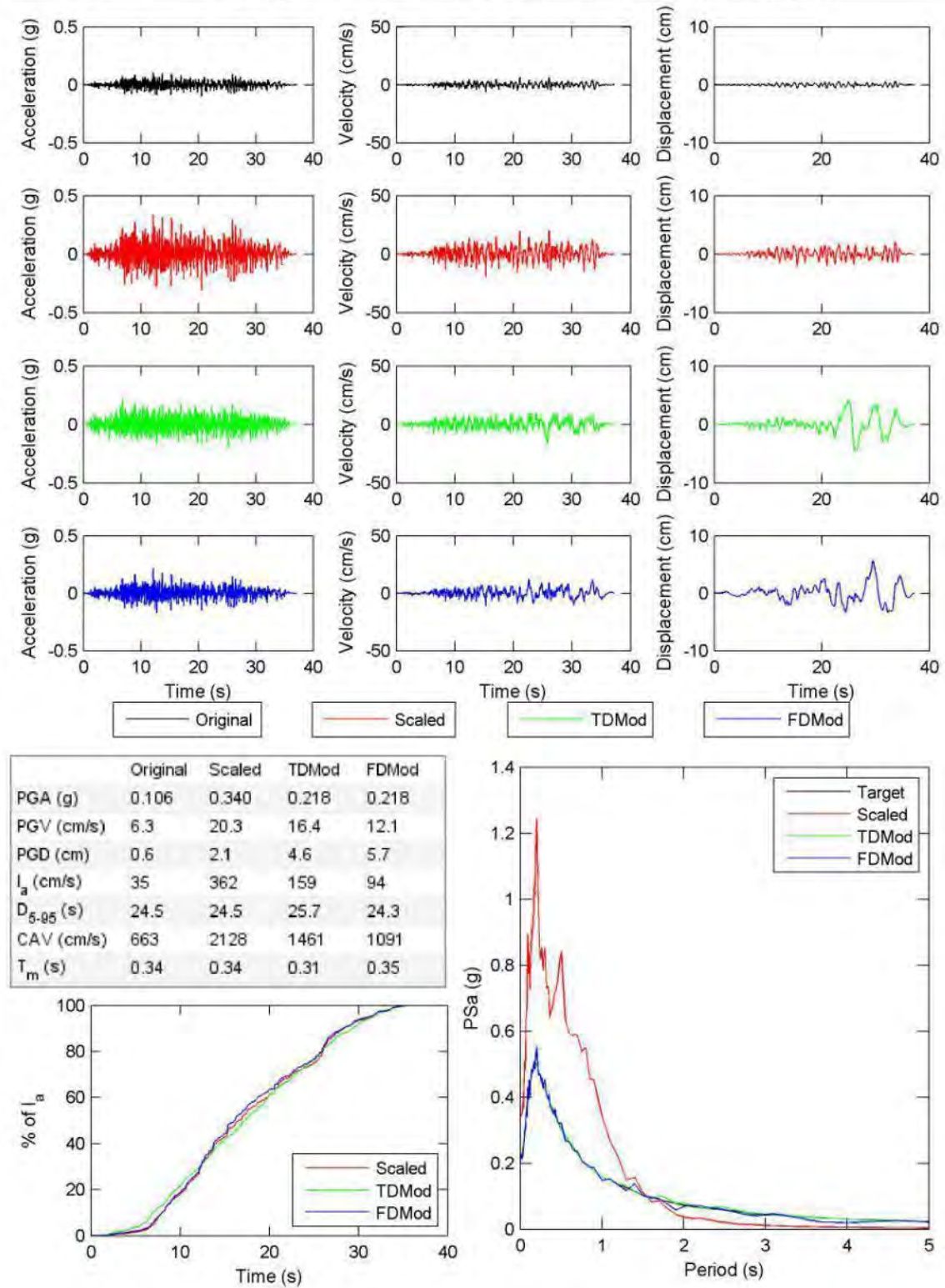Scale Factor: 3.21   Target Spectrum Matched: targetAttenMed.txt   FD poly: 9   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.106	0.340	0.218	0.218
PGV (cm/s)	6.3	20.3	16.4	12.1
PGD (cm)	0.6	2.1	4.6	5.7
I_a (cm/s)	35	362	159	94
D_{5-95} (s)	24.5	24.5	25.7	24.3
CAV (cm/s)	663	2128	1461	1091
T_m (s)	0.34	0.34	0.31	0.35

Figure E.2. continued.

587

	Original	Scaled	TDMod	FDMod
PGA (g)	0.104	0.230	0.185	0.218
PGV (cm/s)	6.1	13.5	14.8	12.6
PGD (cm)	1.2	2.7	6.9	4.6
I_a (cm/s)	32	157	126	101
D_{5-95} (s)	25.0	25.0	25.5	25.4
CAV (cm/s)	639	1419	1291	1138
T_m (s)	0.33	0.33	0.31	0.36

Figure E.2. continued.

588

	Original	Scaled	TDMod	FDMod
PGA (g)	0.324	0.392	0.219	0.218
PGV (cm/s)	15.6	18.9	19.4	18.5
PGD (cm)	2.4	2.9	7.7	5.4
I_a (cm/s)	68	100	55	42
D_{5-95} (s)	14.5	14.5	18.2	18.7
CAV (cm/s)	661	799	692	578
T_m (s)	0.35	0.35	0.42	0.47

Figure E.2. continued.

589

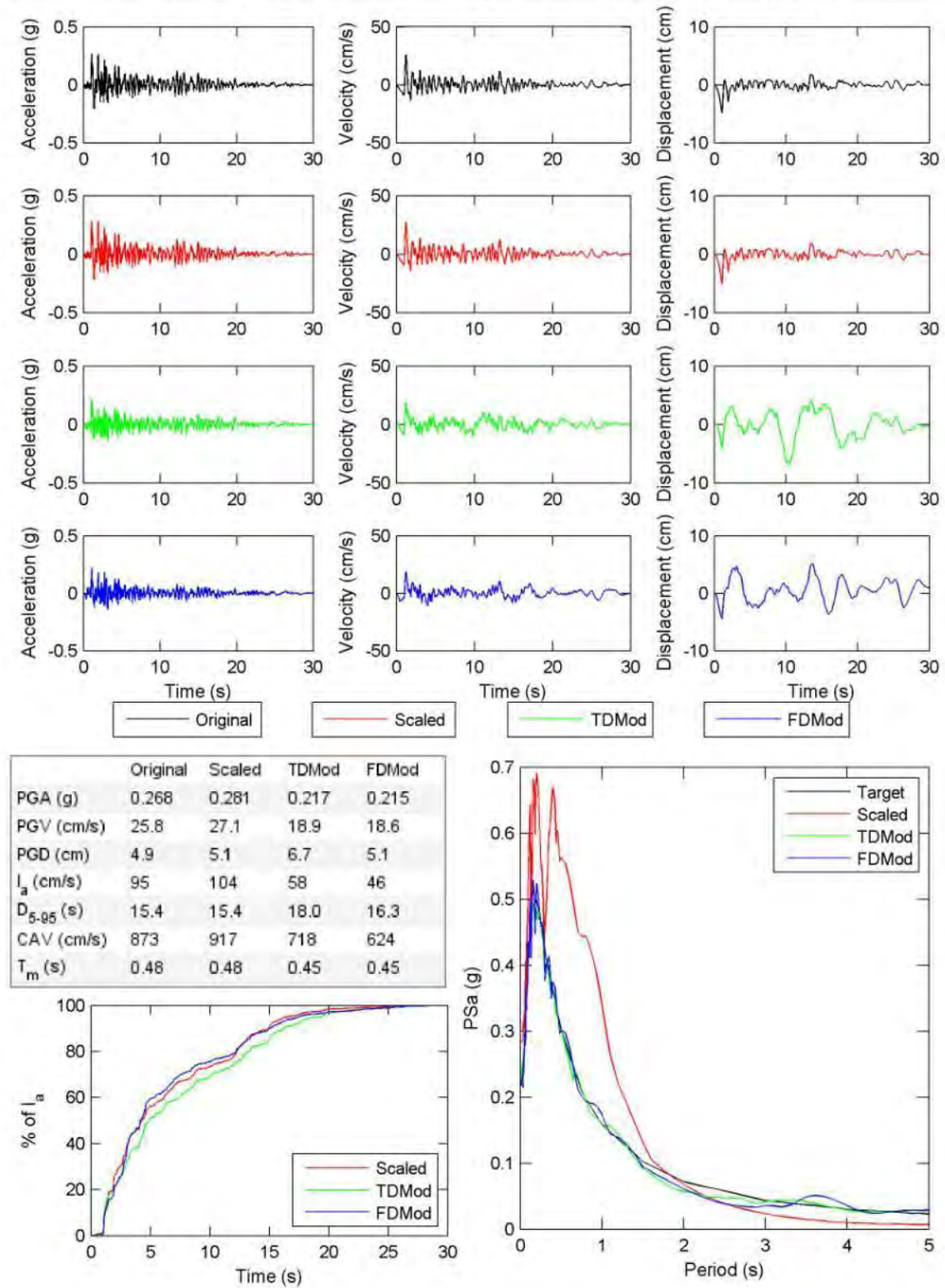|	Original	Scaled	TDMod	FDMod
PGA (g)	0.268	0.281	0.217	0.215
PGV (cm/s)	25.8	27.1	18.9	18.6
PGD (cm)	4.9	5.1	6.7	5.1
I_a (cm/s)	95	104	58	46
D_{5-95} (s)	15.4	15.4	18.0	16.3
CAV (cm/s)	873	917	718	624
T_m (s)	0.48	0.48	0.45	0.45

Figure E.2. continued.

590

File Name: 587 A-MAT083   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.76   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.256	0.194	0.218	0.218
PGV (cm/s)	21.7	16.5	13.1	17.7
PGD (cm)	6.4	4.9	6.6	4.6
I_a (cm/s)	65	38	37	38
D_{5-95} (s)	6.2	6.2	7.7	7.7
CAV (cm/s)	546	415	440	442
T_m (s)	0.47	0.47	0.46	0.38

Figure E.2. continued.

591

File Name: 587 A-MAT353   Start and End Taper Percentage: 1.0% and 5.0%
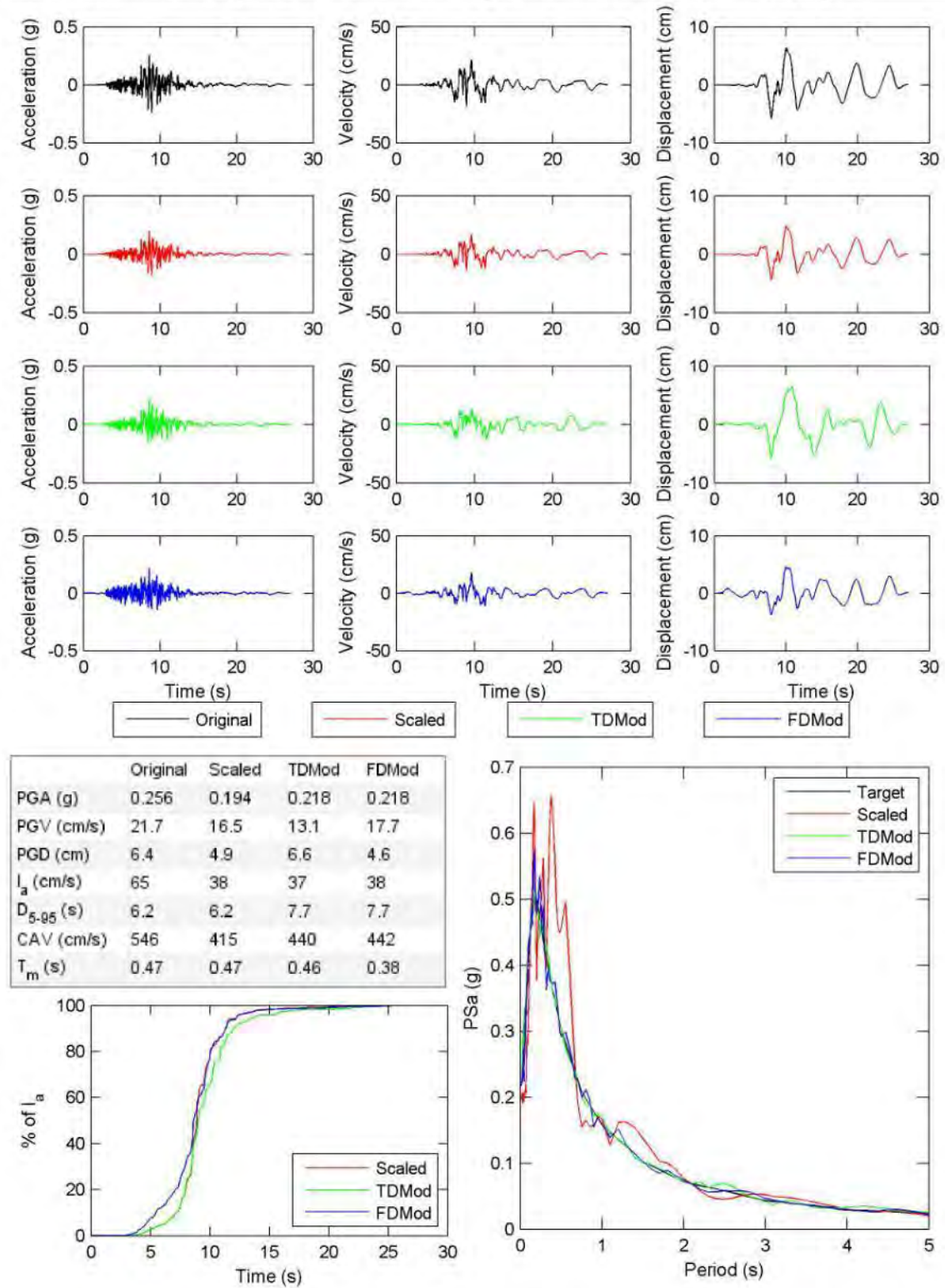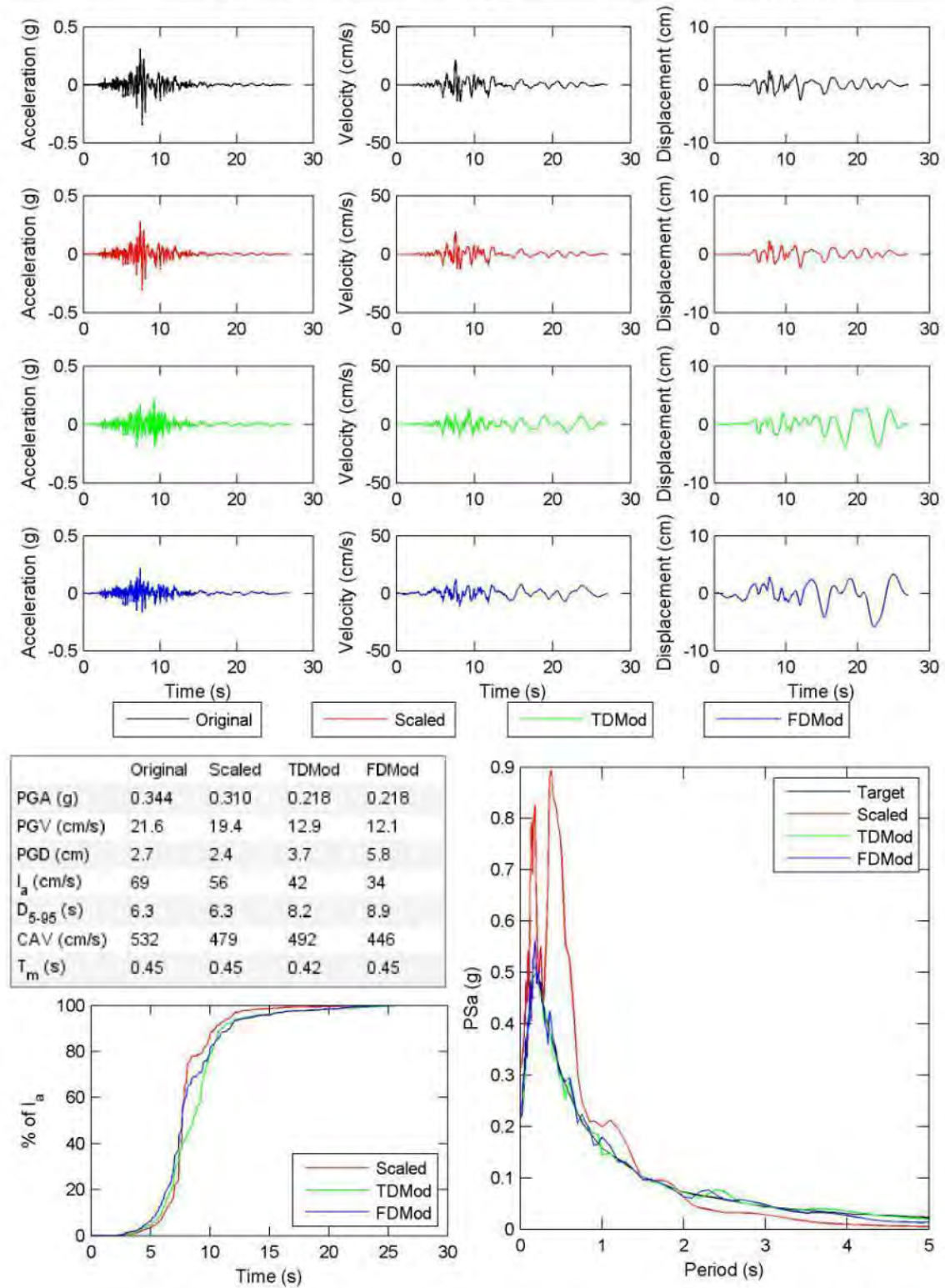Scale Factor: 0.90   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 7

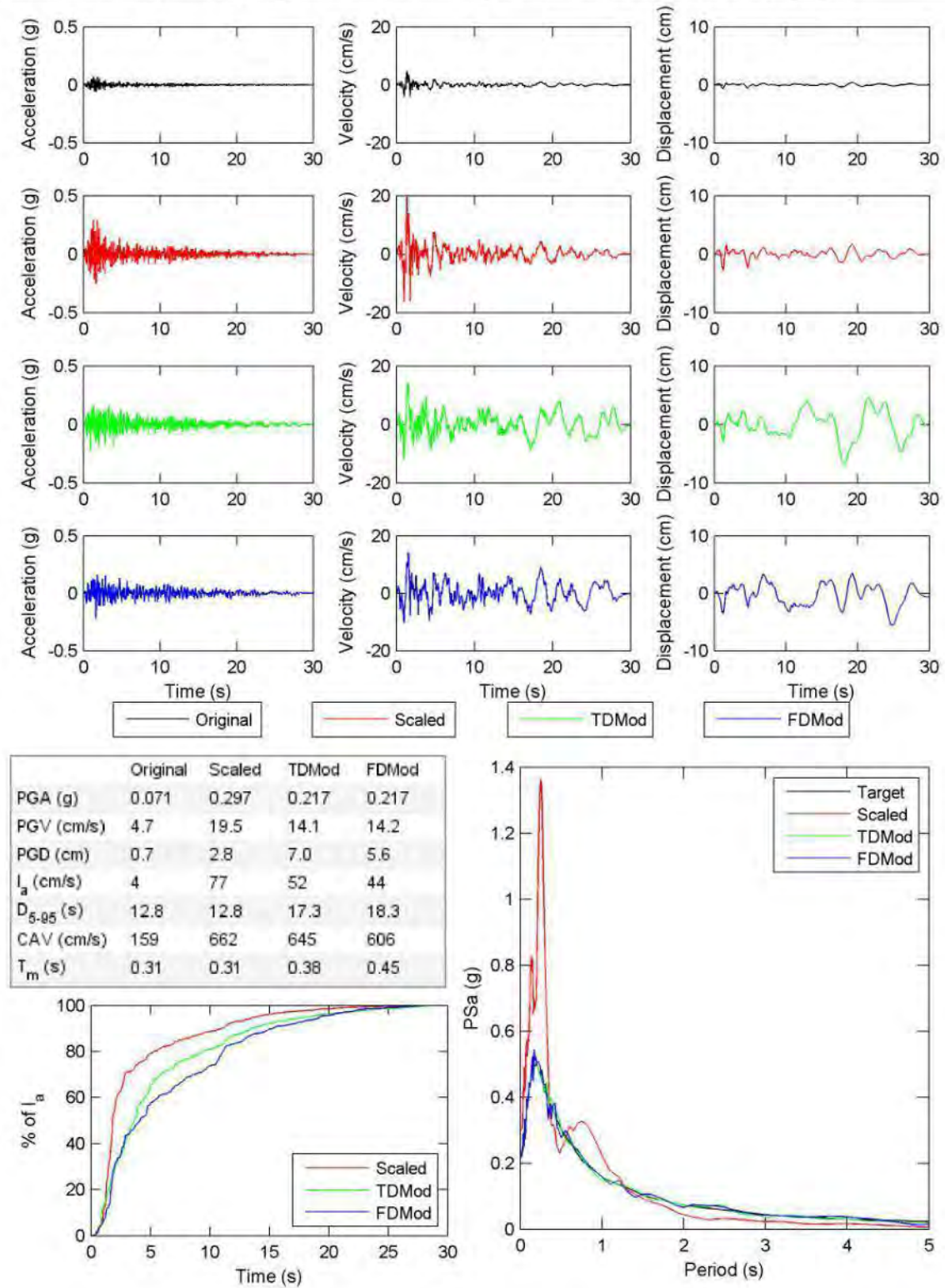|	Original	Scaled	TDMod	FDMod
PGA (g)	0.344	0.310	0.218	0.218
PGV (cm/s)	21.6	19.4	12.9	12.1
PGD (cm)	2.7	2.4	3.7	5.8
I_a (cm/s)	69	56	42	34
D_{5-95} (s)	6.3	6.3	8.2	8.9
CAV (cm/s)	532	479	492	446
T_m (s)	0.45	0.45	0.42	0.45

Figure E.2. continued.

592

File Name: 63 FTR056   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.17   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 7

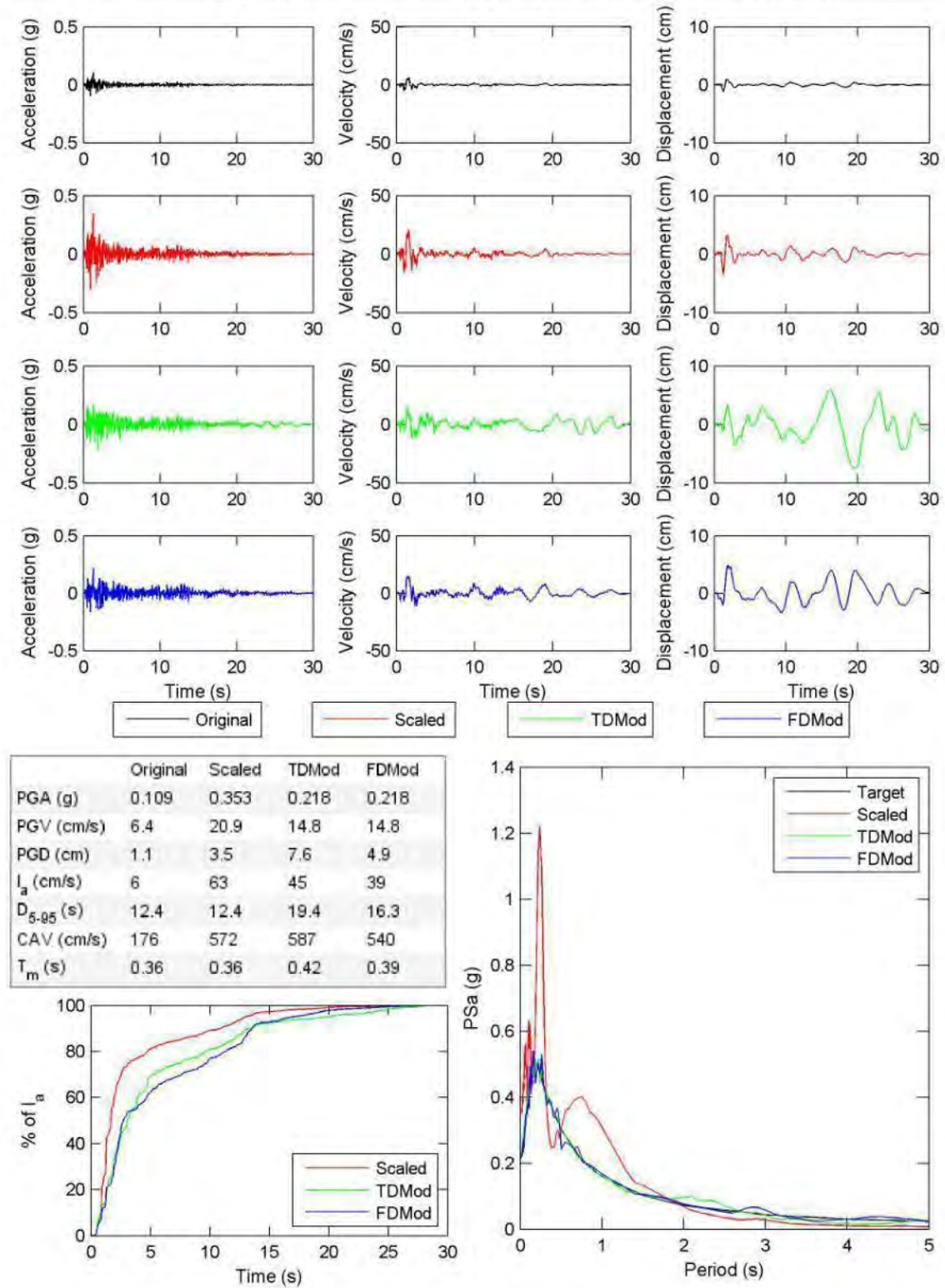|	Original	Scaled	TDMod	FDMod
PGA (g)	0.071	0.297	0.217	0.217
PGV (cm/s)	4.7	19.5	14.1	14.2
PGD (cm)	0.7	2.8	7.0	5.6
I_a (cm/s)	4	77	52	44
D_{5-95} (s)	12.8	12.8	17.3	18.3
CAV (cm/s)	159	662	645	606
T_m (s)	0.31	0.31	0.38	0.45

Figure E.2. continued.

593

Figure E.2. continued.

594

File Name: 70 L01021   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.68   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 9
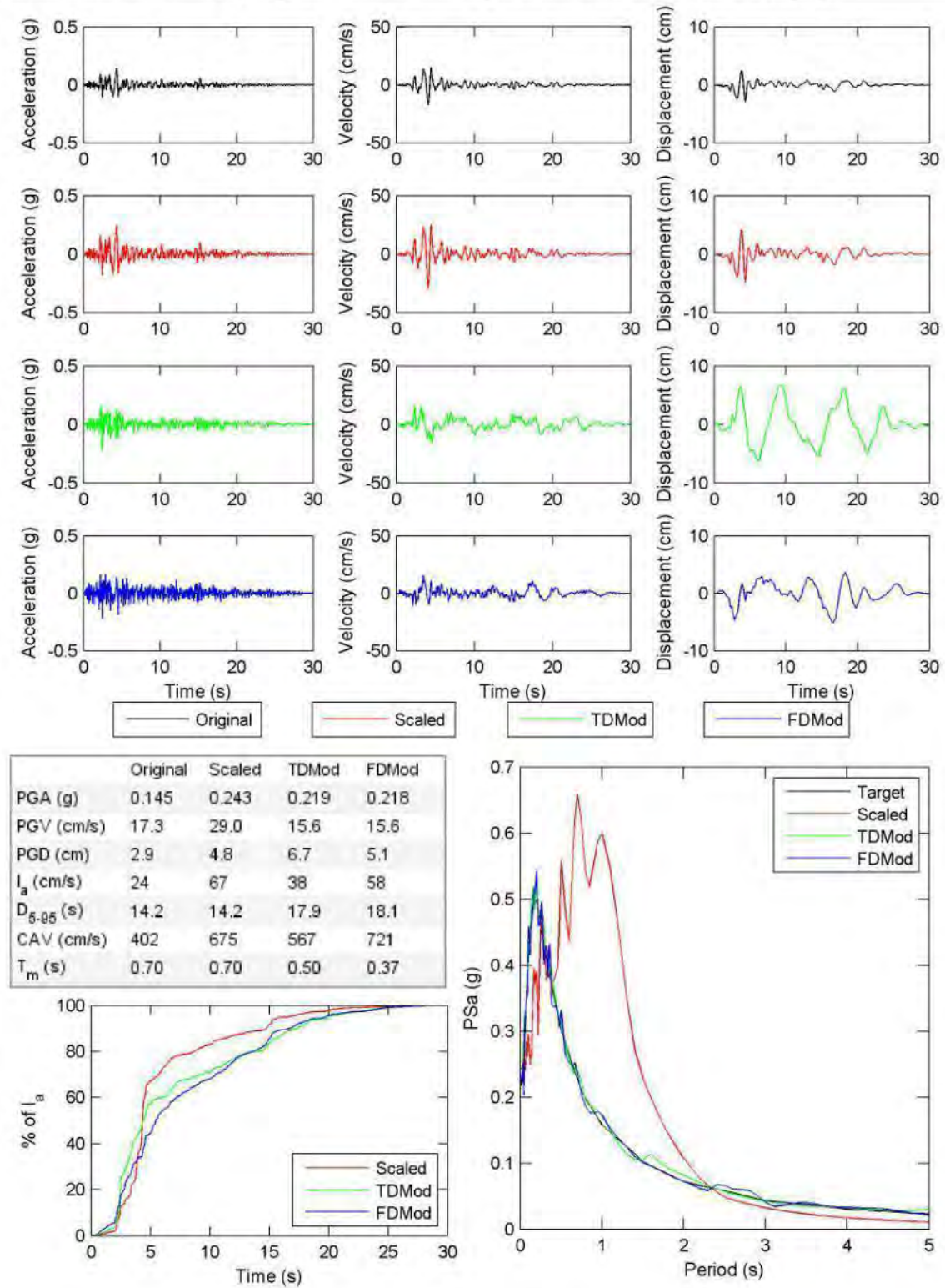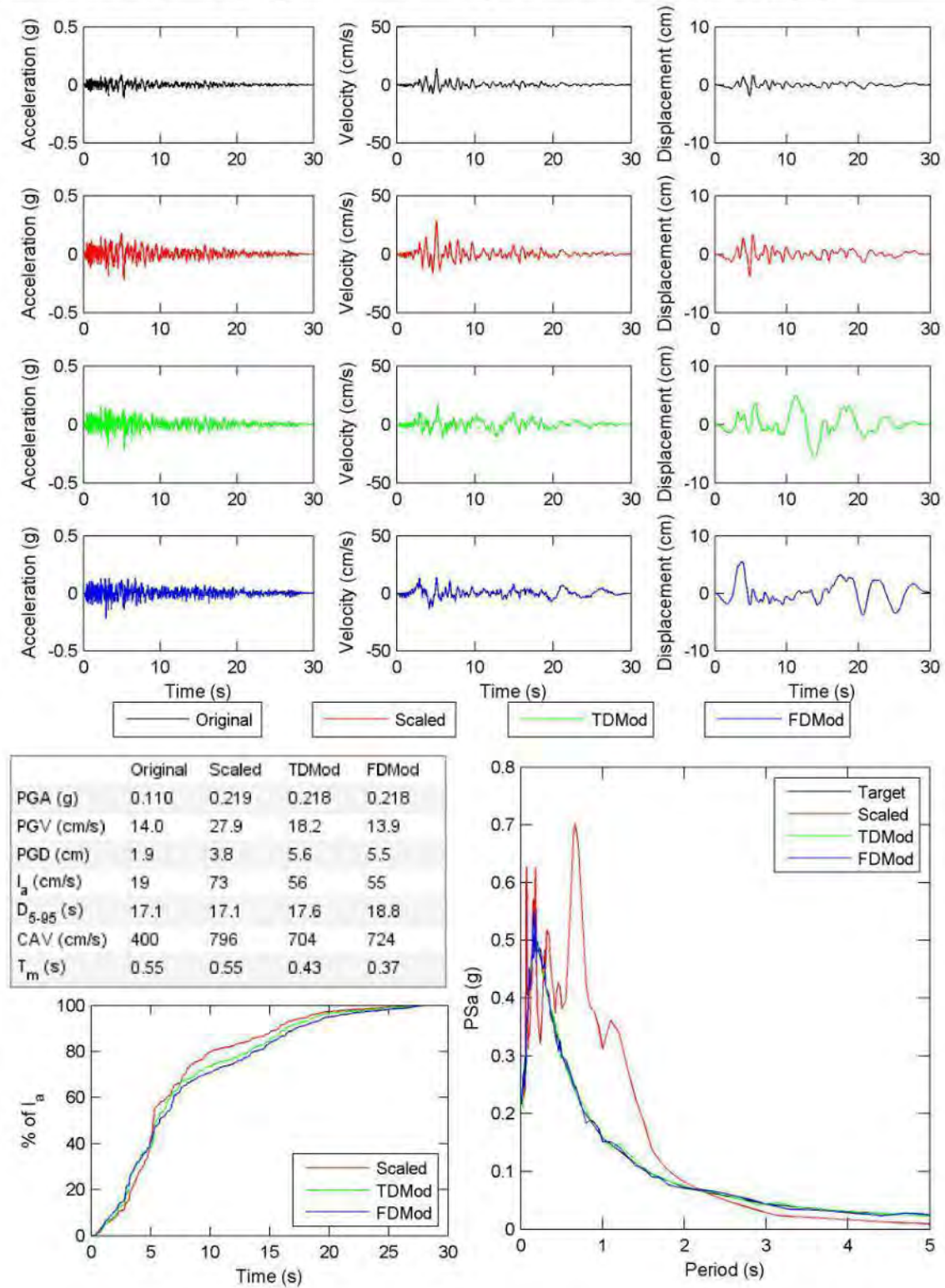

	Original	Scaled	TDMod	FDMod
PGA (g)	0.145	0.243	0.219	0.218
PGV (cm/s)	17.3	29.0	15.6	15.6
PGD (cm)	2.9	4.8	6.7	5.1
I_a (cm/s)	24	67	38	58
D_{5-95} (s)	14.2	14.2	17.9	18.1
CAV (cm/s)	402	675	567	721
T_m (s)	0.70	0.70	0.50	0.37

Figure E.2. continued.

595

Figure E.2. continued.

596

	Original	Scaled	TDMod	FDMod
PGA (g)	0.366	0.516	0.219	0.217
PGV (cm/s)	16.9	23.8	14.7	15.1
PGD (cm)	1.7	2.4	6.7	5.6
I_a (cm/s)	93	184	64	34
D_{5-95} (s)	10.7	10.7	14.8	15.5
CAV (cm/s)	696	982	751	505
T_m (s)	0.22	0.22	0.33	0.49

Figure E.2. continued.

597

	Original	Scaled	TDMod	FDMod
PGA (g)	0.283	0.379	0.217	0.217
PGV (cm/s)	12.6	16.9	13.6	15.4
PGD (cm)	3.0	4.1	9.6	6.7
I_a (cm/s)	78	141	58	33
D_{5-95} (s)	11.9	11.9	14.9	13.6
CAV (cm/s)	642	860	712	488
T_m (s)	0.22	0.22	0.35	0.48

Figure E.2. continued.

598

	Original	Scaled	TDMod	FDMod
PGA (g)	0.192	0.456	0.218	0.218
PGV (cm/s)	5.6	13.3	12.9	11.4
PGD (cm)	0.9	2.1	6.2	4.6
I_a (cm/s)	25	140	65	38
D_{5-95} (s)	12.7	12.7	16.4	16.3
CAV (cm/s)	395	937	756	555
T_m (s)	0.20	0.20	0.33	0.42

Figure E.2. continued.

599

File Name: 72 L04201   Start and End Taper Percentage: 1.0% and 5.0%
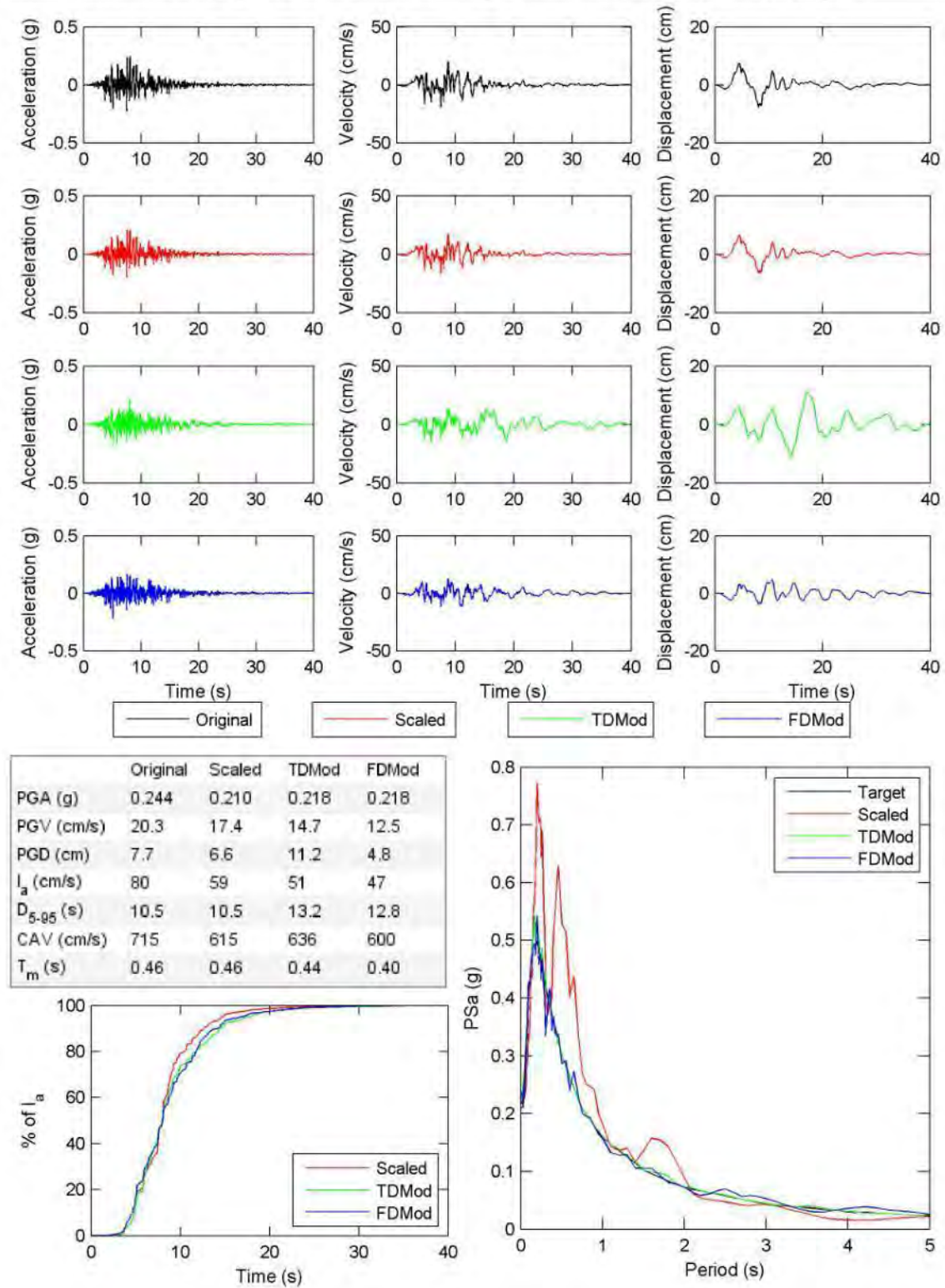Scale Factor: 2.06   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.153	0.315	0.218	0.218
PGV (cm/s)	8.4	17.3	13.7	12.9
PGD (cm)	1.9	3.9	3.6	4.1
I_a (cm/s)	21	88	57	42
D_{5-95} (s)	12.9	12.9	14.2	14.5
CAV (cm/s)	363	748	674	561
T_m (s)	0.26	0.26	0.30	0.38

Figure E.2. continued.

600

File Name: 739 AND250   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.86   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
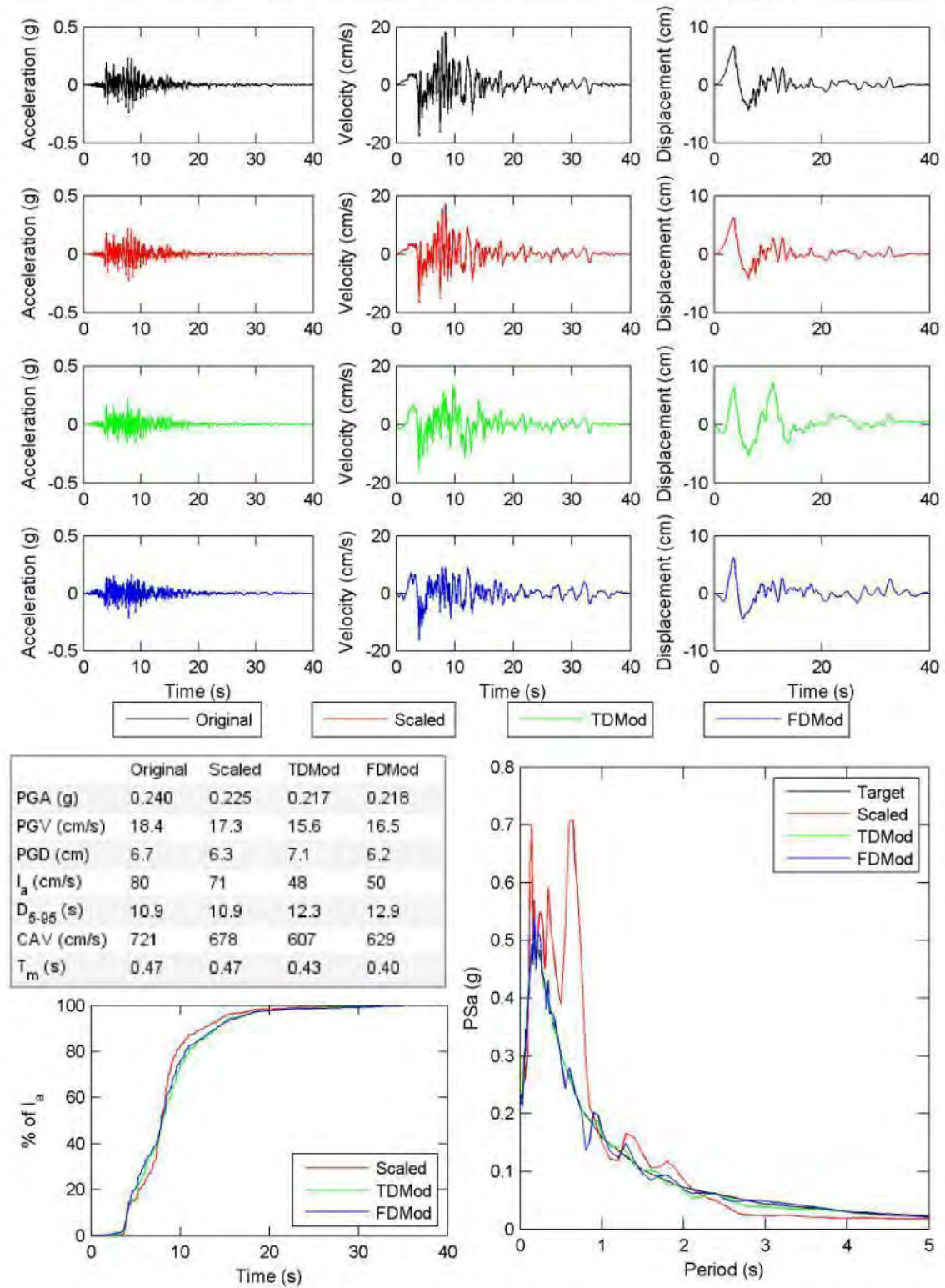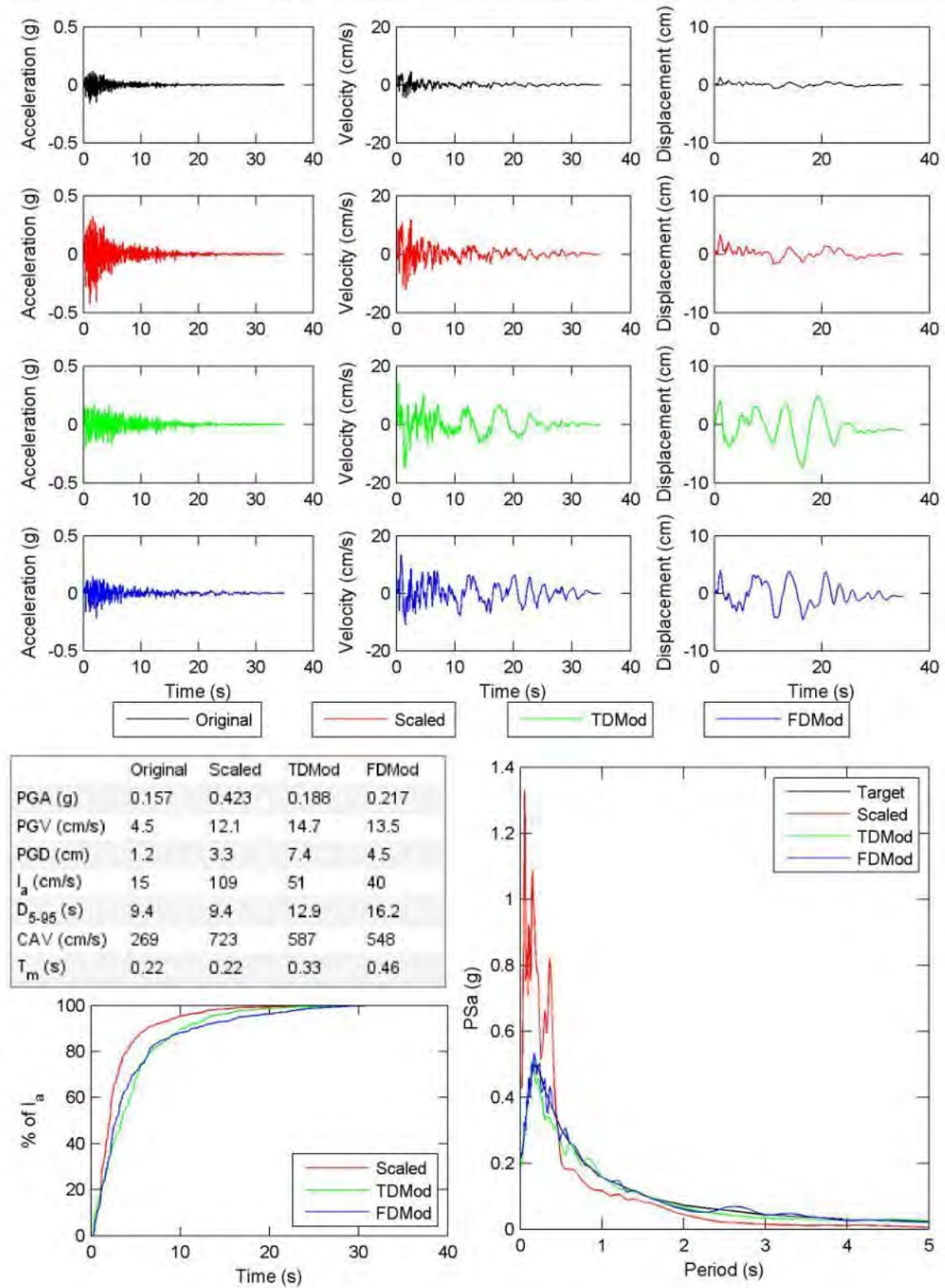

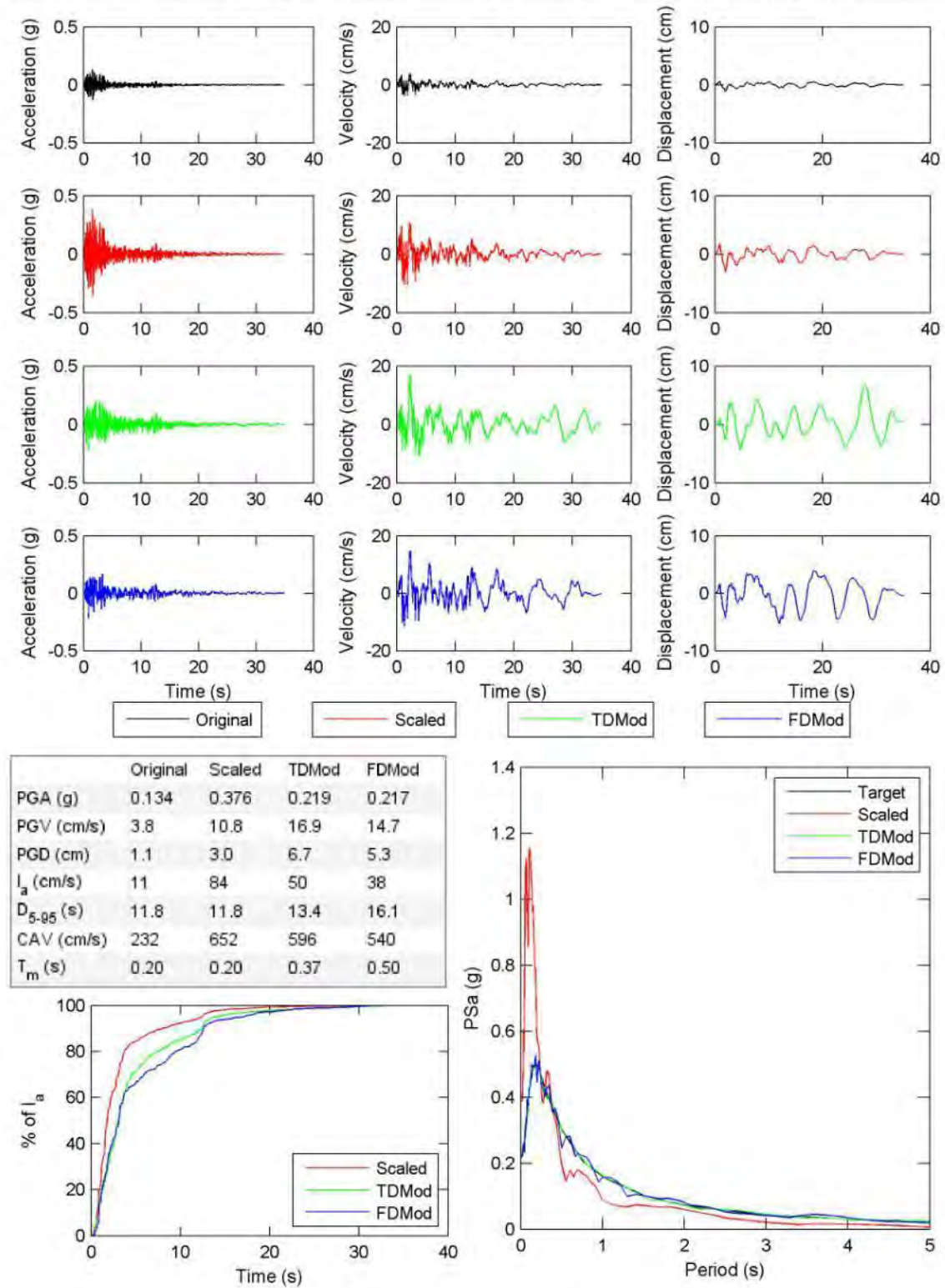|	Original	Scaled	TDMod	FDMod
PGA (g)	0.244	0.210	0.218	0.218
PGV (cm/s)	20.3	17.4	14.7	12.5
PGD (cm)	7.7	6.6	11.2	4.8
I_a (cm/s)	80	59	51	47
D_{5-95} (s)	10.5	10.5	13.2	12.8
CAV (cm/s)	715	615	636	600
T_m (s)	0.46	0.46	0.44	0.40

Figure E.2. continued.

601

File Name: 739 AND340   Start and End Taper Percentage: 1.0% and 5.0%
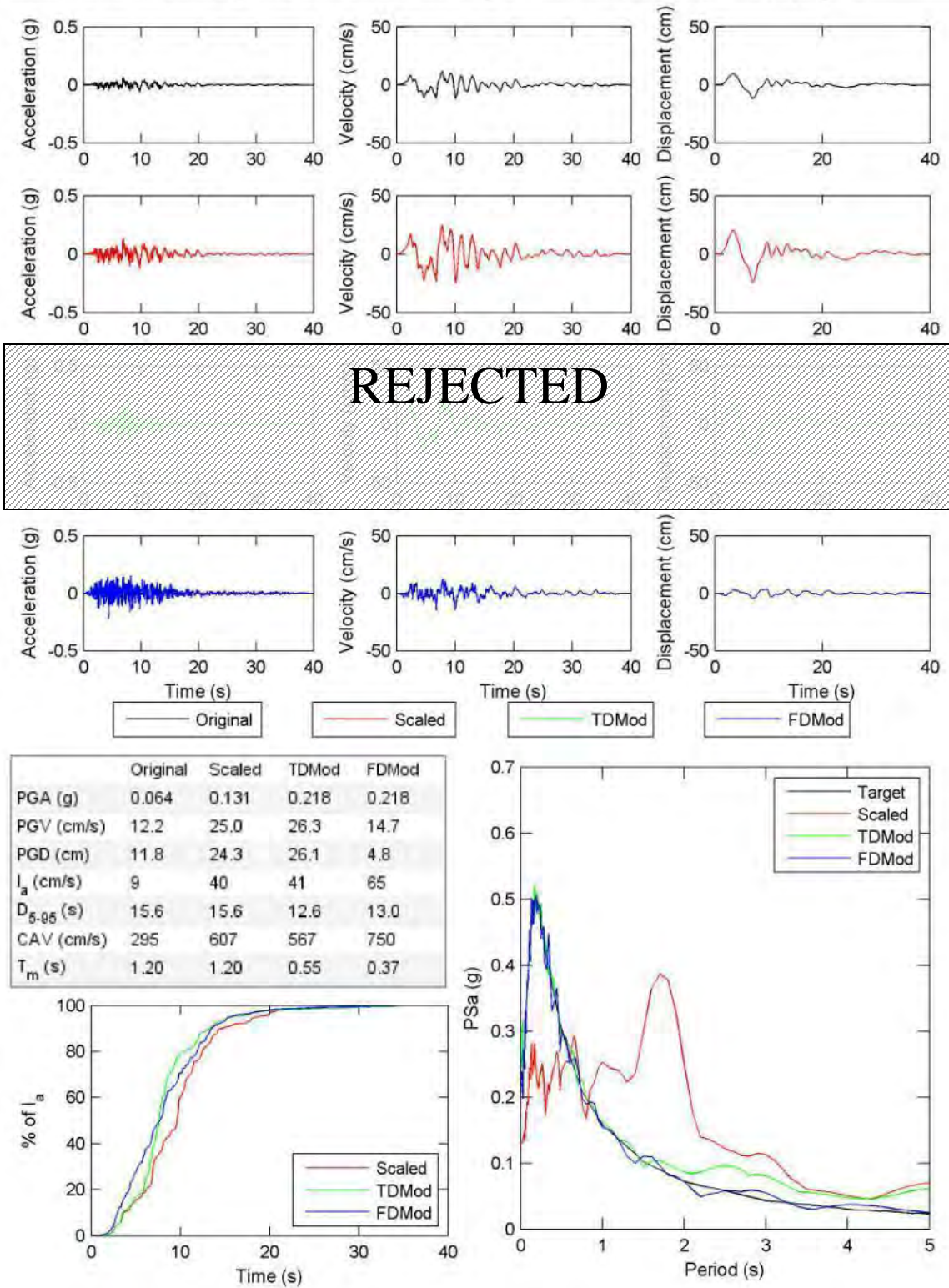Scale Factor: 0.94   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.240	0.225	0.217	0.218
PGV (cm/s)	18.4	17.3	15.6	16.5
PGD (cm)	6.7	6.3	7.1	6.2
I_a (cm/s)	80	71	48	50
D_{5-95} (s)	10.9	10.9	12.3	12.9
CAV (cm/s)	721	678	607	629
T_m (s)	0.47	0.47	0.43	0.40

Figure E.2. continued.

602

File Name: 73 L09021   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.69   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 6
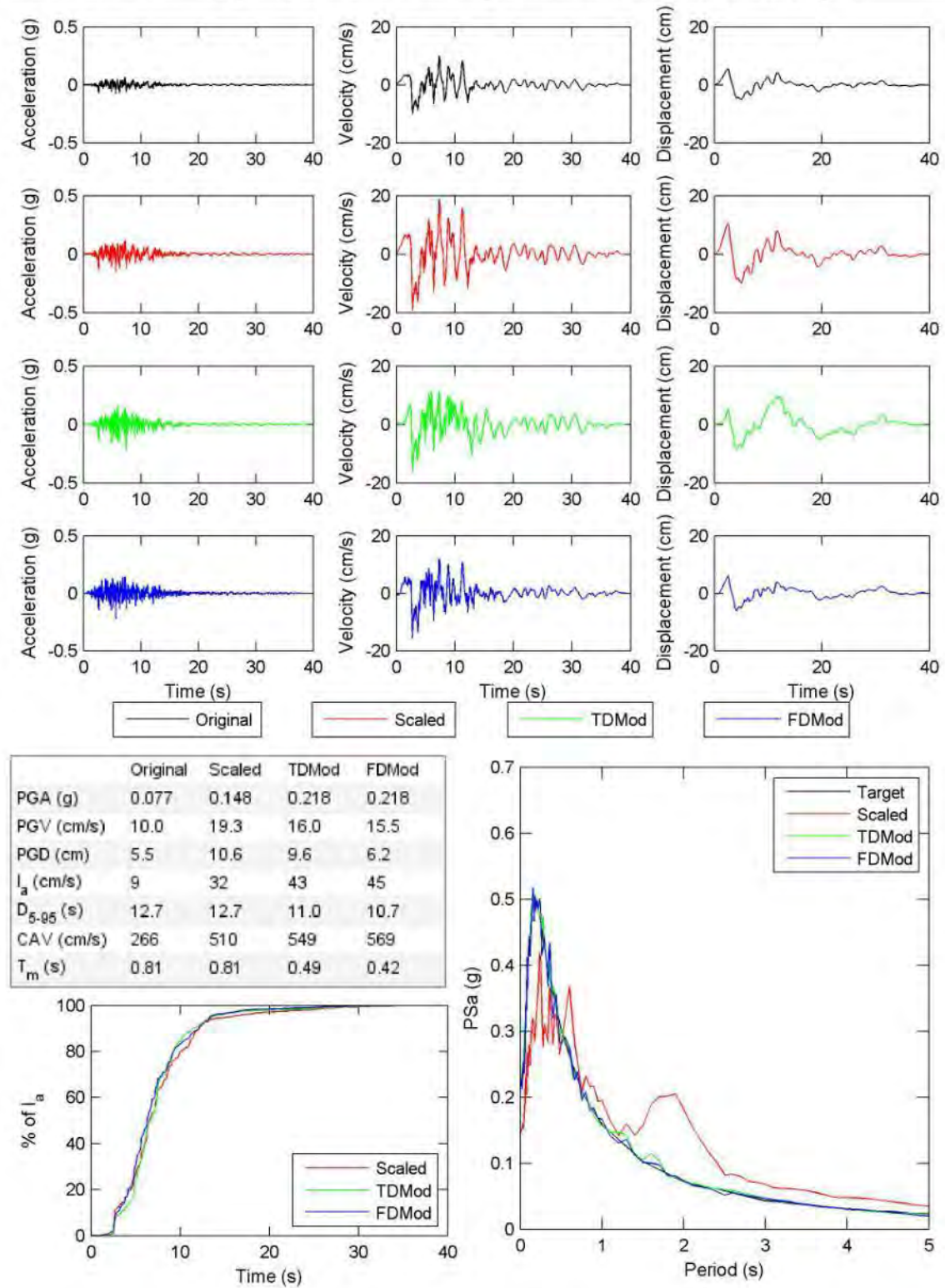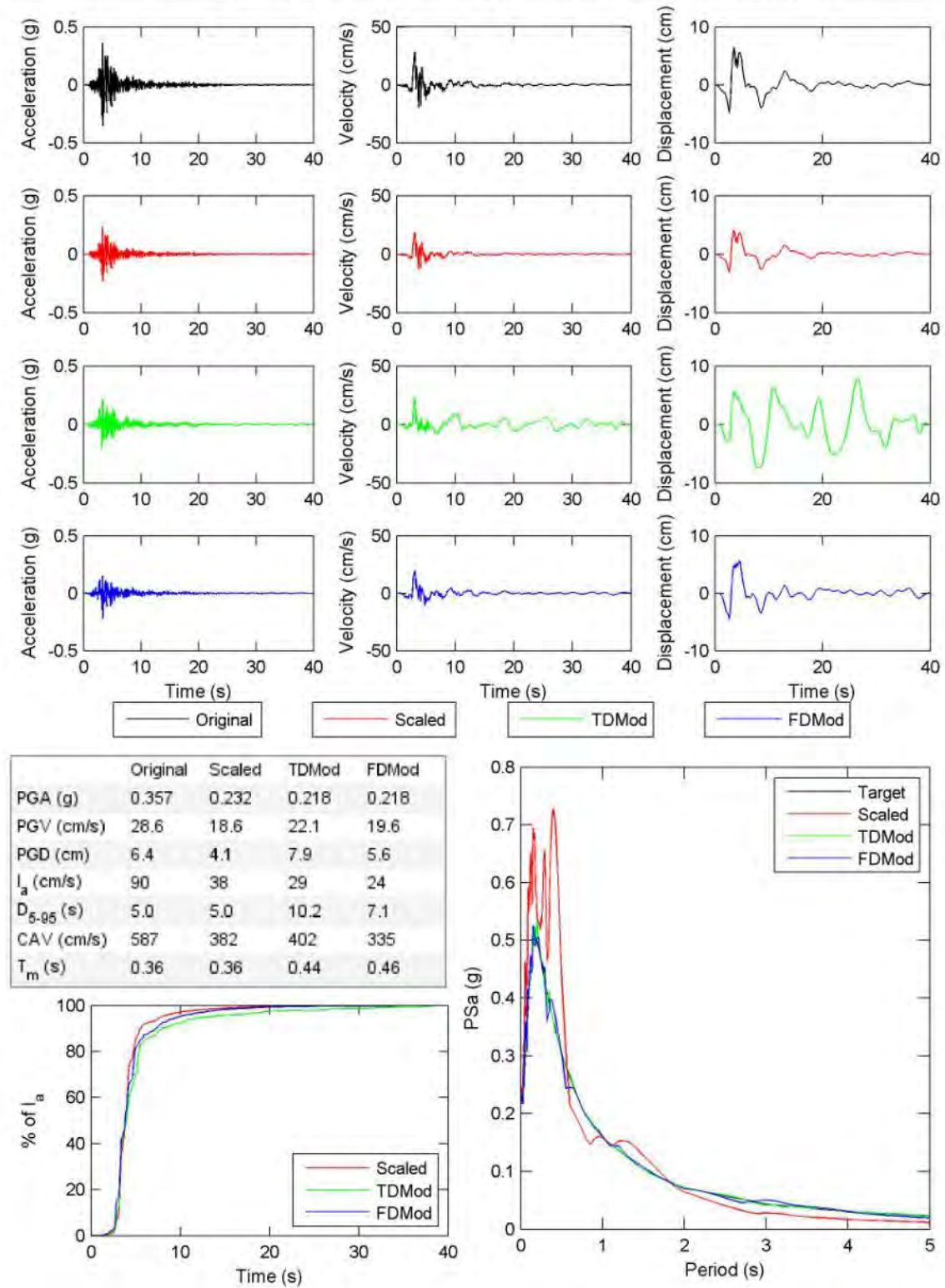
	Original	Scaled	TDMod	FDMod
PGA (g)	0.157	0.423	0.188	0.217
PGV (cm/s)	4.5	12.1	14.7	13.5
PGD (cm)	1.2	3.3	7.4	4.5
I_a (cm/s)	15	109	51	40
D_{5-95} (s)	9.4	9.4	12.9	16.2
CAV (cm/s)	269	723	587	548
T_m (s)	0.22	0.22	0.33	0.46

Figure E.2. continued.

603

File Name: 73 L09291   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.81   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 7
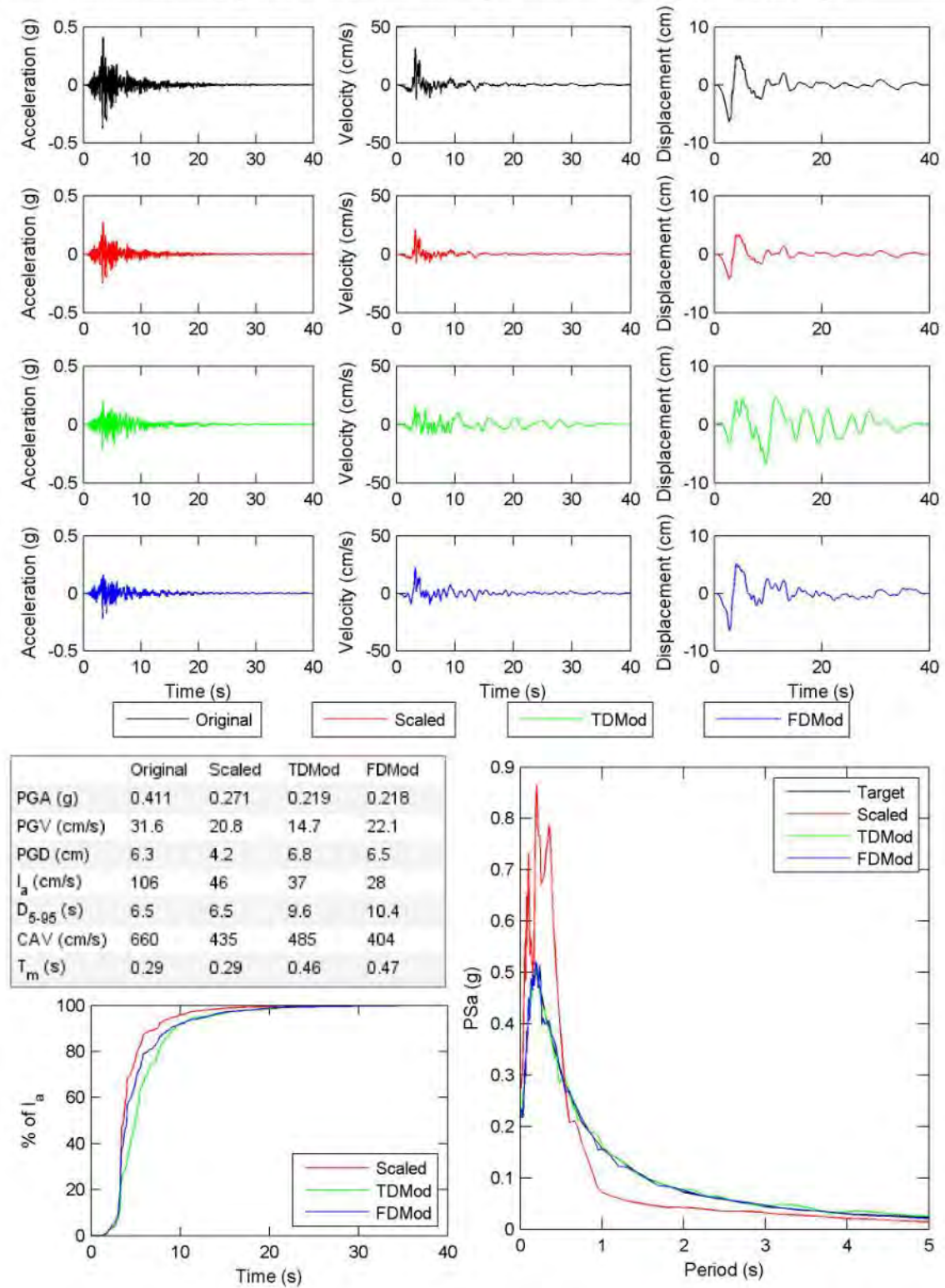

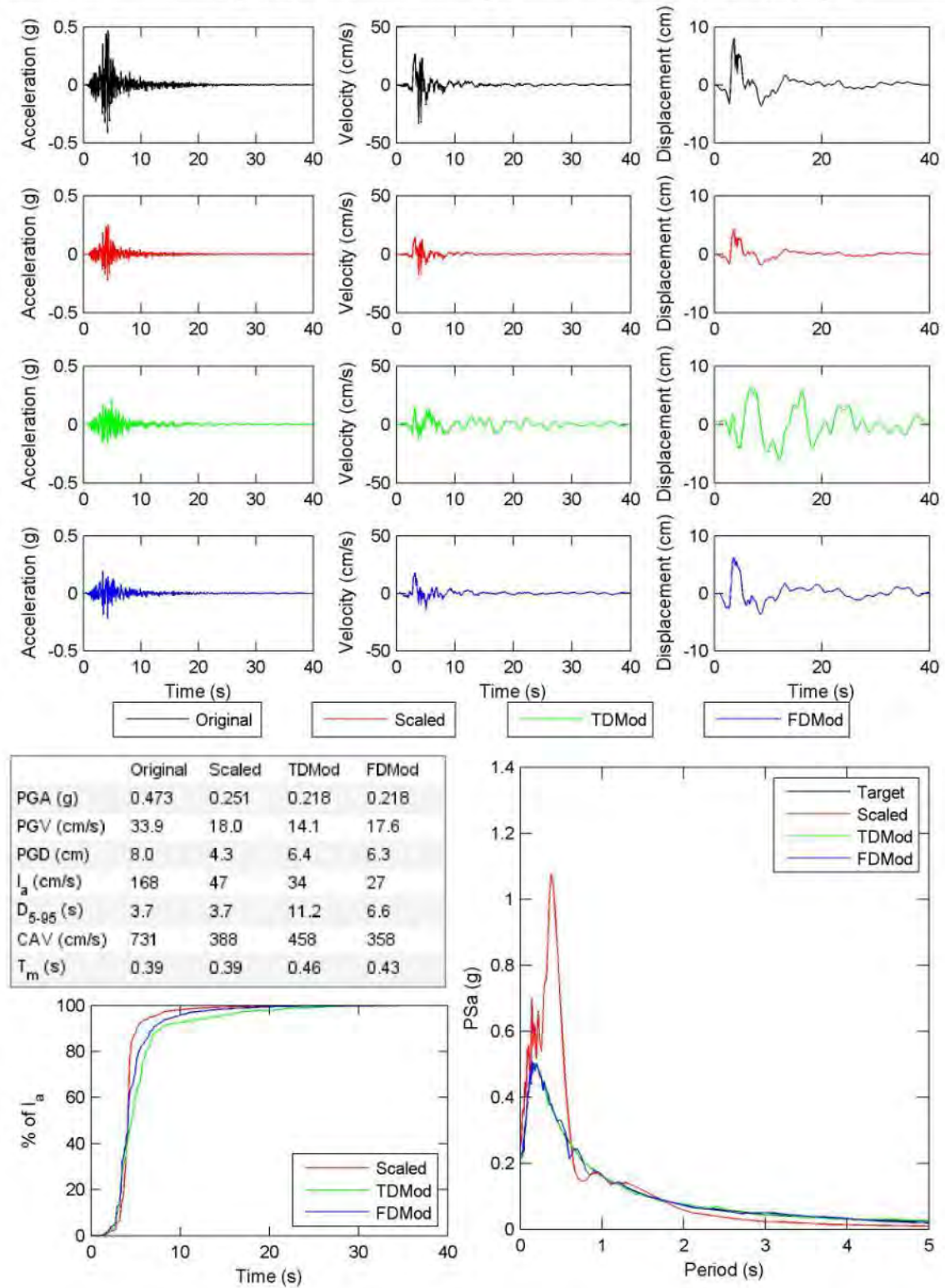|	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.376	0.219	0.217
PGV (cm/s)	3.8	10.8	16.9	14.7
PGD (cm)	1.1	3.0	6.7	5.3
I_a (cm/s)	11	84	50	38
D_{5-95} (s)	11.8	11.8	13.4	16.1
CAV (cm/s)	232	652	596	540
T_m (s)	0.20	0.20	0.37	0.50

Figure E.2. continued.

604

File Name: 740 ADL250   Start and End Taper Percentage: 1.0% and 5.0%
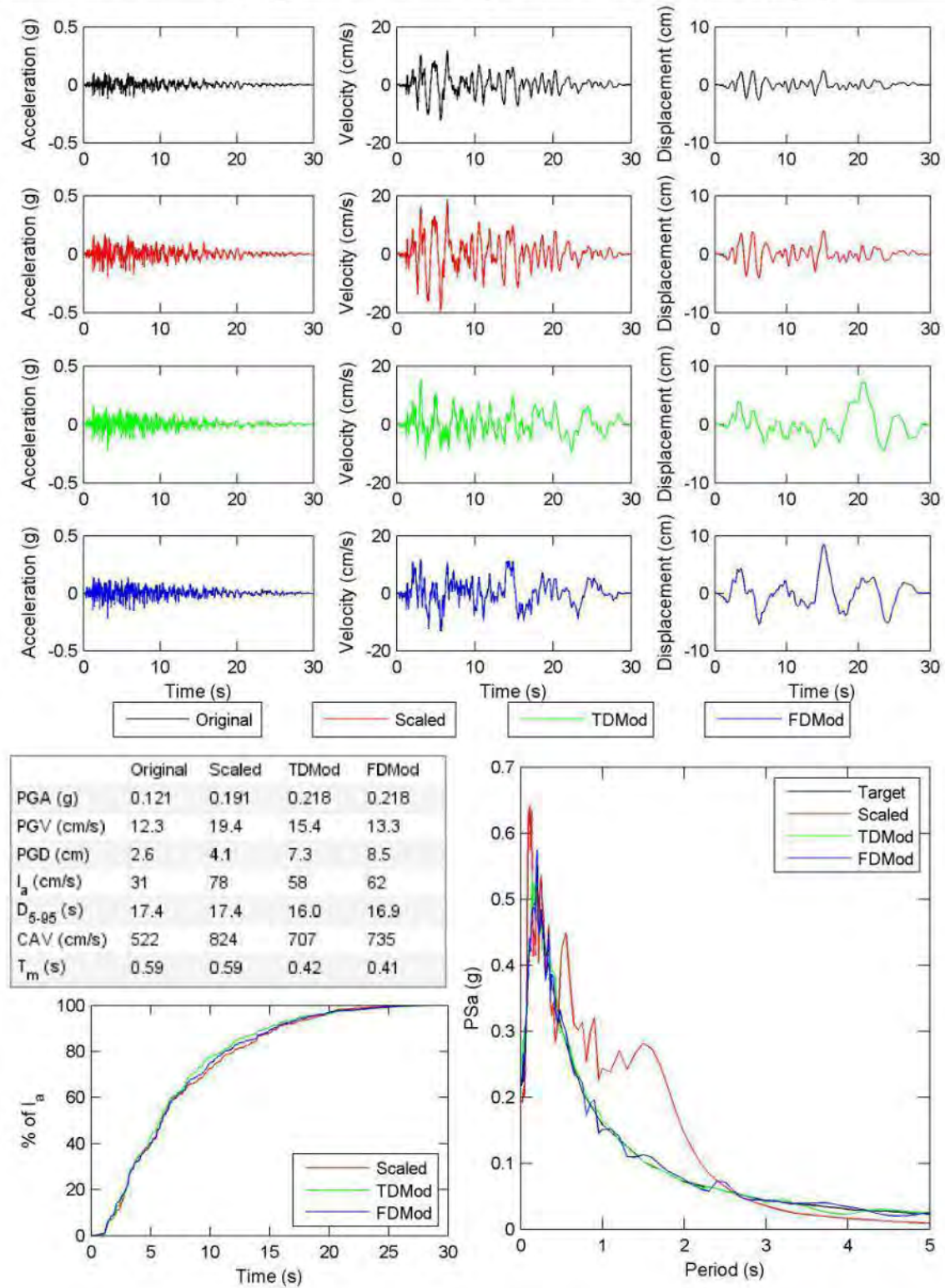Scale Factor: 2.06   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.064	0.131	0.218	0.218
PGV (cm/s)	12.2	25.0	26.3	14.7
PGD (cm)	11.8	24.3	26.1	4.8
I_a (cm/s)	9	40	41	65
D_{5-95} (s)	15.6	15.6	12.6	13.0
CAV (cm/s)	295	607	567	750
T_m (s)	1.20	1.20	0.55	0.37

Figure E.2. continued.

605

File Name: 740 ADL340   Start and End Taper Percentage: 1.0% and 5.0%
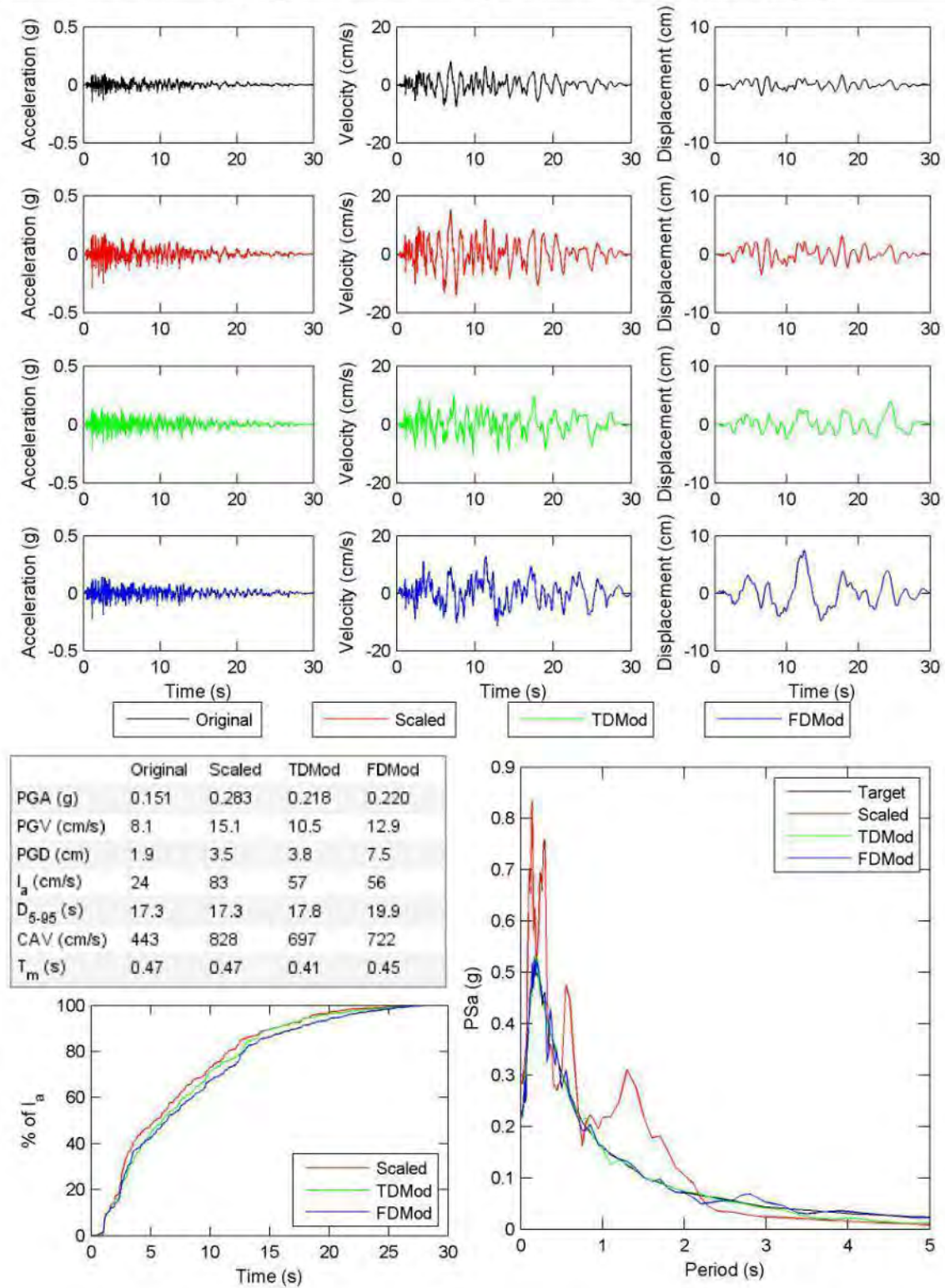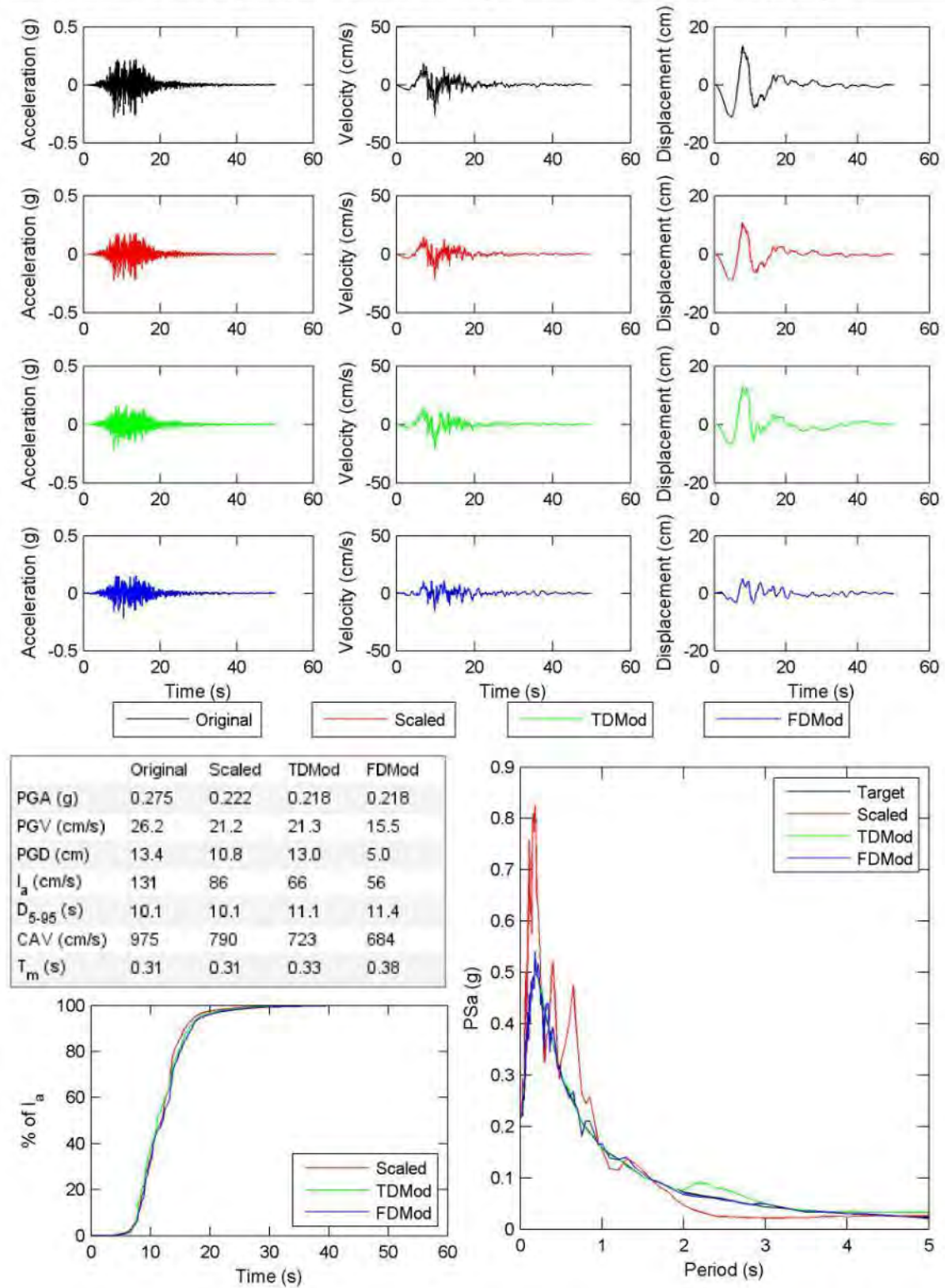Scale Factor: 1.92   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.077	0.148	0.218	0.218
PGV (cm/s)	10.0	19.3	16.0	15.5
PGD (cm)	5.5	10.6	9.6	6.2
I_a (cm/s)	9	32	43	45
D_{5-95} (s)	12.7	12.7	11.0	10.7
CAV (cm/s)	266	510	549	569
T_m (s)	0.81	0.81	0.49	0.42

Figure E.2. continued.

606

	Original	Scaled	TDMod	FDMod
PGA (g)	0.357	0.232	0.218	0.218
PGV (cm/s)	28.6	18.6	22.1	19.6
PGD (cm)	6.4	4.1	7.9	5.6
I_a (cm/s)	90	38	29	24
D_{5-95} (s)	5.0	5.0	10.2	7.1
CAV (cm/s)	587	382	402	335
T_m (s)	0.36	0.36	0.44	0.46

Figure E.2. continued.

607

	Original	Scaled	TDMod	FDMod
PGA (g)	0.325	0.267	0.218	0.218
PGV (cm/s)	22.2	18.2	22.7	21.1
PGD (cm)	4.6	3.7	5.7	6.3
I_a (cm/s)	70	47	28	23
D_{5-95} (s)	4.8	4.8	7.3	7.8
CAV (cm/s)	512	420	366	334
T_m (s)	0.32	0.32	0.41	0.47

Figure E.2. continued.

608

File Name: 765 G01000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.66   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 8

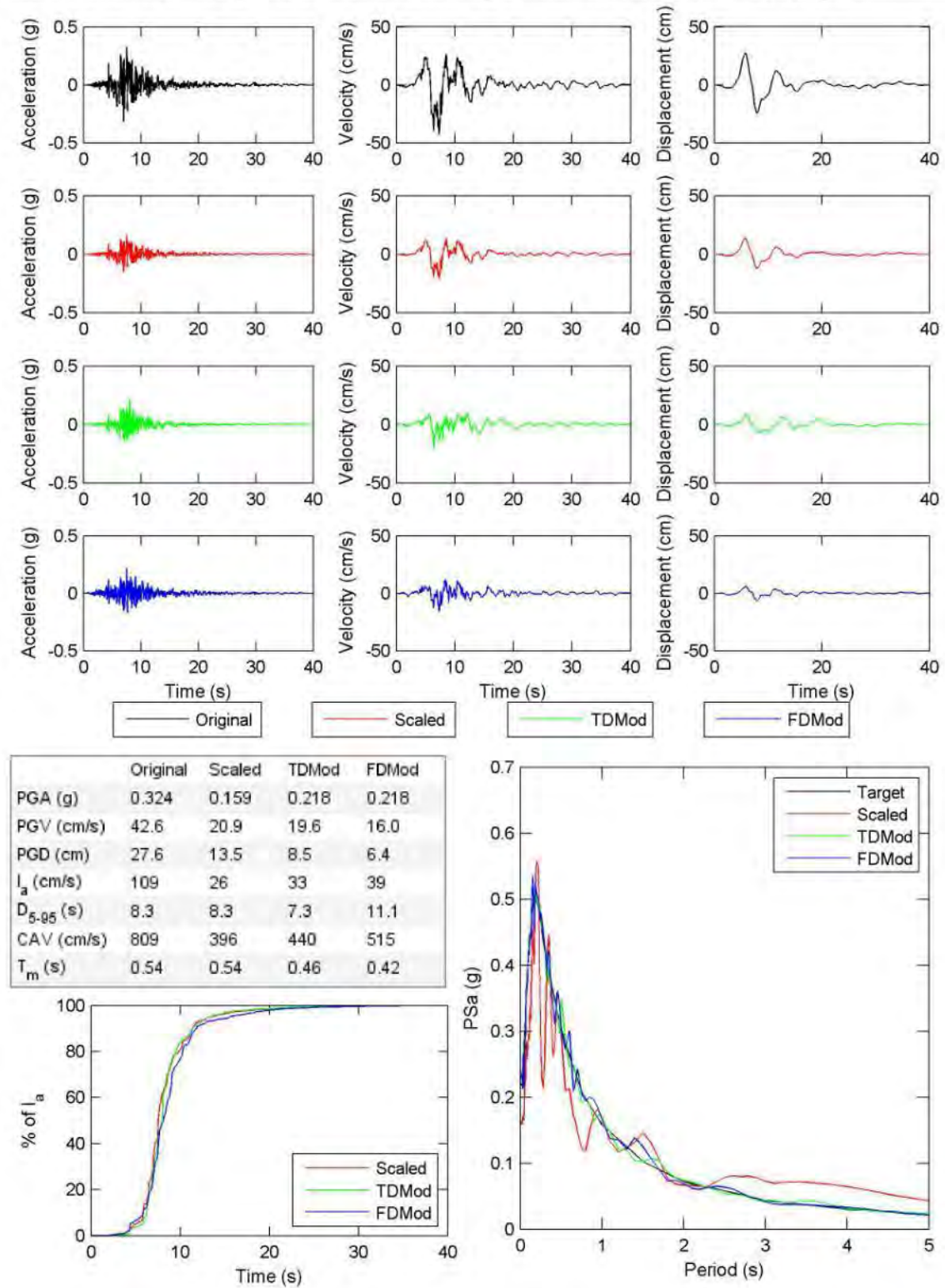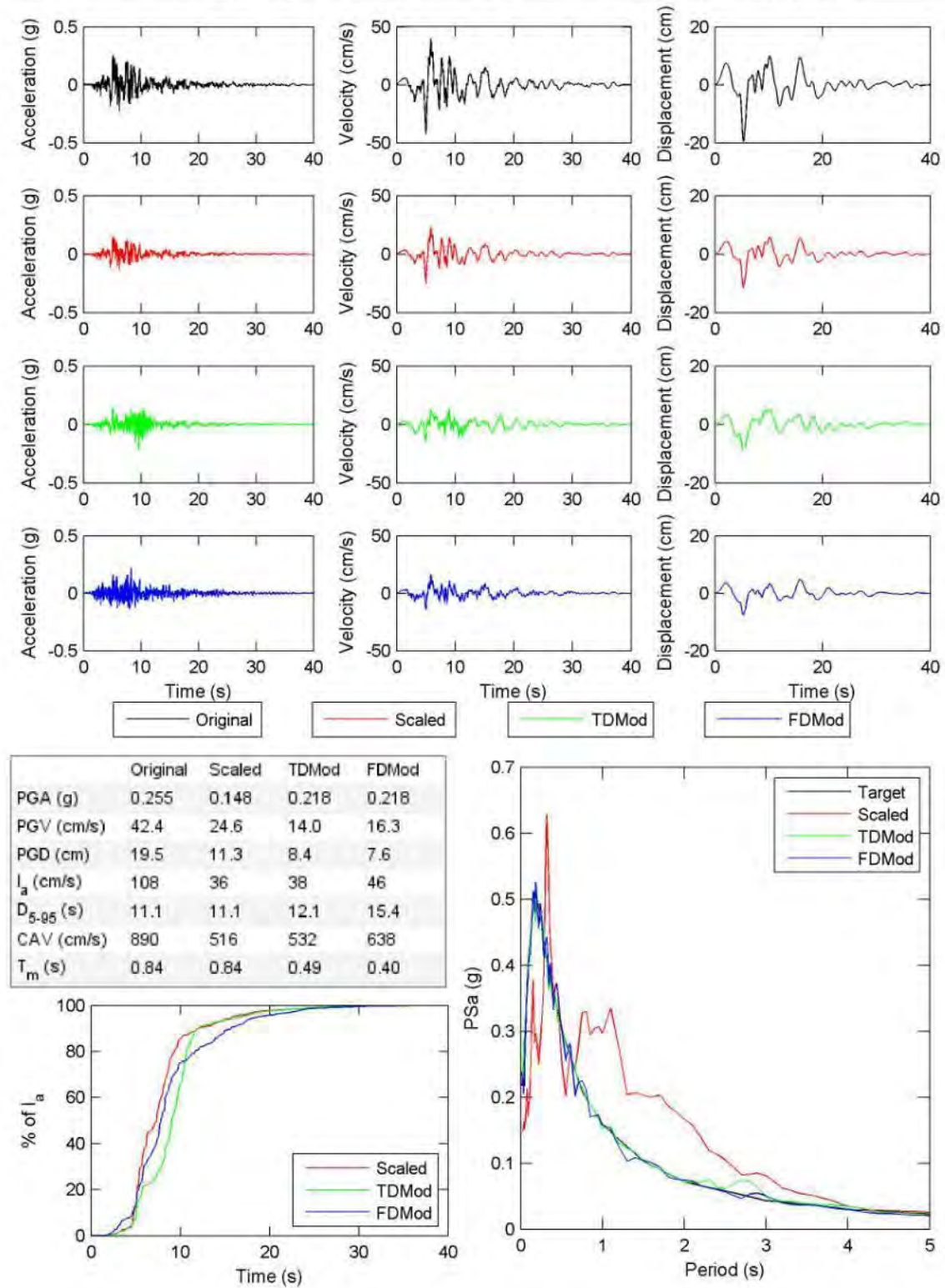|	Original	Scaled	TDMod	FDMod
PGA (g)	0.411	0.271	0.219	0.218
PGV (cm/s)	31.6	20.8	14.7	22.1
PGD (cm)	6.3	4.2	6.8	6.5
I_a (cm/s)	106	46	37	28
D_{5-95} (s)	6.5	6.5	9.6	10.4
CAV (cm/s)	660	435	485	404
T_m (s)	0.29	0.29	0.46	0.47

Figure E.2. continued.

609

	Original	Scaled	TDMod	FDMod
PGA (g)	0.473	0.251	0.218	0.218
PGV (cm/s)	33.9	18.0	14.1	17.6
PGD (cm)	8.0	4.3	6.4	6.3
I_a (cm/s)	168	47	34	27
D_{5-95} (s)	3.7	3.7	11.2	6.6
CAV (cm/s)	731	388	458	358
T_m (s)	0.39	0.39	0.46	0.43

Figure E.2. continued.

610

	Original	Scaled	TDMod	FDMod
PGA (g)	0.121	0.191	0.218	0.218
PGV (cm/s)	12.3	19.4	15.4	13.3
PGD (cm)	2.6	4.1	7.3	8.5
I_a (cm/s)	31	78	58	62
D_{5-95} (s)	17.4	17.4	16.0	16.9
CAV (cm/s)	522	824	707	735
T_m (s)	0.59	0.59	0.42	0.41

Figure E.2. continued.

611

	Original	Scaled	TDMod	FDMod
PGA (g)	0.151	0.283	0.218	0.220
PGV (cm/s)	8.1	15.1	10.5	12.9
PGD (cm)	1.9	3.5	3.8	7.5
I_a (cm/s)	24	83	57	56
D_{5-95} (s)	17.3	17.3	17.8	19.9
CAV (cm/s)	443	828	697	722
T_m (s)	0.47	0.47	0.41	0.45

Figure E.2. continued.

612

File Name: 801 SJTE225   Start and End Taper Percentage: 1.0% and 5.0%
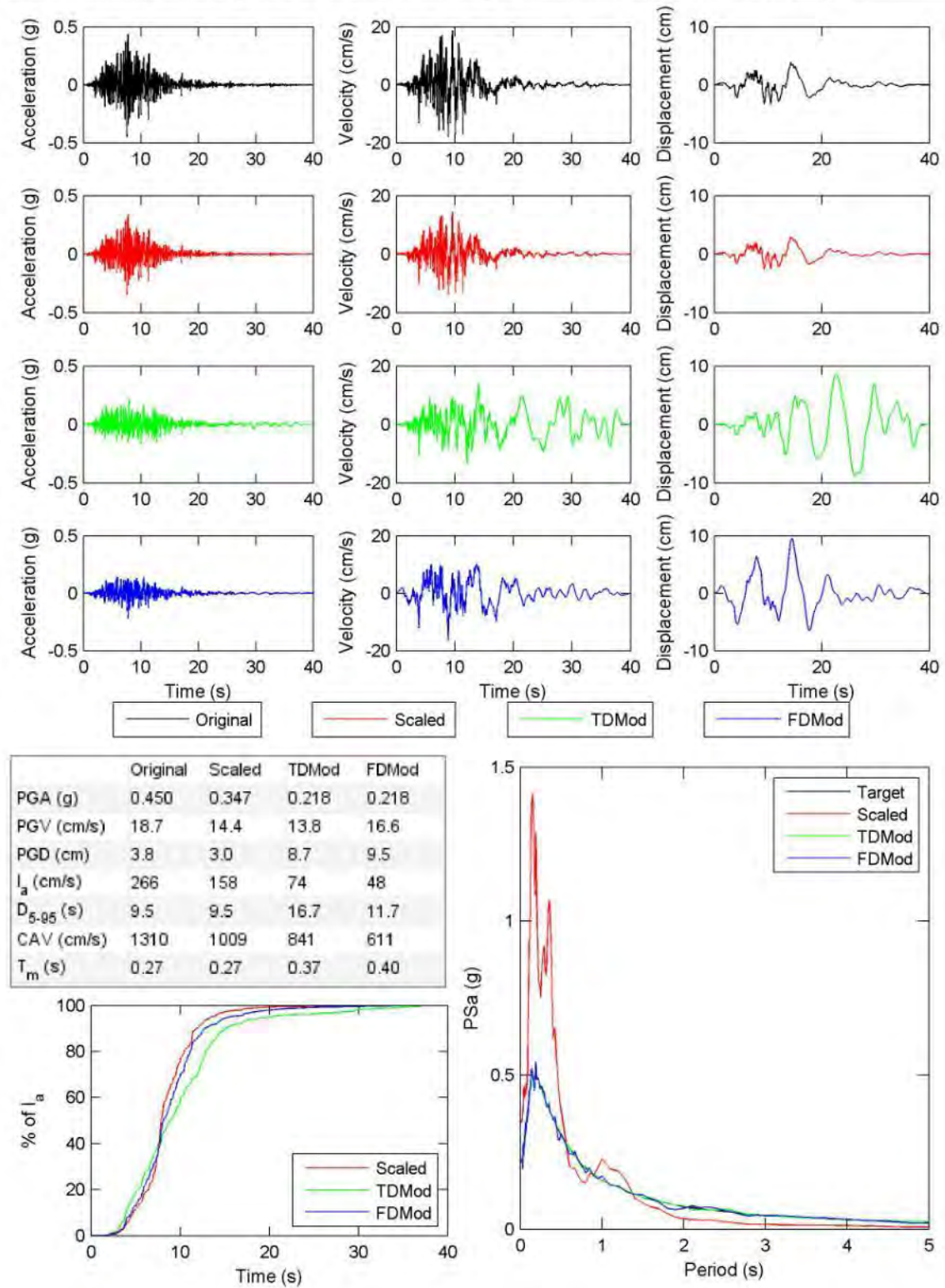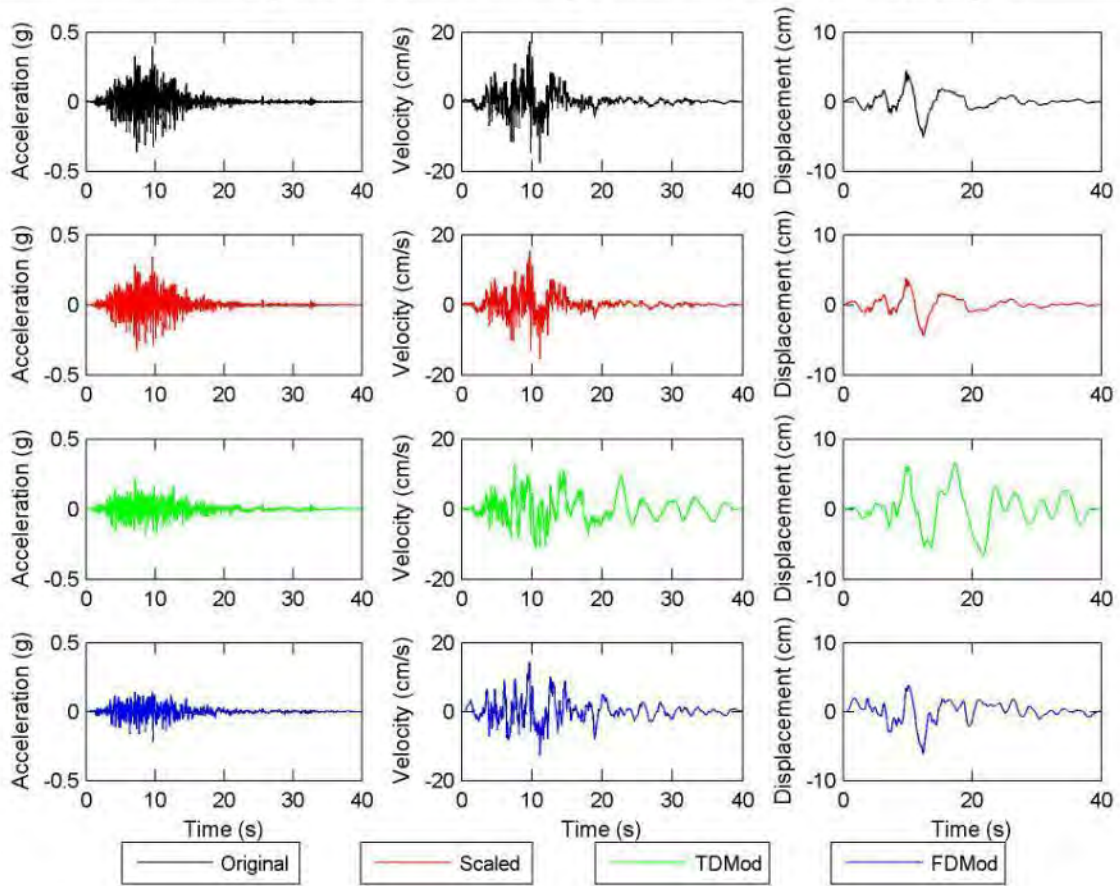Scale Factor: 0.81   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

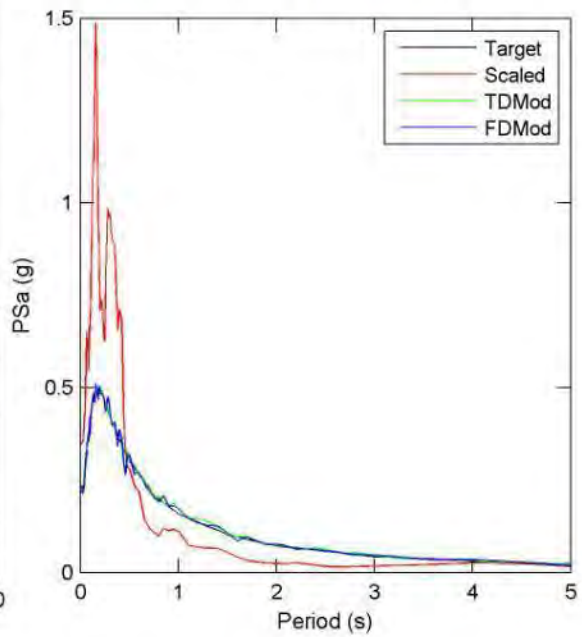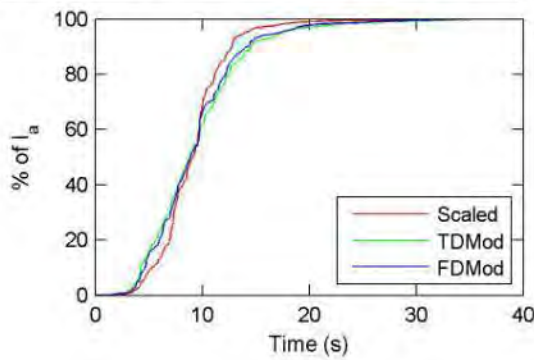|	Original	Scaled	TDMod	FDMod
PGA (g)	0.275	0.222	0.218	0.218
PGV (cm/s)	26.2	21.2	21.3	15.5
PGD (cm)	13.4	10.8	13.0	5.0
I_a (cm/s)	131	86	66	56
D_{5-95} (s)	10.1	10.1	11.1	11.4
CAV (cm/s)	975	790	723	684
T_m (s)	0.31	0.31	0.33	0.38

Figure E.2. continued.

613

File Name: 801 SJTE315   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.92   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.228	0.210	0.218	0.218
PGV (cm/s)	20.9	19.2	19.0	15.5
PGD (cm)	6.2	5.7	15.3	4.5
I_a (cm/s)	100	85	66	58
D_{5-95} (s)	10.1	10.1	15.7	12.5
CAV (cm/s)	880	810	804	706
T_m (s)	0.36	0.36	0.36	0.35

Figure E.2. continued.

614

	Original	Scaled	TDMod	FDMod
PGA (g)	0.512	0.236	0.218	0.218
PGV (cm/s)	41.2	18.9	17.7	13.7
PGD (cm)	16.2	7.5	9.6	7.4
I_a (cm/s)	145	31	37	34
D_{5-95} (s)	9.4	9.4	8.4	8.7
CAV (cm/s)	911	419	472	444
T_m (s)	0.62	0.62	0.46	0.40

Figure E.2. continued.

615

File Name: 802 STG090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.49   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
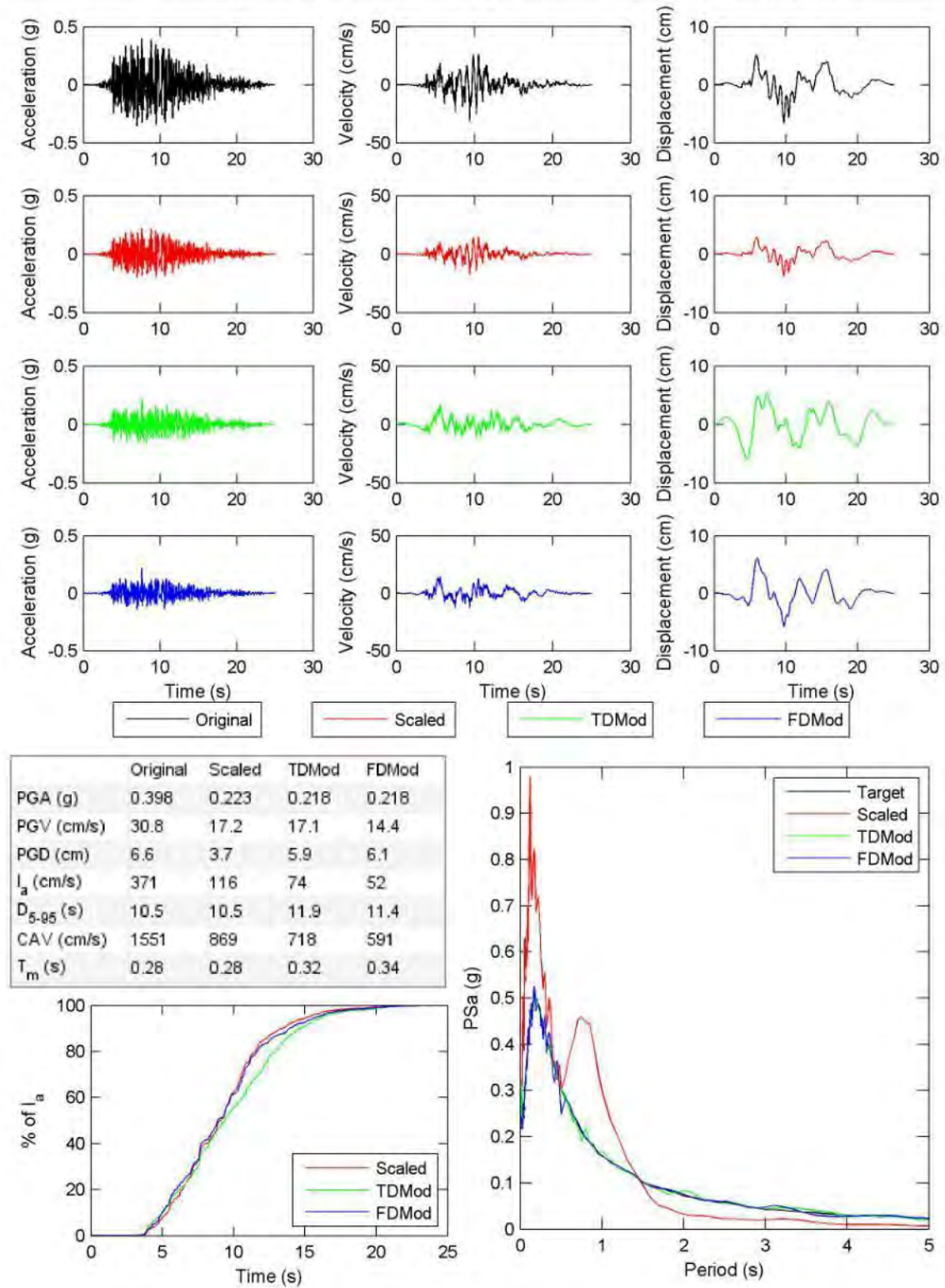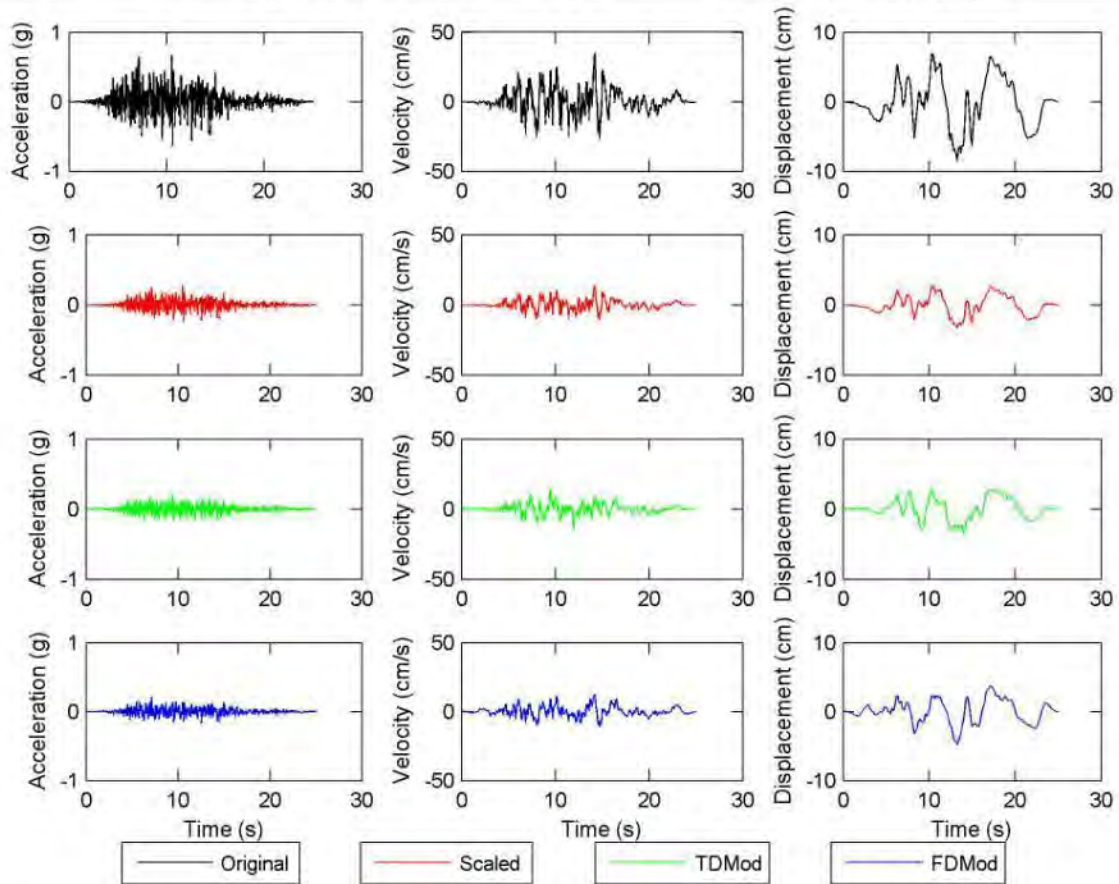
	Original	Scaled	TDMod	FDMod
PGA (g)	0.324	0.159	0.218	0.218
PGV (cm/s)	42.6	20.9	19.6	16.0
PGD (cm)	27.6	13.5	8.5	6.4
I_a (cm/s)	109	26	33	39
D_{5-95} (s)	8.3	8.3	7.3	11.1
CAV (cm/s)	809	396	440	515
T_m (s)	0.54	0.54	0.46	0.42

Figure E.2. continued.

616

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.255	0.148	0.218	0.218
PGV (cm/s)	42.4	24.6	14.0	16.3
PGD (cm)	19.5	11.3	8.4	7.6
I_a (cm/s)	108	36	38	46
D_{5-95} (s)	11.1	11.1	12.1	15.4
CAV (cm/s)	890	516	532	638
T_m (s)	0.84	0.84	0.49	0.40

Figure E.2. continued.

617

File Name: 803 WVC270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.45   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.332	0.149	0.218	0.218
PGV (cm/s)	61.5	27.7	19.7	14.5
PGD (cm)	36.3	16.3	16.0	5.1
I_a (cm/s)	124	25	38	41
D_{5-95} (s)	10.7	10.7	10.8	12.7
CAV (cm/s)	888	400	545	563
T_m (s)	0.97	0.97	0.50	0.41

Figure E.2. continued.

618

File Name: 809 UC2000   Start and End Taper Percentage: 1.0% and 5.0%
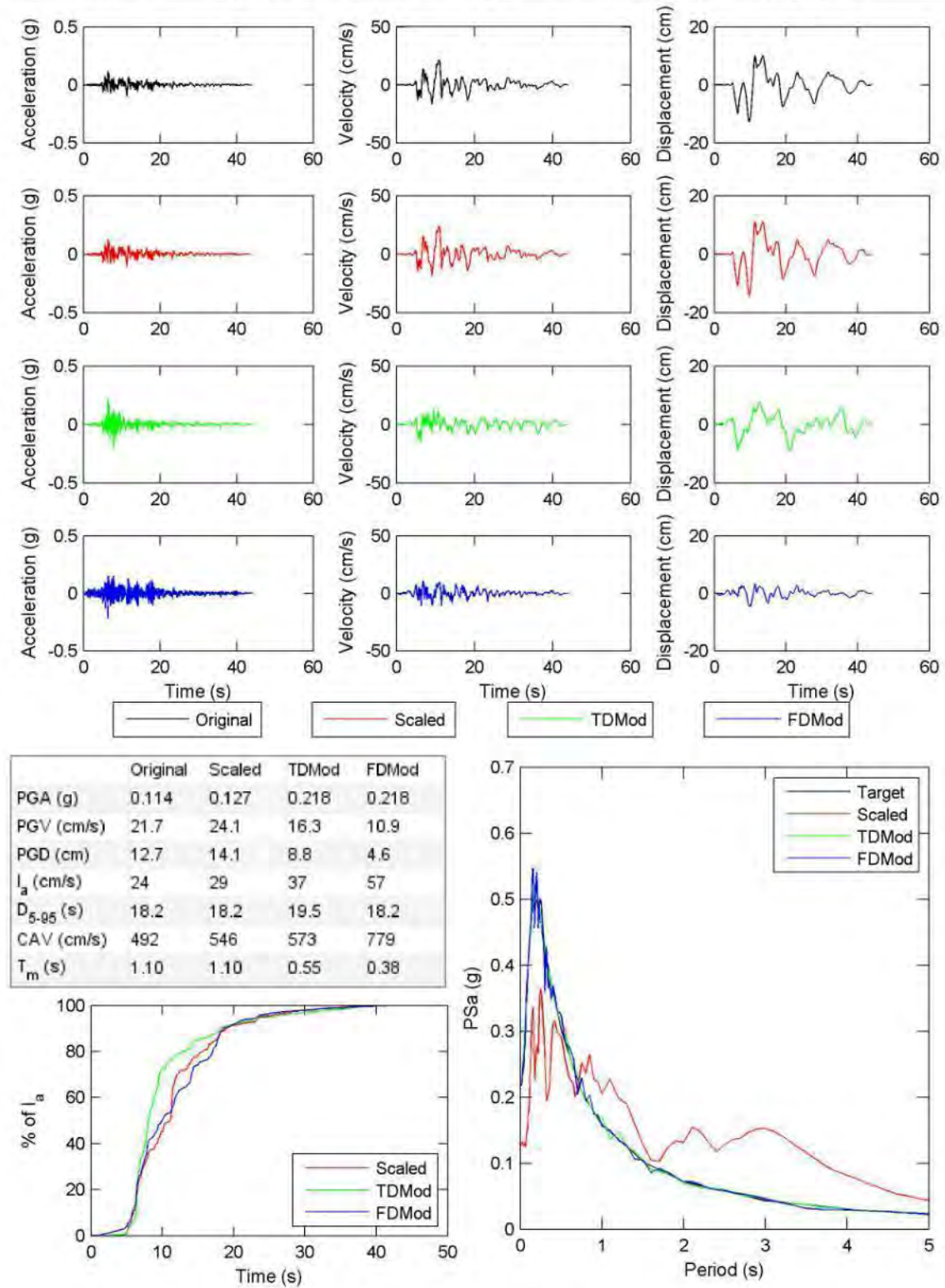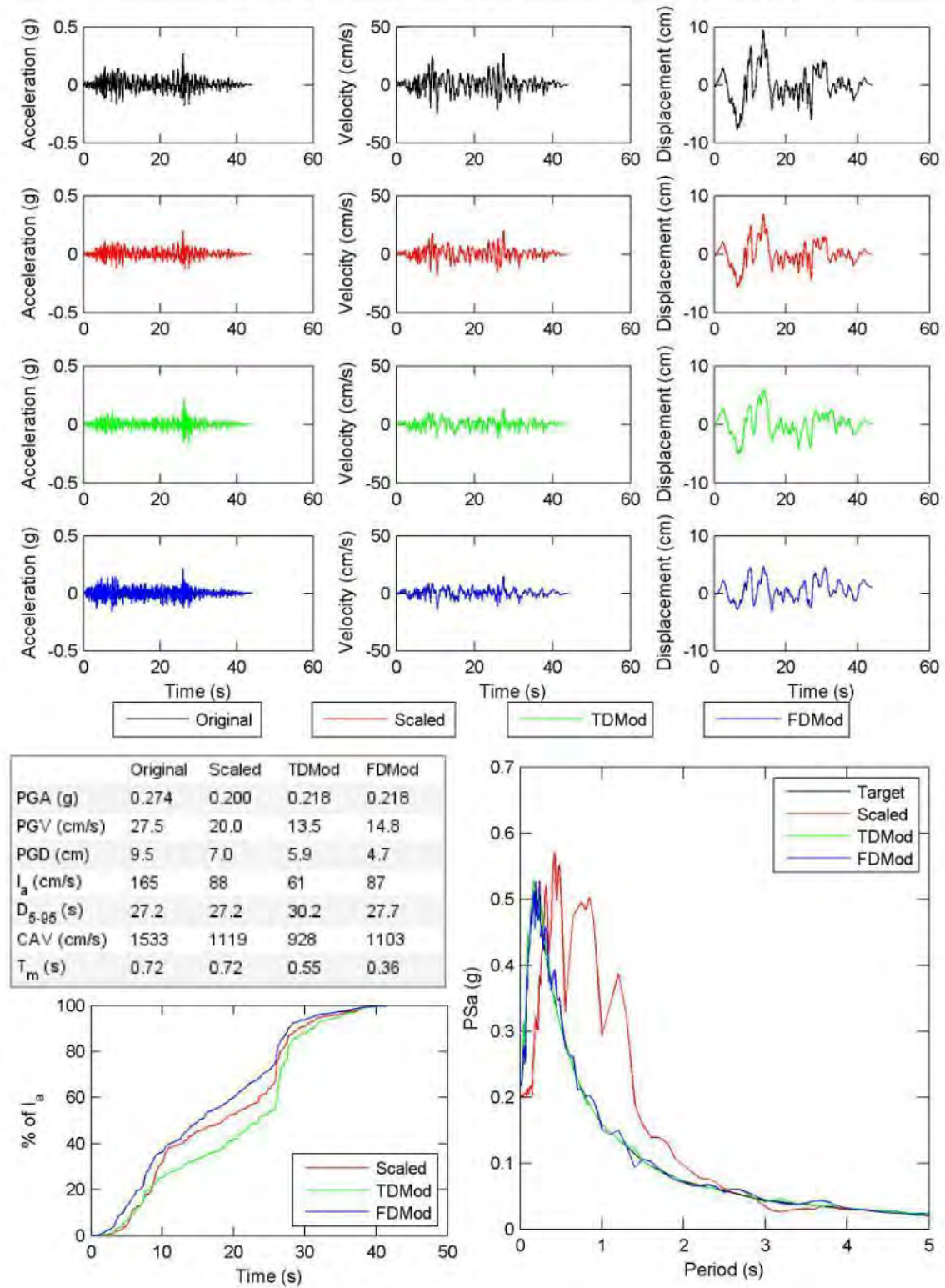Scale Factor: 1.03   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.311	0.321	0.218	0.218
PGV (cm/s)	12.5	12.9	16.1	13.0
PGD (cm)	5.9	6.1	6.4	5.6
I_a (cm/s)	86	91	65	46
D_{5-95} (s)	9.0	9.0	10.6	11.2
CAV (cm/s)	679	699	653	541
T_m (s)	0.20	0.20	0.31	0.44

Figure E.2. continued.

619

	Original	Scaled	TDMod	FDMod
PGA (g)	0.386	0.336	0.218	0.218
PGV (cm/s)	15.4	13.4	13.8	13.8
PGD (cm)	5.1	4.4	6.6	7.1
I_a (cm/s)	158	120	70	47
D_{5-95} (s)	8.6	8.6	11.4	10.5
CAV (cm/s)	932	810	693	547
T_m (s)	0.22	0.22	0.33	0.40

Figure E.2. continued.

620

File Name: 810 LOB000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.77   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
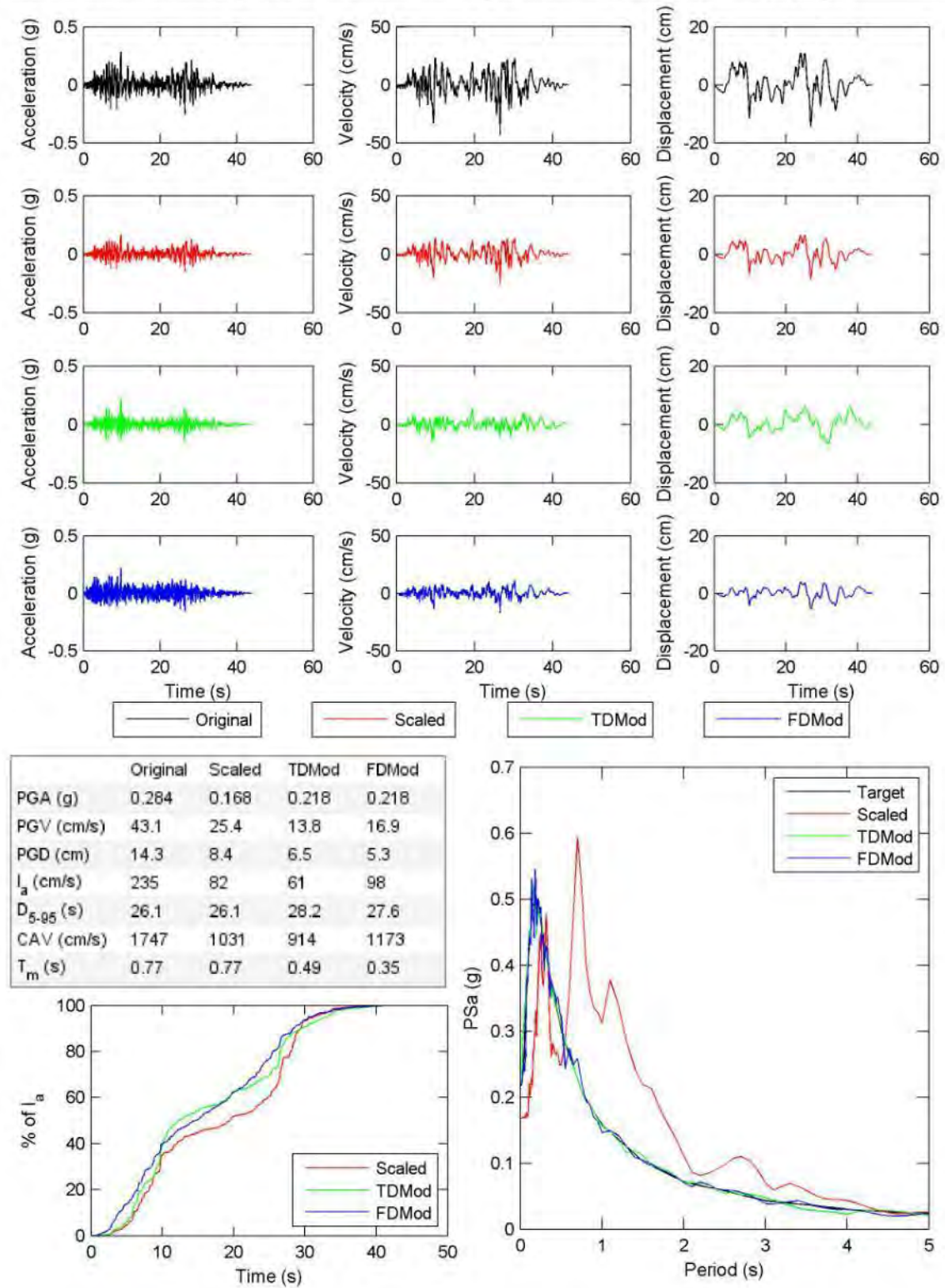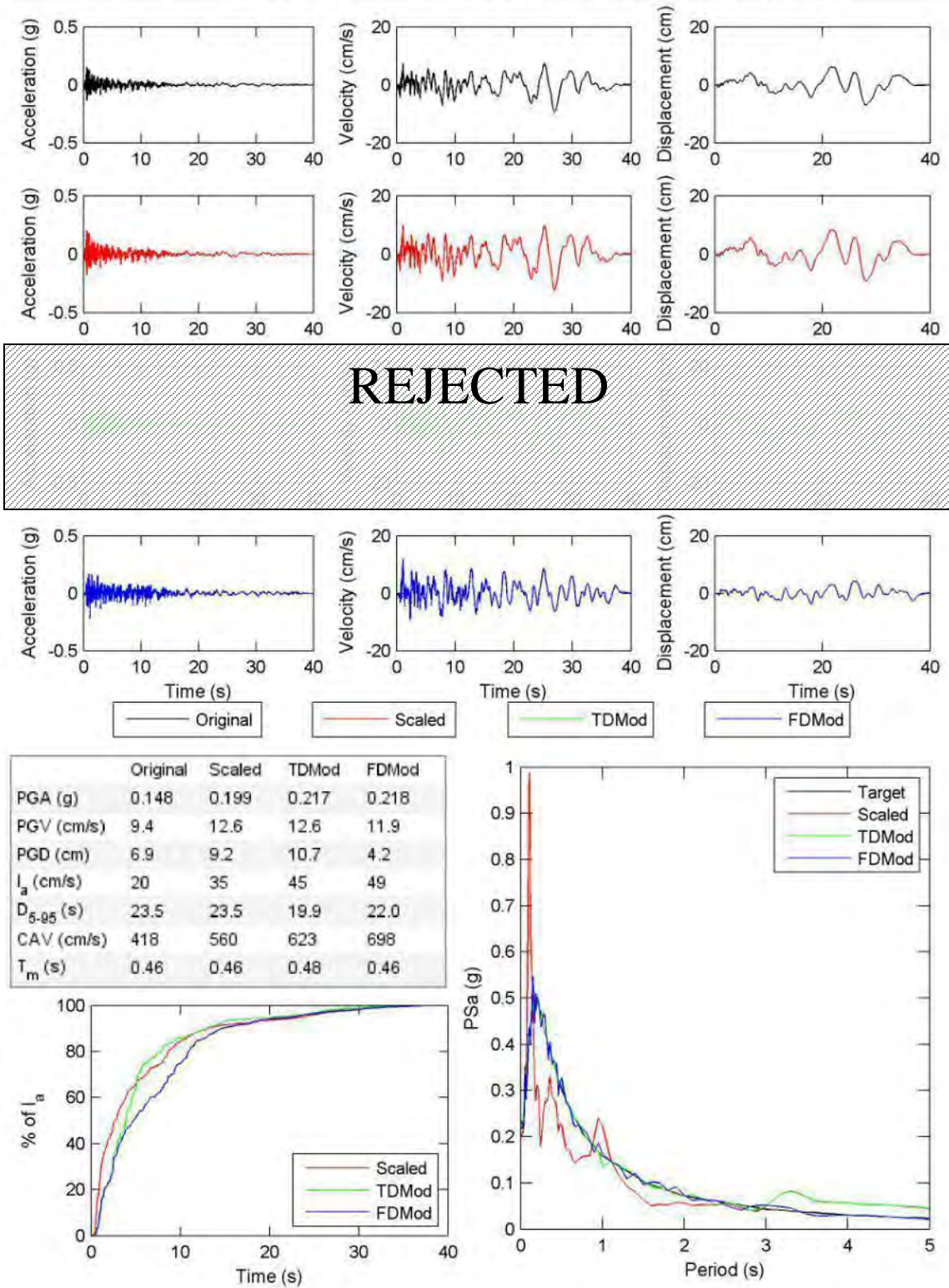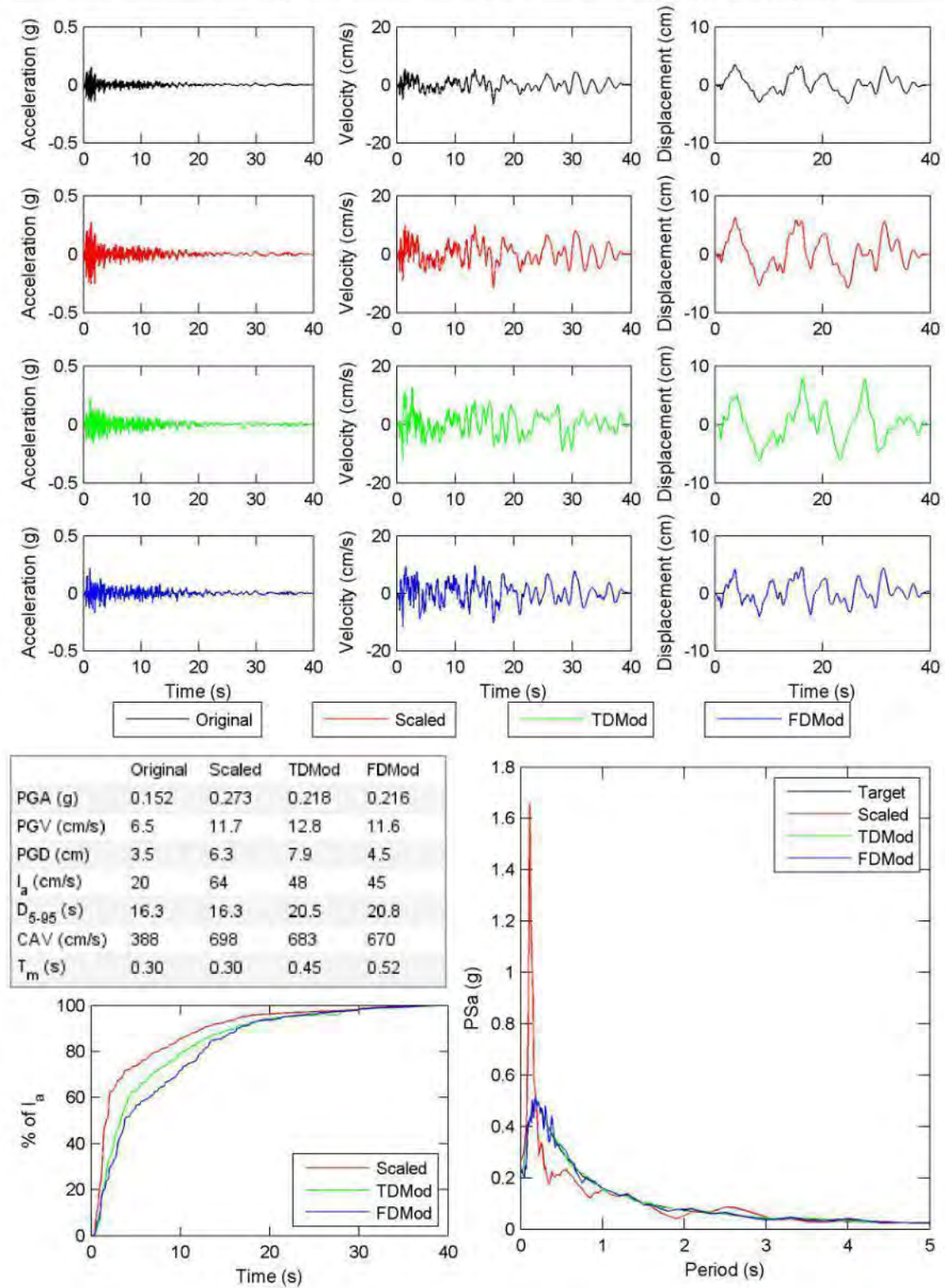

	Original	Scaled	TDMod	FDMod
PGA (g)	0.450	0.347	0.218	0.218
PGV (cm/s)	18.7	14.4	13.8	16.6
PGD (cm)	3.8	3.0	8.7	9.5
I_a (cm/s)	266	158	74	48
D_{5-95} (s)	9.5	9.5	16.7	11.7
CAV (cm/s)	1310	1009	841	611
T_m (s)	0.27	0.27	0.37	0.40

Figure E.2. continued.

621

Figure E.2. continued.

622

	Original	Scaled	TDMod	FDMod
PGA (g)	0.398	0.223	0.218	0.218
PGV (cm/s)	30.8	17.2	17.1	14.4
PGD (cm)	6.6	3.7	5.9	6.1
I_a (cm/s)	371	116	74	52
D_{5-95} (s)	10.5	10.5	11.9	11.4
CAV (cm/s)	1551	869	718	591
T_m (s)	0.28	0.28	0.32	0.34

Figure E.2. continued.

623

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.672	0.269	0.218	0.218
PGV (cm/s)	35.0	14.0	14.6	12.3
PGD (cm)	8.4	3.3	3.5	4.8
I_a (cm/s)	627	100	74	61
D_{5-95} (s)	11.0	11.0	12.2	12.8
CAV (cm/s)	2025	810	722	663
T_m (s)	0.27	0.27	0.32	0.36
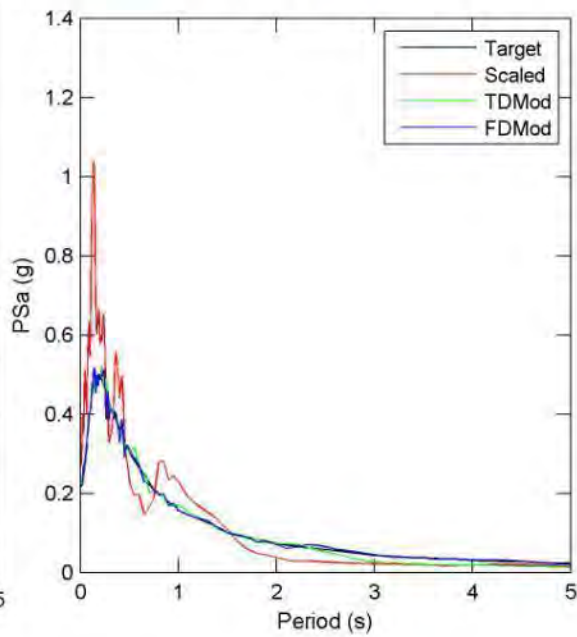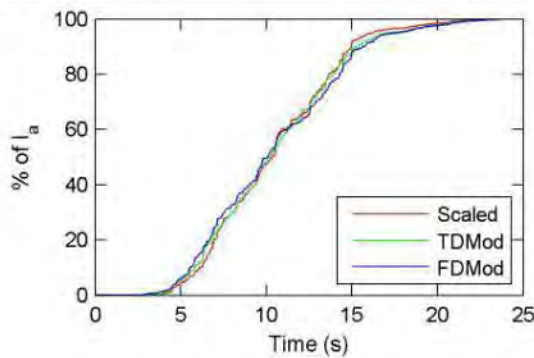
Figure E.2. continued.
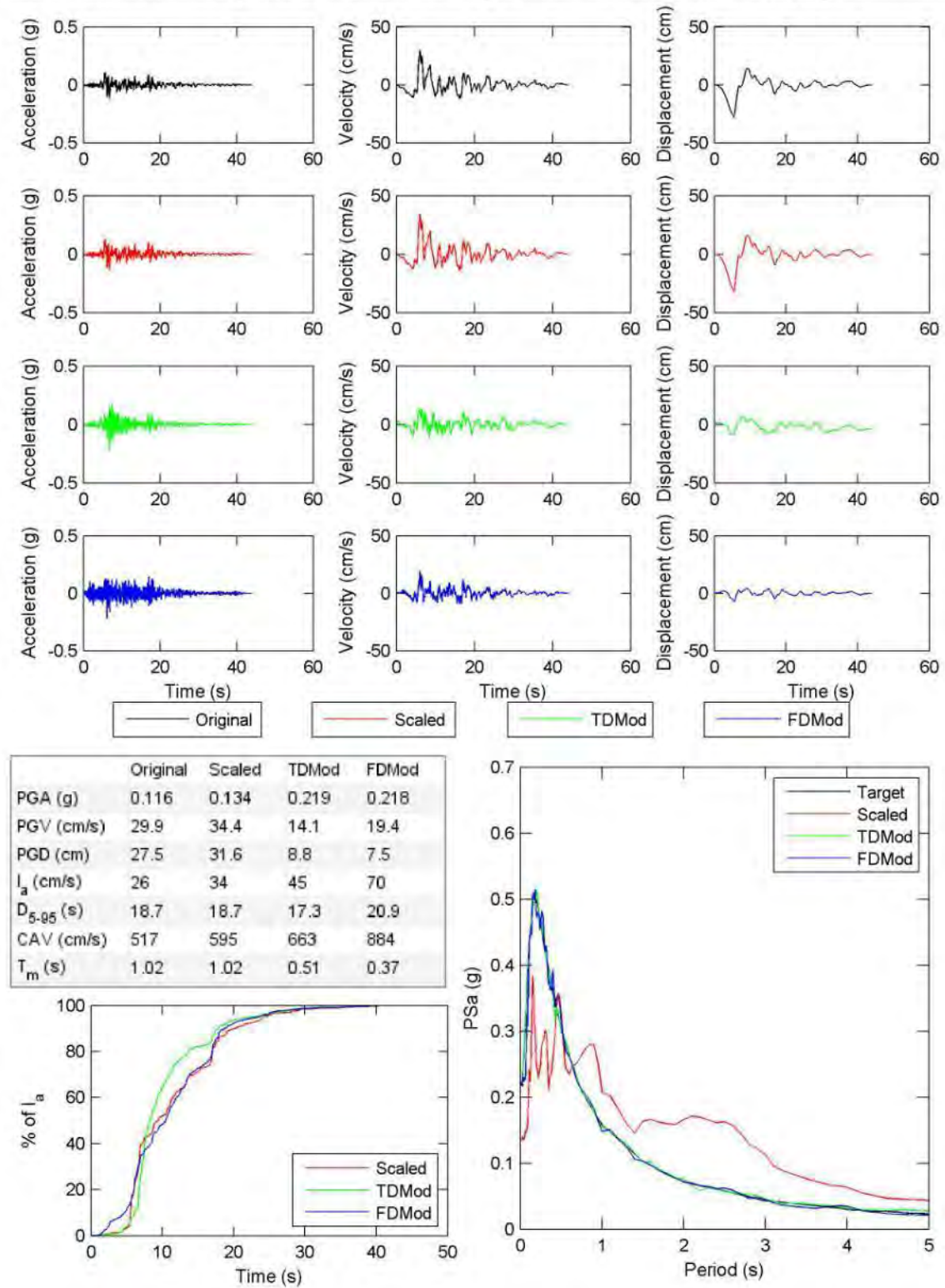
624

File Name: 827 FOR000   Start and End Taper Percentage: 1.0% and 5.0%
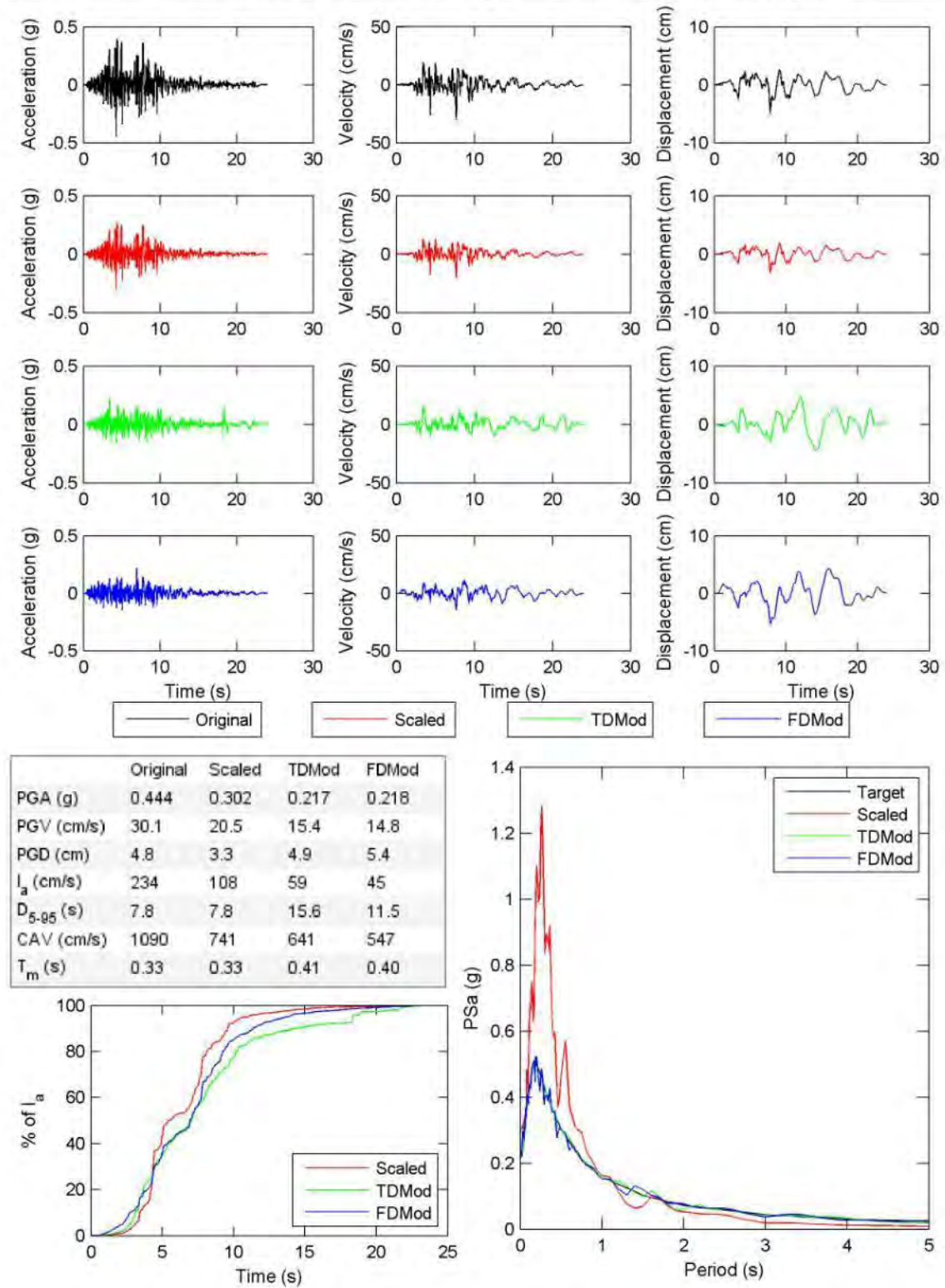Scale Factor: 1.15   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.116	0.134	0.219	0.218
PGV (cm/s)	29.9	34.4	14.1	19.4
PGD (cm)	27.5	31.6	8.8	7.5
I_a (cm/s)	26	34	45	70
D_{5-95} (s)	18.7	18.7	17.3	20.9
CAV (cm/s)	517	595	663	884
T_m (s)	1.02	1.02	0.51	0.37

Figure E.2. continued.

625

	Original	Scaled	TDMod	FDMod
PGA (g)	0.114	0.127	0.218	0.218
PGV (cm/s)	21.7	24.1	16.3	10.9
PGD (cm)	12.7	14.1	8.8	4.6
I_a (cm/s)	24	29	37	57
D_{5-95} (s)	18.2	18.2	19.5	18.2
CAV (cm/s)	492	546	573	779
T_m (s)	1.10	1.10	0.55	0.38

Figure E.2. continued.

626

File Name: 864 JOS000   Start and End Taper Percentage: 1.0% and 5.0%
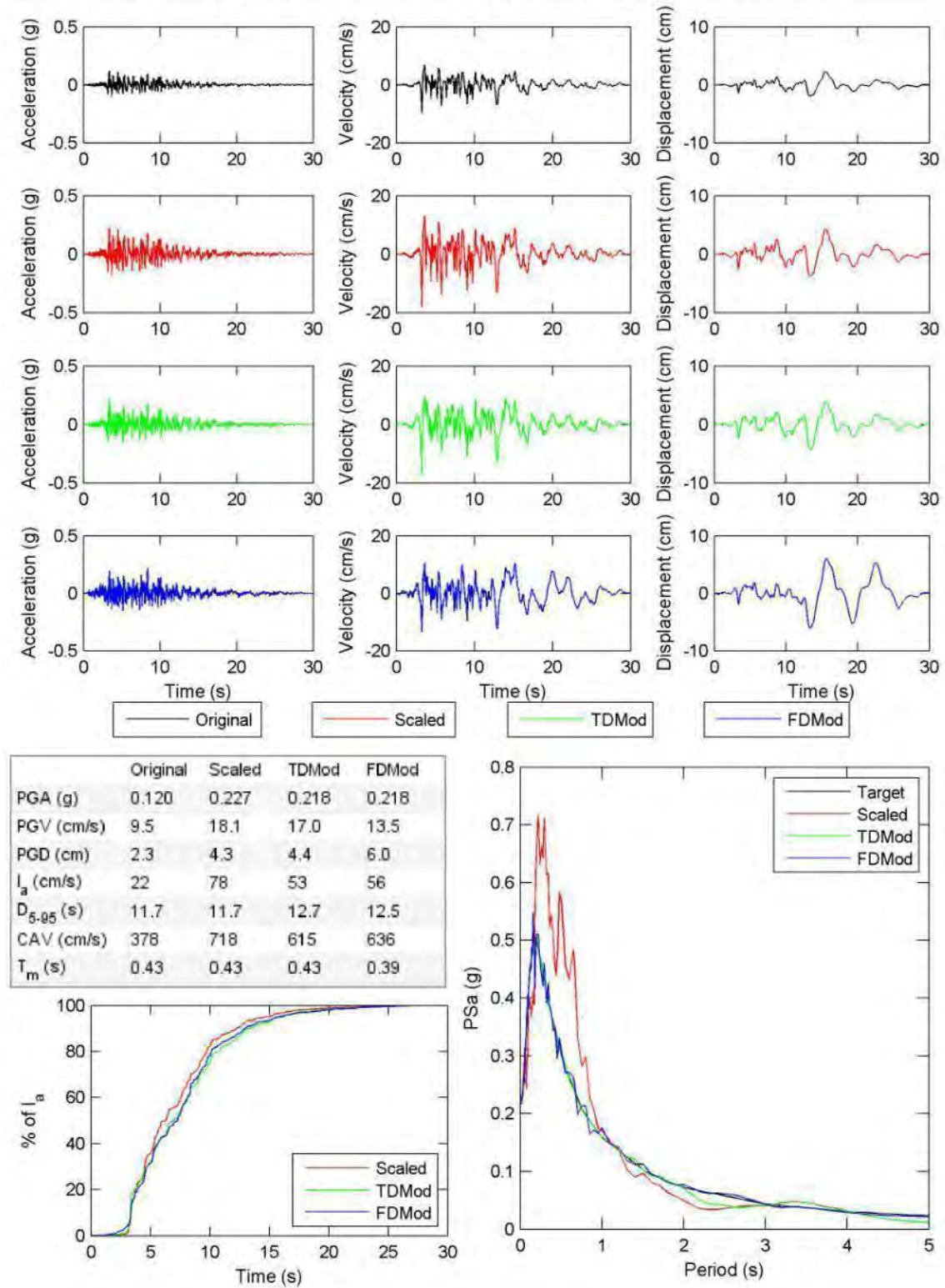Scale Factor: 0.73   Target Spectrum Matched: targetAttenMed.txt   FD poly: 7   TD poly: 4
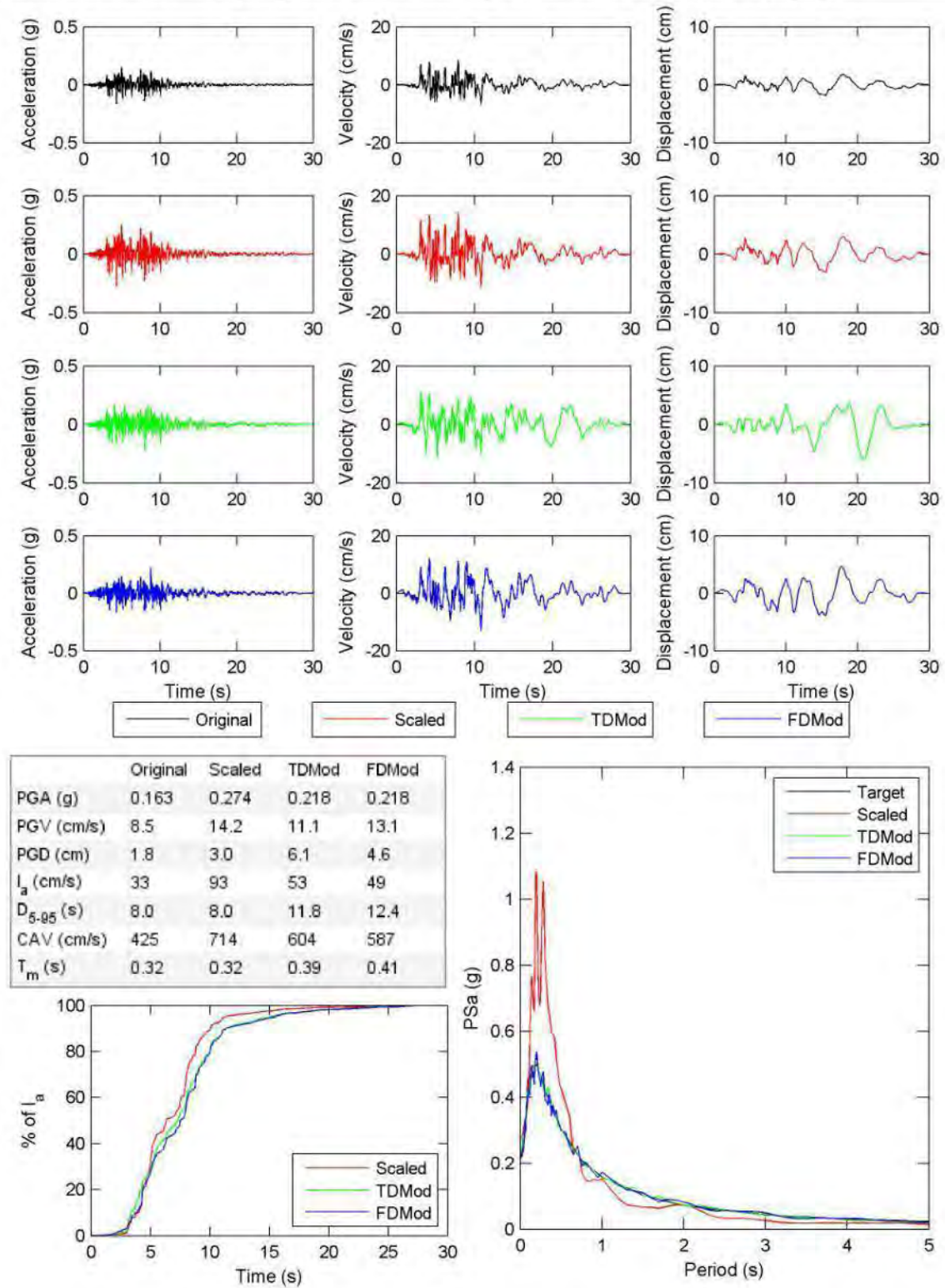

	Original	Scaled	TDMod	FDMod
PGA (g)	0.274	0.200	0.218	0.218
PGV (cm/s)	27.5	20.0	13.5	14.8
PGD (cm)	9.5	7.0	5.9	4.7
I_a (cm/s)	165	88	61	87
D_{5-95} (s)	27.2	27.2	30.2	27.7
CAV (cm/s)	1533	1119	928	1103
T_m (s)	0.72	0.72	0.55	0.36

Figure E.2. continued.

627

File Name: 864 JOS090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.59   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 7
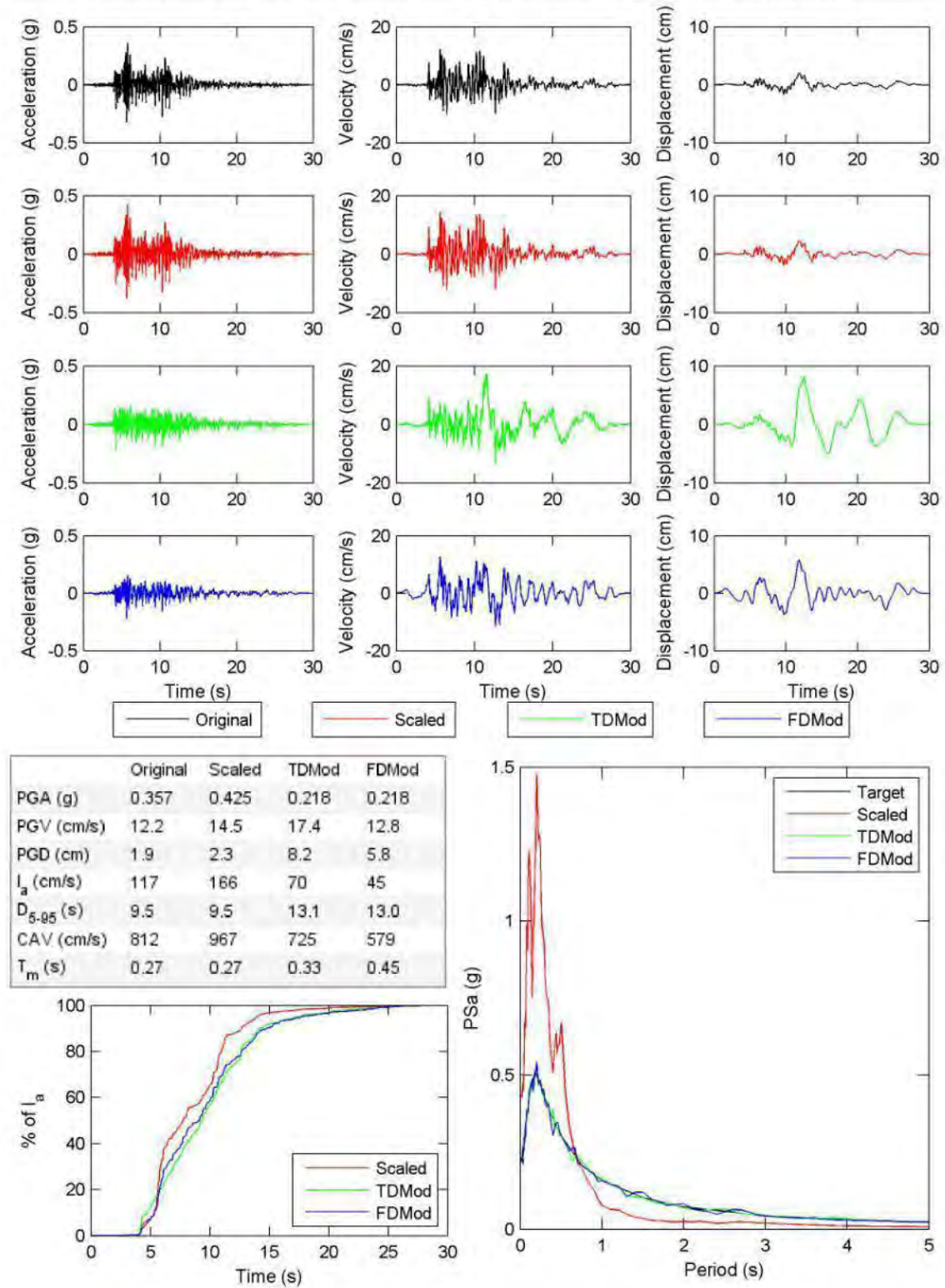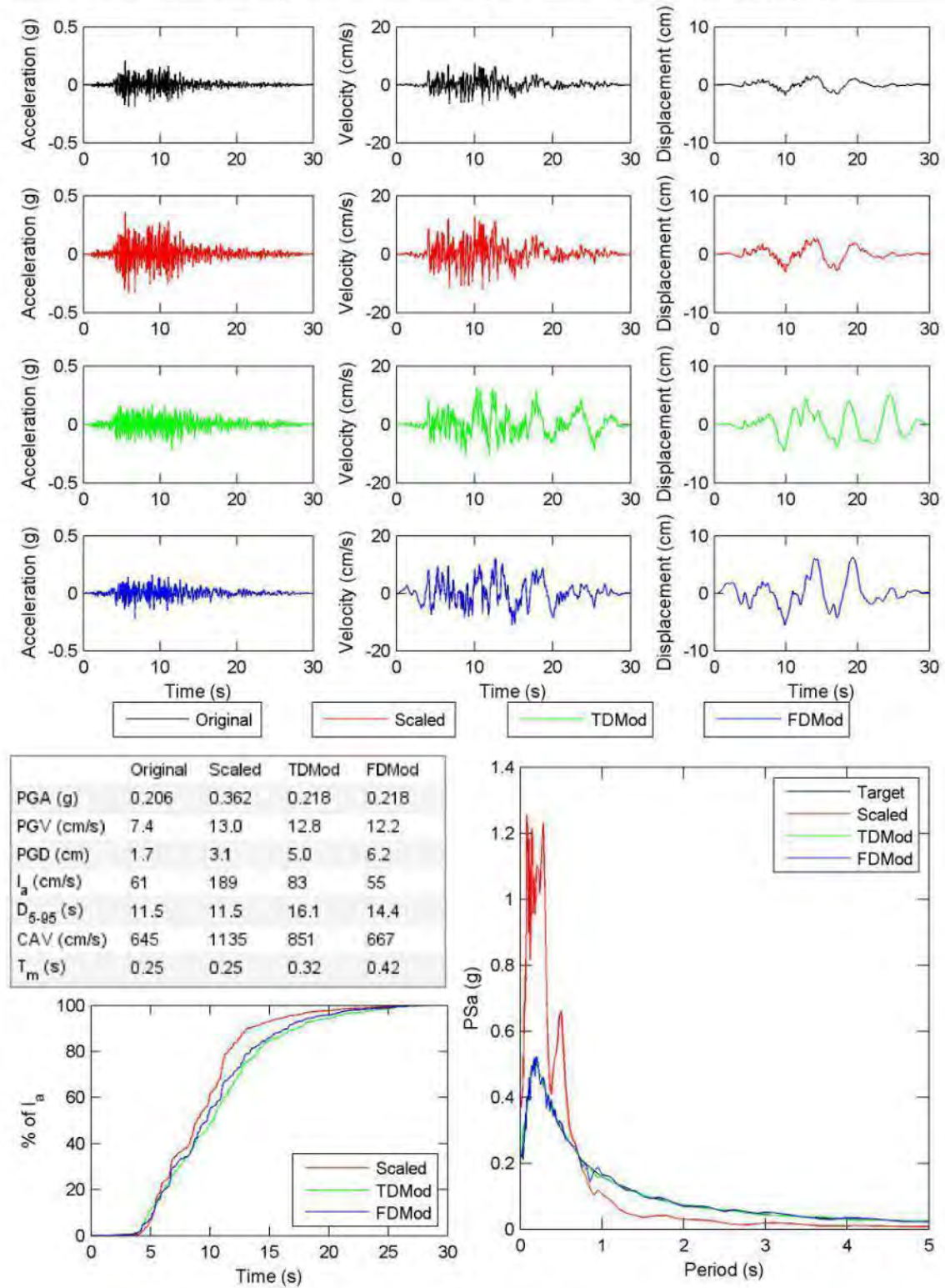

	Original	Scaled	TDMod	FDMod
PGA (g)	0.284	0.168	0.218	0.218
PGV (cm/s)	43.1	25.4	13.8	16.9
PGD (cm)	14.3	8.4	6.5	5.3
I_a (cm/s)	235	82	61	98
D_{5-95} (s)	26.1	26.1	28.2	27.6
CAV (cm/s)	1747	1031	914	1173
T_m (s)	0.77	0.77	0.49	0.35

Figure E.2. continued.

628

File Name: 88 FSD172   Start and End Taper Percentage: 1.0% and 5.0%
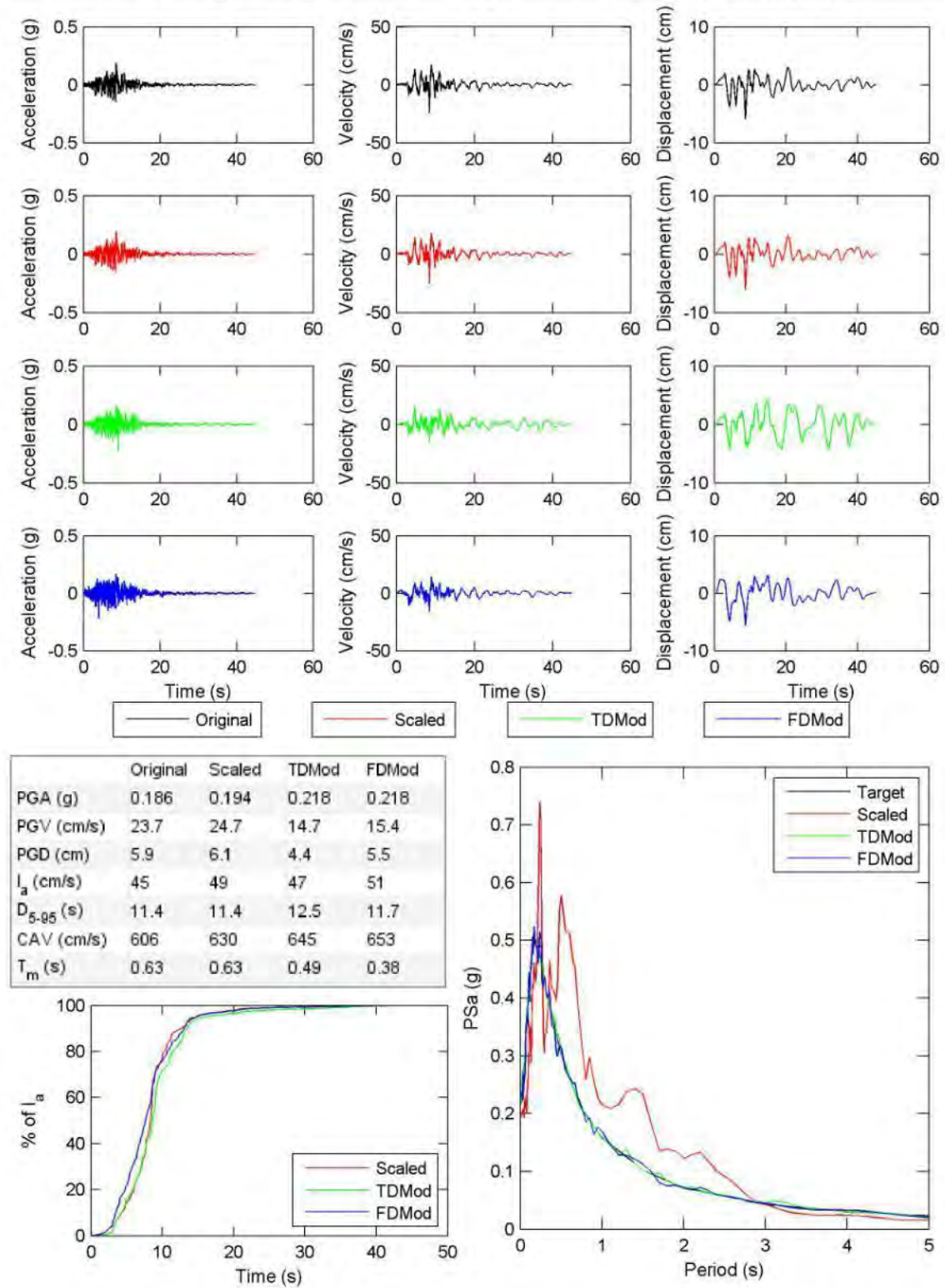Scale Factor: 1.34   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

REJECTED

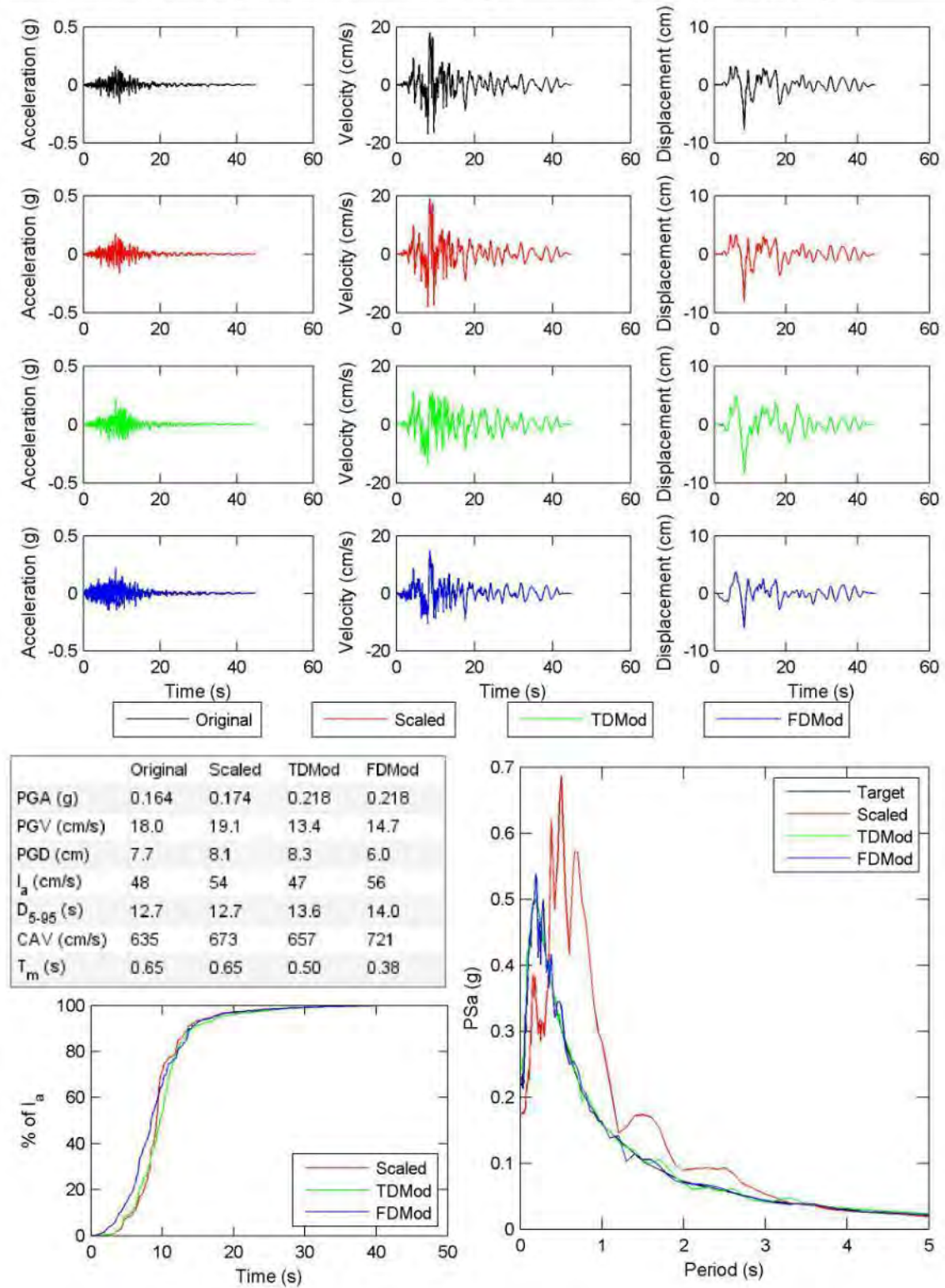|	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.199	0.217	0.218
PGV (cm/s)	9.4	12.6	12.6	11.9
PGD (cm)	6.9	9.2	10.7	4.2
I_a (cm/s)	20	35	45	49
D_{5-95} (s)	23.5	23.5	19.9	22.0
CAV (cm/s)	418	560	623	698
T_m (s)	0.46	0.46	0.48	0.46

Figure E.2. continued.

629

File Name: 88 FSD262   Start and End Taper Percentage: 1.0% and 5.0%
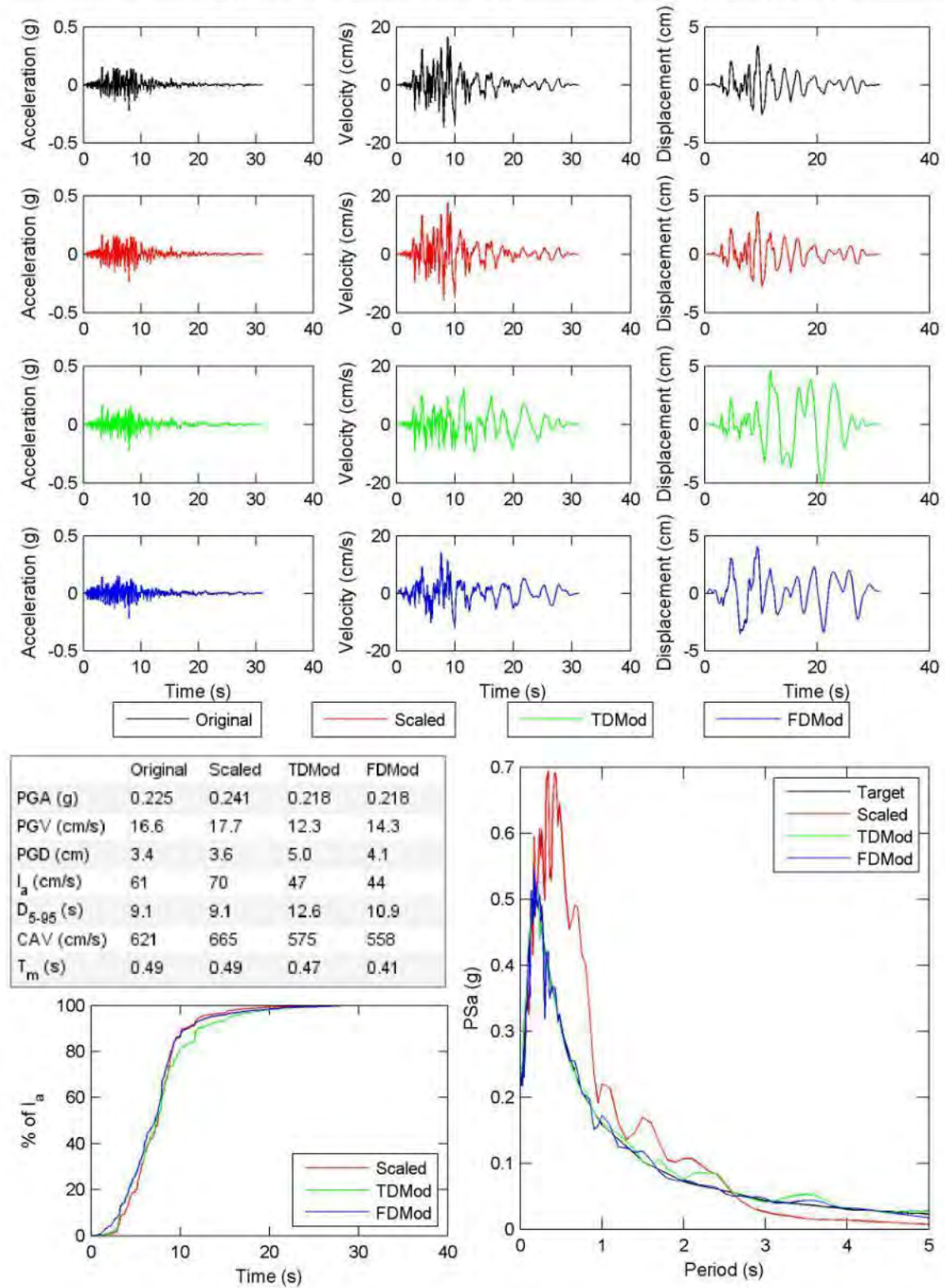Scale Factor: 1.80   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.152	0.273	0.218	0.216
PGV (cm/s)	6.5	11.7	12.8	11.6
PGD (cm)	3.5	6.3	7.9	4.5
I_a (cm/s)	20	64	48	45
D_{5-95} (s)	16.3	16.3	20.5	20.8
CAV (cm/s)	388	698	683	670
T_m (s)	0.30	0.30	0.45	0.52

Figure E.2. continued.

630

File Name: 952 MU2035   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.50   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4
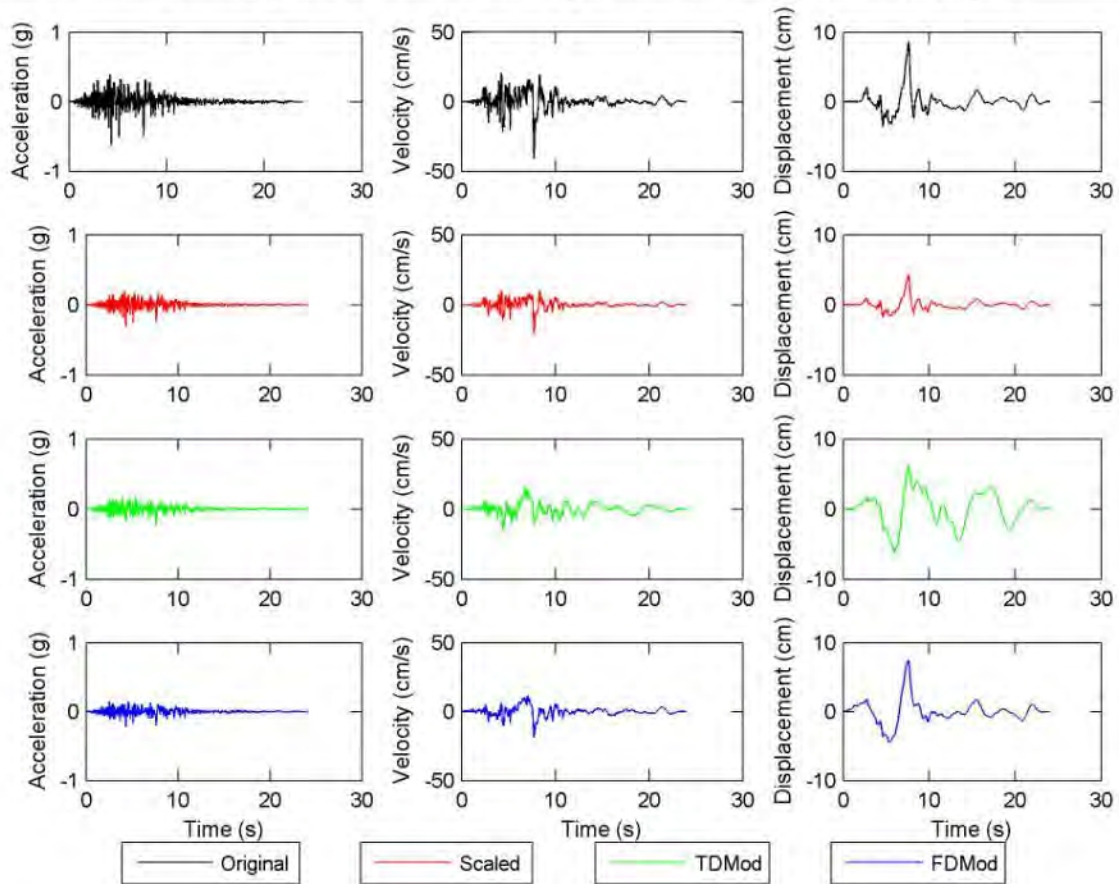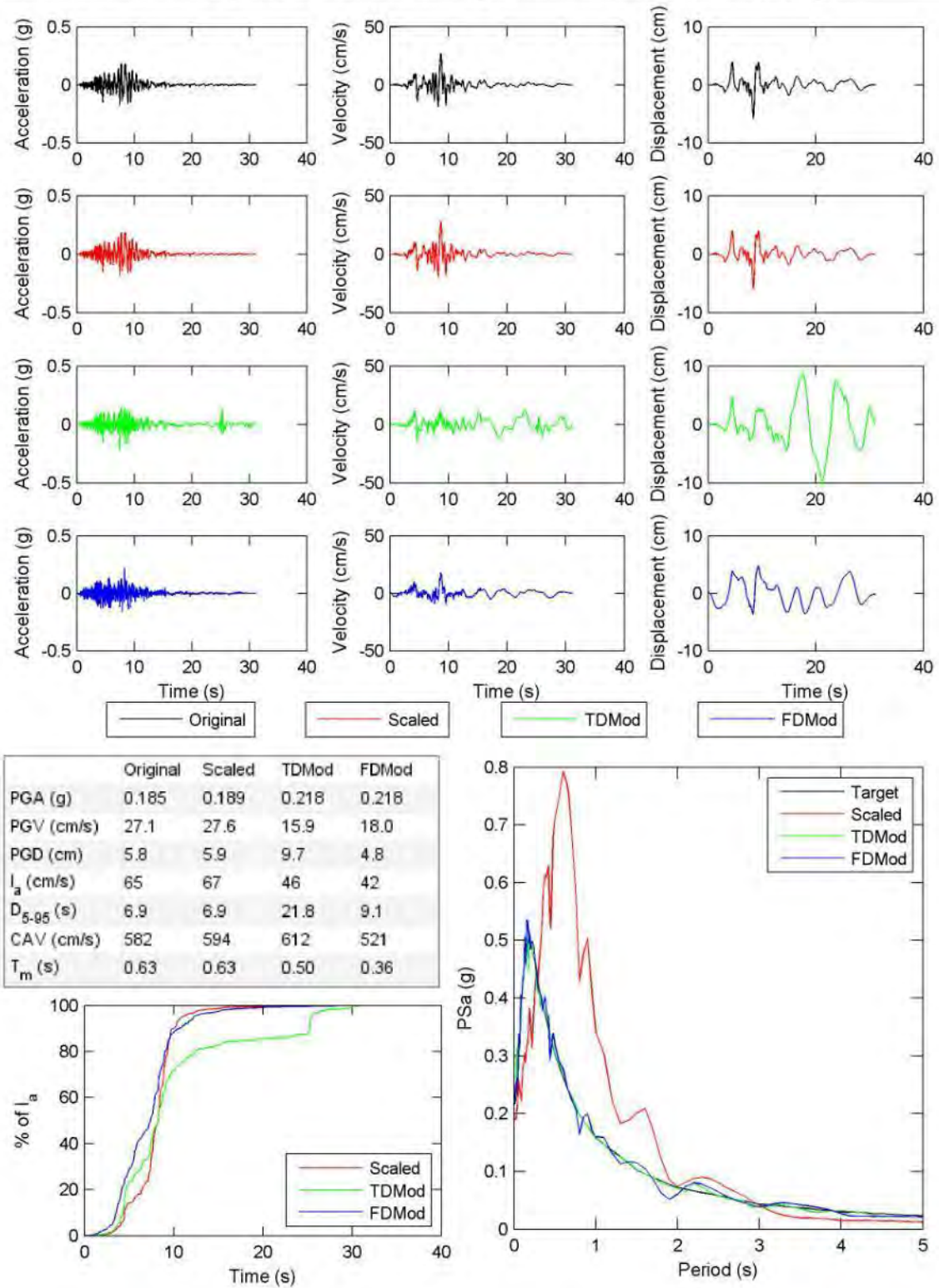

	Original	Scaled	TDMod	FDMod
PGA (g)	0.617	0.308	0.218	0.218
PGV (cm/s)	40.7	20.4	15.4	18.8
PGD (cm)	8.6	4.3	6.2	7.4
I_a (cm/s)	299	75	49	44
D_{5-95} (s)	7.6	7.6	9.3	8.4
CAV (cm/s)	1195	598	540	495
T_m (s)	0.32	0.32	0.37	0.37

Figure E.2. continued.

631
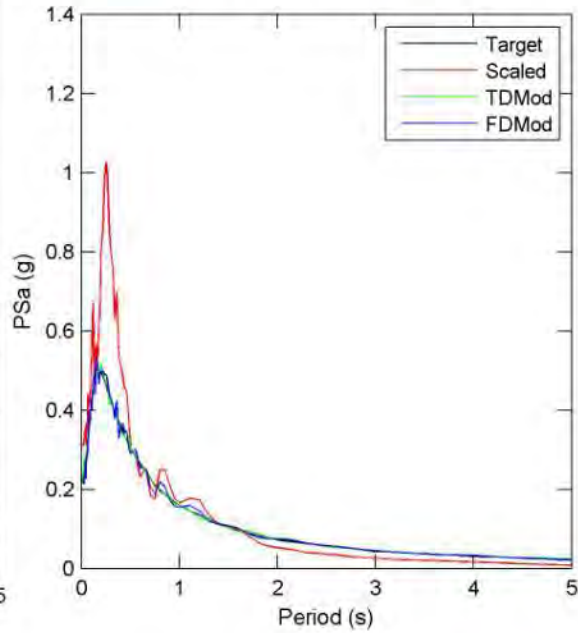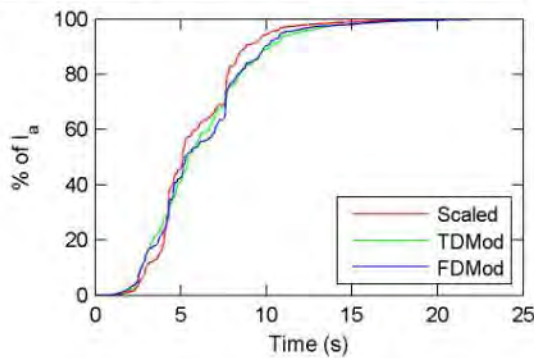
File Name: 952 MU2125   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.68   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 7
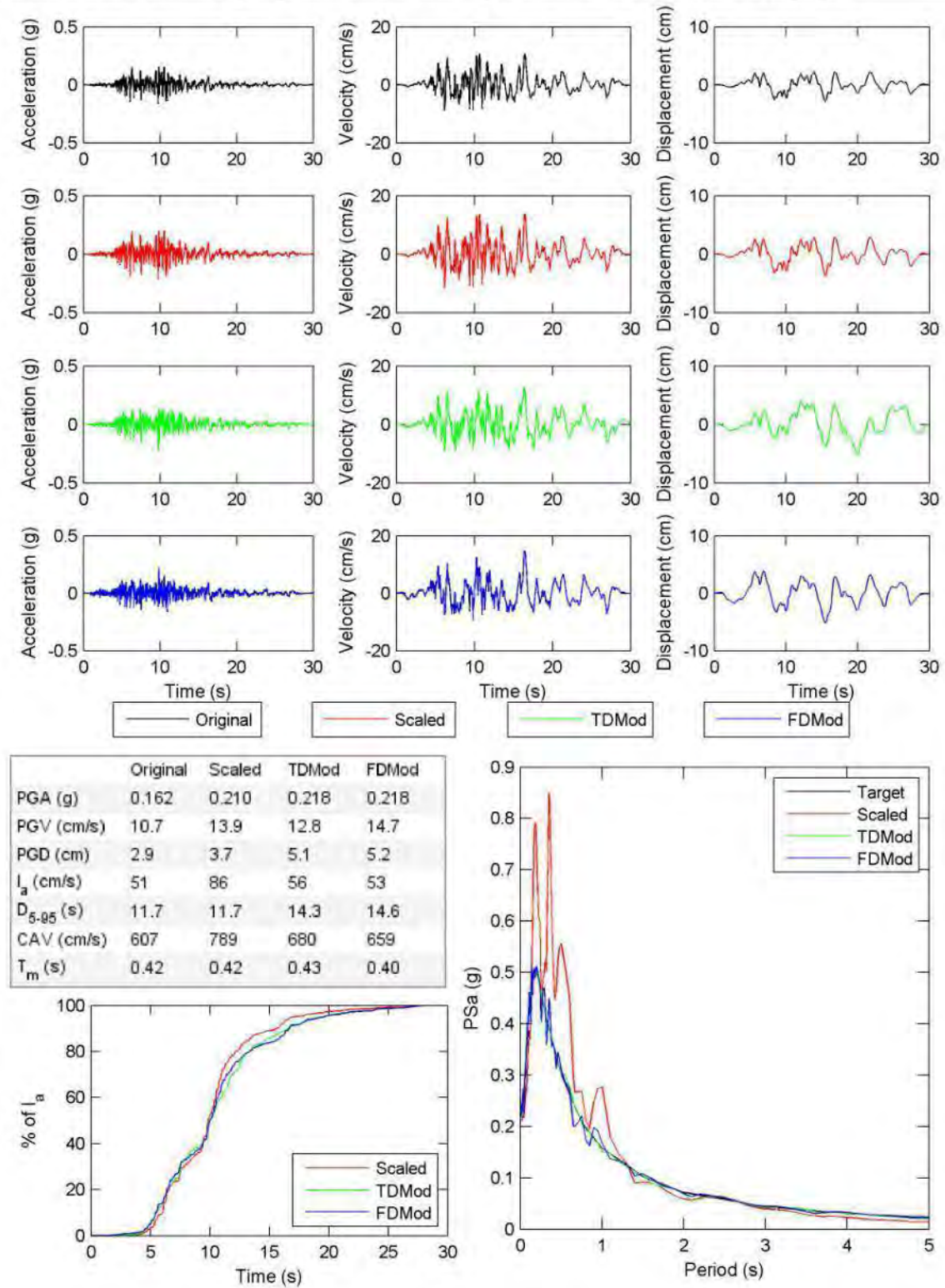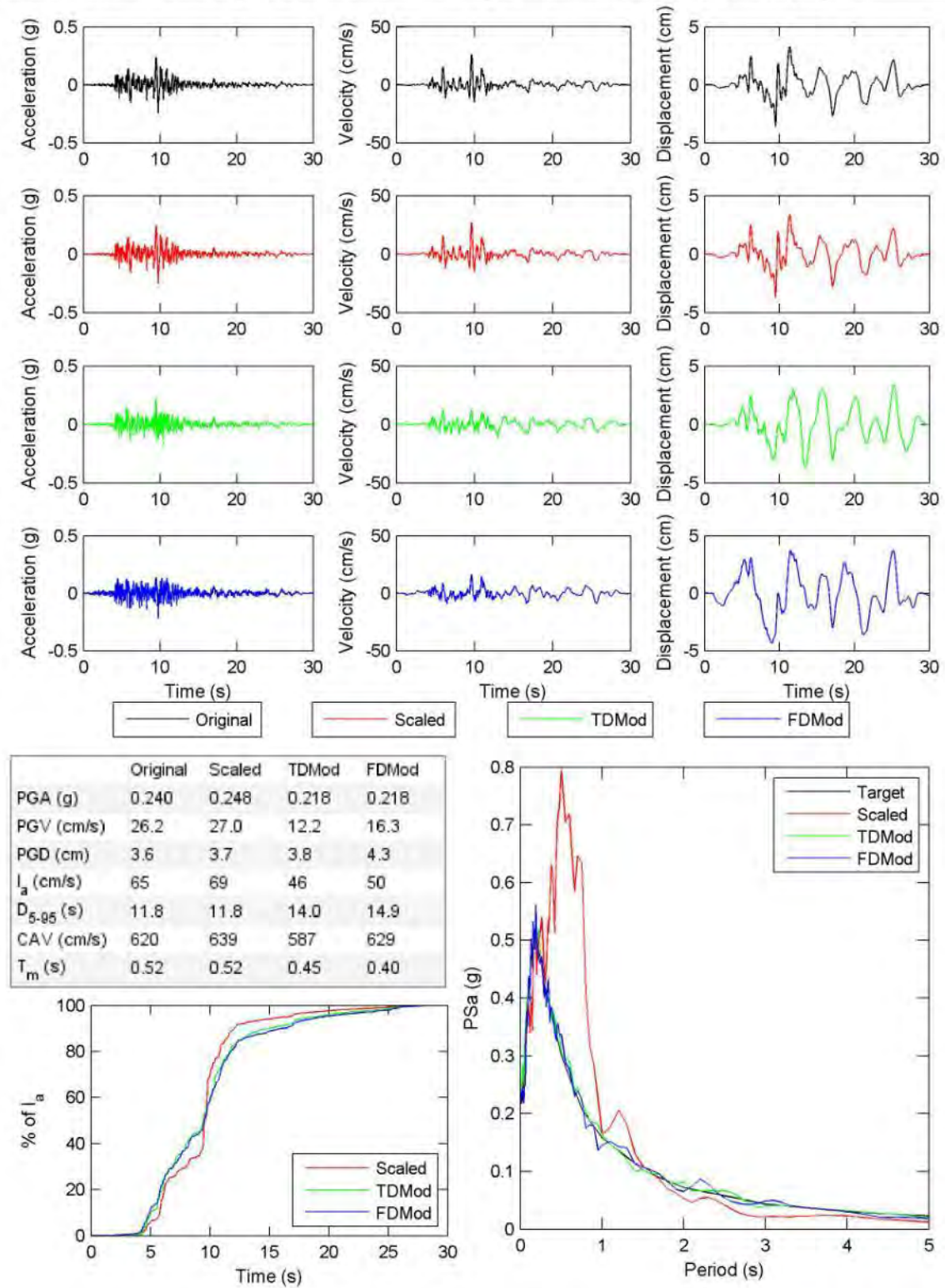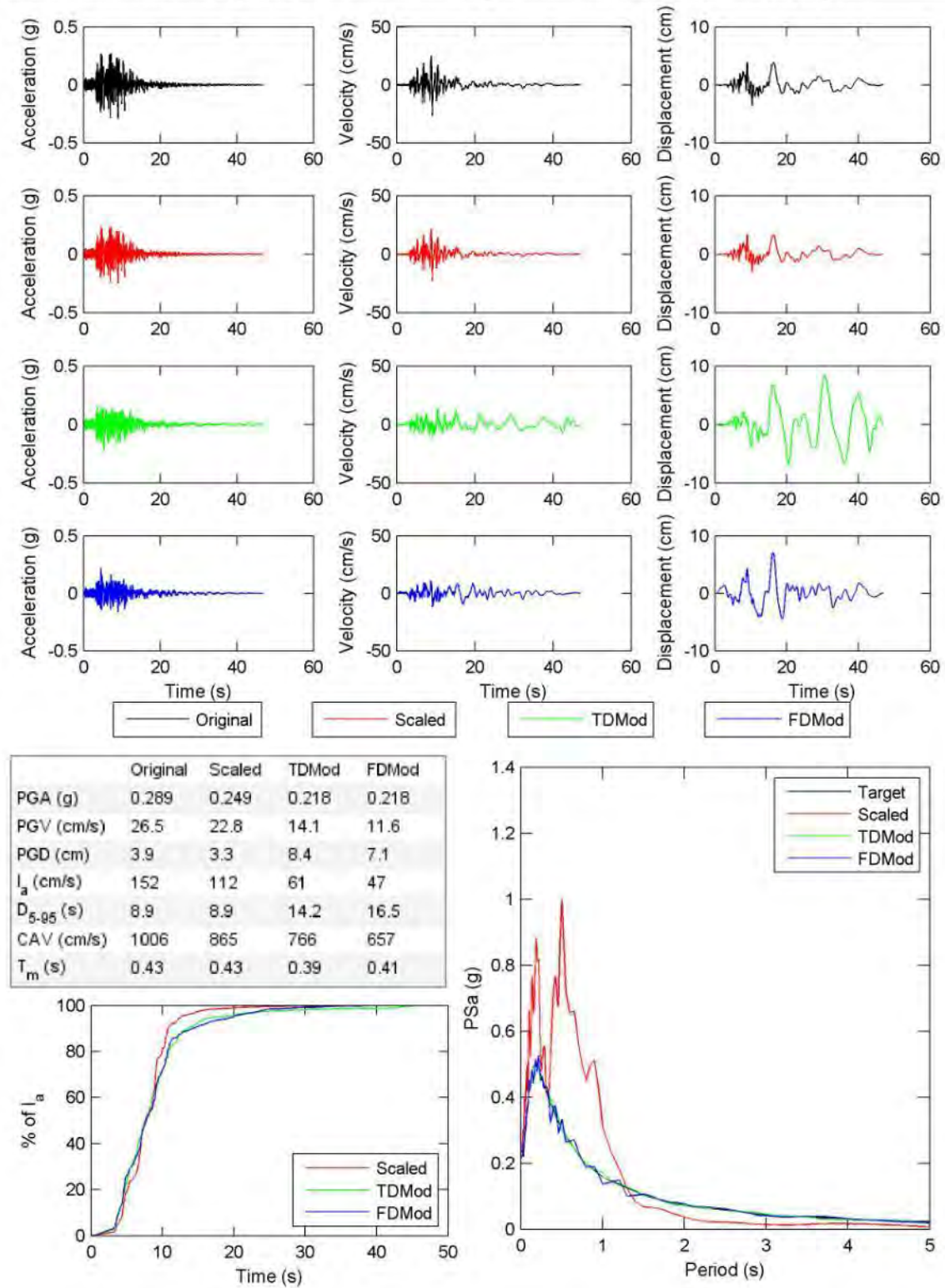

	Original	Scaled	TDMod	FDMod
PGA (g)	0.444	0.302	0.217	0.218
PGV (cm/s)	30.1	20.5	15.4	14.8
PGD (cm)	4.8	3.3	4.9	5.4
I_a (cm/s)	234	108	59	45
D_{5-95} (s)	7.8	7.8	15.6	11.5
CAV (cm/s)	1090	741	641	547
T_m (s)	0.33	0.33	0.41	0.40

Figure E.2. continued.

632

	Original	Scaled	TDMod	FDMod
PGA (g)	0.120	0.227	0.218	0.218
PGV (cm/s)	9.5	18.1	17.0	13.5
PGD (cm)	2.3	4.3	4.4	6.0
I_a (cm/s)	22	78	53	56
D_{5-95} (s)	11.7	11.7	12.7	12.5
CAV (cm/s)	378	718	615	636
T_m (s)	0.43	0.43	0.43	0.39

Figure E.2. continued.

633

File Name: 957 HOW330   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.68   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 8
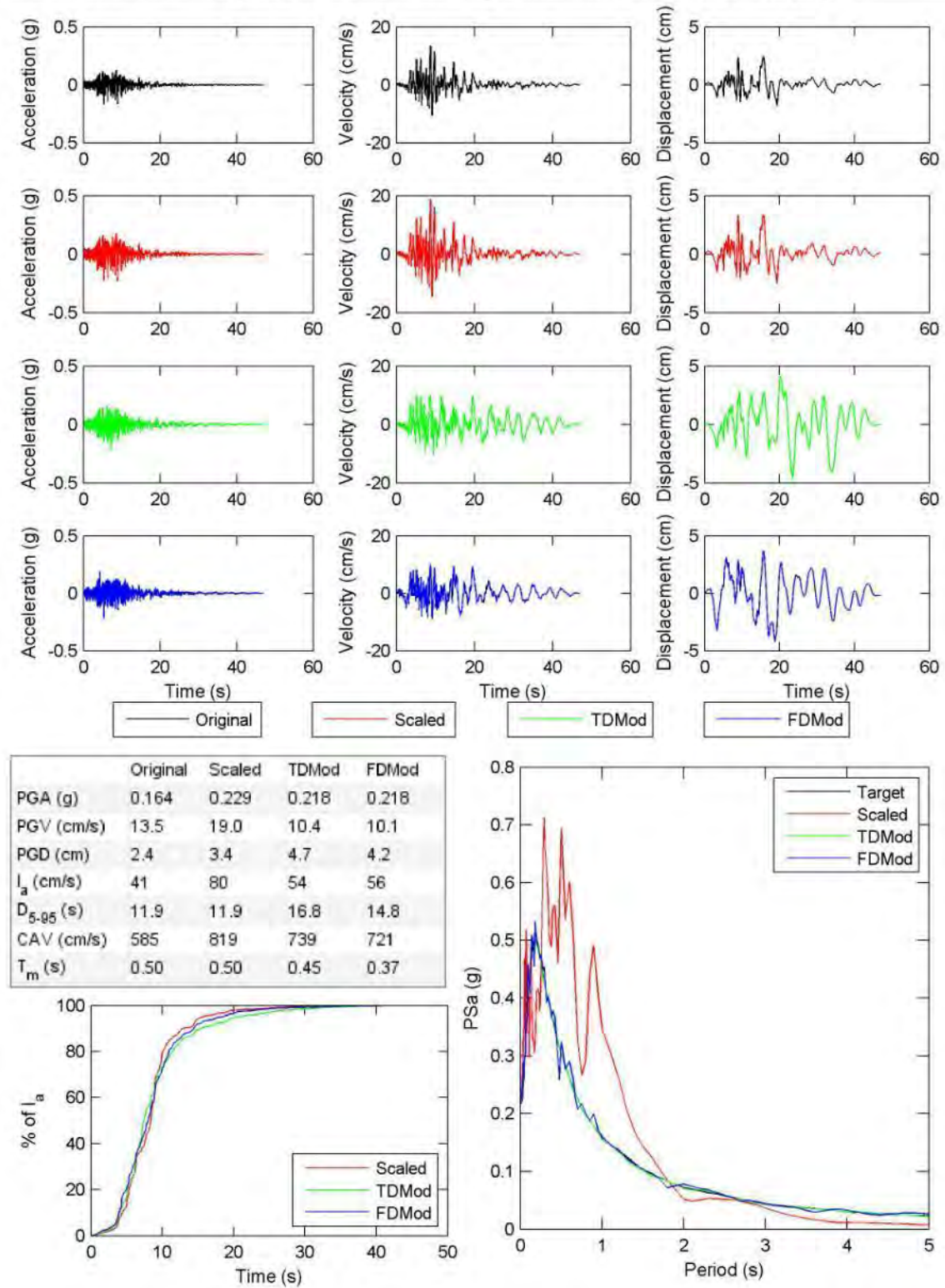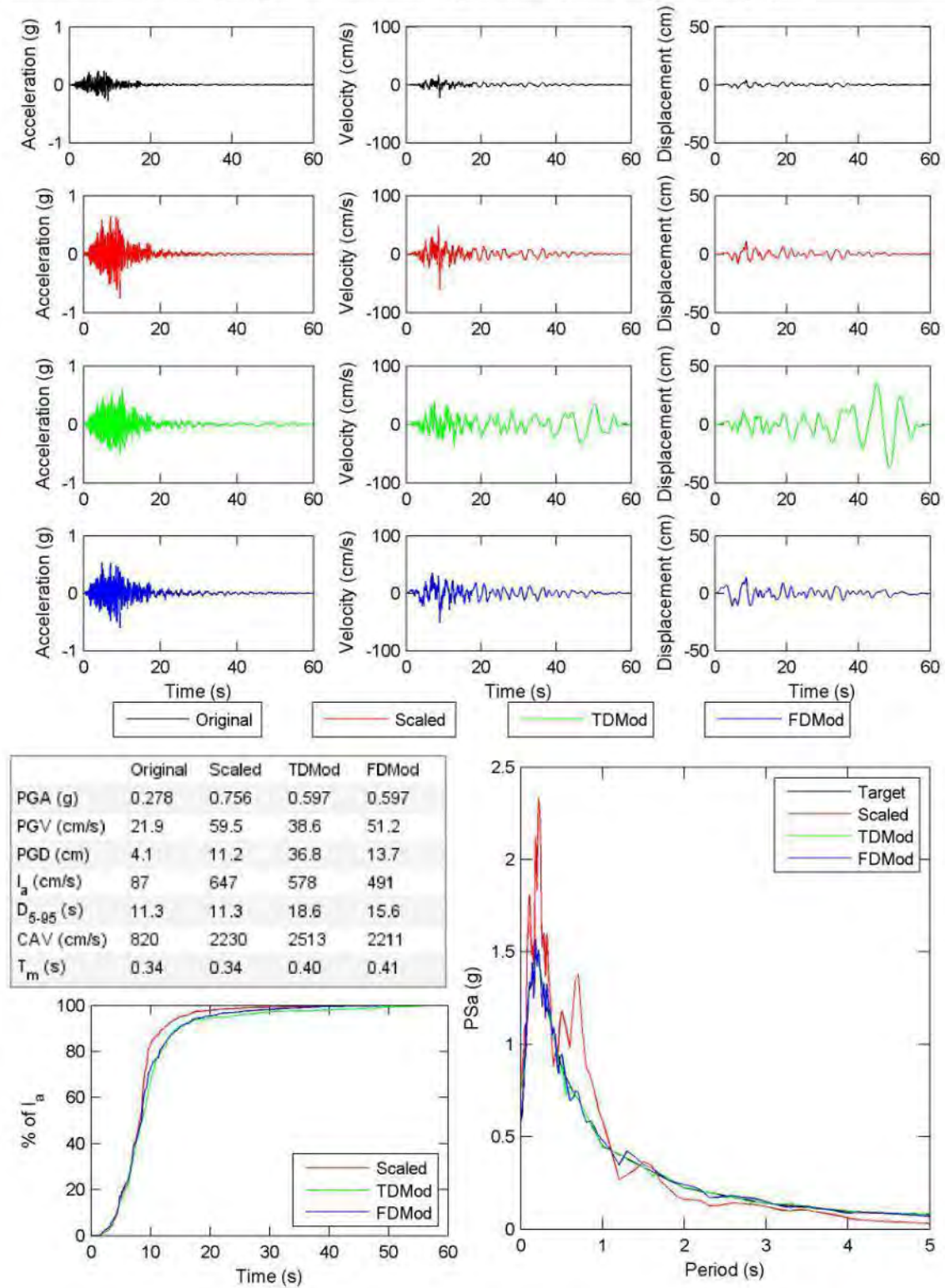

	Original	Scaled	TDMod	FDMod
PGA (g)	0.163	0.274	0.218	0.218
PGV (cm/s)	8.5	14.2	11.1	13.1
PGD (cm)	1.8	3.0	6.1	4.6
I_a (cm/s)	33	93	53	49
D_{5-95} (s)	8.0	8.0	11.8	12.4
CAV (cm/s)	425	714	604	587
T_m (s)	0.32	0.32	0.39	0.41

Figure E.2. continued.

634

File Name: 974 GLP177   Start and End Taper Percentage: 1.0% and 5.0%
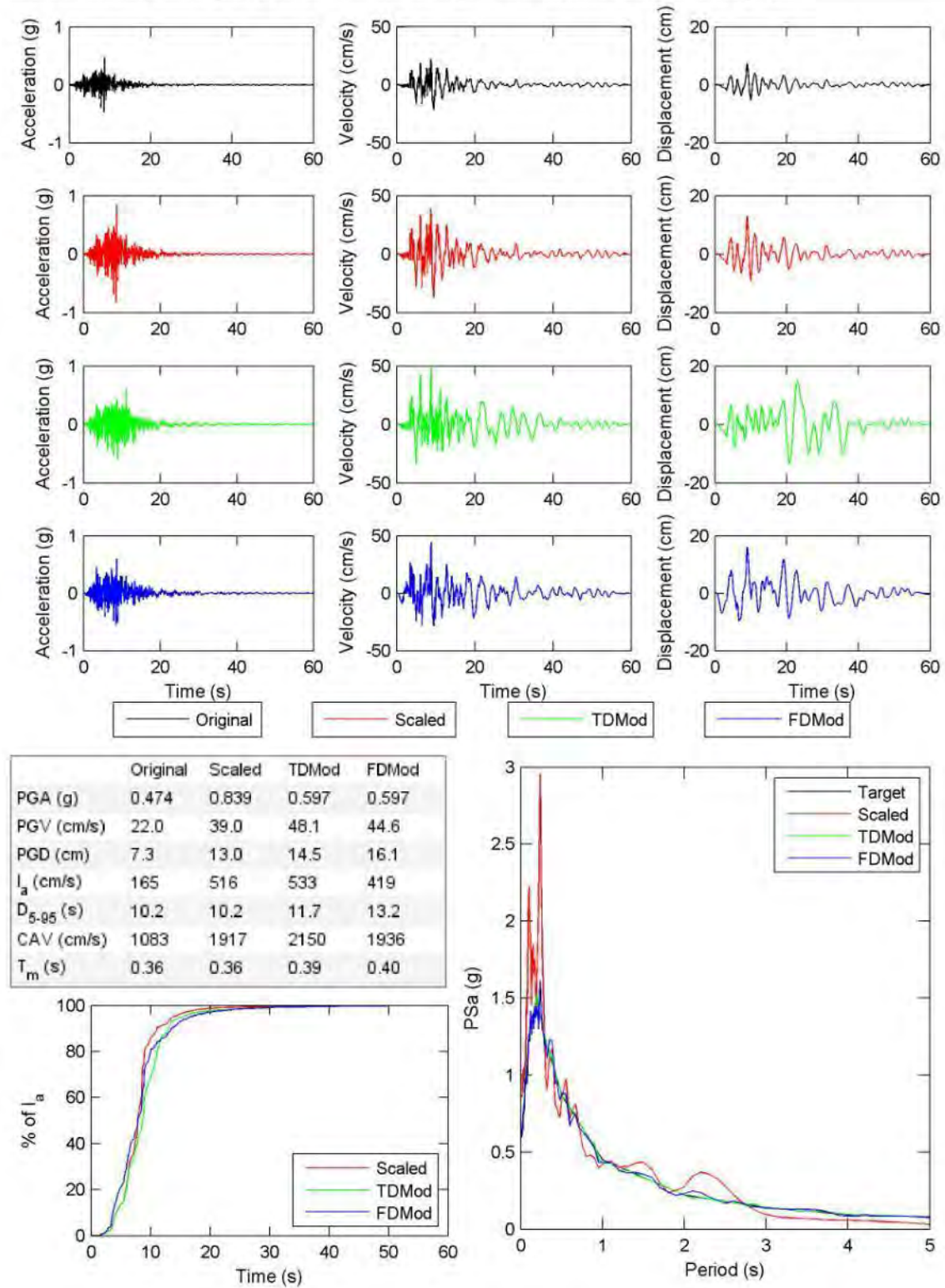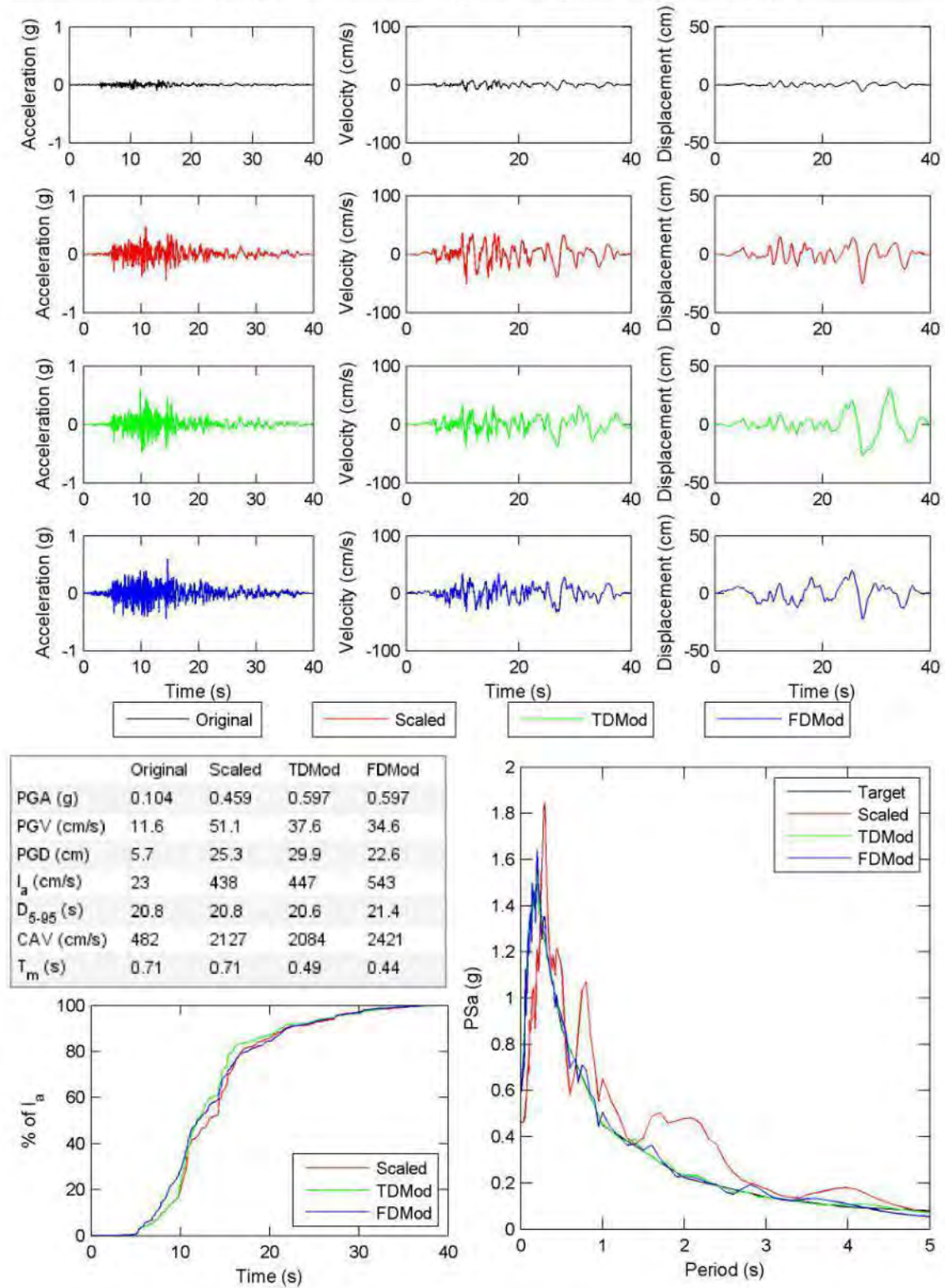Scale Factor: 1.19   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.357	0.425	0.218	0.218
PGV (cm/s)	12.2	14.5	17.4	12.8
PGD (cm)	1.9	2.3	8.2	5.8
I_a (cm/s)	117	166	70	45
D_{5-95} (s)	9.5	9.5	13.1	13.0
CAV (cm/s)	812	967	725	579
T_m (s)	0.27	0.27	0.33	0.45

Figure E.2. continued.

635

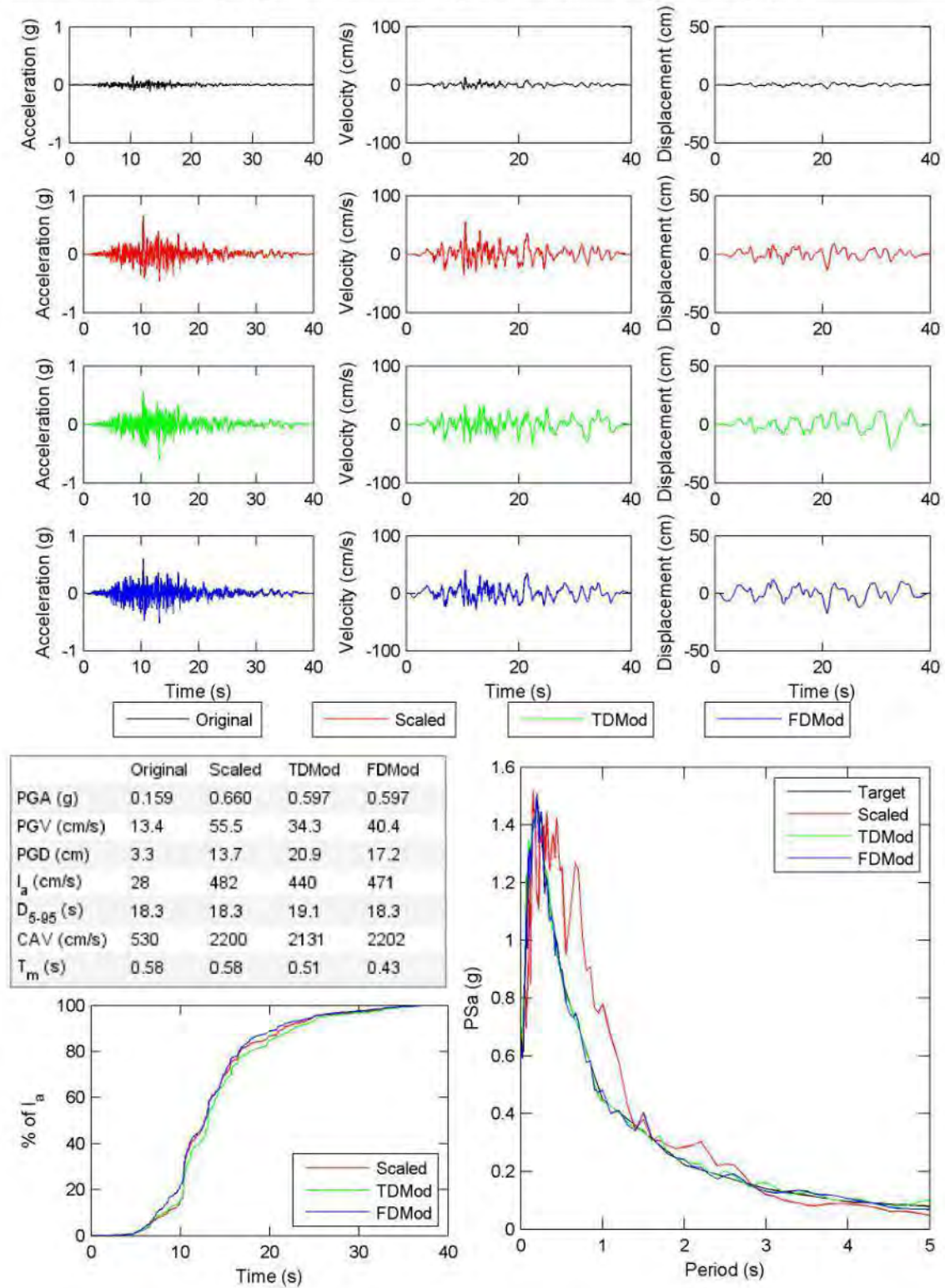|	Original	Scaled	TDMod	FDMod
PGA (g)	0.206	0.362	0.218	0.218
PGV (cm/s)	7.4	13.0	12.8	12.2
PGD (cm)	1.7	3.1	5.0	6.2
I_a (cm/s)	61	189	83	55
D_{5-95} (s)	11.5	11.5	16.1	14.4
CAV (cm/s)	645	1135	851	667
T_m (s)	0.25	0.25	0.32	0.42

Figure E.2. continued.

636

File Name: 986 0638-195   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.04   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 5

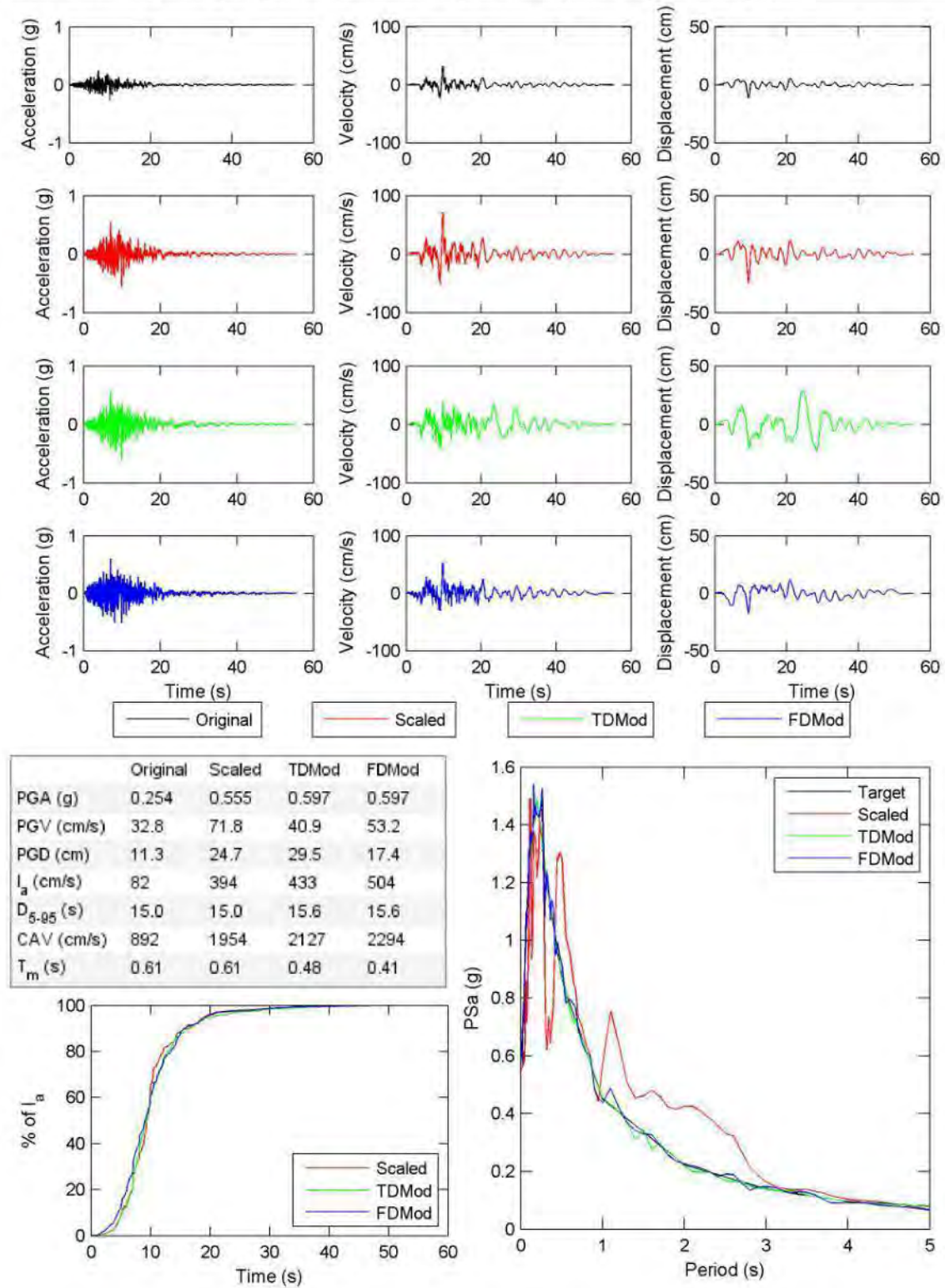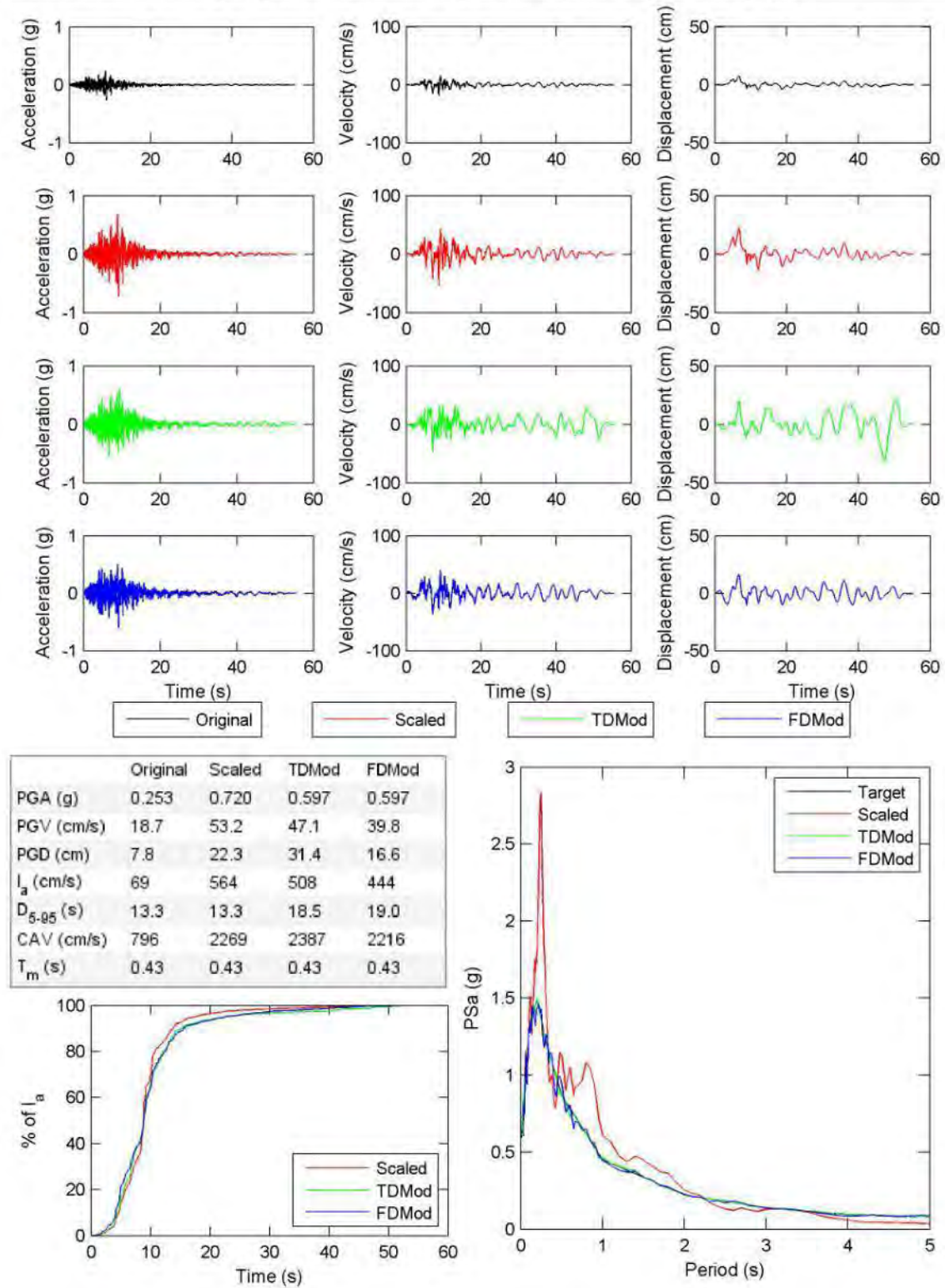|	Original	Scaled	TDMod	FDMod
PGA (g)	0.186	0.194	0.218	0.218
PGV (cm/s)	23.7	24.7	14.7	15.4
PGD (cm)	5.9	6.1	4.4	5.5
I_a (cm/s)	45	49	47	51
D_{5-95} (s)	11.4	11.4	12.5	11.7
CAV (cm/s)	606	630	645	653
T_m (s)	0.63	0.63	0.49	0.38

Figure E.2. continued.

637

File Name: 986 0638-285   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.06   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.174	0.218	0.218
PGV (cm/s)	18.0	19.1	13.4	14.7
PGD (cm)	7.7	8.1	8.3	6.0
I_a (cm/s)	48	54	47	56
D_{5-95} (s)	12.7	12.7	13.6	14.0
CAV (cm/s)	635	673	657	721
T_m (s)	0.65	0.65	0.50	0.38

Figure E.2. continued.

638

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.241	0.218	0.218
PGV (cm/s)	16.6	17.7	12.3	14.3
PGD (cm)	3.4	3.6	5.0	4.1
I_a (cm/s)	61	70	47	44
D_{5-95} (s)	9.1	9.1	12.6	10.9
CAV (cm/s)	621	665	575	558
T_m (s)	0.49	0.49	0.47	0.41

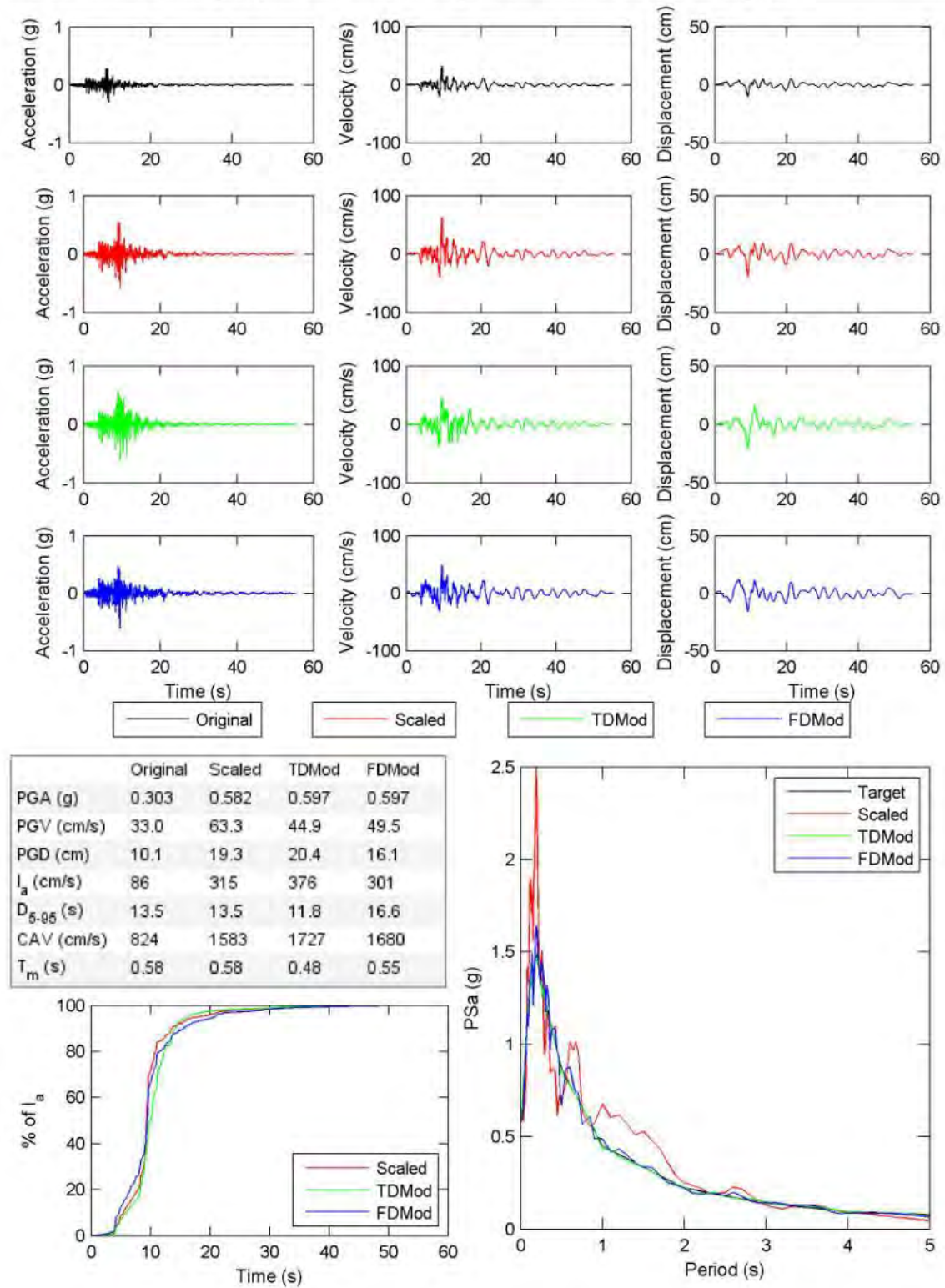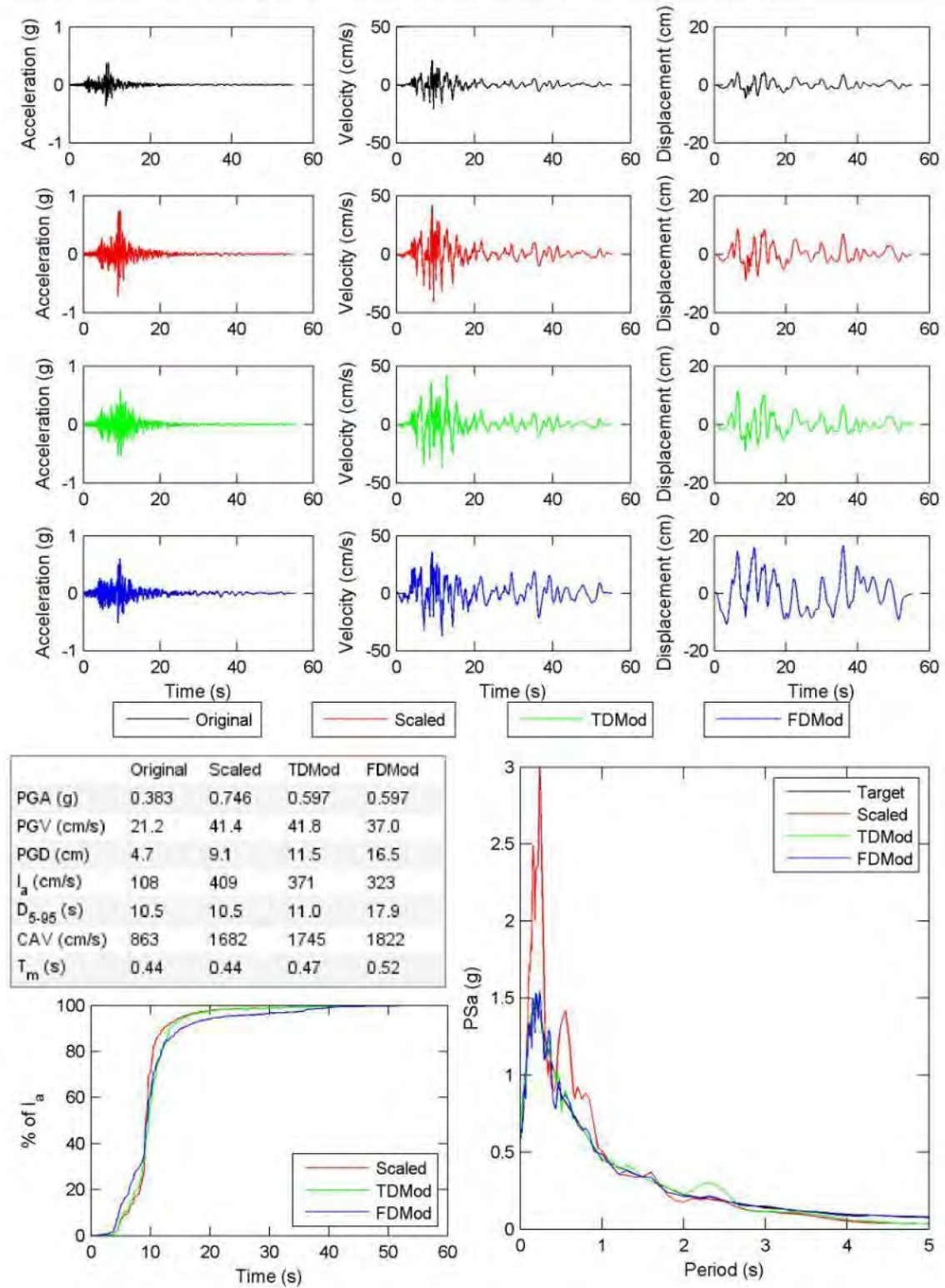**Figure E.2.** continued.

639

File Name: 989 CHL160   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.02   Target Spectrum Matched: targetAttenMed.txt   FD poly: 4   TD poly: 8

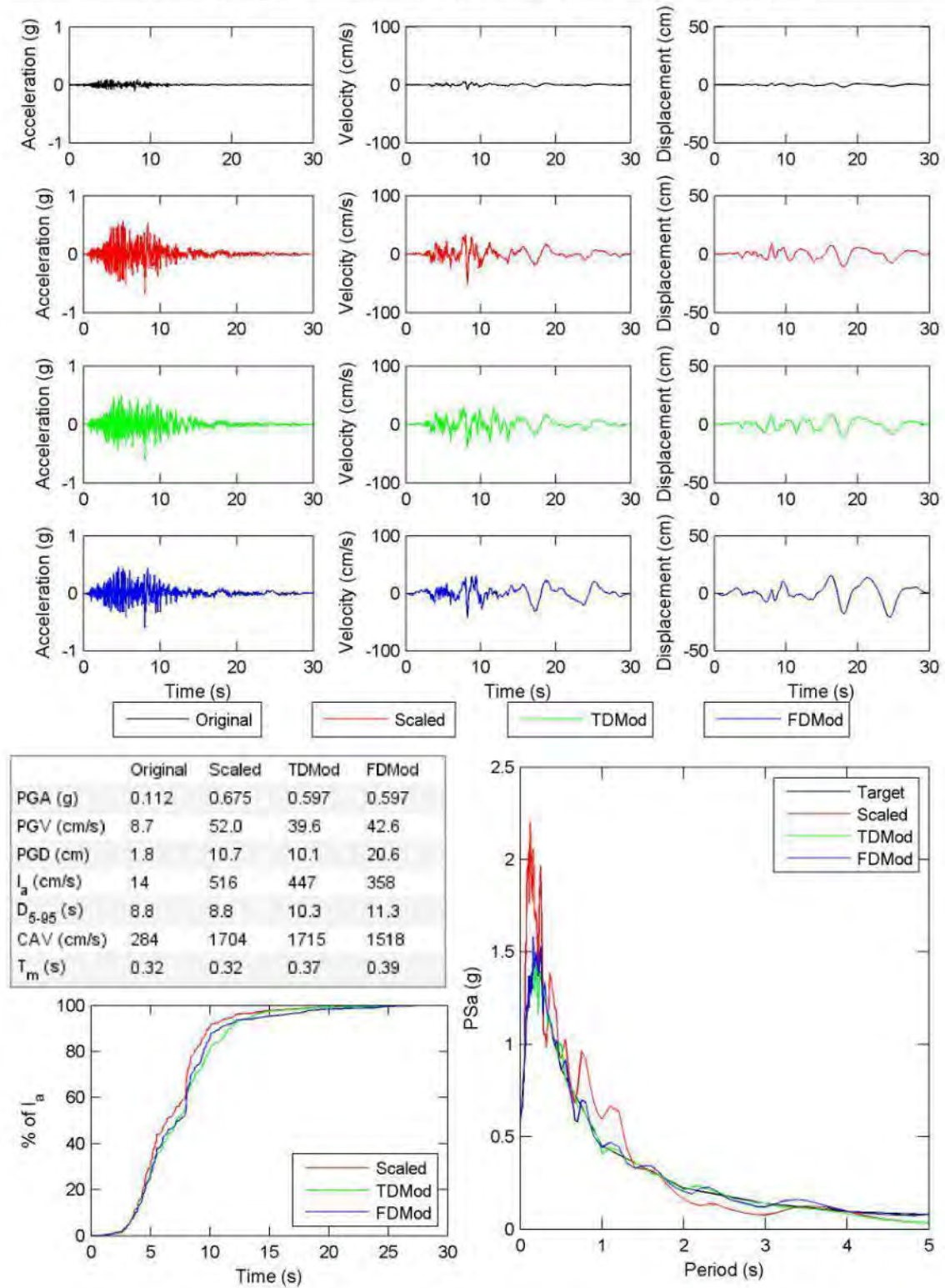|	Original	Scaled	TDMod	FDMod
PGA (g)	0.185	0.189	0.218	0.218
PGV (cm/s)	27.1	27.6	15.9	18.0
PGD (cm)	5.8	5.9	9.7	4.8
I_a (cm/s)	65	67	46	42
D_{5-95} (s)	6.9	6.9	21.8	9.1
CAV (cm/s)	582	594	612	521
T_m (s)	0.63	0.63	0.50	0.36

Figure E.2. continued.

640

File Name: 993 FLE144   Start and End Taper Percentage: 1.0% and 5.0%
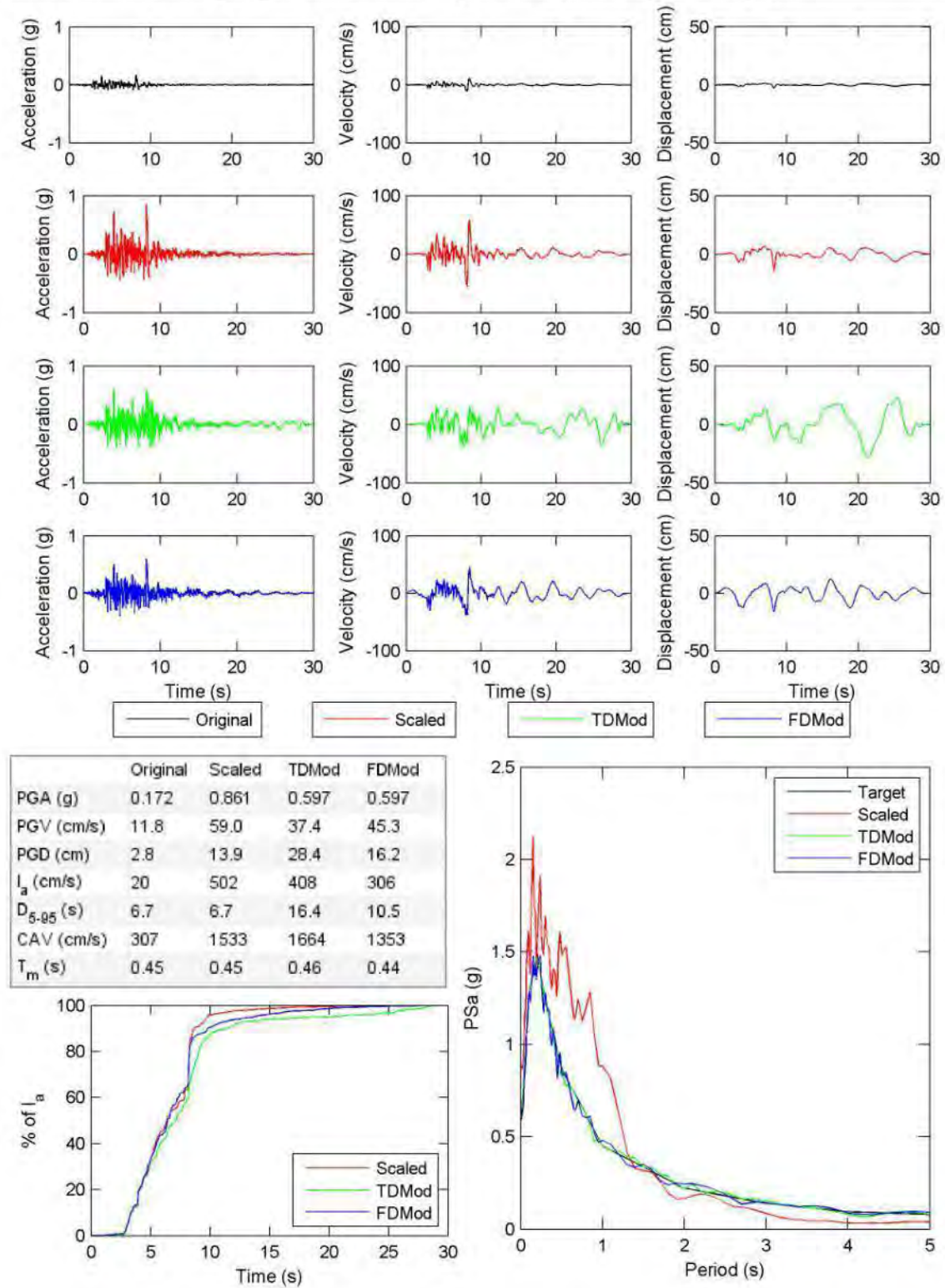Scale Factor: 1.30   Target Spectrum Matched: targetAttenMed.txt FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.162	0.210	0.218	0.218
PGV (cm/s)	10.7	13.9	12.8	14.7
PGD (cm)	2.9	3.7	5.1	5.2
I_a (cm/s)	51	86	56	53
D_{5-95} (s)	11.7	11.7	14.3	14.6
CAV (cm/s)	607	789	680	659
T_m (s)	0.42	0.42	0.43	0.40

Figure E.2. continued.

641

	Original	Scaled	TDMod	FDMod
PGA (g)	0.240	0.248	0.218	0.218
PGV (cm/s)	26.2	27.0	12.2	16.3
PGD (cm)	3.6	3.7	3.8	4.3
I_a (cm/s)	65	69	46	50
D_{5-95} (s)	11.8	11.8	14.0	14.9
CAV (cm/s)	620	639	587	629
T_m (s)	0.52	0.52	0.45	0.40

Figure E.2. continued.

642

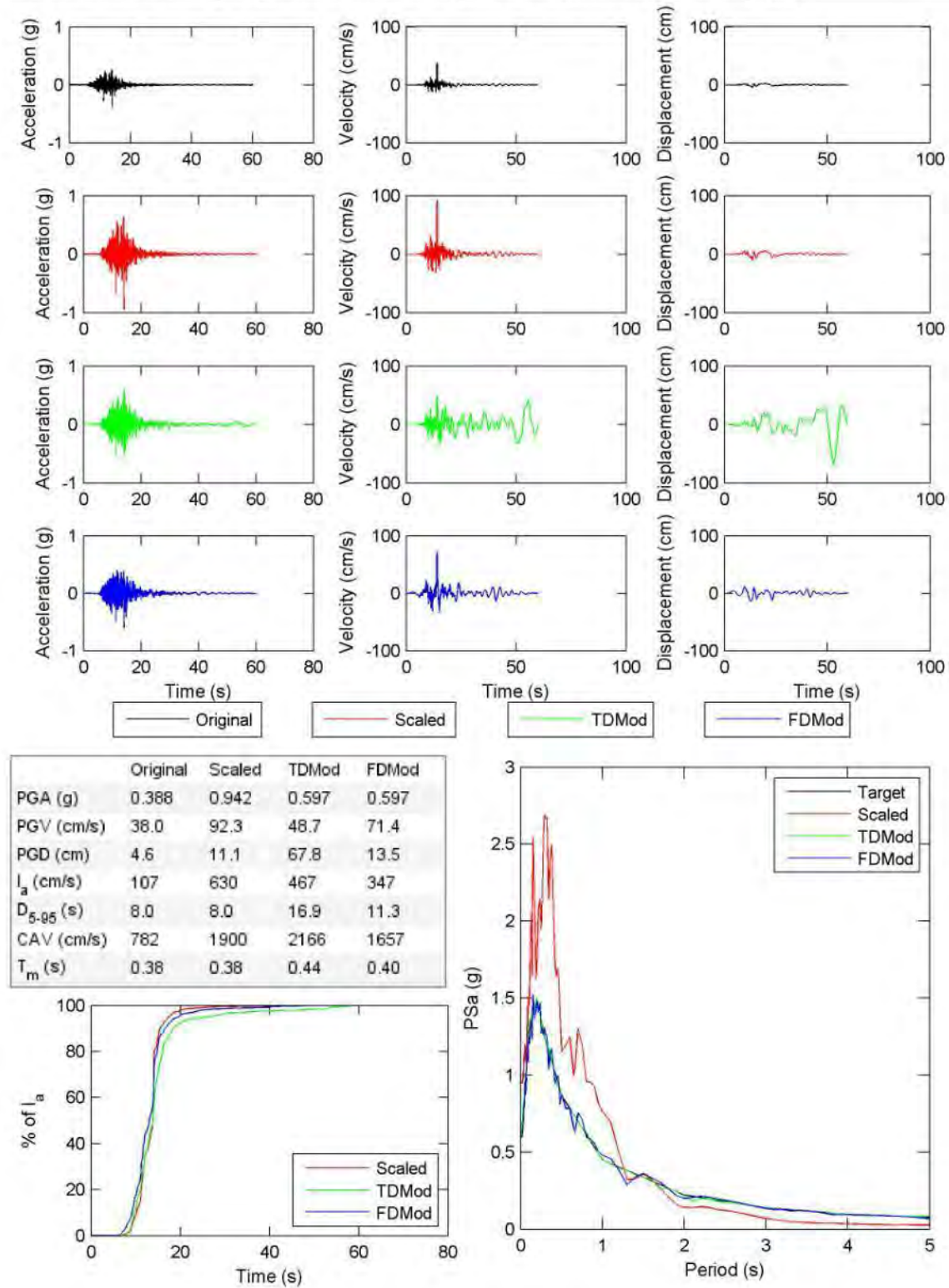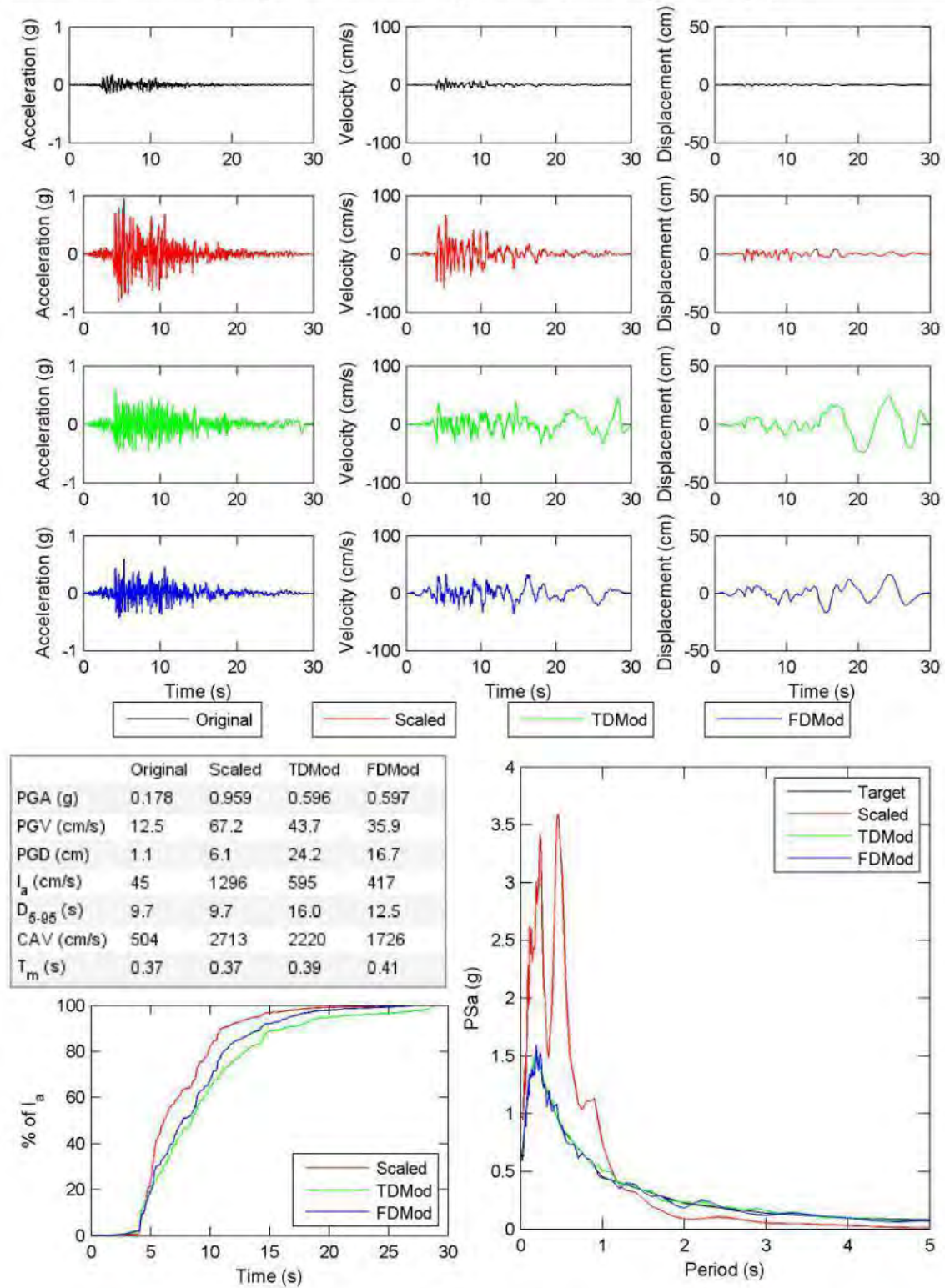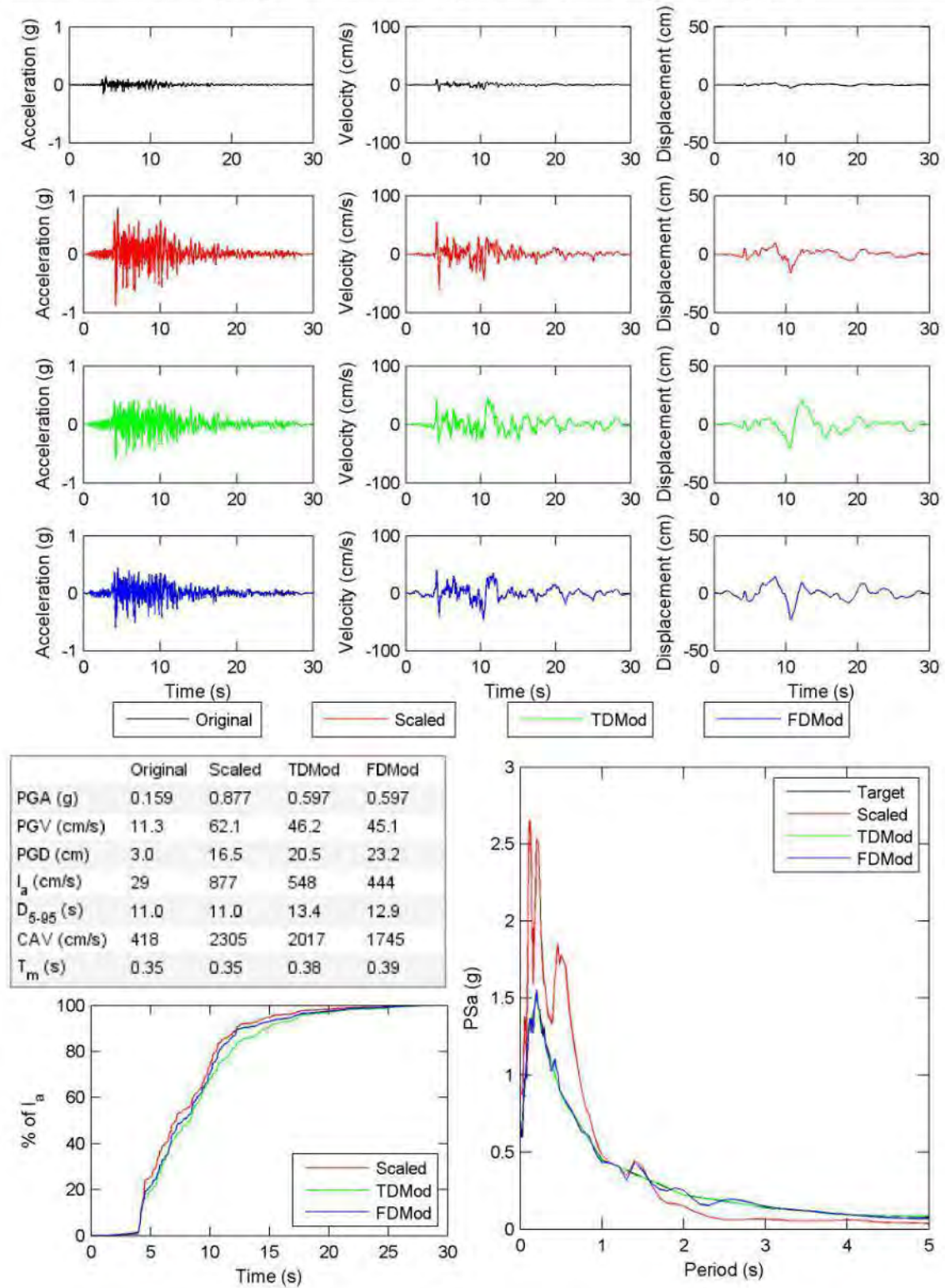|	Original	Scaled	TDMod	FDMod
PGA (g)	0.289	0.249	0.218	0.218
PGV (cm/s)	26.5	22.8	14.1	11.6
PGD (cm)	3.9	3.3	8.4	7.1
I_a (cm/s)	152	112	61	47
D_{5-95} (s)	8.9	8.9	14.2	16.5
CAV (cm/s)	1006	865	766	657
T_m (s)	0.43	0.43	0.39	0.41

Figure E.2. continued.

643

File Name: 994 0141-360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.40   Target Spectrum Matched: targetAttenMed.txt   FD poly: 6   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.229	0.218	0.218
PGV (cm/s)	13.5	19.0	10.4	10.1
PGD (cm)	2.4	3.4	4.7	4.2
I_a (cm/s)	41	80	54	56
D_{5-95} (s)	11.9	11.9	16.8	14.8
CAV (cm/s)	585	819	739	721
T_m (s)	0.50	0.50	0.45	0.37

Figure E.2. continued.

644

Figure E.3. One-page output images for motions in scenario I matched to the 2% uniform hazard spectrum (2% UHS), from motion number 1 to 108, generated by the GMM program.

	Original	Scaled	TDMod	FDMod
PGA (g)	0.474	0.839	0.597	0.597
PGV (cm/s)	22.0	39.0	48.1	44.6
PGD (cm)	7.3	13.0	14.5	16.1
I_a (cm/s)	165	516	533	419
D_{5-95} (s)	10.2	10.2	11.7	13.2
CAV (cm/s)	1083	1917	2150	1936
T_m (s)	0.36	0.36	0.39	0.40

Figure E.3. continued.

646

File Name: 1008 W15090   Start and End Taper Percentage: 1.0% and 5.0%
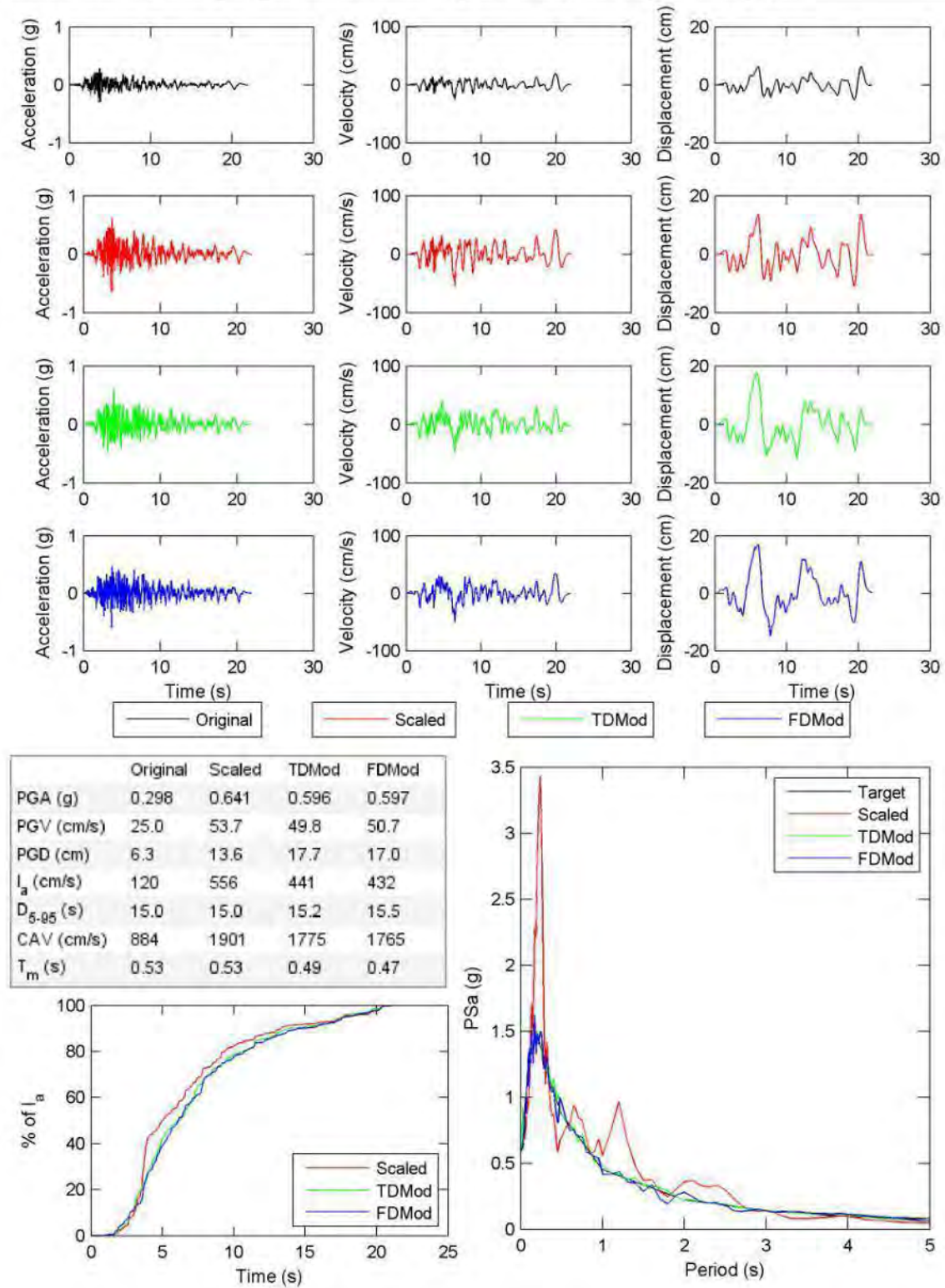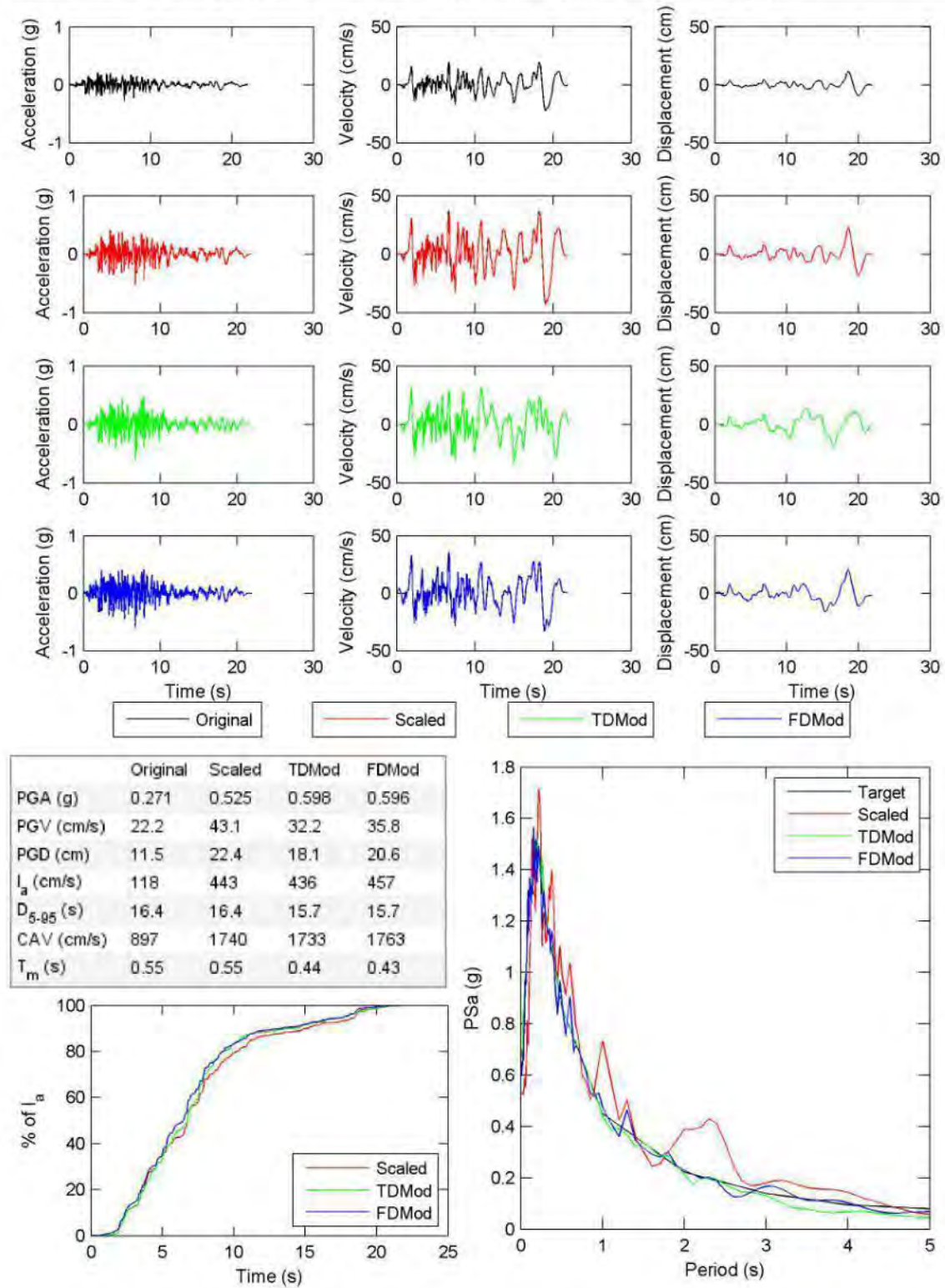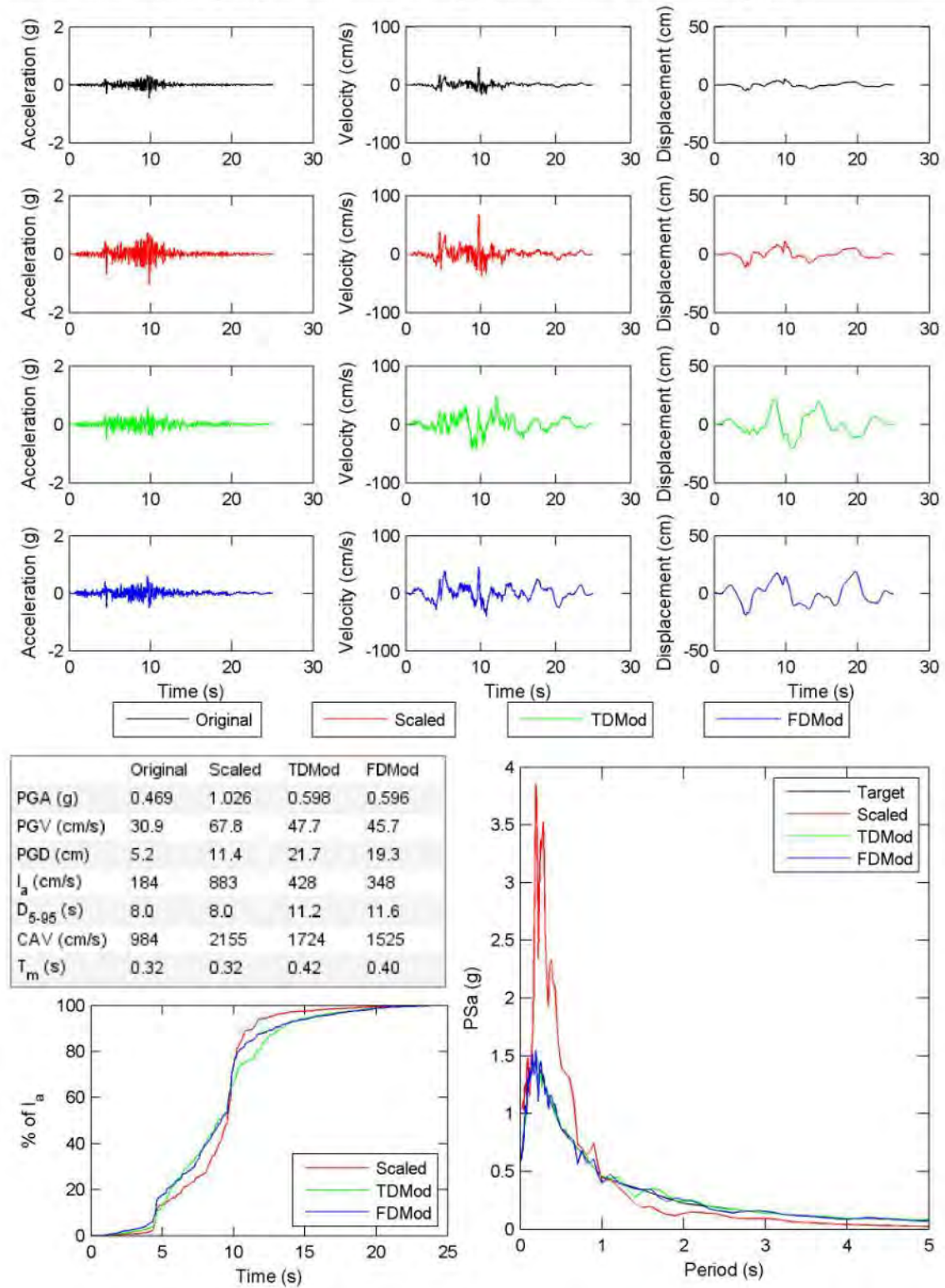Scale Factor: 4.41 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.104	0.459	0.597	0.597
PGV (cm/s)	11.6	51.1	37.6	34.6
PGD (cm)	5.7	25.3	29.9	22.6
I_a (cm/s)	23	438	447	543
D_{5-95} (s)	20.8	20.8	20.6	21.4
CAV (cm/s)	482	2127	2084	2421
T_m (s)	0.71	0.71	0.49	0.44

Figure E.3. continued.

647

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.660	0.597	0.597
PGV (cm/s)	13.4	55.5	34.3	40.4
PGD (cm)	3.3	13.7	20.9	17.2
I_a (cm/s)	28	482	440	471
D_{5-95} (s)	18.3	18.3	19.1	18.3
CAV (cm/s)	530	2200	2131	2202
T_m (s)	0.58	0.58	0.51	0.43

Figure E.3. continued.

648

	Original	Scaled	TDMod	FDMod
PGA (g)	0.254	0.555	0.597	0.597
PGV (cm/s)	32.8	71.8	40.9	53.2
PGD (cm)	11.3	24.7	29.5	17.4
I_a (cm/s)	82	394	433	504
D_{5-95} (s)	15.0	15.0	15.6	15.6
CAV (cm/s)	892	1954	2127	2294
T_m (s)	0.61	0.61	0.48	0.41

Figure E.3. continued.

649

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.253	0.720	0.597	0.597
PGV (cm/s)	18.7	53.2	47.1	39.8
PGD (cm)	7.8	22.3	31.4	16.6
I_a (cm/s)	69	564	508	444
D_{5-95} (s)	13.3	13.3	18.5	19.0
CAV (cm/s)	796	2269	2387	2216
T_m (s)	0.43	0.43	0.43	0.43

Figure E.3. continued.

650

File Name: 1010 5082-235   Start and End Taper Percentage: 1.0% and 5.0%
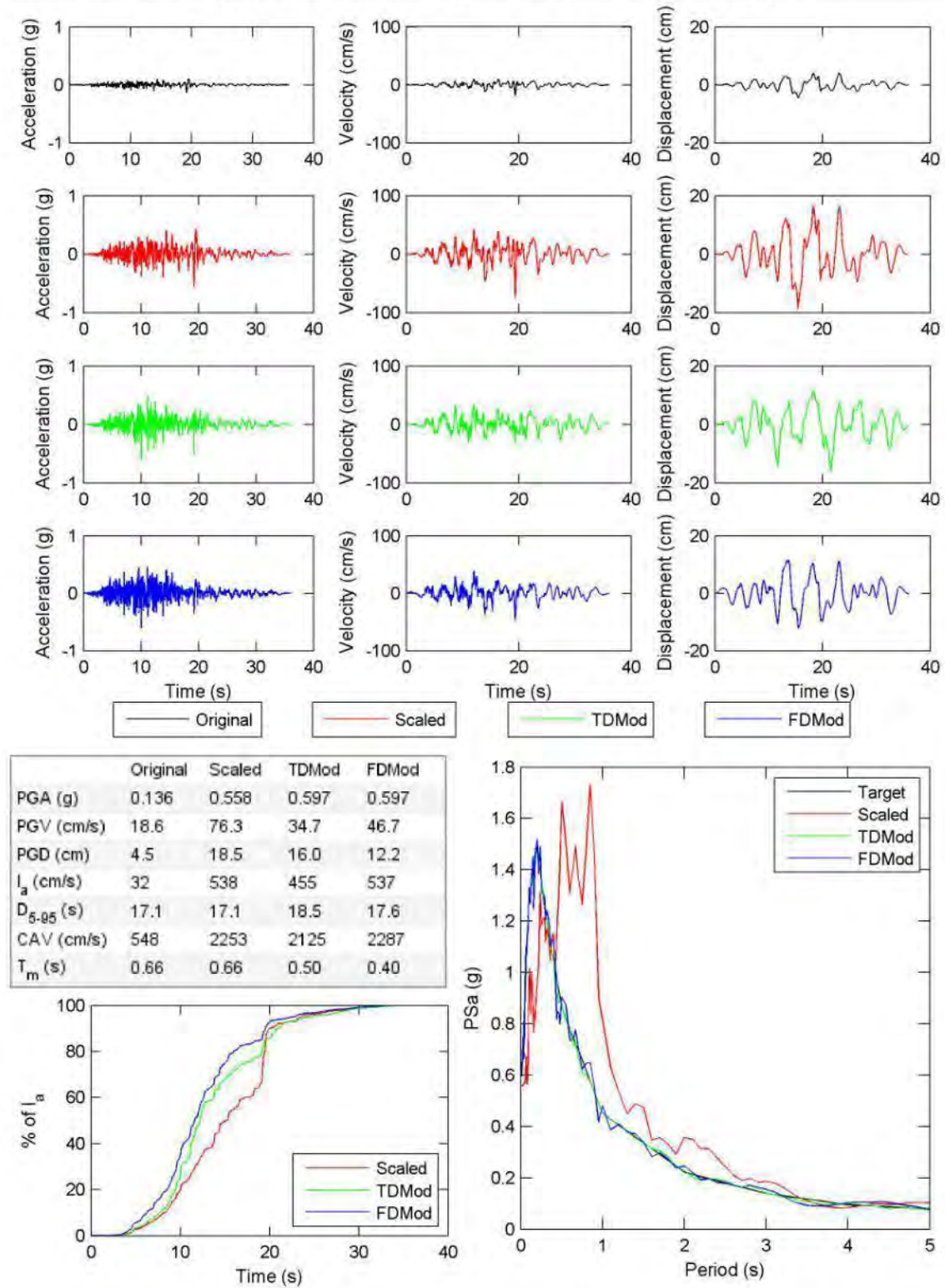Scale Factor: 1.92 Target Spectrum Matched: target2UHS50yr.txt FD poly: 7 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.303	0.582	0.597	0.597
PGV (cm/s)	33.0	63.3	44.9	49.5
PGD (cm)	10.1	19.3	20.4	16.1
I_a (cm/s)	86	315	376	301
D_{5-95} (s)	13.5	13.5	11.8	16.6
CAV (cm/s)	824	1583	1727	1680
T_m (s)	0.58	0.58	0.48	0.55

Figure E.3. continued.

651

Figure E.3. continued.

652

File Name: 1011 WON095   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.01 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
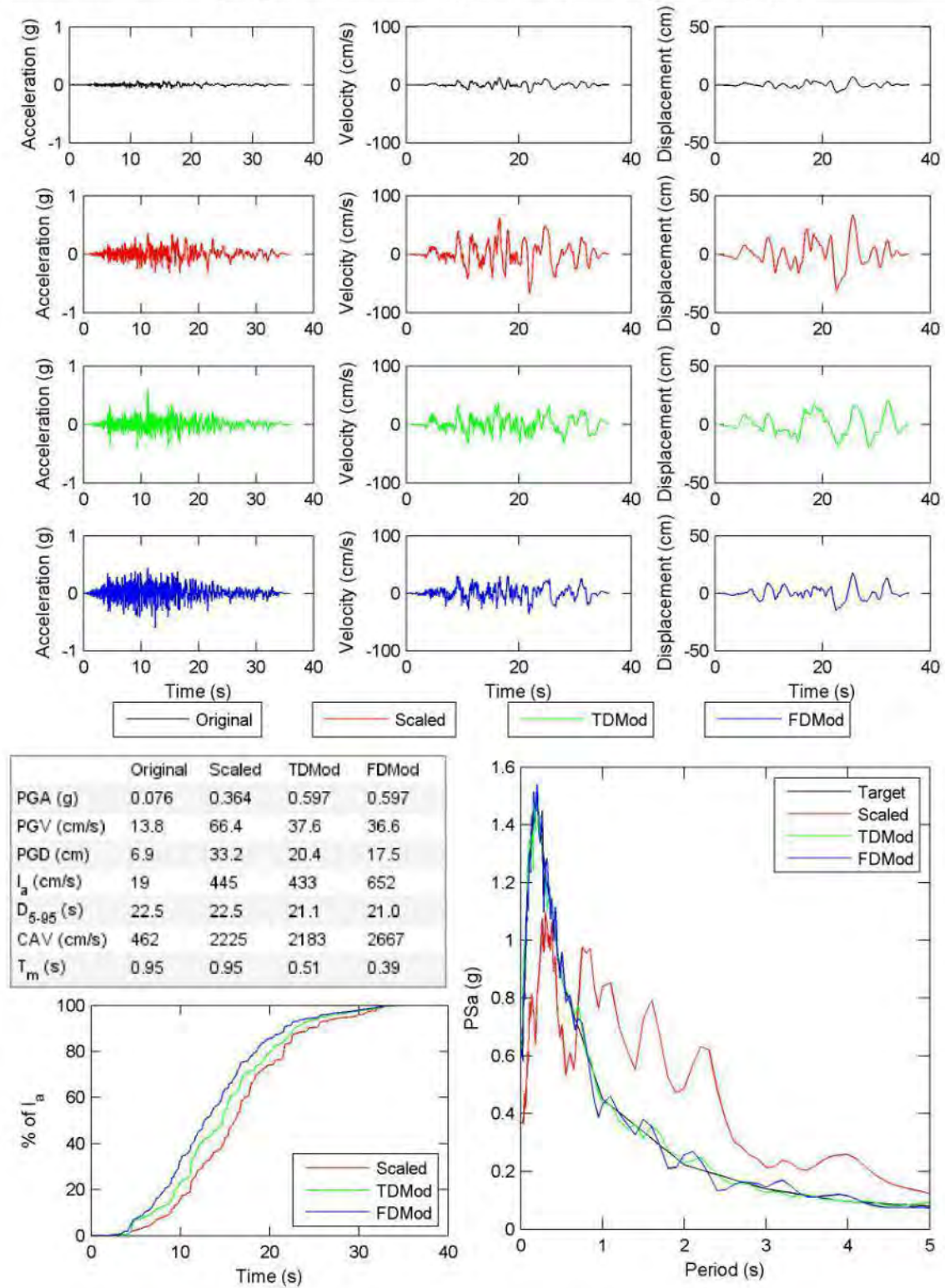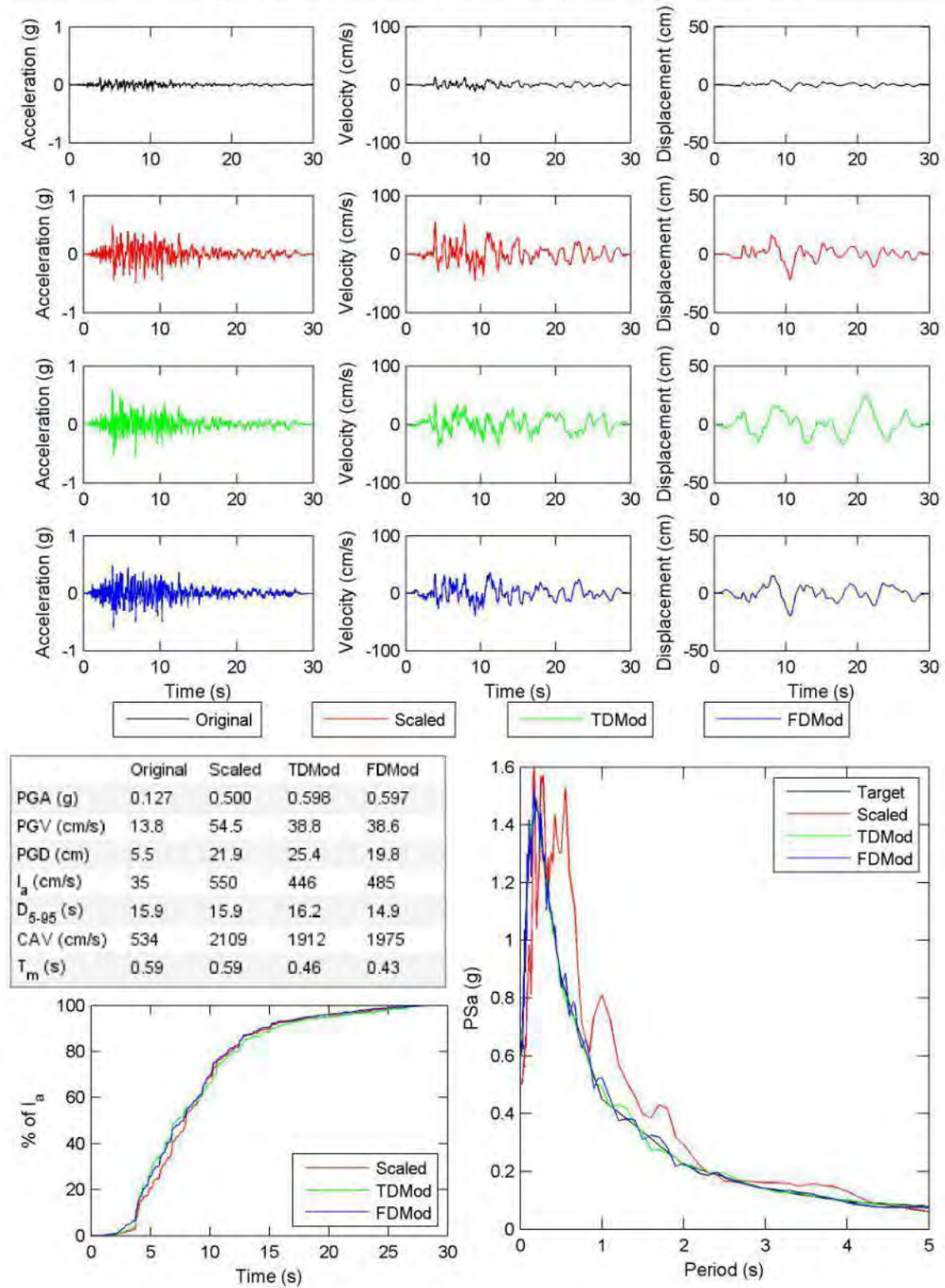
	Original	Scaled	TDMod	FDMod
PGA (g)	0.112	0.675	0.597	0.597
PGV (cm/s)	8.7	52.0	39.6	42.6
PGD (cm)	1.8	10.7	10.1	20.6
I_a (cm/s)	14	516	447	358
D_{5-95} (s)	8.8	8.8	10.3	11.3
CAV (cm/s)	284	1704	1715	1518
T_m (s)	0.32	0.32	0.37	0.39

Figure E.3. continued.

653

File Name: 1011 WON185   Start and End Taper Percentage: 1.0% and 5.0%
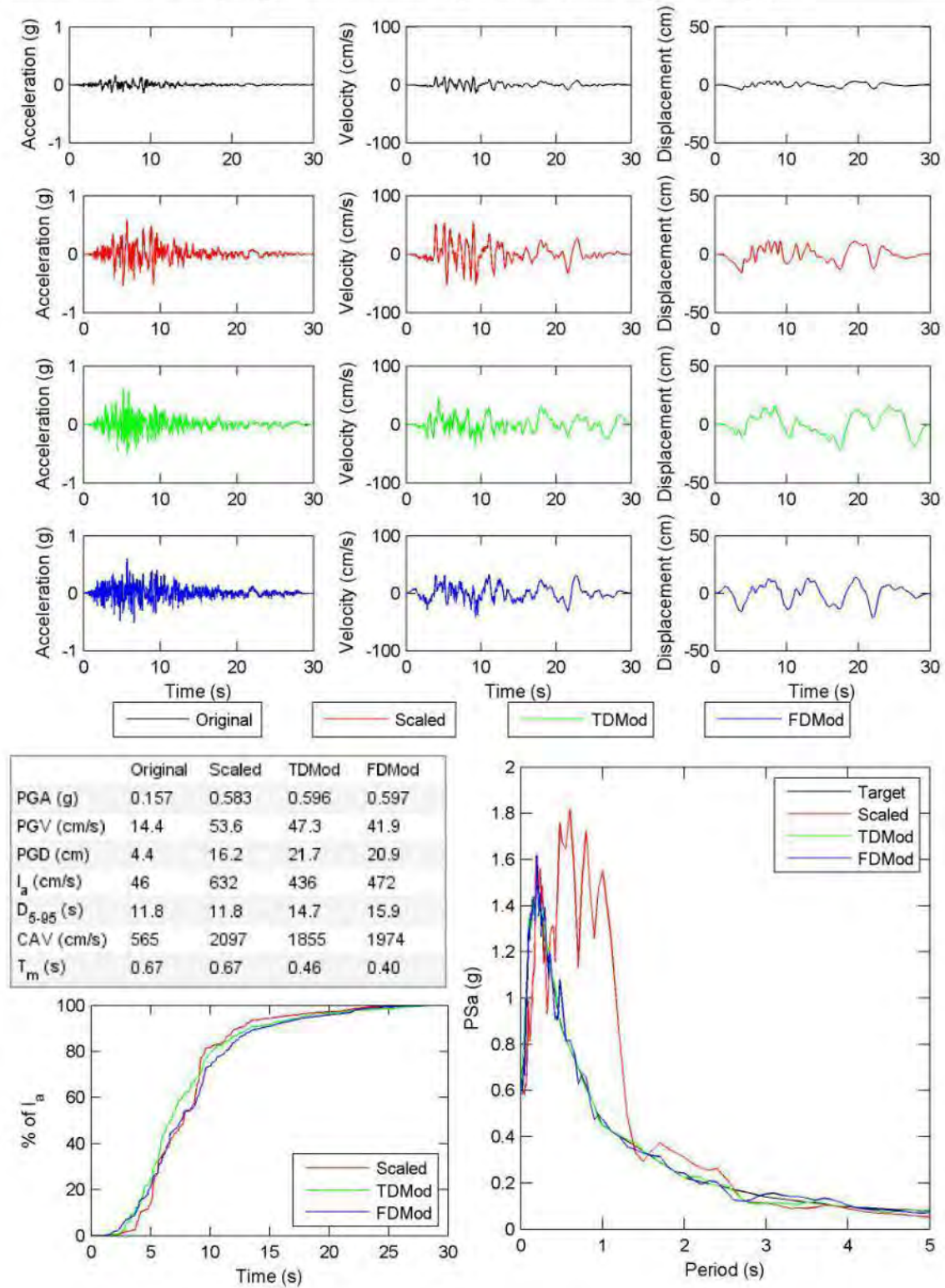Scale Factor: 5.00 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.172	0.861	0.597	0.597
PGV (cm/s)	11.8	59.0	37.4	45.3
PGD (cm)	2.8	13.9	28.4	16.2
I_a (cm/s)	20	502	408	306
D_{5-95} (s)	6.7	6.7	16.4	10.5
CAV (cm/s)	307	1533	1664	1353
T_m (s)	0.45	0.45	0.46	0.44

Figure E.3. continued.

654

File Name: 1012 LA0000   Start and End Taper Percentage: 1.0% and 5.0%
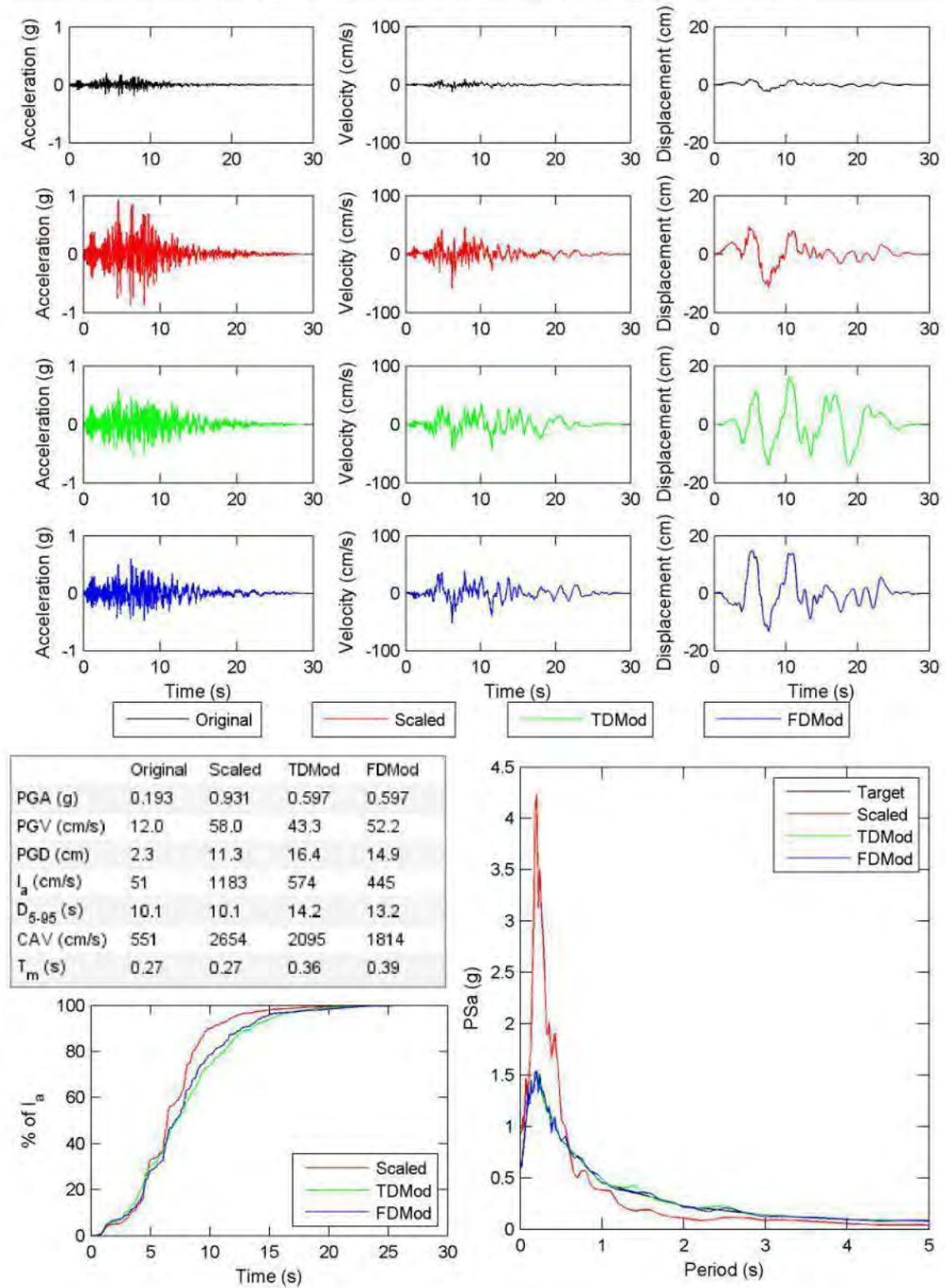Scale Factor: 2.81 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.261	0.735	0.597	0.597
PGV (cm/s)	27.4	77.0	48.8	48.9
PGD (cm)	4.8	13.5	51.4	14.6
I_a (cm/s)	98	776	495	399
D_{5-95} (s)	8.1	8.1	18.4	11.8
CAV (cm/s)	798	2243	2306	1872
T_m (s)	0.43	0.43	0.46	0.42

Figure E.3. continued.

655

File Name: 1012 LA0090   Start and End Taper Percentage: 1.0% and 5.0%
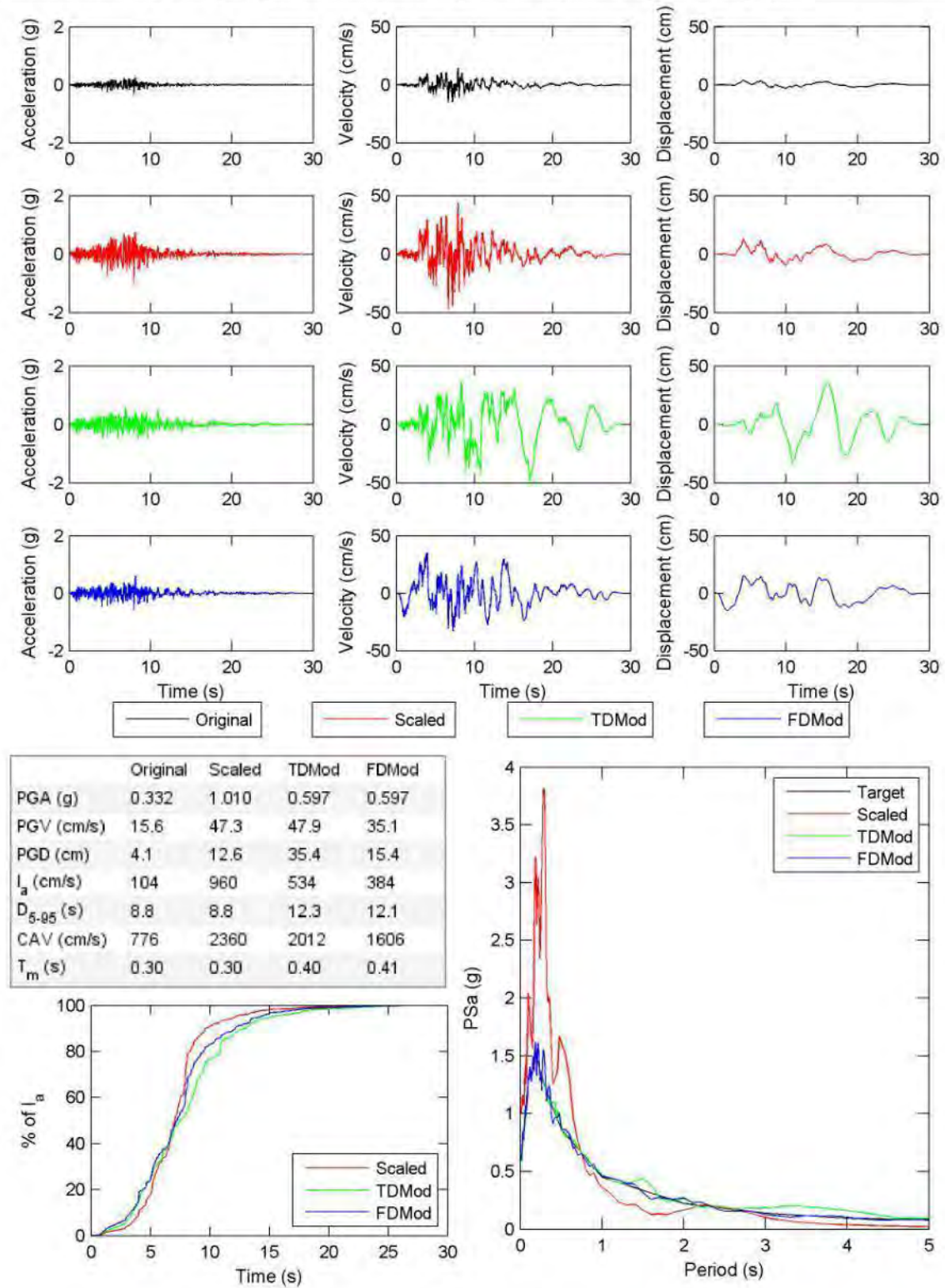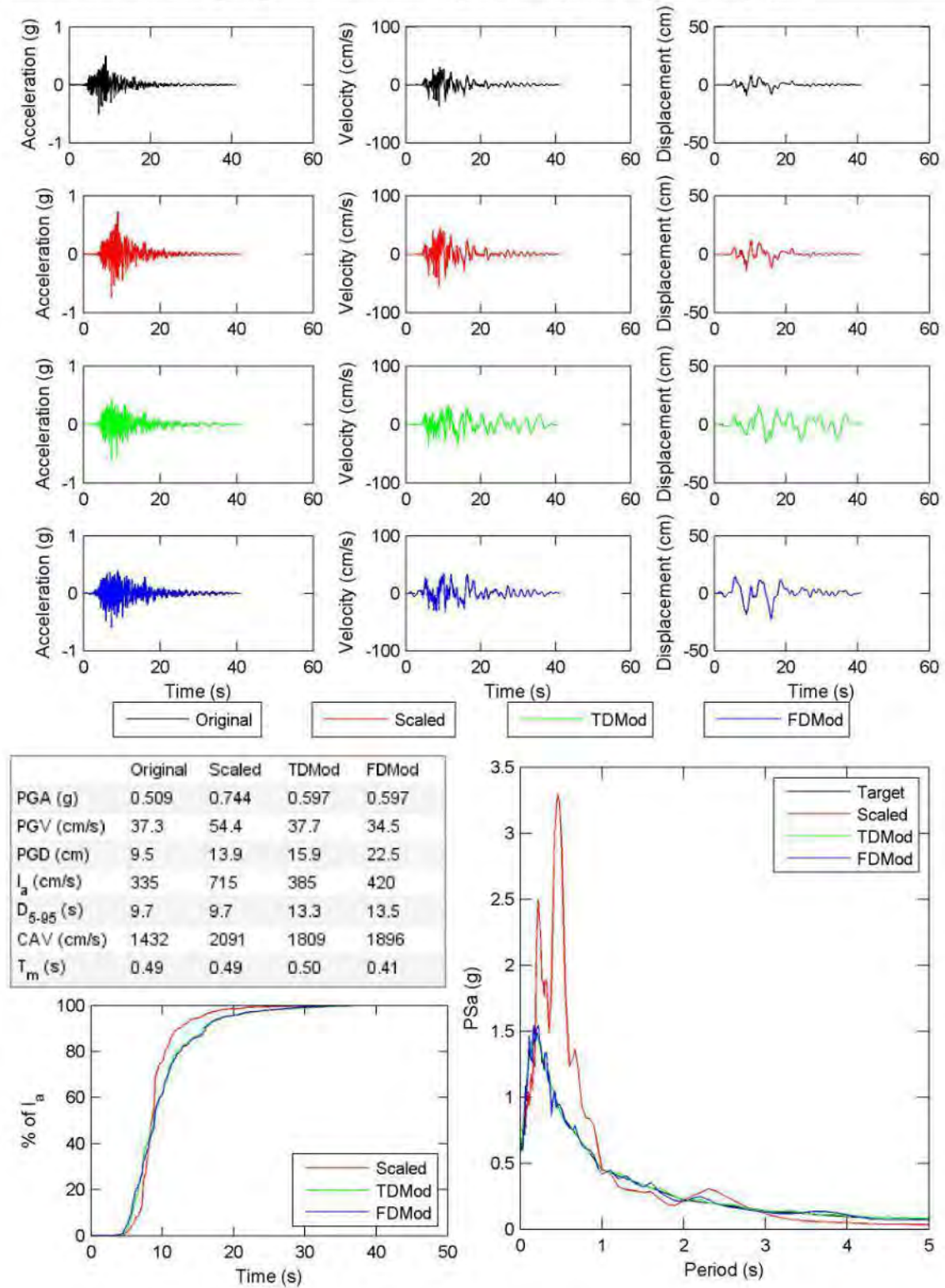Scale Factor: 2.43 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.388	0.942	0.597	0.597
PGV (cm/s)	38.0	92.3	48.7	71.4
PGD (cm)	4.6	11.1	67.8	13.5
I_a (cm/s)	107	630	467	347
D_{5-95} (s)	8.0	8.0	16.9	11.3
CAV (cm/s)	782	1900	2166	1657
T_m (s)	0.38	0.38	0.44	0.40

Figure E.3. continued.

656

File Name: 1016 NYA090   Start and End Taper Percentage: 1.0% and 5.0%
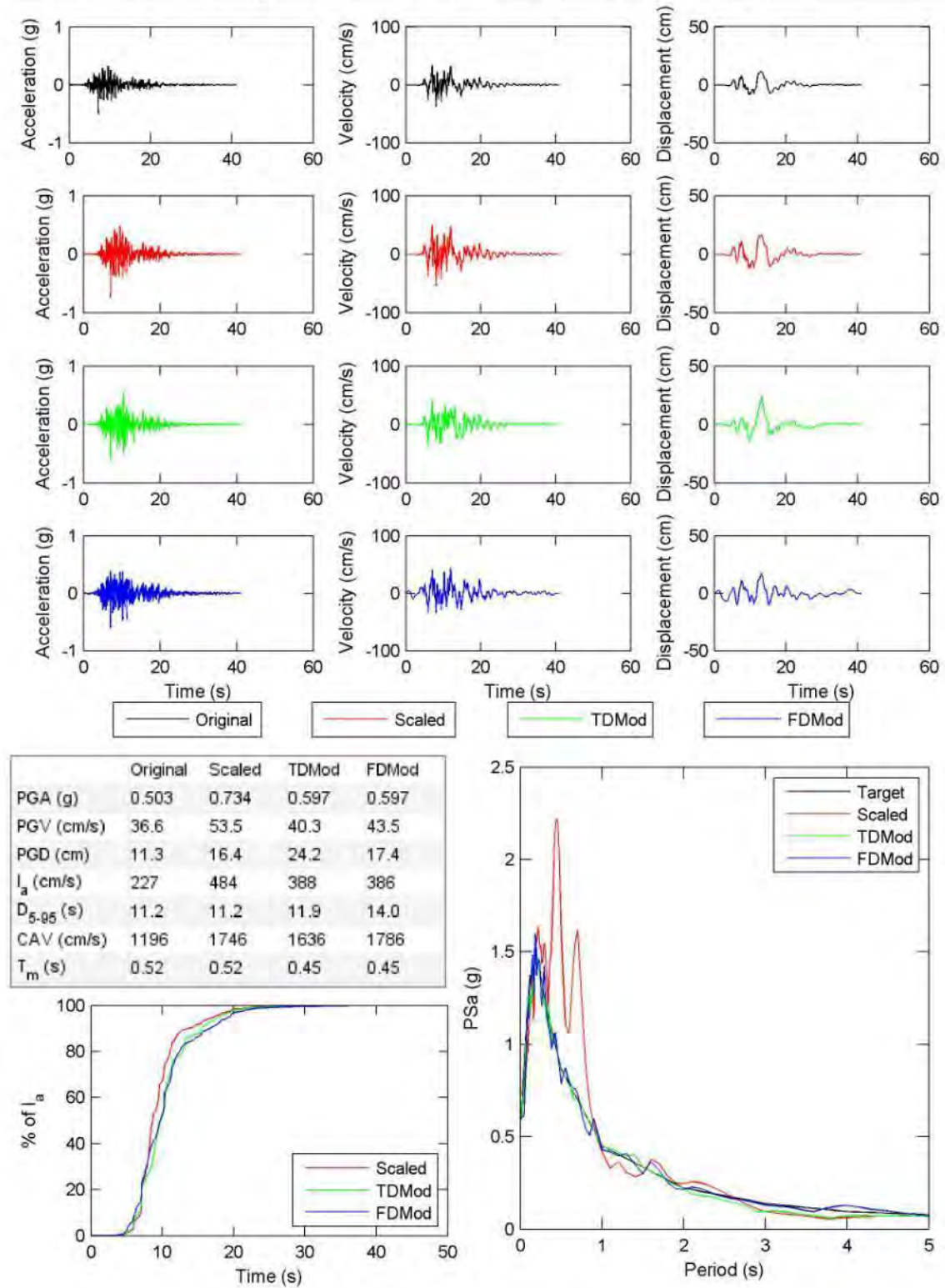Scale Factor: 5.38 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.178	0.959	0.596	0.597
PGV (cm/s)	12.5	67.2	43.7	35.9
PGD (cm)	1.1	6.1	24.2	16.7
I_a (cm/s)	45	1296	595	417
D_{5-95} (s)	9.7	9.7	16.0	12.5
CAV (cm/s)	504	2713	2220	1726
T_m (s)	0.37	0.37	0.39	0.41

Figure E.3. continued.

657

File Name: 1016 NYA180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.51 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 6

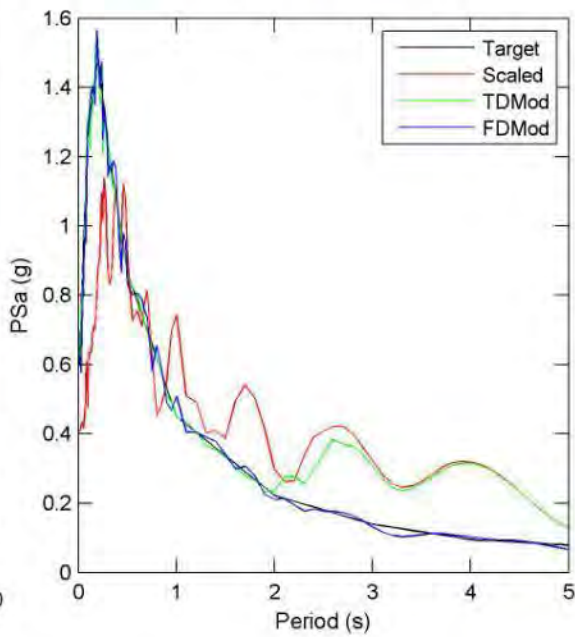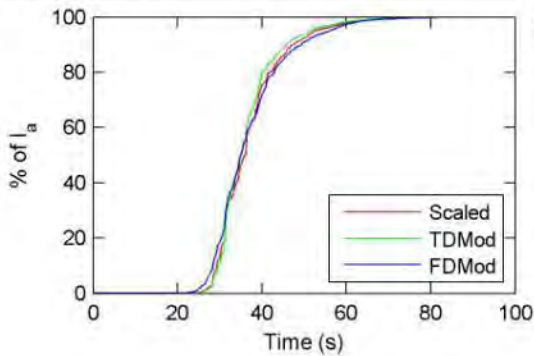|	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.877	0.597	0.597
PGV (cm/s)	11.3	62.1	46.2	45.1
PGD (cm)	3.0	16.5	20.5	23.2
I_a (cm/s)	29	877	548	444
D_{5-95} (s)	11.0	11.0	13.4	12.9
CAV (cm/s)	418	2305	2017	1745
T_m (s)	0.35	0.35	0.38	0.39

Figure E.3. continued.

658

File Name: 1042 CWC180   Start and End Taper Percentage: 1.0% and 5.0%
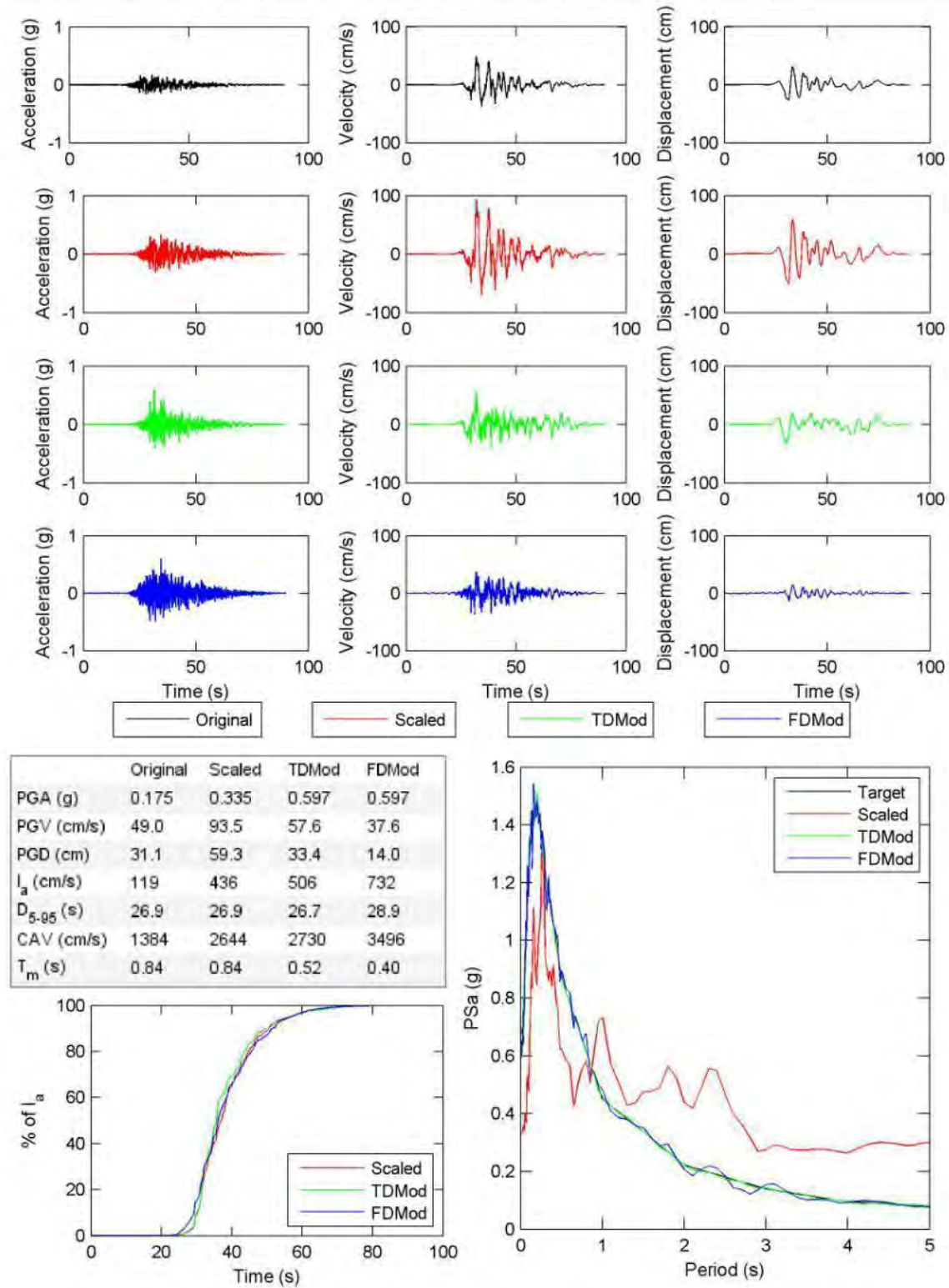Scale Factor: 2.15 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.298	0.641	0.596	0.597
PGV (cm/s)	25.0	53.7	49.8	50.7
PGD (cm)	6.3	13.6	17.7	17.0
I_a (cm/s)	120	556	441	432
D_{5-95} (s)	15.0	15.0	15.2	15.5
CAV (cm/s)	884	1901	1775	1765
T_m (s)	0.53	0.53	0.49	0.47

Figure E.3. continued.

659

	Original	Scaled	TDMod	FDMod
PGA (g)	0.271	0.525	0.598	0.596
PGV (cm/s)	22.2	43.1	32.2	35.8
PGD (cm)	11.5	22.4	18.1	20.6
I_a (cm/s)	118	443	436	457
D_{5-95} (s)	16.4	16.4	15.7	15.7
CAV (cm/s)	897	1740	1733	1763
T_m (s)	0.55	0.55	0.44	0.43

Figure E.3. continued.

660

	Original	Scaled	TDMod	FDMod
PGA (g)	0.469	1.026	0.598	0.596
PGV (cm/s)	30.9	67.8	47.7	45.7
PGD (cm)	5.2	11.4	21.7	19.3
I_a (cm/s)	184	883	428	348
D_{5-95} (s)	8.0	8.0	11.2	11.6
CAV (cm/s)	984	2155	1724	1525
T_m (s)	0.32	0.32	0.42	0.40

Figure E.3. continued.

661

	Original	Scaled	TDMod	FDMod
PGA (g)	0.197	0.632	0.595	0.597
PGV (cm/s)	14.9	47.8	42.9	39.2
PGD (cm)	5.6	17.9	37.5	17.5
I_a (cm/s)	65	666	509	457
D_{5-95} (s)	10.5	10.5	13.6	11.7
CAV (cm/s)	641	2058	1977	1772
T_m (s)	0.34	0.34	0.39	0.38
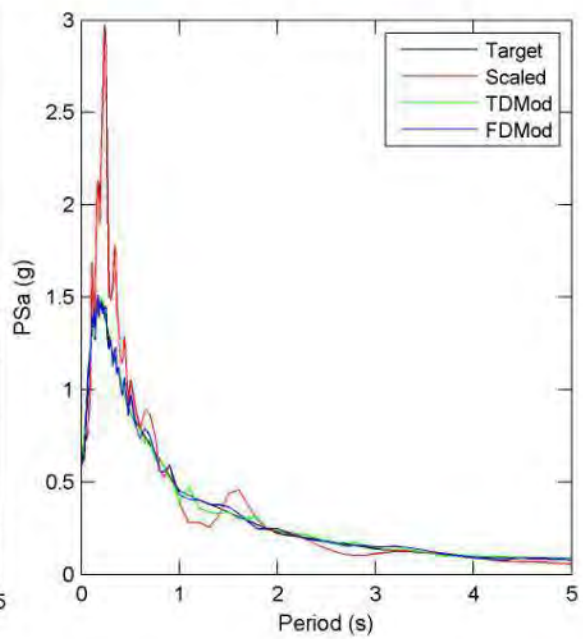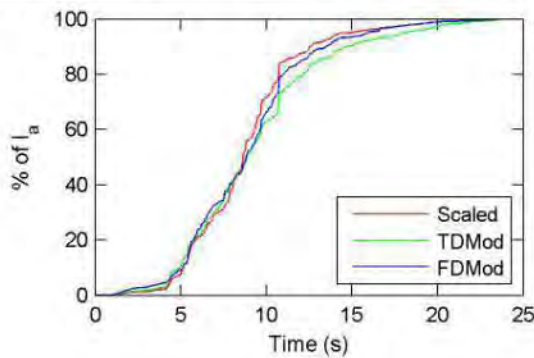
Figure E.3. continued.

662

File Name: 1057 SAR000   Start and End Taper Percentage: 1.0% and 5.0%
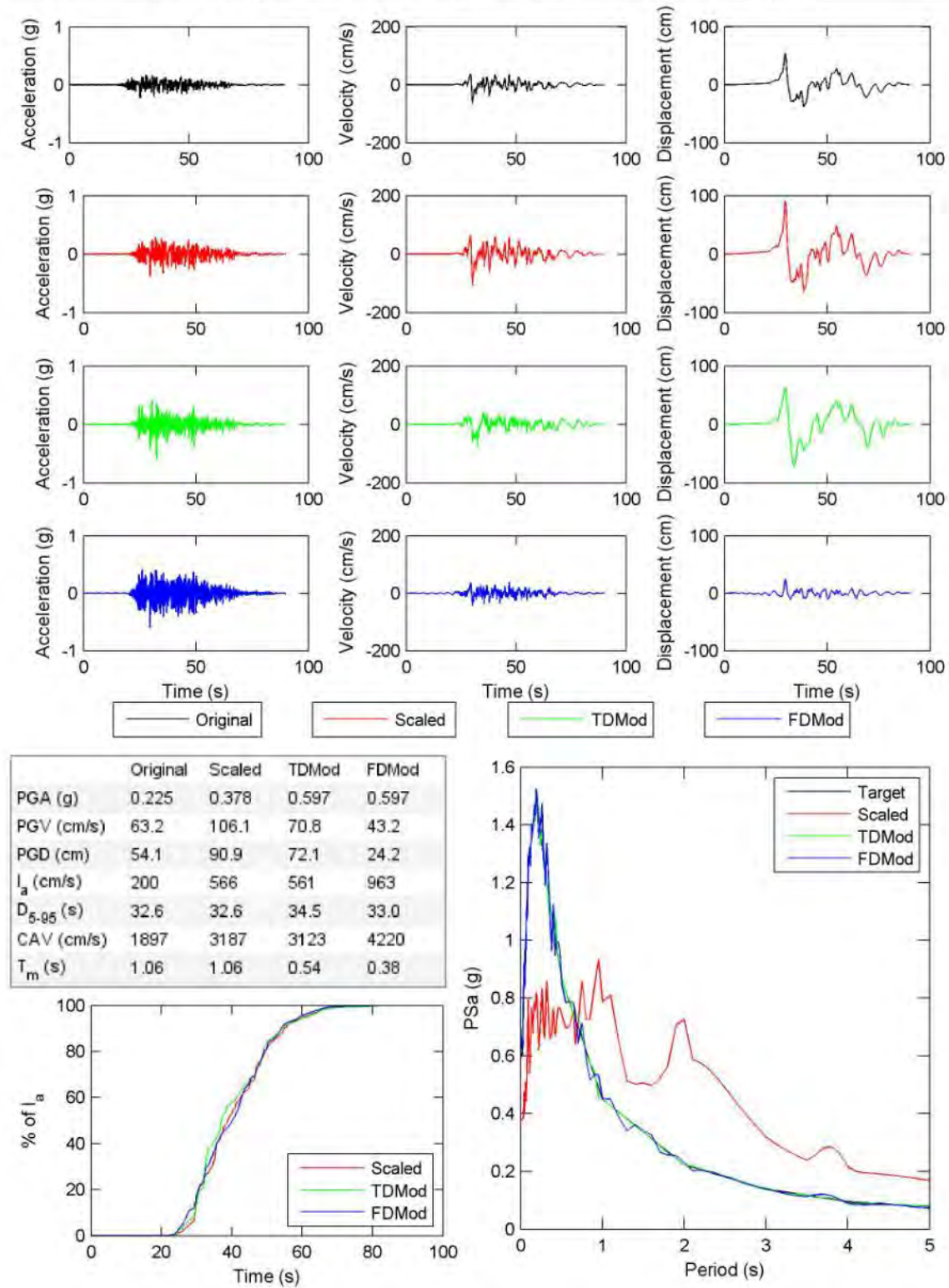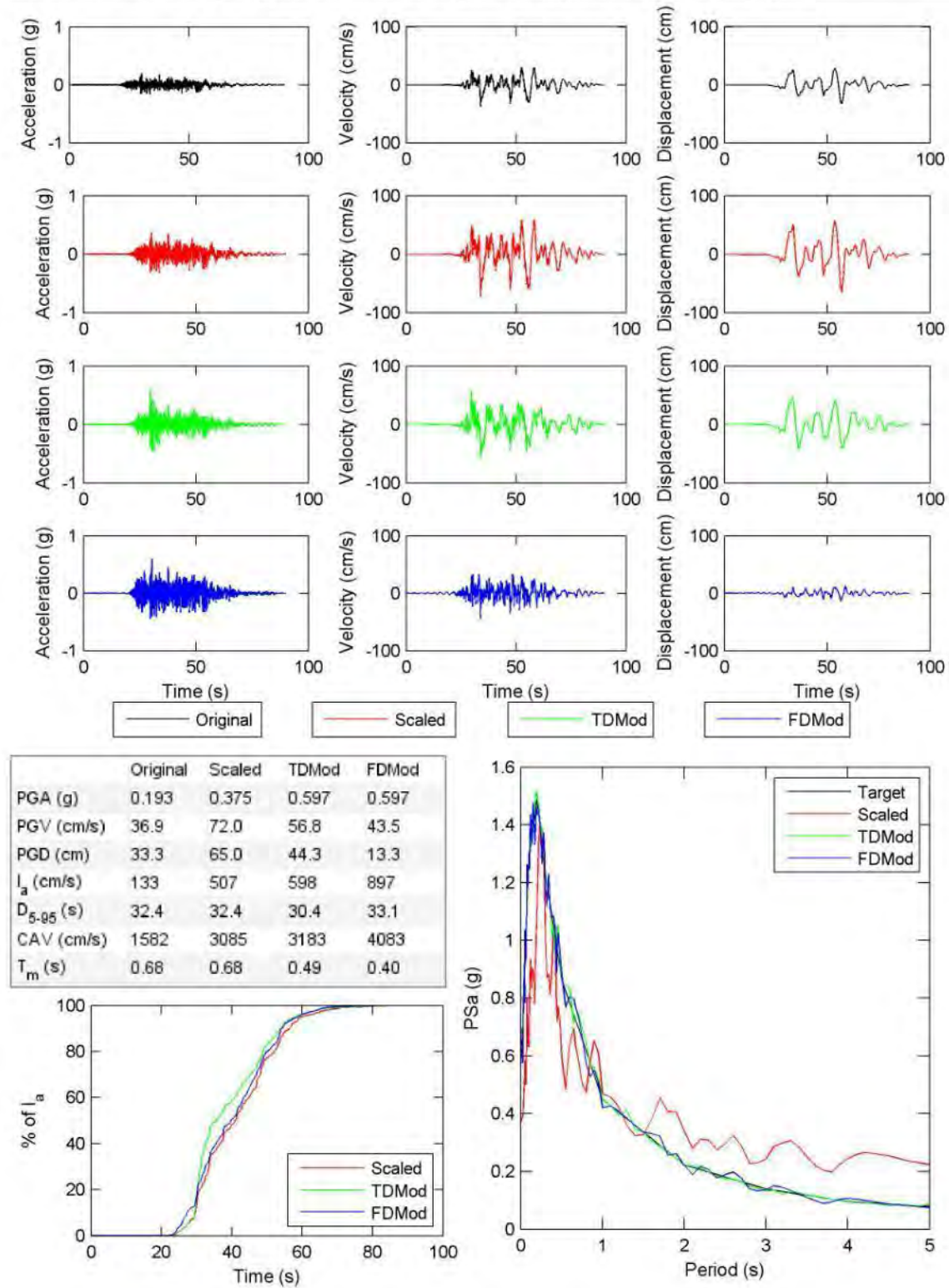Scale Factor: 4.11 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.558	0.597	0.597
PGV (cm/s)	18.6	76.3	34.7	46.7
PGD (cm)	4.5	18.5	16.0	12.2
I_a (cm/s)	32	538	455	537
D_{5-95} (s)	17.1	17.1	18.5	17.6
CAV (cm/s)	548	2253	2125	2287
T_m (s)	0.66	0.66	0.50	0.40

Figure E.3. continued.

663

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.076	0.364	0.597	0.597
PGV (cm/s)	13.8	66.4	37.6	36.6
PGD (cm)	6.9	33.2	20.4	17.5
I_a (cm/s)	19	445	433	652
D_{5-95} (s)	22.5	22.5	21.1	21.0
CAV (cm/s)	462	2225	2183	2667
T_m (s)	0.95	0.95	0.51	0.39

Figure E.3. continued.

664

File Name: 1083 GLE170   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.95 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.127	0.500	0.598	0.597
PGV (cm/s)	13.8	54.5	38.8	38.6
PGD (cm)	5.5	21.9	25.4	19.8
I_a (cm/s)	35	550	446	485
D_{5-95} (s)	15.9	15.9	16.2	14.9
CAV (cm/s)	534	2109	1912	1975
T_m (s)	0.59	0.59	0.46	0.43

Figure E.3. continued.

665

File Name: 1083 GLE260   Start and End Taper Percentage: 1.0% and 5.0%
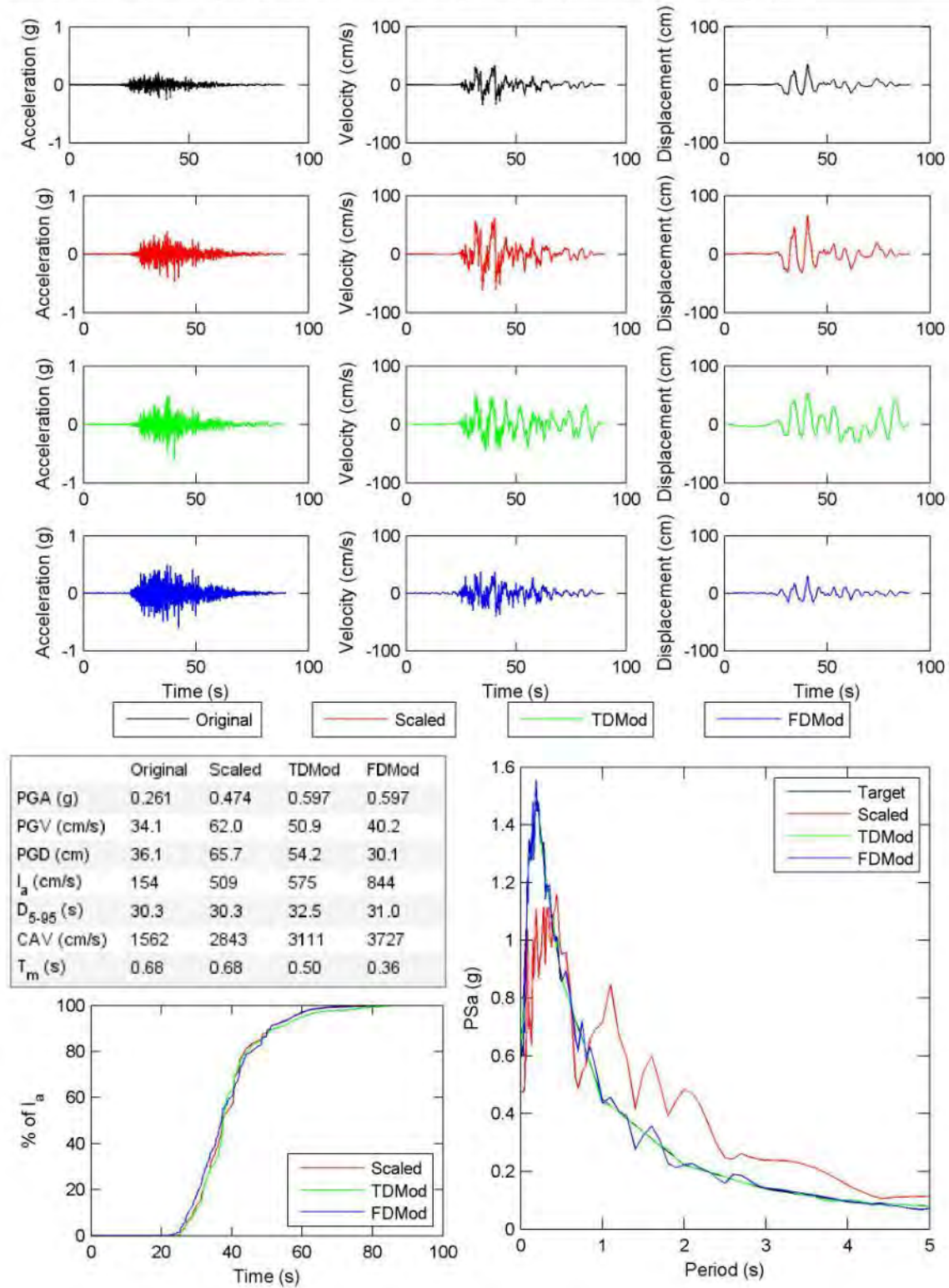Scale Factor: 3.71 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.157	0.583	0.596	0.597
PGV (cm/s)	14.4	53.6	47.3	41.9
PGD (cm)	4.4	16.2	21.7	20.9
I_a (cm/s)	46	632	436	472
D_{5-95} (s)	11.8	11.8	14.7	15.9
CAV (cm/s)	565	2097	1855	1974
T_m (s)	0.67	0.67	0.46	0.40

Figure E.3. continued.

666

File Name: 1089 5081-270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.82 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 6
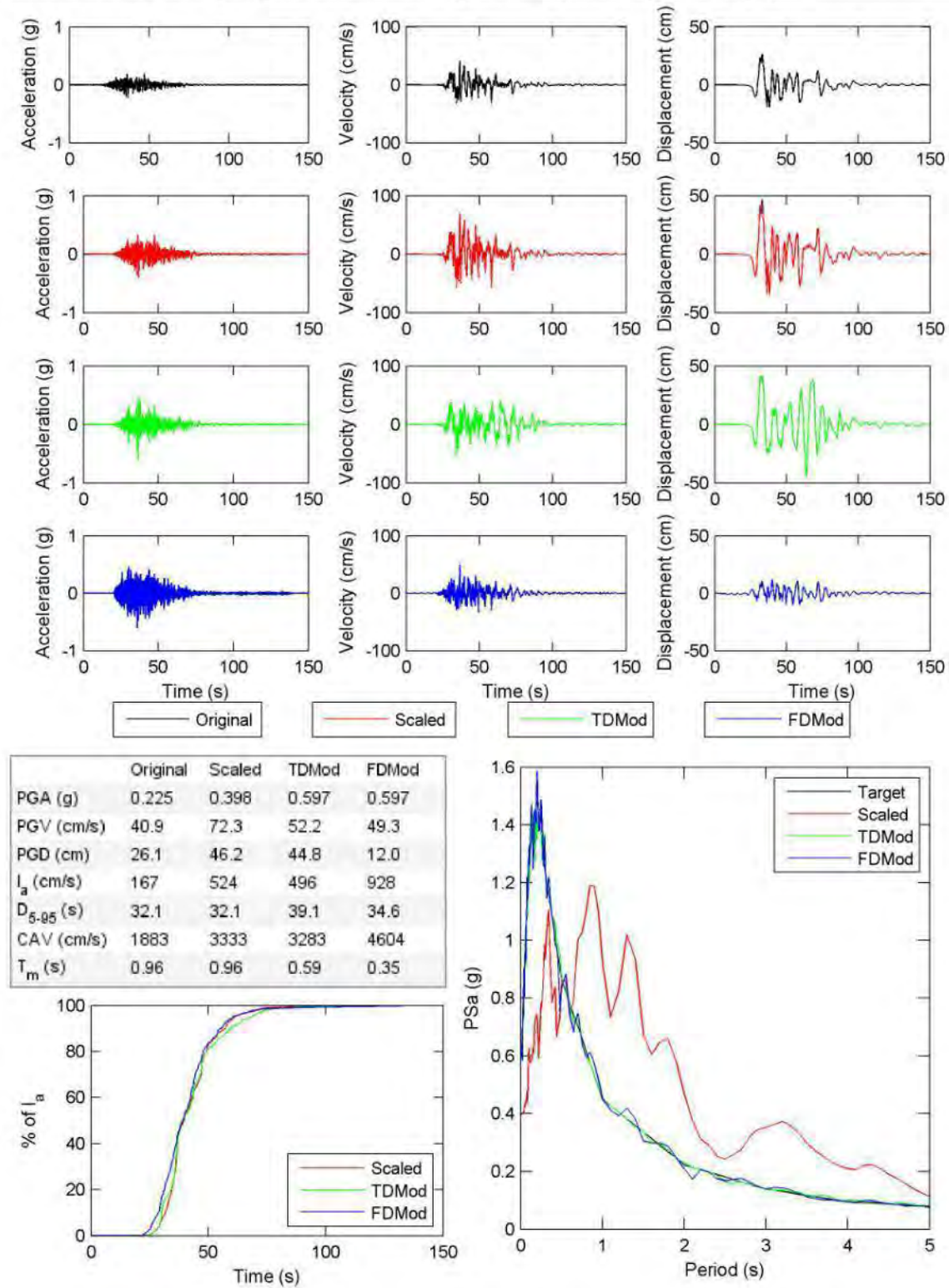

	Original	Scaled	TDMod	FDMod
PGA (g)	0.193	0.931	0.597	0.597
PGV (cm/s)	12.0	58.0	43.3	52.2
PGD (cm)	2.3	11.3	16.4	14.9
I_a (cm/s)	51	1183	574	445
D_{5-95} (s)	10.1	10.1	14.2	13.2
CAV (cm/s)	551	2654	2095	1814
T_m (s)	0.27	0.27	0.36	0.39

Figure E.3. continued.

667

File Name: 1089 5081-360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.04 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
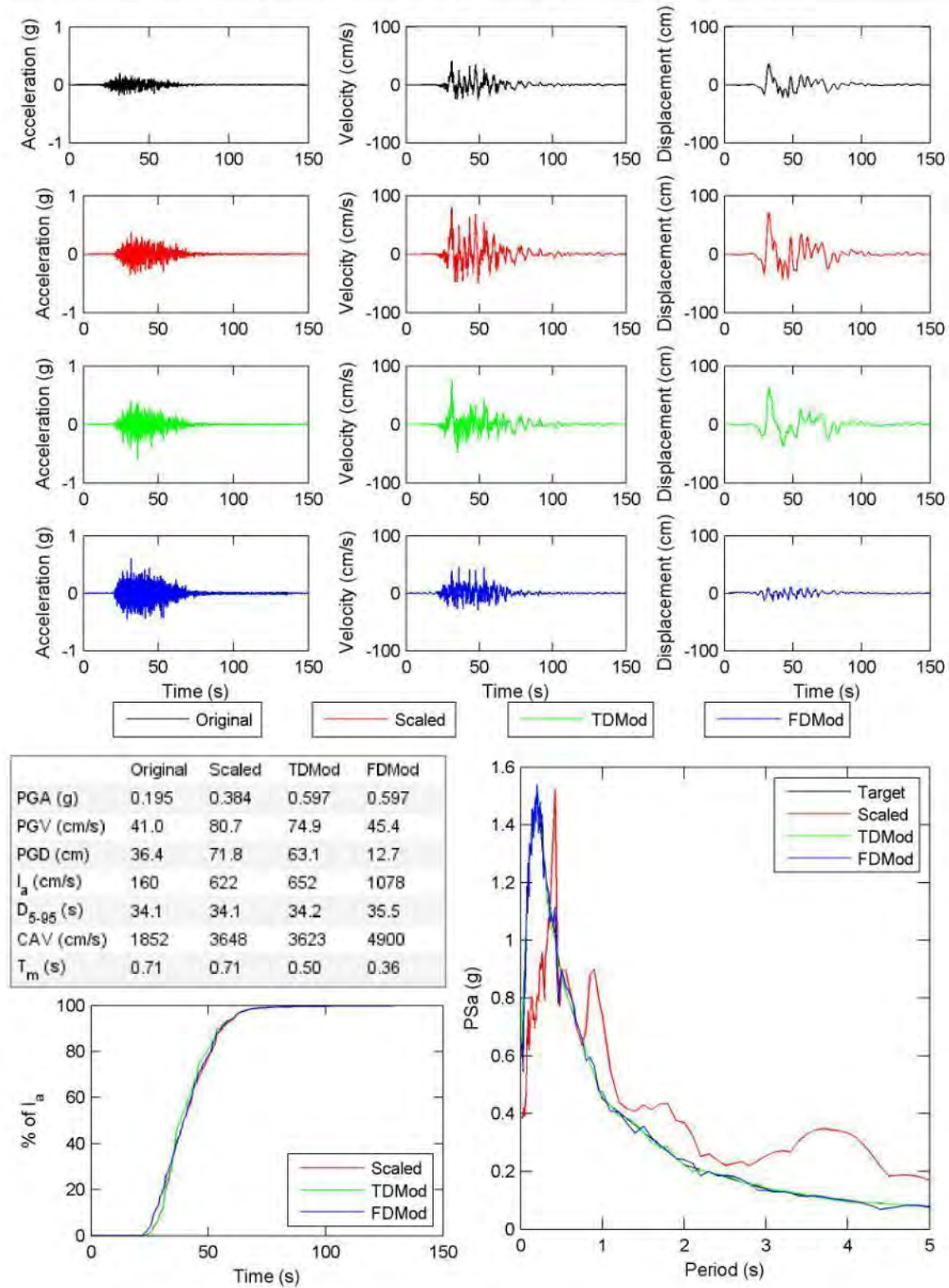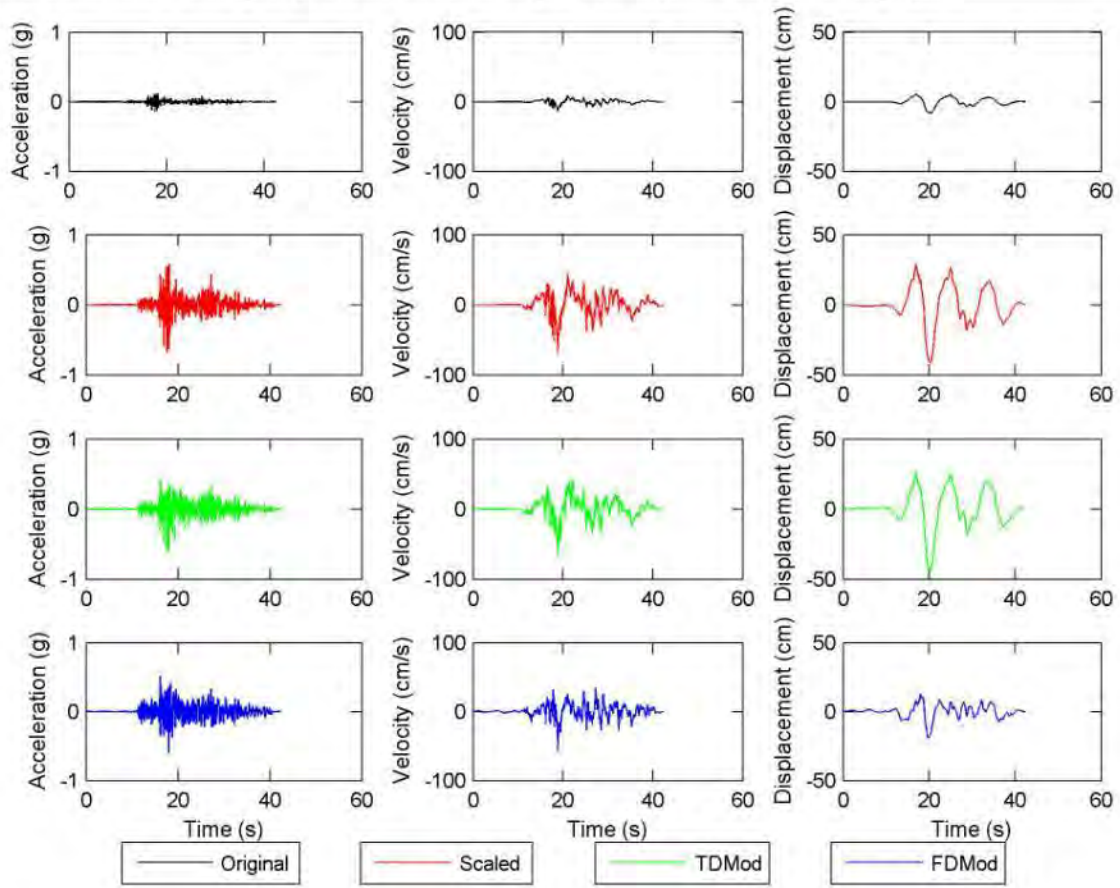

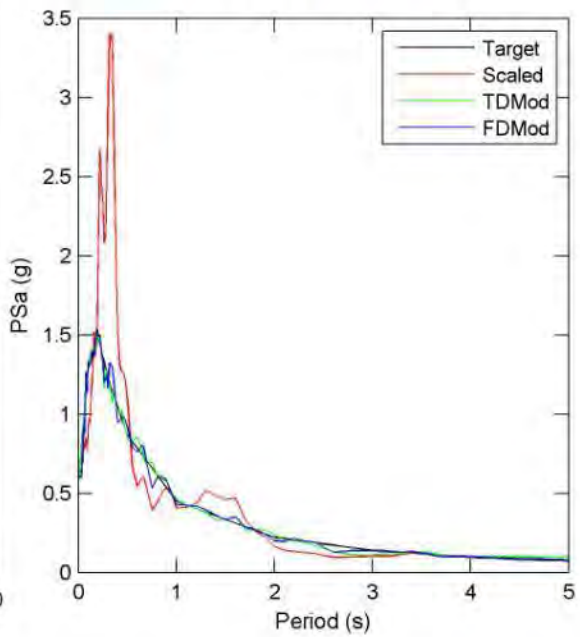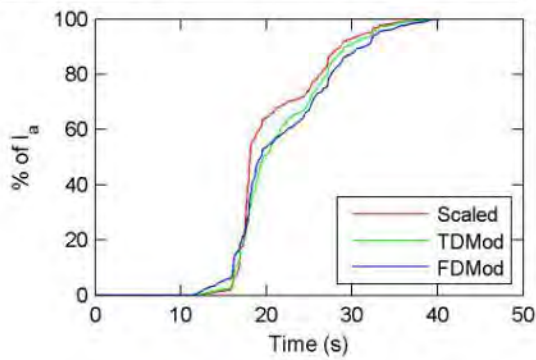|	Original	Scaled	TDMod	FDMod
PGA (g)	0.332	1.010	0.597	0.597
PGV (cm/s)	15.6	47.3	47.9	35.1
PGD (cm)	4.1	12.6	35.4	15.4
I_a (cm/s)	104	960	534	384
D_{5-95} (s)	8.8	8.8	12.3	12.1
CAV (cm/s)	776	2360	2012	1606
T_m (s)	0.30	0.30	0.40	0.41

Figure E.3. continued.

668

File Name: 1111 NIS000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.46 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.509	0.744	0.597	0.597
PGV (cm/s)	37.3	54.4	37.7	34.5
PGD (cm)	9.5	13.9	15.9	22.5
I_a (cm/s)	335	715	385	420
D_{5-95} (s)	9.7	9.7	13.3	13.5
CAV (cm/s)	1432	2091	1809	1896
T_m (s)	0.49	0.49	0.50	0.41

Figure E.3. continued.

669

File Name: 1111 NIS090   Start and End Taper Percentage: 1.0% and 5.0%
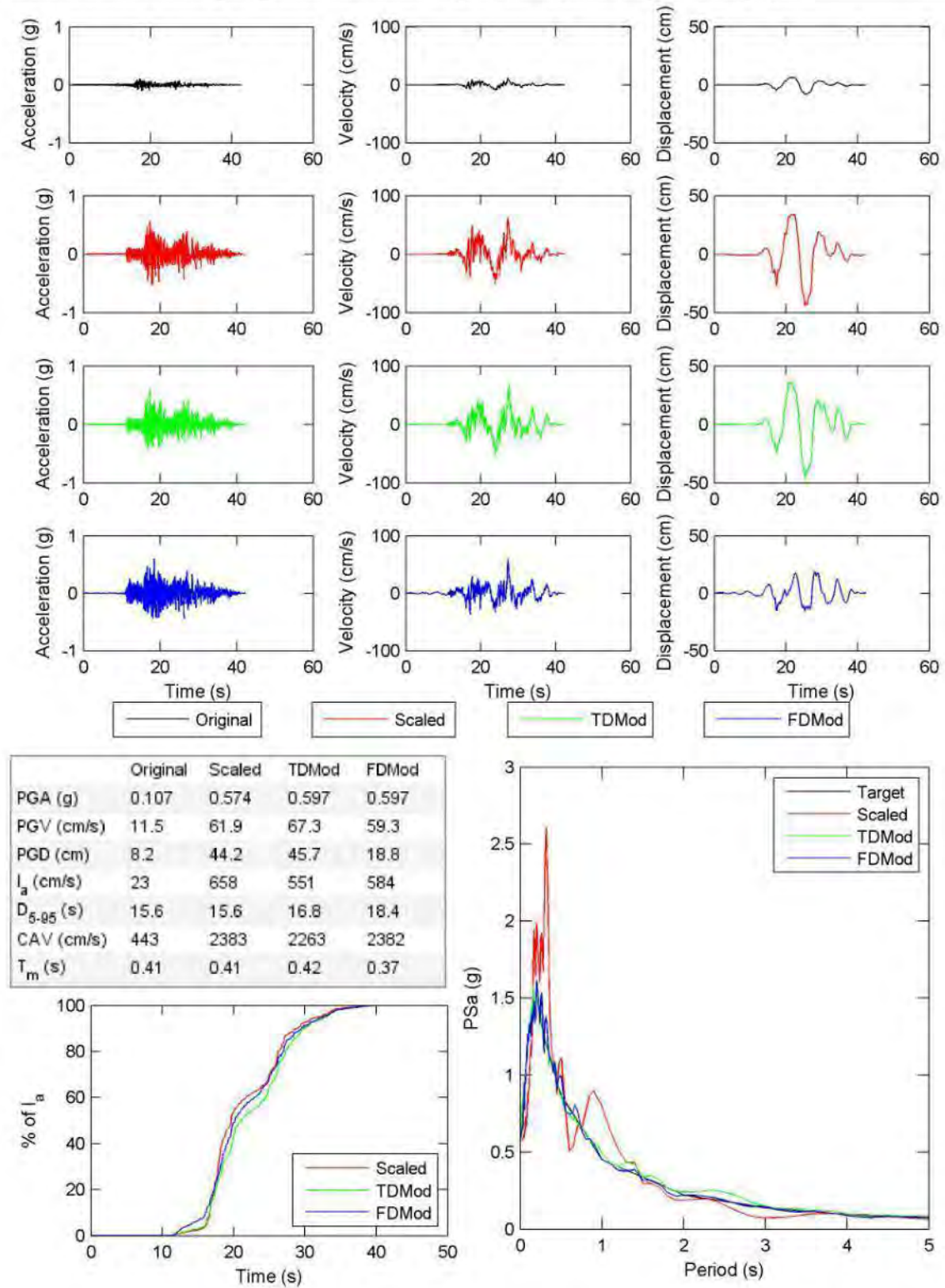Scale Factor: 1.46 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.503	0.734	0.597	0.597
PGV (cm/s)	36.6	53.5	40.3	43.5
PGD (cm)	11.3	16.4	24.2	17.4
I_a (cm/s)	227	484	388	386
D_{5-95} (s)	11.2	11.2	11.9	14.0
CAV (cm/s)	1196	1746	1636	1786
T_m (s)	0.52	0.52	0.45	0.45

Figure E.3. continued.

670

File Name: 1193 CHY024-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.47 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
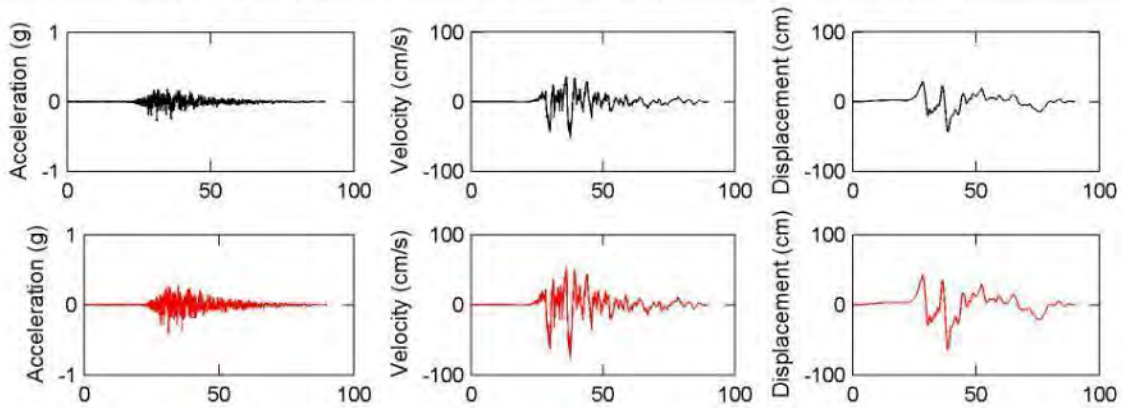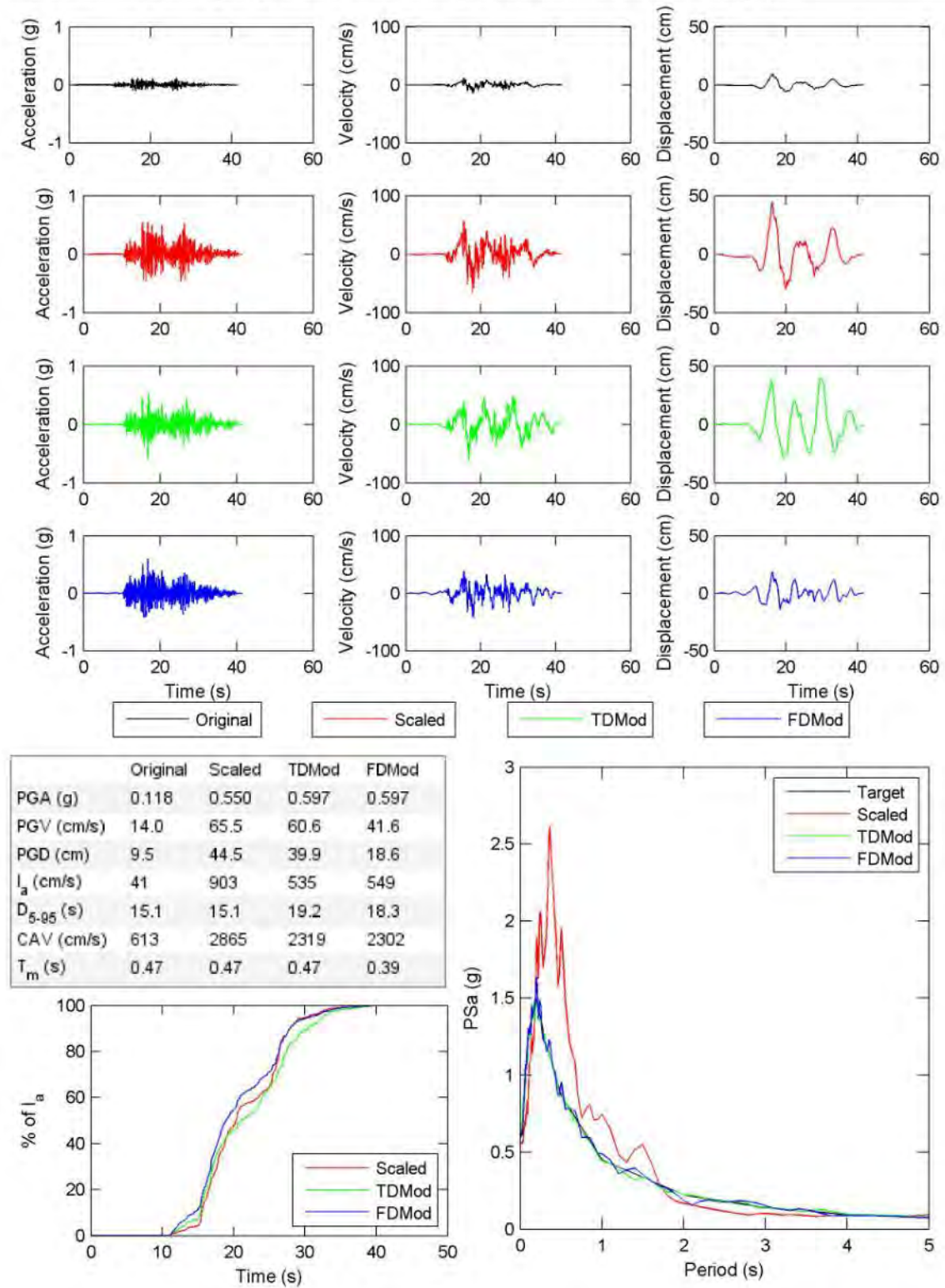
REJECTED
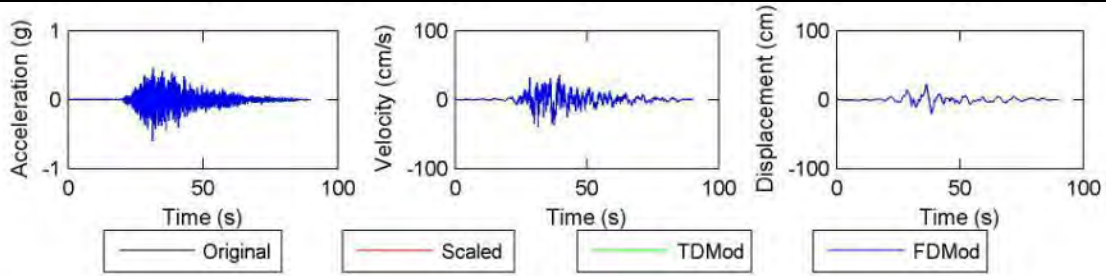
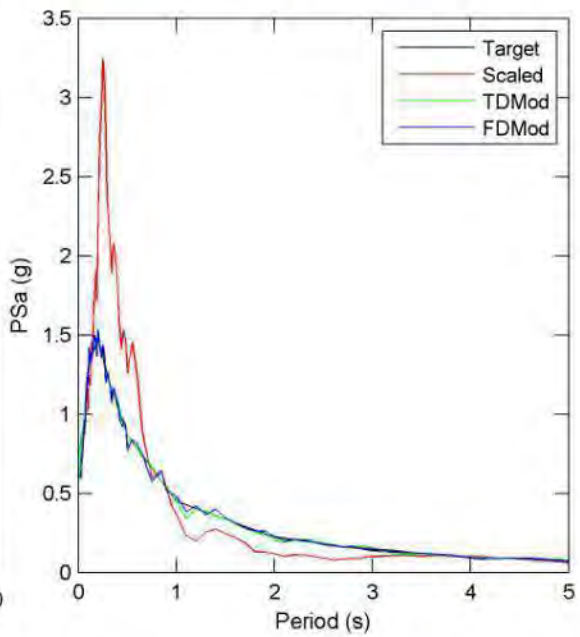|	Original	Scaled	TDMod	FDMod
PGA (g)	0.278	0.409	0.597	0.597
PGV (cm/s)	52.9	77.8	78.1	39.4
PGD (cm)	43.6	64.2	66.6	22.1
I_a (cm/s)	183	395	482	753
D_{5-95} (s)	24.1	24.1	22.9	29.2
CAV (cm/s)	1643	2416	2593	3499
T_m (s)	0.87	0.87	0.68	0.37

Figure E.3. continued.

671

File Name: 1193 CHY024-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.91 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

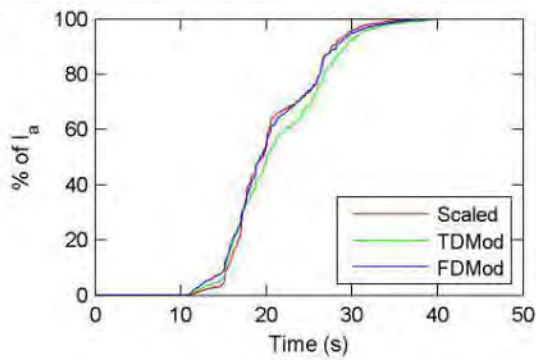|	Original	Scaled	TDMod	FDMod
PGA (g)	0.175	0.335	0.597	0.597
PGV (cm/s)	49.0	93.5	57.6	37.6
PGD (cm)	31.1	59.3	33.4	14.0
I_a (cm/s)	119	436	506	732
D_{5-95} (s)	26.9	26.9	26.7	28.9
CAV (cm/s)	1384	2644	2730	3496
T_m (s)	0.84	0.84	0.52	0.40

Figure E.3. continued.

672

File Name: 1541 TCU116-E   Start and End Taper Percentage: 1.0% and 5.0%
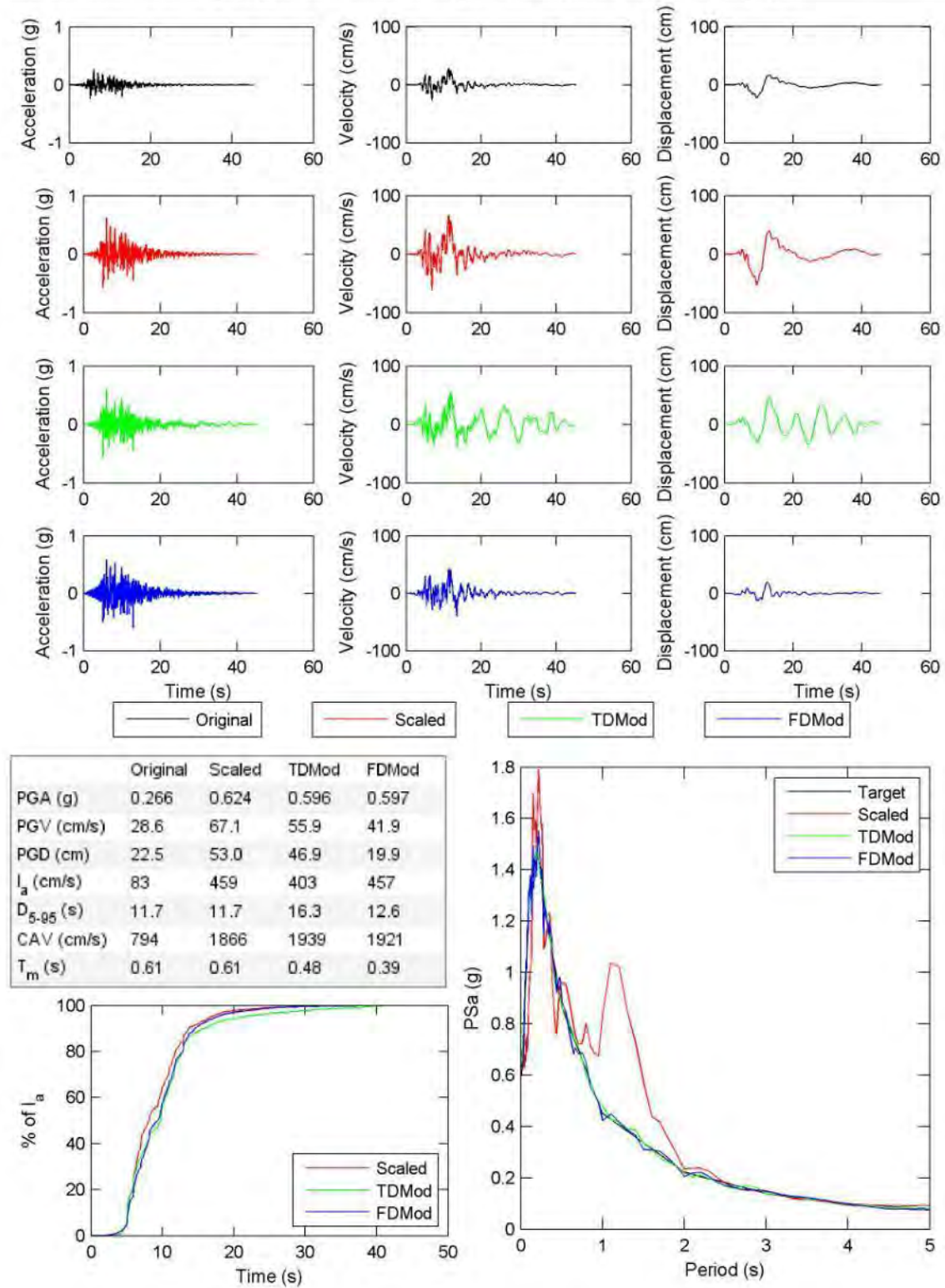Scale Factor: 1.95 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.184	0.359	0.597	0.597
PGV (cm/s)	48.7	95.0	51.5	39.4
PGD (cm)	49.2	96.0	78.7	13.2
I_a (cm/s)	157	595	510	858
D_{5-95} (s)	29.0	29.0	30.9	32.0
CAV (cm/s)	1679	3275	2908	3993
T_m (s)	0.97	0.97	0.58	0.41

Figure E.3. continued.

673

File Name: 1541 TCU116-N   Start and End Taper Percentage: 1.0% and 5.0%
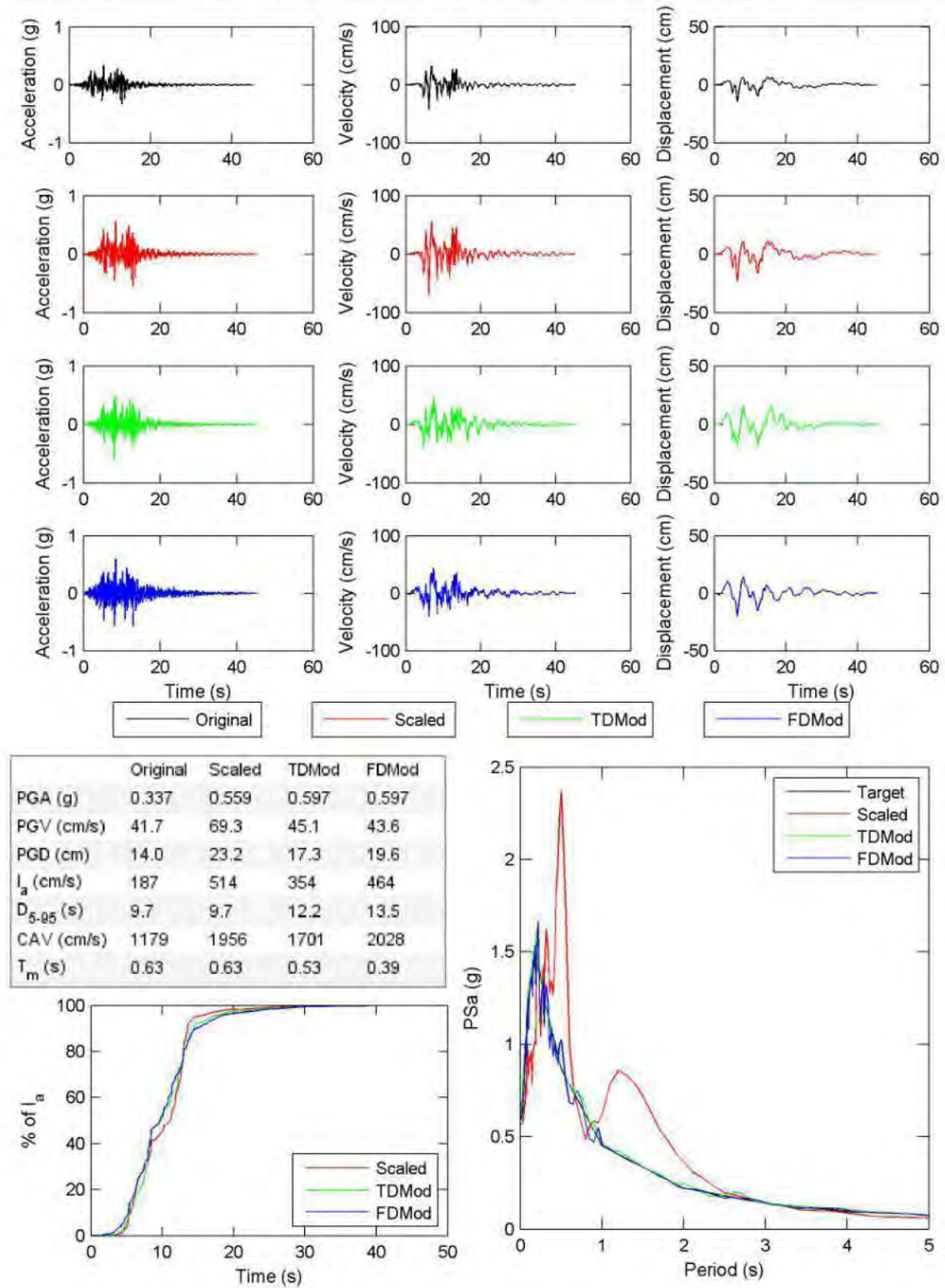Scale Factor: 2.16 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.320	0.597	0.597
PGV (cm/s)	45.4	98.0	61.7	41.4
PGD (cm)	30.1	65.0	44.1	17.7
I_a (cm/s)	113	526	545	903
D_{5-95} (s)	33.3	33.3	32.0	34.1
CAV (cm/s)	1473	3181	3070	4122
T_m (s)	1.04	1.04	0.55	0.39

Figure E.3. continued.

674

File Name: 1545 TCU120-E   Start and End Taper Percentage: 1.0% and 5.0%
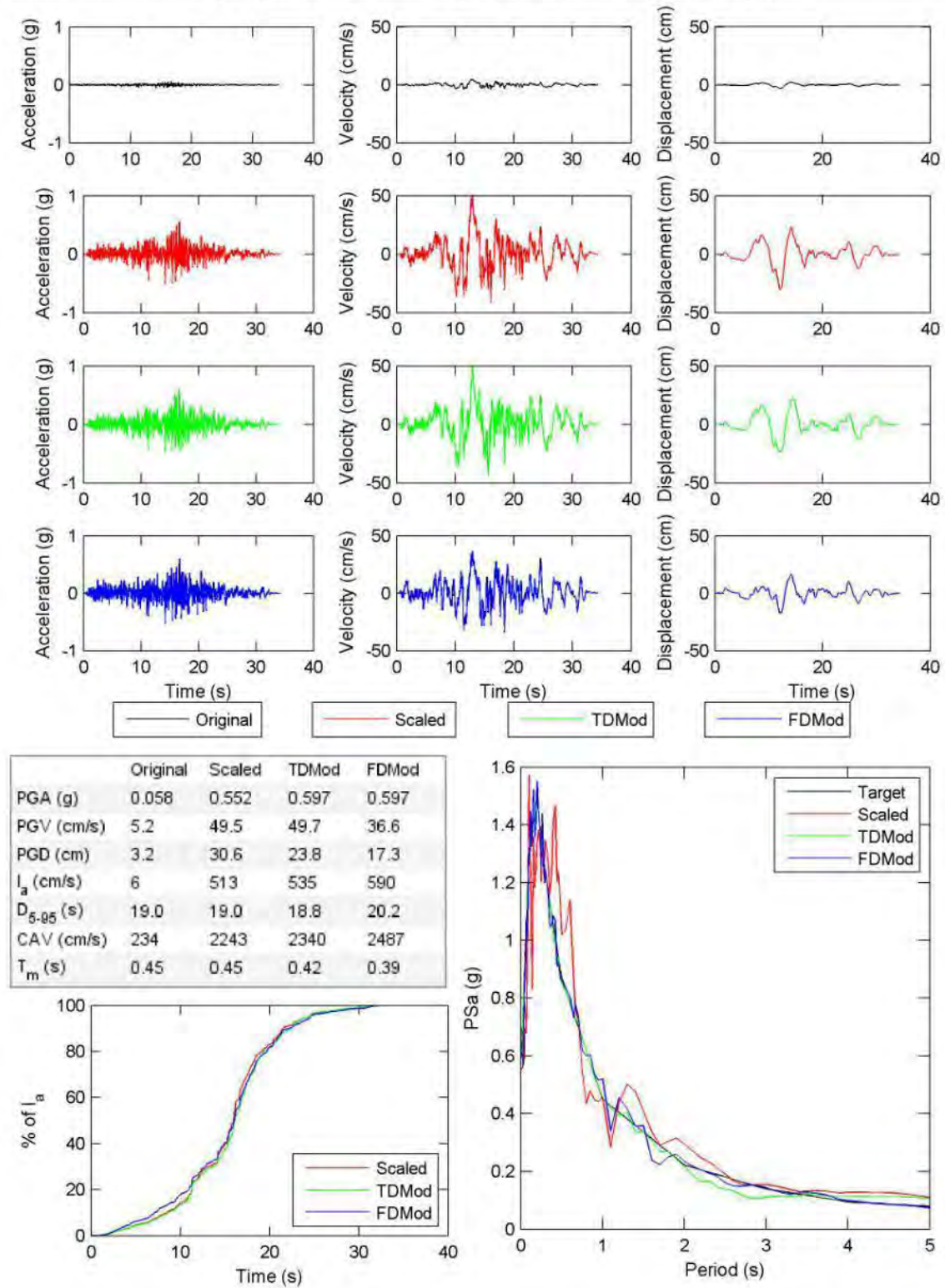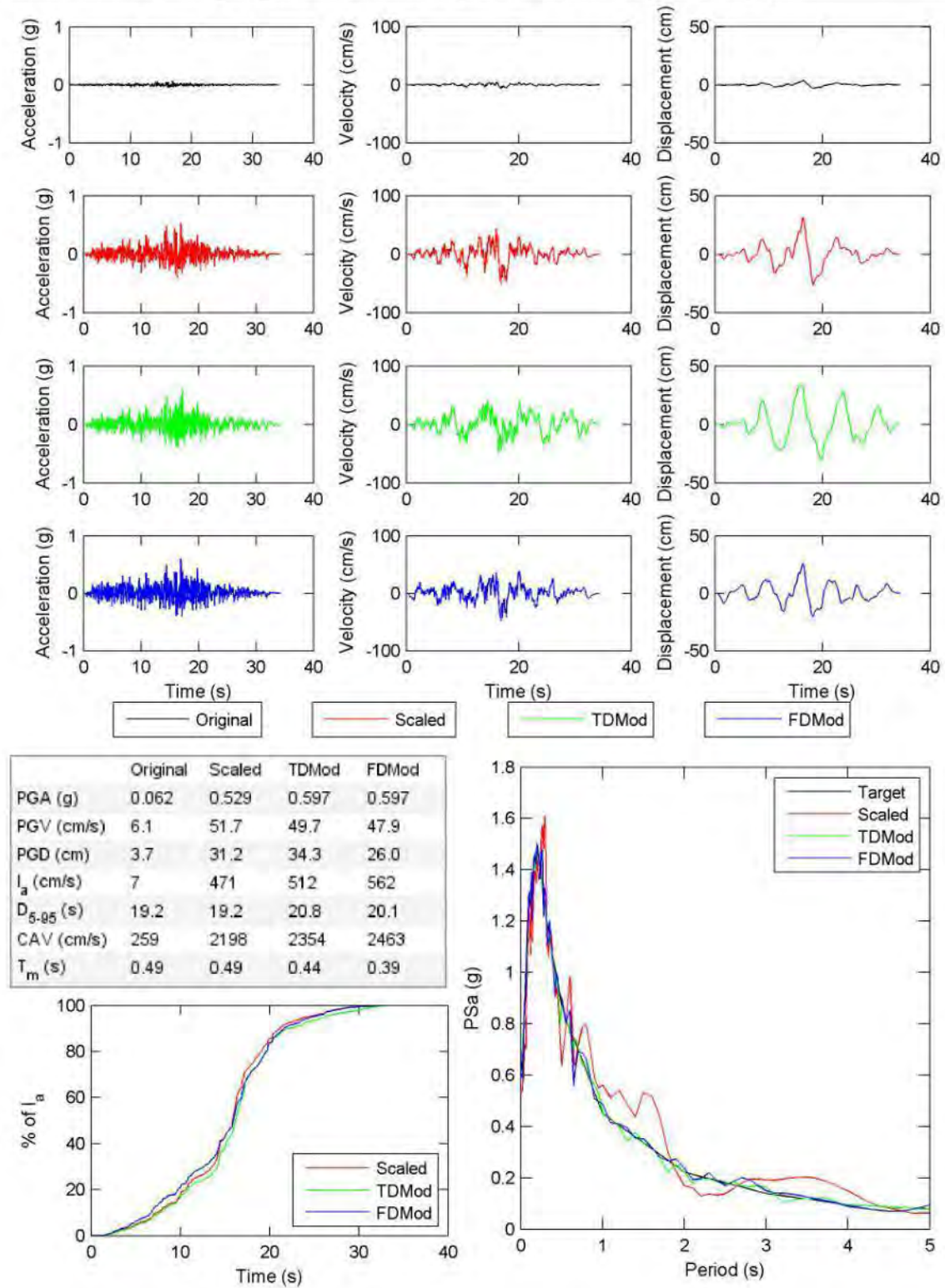Scale Factor: 1.68 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.378	0.597	0.597
PGV (cm/s)	63.2	106.1	70.8	43.2
PGD (cm)	54.1	90.9	72.1	24.2
I_a (cm/s)	200	566	561	963
D_{5-95} (s)	32.6	32.6	34.5	33.0
CAV (cm/s)	1897	3187	3123	4220
T_m (s)	1.06	1.06	0.54	0.38

Figure E.3. continued.

675
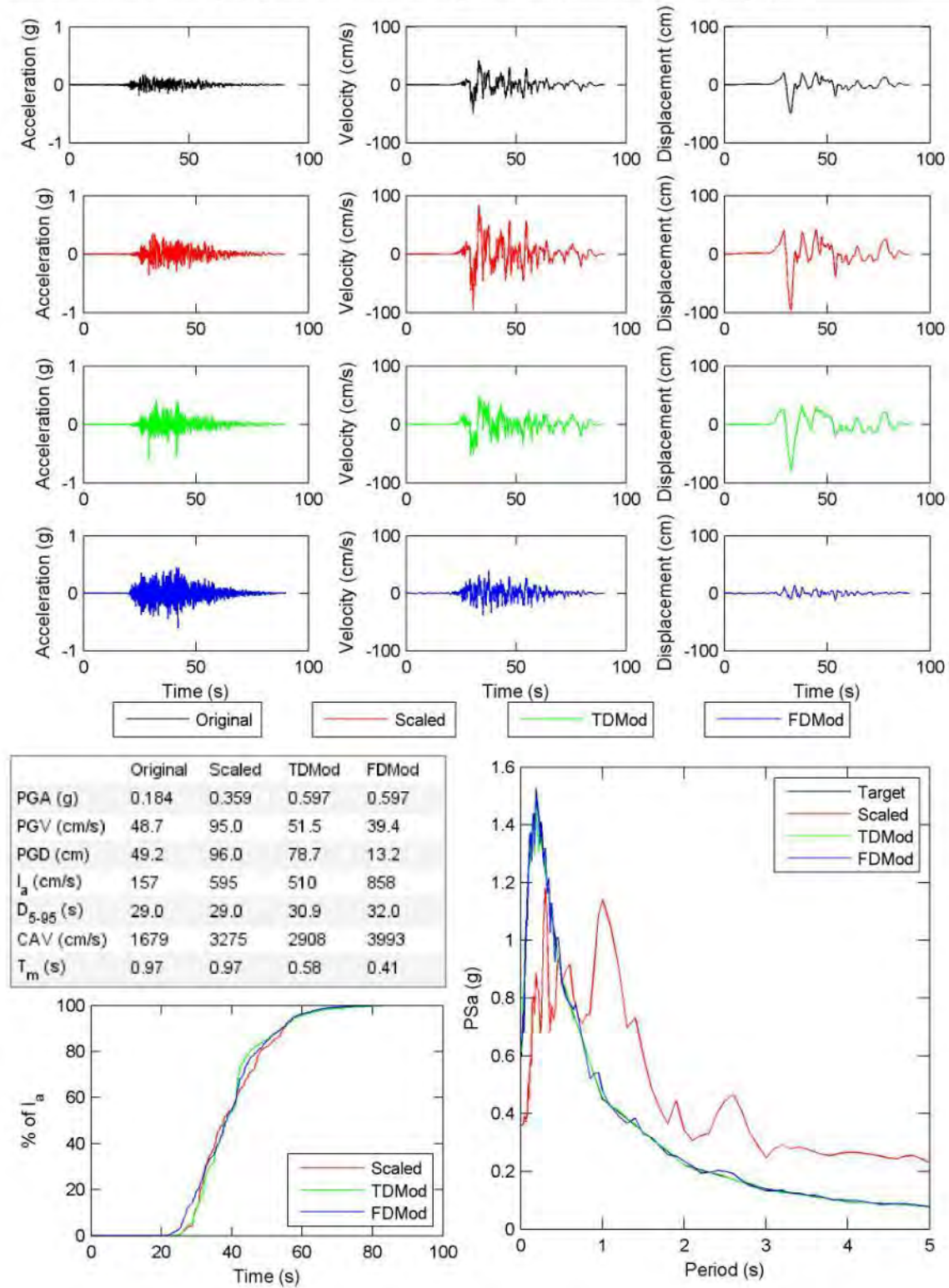
File Name: 1545 TCU120-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.95 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
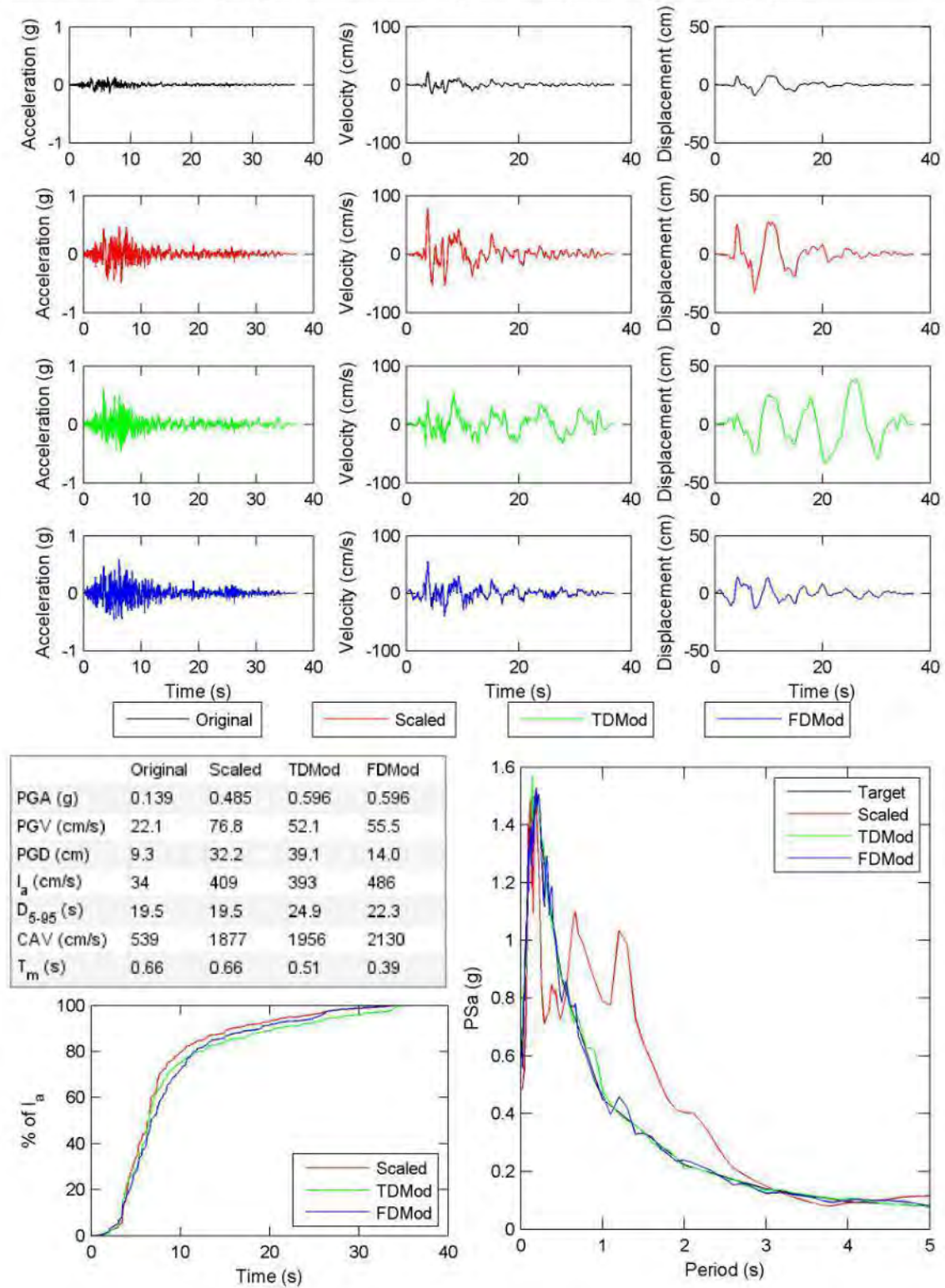

	Original	Scaled	TDMod	FDMod
PGA (g)	0.193	0.375	0.597	0.597
PGV (cm/s)	36.9	72.0	56.8	43.5
PGD (cm)	33.3	65.0	44.3	13.3
I_a (cm/s)	133	507	598	897
D_{5-95} (s)	32.4	32.4	30.4	33.1
CAV (cm/s)	1582	3085	3183	4083
T_m (s)	0.68	0.68	0.49	0.40

Figure E.3. continued.

676

File Name: 1546 TCU122-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.84 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
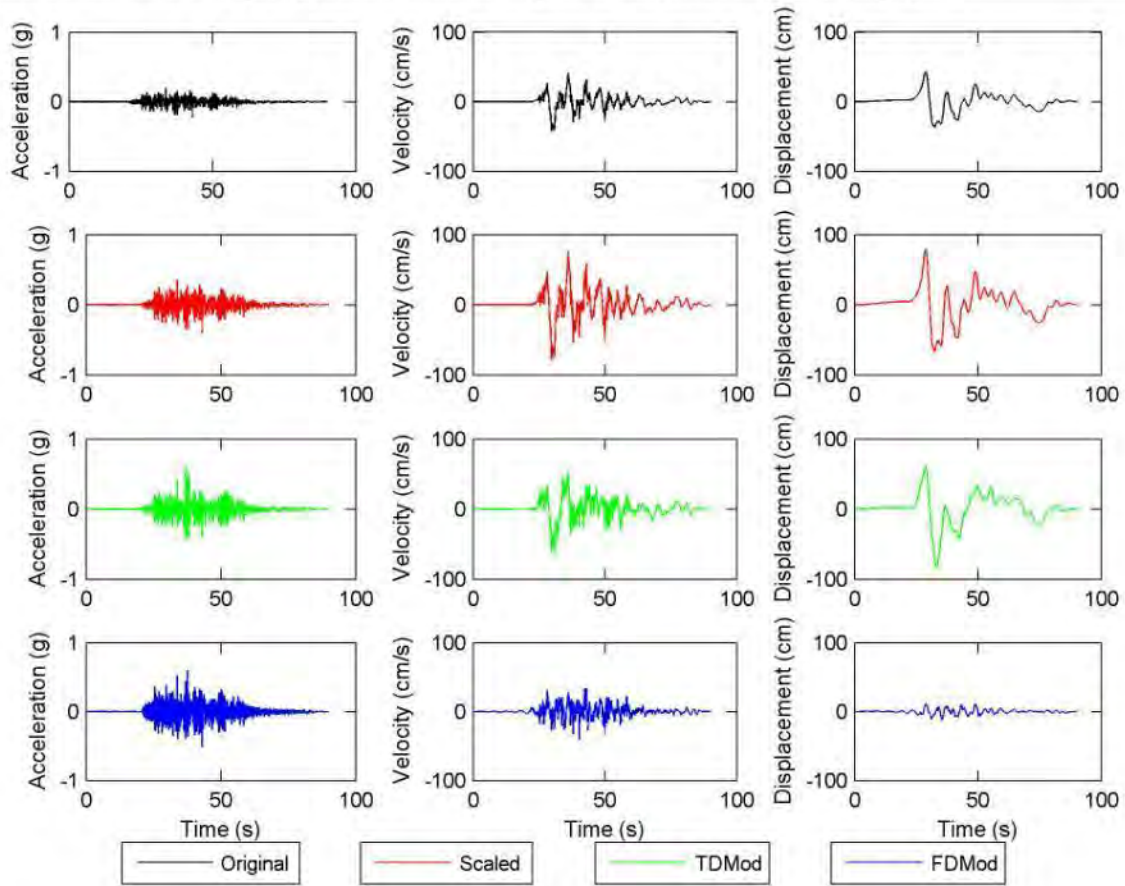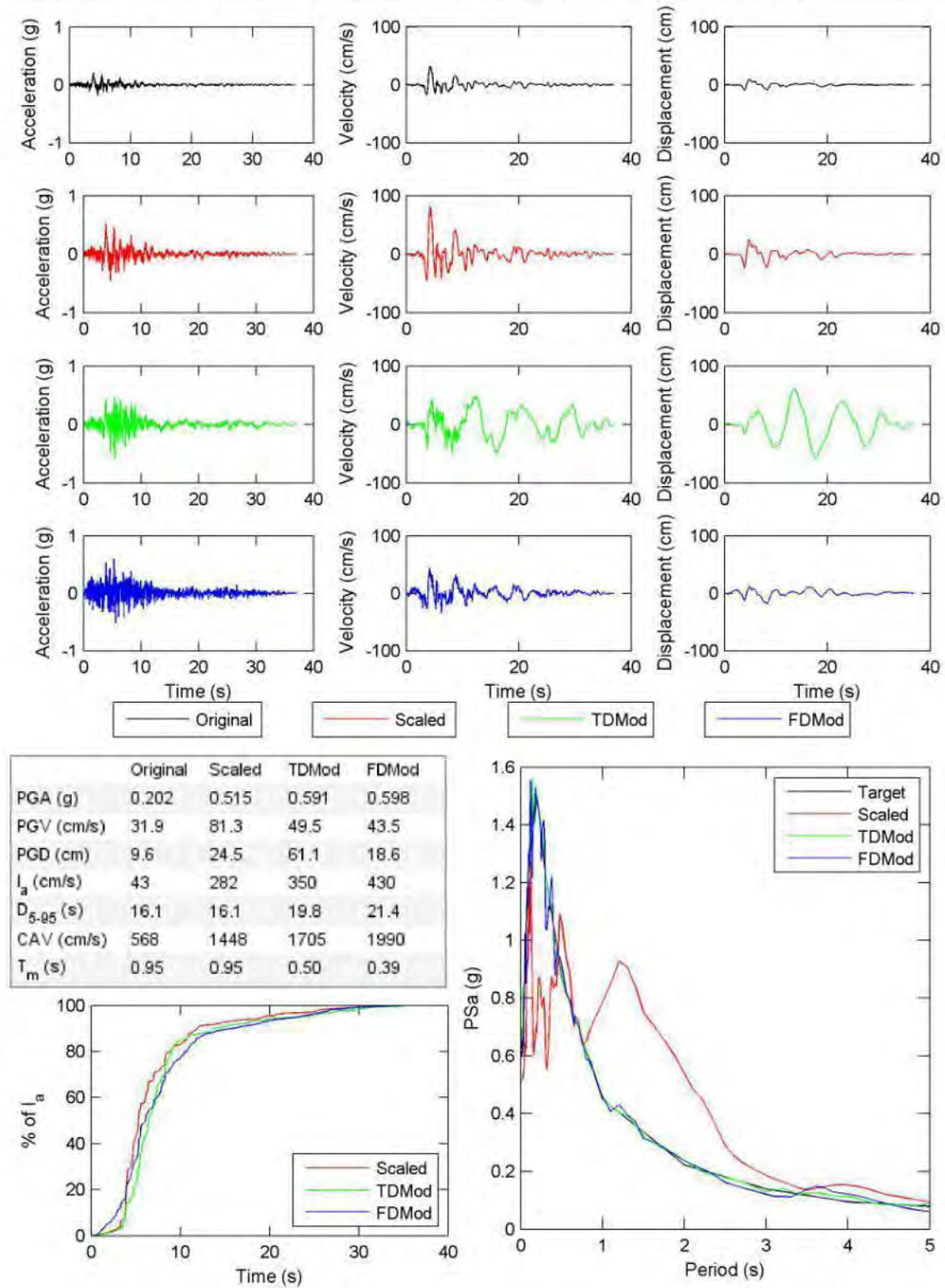

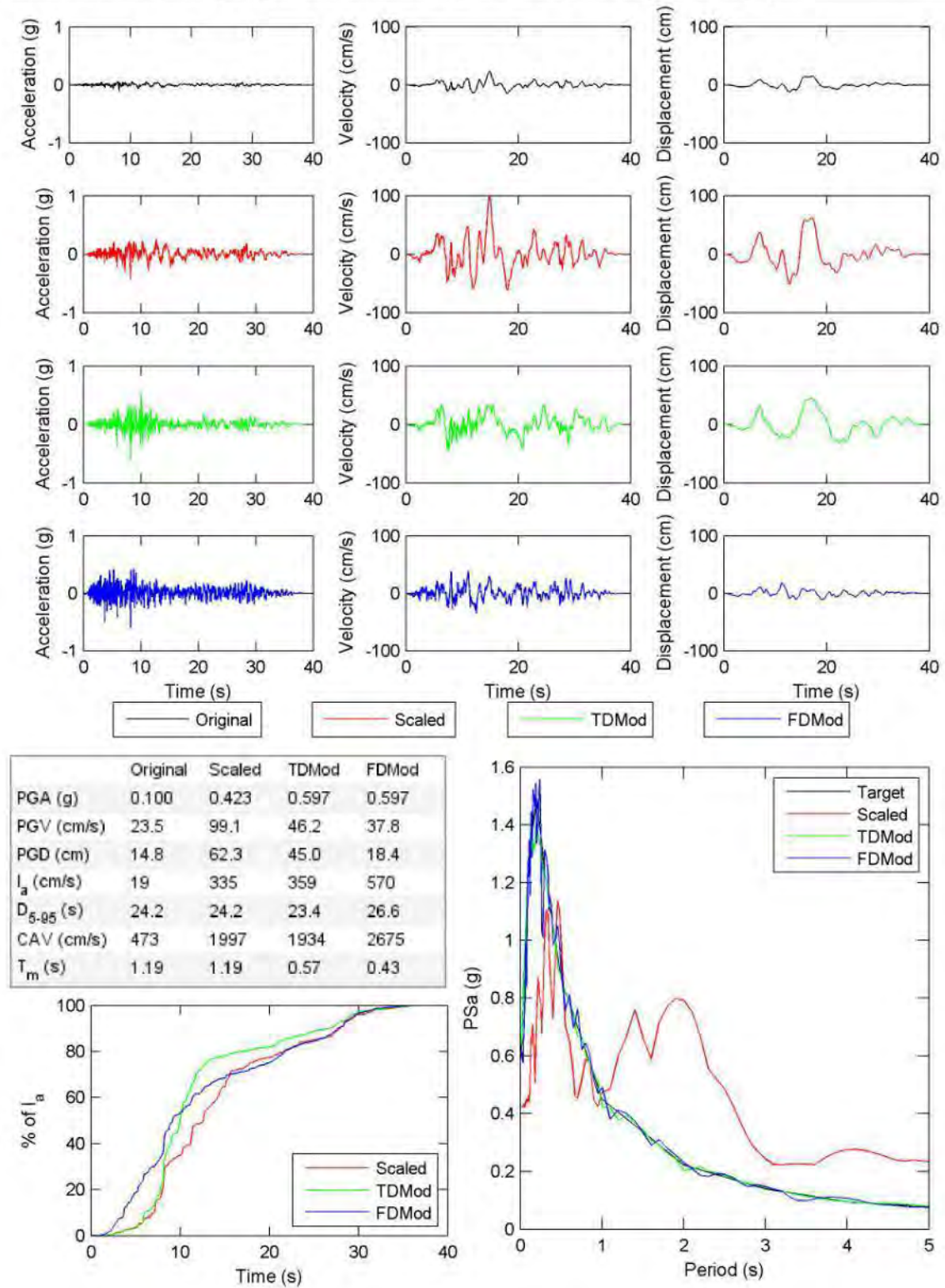|	Original	Scaled	TDMod	FDMod
PGA (g)	0.220	0.404	0.597	0.597
PGV (cm/s)	42.5	78.2	62.8	39.9
PGD (cm)	43.0	79.2	83.1	11.7
I_a (cm/s)	144	487	571	806
D_{5-95} (s)	30.8	30.8	29.6	31.4
CAV (cm/s)	1577	2902	3032	3738
T_m (s)	0.71	0.71	0.51	0.40
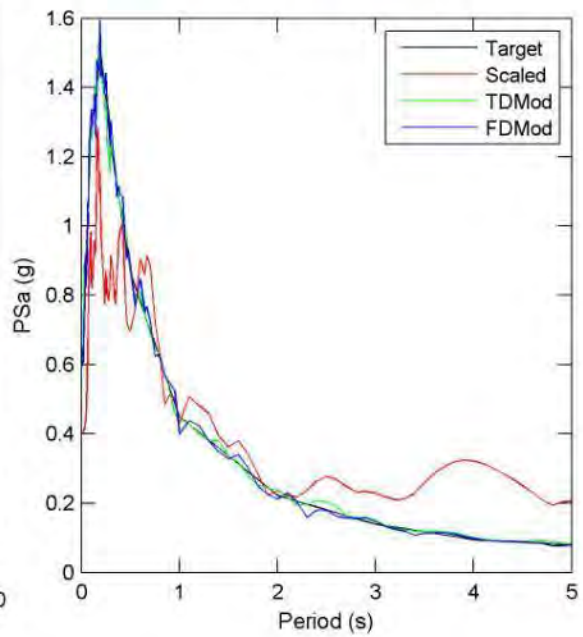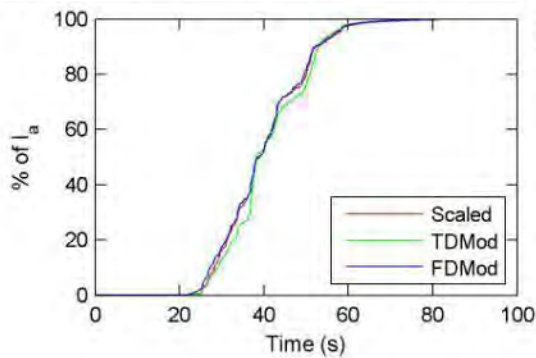
Figure E.3. continued.

677

File Name: 1546 TCU122-N   Start and End Taper Percentage: 1.0% and 5.0%
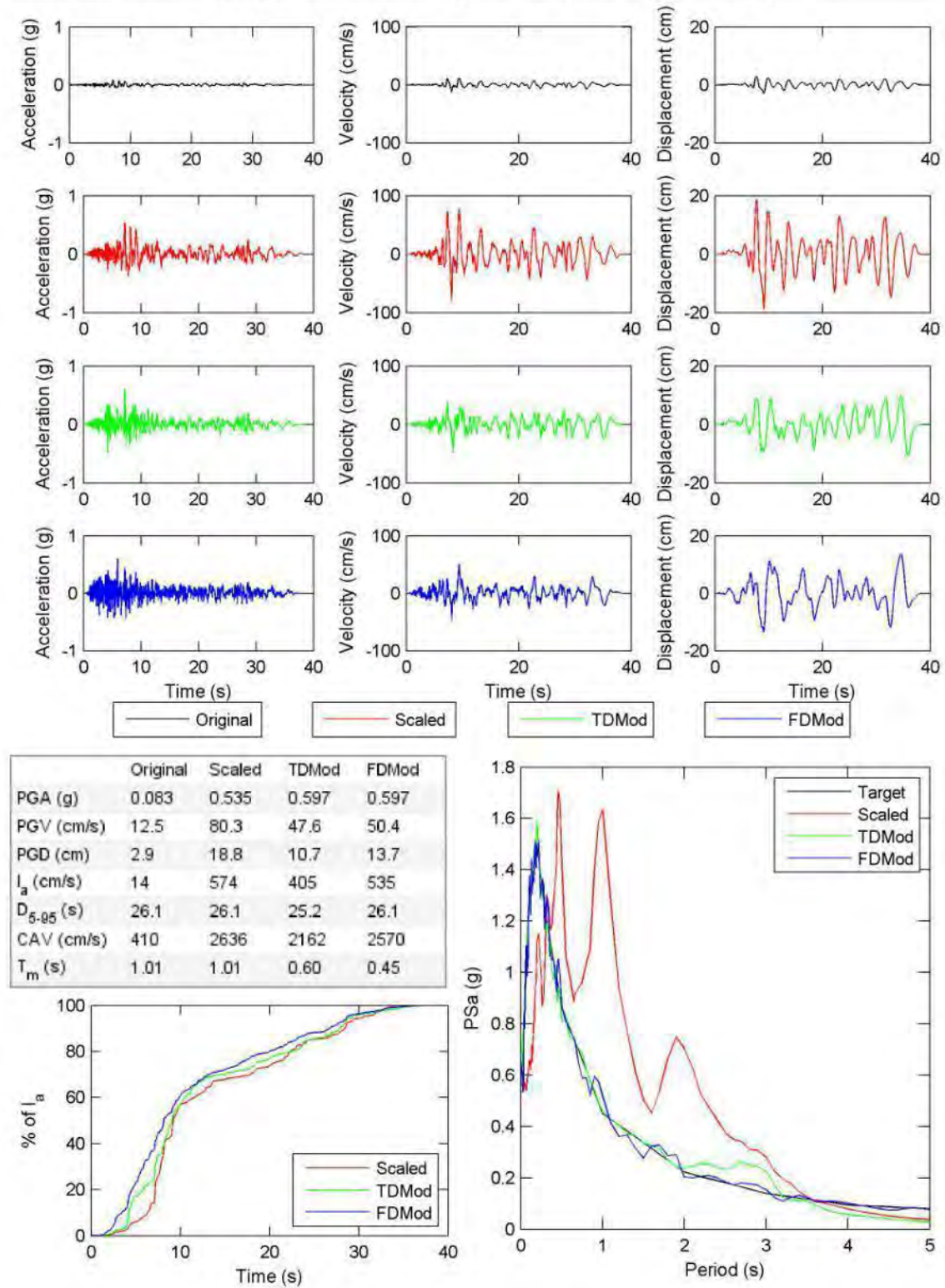Scale Factor: 1.82 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.261	0.474	0.597	0.597
PGV (cm/s)	34.1	62.0	50.9	40.2
PGD (cm)	36.1	65.7	54.2	30.1
I_a (cm/s)	154	509	575	844
D_{5-95} (s)	30.3	30.3	32.5	31.0
CAV (cm/s)	1562	2843	3111	3727
T_m (s)	0.68	0.68	0.50	0.36

Figure E.3. continued.

678

File Name: 1551 TCU138-N   Start and End Taper Percentage: 1.0% and 5.0%
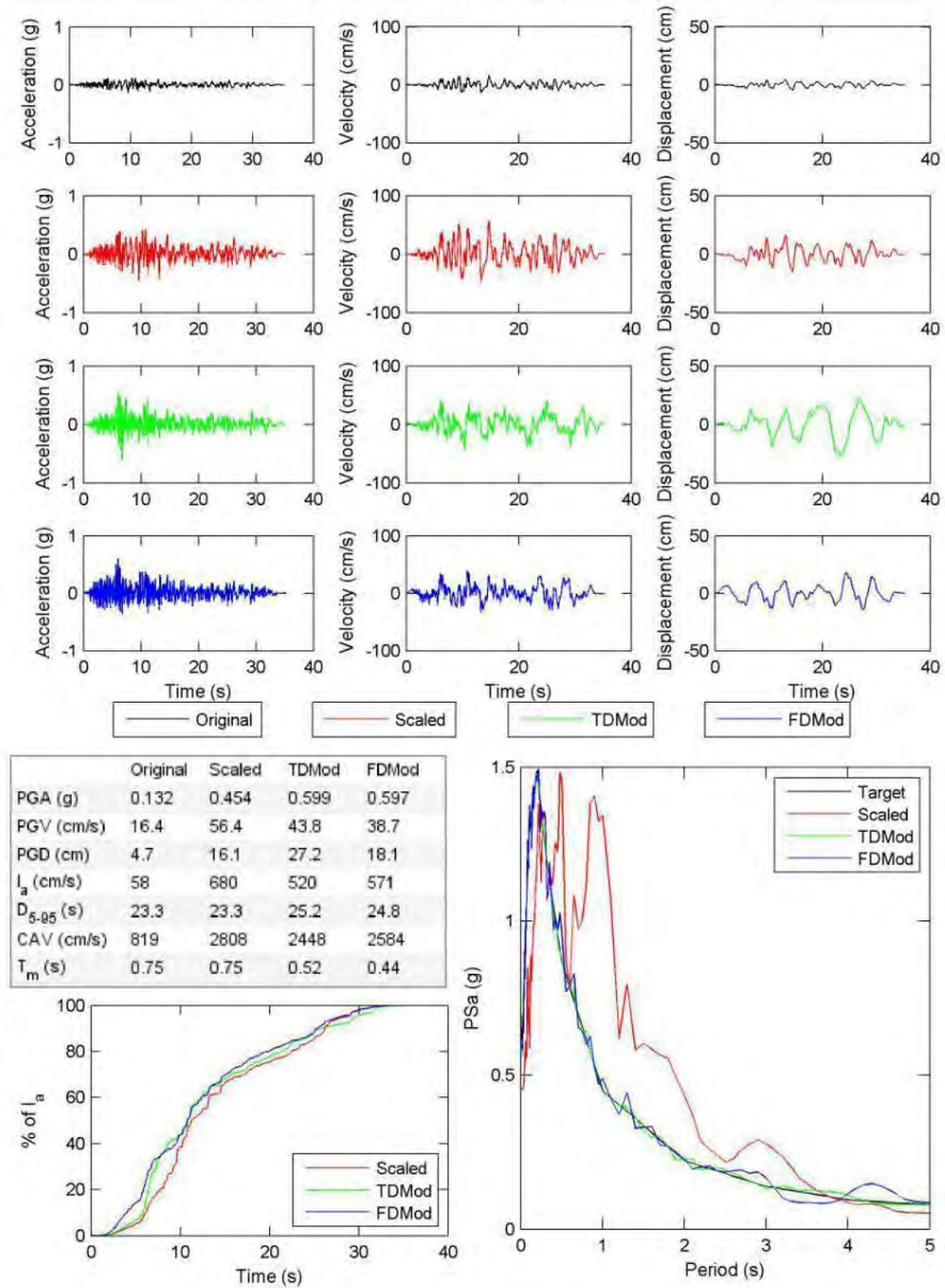Scale Factor: 1.77 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

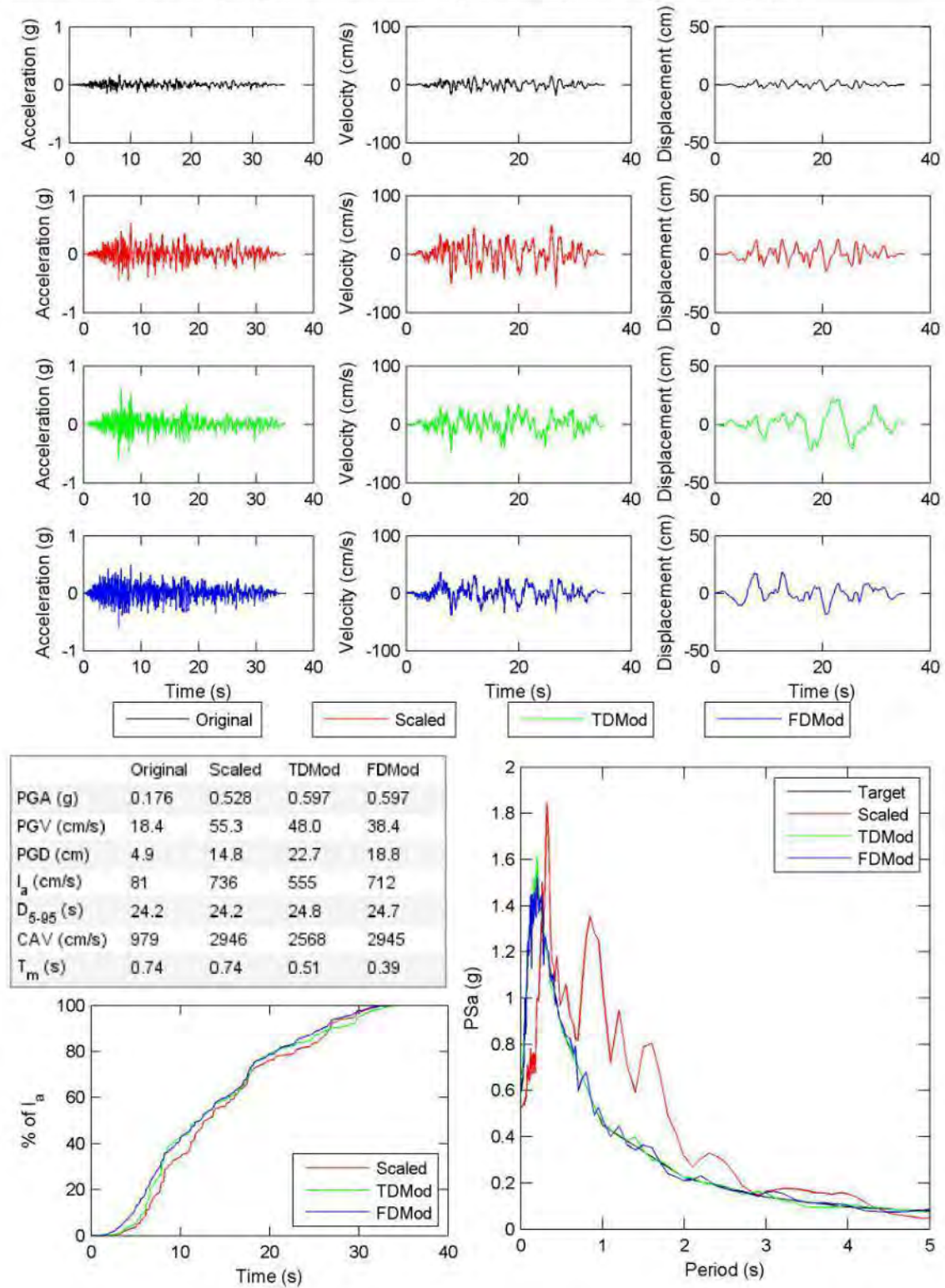|	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.398	0.597	0.597
PGV (cm/s)	40.9	72.3	52.2	49.3
PGD (cm)	26.1	46.2	44.8	12.0
I_a (cm/s)	167	524	496	928
D_{5-95} (s)	32.1	32.1	39.1	34.6
CAV (cm/s)	1883	3333	3283	4604
T_m (s)	0.96	0.96	0.59	0.35

Figure E.3. continued.

679

File Name: 1551 TCU138-W   Start and End Taper Percentage: 1.0% and 5.0%
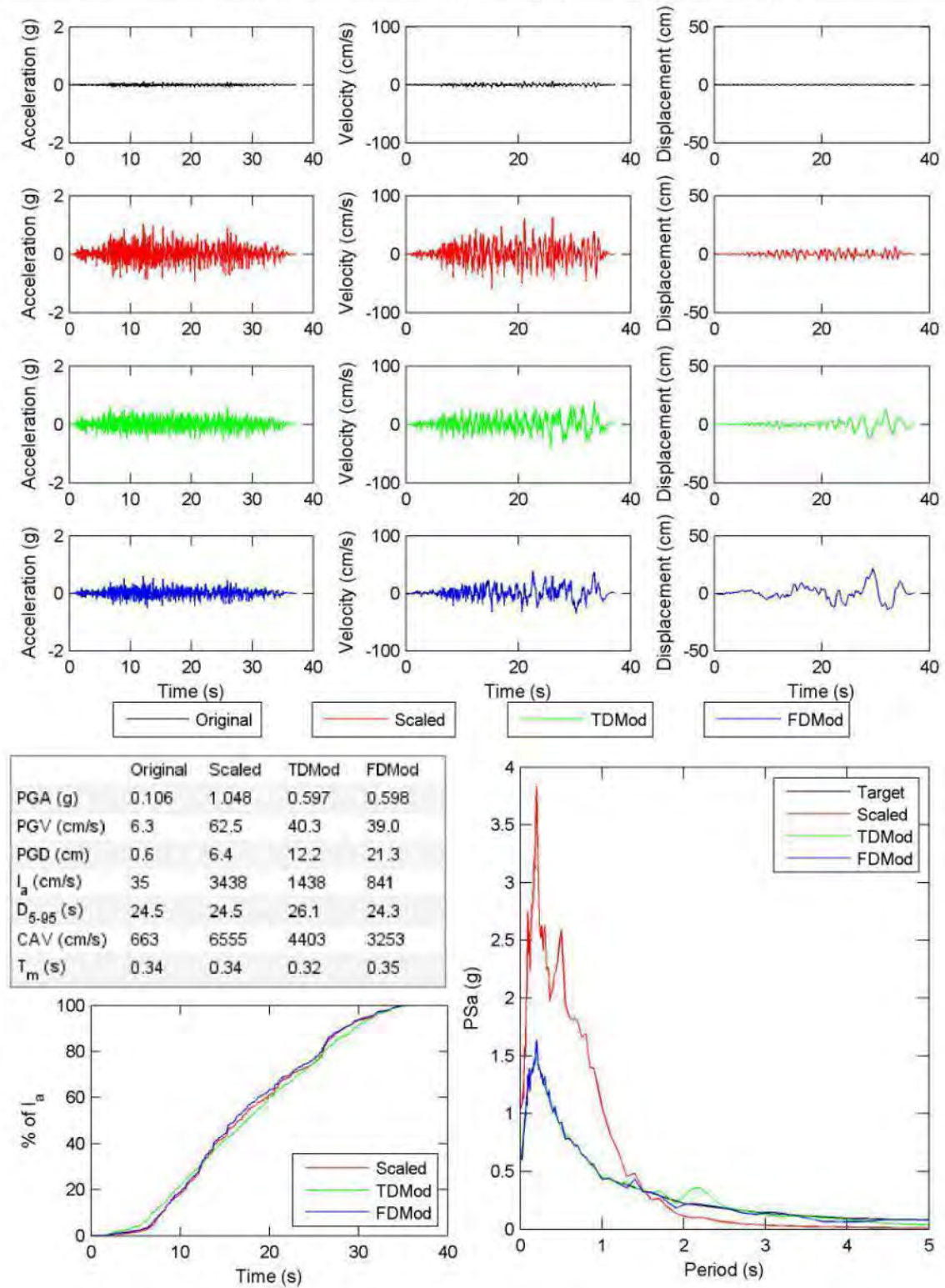Scale Factor: 1.97 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.195	0.384	0.597	0.597
PGV (cm/s)	41.0	80.7	74.9	45.4
PGD (cm)	36.4	71.8	63.1	12.7
I_a (cm/s)	160	622	652	1078
D_{5-95} (s)	34.1	34.1	34.2	35.5
CAV (cm/s)	1852	3648	3623	4900
T_m (s)	0.71	0.71	0.50	0.36

Figure E.3. continued.

680

File Name: 1614 1061-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.04 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
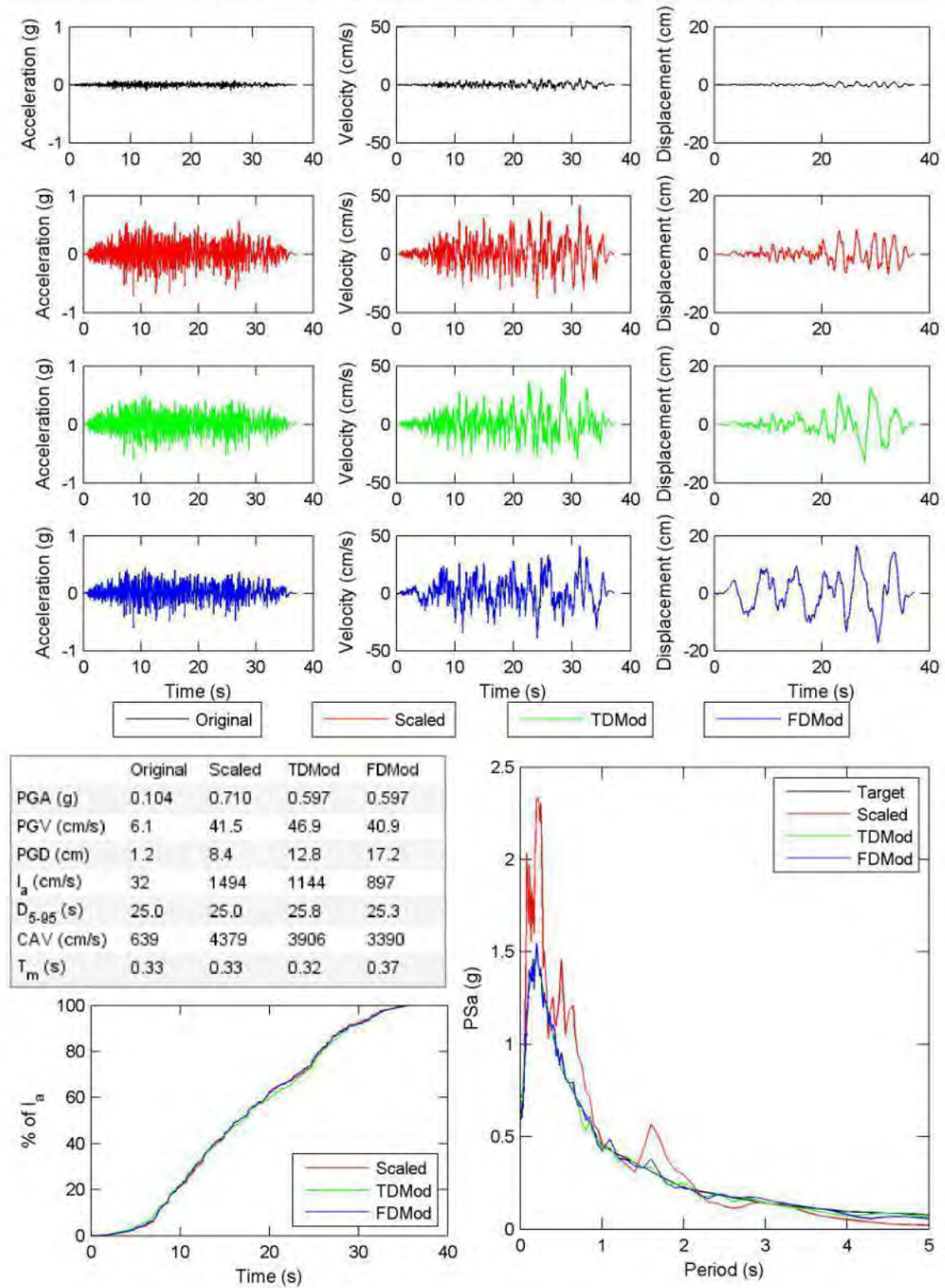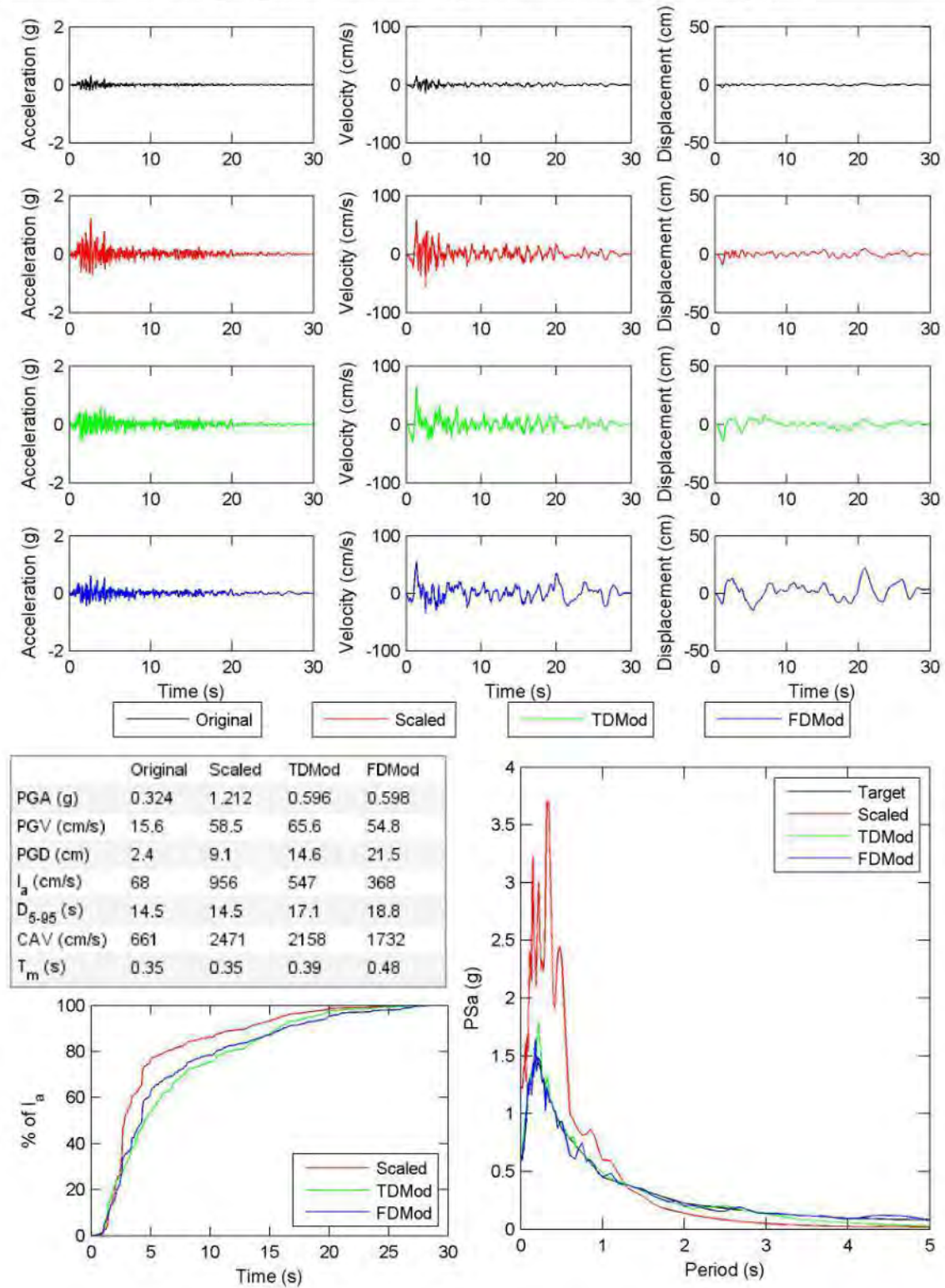

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.674	0.597	0.597
PGV (cm/s)	13.7	69.0	66.4	57.1
PGD (cm)	8.2	41.3	43.2	19.1
I_a (cm/s)	25	624	466	451
D_{5-95} (s)	15.6	15.6	16.4	18.3
CAV (cm/s)	433	2180	2052	2110
T_m (s)	0.41	0.41	0.44	0.45

Figure E.3. continued.

681

Figure E.3. continued.

682

File Name: 1618 531-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.67 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7
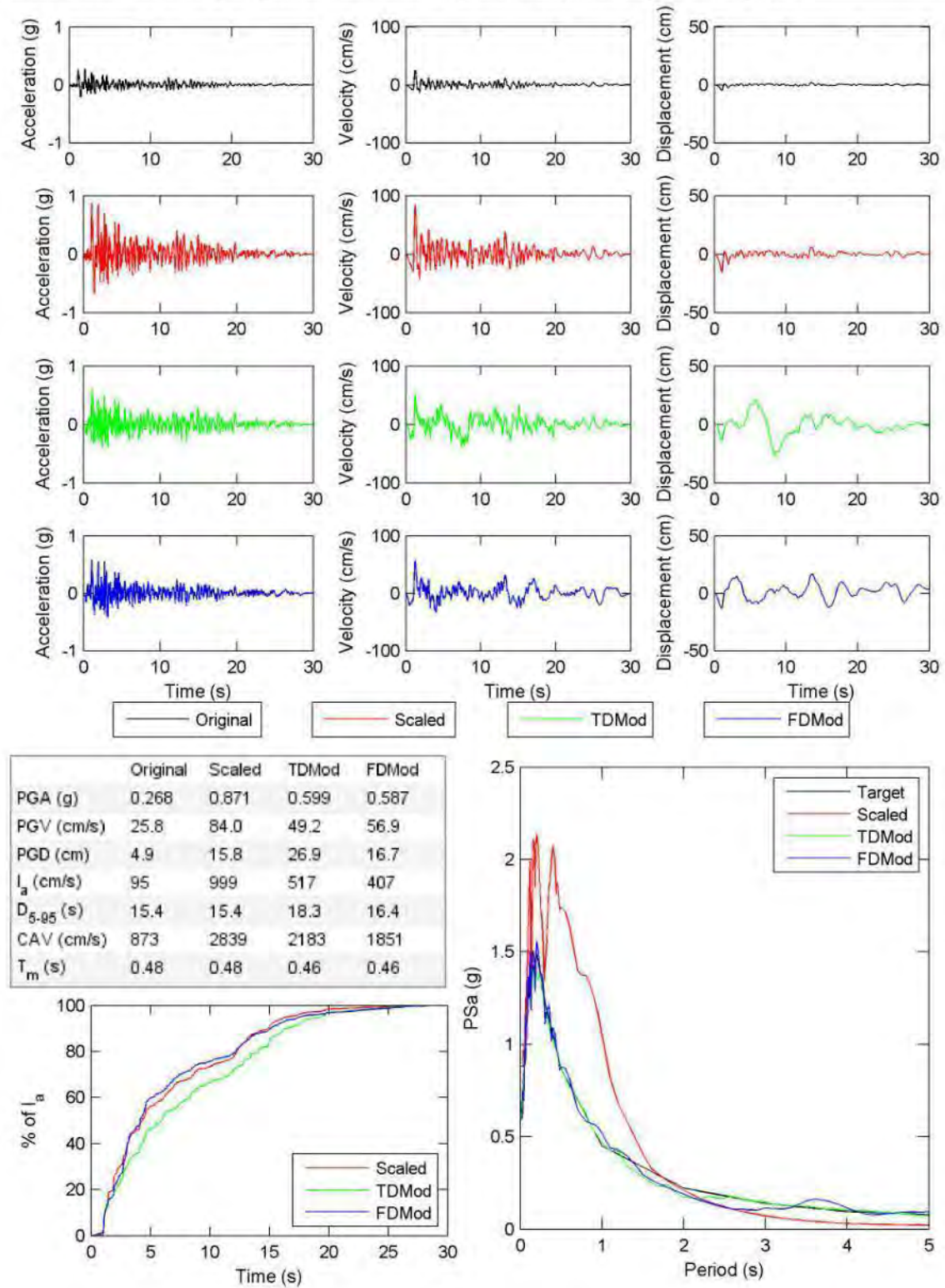

	Original	Scaled	TDMod	FDMod
PGA (g)	0.118	0.550	0.597	0.597
PGV (cm/s)	14.0	65.5	60.6	41.6
PGD (cm)	9.5	44.5	39.9	18.6
I_a (cm/s)	41	903	535	549
D_{5-95} (s)	15.1	15.1	19.2	18.3
CAV (cm/s)	613	2865	2319	2302
T_m (s)	0.47	0.47	0.47	0.39

Figure E.3. continued.

683

File Name: 1618 531-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.82 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 6
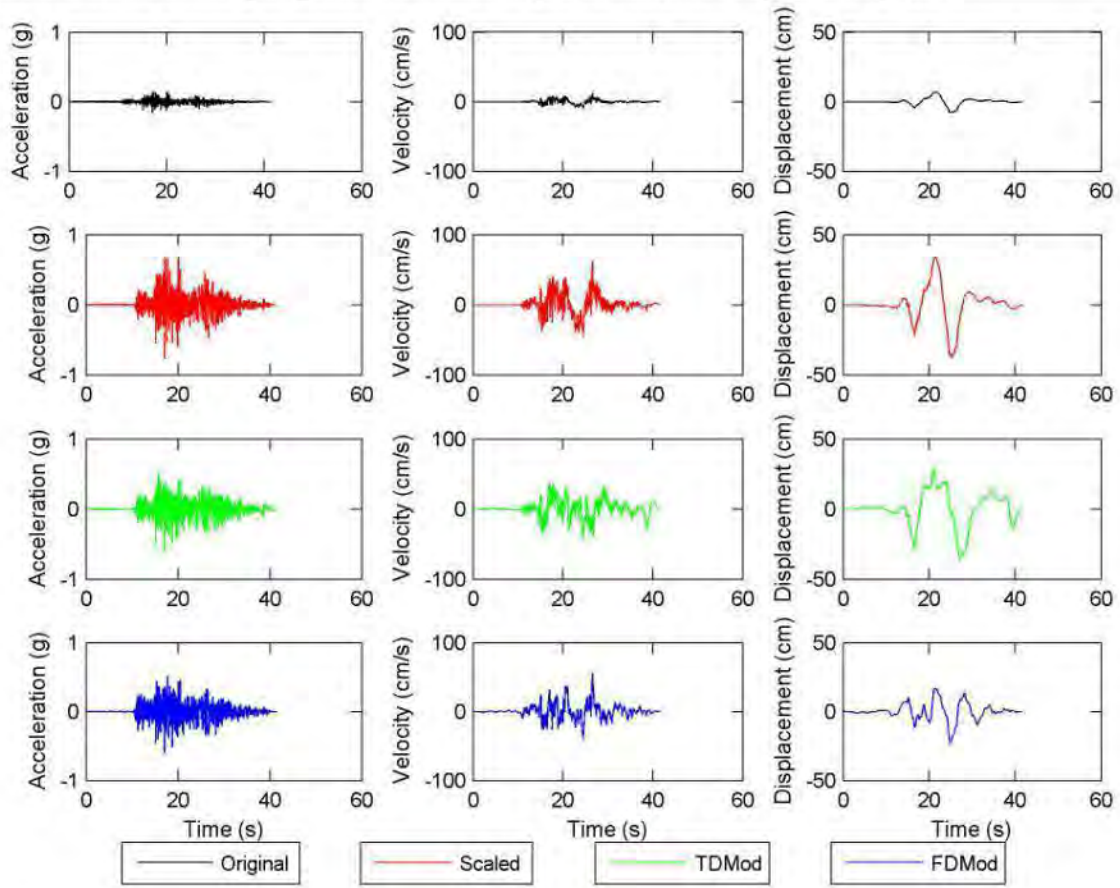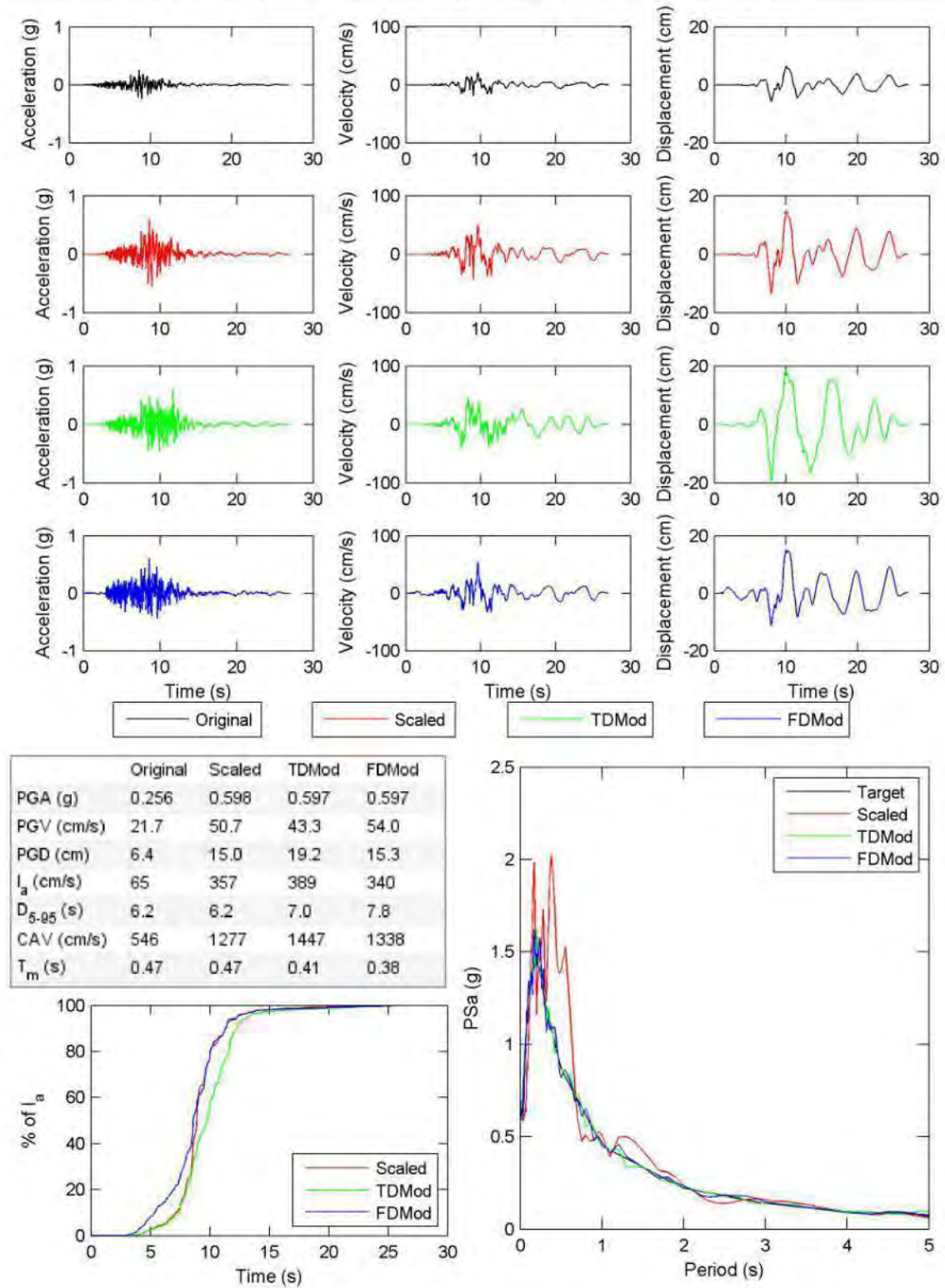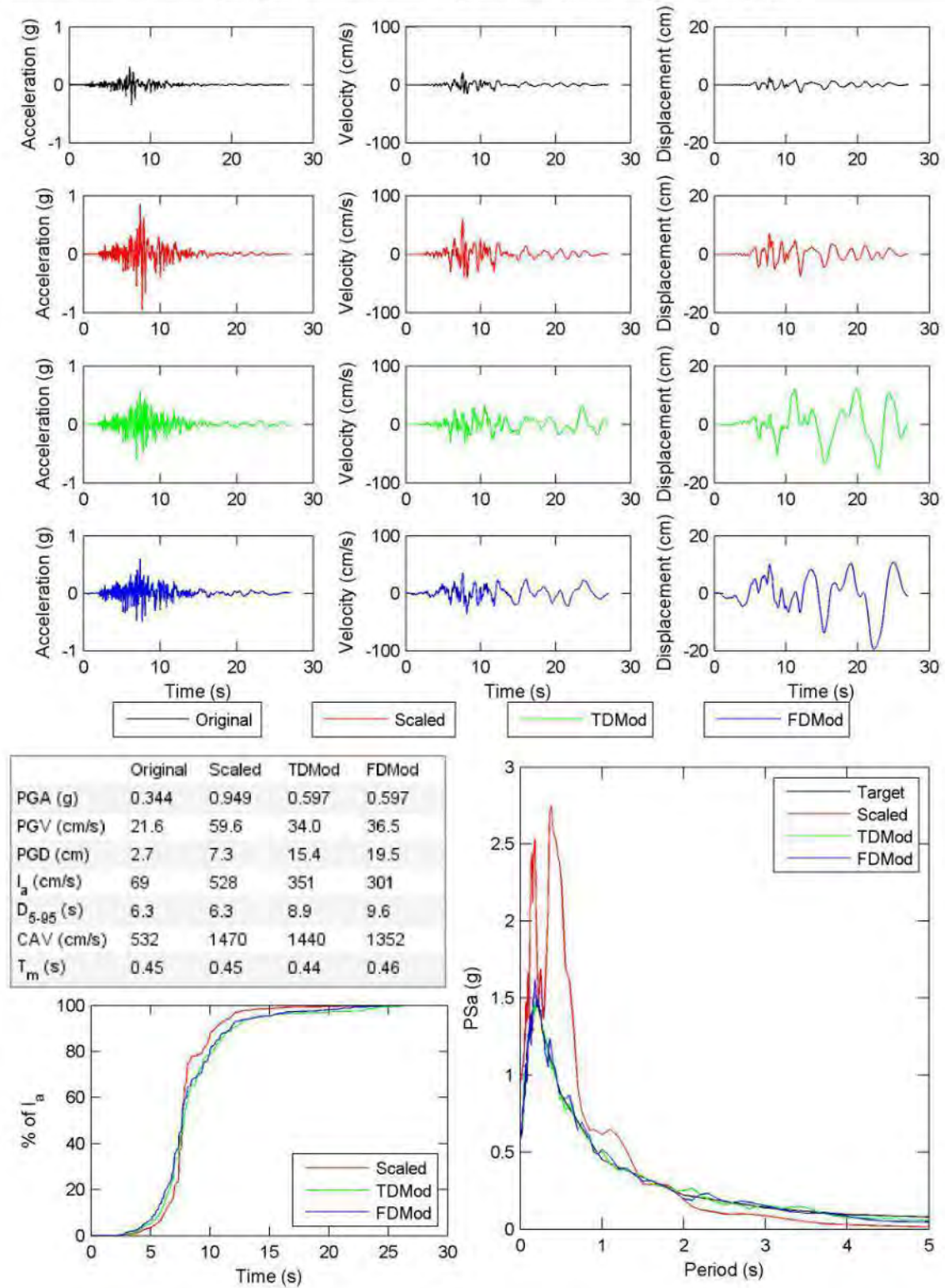

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.768	0.596	0.597
PGV (cm/s)	13.0	62.4	44.1	55.3
PGD (cm)	7.9	37.9	35.6	22.8
I_a (cm/s)	45	1040	660	587
D_{5-95} (s)	14.5	14.5	16.4	17.1
CAV (cm/s)	618	2978	2539	2338
T_m (s)	0.35	0.35	0.39	0.37

Figure E.3. continued.

684

	Original	Scaled	TDMod	FDMod
PGA (g)	0.266	0.624	0.596	0.597
PGV (cm/s)	28.6	67.1	55.9	41.9
PGD (cm)	22.5	53.0	46.9	19.9
I_a (cm/s)	83	459	403	457
D_{5-95} (s)	11.7	11.7	16.3	12.6
CAV (cm/s)	794	1866	1939	1921
T_m (s)	0.61	0.61	0.48	0.39

Figure E.3. continued.

685

Figure E.3. continued.

686

File Name: 284 A-AUL000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 9.59 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
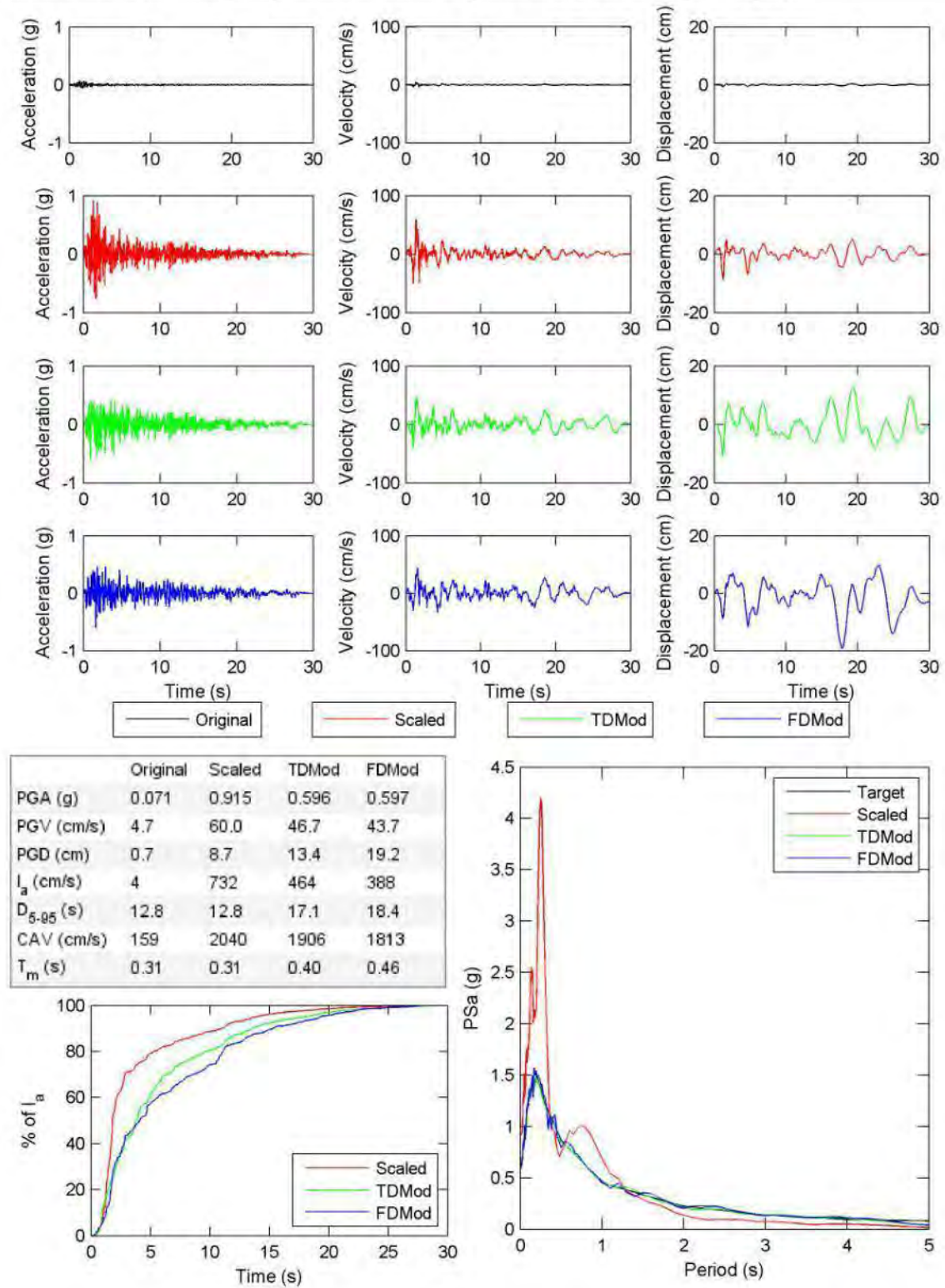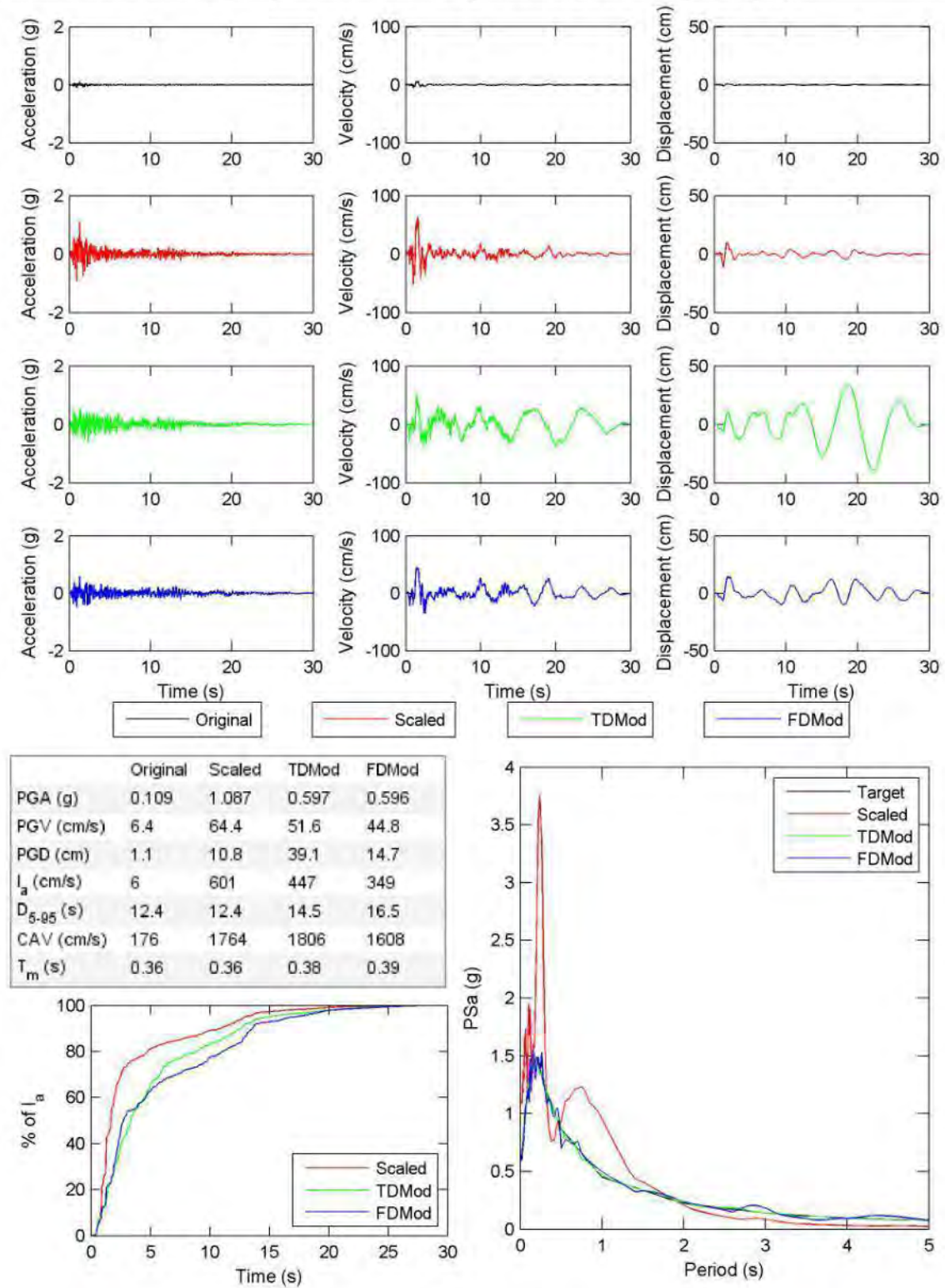

	Original	Scaled	TDMod	FDMod
PGA (g)	0.058	0.552	0.597	0.597
PGV (cm/s)	5.2	49.5	49.7	36.6
PGD (cm)	3.2	30.6	23.8	17.3
I_a (cm/s)	6	513	535	590
D_{5-95} (s)	19.0	19.0	18.8	20.2
CAV (cm/s)	234	2243	2340	2487
T_m (s)	0.45	0.45	0.42	0.39

Figure E.3. continued.

687

File Name: 284 A-AUL270   Start and End Taper Percentage: 1.0% and 5.0%
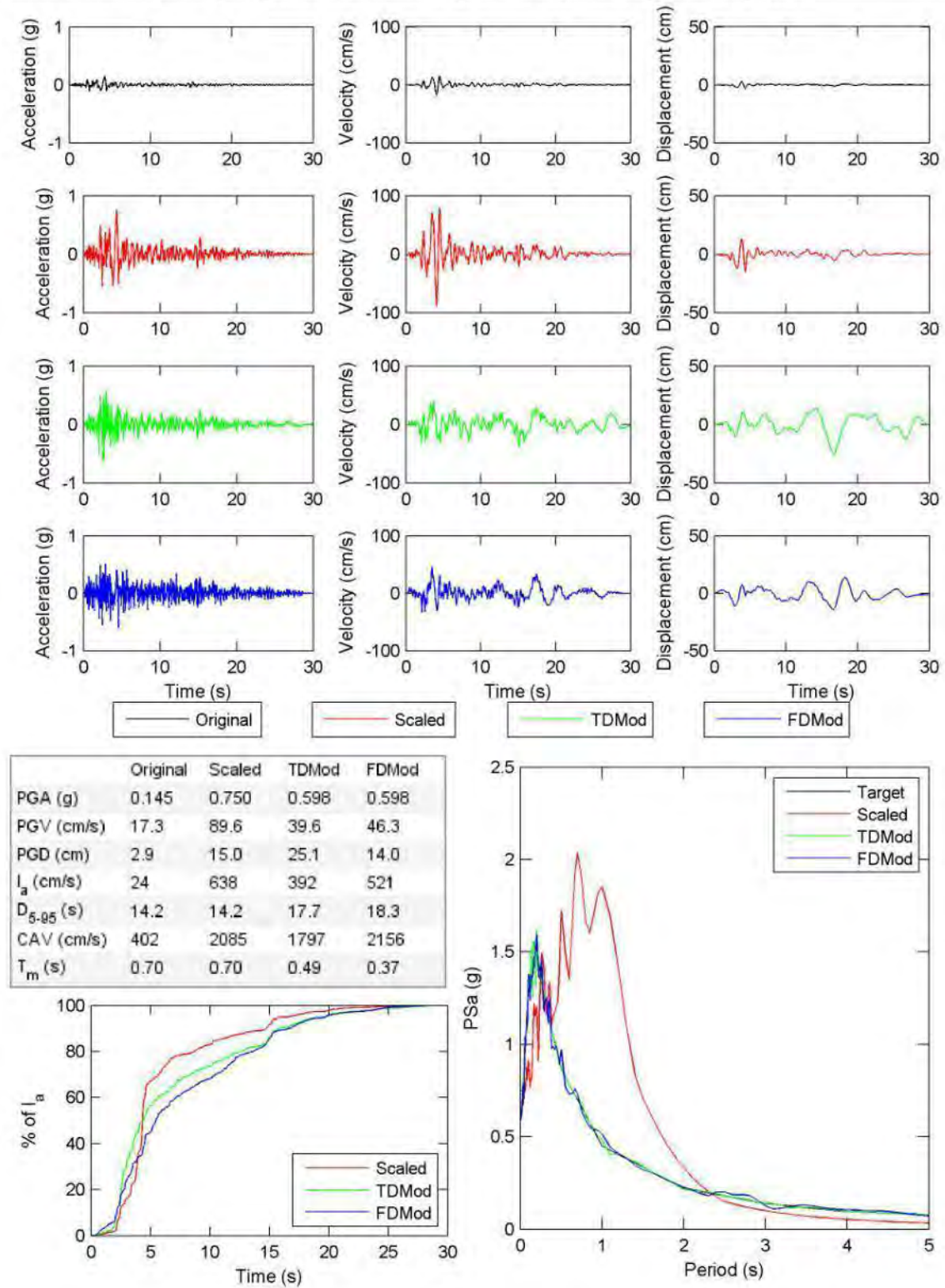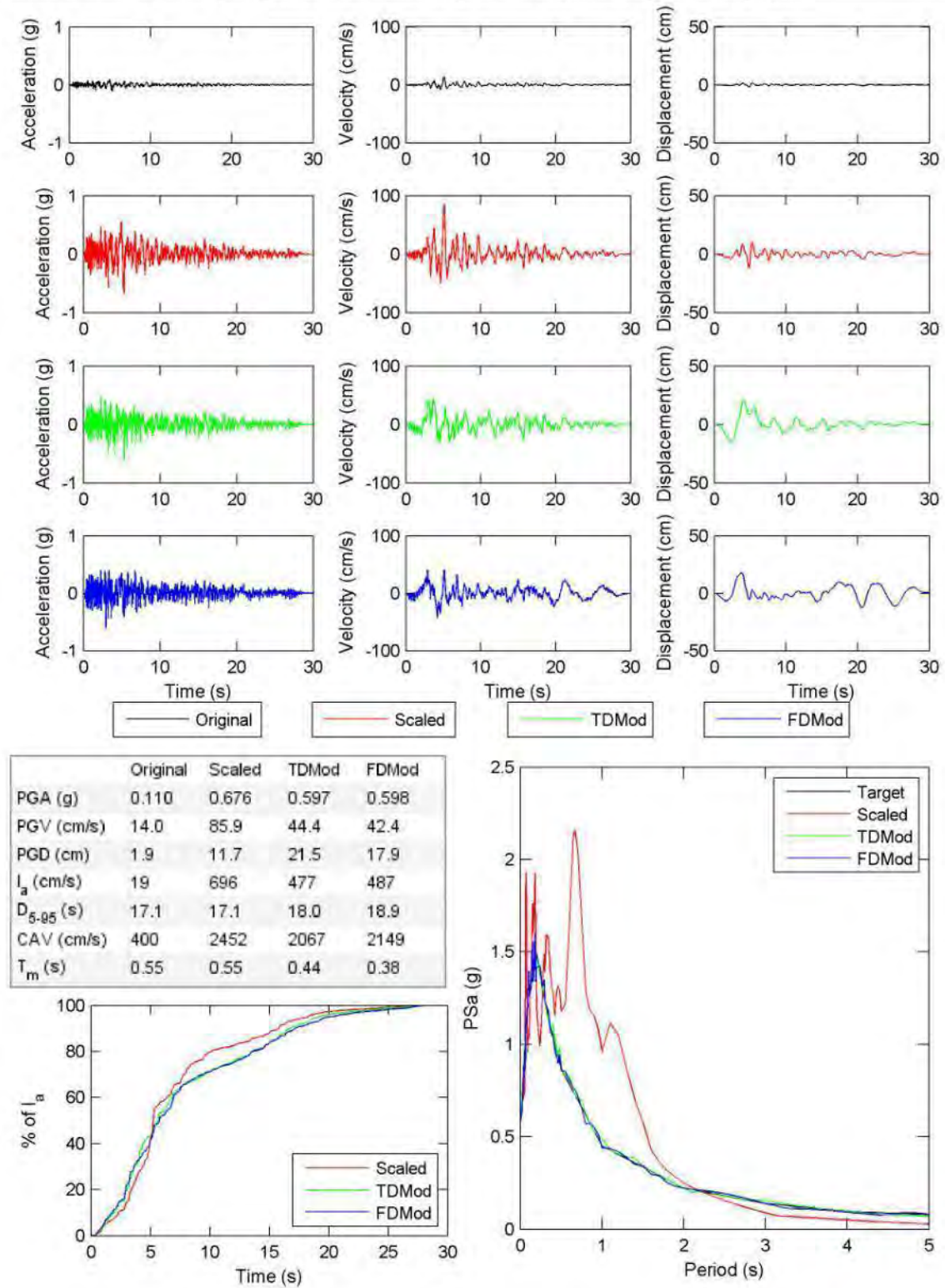Scale Factor: 8.47 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.062	0.529	0.597	0.597
PGV (cm/s)	6.1	51.7	49.7	47.9
PGD (cm)	3.7	31.2	34.3	26.0
I_a (cm/s)	7	471	512	562
D_{5-95} (s)	19.2	19.2	20.8	20.1
CAV (cm/s)	259	2198	2354	2463
T_m (s)	0.49	0.49	0.44	0.39

Figure E.3. continued.

688

File Name: 285 A-BAG000   Start and End Taper Percentage: 1.0% and 5.0%
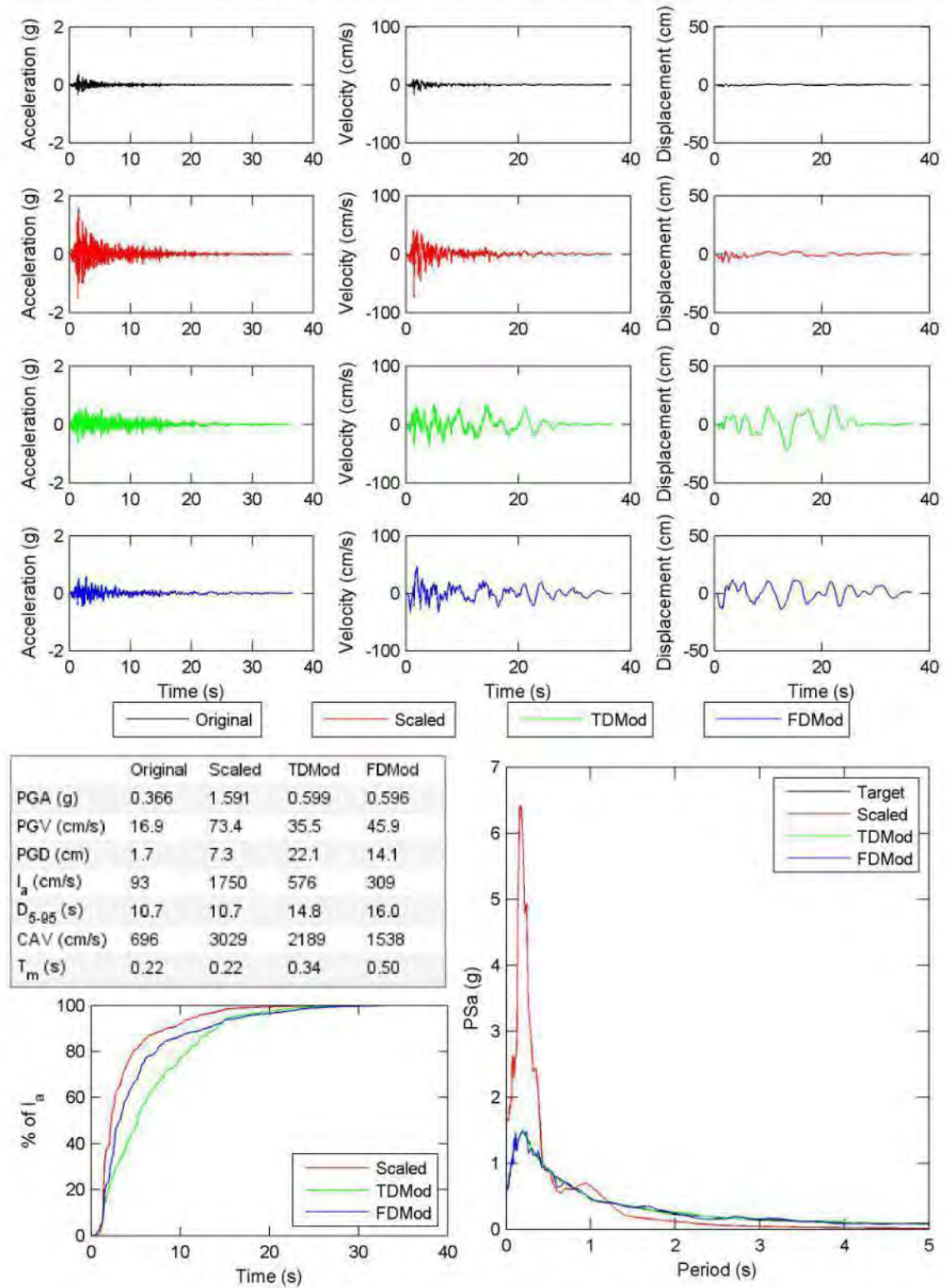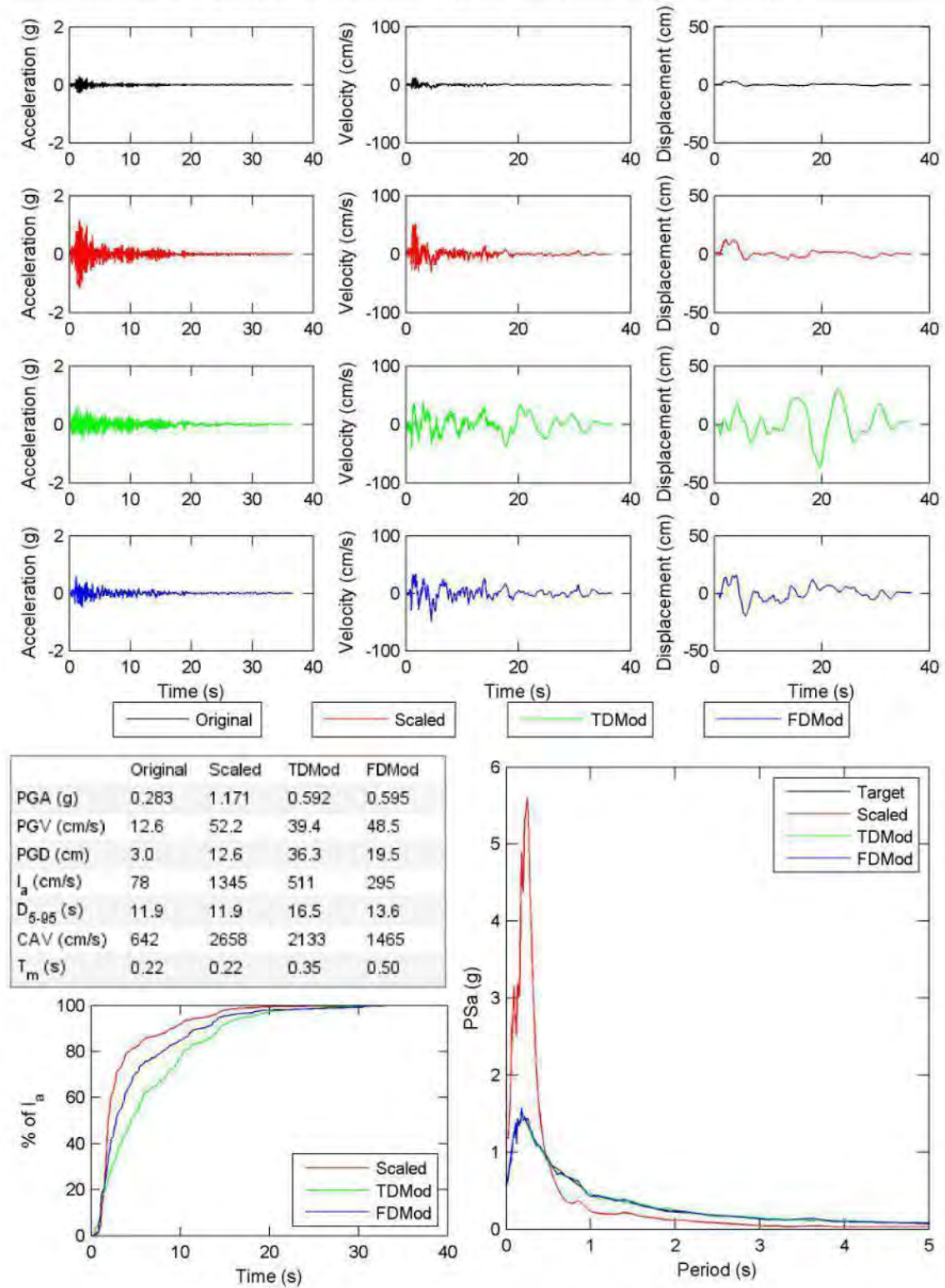Scale Factor: 3.48 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.139	0.485	0.596	0.596
PGV (cm/s)	22.1	76.8	52.1	55.5
PGD (cm)	9.3	32.2	39.1	14.0
I_a (cm/s)	34	409	393	486
D_{5-95} (s)	19.5	19.5	24.9	22.3
CAV (cm/s)	539	1877	1956	2130
T_m (s)	0.66	0.66	0.51	0.39

Figure E.3. continued.

689

File Name: 285 A-BAG270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.55 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 8
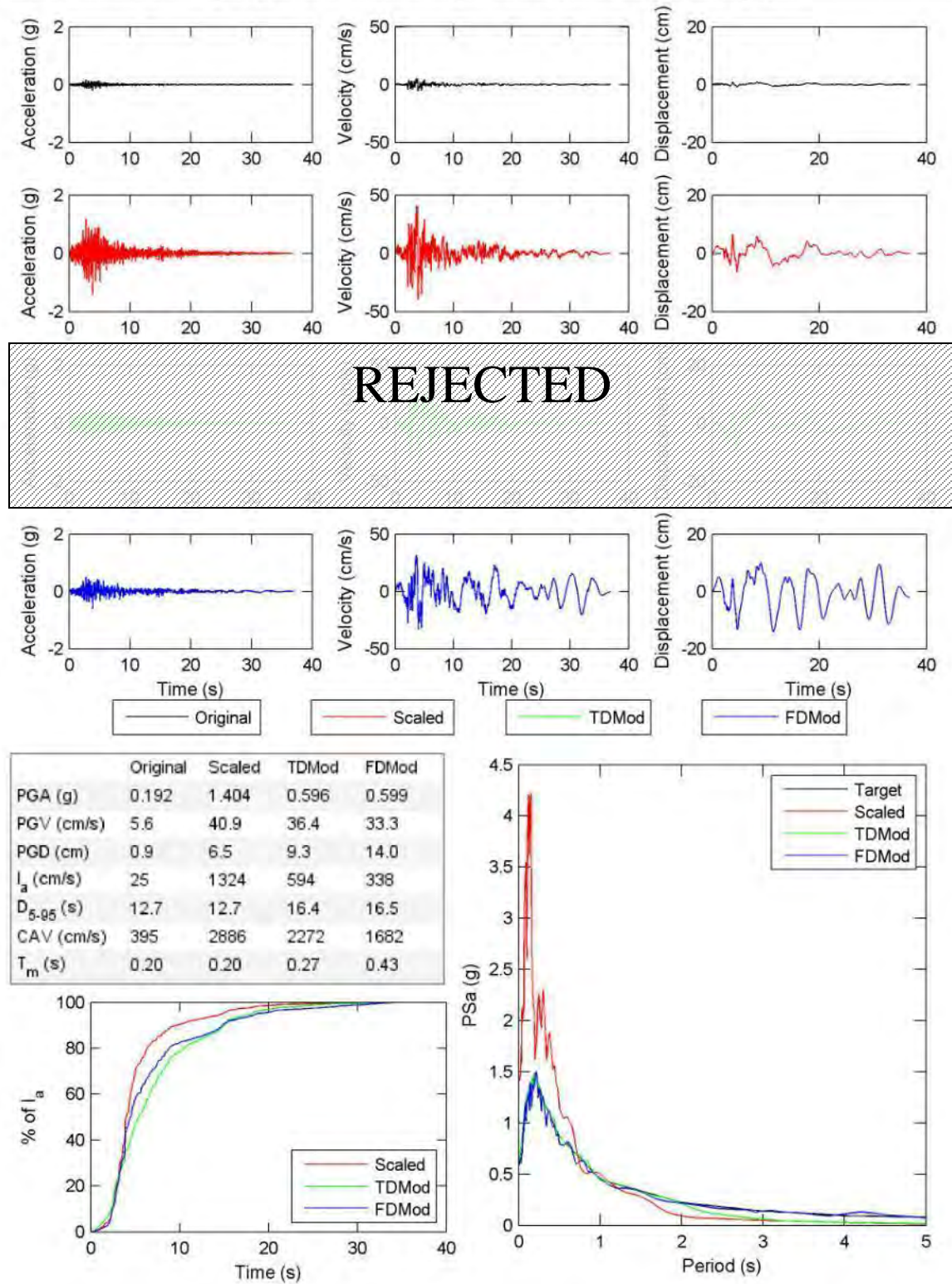

	Original	Scaled	TDMod	FDMod
PGA (g)	0.202	0.515	0.591	0.598
PGV (cm/s)	31.9	81.3	49.5	43.5
PGD (cm)	9.6	24.5	61.1	18.6
I_a (cm/s)	43	282	350	430
D_{5-95} (s)	16.1	16.1	19.8	21.4
CAV (cm/s)	568	1448	1705	1990
T_m (s)	0.95	0.95	0.50	0.39

Figure E.3. continued.

690

File Name: 286 A-BIS000   Start and End Taper Percentage: 1.0% and 5.0%
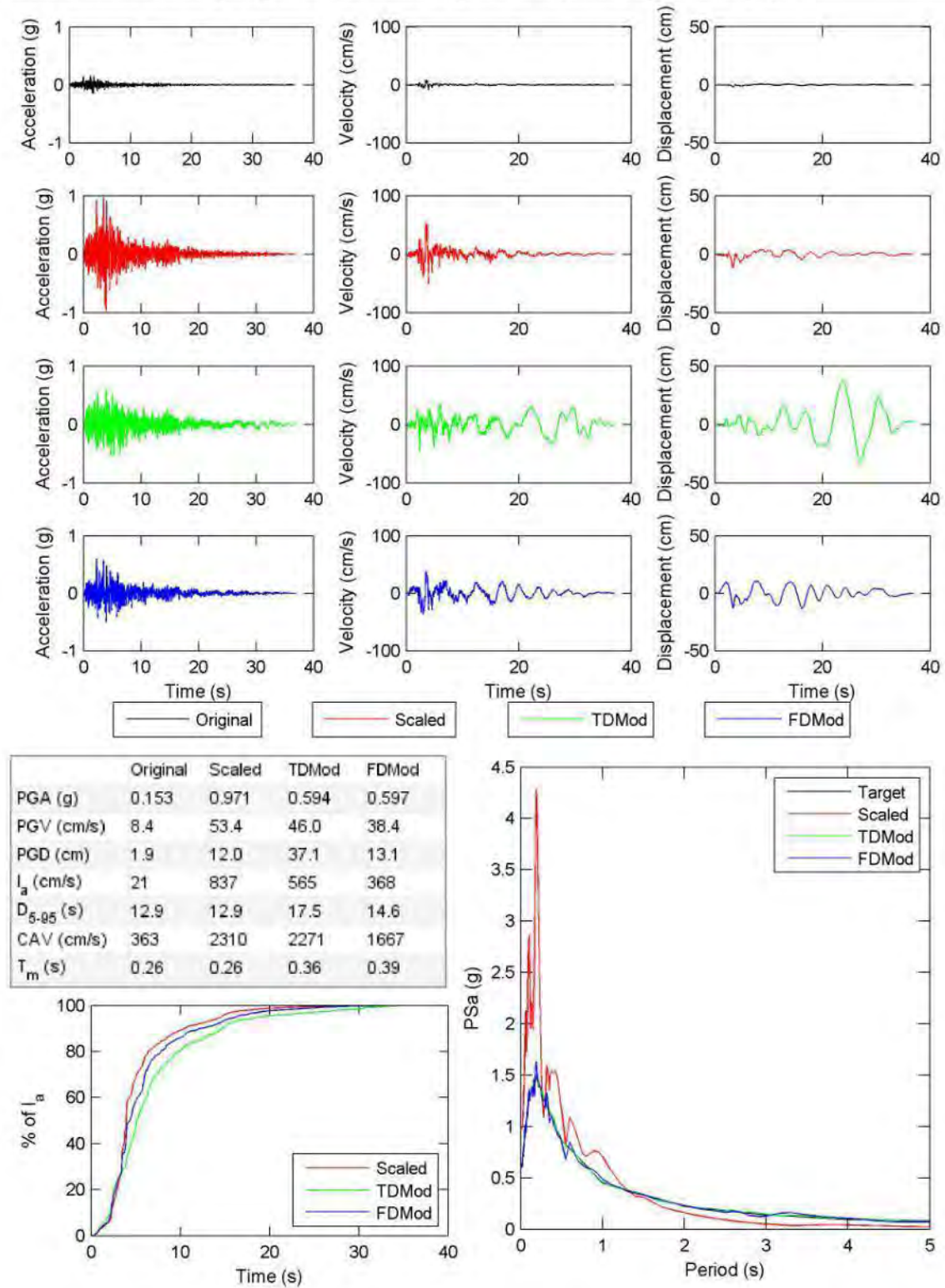Scale Factor: 4.22 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.100	0.423	0.597	0.597
PGV (cm/s)	23.5	99.1	46.2	37.8
PGD (cm)	14.8	62.3	45.0	18.4
I_a (cm/s)	19	335	359	570
D_{5-95} (s)	24.2	24.2	23.4	26.6
CAV (cm/s)	473	1997	1934	2675
T_m (s)	1.19	1.19	0.57	0.43

Figure E.3. continued.

691

File Name: 286 A-BIS270   Start and End Taper Percentage: 1.0% and 5.0%
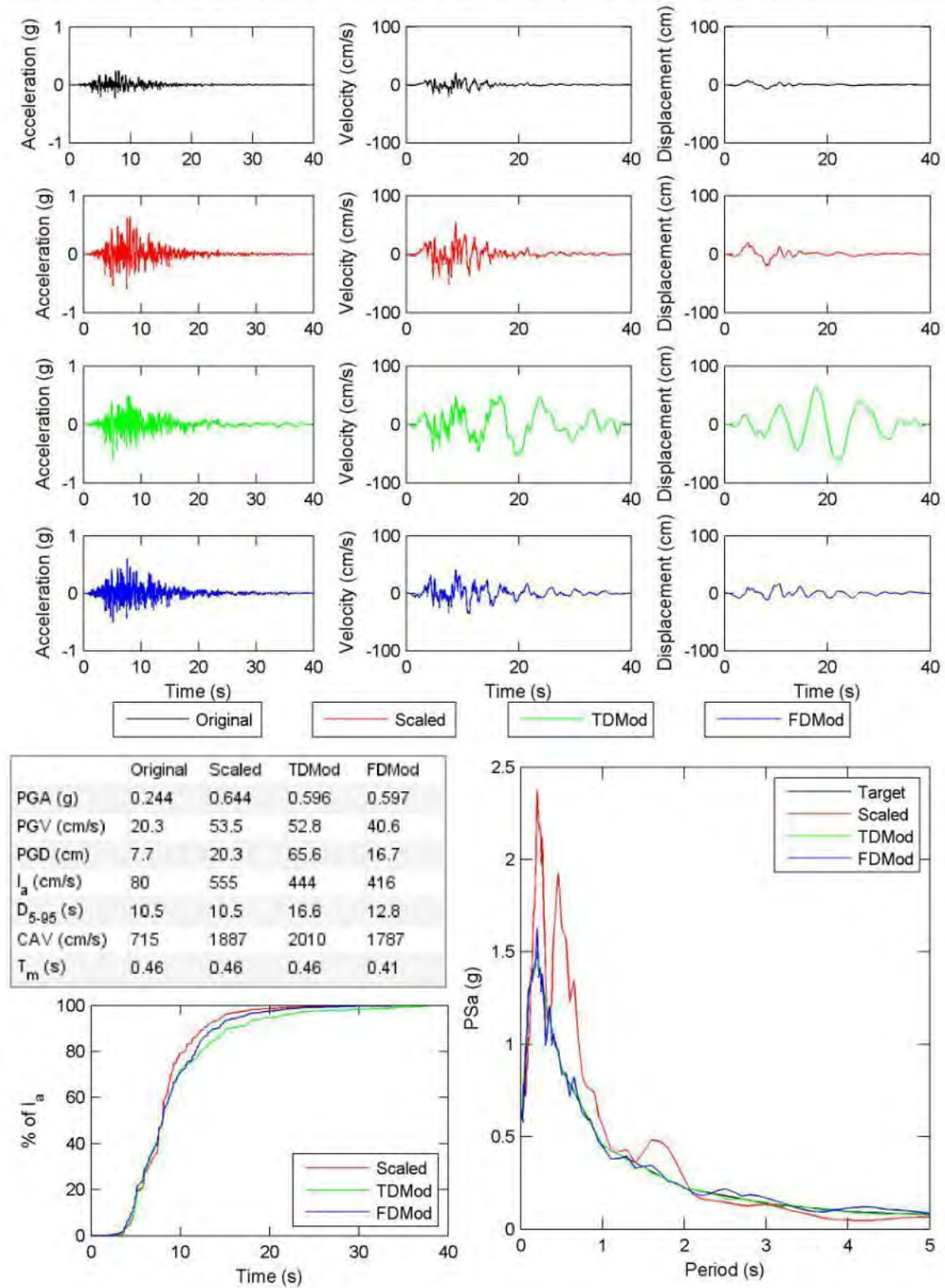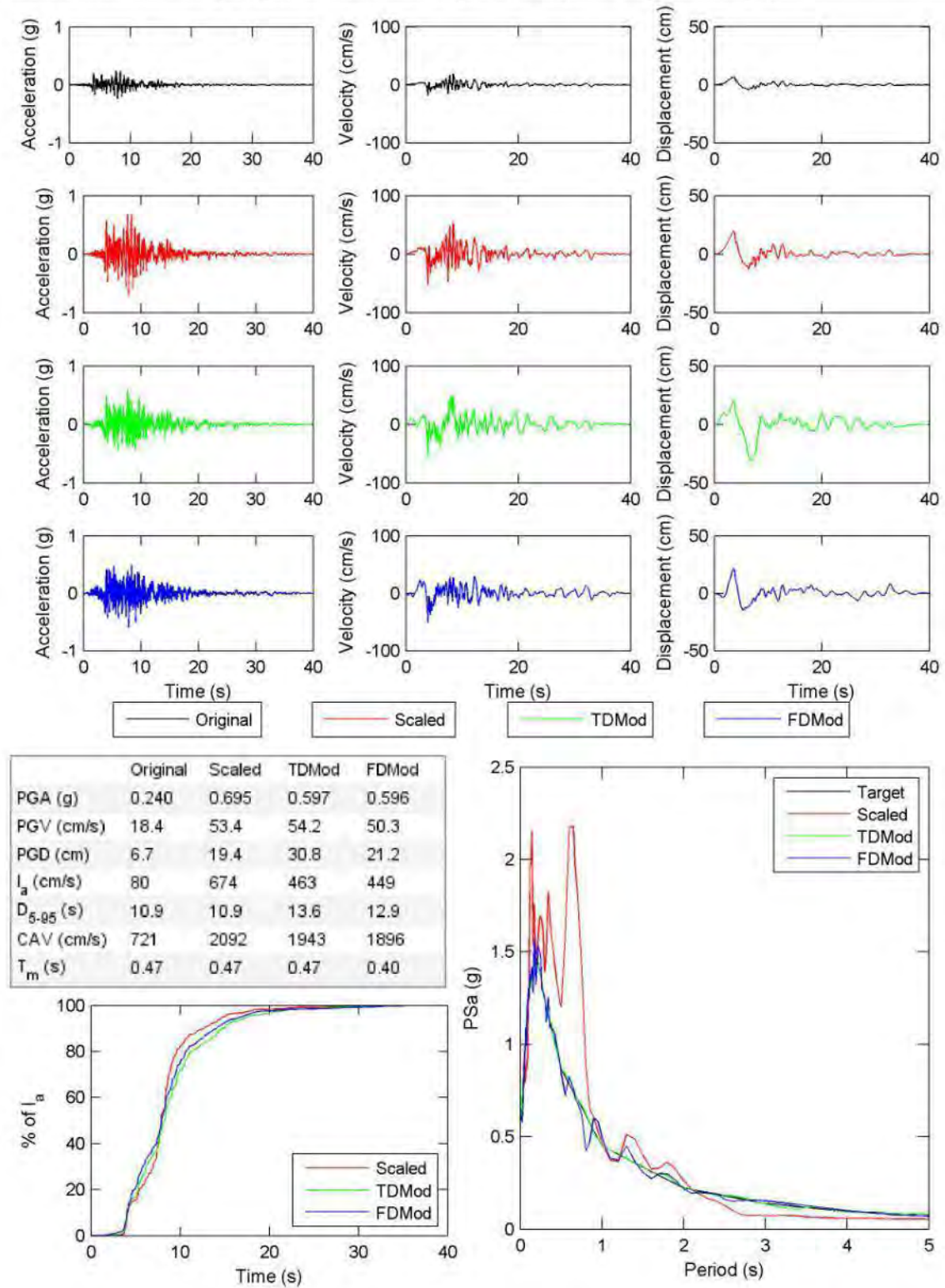Scale Factor: 6.43 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.083	0.535	0.597	0.597
PGV (cm/s)	12.5	80.3	47.6	50.4
PGD (cm)	2.9	18.8	10.7	13.7
I_a (cm/s)	14	574	405	535
D_{5-95} (s)	26.1	26.1	25.2	26.1
CAV (cm/s)	410	2636	2162	2570
T_m (s)	1.01	1.01	0.60	0.45

Figure E.3. continued.

692

File Name: 289 A-CTR000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.43 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 9
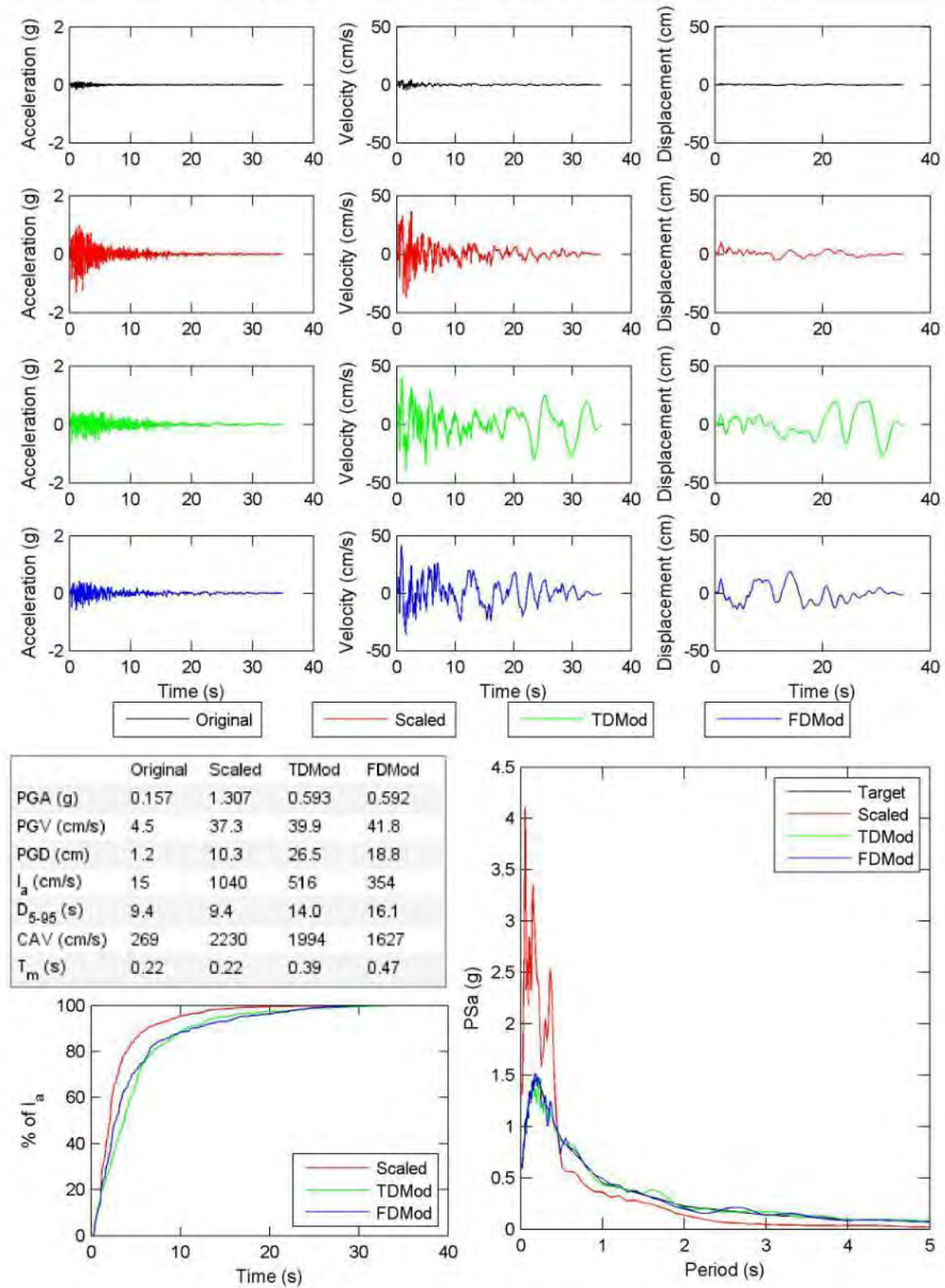

	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.454	0.599	0.597
PGV (cm/s)	16.4	56.4	43.8	38.7
PGD (cm)	4.7	16.1	27.2	18.1
I_a (cm/s)	58	680	520	571
D_{5-95} (s)	23.3	23.3	25.2	24.8
CAV (cm/s)	819	2808	2448	2584
T_m (s)	0.75	0.75	0.52	0.44

Figure E.3. continued.

693

File Name: 289 A-CTR270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.01 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 9
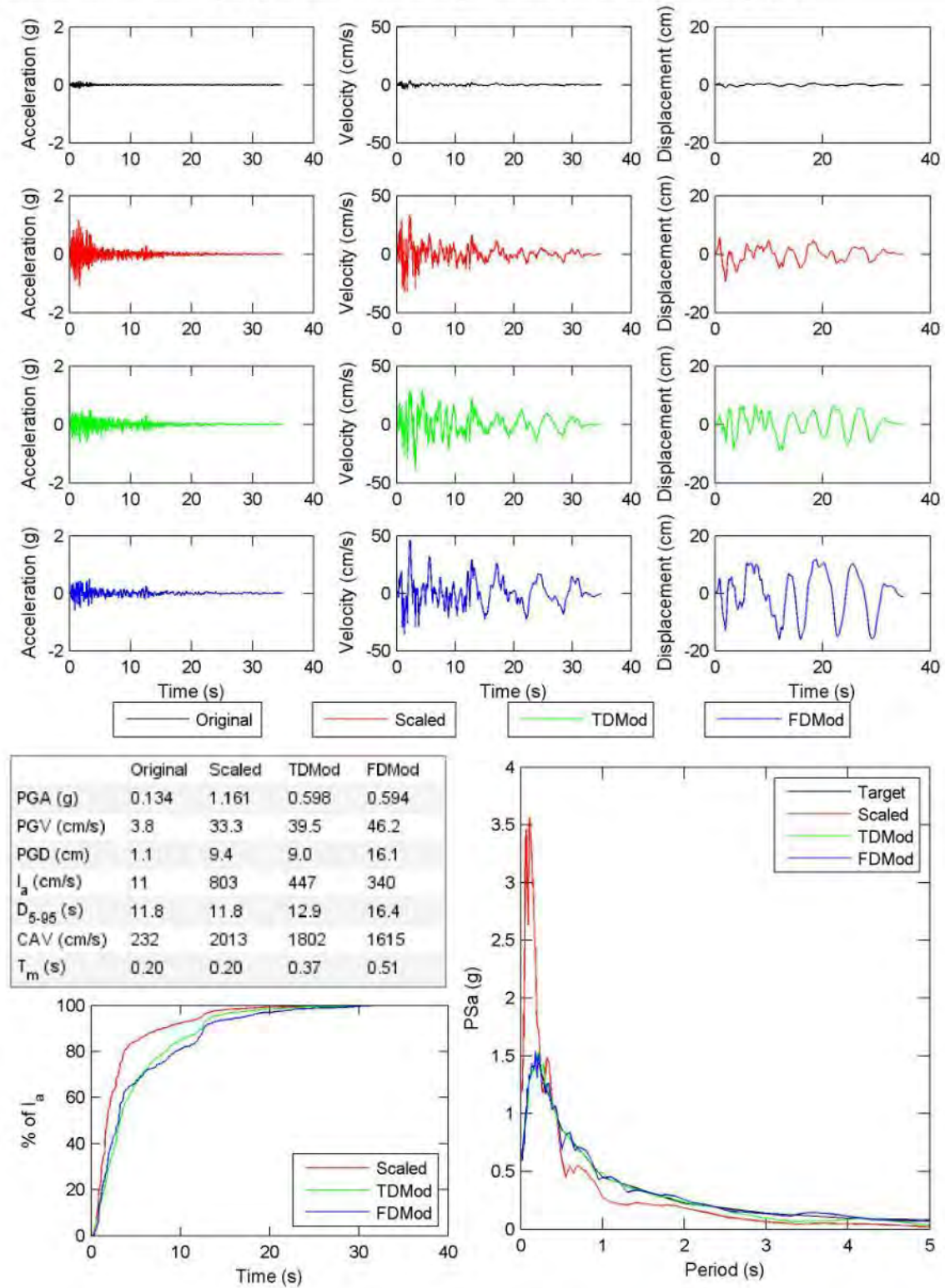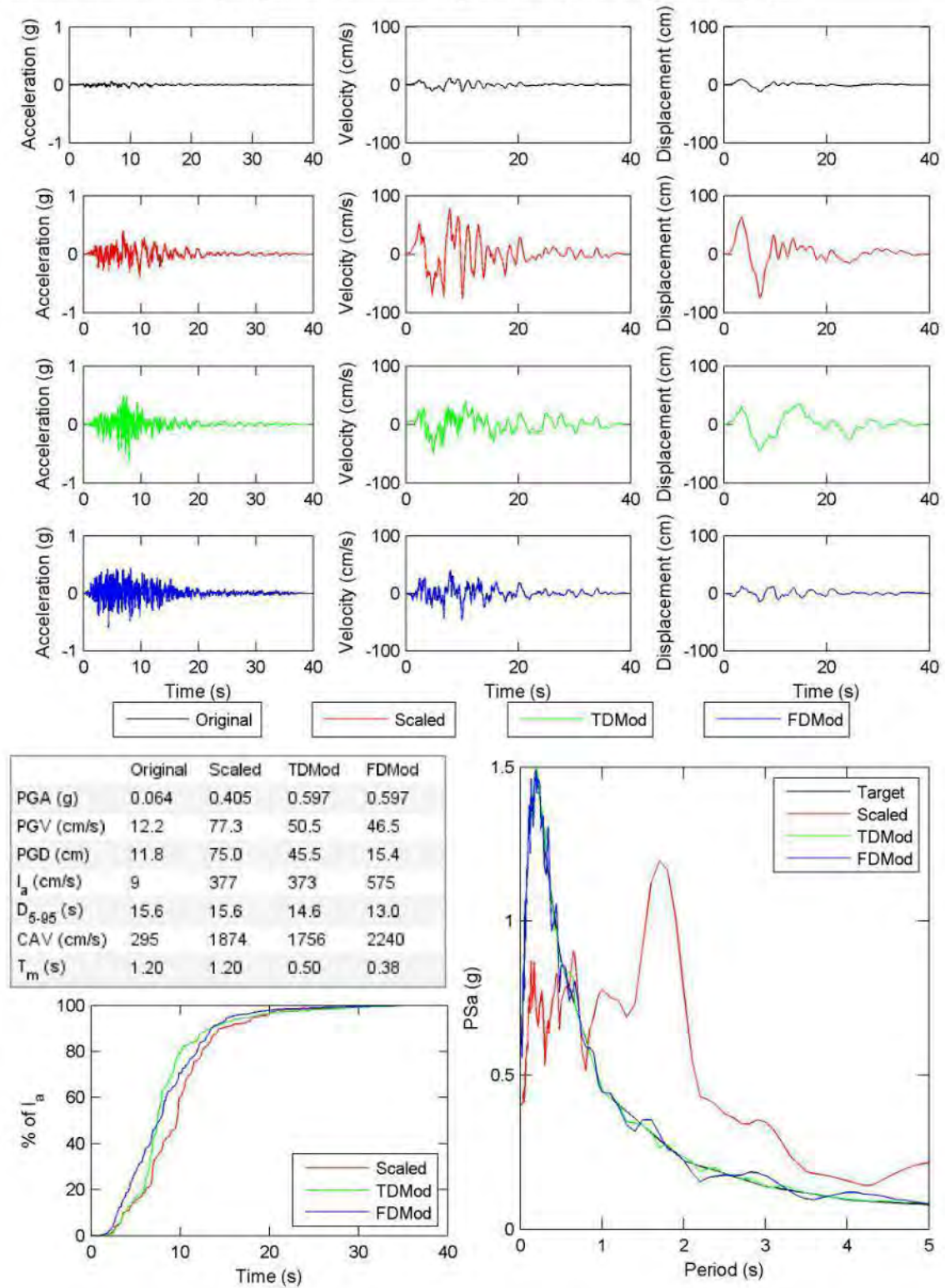

	Original	Scaled	TDMod	FDMod
PGA (g)	0.176	0.528	0.597	0.597
PGV (cm/s)	18.4	55.3	48.0	38.4
PGD (cm)	4.9	14.8	22.7	18.8
I_a (cm/s)	81	736	555	712
D_{5-95} (s)	24.2	24.2	24.8	24.7
CAV (cm/s)	979	2946	2568	2945
T_m (s)	0.74	0.74	0.51	0.39

Figure E.3. continued.

694

File Name: 291 A-VLT000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 9.89 Target Spectrum Matched: target2UHS50yr.txt FD poly: 8 TD poly: 6
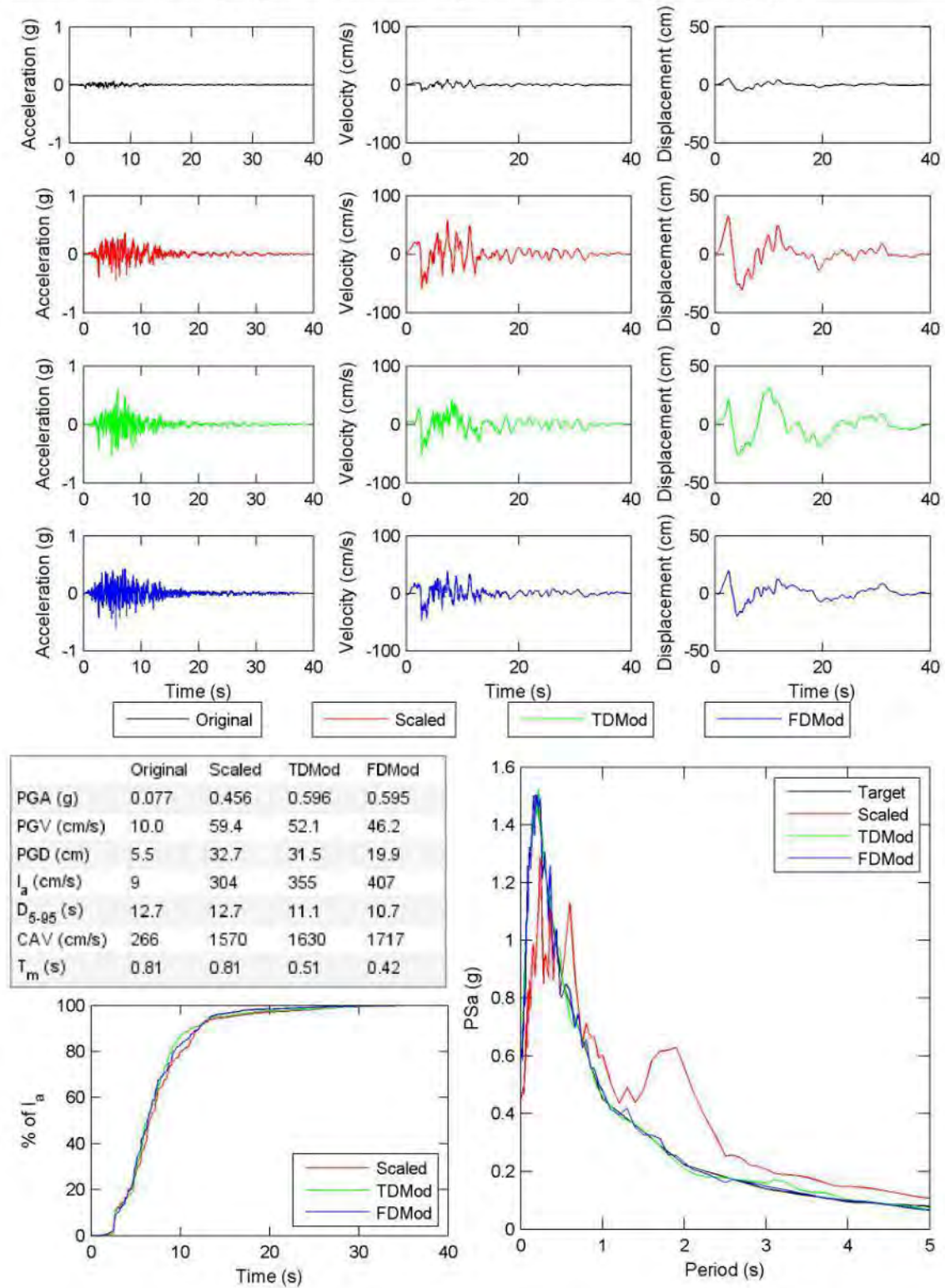

	Original	Scaled	TDMod	FDMod
PGA (g)	0.106	1.048	0.597	0.598
PGV (cm/s)	6.3	62.5	40.3	39.0
PGD (cm)	0.6	6.4	12.2	21.3
I_a (cm/s)	35	3438	1438	841
D_{5-95} (s)	24.5	24.5	26.1	24.3
CAV (cm/s)	663	6555	4403	3253
T_m (s)	0.34	0.34	0.32	0.35

Figure E.3. continued.

695

File Name: 291 A-VLT270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.85 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 9
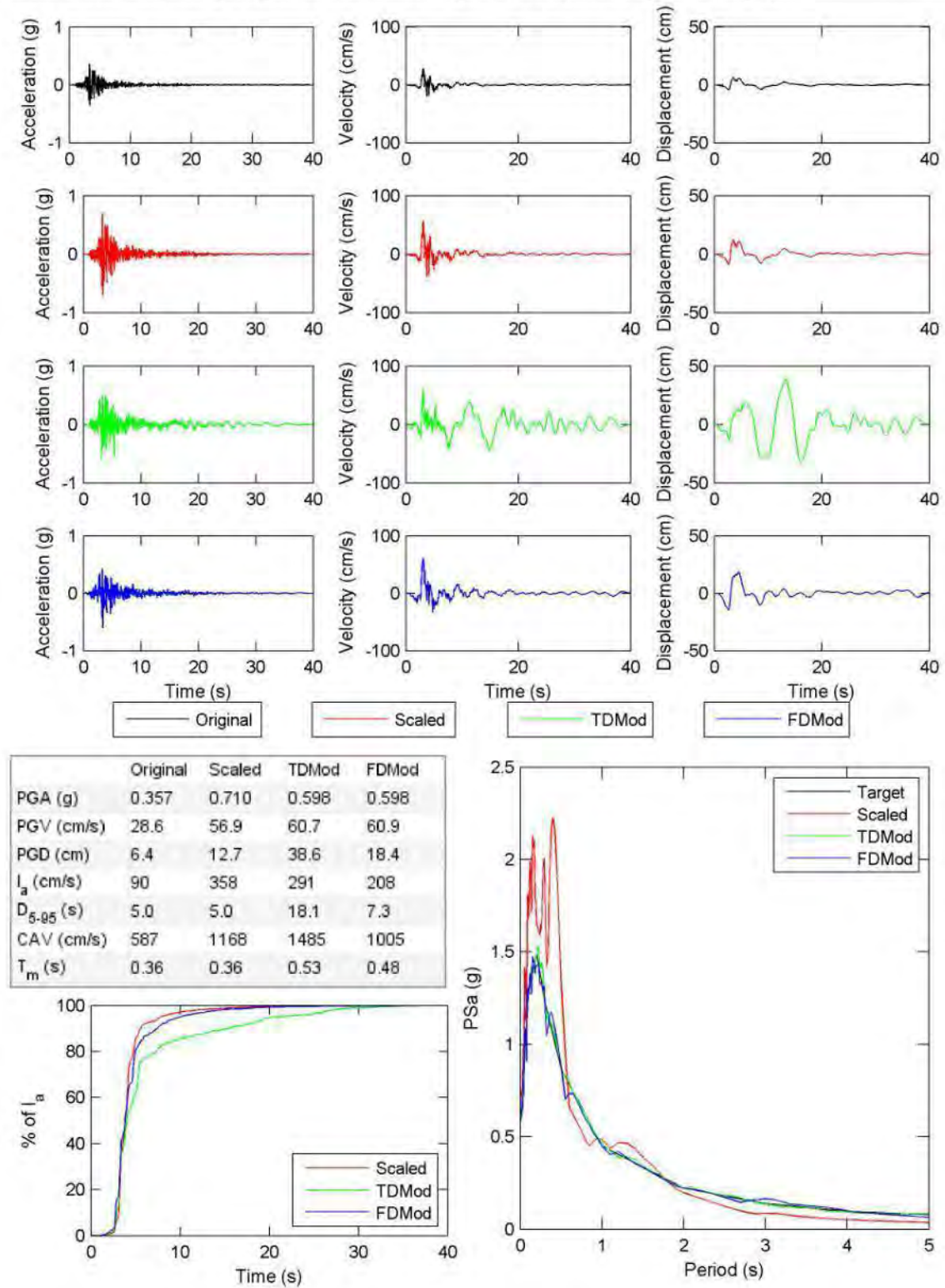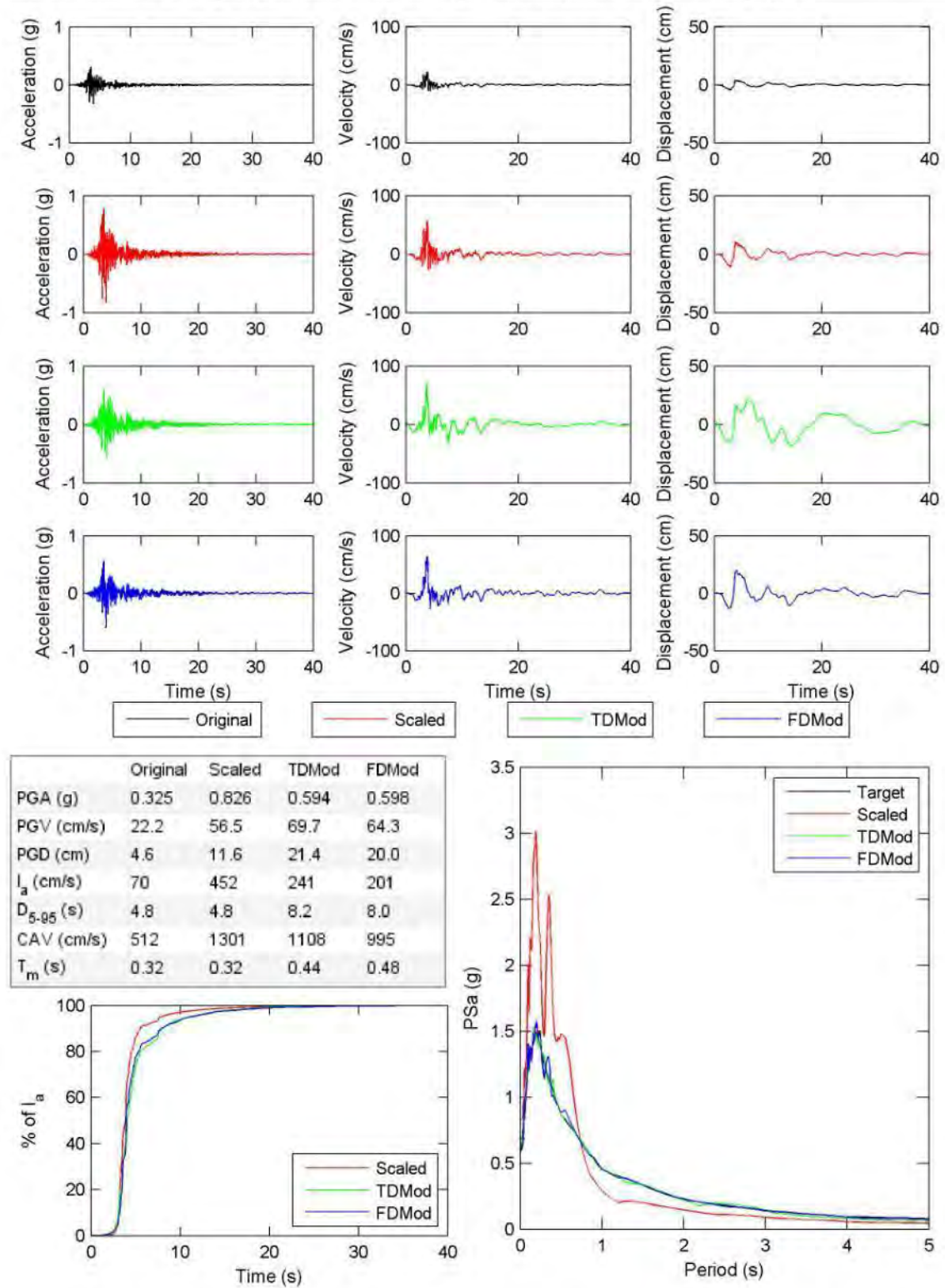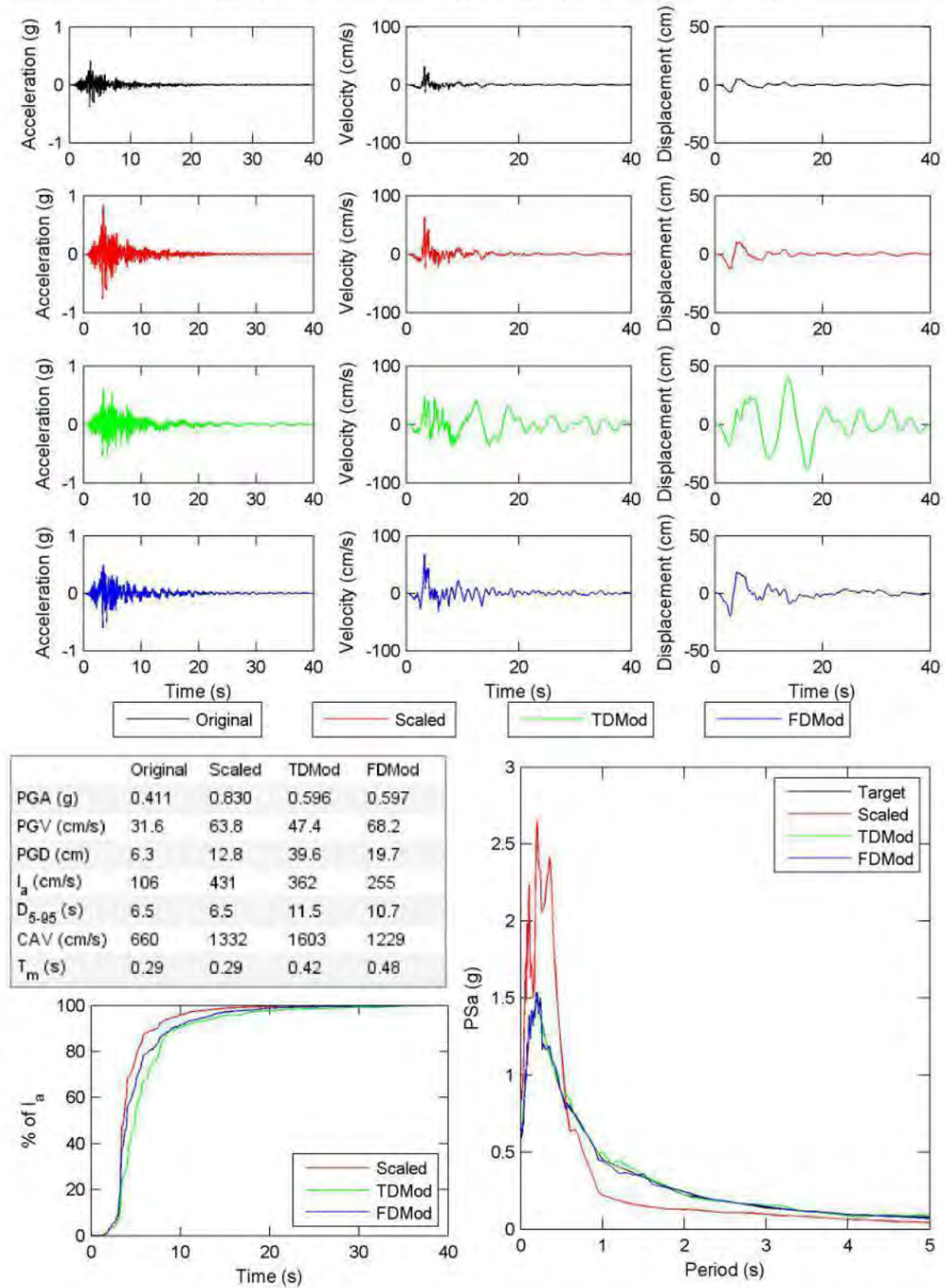
	Original	Scaled	TDMod	FDMod
PGA (g)	0.104	0.710	0.597	0.597
PGV (cm/s)	6.1	41.5	46.9	40.9
PGD (cm)	1.2	8.4	12.8	17.2
I_a (cm/s)	32	1494	1144	897
D_{5-95} (s)	25.0	25.0	25.8	25.3
CAV (cm/s)	639	4379	3906	3390
T_m (s)	0.33	0.33	0.32	0.37

Figure E.3. continued.

696

	Original	Scaled	TDMod	FDMod
PGA (g)	0.324	1.212	0.596	0.598
PGV (cm/s)	15.6	58.5	65.6	54.8
PGD (cm)	2.4	9.1	14.6	21.5
I_a (cm/s)	68	956	547	368
D_{5-95} (s)	14.5	14.5	17.1	18.8
CAV (cm/s)	661	2471	2158	1732
T_m (s)	0.35	0.35	0.39	0.48

Figure E.3. continued.

697

File Name: 57 ORR291   Start and End Taper Percentage: 1.0% and 5.0%
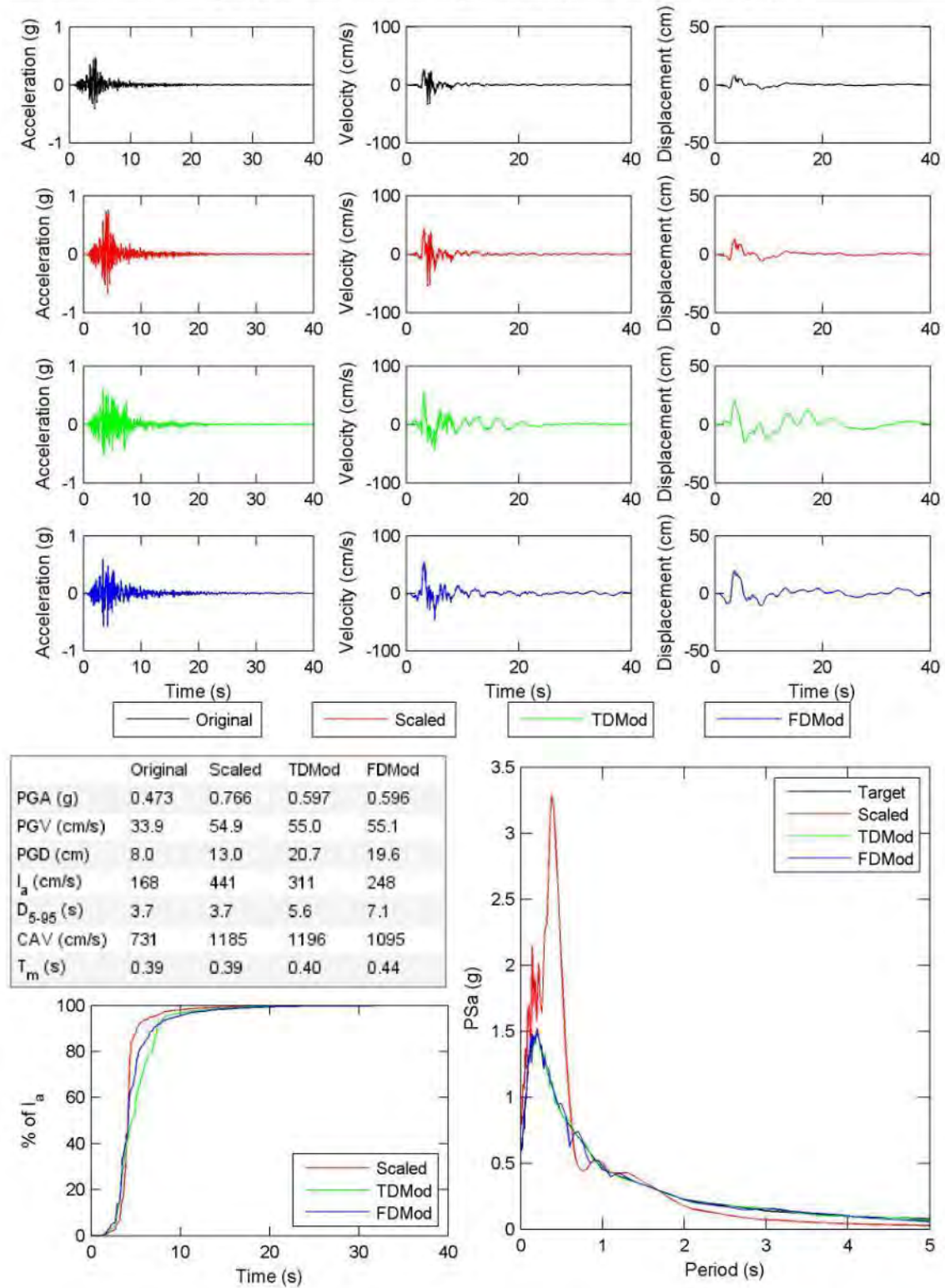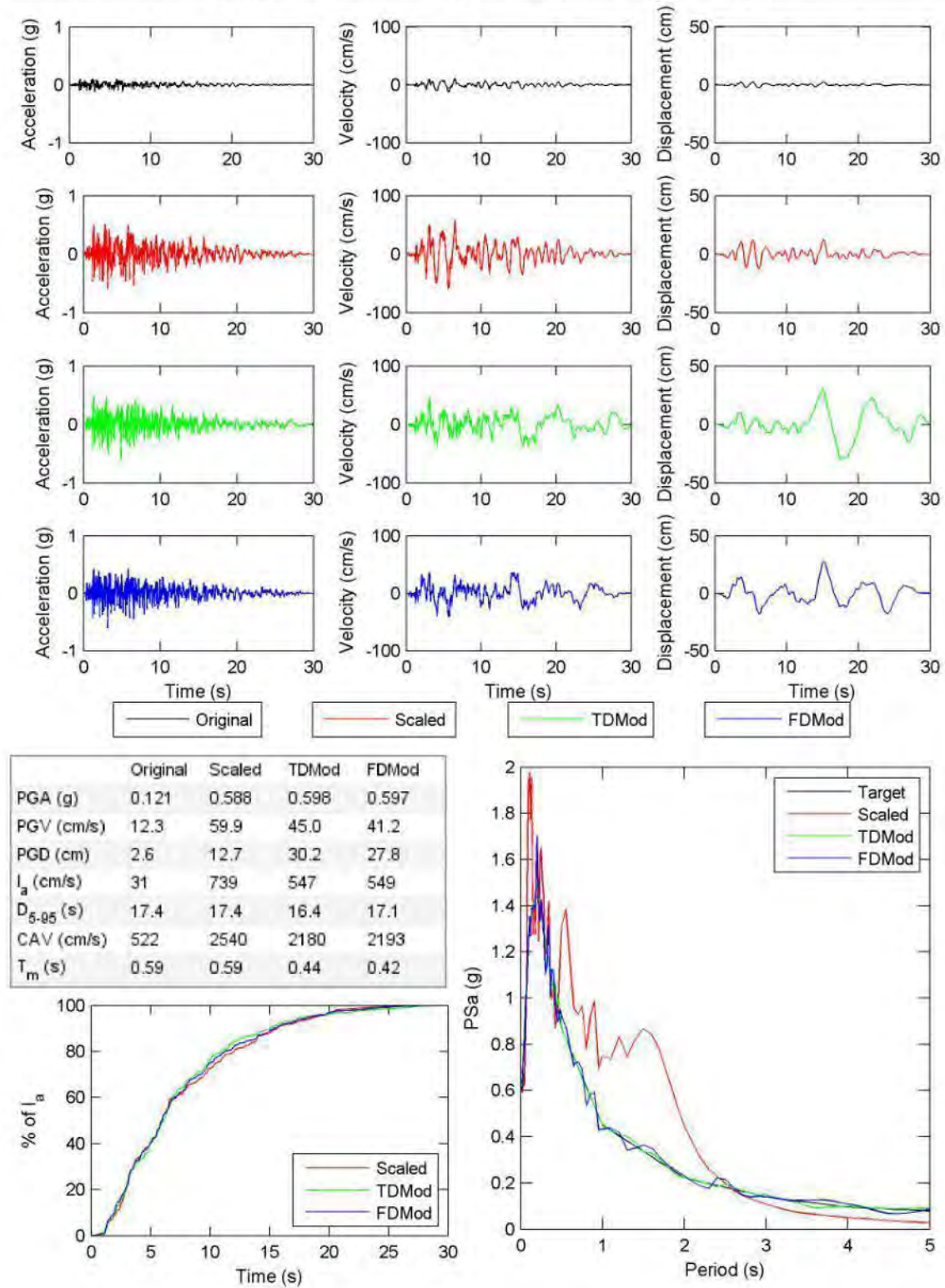Scale Factor: 3.25 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.268	0.871	0.599	0.587
PGV (cm/s)	25.8	84.0	49.2	56.9
PGD (cm)	4.9	15.8	26.9	16.7
I_a (cm/s)	95	999	517	407
D_{5-95} (s)	15.4	15.4	18.3	16.4
CAV (cm/s)	873	2839	2183	1851
T_m (s)	0.48	0.48	0.46	0.46

Figure E.3. continued.

698

File Name: 587 A-MAT083   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.34 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
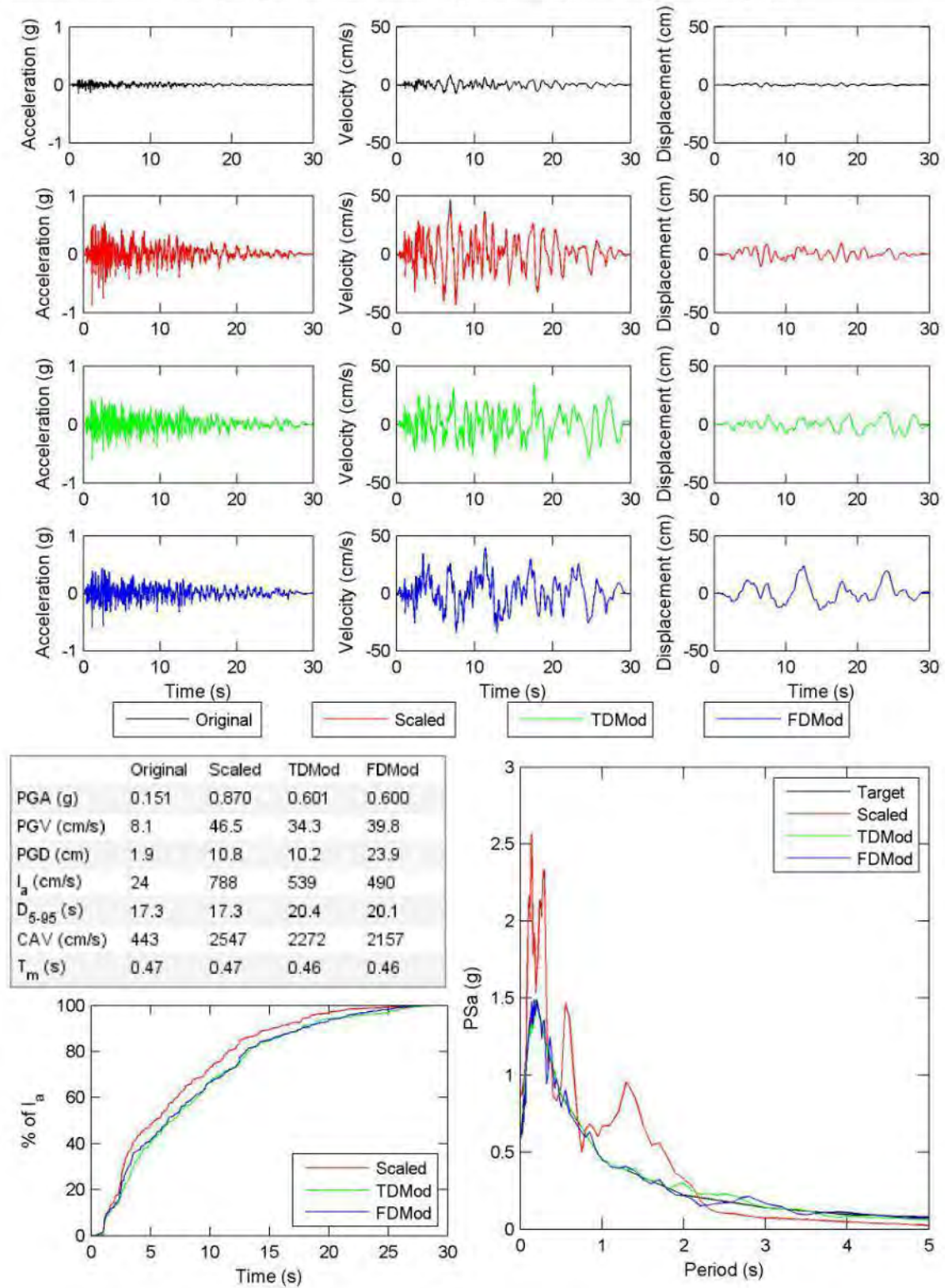

	Original	Scaled	TDMod	FDMod
PGA (g)	0.256	0.598	0.597	0.597
PGV (cm/s)	21.7	50.7	43.3	54.0
PGD (cm)	6.4	15.0	19.2	15.3
I_a (cm/s)	65	357	389	340
D_{5-95} (s)	6.2	6.2	7.0	7.8
CAV (cm/s)	546	1277	1447	1338
T_m (s)	0.47	0.47	0.41	0.38

Figure E.3. continued.

699

File Name: 587 A-MAT353   Start and End Taper Percentage: 1.0% and 5.0%
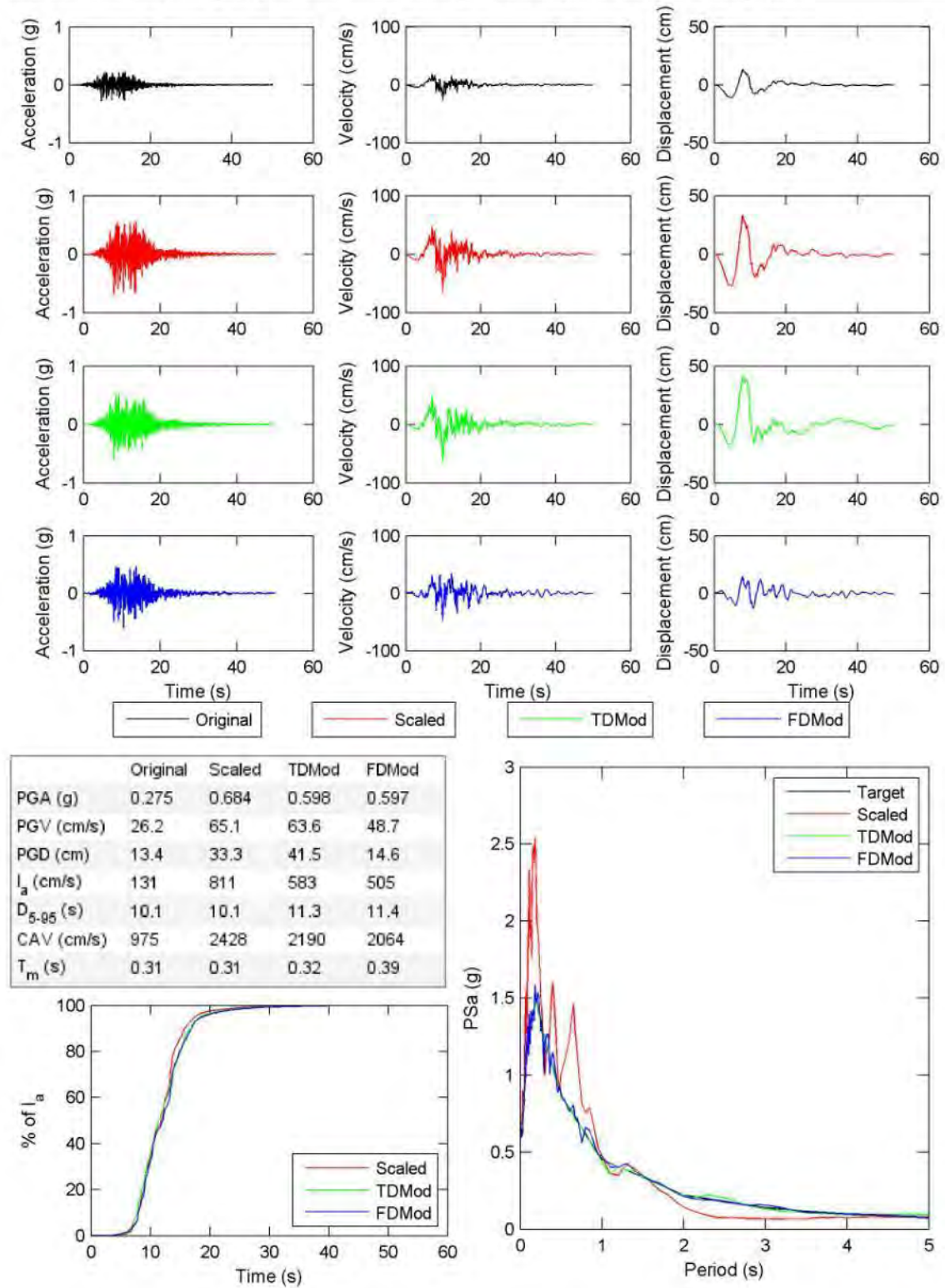Scale Factor: 2.76 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.344	0.949	0.597	0.597
PGV (cm/s)	21.6	59.6	34.0	36.5
PGD (cm)	2.7	7.3	15.4	19.5
I_a (cm/s)	69	528	351	301
D_{5-95} (s)	6.3	6.3	8.9	9.6
CAV (cm/s)	532	1470	1440	1352
T_m (s)	0.45	0.45	0.44	0.46

Figure E.3. continued.

700

File Name: 63 FTR056   Start and End Taper Percentage: 1.0% and 5.0%
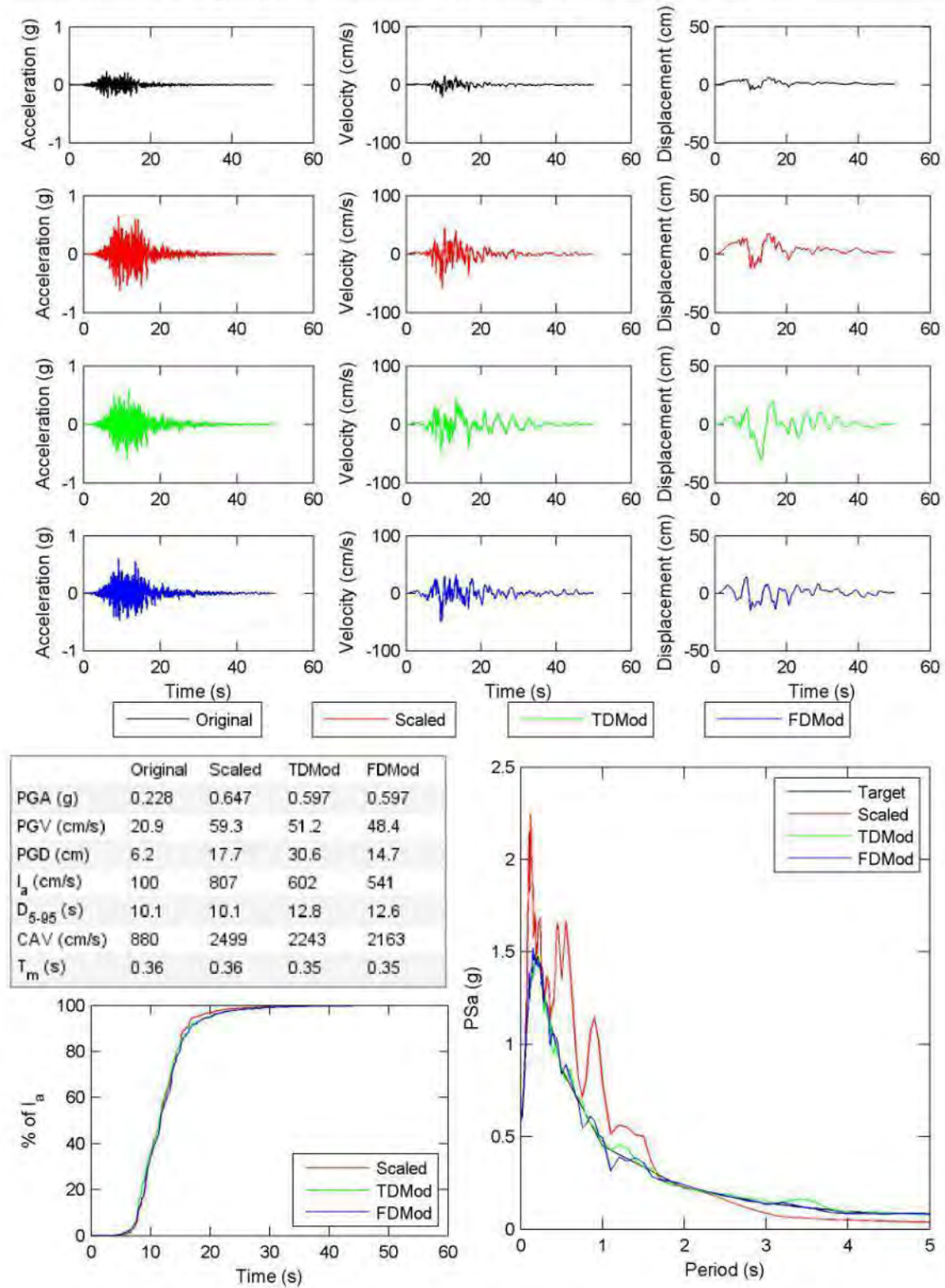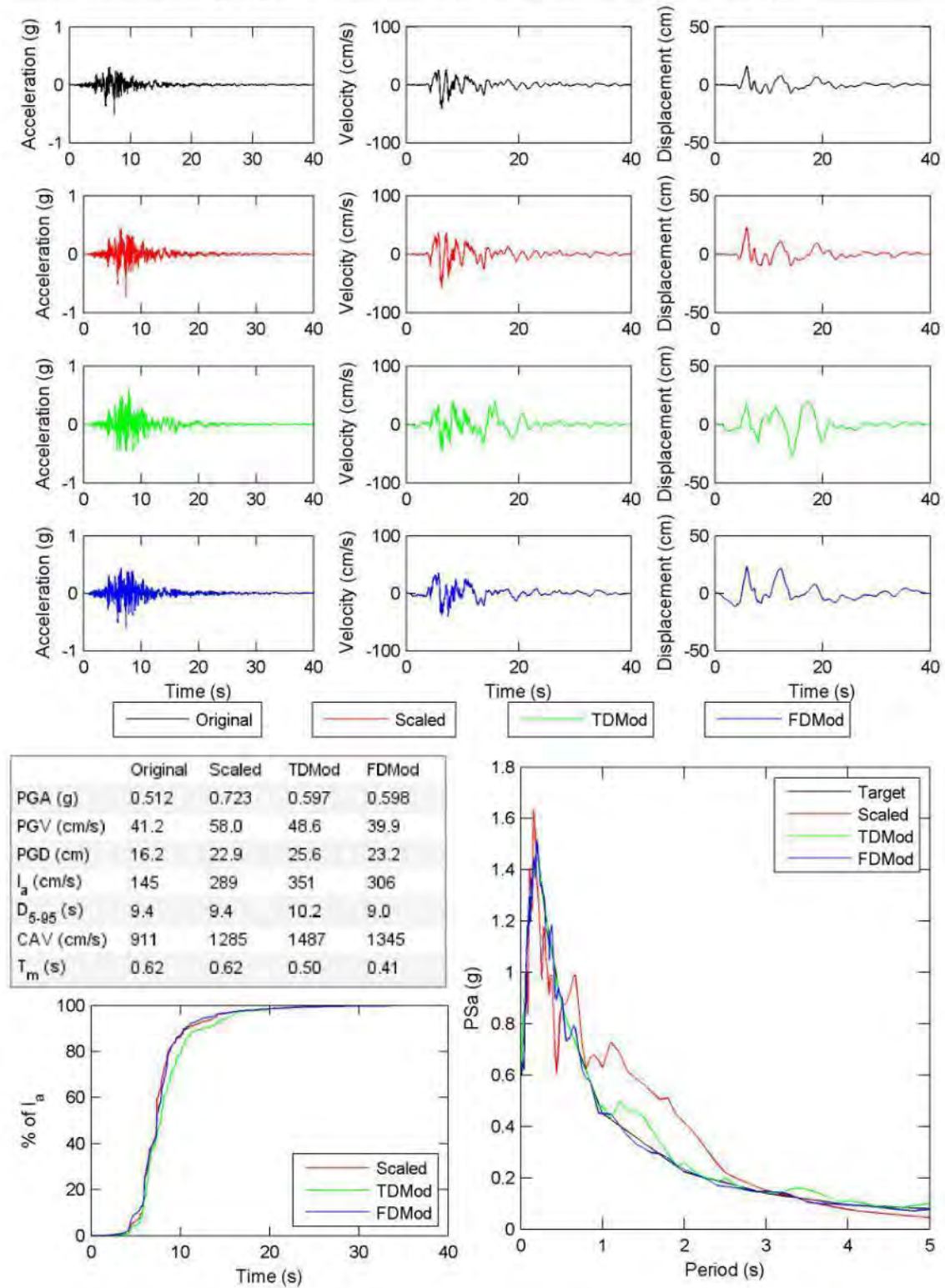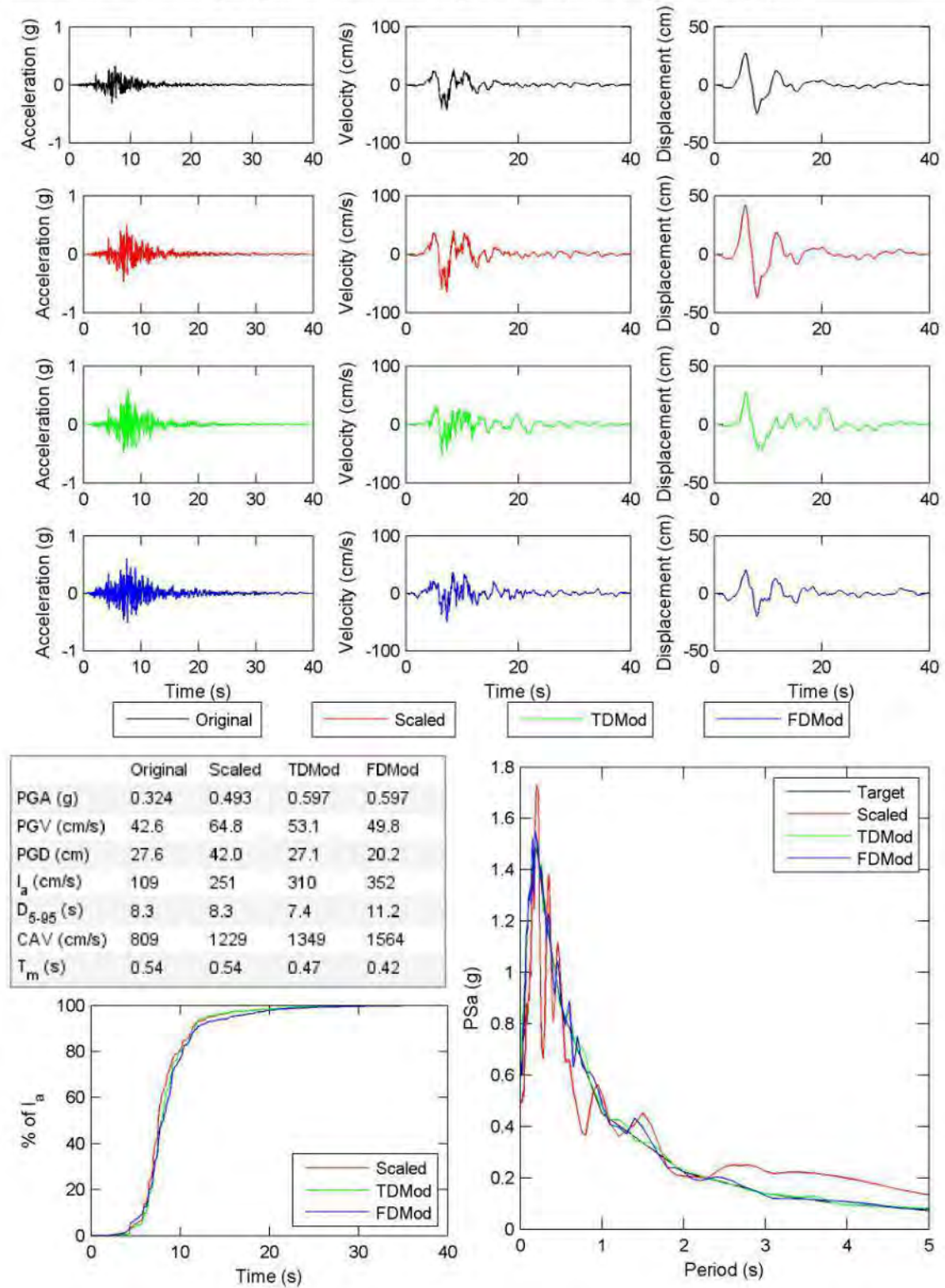Scale Factor: 12.85 Target Spectrum Matched: target2UHS50yr.txt FD poly: 7 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.071	0.915	0.596	0.597
PGV (cm/s)	4.7	60.0	46.7	43.7
PGD (cm)	0.7	8.7	13.4	19.2
I_a (cm/s)	4	732	464	388
D_{5-95} (s)	12.8	12.8	17.1	18.4
CAV (cm/s)	159	2040	1906	1813
T_m (s)	0.31	0.31	0.40	0.46

Figure E.3. continued.

701

	Original	Scaled	TDMod	FDMod
PGA (g)	0.109	1.087	0.597	0.596
PGV (cm/s)	6.4	64.4	51.6	44.8
PGD (cm)	1.1	10.8	39.1	14.7
I_a (cm/s)	6	601	447	349
D_{5-95} (s)	12.4	12.4	14.5	16.5
CAV (cm/s)	176	1764	1806	1608
T_m (s)	0.36	0.36	0.38	0.39

Figure E.3. continued.

702

File Name: 70 L01021   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.19 Target Spectrum Matched: target2UHS50yr.txt FD poly: 8 TD poly: 6
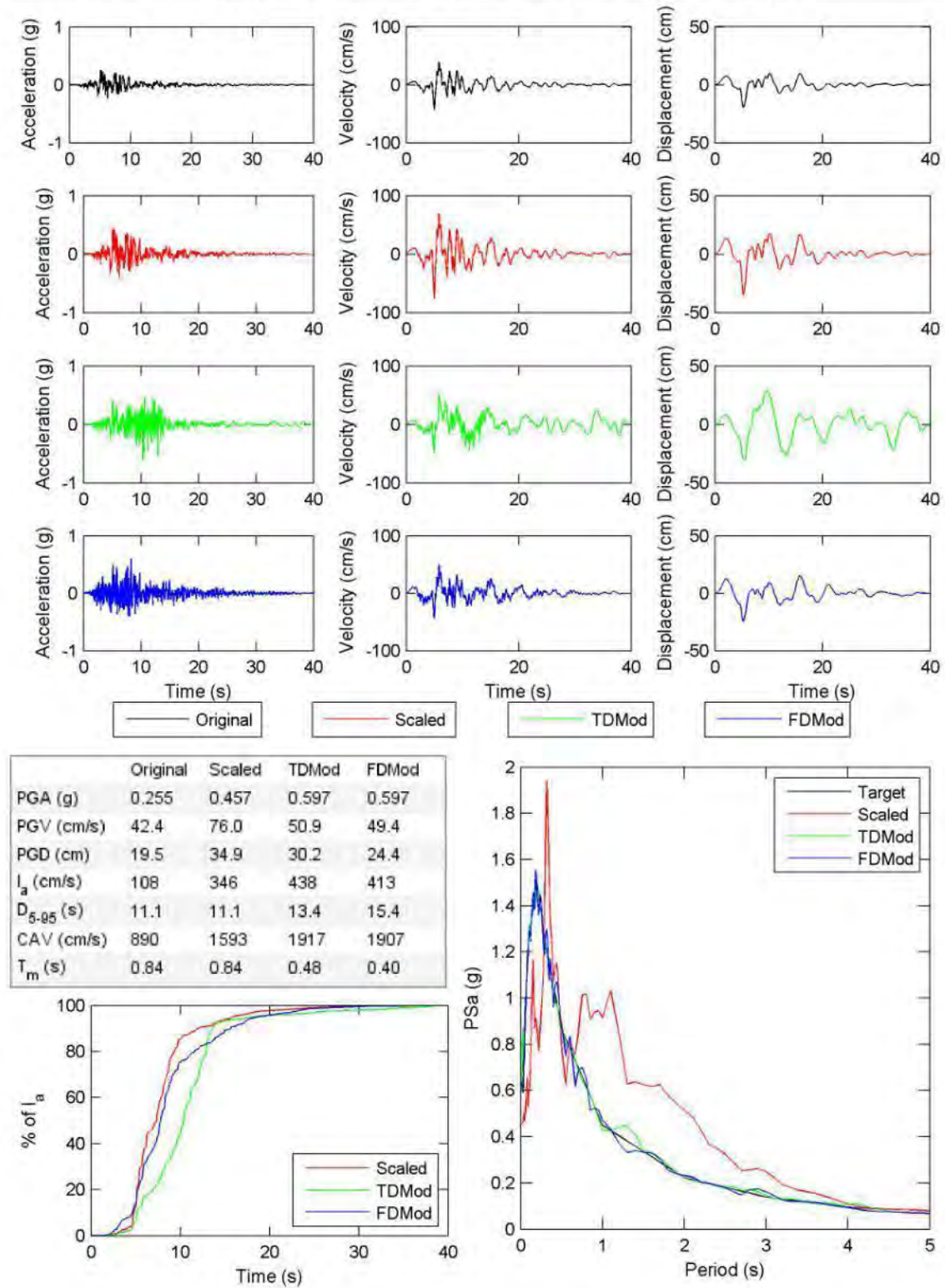

	Original	Scaled	TDMod	FDMod
PGA (g)	0.145	0.750	0.598	0.598
PGV (cm/s)	17.3	89.6	39.6	46.3
PGD (cm)	2.9	15.0	25.1	14.0
I_a (cm/s)	24	638	392	521
D_{5-95} (s)	14.2	14.2	17.7	18.3
CAV (cm/s)	402	2085	1797	2156
T_m (s)	0.70	0.70	0.49	0.37

Figure E.3. continued.

703

File Name: 70 L01111   Start and End Taper Percentage: 1.0% and 5.0%
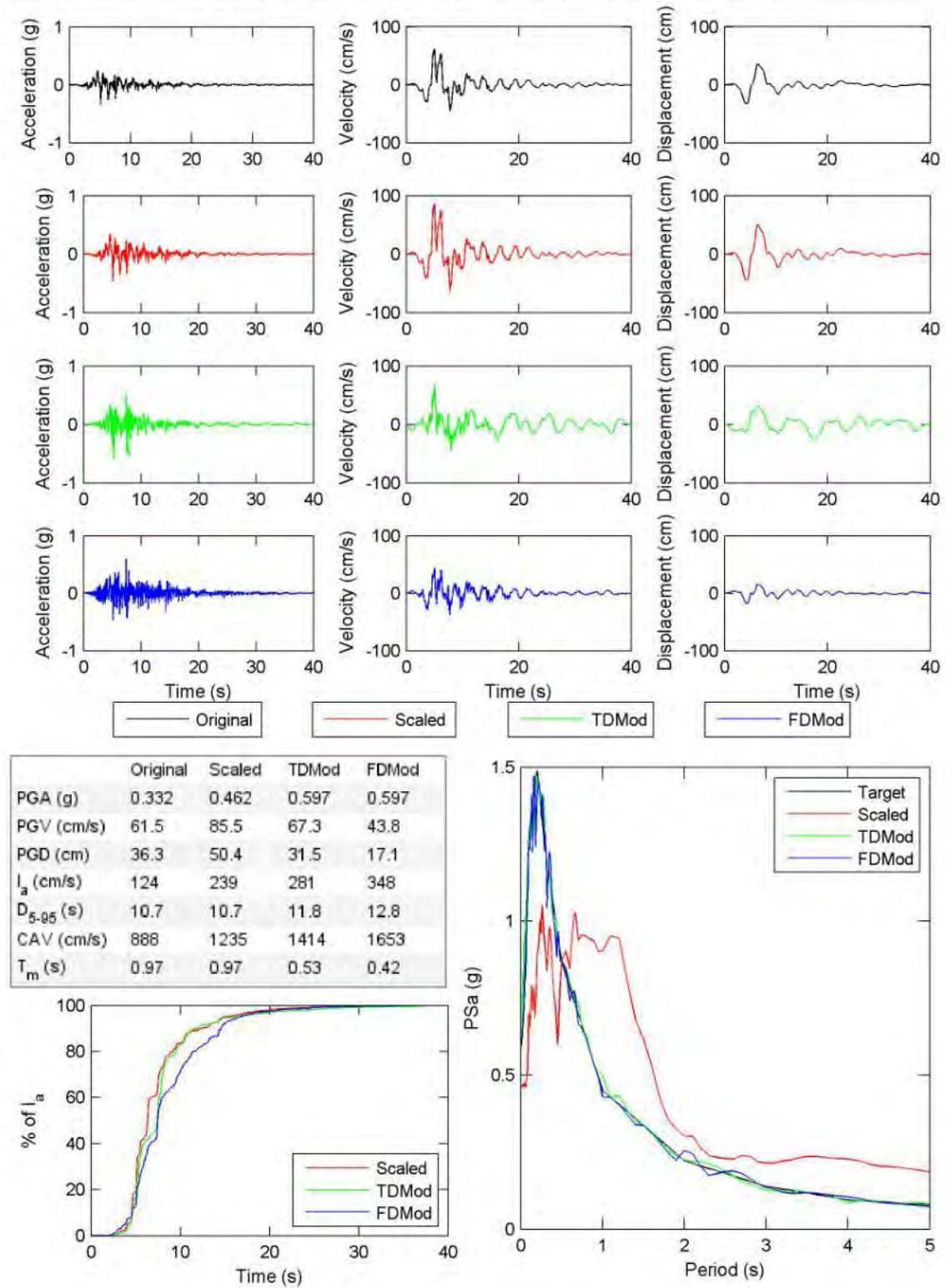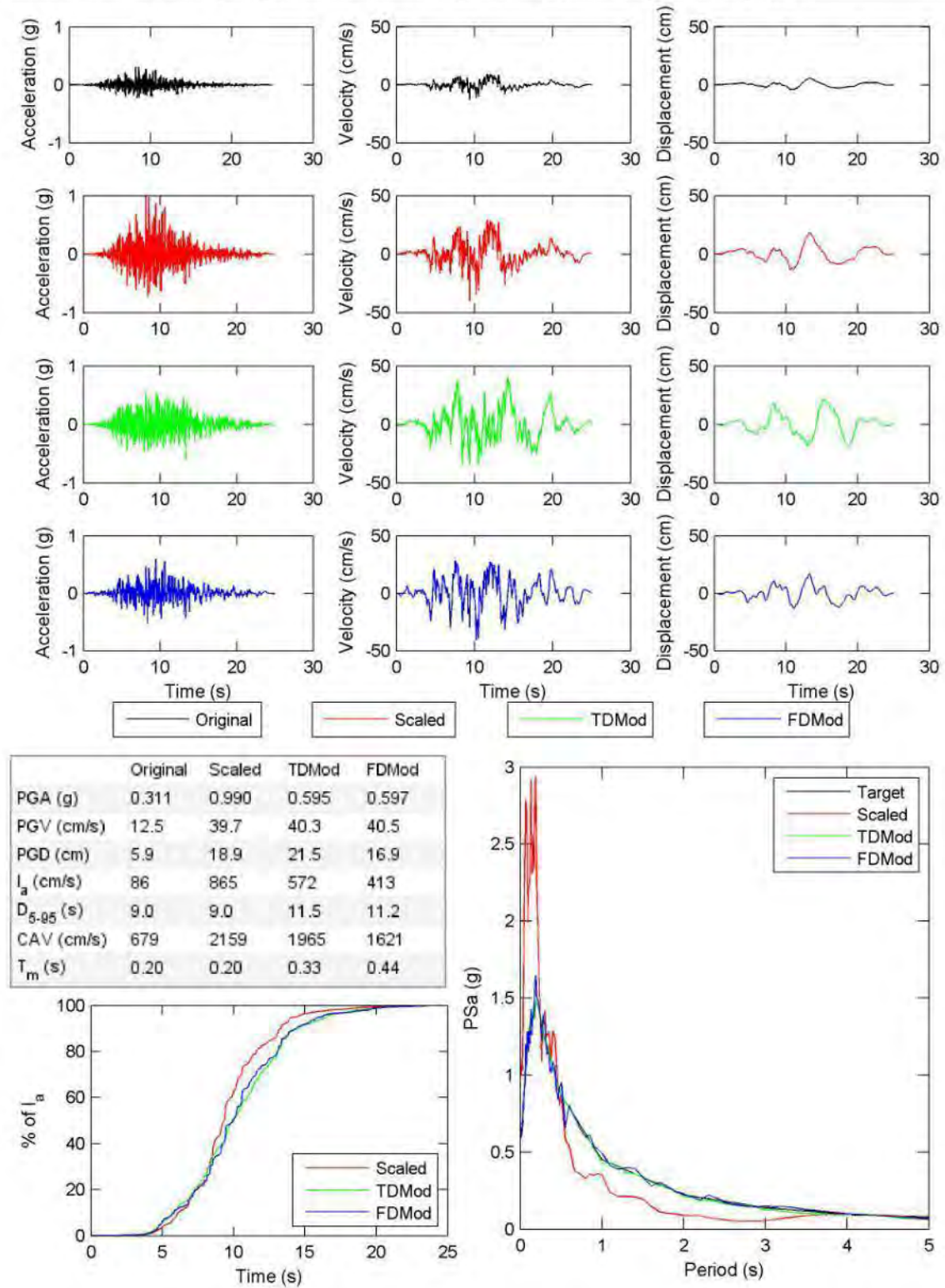Scale Factor: 6.13 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.110	0.676	0.597	0.598
PGV (cm/s)	14.0	85.9	44.4	42.4
PGD (cm)	1.9	11.7	21.5	17.9
I_a (cm/s)	19	696	477	487
D_{5-95} (s)	17.1	17.1	18.0	18.9
CAV (cm/s)	400	2452	2067	2149
T_m (s)	0.55	0.55	0.44	0.38

Figure E.3. continued.

704

File Name: 71 L12021   Start and End Taper Percentage: 1.0% and 5.0%
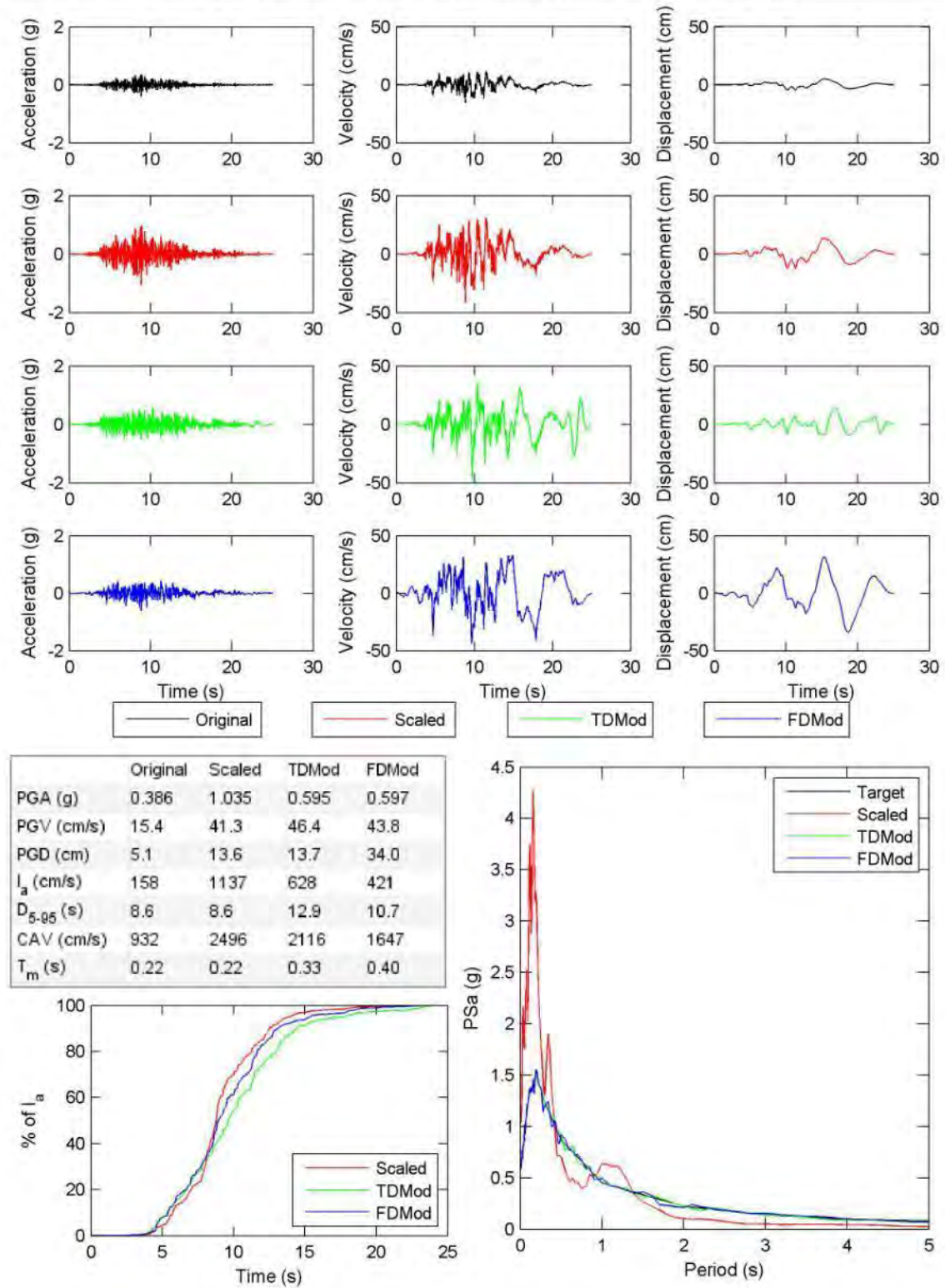Scale Factor: 4.35 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.366	1.591	0.599	0.596
PGV (cm/s)	16.9	73.4	35.5	45.9
PGD (cm)	1.7	7.3	22.1	14.1
I_a (cm/s)	93	1750	576	309
D_{5-95} (s)	10.7	10.7	14.8	16.0
CAV (cm/s)	696	3029	2189	1538
T_m (s)	0.22	0.22	0.34	0.50

Figure E.3. continued.

705

File Name: 71 L12291   Start and End Taper Percentage: 1.0% and 5.0%
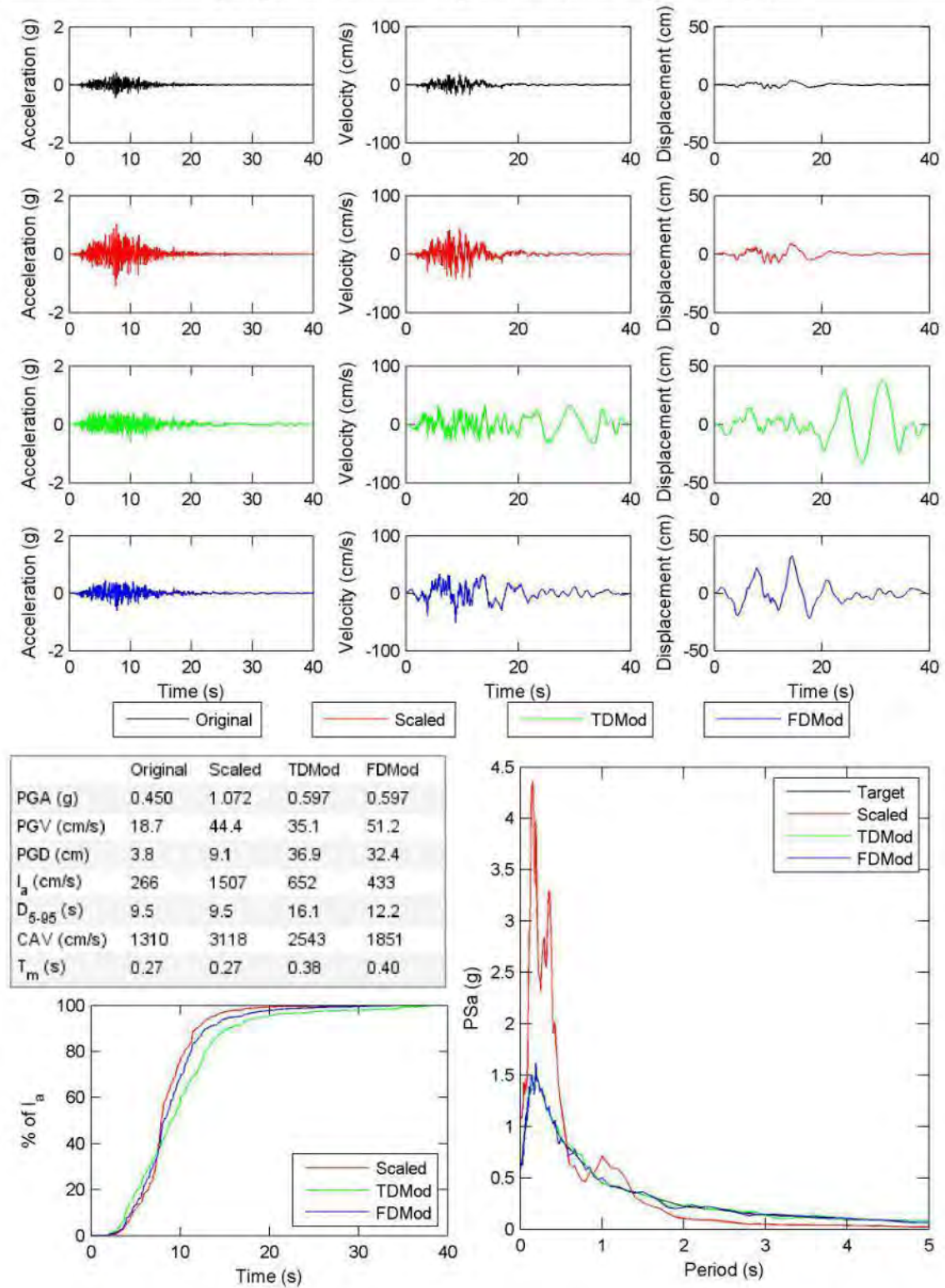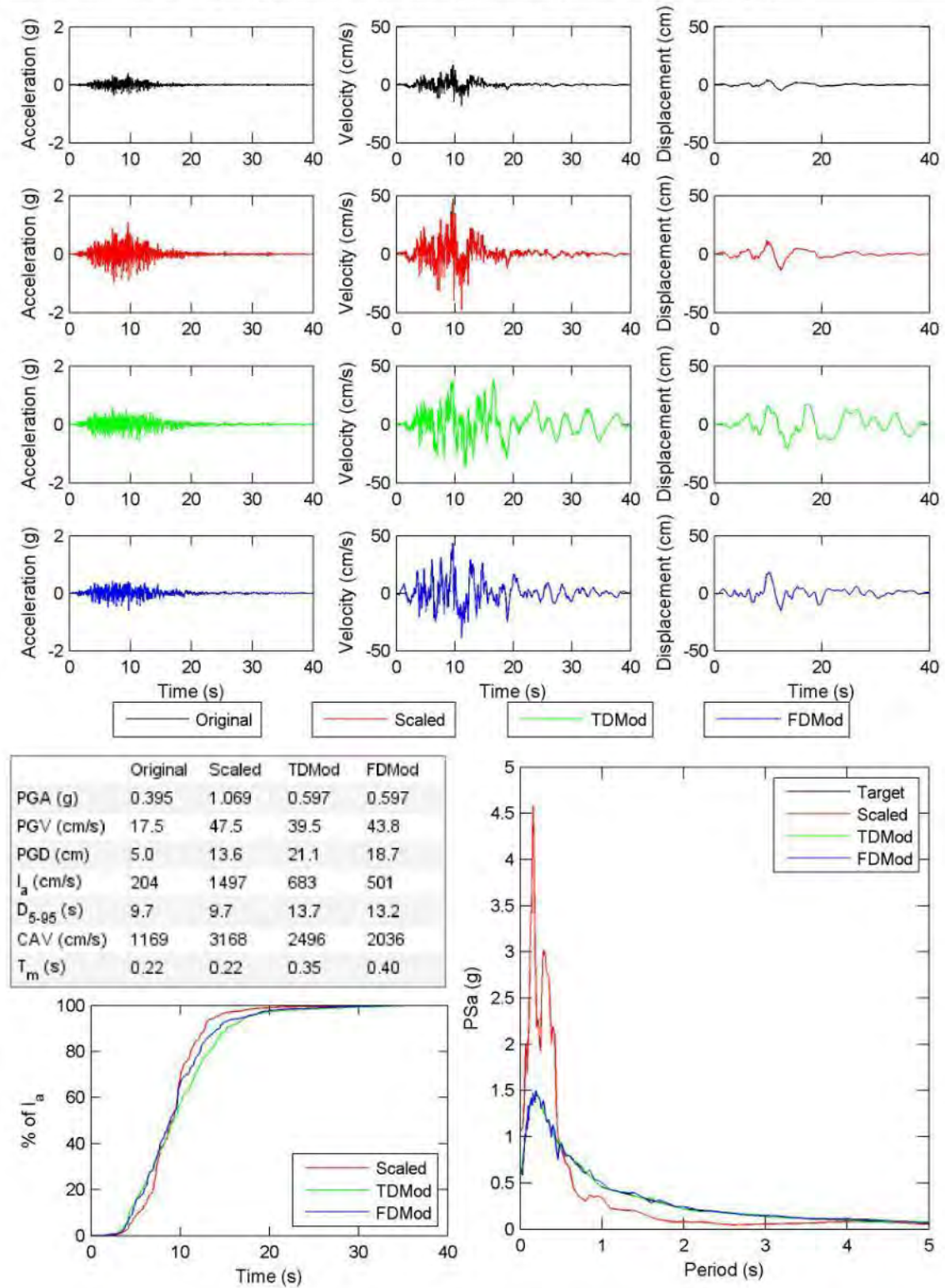Scale Factor: 4.14 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.283	1.171	0.592	0.595
PGV (cm/s)	12.6	52.2	39.4	48.5
PGD (cm)	3.0	12.6	36.3	19.5
I_a (cm/s)	78	1345	511	295
D_{5-95} (s)	11.9	11.9	16.5	13.6
CAV (cm/s)	642	2658	2133	1465
T_m (s)	0.22	0.22	0.35	0.50

Figure E.3. continued.

706

File Name: 72 L04111   Start and End Taper Percentage: 1.0% and 5.0%
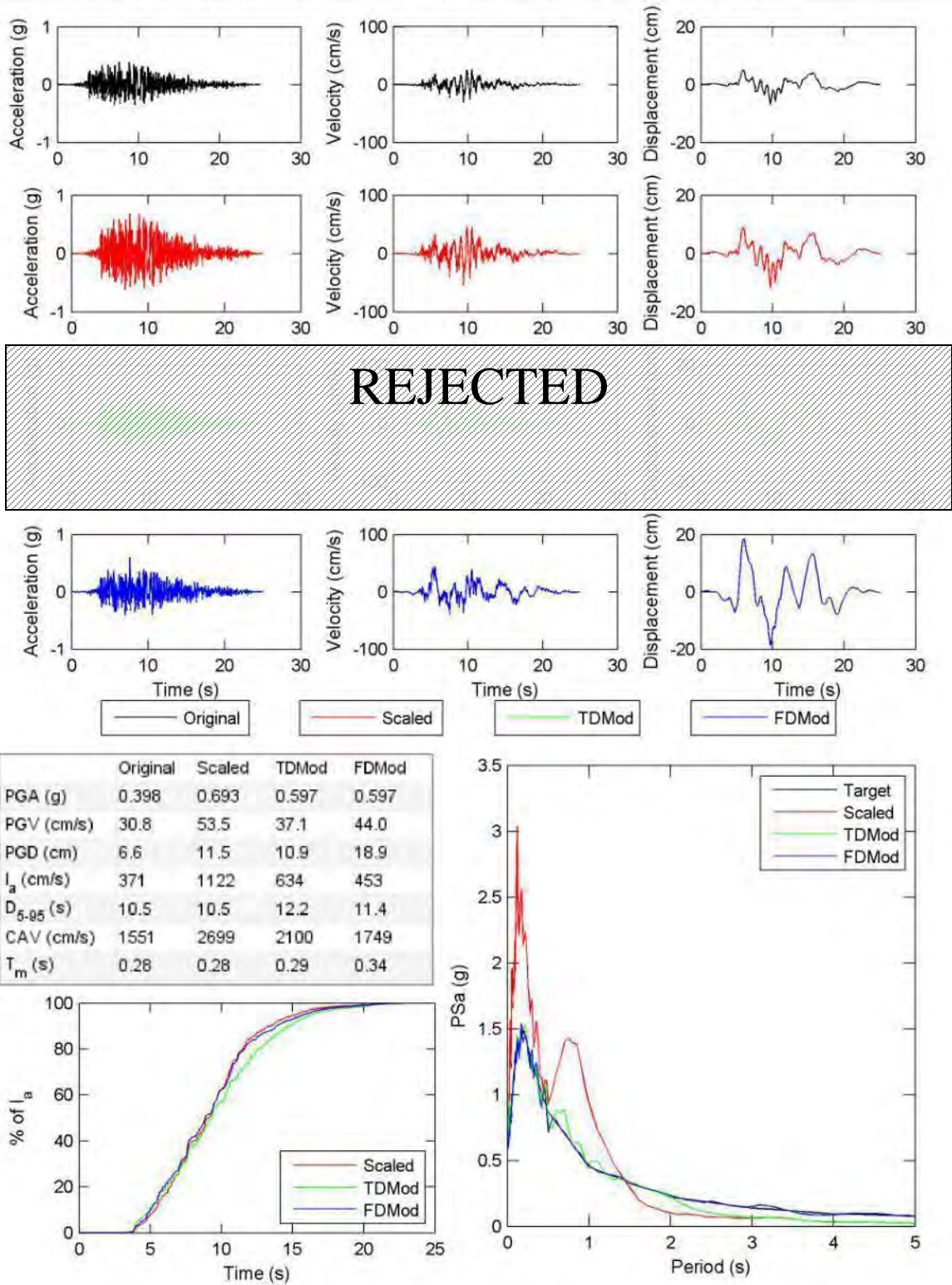Scale Factor: 7.30 Target Spectrum Matched: target2UHS50yr.txt FD poly: 7 TD poly: 4

Figure E.3. continued.

707

File Name: 72 L04201   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.36 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 9
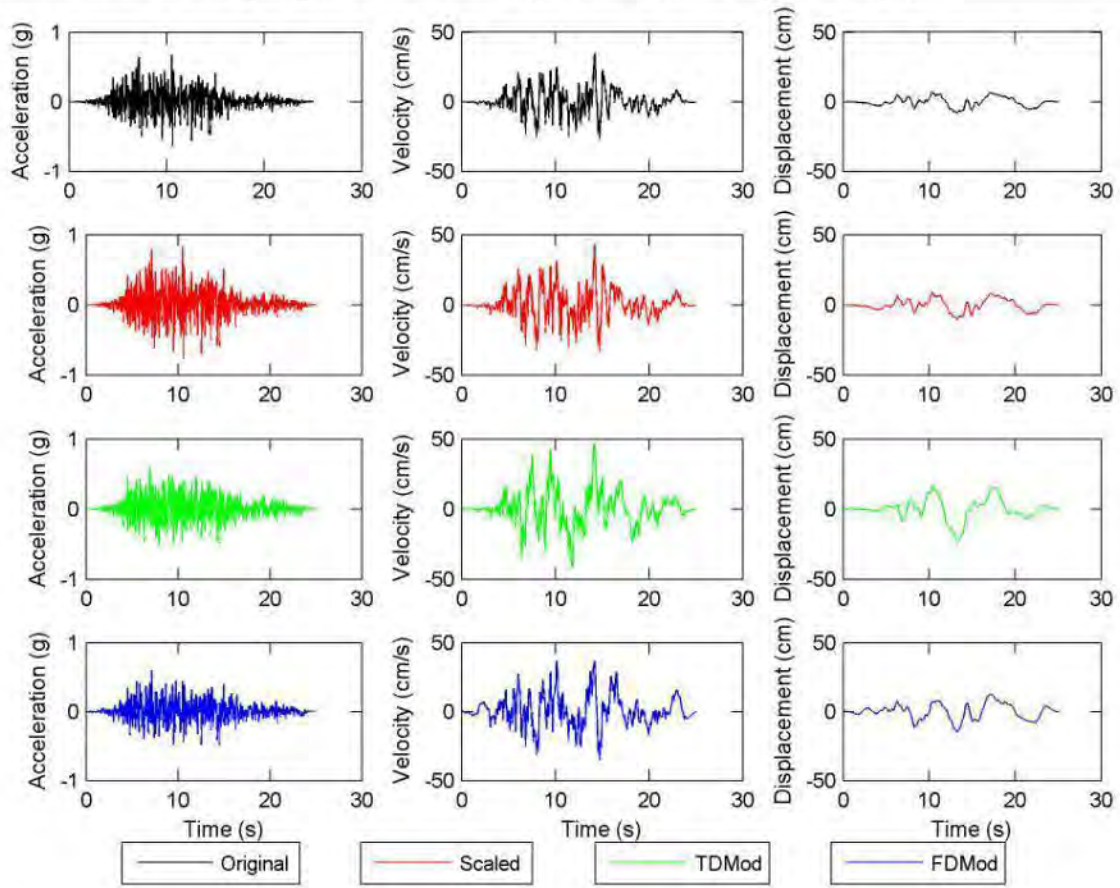

	Original	Scaled	TDMod	FDMod
PGA (g)	0.153	0.971	0.594	0.597
PGV (cm/s)	8.4	53.4	46.0	38.4
PGD (cm)	1.9	12.0	37.1	13.1
I_a (cm/s)	21	837	565	368
D_{5-95} (s)	12.9	12.9	17.5	14.6
CAV (cm/s)	363	2310	2271	1667
T_m (s)	0.26	0.26	0.36	0.39

Figure E.3. continued.

708

File Name: 739 AND250   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.64 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.244	0.644	0.596	0.597
PGV (cm/s)	20.3	53.5	52.8	40.6
PGD (cm)	7.7	20.3	65.6	16.7
I_a (cm/s)	80	555	444	416
D_{5-95} (s)	10.5	10.5	16.6	12.8
CAV (cm/s)	715	1887	2010	1787
T_m (s)	0.46	0.46	0.46	0.41

Figure E.3. continued.

709

File Name: 739 AND340   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.90 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.240	0.695	0.597	0.596
PGV (cm/s)	18.4	53.4	54.2	50.3
PGD (cm)	6.7	19.4	30.8	21.2
I_a (cm/s)	80	674	463	449
D_{5-95} (s)	10.9	10.9	13.6	12.9
CAV (cm/s)	721	2092	1943	1896
T_m (s)	0.47	0.47	0.47	0.40

Figure E.3. continued.

710

File Name: 73 L09021   Start and End Taper Percentage: 1.0% and 5.0%
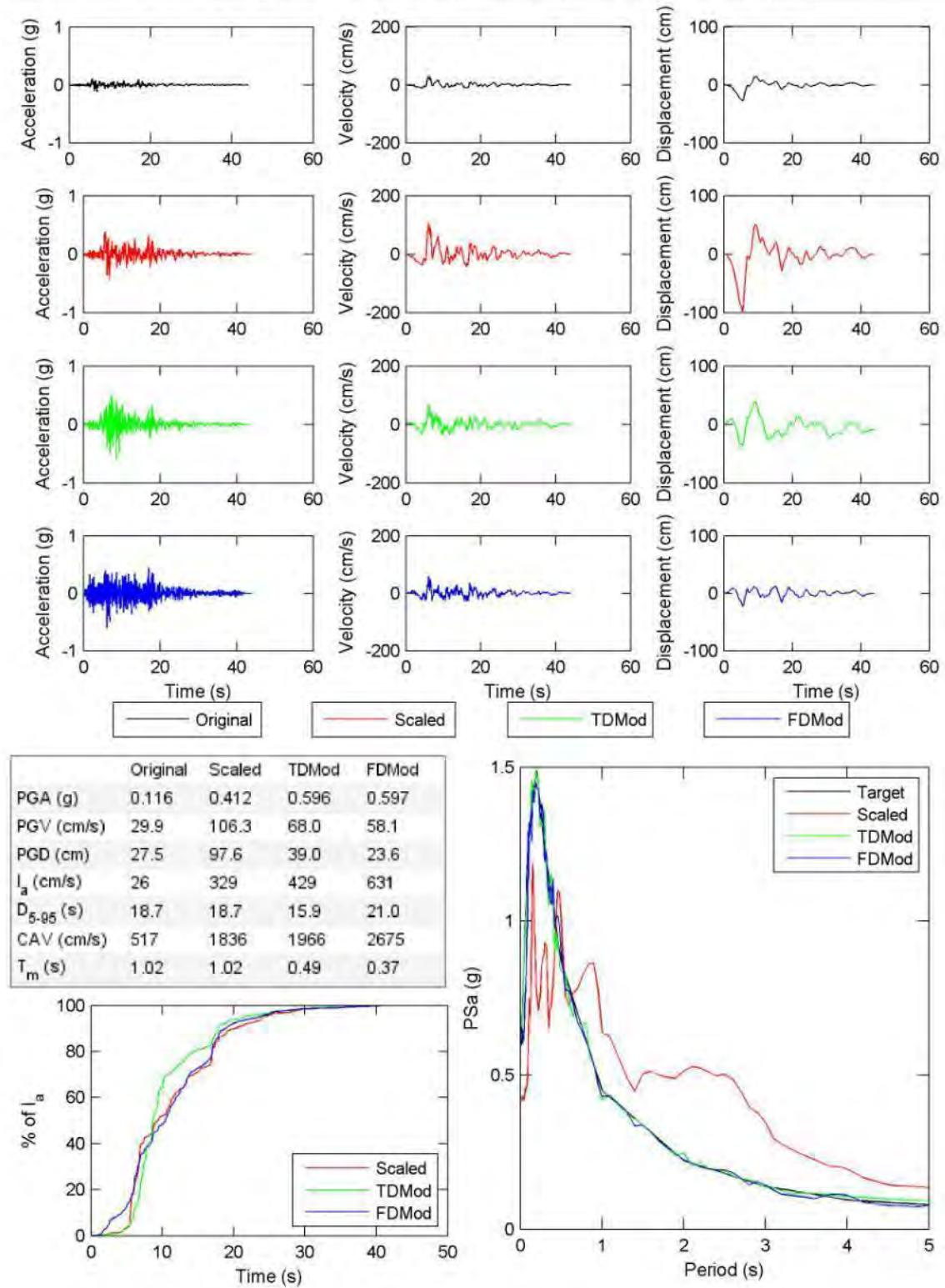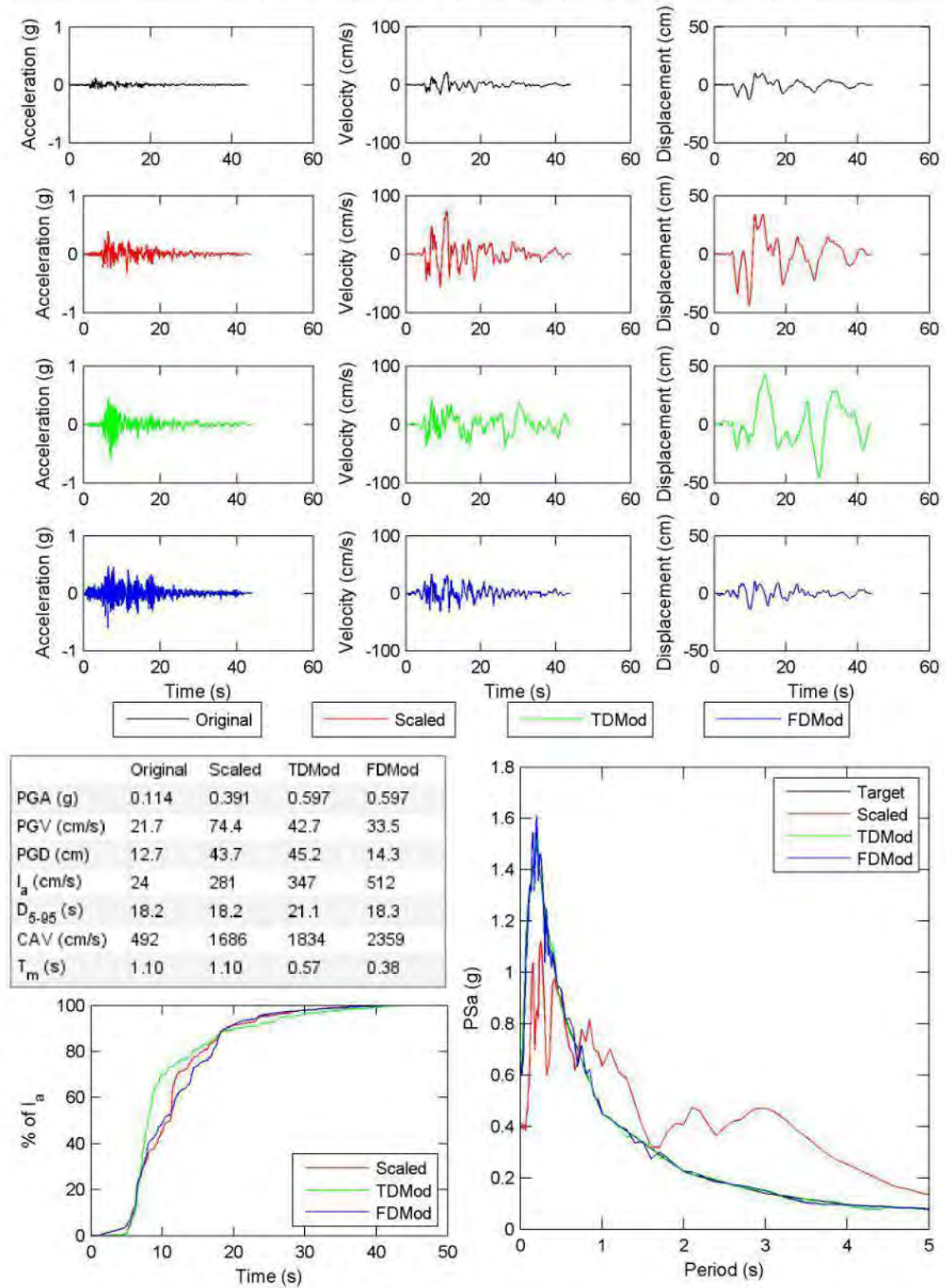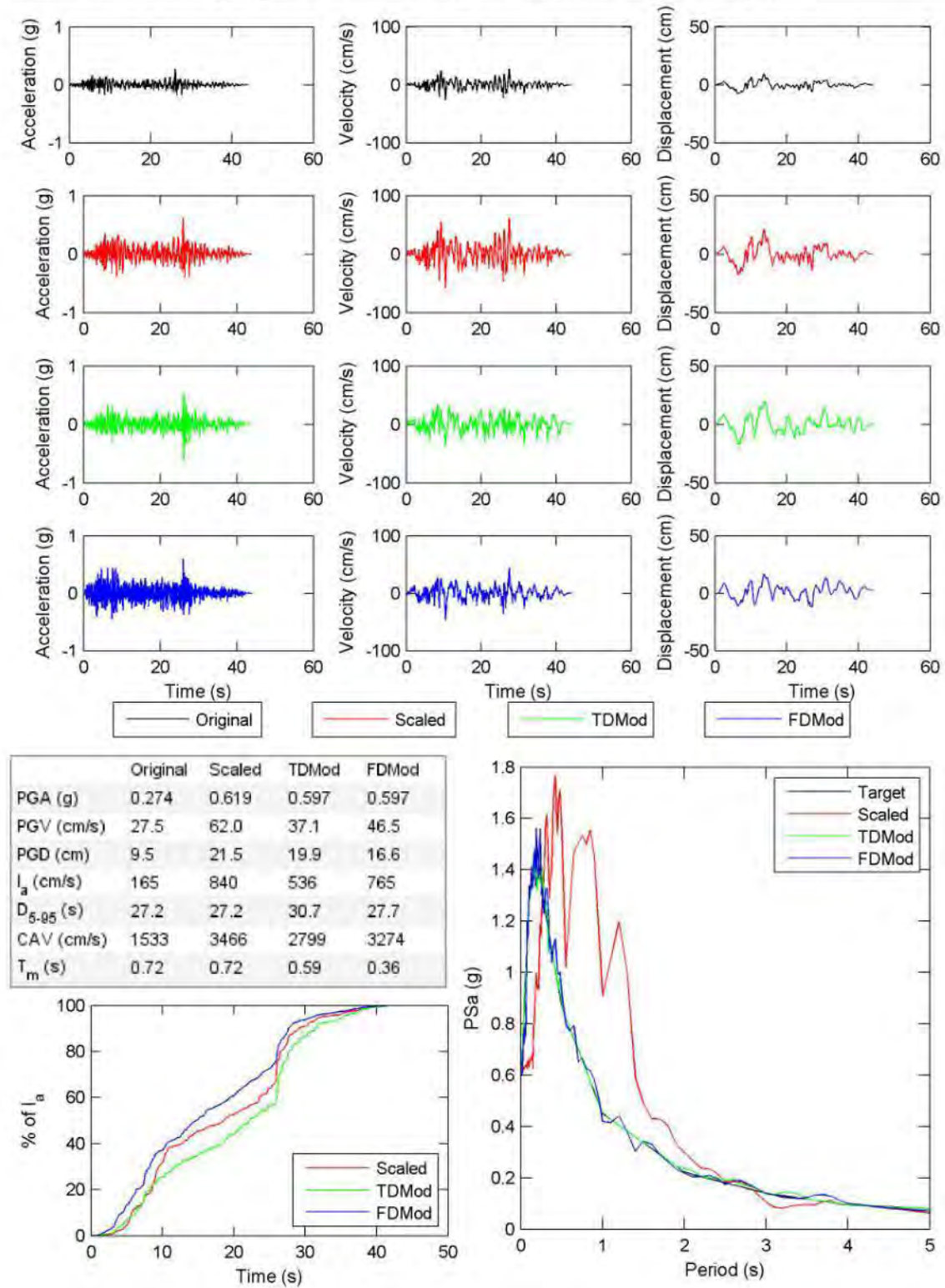Scale Factor: 8.30 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.157	1.307	0.593	0.592
PGV (cm/s)	4.5	37.3	39.9	41.8
PGD (cm)	1.2	10.3	26.5	18.8
I_a (cm/s)	15	1040	516	354
D_{5-95} (s)	9.4	9.4	14.0	16.1
CAV (cm/s)	269	2230	1994	1627
T_m (s)	0.22	0.22	0.39	0.47

Figure E.3. continued.

711

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	1.161	0.598	0.594
PGV (cm/s)	3.8	33.3	39.5	46.2
PGD (cm)	1.1	9.4	9.0	16.1
I_a (cm/s)	11	803	447	340
D_{5-95} (s)	11.8	11.8	12.9	16.4
CAV (cm/s)	232	2013	1802	1615
T_m (s)	0.20	0.20	0.37	0.51

Figure E.3. continued.

712

File Name: 740 ADL250   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.36 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

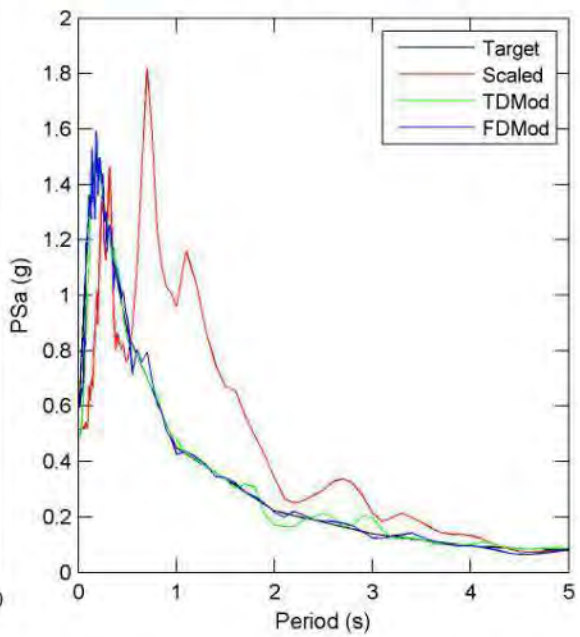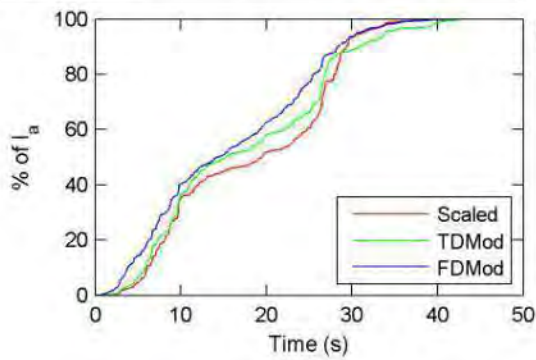|	Original	Scaled	TDMod	FDMod
PGA (g)	0.064	0.405	0.597	0.597
PGV (cm/s)	12.2	77.3	50.5	46.5
PGD (cm)	11.8	75.0	45.5	15.4
I_a (cm/s)	9	377	373	575
D_{5-95} (s)	15.6	15.6	14.6	13.0
CAV (cm/s)	295	1874	1756	2240
T_m (s)	1.20	1.20	0.50	0.38

Figure E.3. continued.

713

File Name: 740 ADL340 Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.91 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.077	0.456	0.596	0.595
PGV (cm/s)	10.0	59.4	52.1	46.2
PGD (cm)	5.5	32.7	31.5	19.9
I_a (cm/s)	9	304	355	407
D_{5-95} (s)	12.7	12.7	11.1	10.7
CAV (cm/s)	266	1570	1630	1717
T_m (s)	0.81	0.81	0.51	0.42

Figure E.3. continued.

714

File Name: 763 GIL067   Start and End Taper Percentage: 1.0% and 5.0%
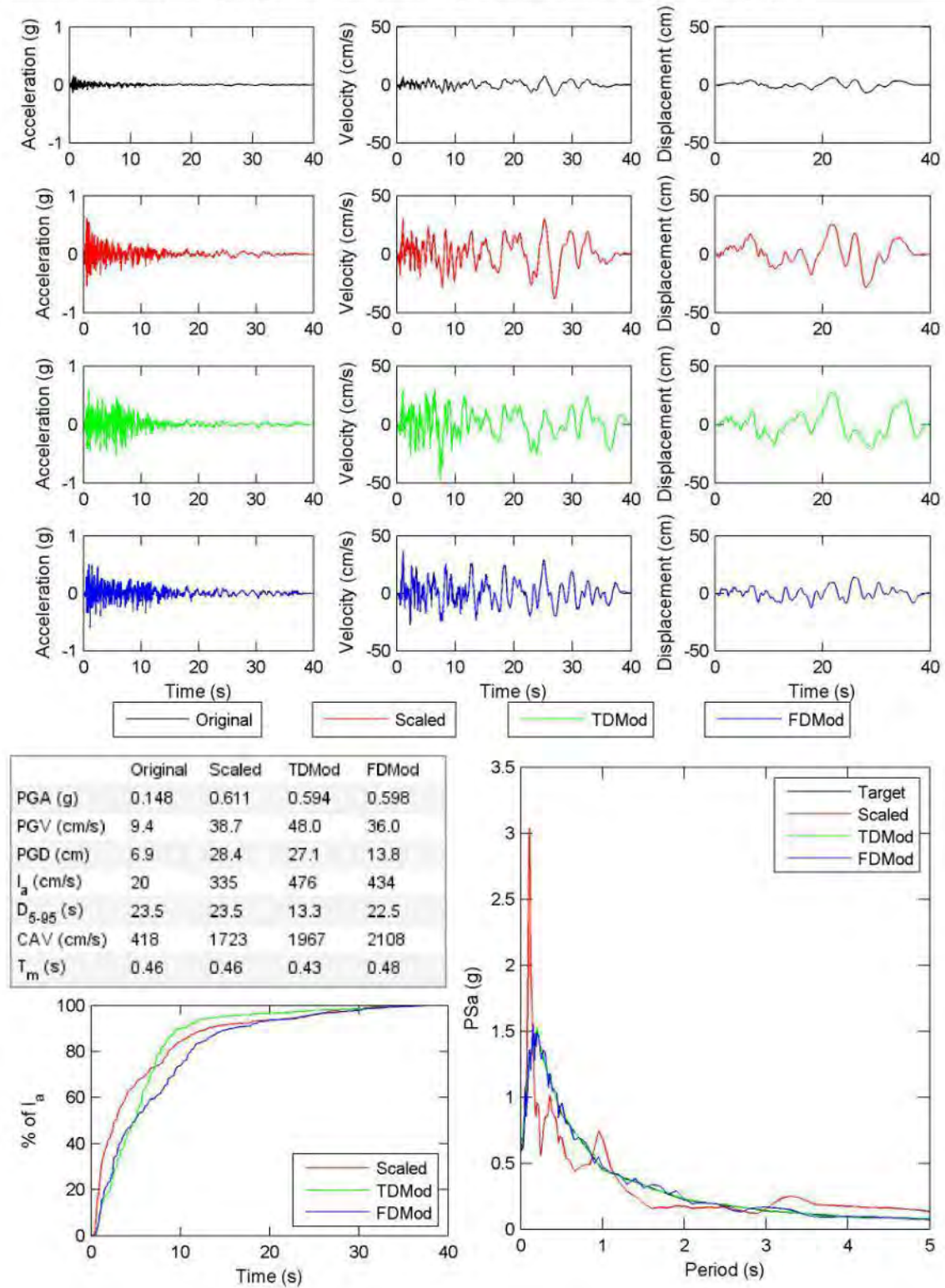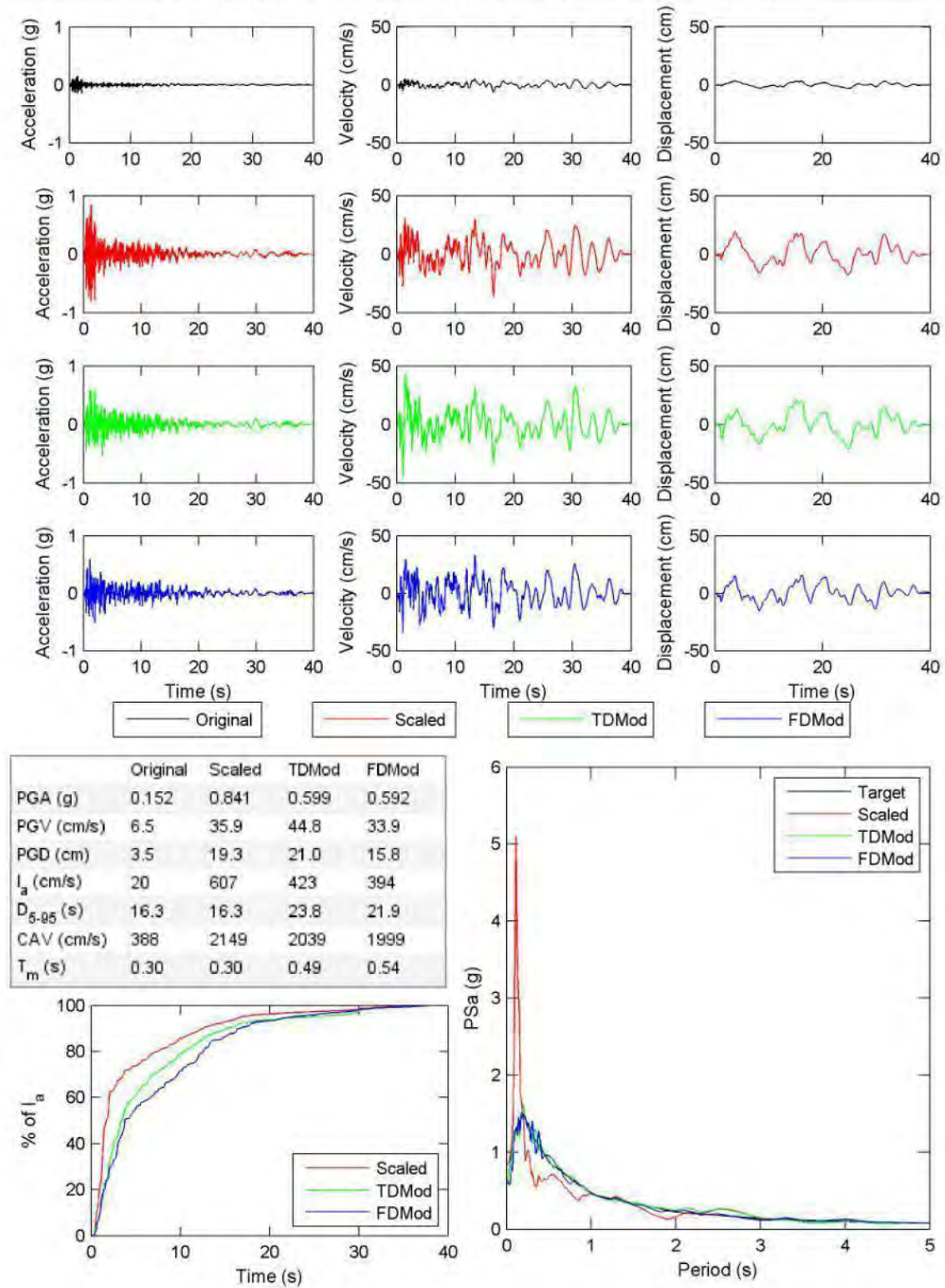Scale Factor: 1.99 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.357	0.710	0.598	0.598
PGV (cm/s)	28.6	56.9	60.7	60.9
PGD (cm)	6.4	12.7	38.6	18.4
I_a (cm/s)	90	358	291	208
D_{5-95} (s)	5.0	5.0	18.1	7.3
CAV (cm/s)	587	1168	1485	1005
T_m (s)	0.36	0.36	0.53	0.48

Figure E.3. continued.

715

File Name: 763 GIL337   Start and End Taper Percentage: 1.0% and 5.0%
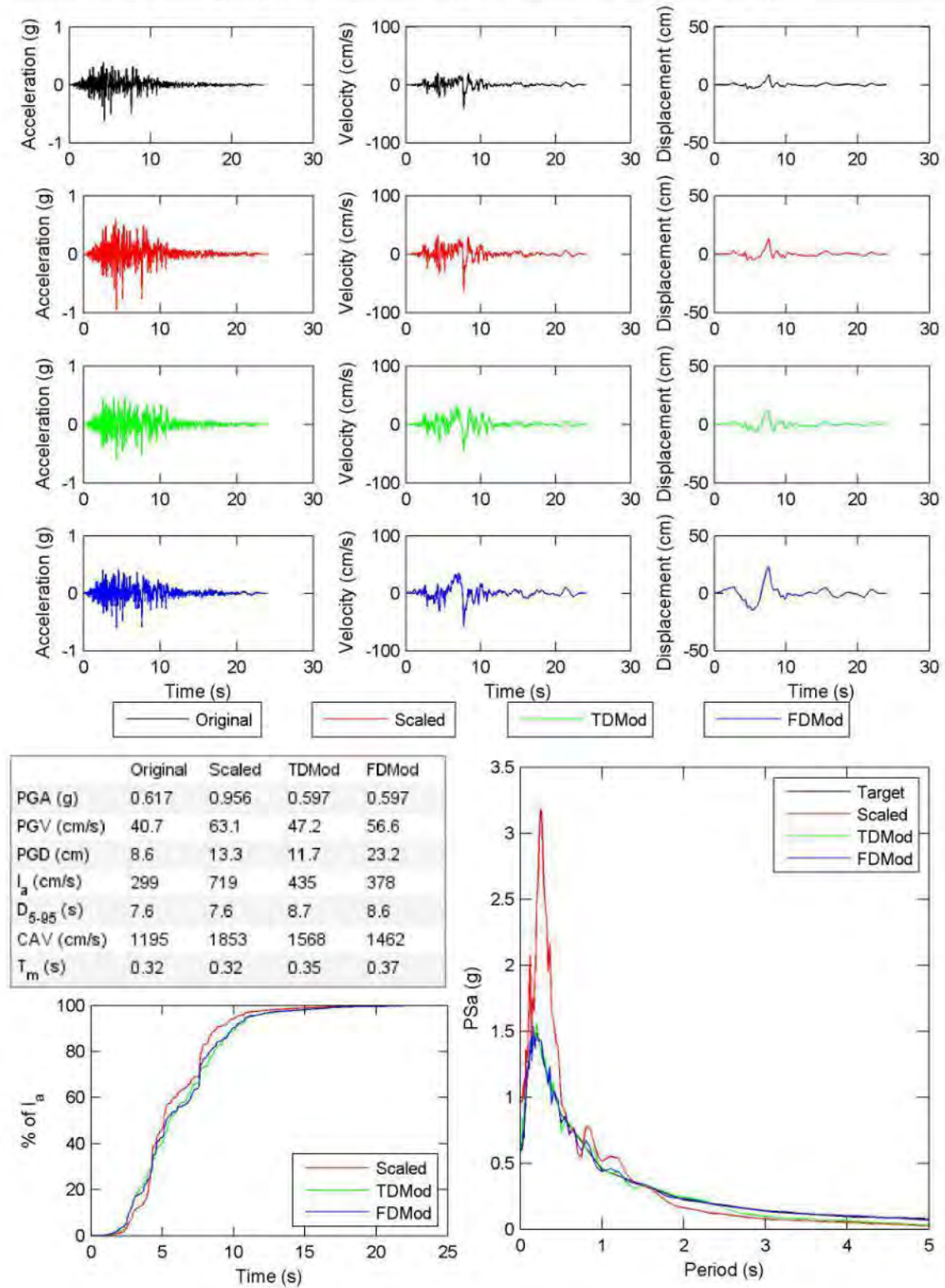Scale Factor: 2.54 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.325	0.826	0.594	0.598
PGV (cm/s)	22.2	56.5	69.7	64.3
PGD (cm)	4.6	11.6	21.4	20.0
I_a (cm/s)	70	452	241	201
D_{5-95} (s)	4.8	4.8	8.2	8.0
CAV (cm/s)	512	1301	1108	995
T_m (s)	0.32	0.32	0.44	0.48

Figure E.3. continued.

716

File Name: 765 G01000   Start and End Taper Percentage: 1.0% and 5.0%
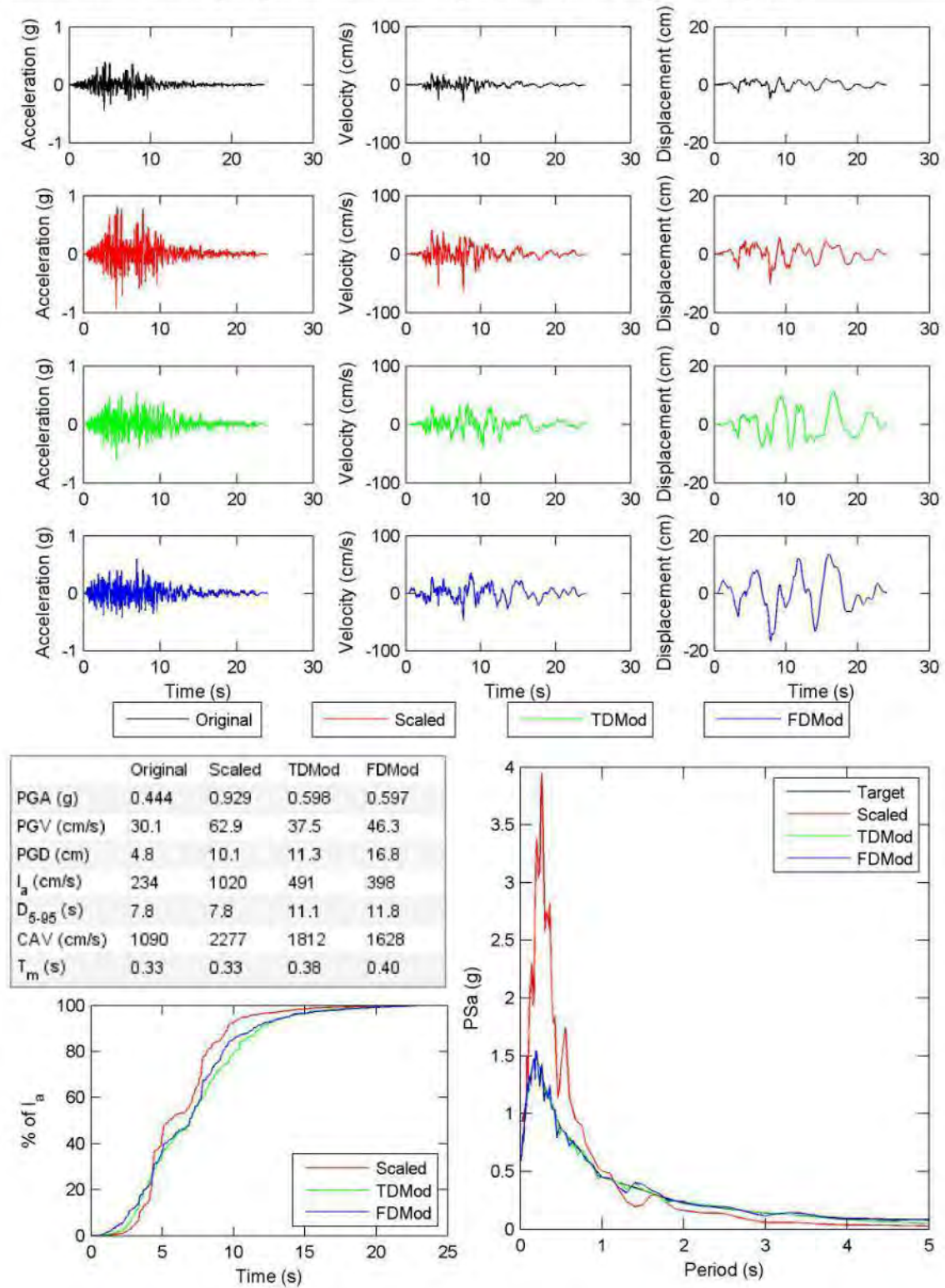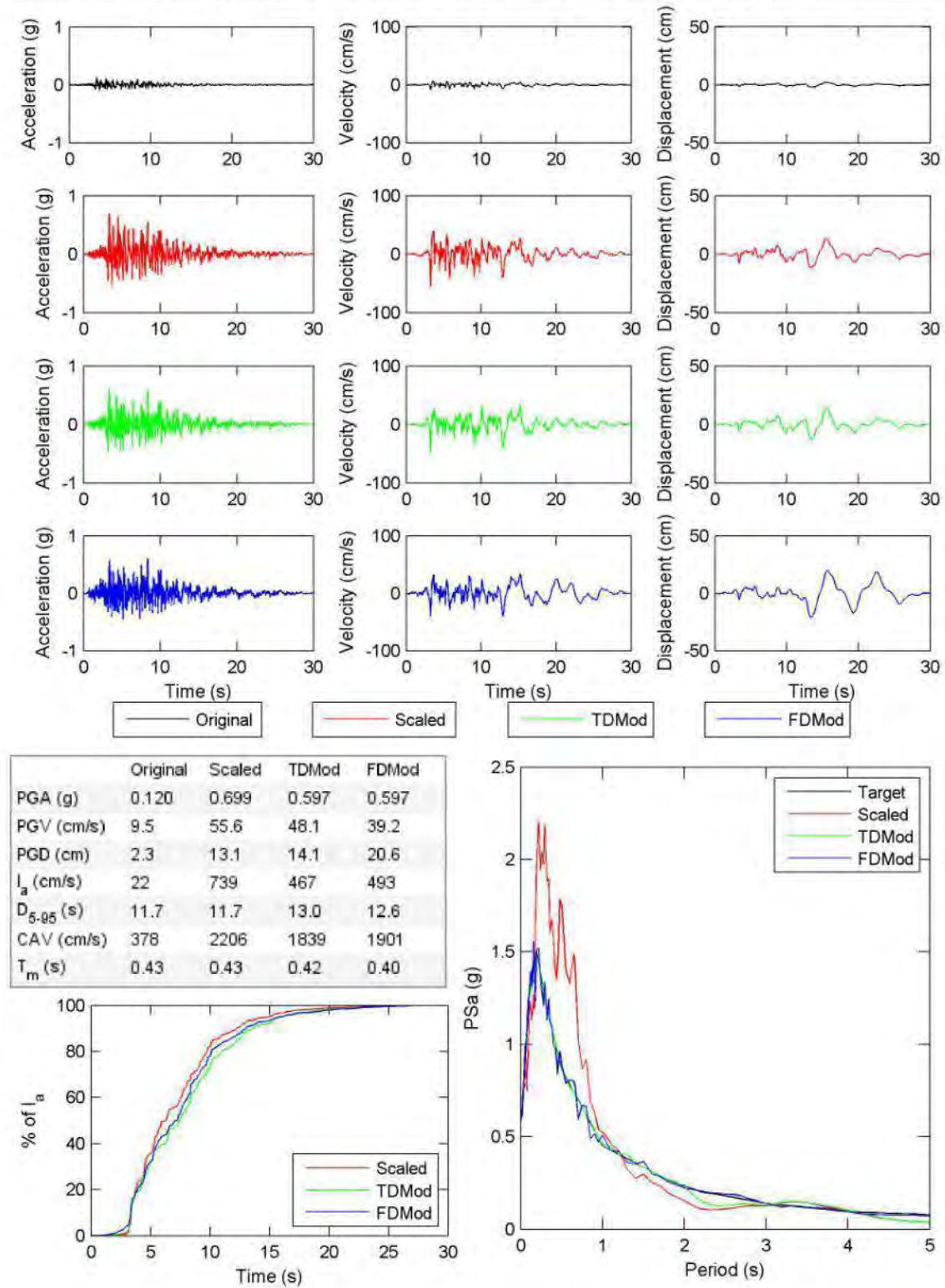Scale Factor: 2.02 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.411	0.830	0.596	0.597
PGV (cm/s)	31.6	63.8	47.4	68.2
PGD (cm)	6.3	12.8	39.6	19.7
I_a (cm/s)	106	431	362	255
D_{5-95} (s)	6.5	6.5	11.5	10.7
CAV (cm/s)	660	1332	1603	1229
T_m (s)	0.29	0.29	0.42	0.48

Figure E.3. continued.

717

File Name: 765 G01090   Start and End Taper Percentage: 1.0% and 5.0%
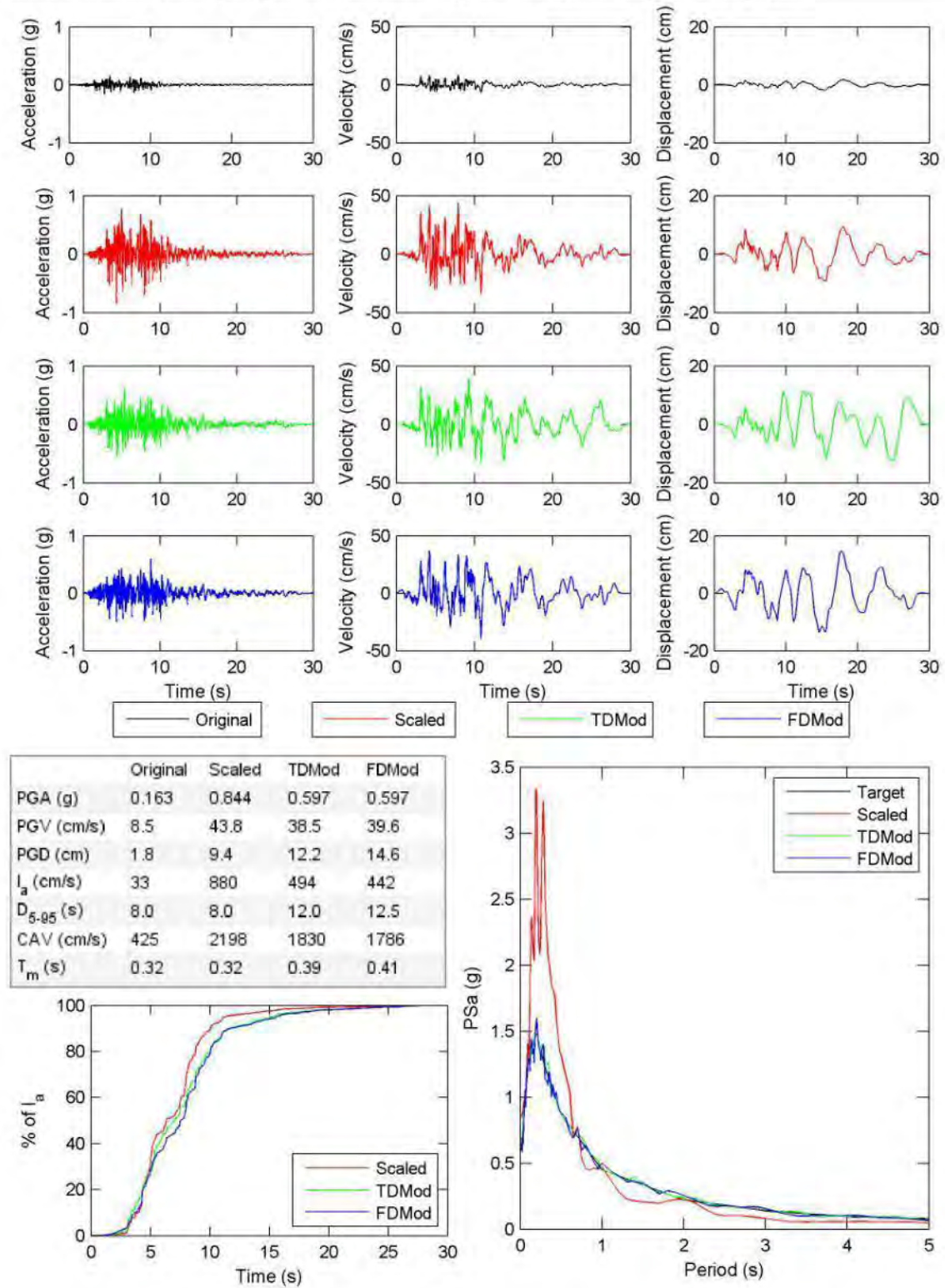Scale Factor: 1.62 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.473	0.766	0.597	0.596
PGV (cm/s)	33.9	54.9	55.0	55.1
PGD (cm)	8.0	13.0	20.7	19.6
I_a (cm/s)	168	441	311	248
D_{5-95} (s)	3.7	3.7	5.6	7.1
CAV (cm/s)	731	1185	1196	1095
T_m (s)	0.39	0.39	0.40	0.44

Figure E.3. continued.

718

File Name: 78 PDL120   Start and End Taper Percentage: 1.0% and 5.0%
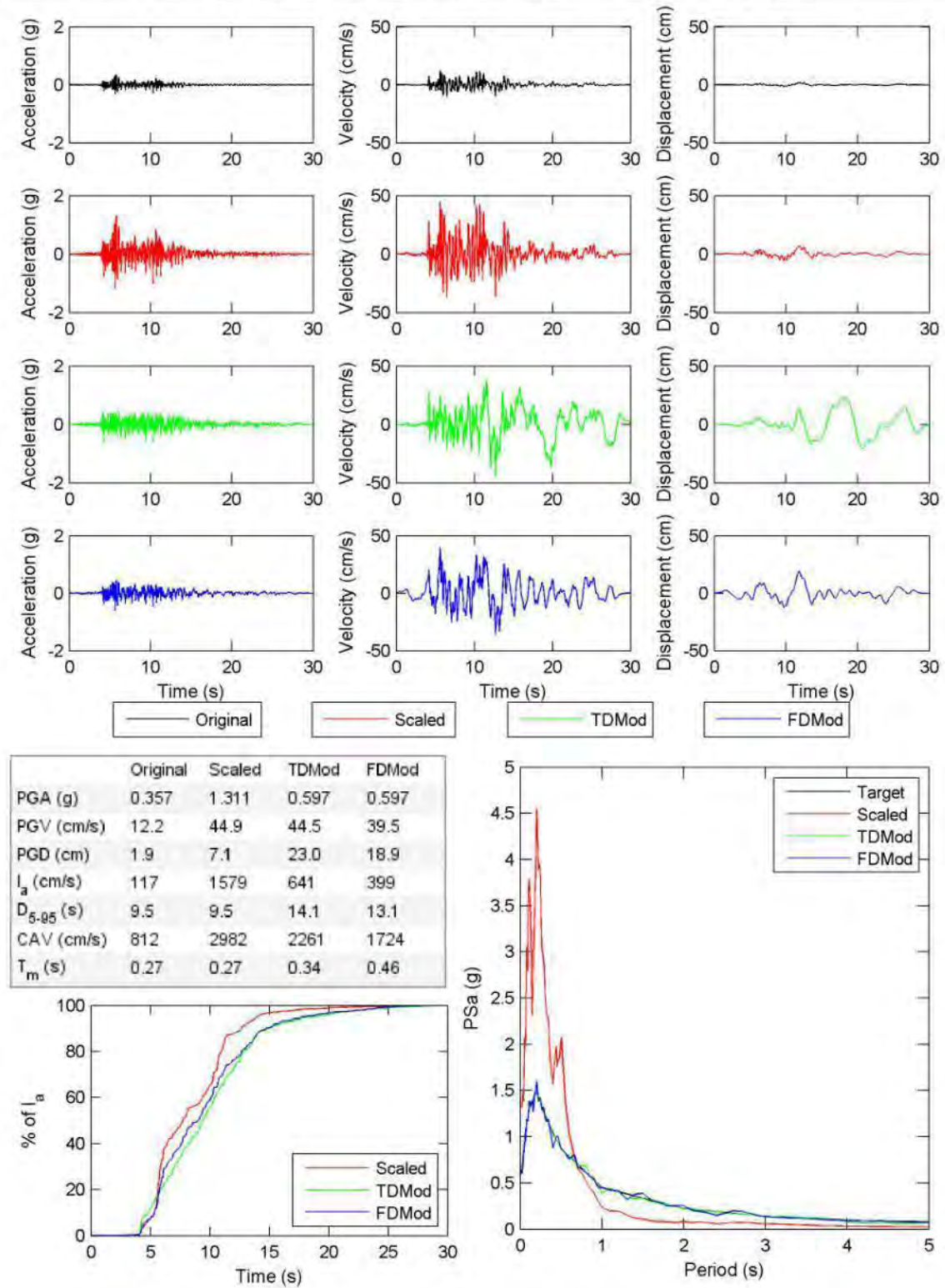Scale Factor: 4.87 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.121	0.588	0.598	0.597
PGV (cm/s)	12.3	59.9	45.0	41.2
PGD (cm)	2.6	12.7	30.2	27.8
I_a (cm/s)	31	739	547	549
D_{5-95} (s)	17.4	17.4	16.4	17.1
CAV (cm/s)	522	2540	2180	2193
T_m (s)	0.59	0.59	0.44	0.42

Figure E.3. continued.

719

File Name: 78 PDL210   Start and End Taper Percentage: 1.0% and 5.0%
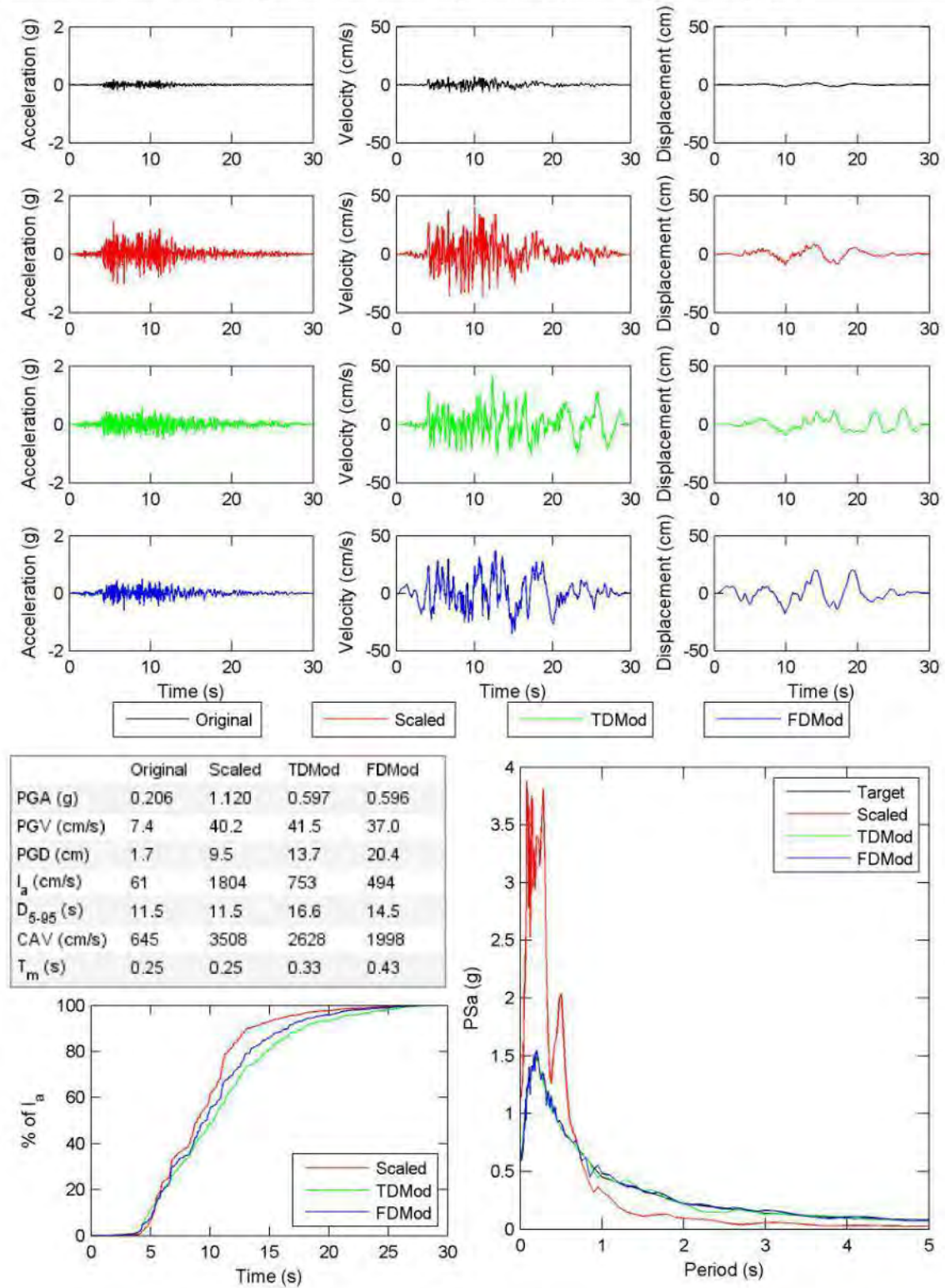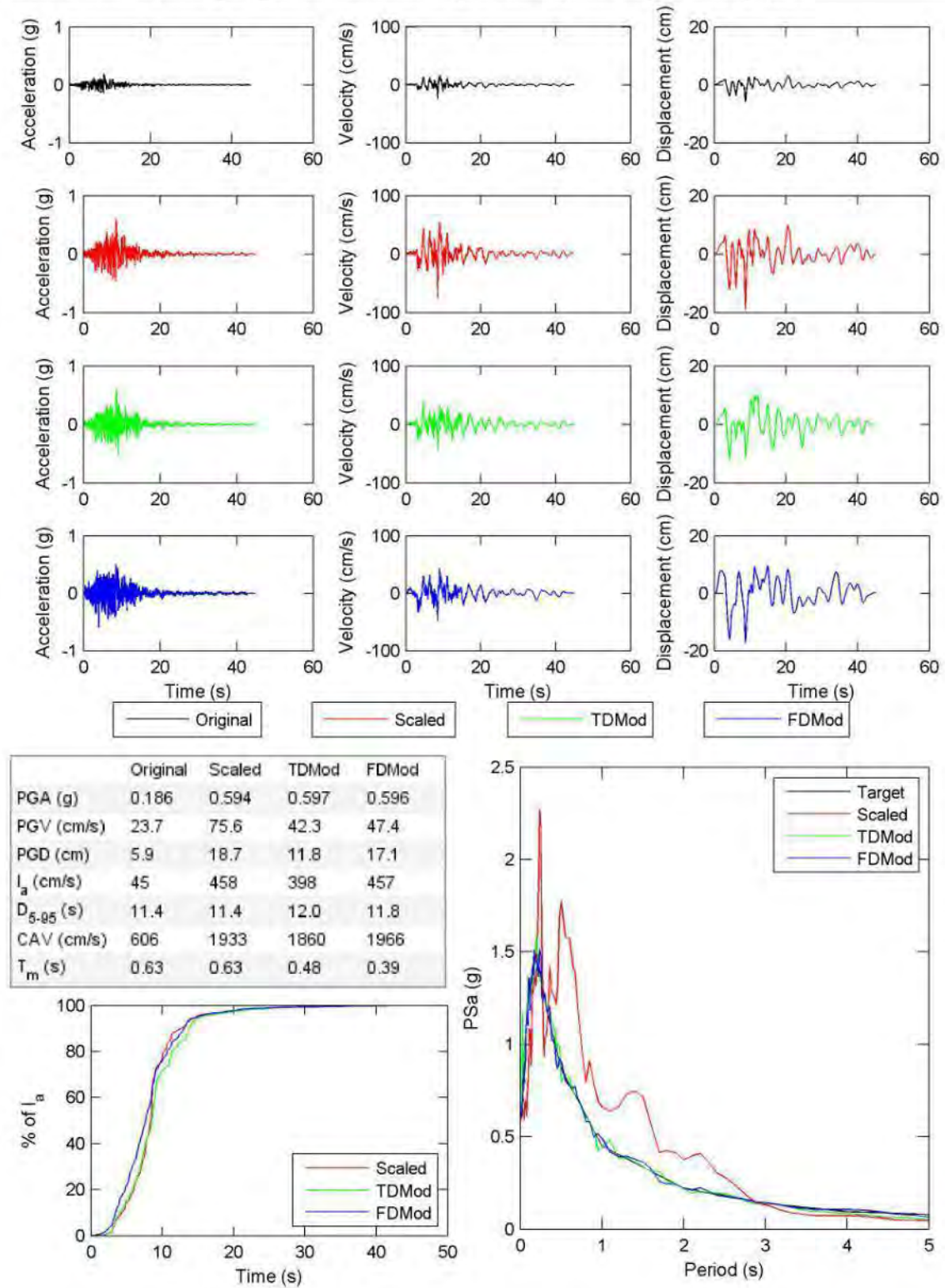Scale Factor: 5.75 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.151	0.870	0.601	0.600
PGV (cm/s)	8.1	46.5	34.3	39.8
PGD (cm)	1.9	10.8	10.2	23.9
I_a (cm/s)	24	788	539	490
D_{5-95} (s)	17.3	17.3	20.4	20.1
CAV (cm/s)	443	2547	2272	2157
T_m (s)	0.47	0.47	0.46	0.46

Figure E.3. continued.

720

File Name: 801 SJTE225   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.49 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.275	0.684	0.598	0.597
PGV (cm/s)	26.2	65.1	63.6	48.7
PGD (cm)	13.4	33.3	41.5	14.6
I_a (cm/s)	131	811	583	505
D_{5-95} (s)	10.1	10.1	11.3	11.4
CAV (cm/s)	975	2428	2190	2064
T_m (s)	0.31	0.31	0.32	0.39

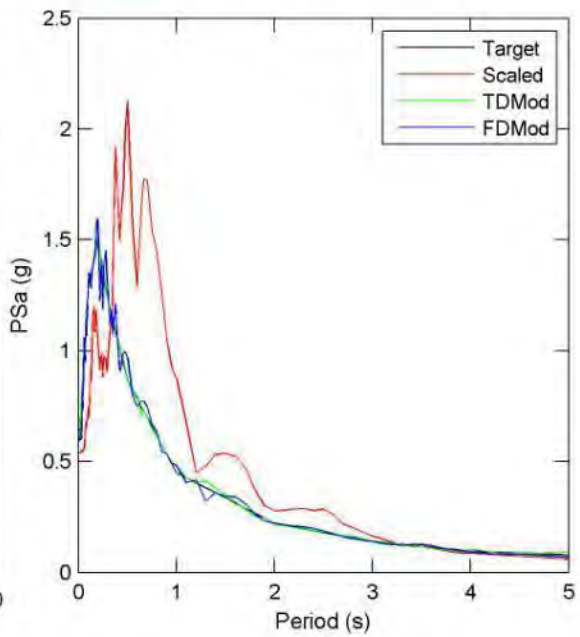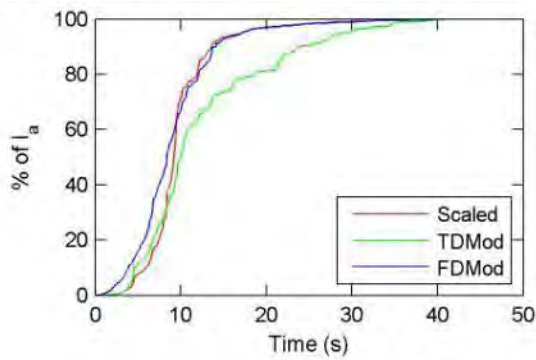**Figure E.3.** continued.

721

Figure E.3. continued.

722

File Name: 802 STG000   Start and End Taper Percentage: 1.0% and 5.0%
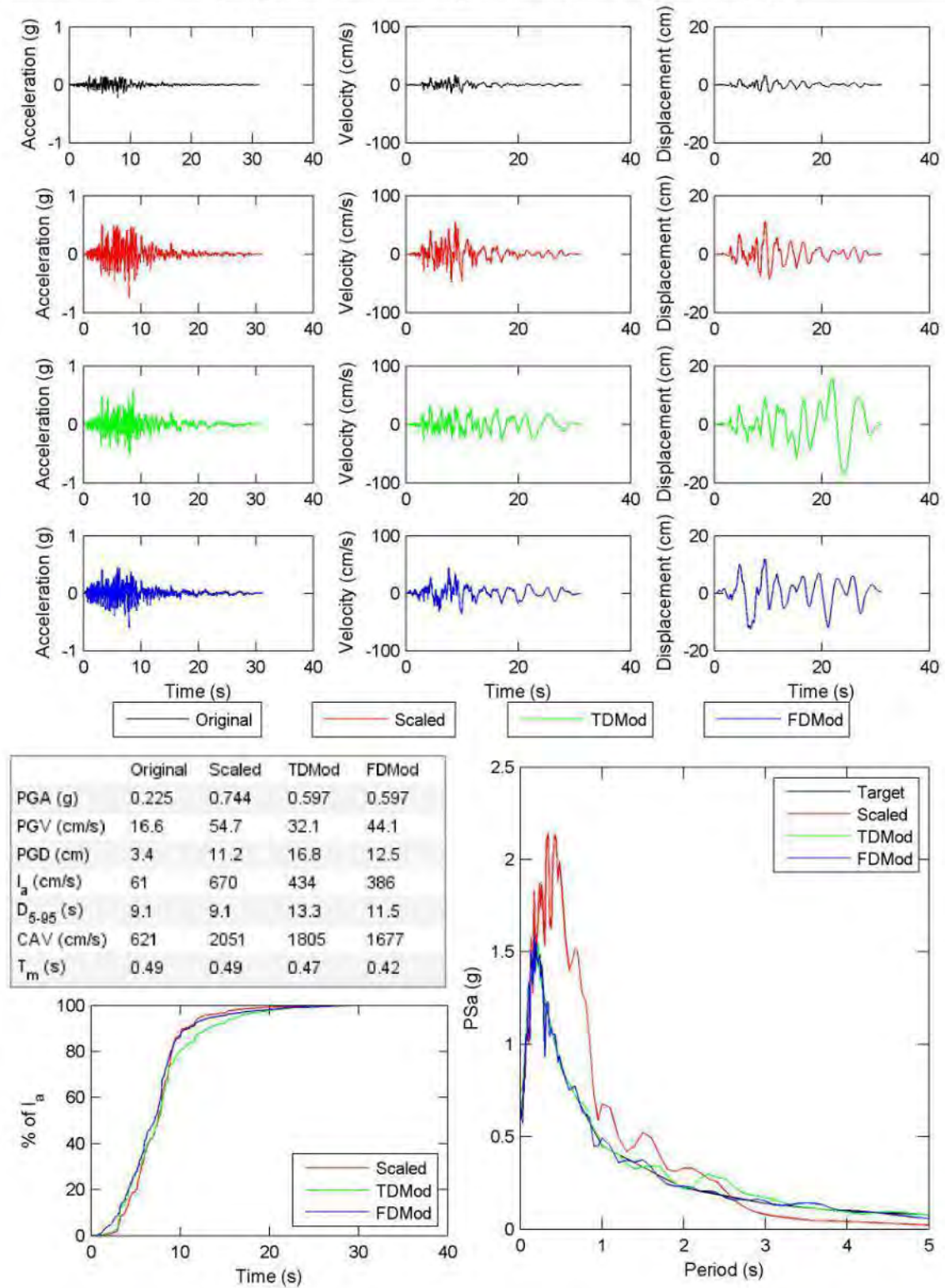Scale Factor: 1.41 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.512	0.723	0.597	0.598
PGV (cm/s)	41.2	58.0	48.6	39.9
PGD (cm)	16.2	22.9	25.6	23.2
I_a (cm/s)	145	289	351	306
D_{5-95} (s)	9.4	9.4	10.2	9.0
CAV (cm/s)	911	1285	1487	1345
T_m (s)	0.62	0.62	0.50	0.41

Figure E.3. continued.

723

	Original	Scaled	TDMod	FDMod
PGA (g)	0.324	0.493	0.597	0.597
PGV (cm/s)	42.6	64.8	53.1	49.8
PGD (cm)	27.6	42.0	27.1	20.2
I_a (cm/s)	109	251	310	352
D_{5-95} (s)	8.3	8.3	7.4	11.2
CAV (cm/s)	809	1229	1349	1564
T_m (s)	0.54	0.54	0.47	0.42

Figure E.3. continued.

724

	Original	Scaled	TDMod	FDMod
PGA (g)	0.255	0.457	0.597	0.597
PGV (cm/s)	42.4	76.0	50.9	49.4
PGD (cm)	19.5	34.9	30.2	24.4
I_a (cm/s)	108	346	438	413
D_{5-95} (s)	11.1	11.1	13.4	15.4
CAV (cm/s)	890	1593	1917	1907
T_m (s)	0.84	0.84	0.48	0.40

Figure E.3. continued.

725

File Name: 803 WVC270   Start and End Taper Percentage: 1.0% and 5.0%
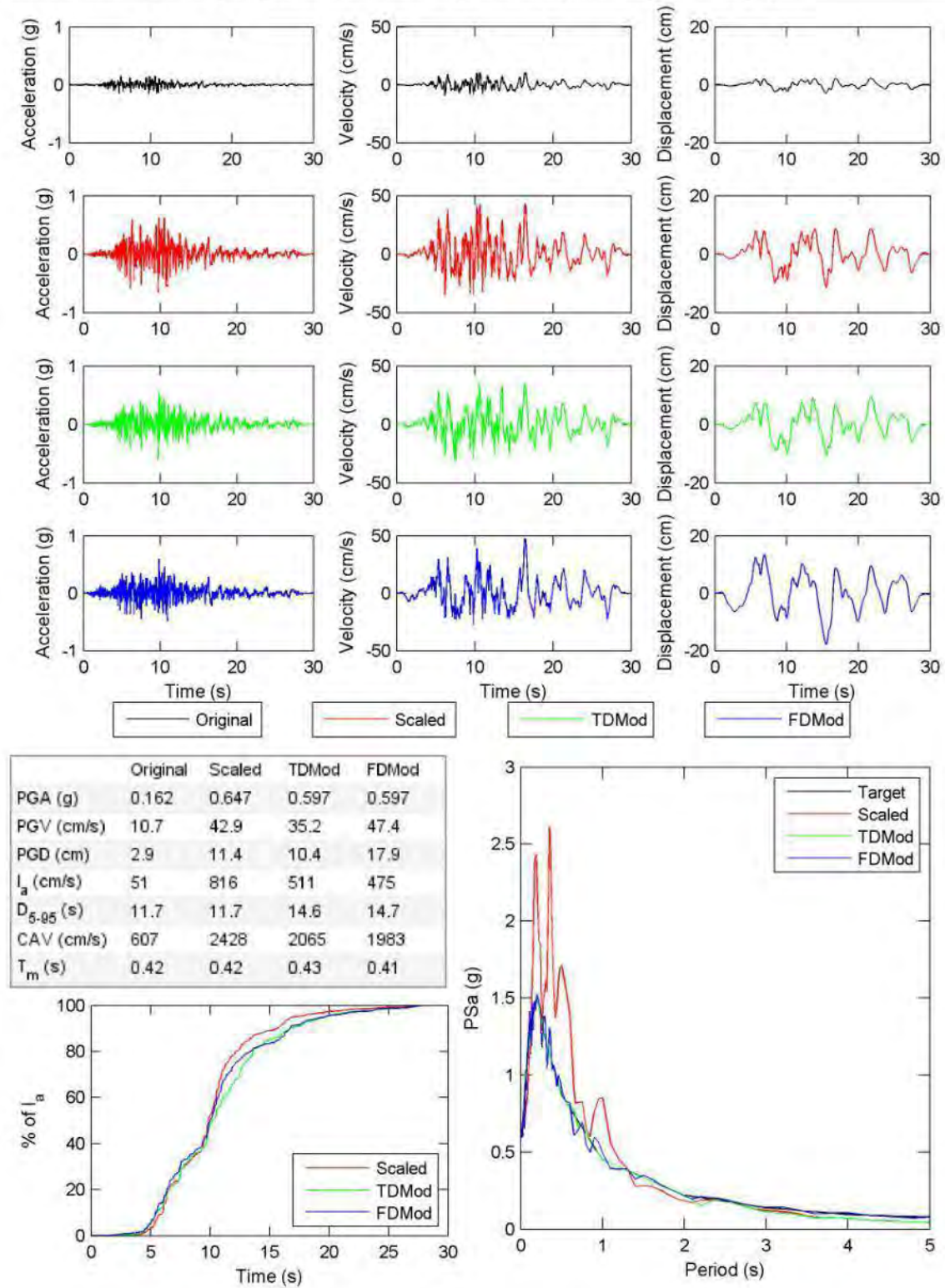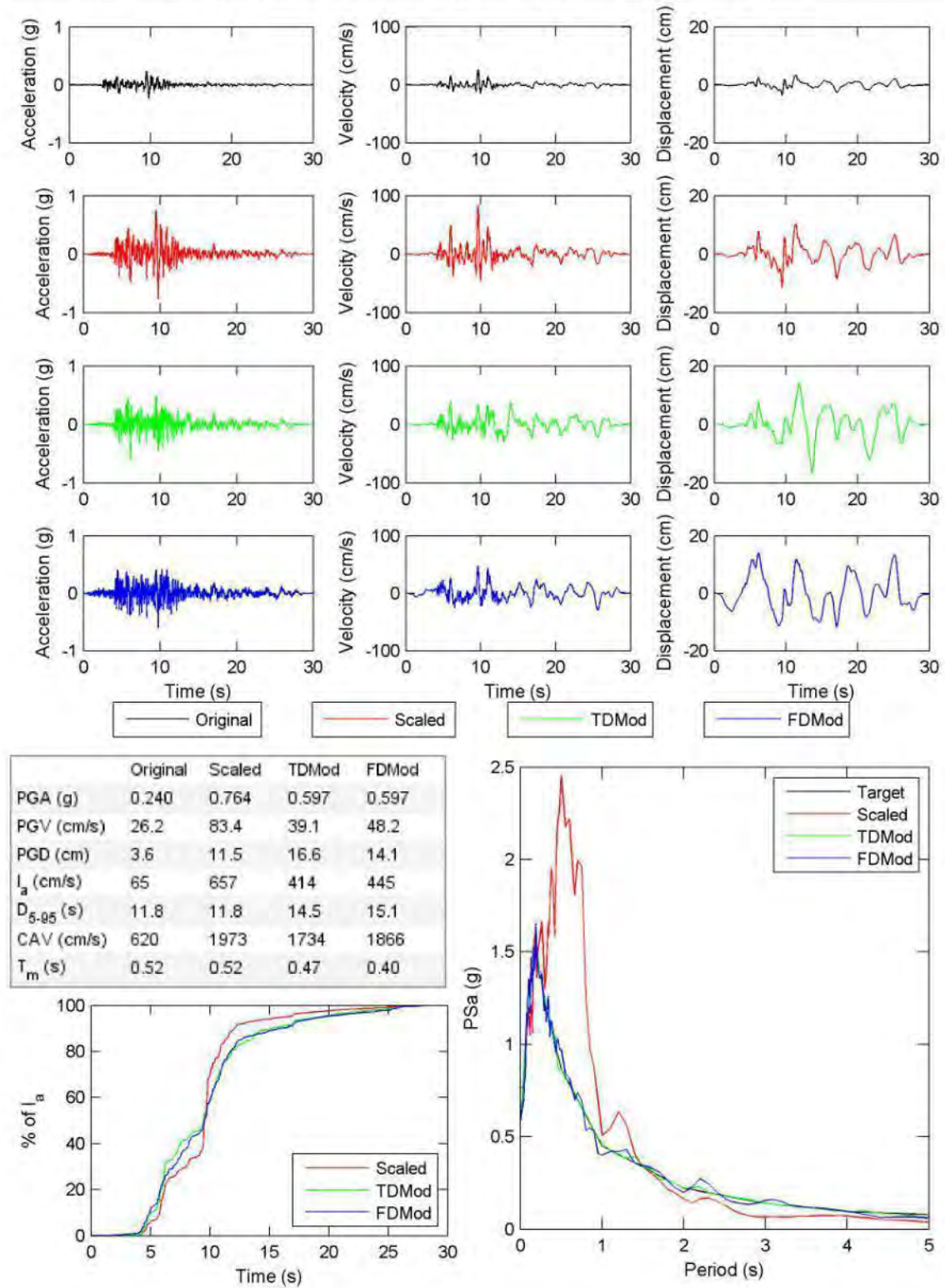Scale Factor: 1.39 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.332	0.462	0.597	0.597
PGV (cm/s)	61.5	85.5	67.3	43.8
PGD (cm)	36.3	50.4	31.5	17.1
I_a (cm/s)	124	239	281	348
D_{5-95} (s)	10.7	10.7	11.8	12.8
CAV (cm/s)	888	1235	1414	1653
T_m (s)	0.97	0.97	0.53	0.42

Figure E.3. continued.

726

File Name: 809 UC2000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.18 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 8
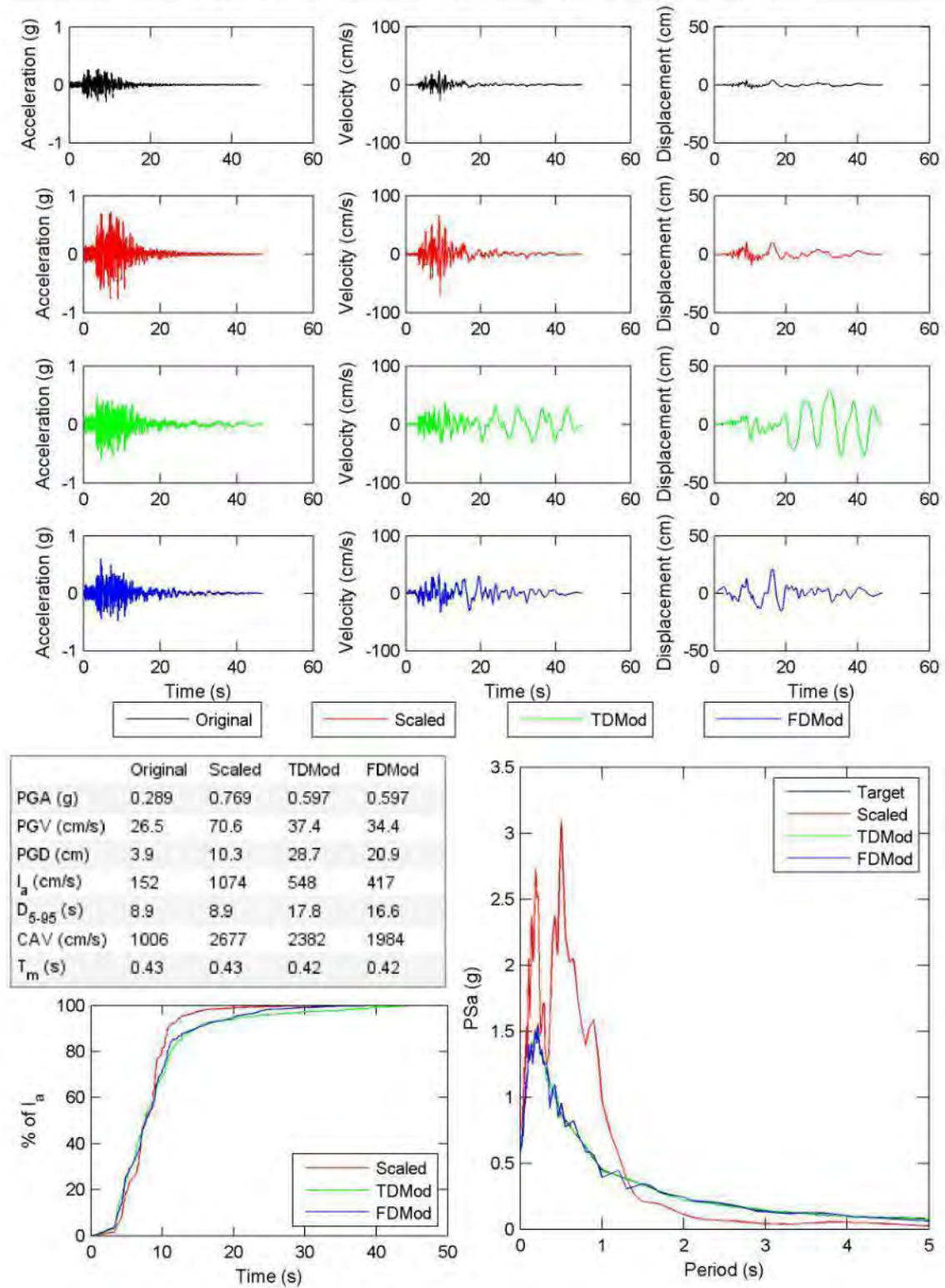
	Original	Scaled	TDMod	FDMod
PGA (g)	0.311	0.990	0.595	0.597
PGV (cm/s)	12.5	39.7	40.3	40.5
PGD (cm)	5.9	18.9	21.5	16.9
I_a (cm/s)	86	865	572	413
D_{5-95} (s)	9.0	9.0	11.5	11.2
CAV (cm/s)	679	2159	1965	1621
T_m (s)	0.20	0.20	0.33	0.44

Figure E.3. continued.

727

File Name: 809 UC2090   Start and End Taper Percentage: 1.0% and 5.0%
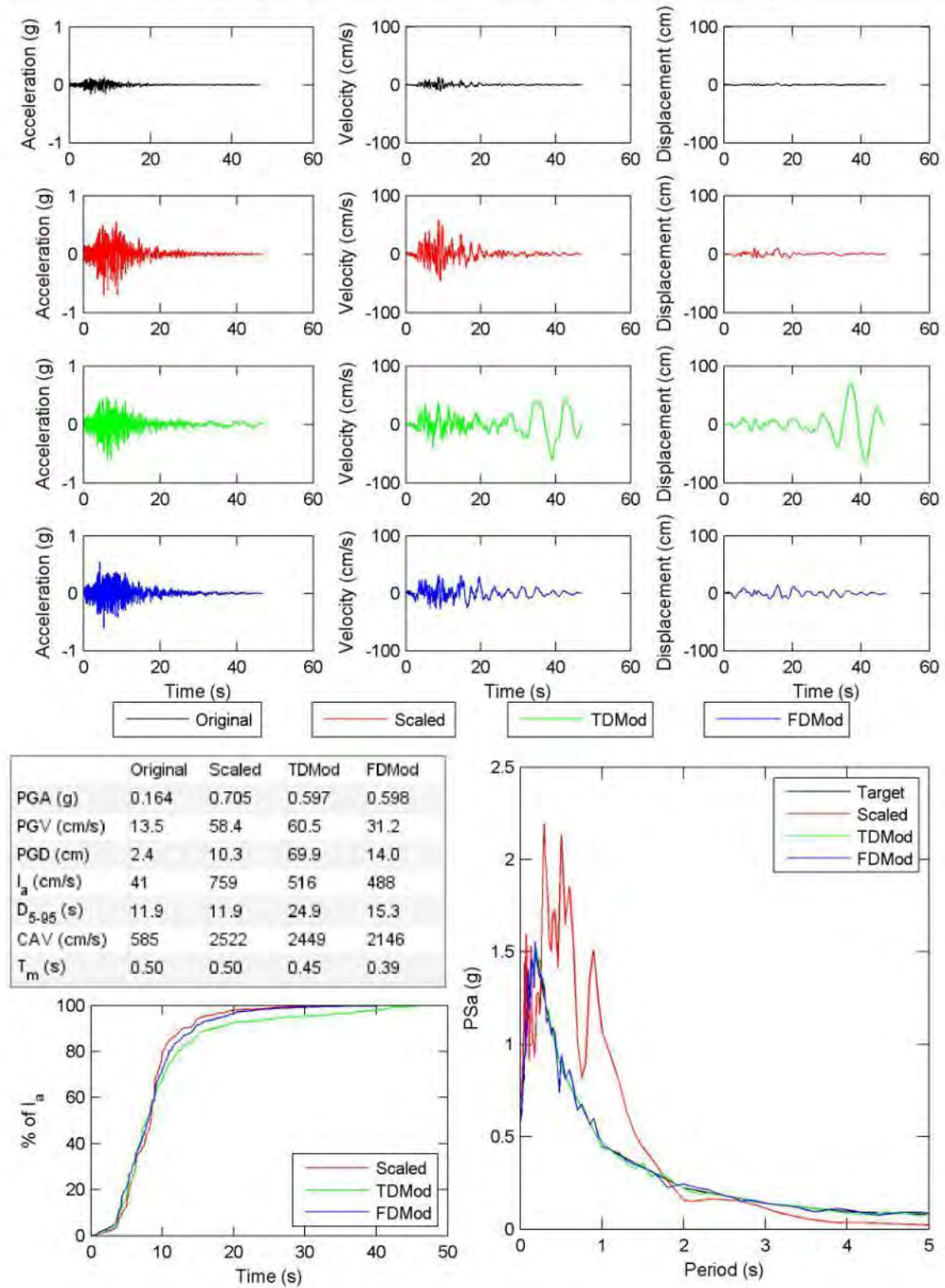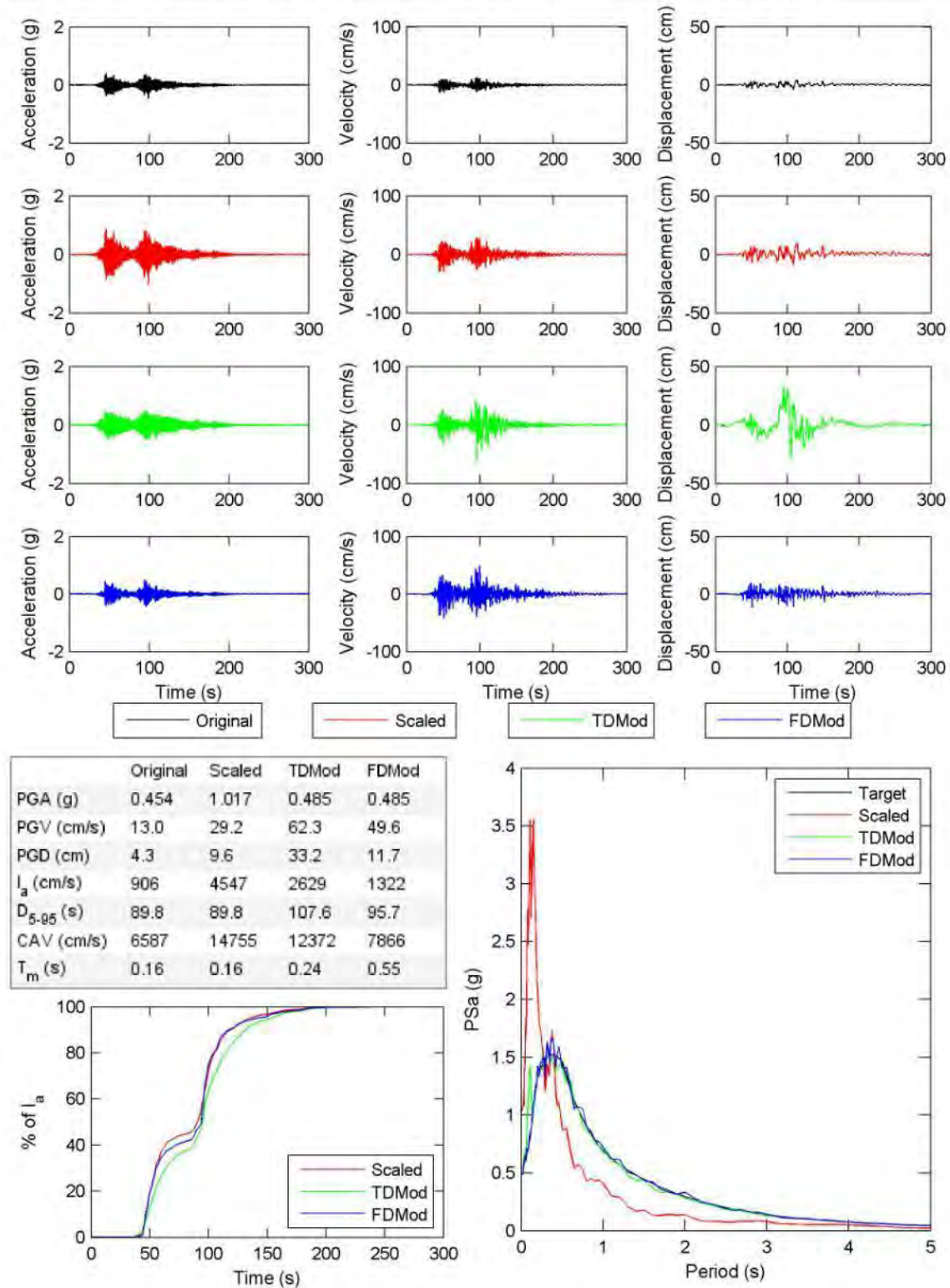Scale Factor: 2.68 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.386	1.035	0.595	0.597
PGV (cm/s)	15.4	41.3	46.4	43.8
PGD (cm)	5.1	13.6	13.7	34.0
I_a (cm/s)	158	1137	628	421
D_{5-95} (s)	8.6	8.6	12.9	10.7
CAV (cm/s)	932	2496	2116	1647
T_m (s)	0.22	0.22	0.33	0.40

Figure E.3. continued.

728

File Name: 810 LOB000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.38 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

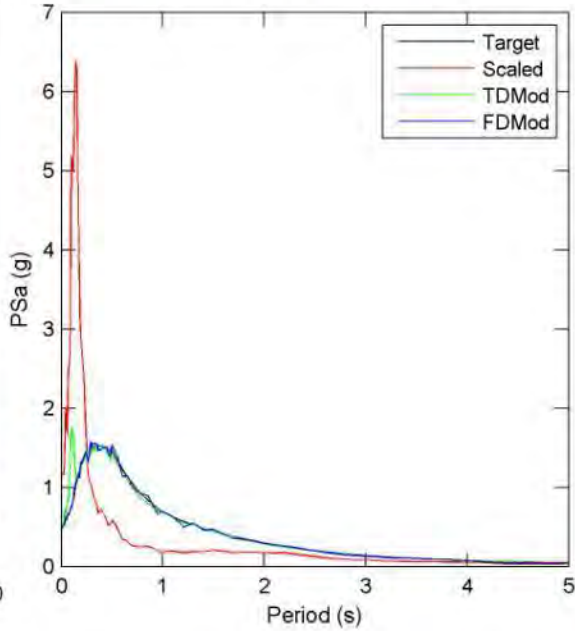|	Original	Scaled	TDMod	FDMod
PGA (g)	0.450	1.072	0.597	0.597
PGV (cm/s)	18.7	44.4	35.1	51.2
PGD (cm)	3.8	9.1	36.9	32.4
I_a (cm/s)	266	1507	652	433
D_{5-95} (s)	9.5	9.5	16.1	12.2
CAV (cm/s)	1310	3118	2543	1851
T_m (s)	0.27	0.27	0.38	0.40

Figure E.3. continued.

729

File Name: 810 LOB090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.71 Target Spectrum Matched: target2UHS50yr.txt FD poly: 7 TD poly: 4

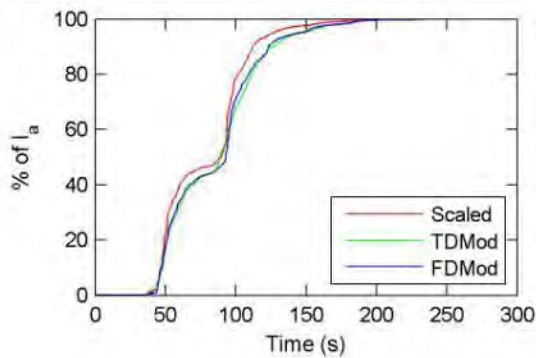|	Original	Scaled	TDMod	FDMod
PGA (g)	0.395	1.069	0.597	0.597
PGV (cm/s)	17.5	47.5	39.5	43.8
PGD (cm)	5.0	13.6	21.1	18.7
I_a (cm/s)	204	1497	683	501
D_{5-95} (s)	9.7	9.7	13.7	13.2
CAV (cm/s)	1169	3168	2496	2036
T_m (s)	0.22	0.22	0.35	0.40

Figure E.3. continued.

730

File Name: 811 WAH000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.74 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 4

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.398	0.693	0.597	0.597
PGV (cm/s)	30.8	53.5	37.1	44.0
PGD (cm)	6.6	11.5	10.9	18.9
I_a (cm/s)	371	1122	634	453
D_{5-95} (s)	10.5	10.5	12.2	11.4
CAV (cm/s)	1551	2699	2100	1749
T_m (s)	0.28	0.28	0.29	0.34

Figure E.3. continued.

731

File Name: 811 WAH090 Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.24 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
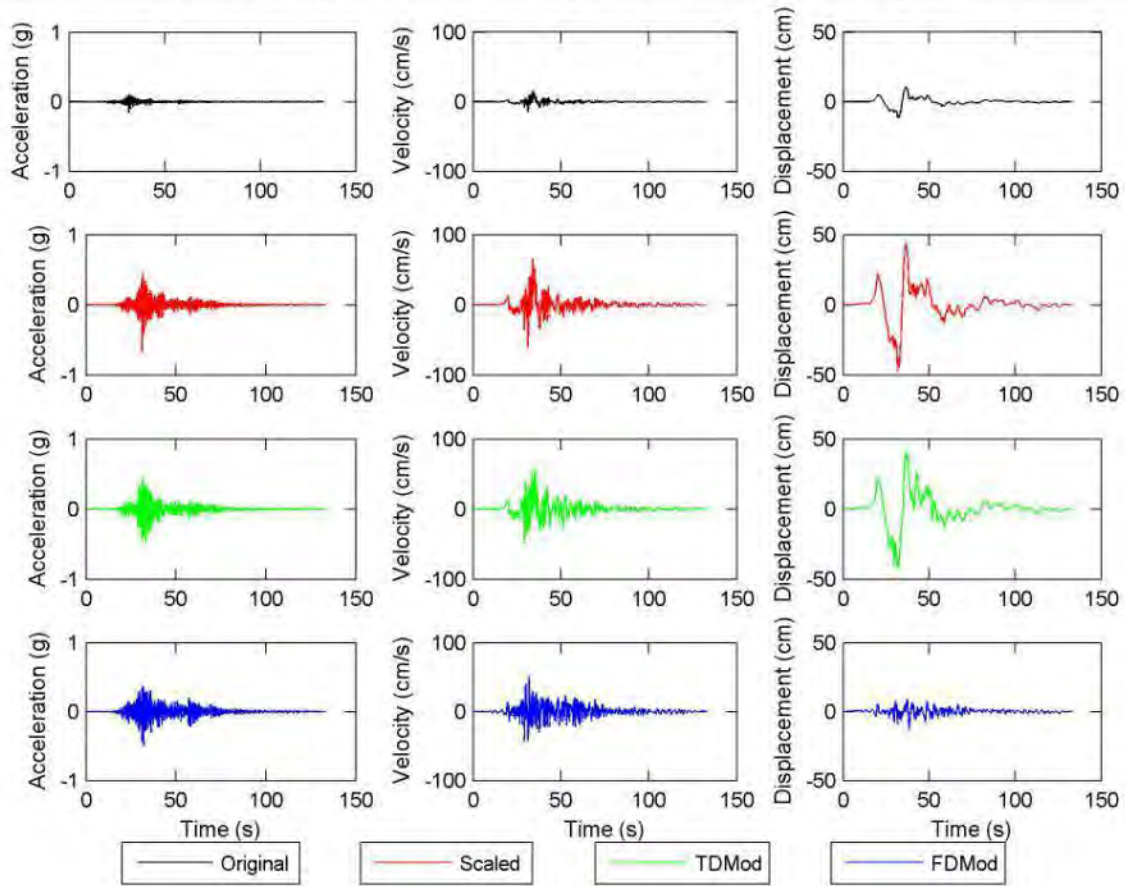

	Original	Scaled	TDMod	FDMod
PGA (g)	0.672	0.833	0.597	0.597
PGV (cm/s)	35.0	43.4	46.8	36.7
PGD (cm)	8.4	10.4	23.5	14.9
I_a (cm/s)	627	964	669	546
D_{5-95} (s)	11.0	11.0	13.2	12.9
CAV (cm/s)	2025	2511	2188	1988
T_m (s)	0.27	0.27	0.33	0.36
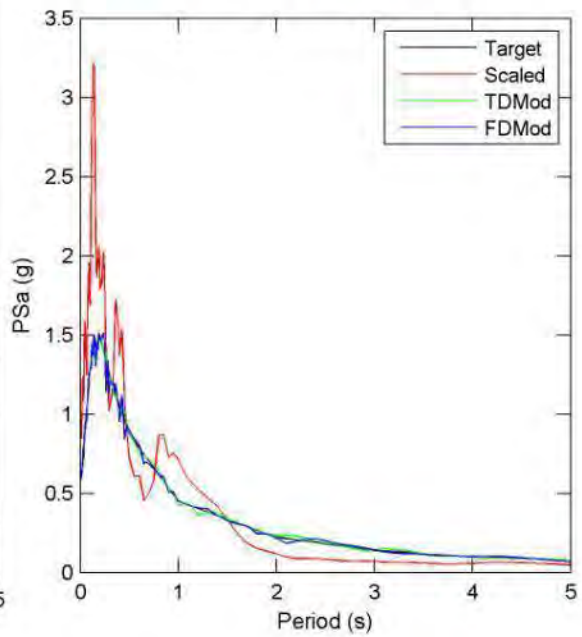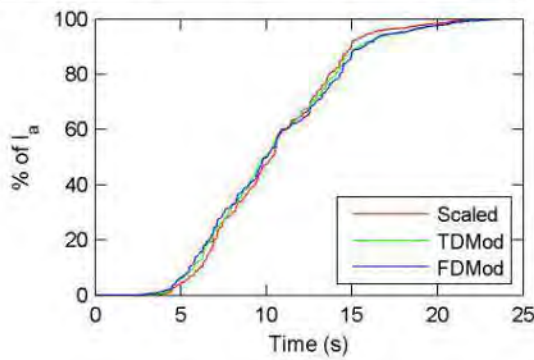
Figure E.3. continued.

732

File Name: 827 FOR000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.55 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.116	0.412	0.596	0.597
PGV (cm/s)	29.9	106.3	68.0	58.1
PGD (cm)	27.5	97.6	39.0	23.6
I_a (cm/s)	26	329	429	631
D_{5-95} (s)	18.7	18.7	15.9	21.0
CAV (cm/s)	517	1836	1966	2675
T_m (s)	1.02	1.02	0.49	0.37

Figure E.3. continued.

733

File Name: 827 FOR090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.43 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 5

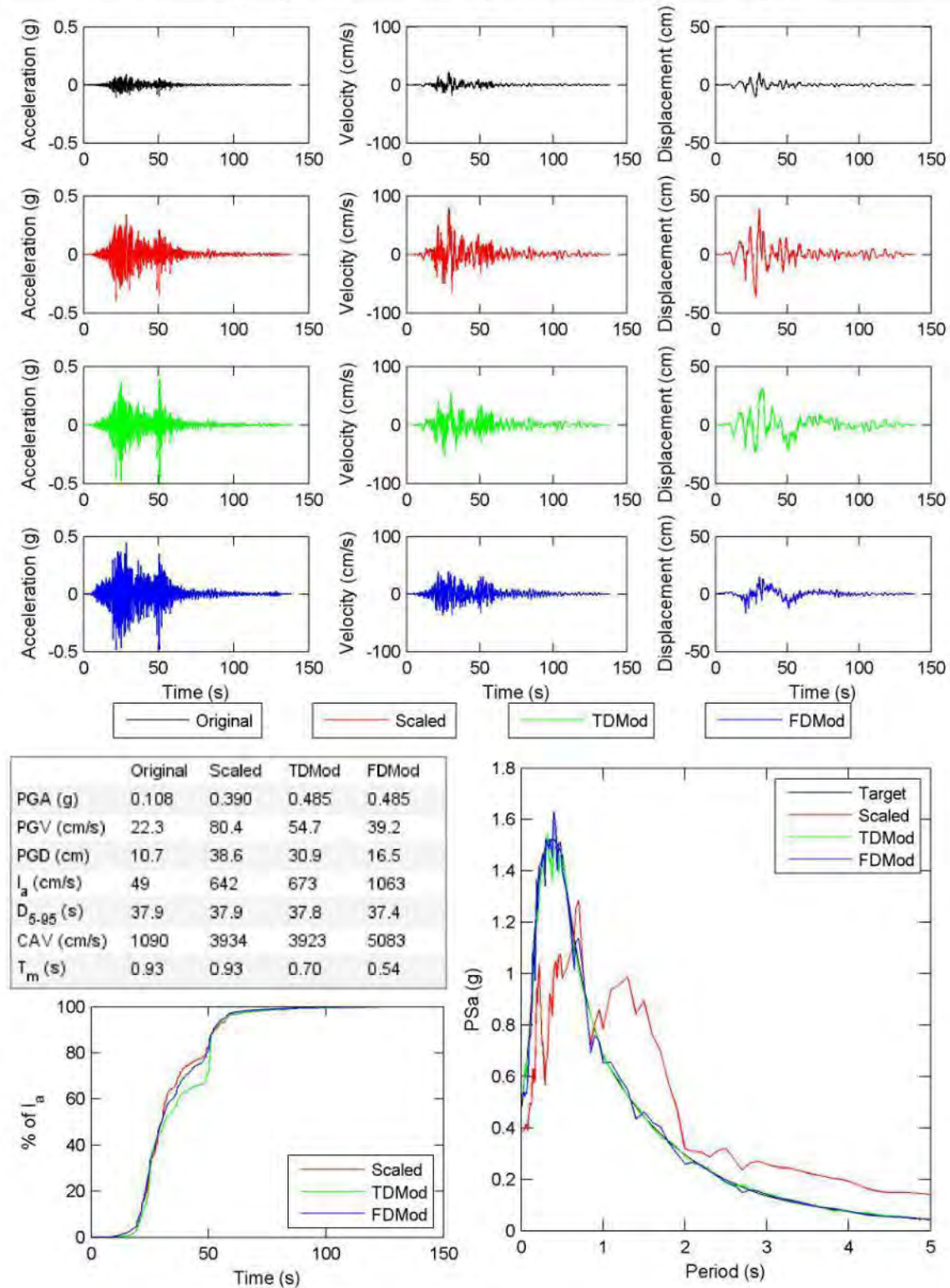|	Original	Scaled	TDMod	FDMod
PGA (g)	0.114	0.391	0.597	0.597
PGV (cm/s)	21.7	74.4	42.7	33.5
PGD (cm)	12.7	43.7	45.2	14.3
I_a (cm/s)	24	281	347	512
D_{5-95} (s)	18.2	18.2	21.1	18.3
CAV (cm/s)	492	1686	1834	2359
T_m (s)	1.10	1.10	0.57	0.38

Figure E.3. continued.

734

File Name: 864 JOS000   Start and End Taper Percentage: 1.0% and 5.0%
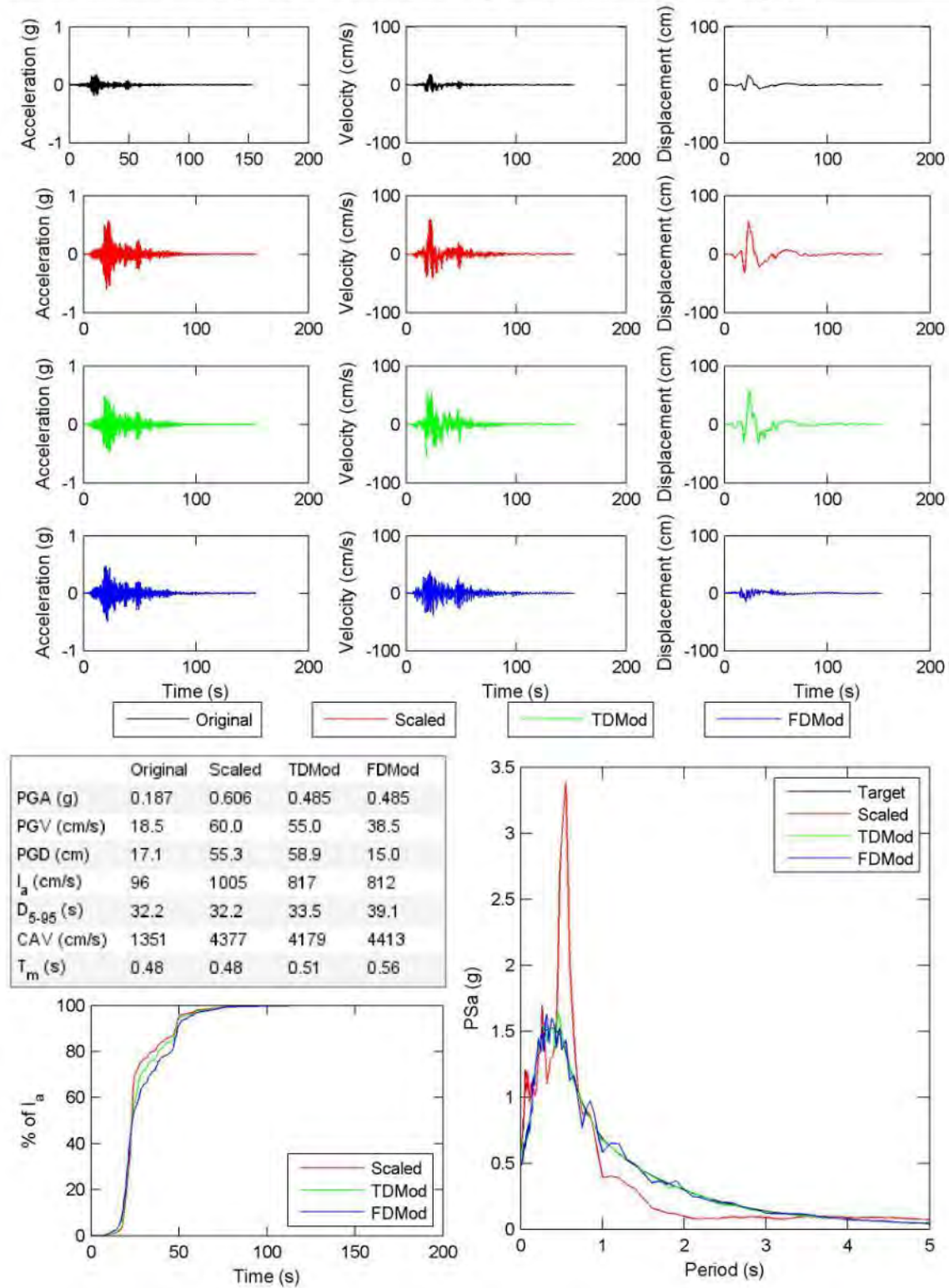Scale Factor: 2.26 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 4

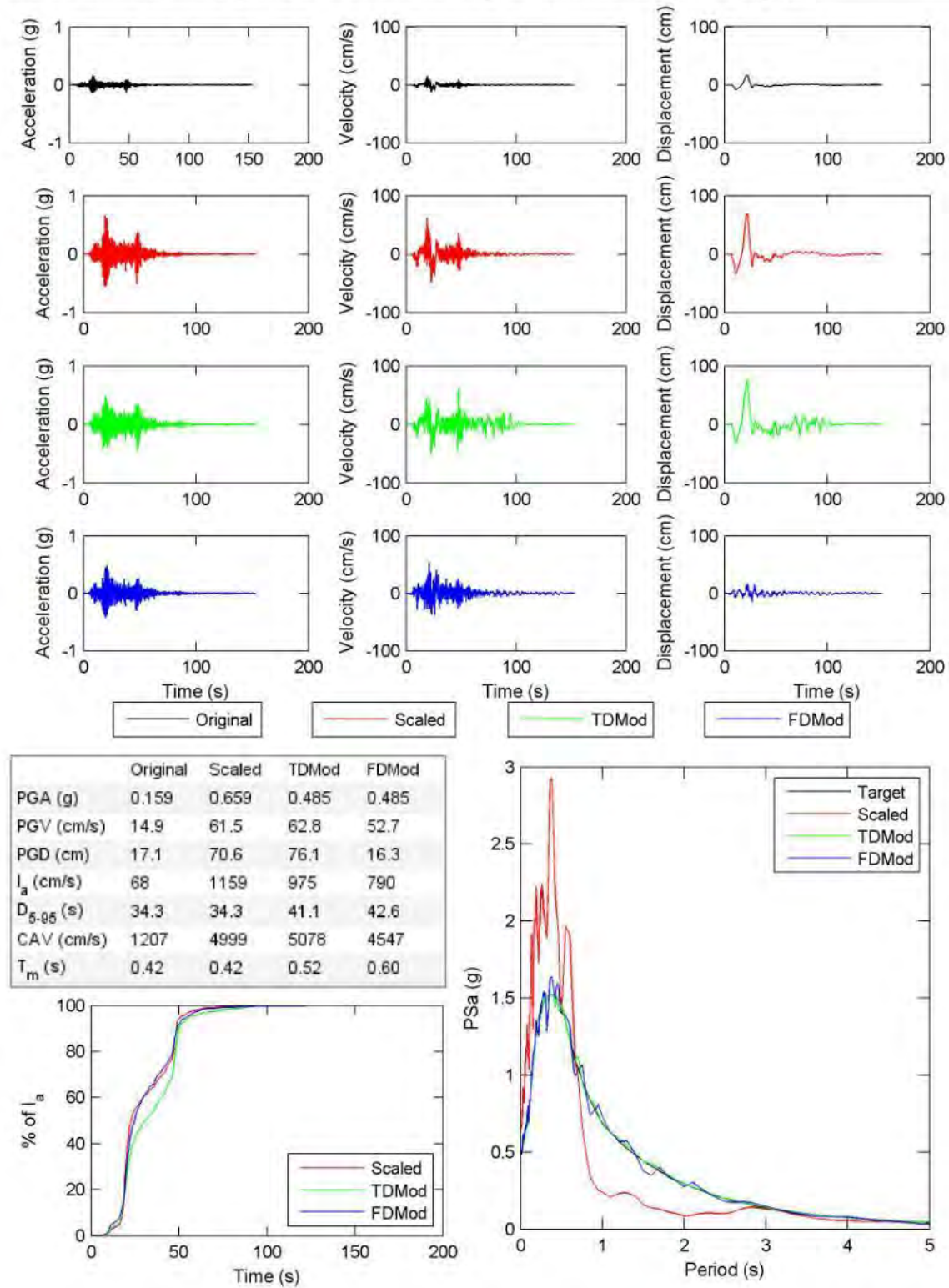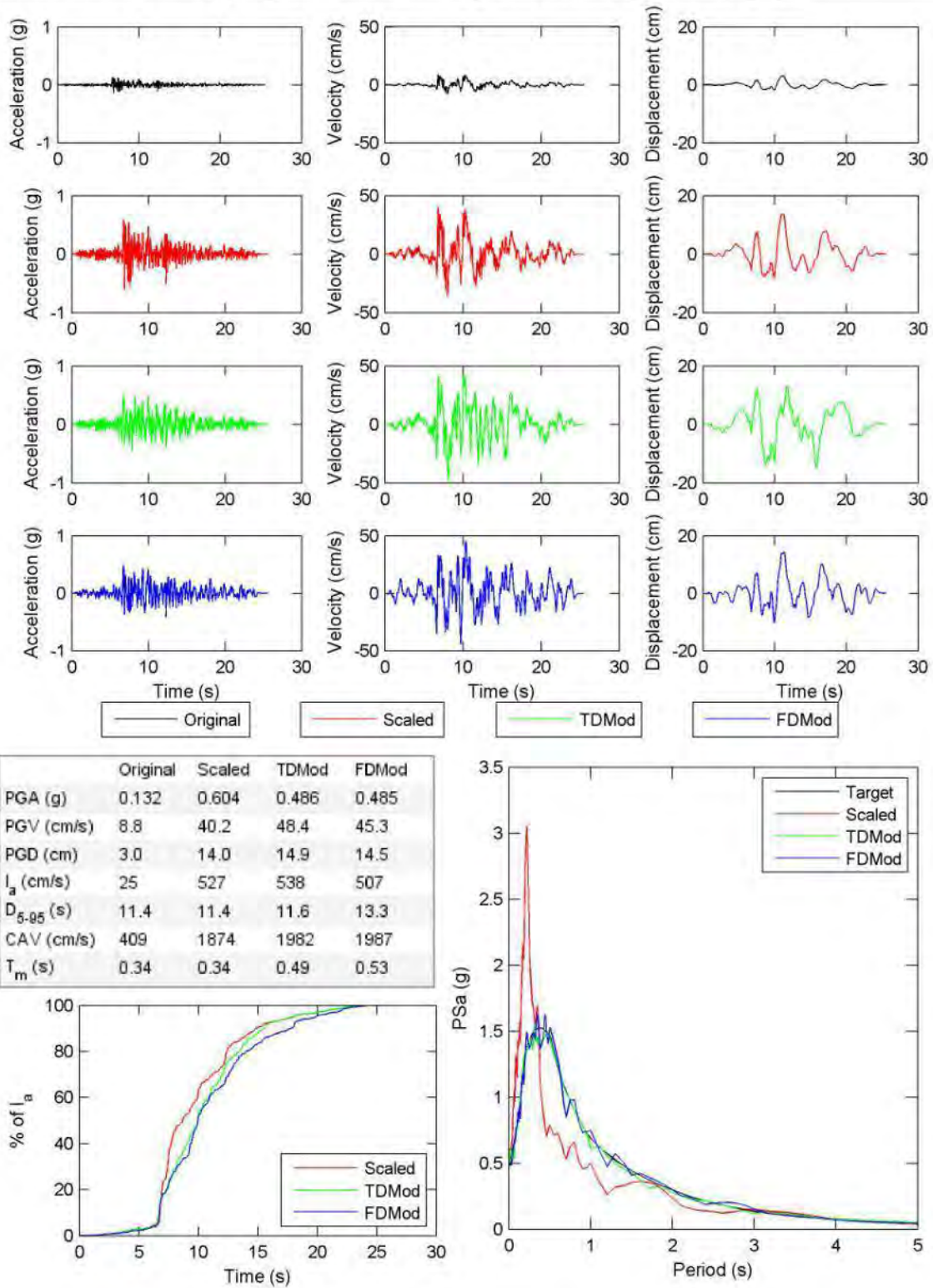|	Original	Scaled	TDMod	FDMod
PGA (g)	0.274	0.619	0.597	0.597
PGV (cm/s)	27.5	62.0	37.1	46.5
PGD (cm)	9.5	21.5	19.9	16.6
I_a (cm/s)	165	840	536	765
D_{5-95} (s)	27.2	27.2	30.7	27.7
CAV (cm/s)	1533	3466	2799	3274
T_m (s)	0.72	0.72	0.59	0.36

Figure E.3. continued.

735

File Name: 864 JOS090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.81 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 5
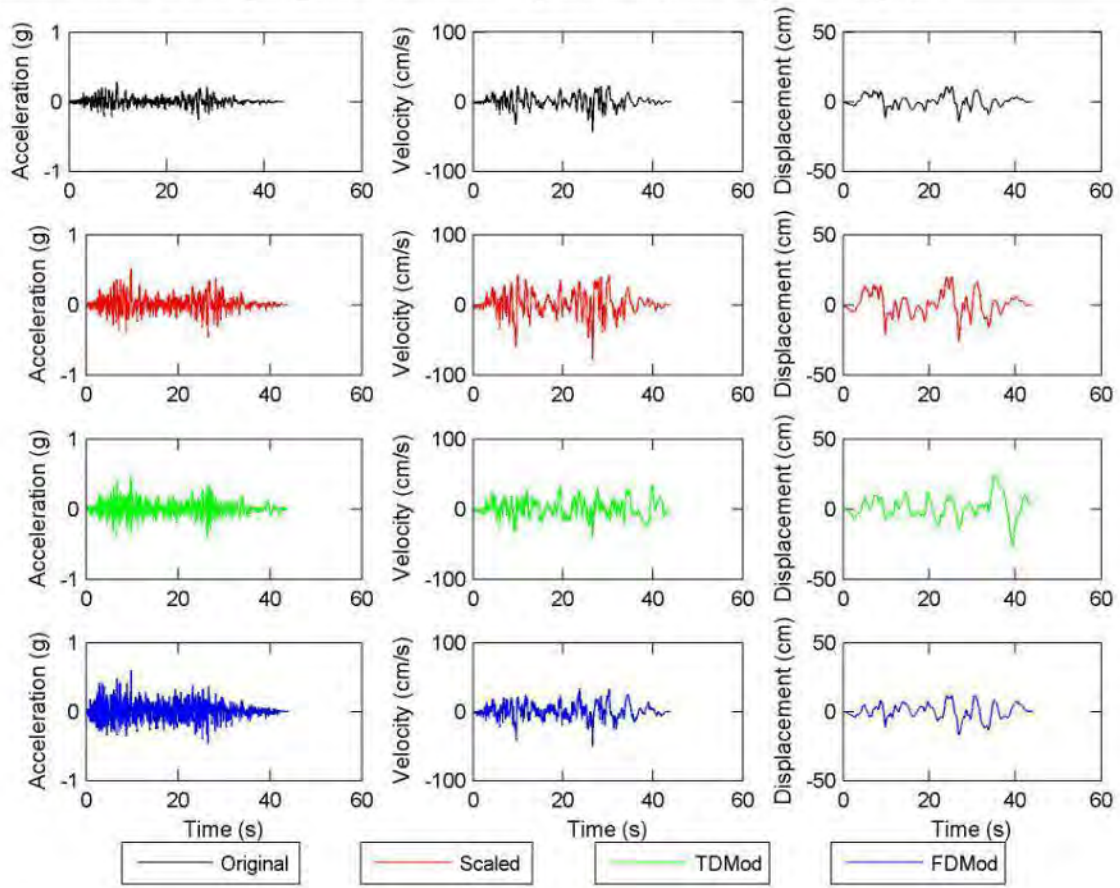
	Original	Scaled	TDMod	FDMod
PGA (g)	0.284	0.514	0.474	0.597
PGV (cm/s)	43.1	77.9	40.7	50.7
PGD (cm)	14.3	25.9	25.9	16.5
I_a (cm/s)	235	769	565	866
D_{5-95} (s)	26.1	26.1	29.3	27.6
CAV (cm/s)	1747	3162	2815	3484
T_m (s)	0.77	0.77	0.53	0.35

Figure E.3. continued.

736

File Name: 88 FSD172   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.12 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 5
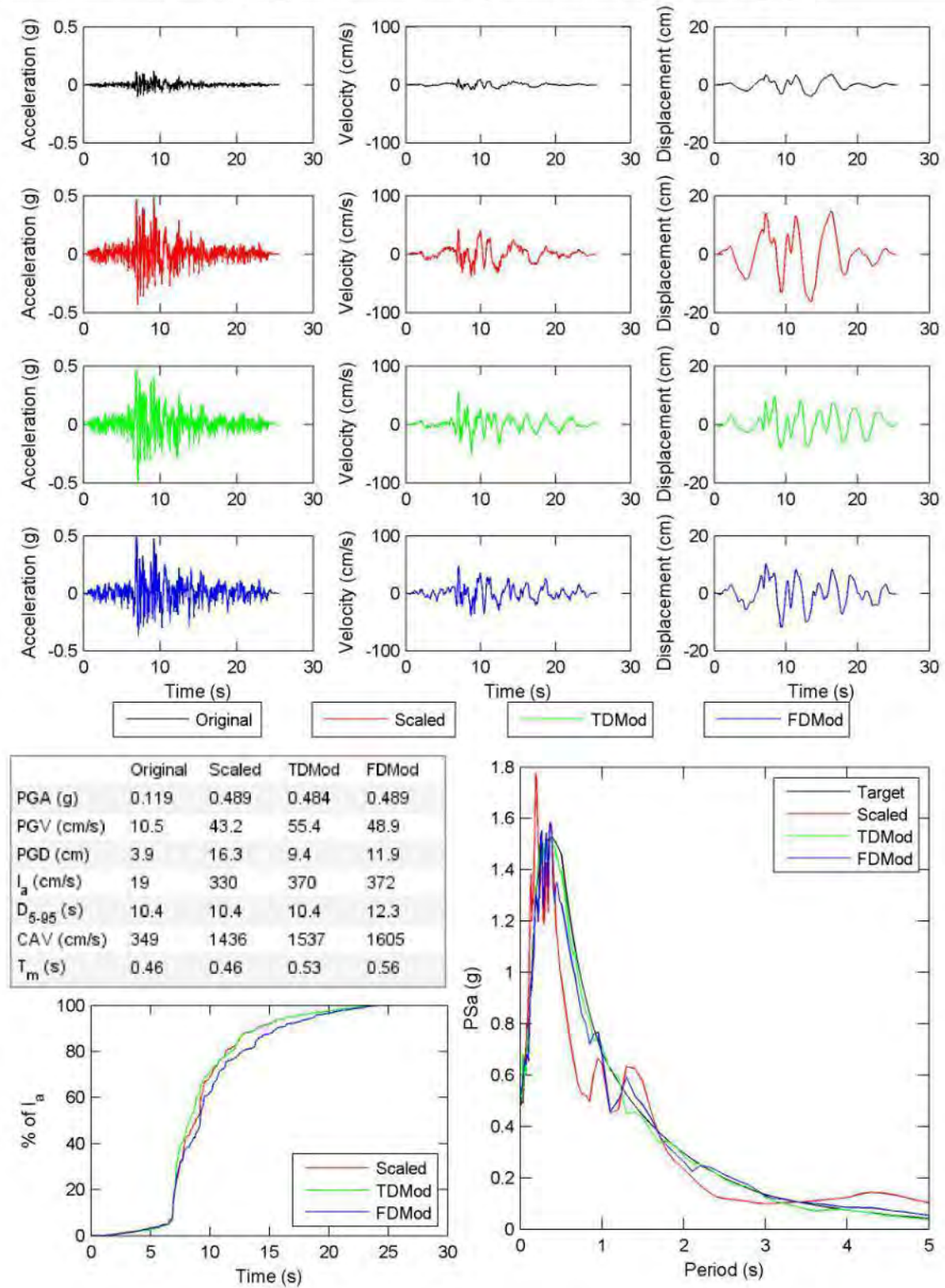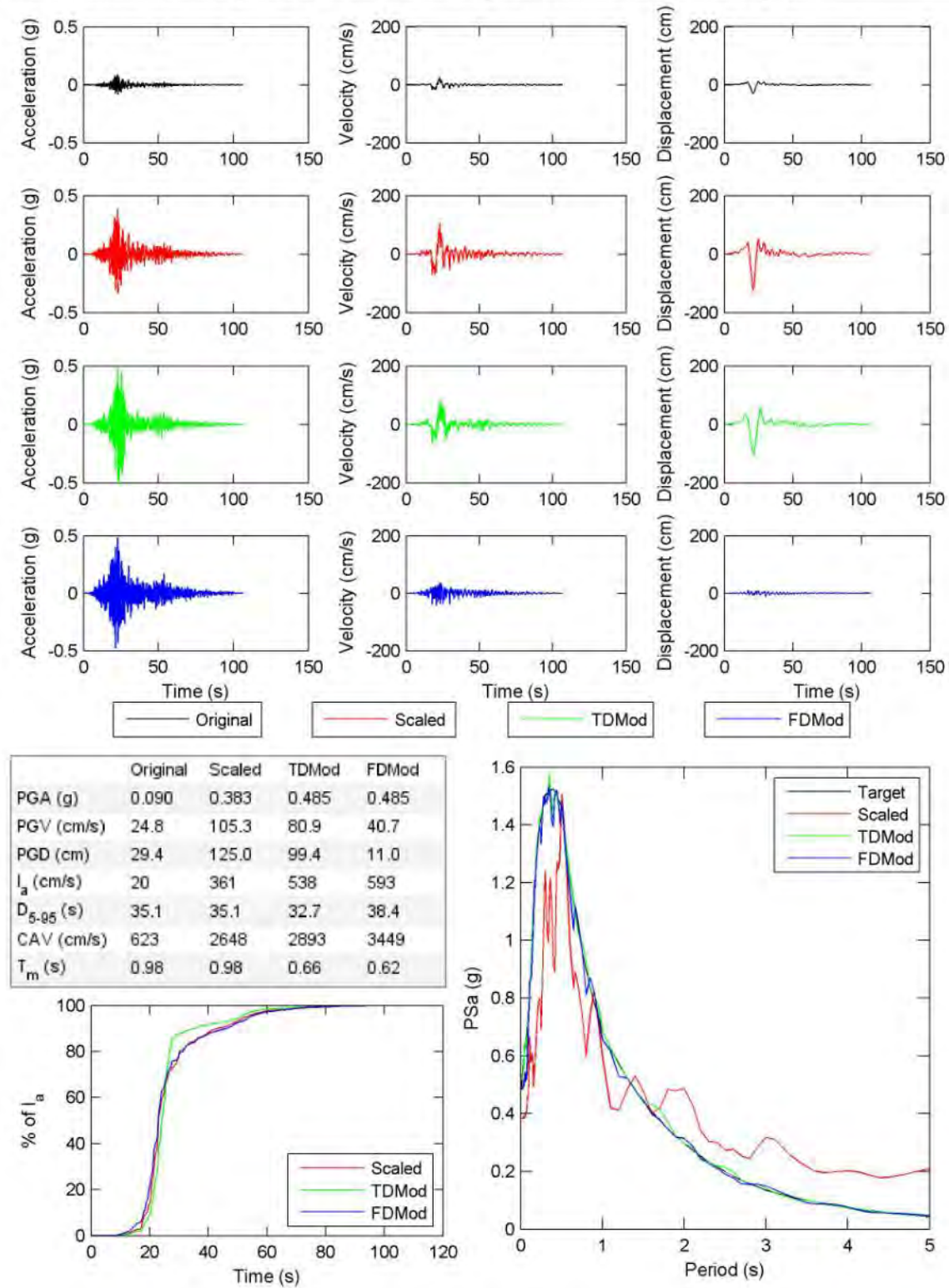

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.611	0.594	0.598
PGV (cm/s)	9.4	38.7	48.0	36.0
PGD (cm)	6.9	28.4	27.1	13.8
I_a (cm/s)	20	335	476	434
D_{5-95} (s)	23.5	23.5	13.3	22.5
CAV (cm/s)	418	1723	1967	2108
T_m (s)	0.46	0.46	0.43	0.48

Figure E.3. continued.

737

	Original	Scaled	TDMod	FDMod
PGA (g)	0.152	0.841	0.599	0.592
PGV (cm/s)	6.5	35.9	44.8	33.9
PGD (cm)	3.5	19.3	21.0	15.8
I_a (cm/s)	20	607	423	394
D_{5-95} (s)	16.3	16.3	23.8	21.9
CAV (cm/s)	388	2149	2039	1999
T_m (s)	0.30	0.30	0.49	0.54

Figure E.3. continued.

738

File Name: 952 MU2035   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.55 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
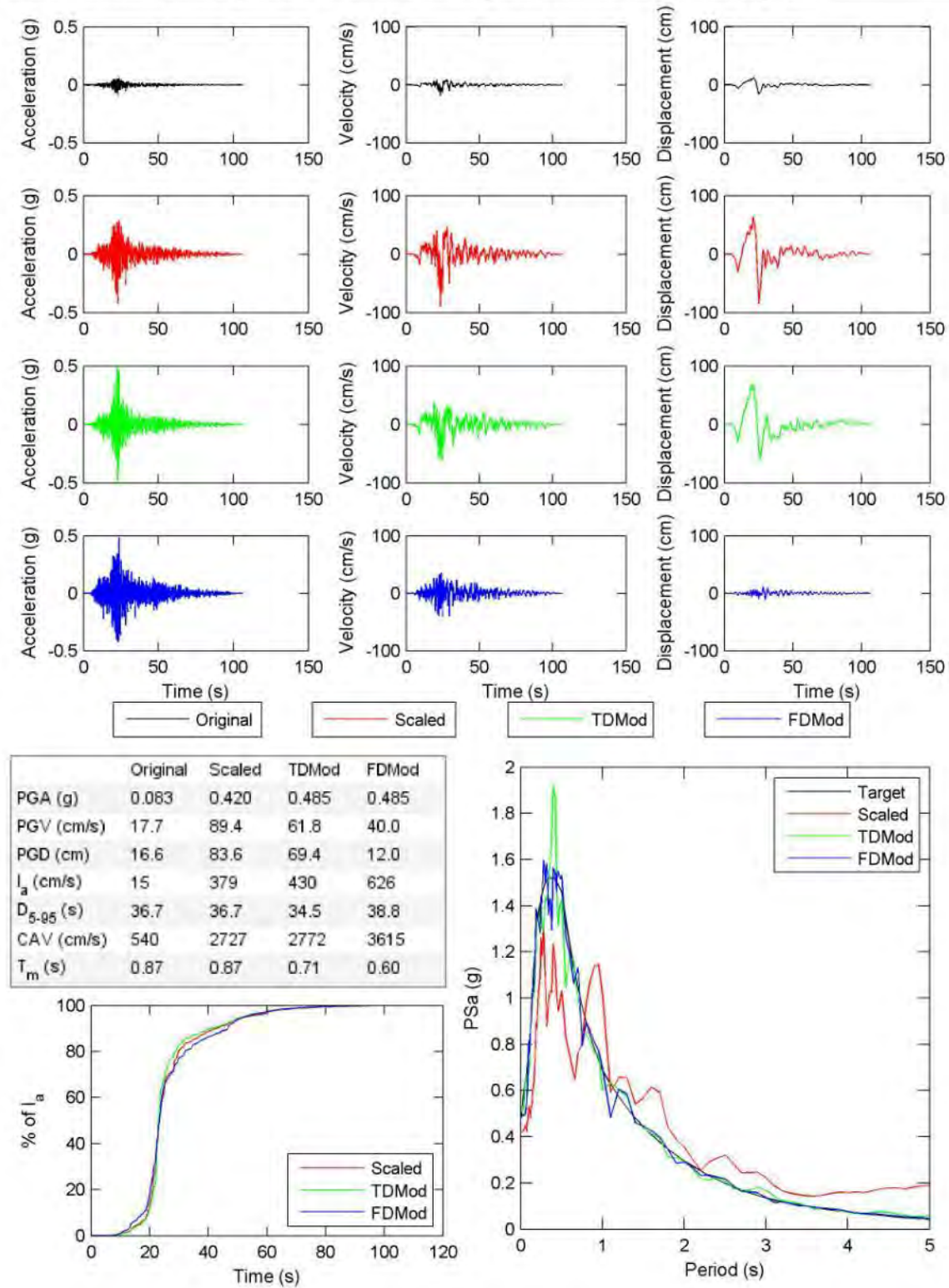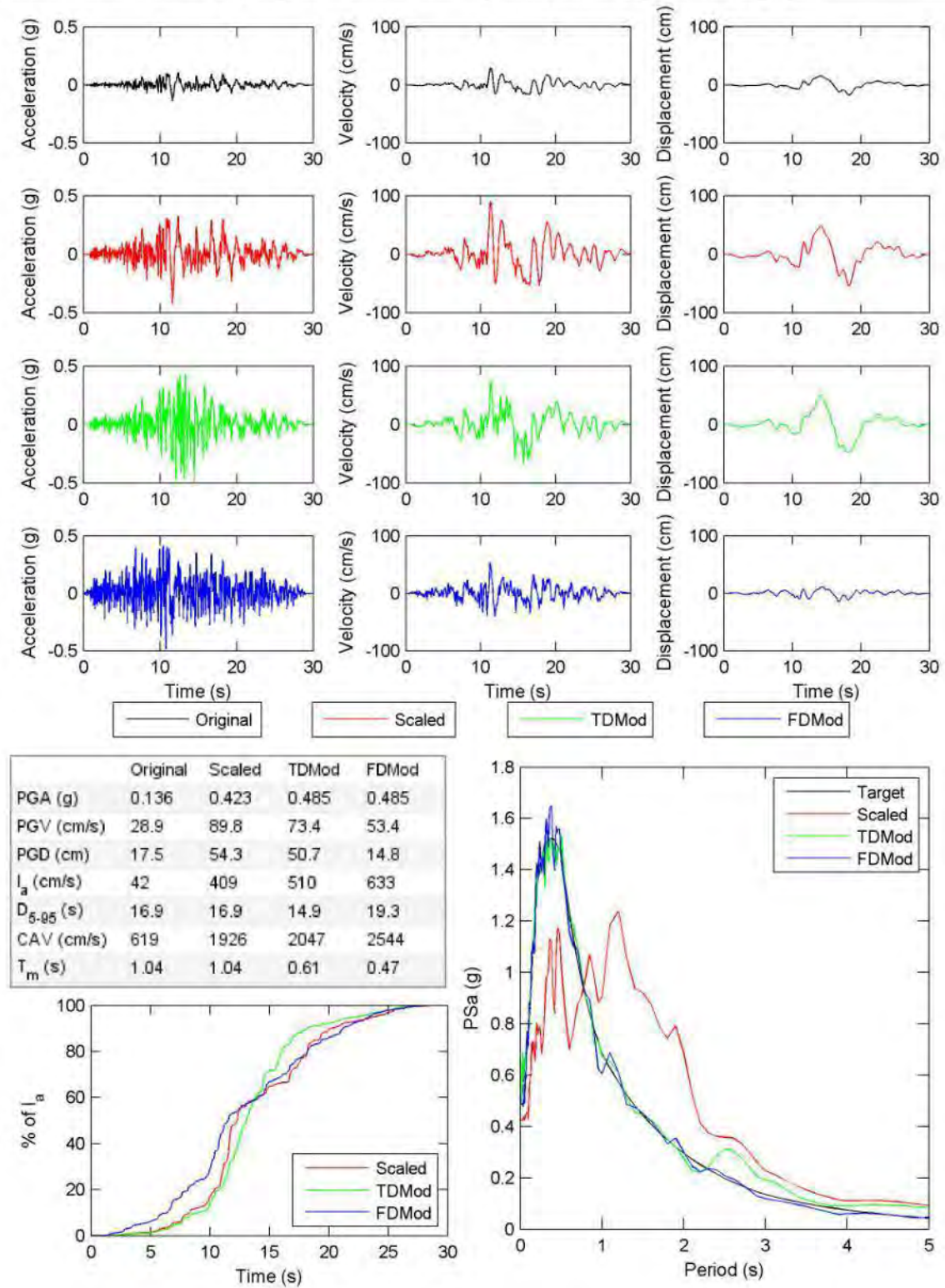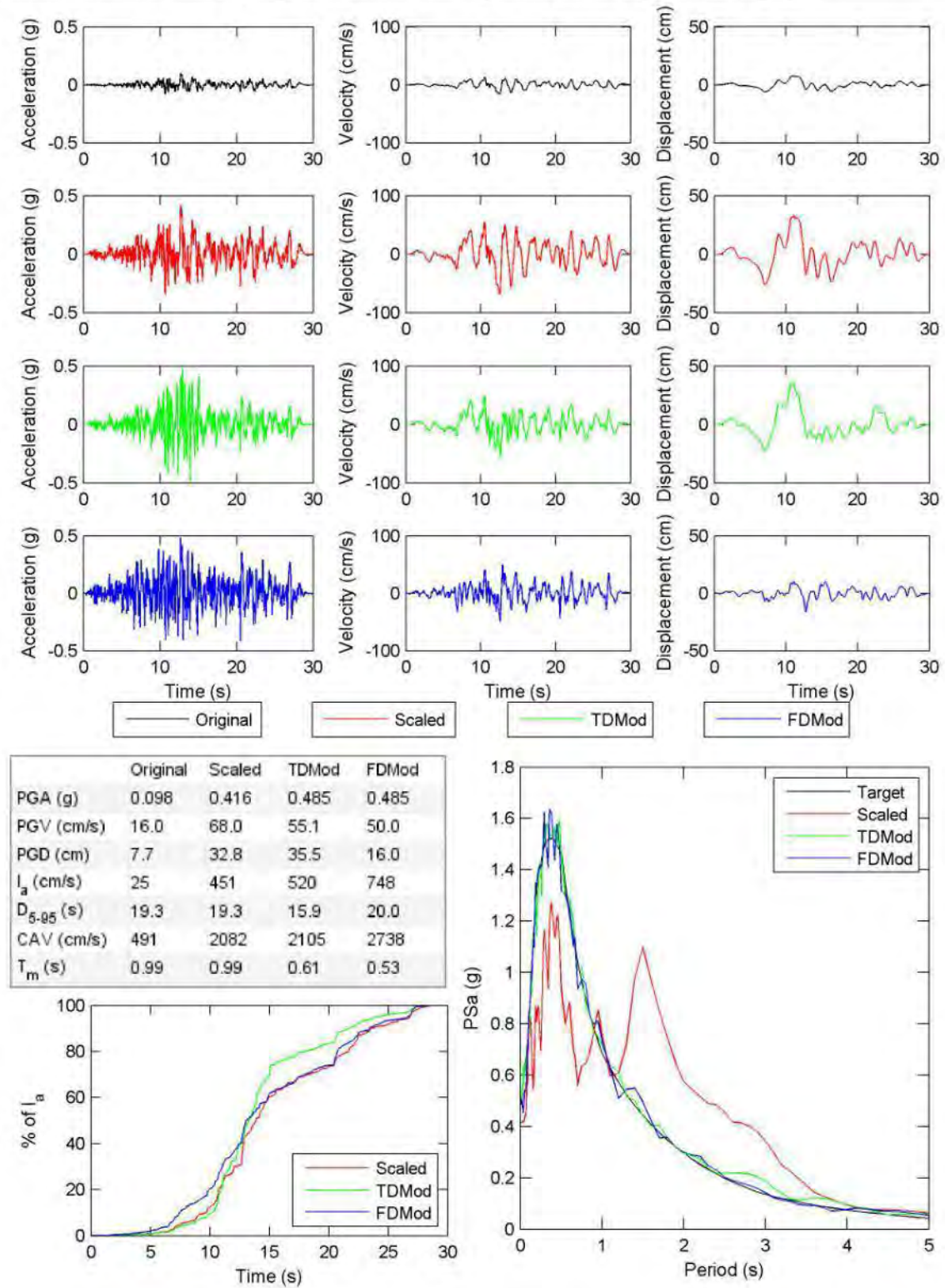

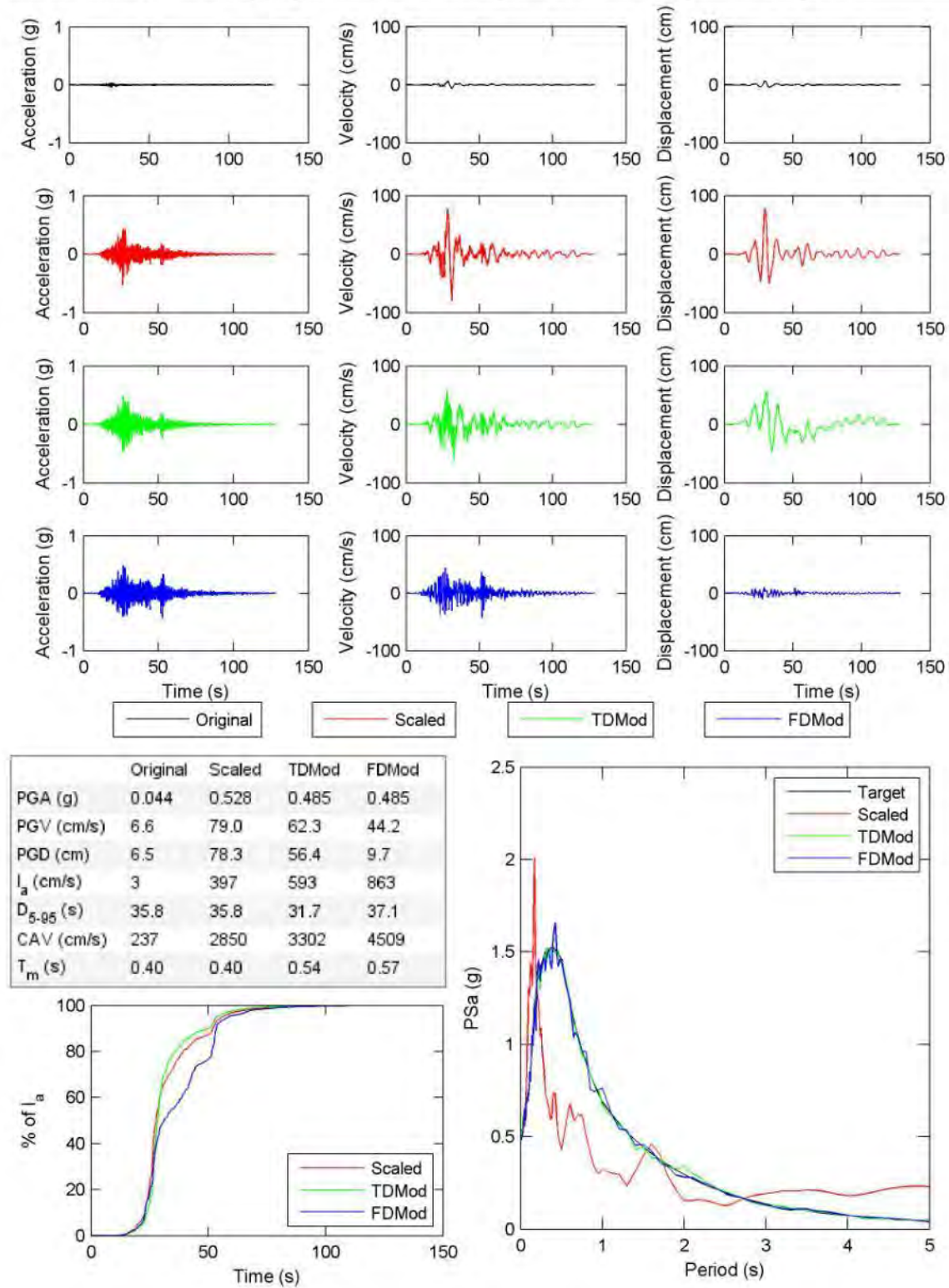|	Original	Scaled	TDMod	FDMod
PGA (g)	0.617	0.956	0.597	0.597
PGV (cm/s)	40.7	63.1	47.2	56.6
PGD (cm)	8.6	13.3	11.7	23.2
I_a (cm/s)	299	719	435	378
D_{5-95} (s)	7.6	7.6	8.7	8.6
CAV (cm/s)	1195	1853	1568	1462
T_m (s)	0.32	0.32	0.35	0.37

Figure E.3. continued.

739

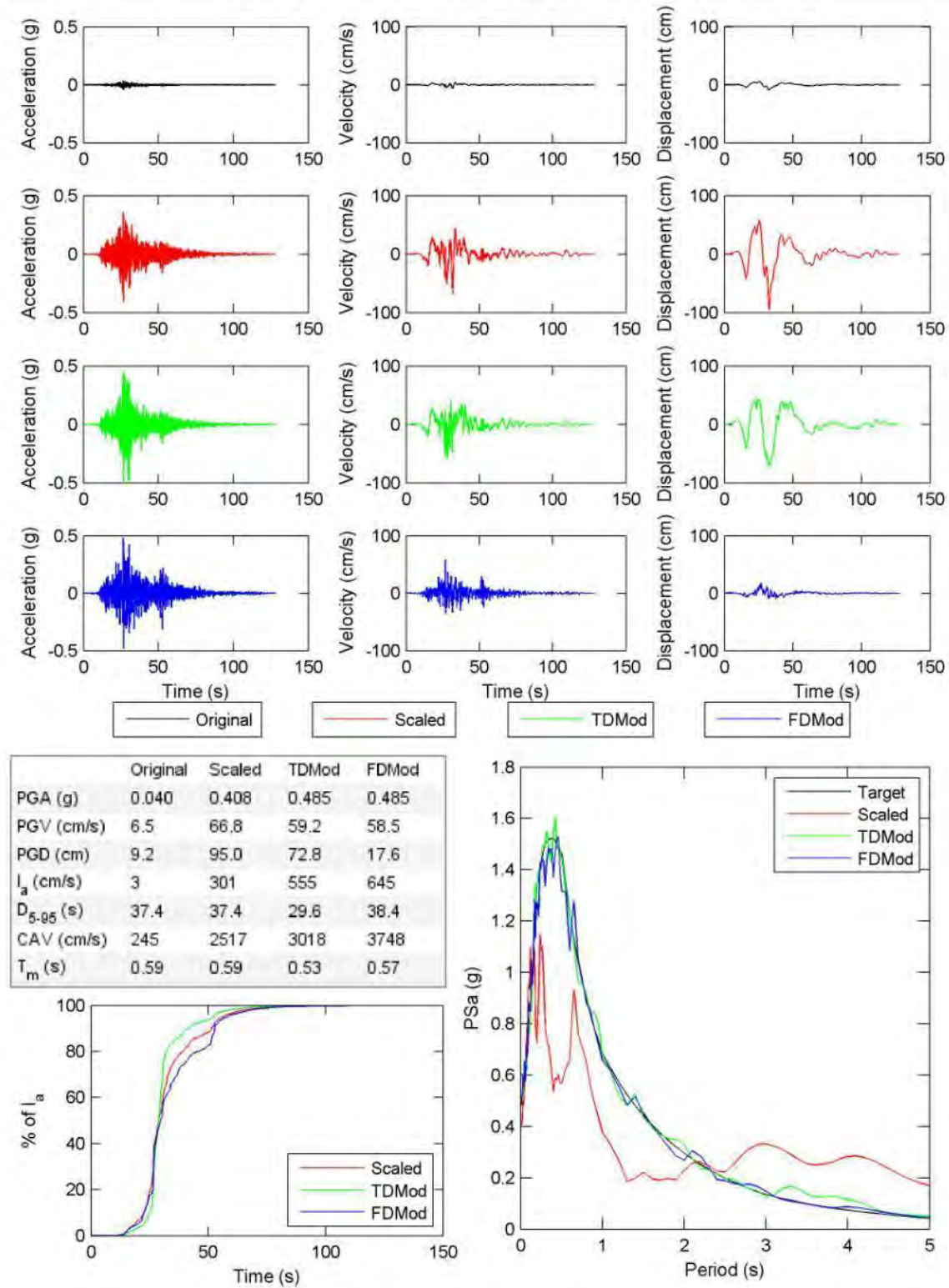|	Original	Scaled	TDMod	FDMod
PGA (g)	0.444	0.929	0.598	0.597
PGV (cm/s)	30.1	62.9	37.5	46.3
PGD (cm)	4.8	10.1	11.3	16.8
I_a (cm/s)	234	1020	491	398
D_{5-95} (s)	7.8	7.8	11.1	11.8
CAV (cm/s)	1090	2277	1812	1628
T_m (s)	0.33	0.33	0.38	0.40

Figure E.3. continued.

740

File Name: 957 HOW060   Start and End Taper Percentage: 1.0% and 5.0%
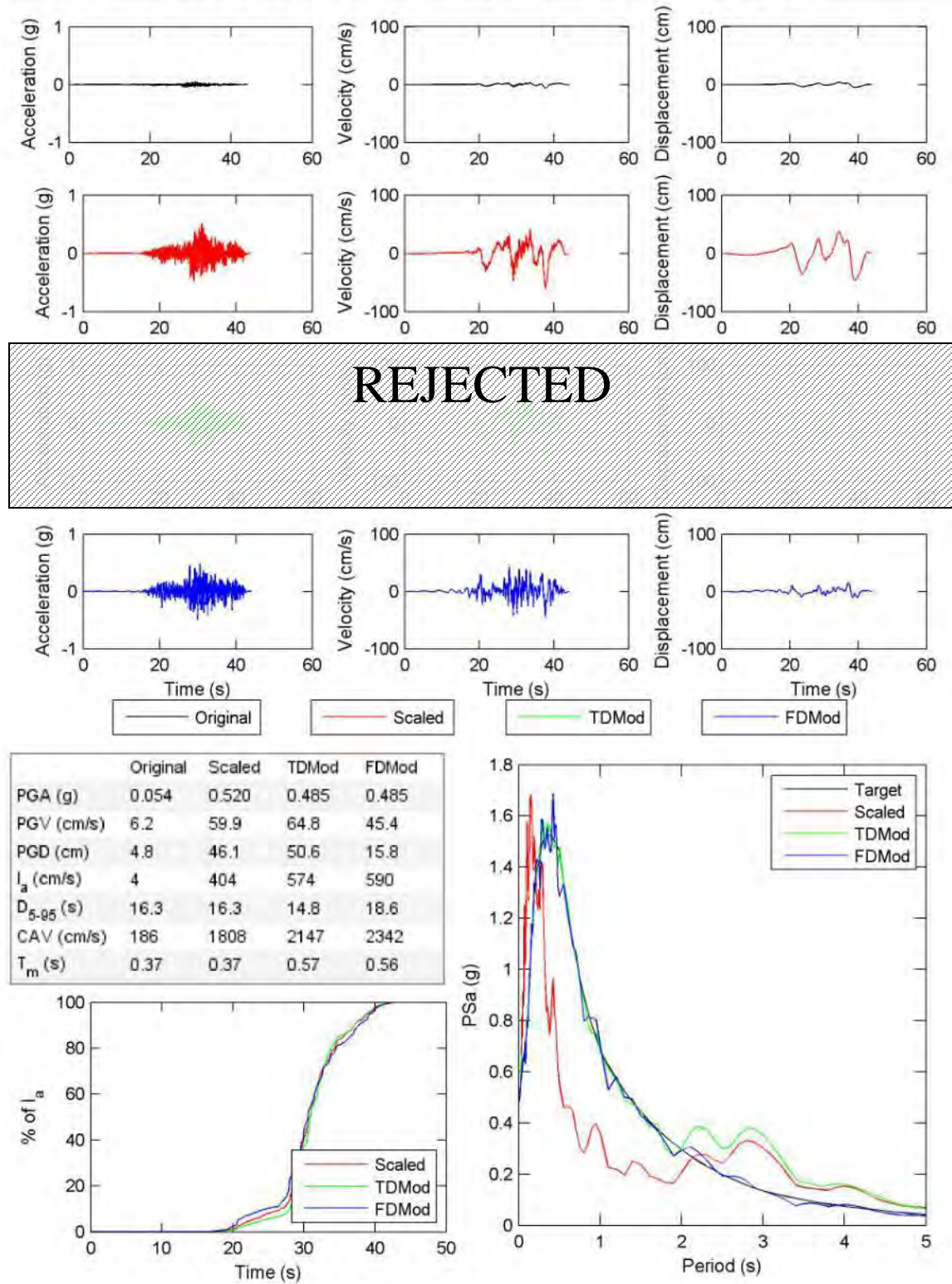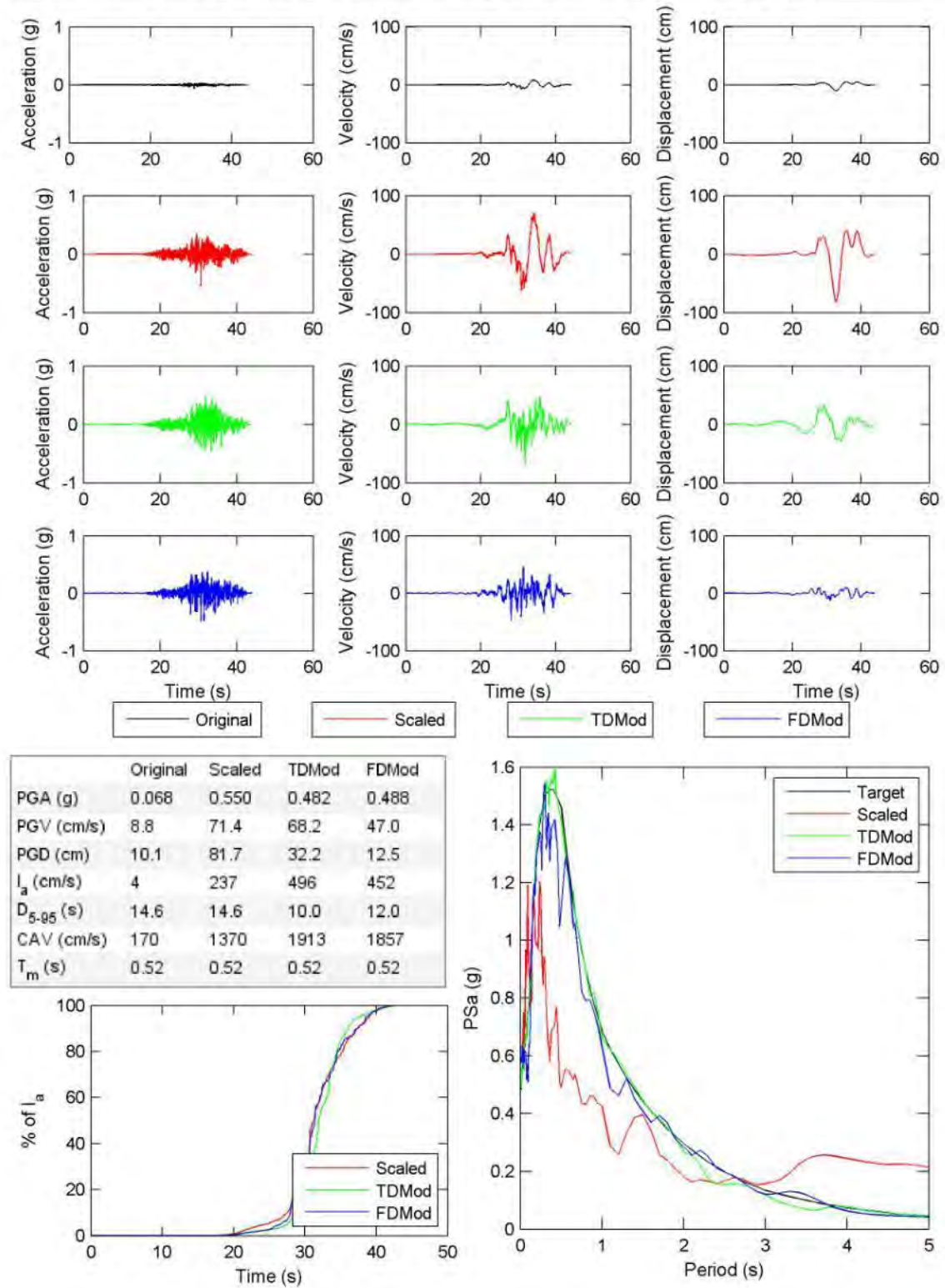Scale Factor: 5.84 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.120	0.699	0.597	0.597
PGV (cm/s)	9.5	55.6	48.1	39.2
PGD (cm)	2.3	13.1	14.1	20.6
I_a (cm/s)	22	739	467	493
D_{5-95} (s)	11.7	11.7	13.0	12.6
CAV (cm/s)	378	2206	1839	1901
T_m (s)	0.43	0.43	0.42	0.40

Figure E.3. continued.

741

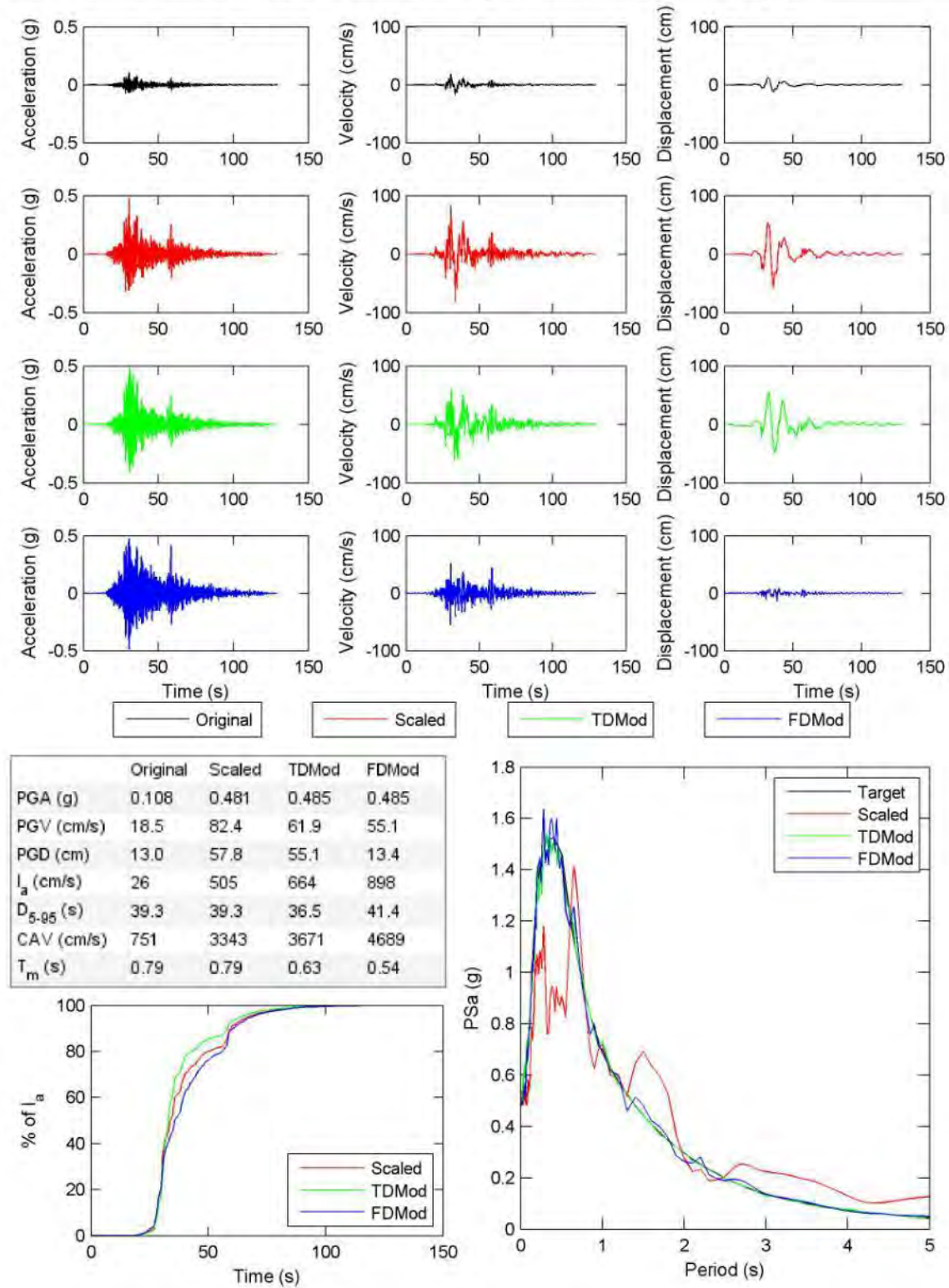|	Original	Scaled	TDMod	FDMod
PGA (g)	0.163	0.844	0.597	0.597
PGV (cm/s)	8.5	43.8	38.5	39.6
PGD (cm)	1.8	9.4	12.2	14.6
I_a (cm/s)	33	880	494	442
D_{5-95} (s)	8.0	8.0	12.0	12.5
CAV (cm/s)	425	2198	1830	1786
T_m (s)	0.32	0.32	0.39	0.41

Figure E.3. continued.

742

File Name: 974 GLP177   Start and End Taper Percentage: 1.0% and 5.0%
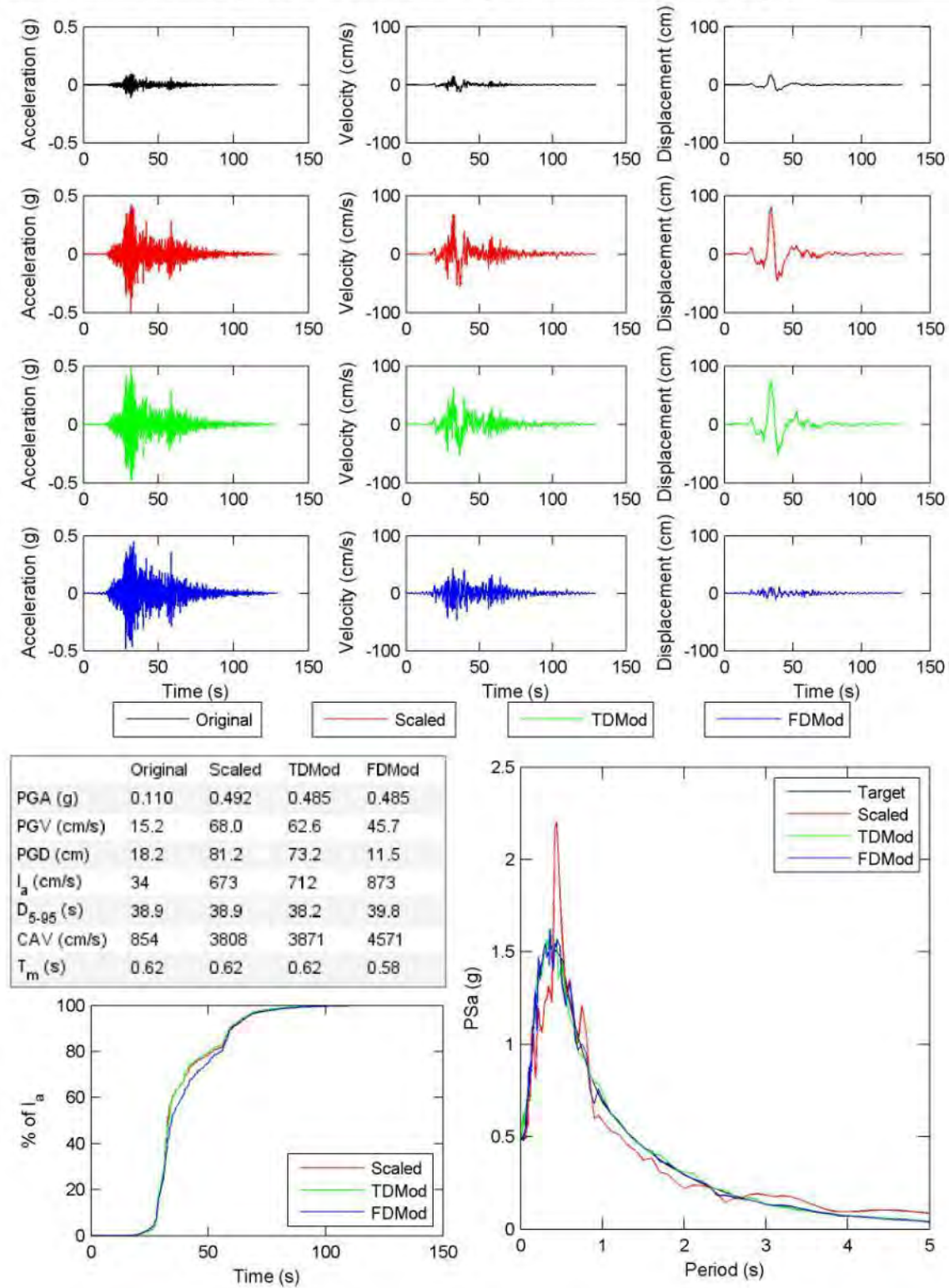Scale Factor: 3.67 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 7

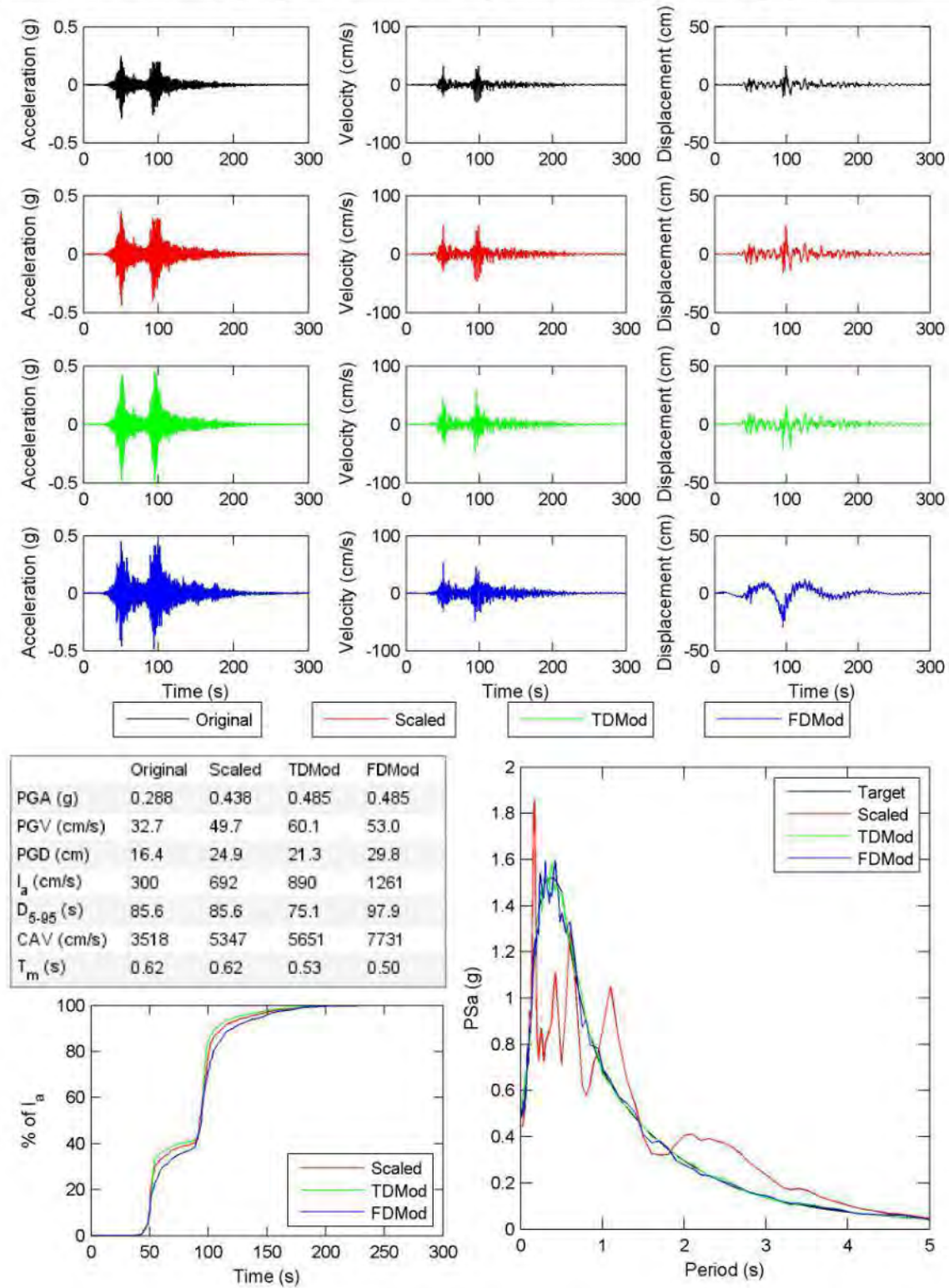|	Original	Scaled	TDMod	FDMod
PGA (g)	0.357	1.311	0.597	0.597
PGV (cm/s)	12.2	44.9	44.5	39.5
PGD (cm)	1.9	7.1	23.0	18.9
I_a (cm/s)	117	1579	641	399
D_{5-95} (s)	9.5	9.5	14.1	13.1
CAV (cm/s)	812	2982	2261	1724
T_m (s)	0.27	0.27	0.34	0.46

Figure E.3. continued.

743

File Name: 974 GLP267   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.44 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.206	1.120	0.597	0.596
PGV (cm/s)	7.4	40.2	41.5	37.0
PGD (cm)	1.7	9.5	13.7	20.4
I_a (cm/s)	61	1804	753	494
D_{5-95} (s)	11.5	11.5	16.6	14.5
CAV (cm/s)	645	3508	2628	1998
T_m (s)	0.25	0.25	0.33	0.43

Figure E.3. continued.

744

File Name: 986 0638-195   Start and End Taper Percentage: 1.0% and 5.0%
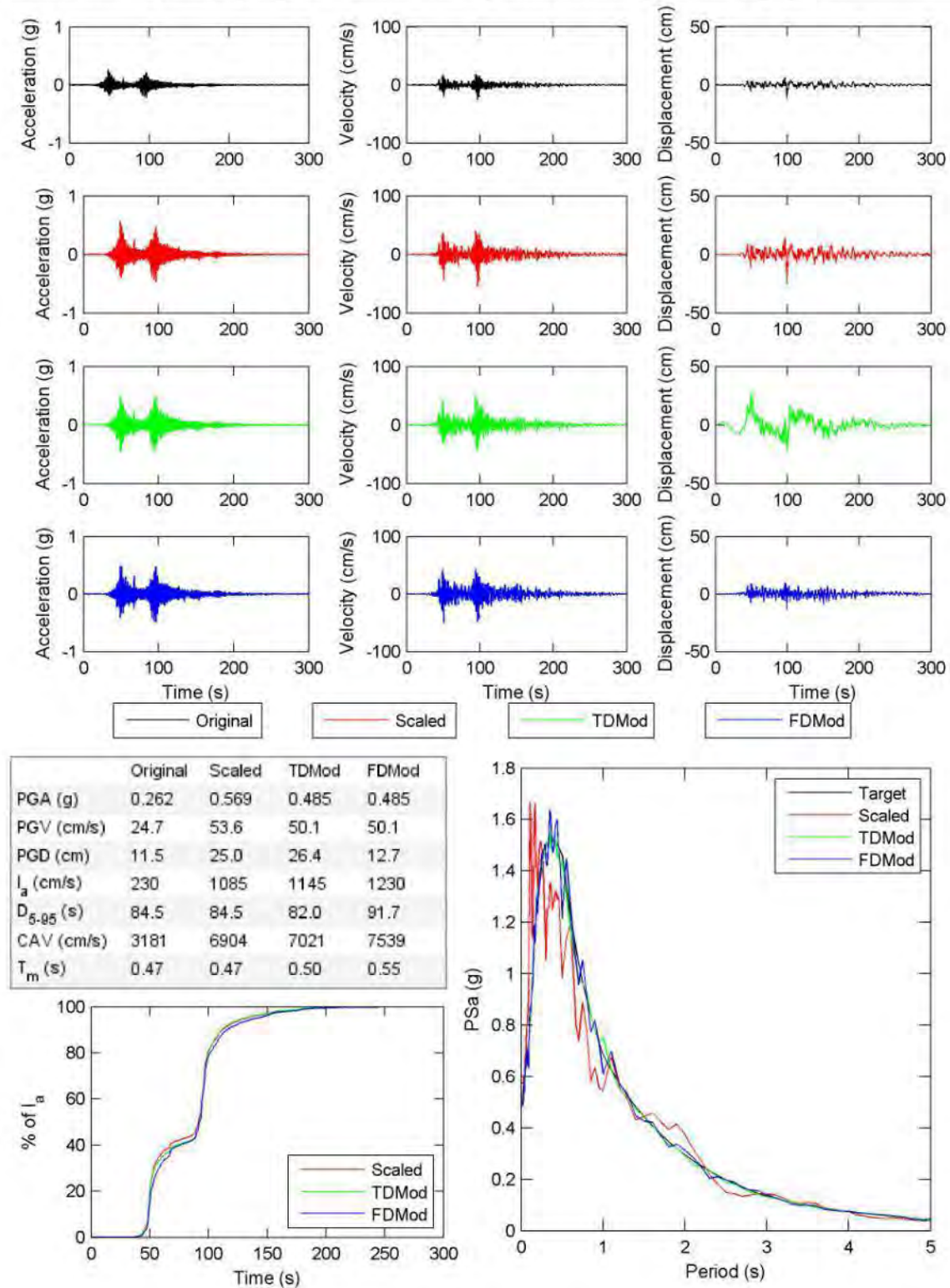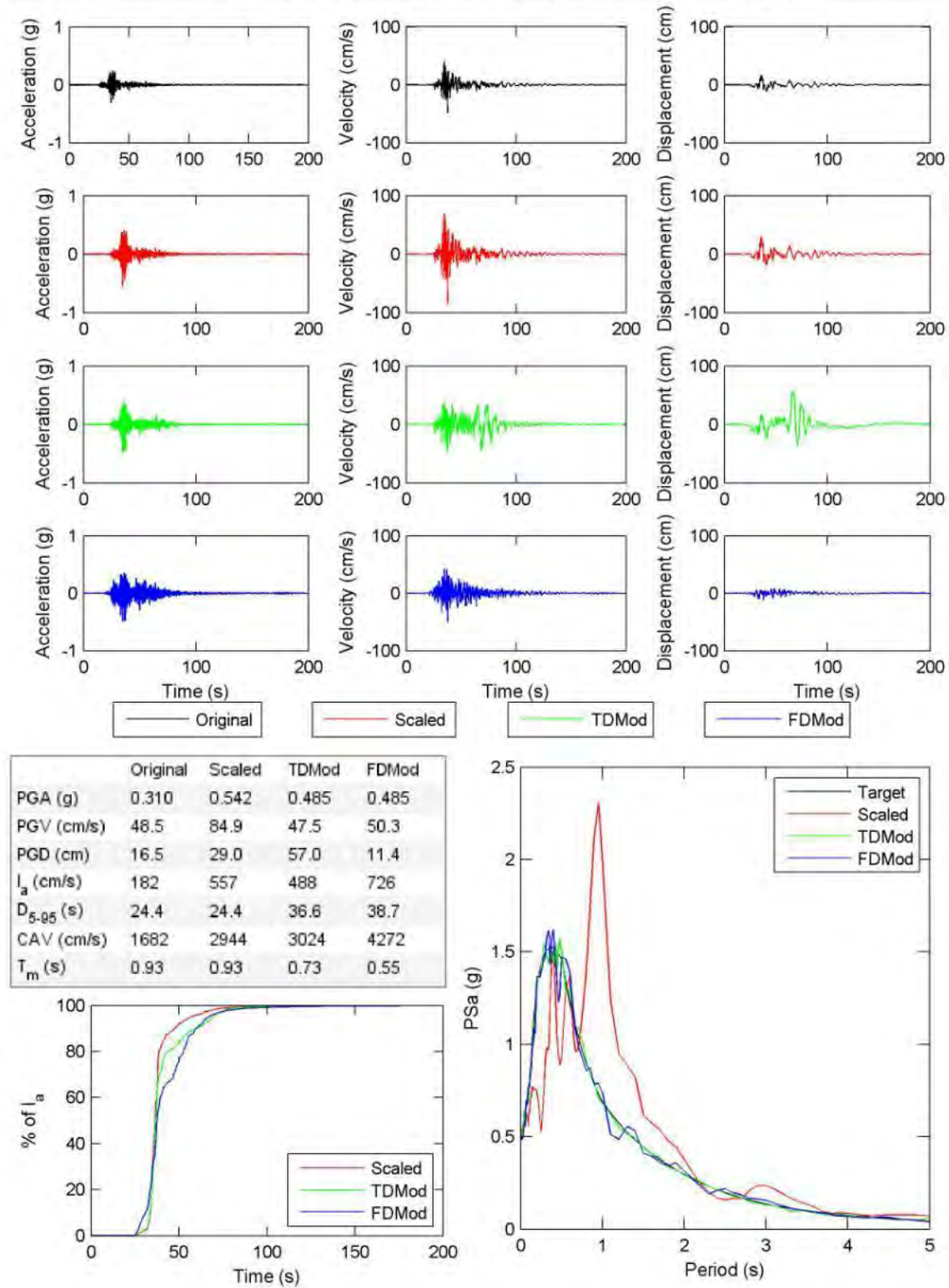Scale Factor: 3.19 Target Spectrum Matched: target2UHS50yr.txt FD poly: 6 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.186	0.594	0.597	0.596
PGV (cm/s)	23.7	75.6	42.3	47.4
PGD (cm)	5.9	18.7	11.8	17.1
I_a (cm/s)	45	458	398	457
D_{5-95} (s)	11.4	11.4	12.0	11.8
CAV (cm/s)	606	1933	1860	1966
T_m (s)	0.63	0.63	0.48	0.39

Figure E.3. continued.

745

File Name: 986 0638-285   Start and End Taper Percentage: 1.0% and 5.0%
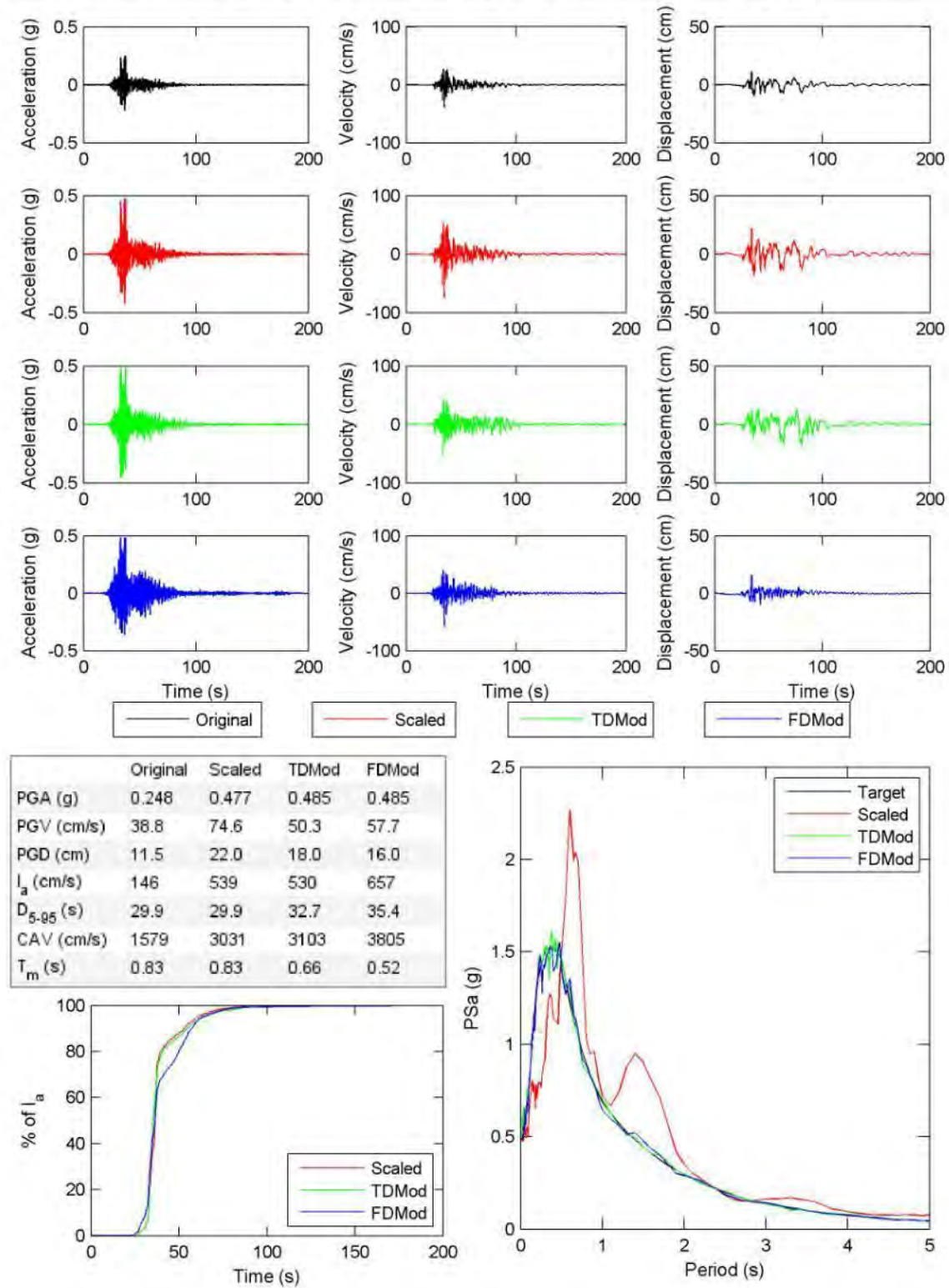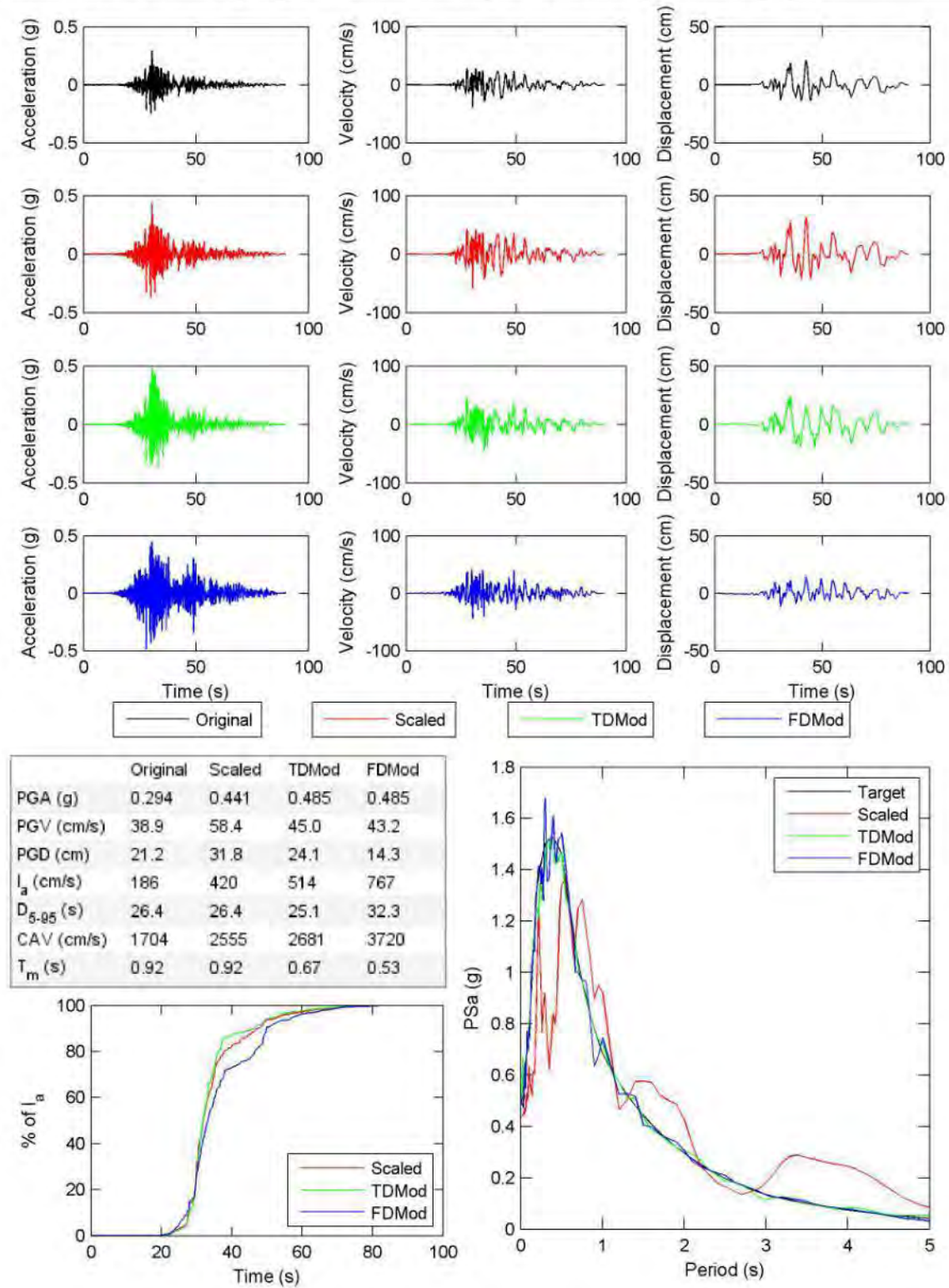Scale Factor: 3.28 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4
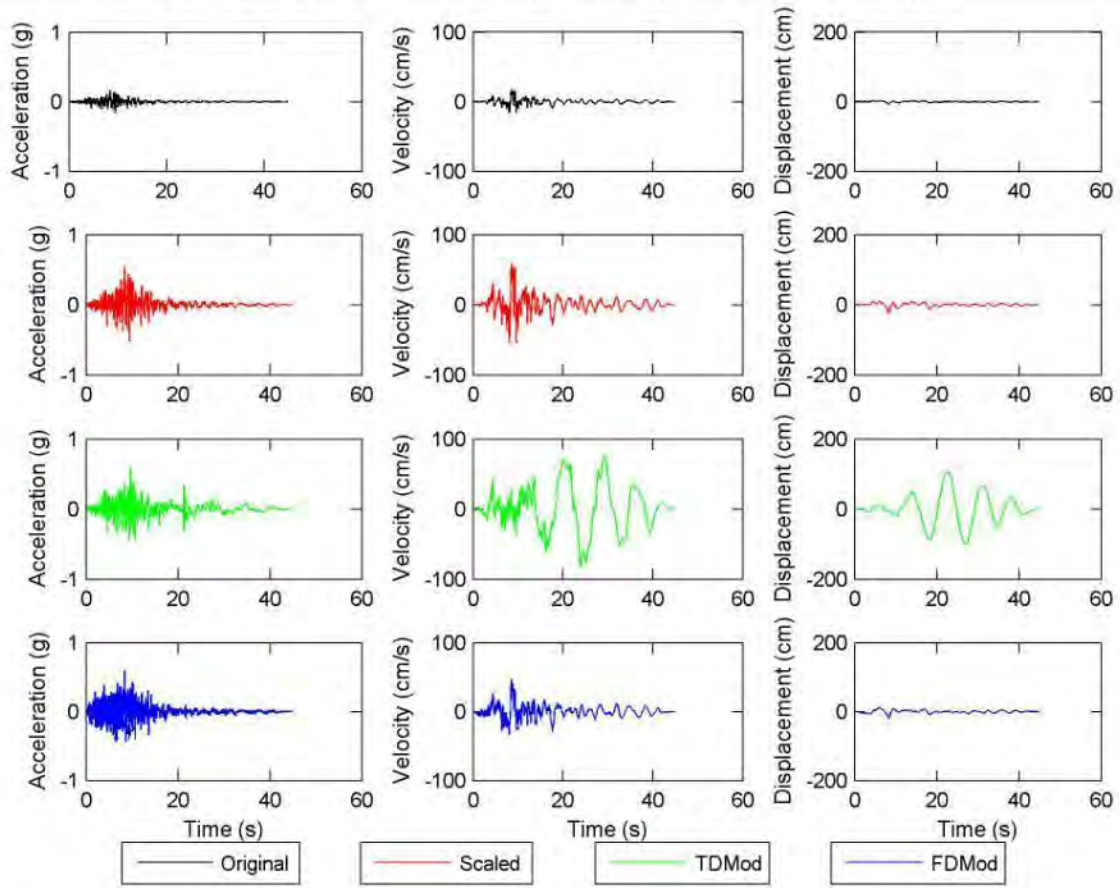
	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.539	0.597	0.597
PGV (cm/s)	18.0	59.1	82.0	46.6
PGD (cm)	7.7	25.2	105.5	18.2
I_a (cm/s)	48	513	478	505
D_{5-95} (s)	12.7	12.7	24.6	14.3
CAV (cm/s)	635	2083	2413	2175
T_m (s)	0.65	0.65	0.52	0.39

Figure E.3. continued.

746

File Name: 989 CHL070   Start and End Taper Percentage: 1.0% and 5.0%
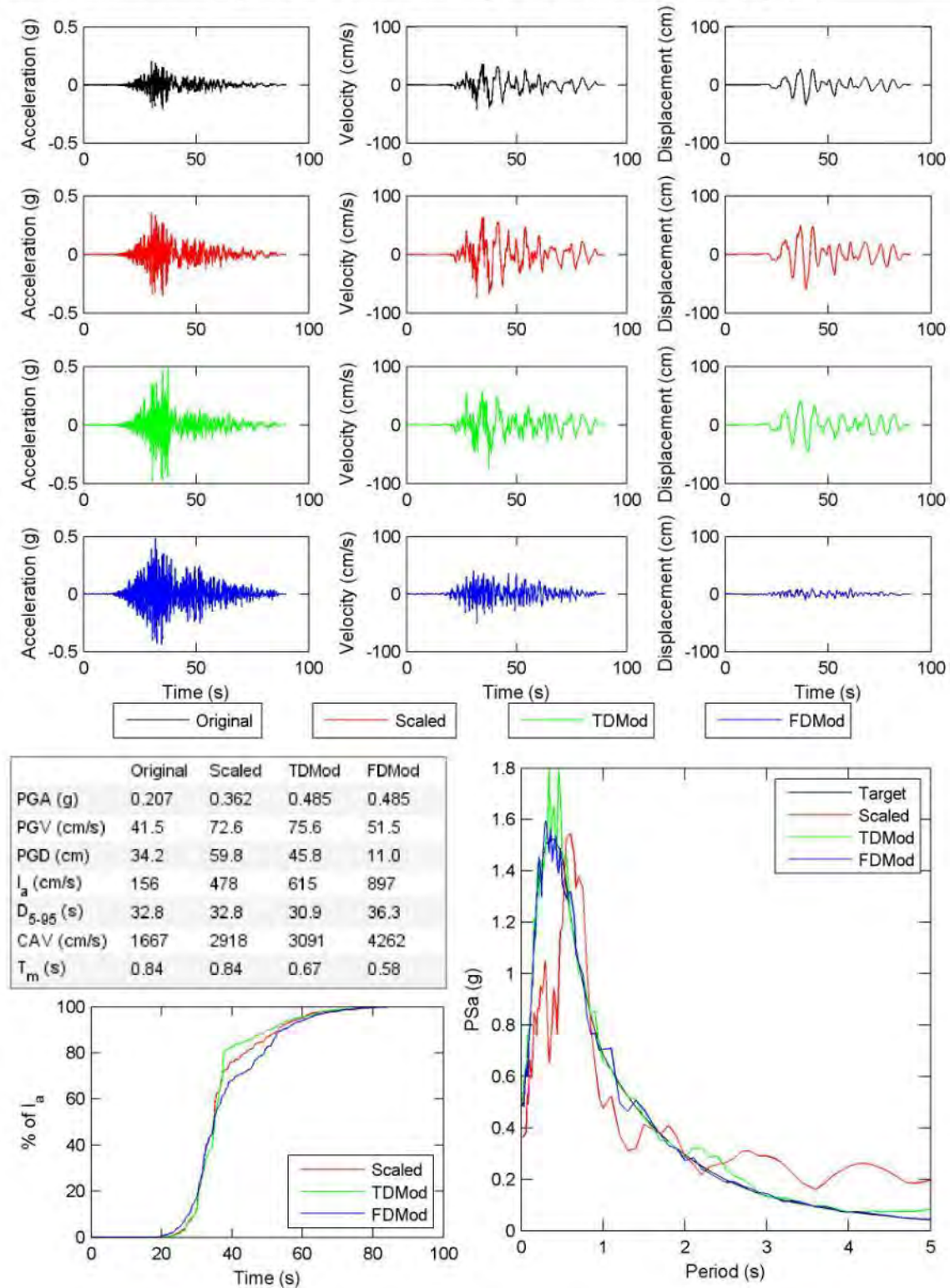Scale Factor: 3.30 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.225	0.744	0.597	0.597
PGV (cm/s)	16.6	54.7	32.1	44.1
PGD (cm)	3.4	11.2	16.8	12.5
I_a (cm/s)	61	670	434	386
D_{5-95} (s)	9.1	9.1	13.3	11.5
CAV (cm/s)	621	2051	1805	1677
T_m (s)	0.49	0.49	0.47	0.42

Figure E.3. continued.

747

File Name: 989 CHL160   Start and End Taper Percentage: 1.0% and 5.0%
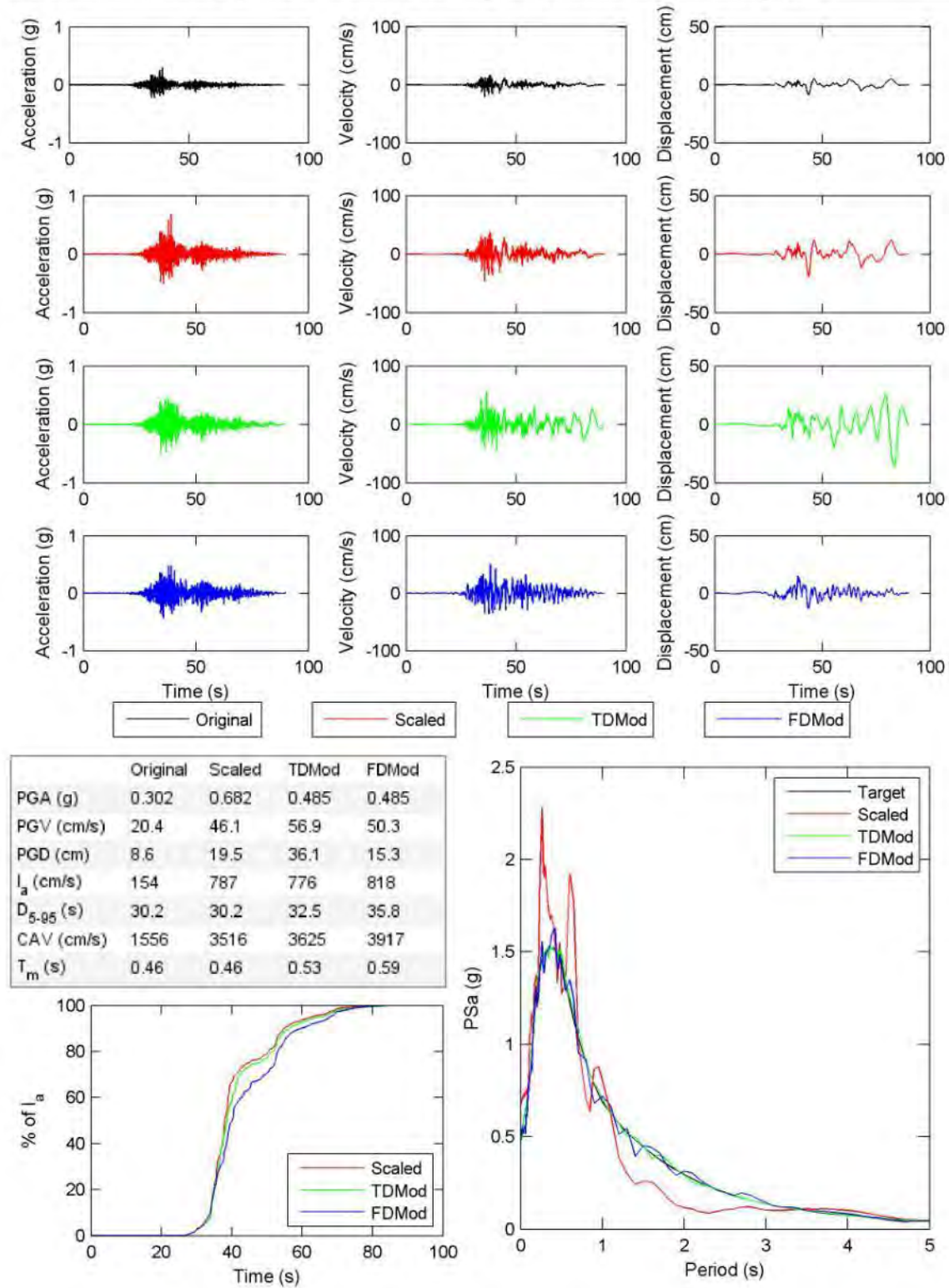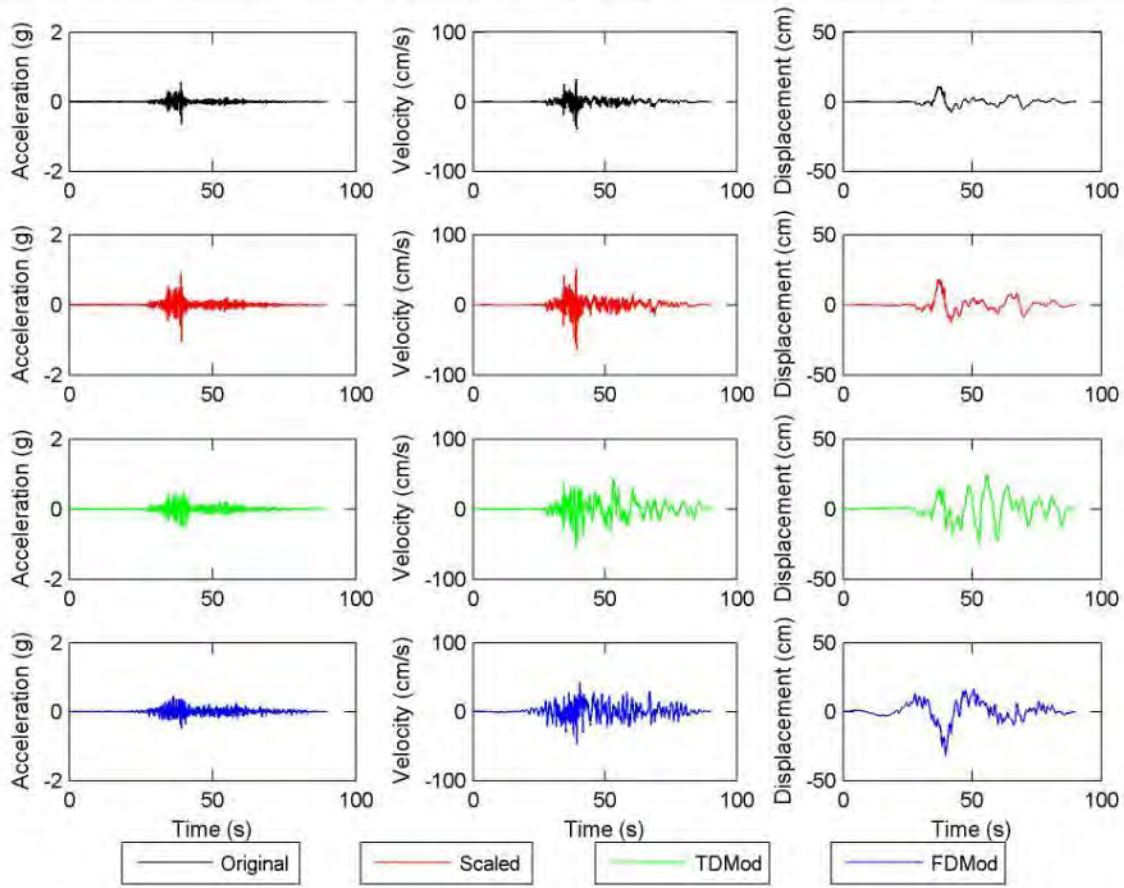Scale Factor: 3.15 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 4
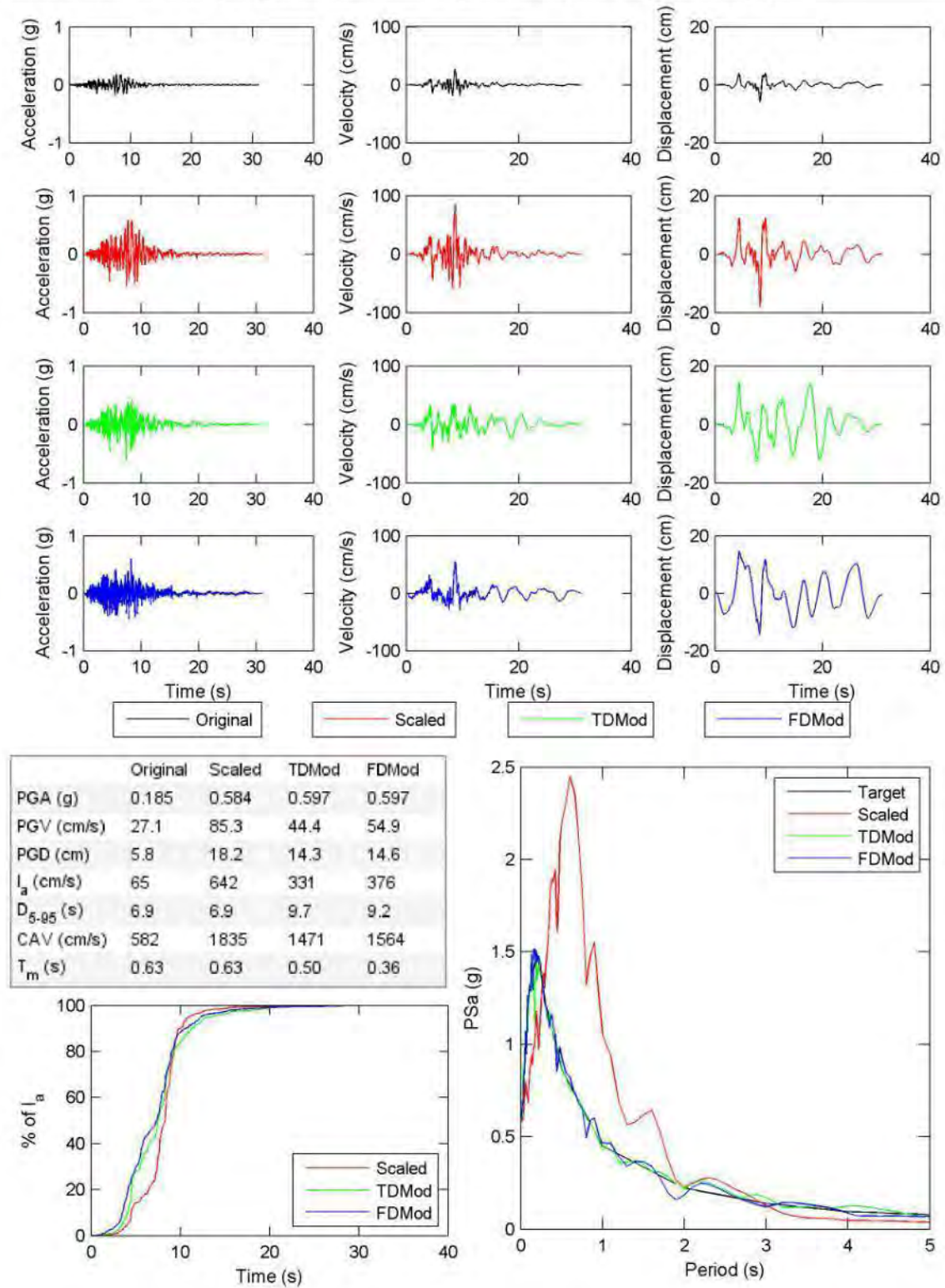
	Original	Scaled	TDMod	FDMod
PGA (g)	0.185	0.584	0.597	0.597
PGV (cm/s)	27.1	85.3	44.4	54.9
PGD (cm)	5.8	18.2	14.3	14.6
I_a (cm/s)	65	642	331	376
D_{5-95} (s)	6.9	6.9	9.7	9.2
CAV (cm/s)	582	1835	1471	1564
T_m (s)	0.63	0.63	0.50	0.36

Figure E.3. continued.

748

File Name: 993 FLE144   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.00 Target Spectrum Matched: target2UHS50yr.txt FD poly: 4 TD poly: 4

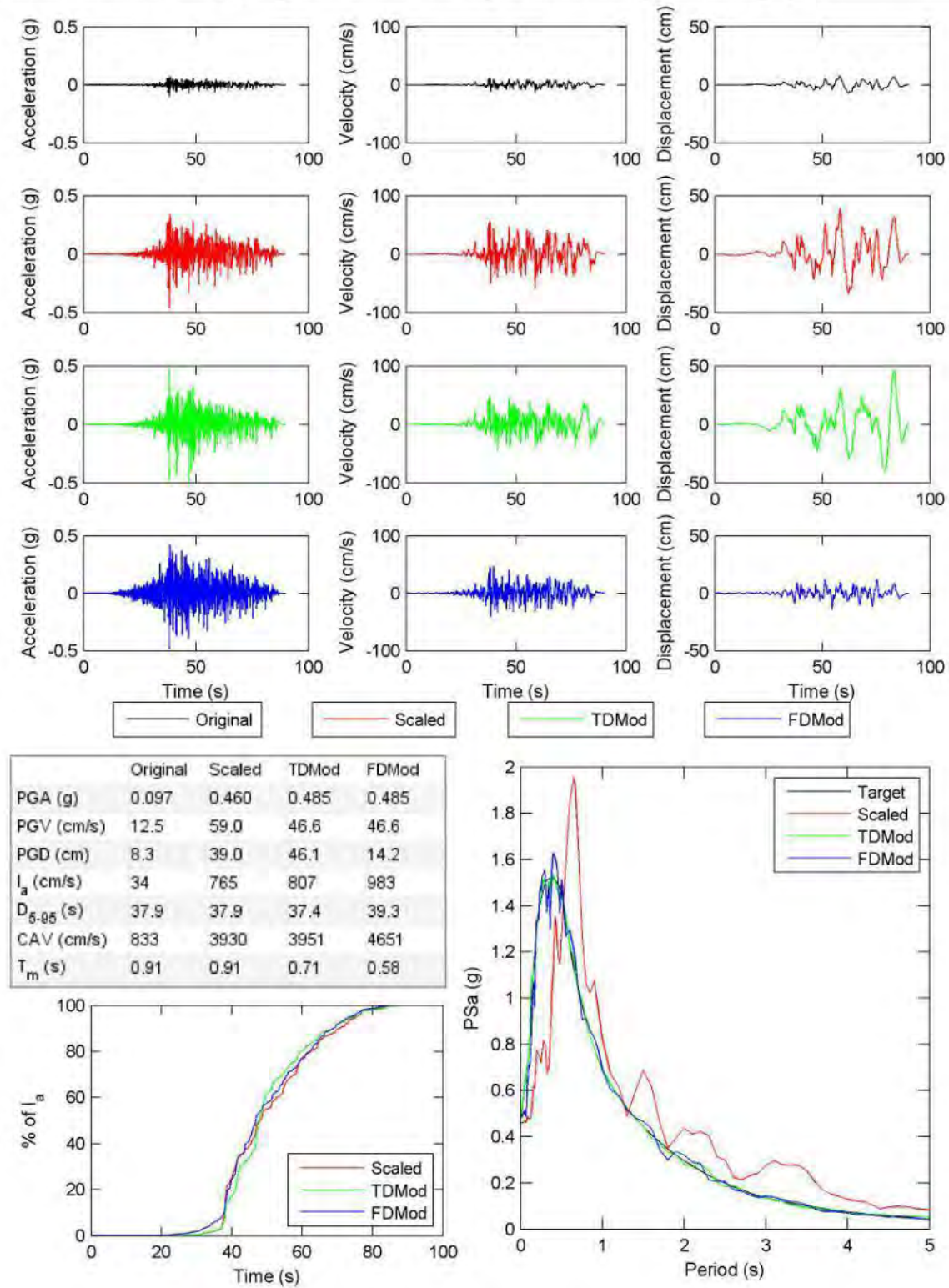|	Original	Scaled	TDMod	FDMod
PGA (g)	0.162	0.647	0.597	0.597
PGV (cm/s)	10.7	42.9	35.2	47.4
PGD (cm)	2.9	11.4	10.4	17.9
I_a (cm/s)	51	816	511	475
D_{5-95} (s)	11.7	11.7	14.6	14.7
CAV (cm/s)	607	2428	2065	1983
T_m (s)	0.42	0.42	0.43	0.41

Figure E.3. continued.

749

File Name: 993 FLE234   Start and End Taper Percentage: 1.0% and 5.0%
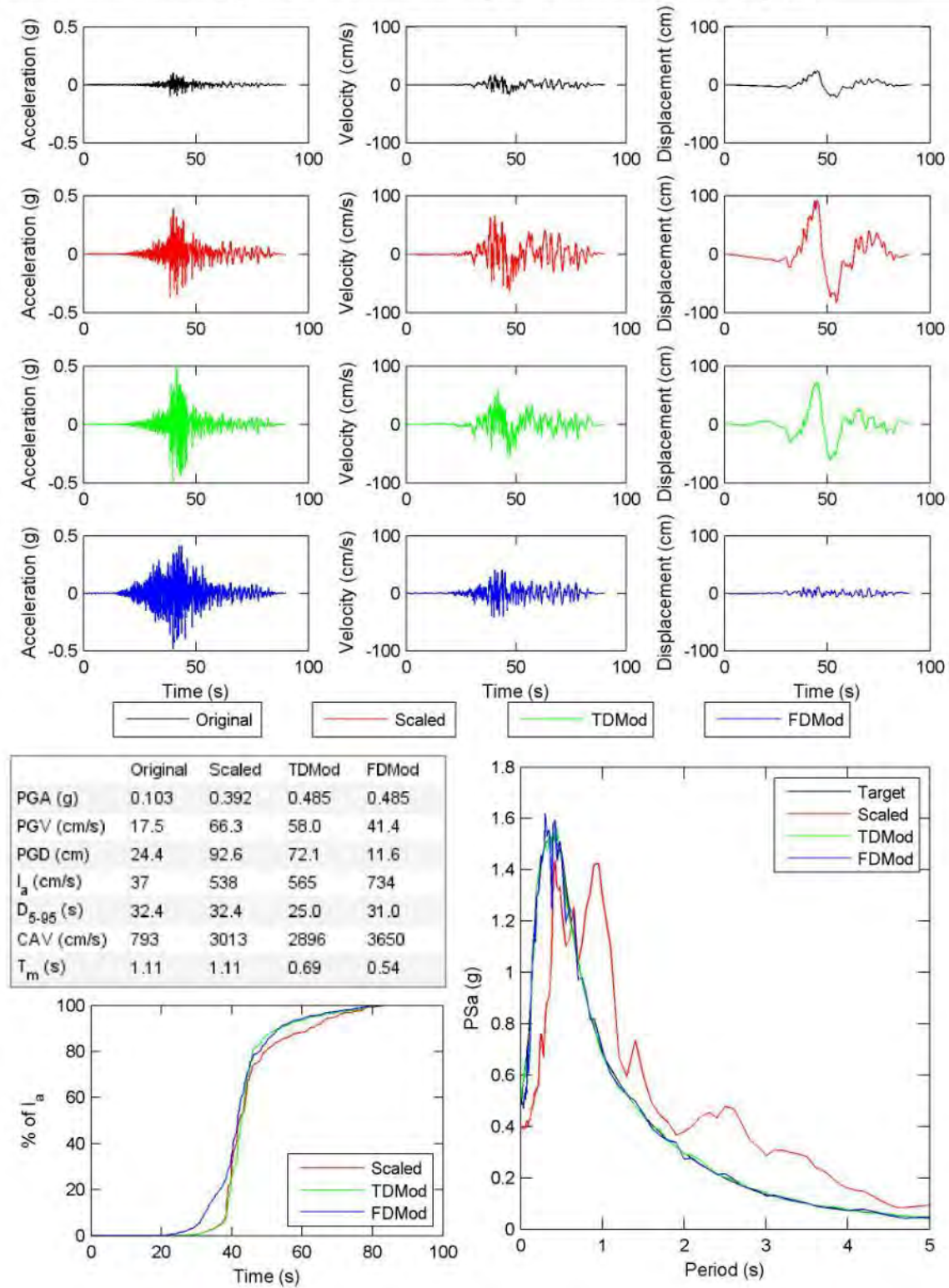Scale Factor: 3.18 Target Spectrum Matched: target2UHS50yr.txt FD poly: 5 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.240	0.764	0.597	0.597
PGV (cm/s)	26.2	83.4	39.1	48.2
PGD (cm)	3.6	11.5	16.6	14.1
I_a (cm/s)	65	657	414	445
D_{5-95} (s)	11.8	11.8	14.5	15.1
CAV (cm/s)	620	1973	1734	1866
T_m (s)	0.52	0.52	0.47	0.40

Figure E.3. continued.

750

	Original	Scaled	TDMod	FDMod
PGA (g)	0.289	0.769	0.597	0.597
PGV (cm/s)	26.5	70.6	37.4	34.4
PGD (cm)	3.9	10.3	28.7	20.9
I_a (cm/s)	152	1074	548	417
D_{5-95} (s)	8.9	8.9	17.8	16.6
CAV (cm/s)	1006	2677	2382	1984
T_m (s)	0.43	0.43	0.42	0.42

Figure E.3. continued.

751

	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.705	0.597	0.598
PGV (cm/s)	13.5	58.4	60.5	31.2
PGD (cm)	2.4	10.3	69.9	14.0
I_a (cm/s)	41	759	516	488
D_{5-95} (s)	11.9	11.9	24.9	15.3
CAV (cm/s)	585	2522	2449	2146
T_m (s)	0.50	0.50	0.45	0.39

Figure E.3. continued.

752

File Name: 10 HON-MYGH04-E   Start and End Taper Percentage: 1.0% and 5.0%
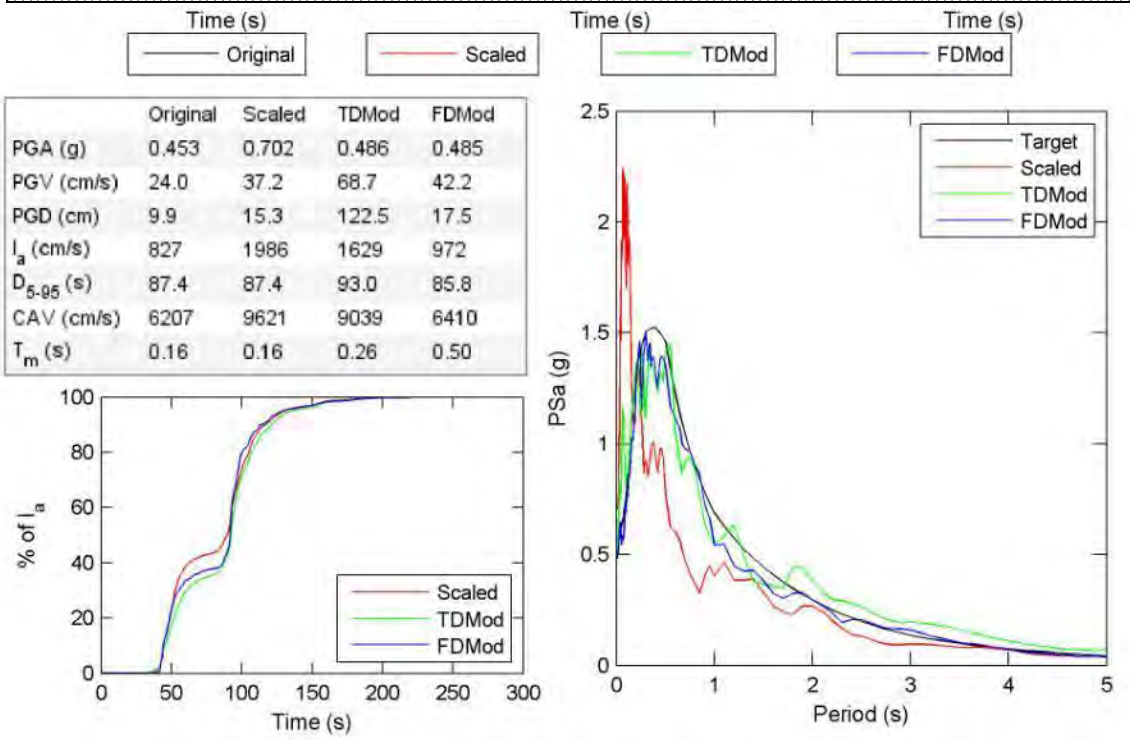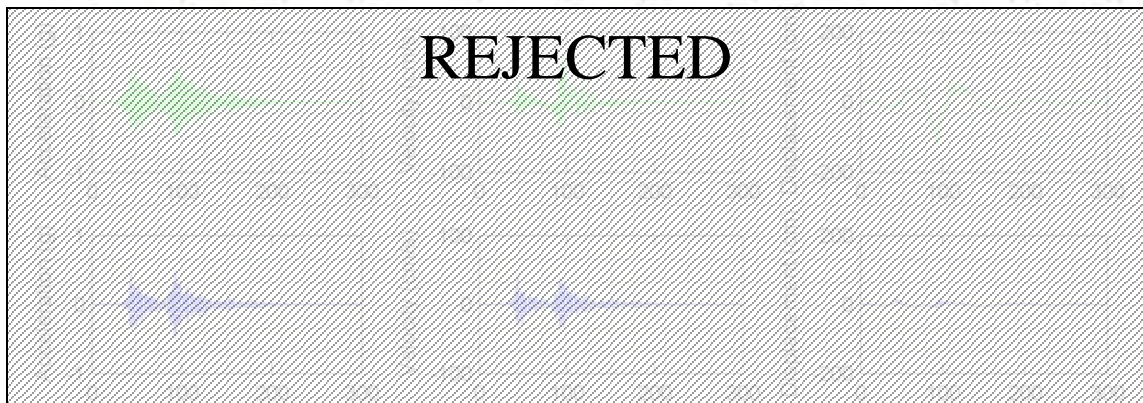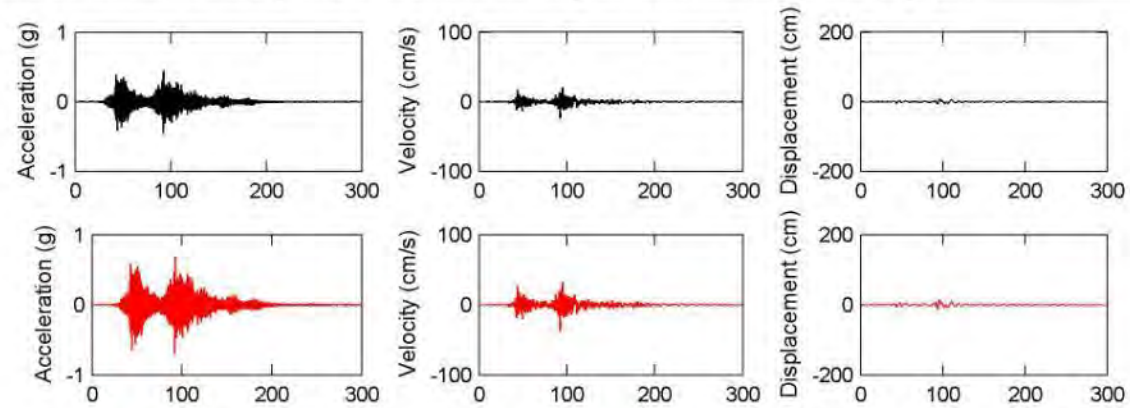Scale Factor: 2.24   Target Spectrum Matched: targetCMS2.txt FD poly: 7   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.454	1.017	0.485	0.485
PGV (cm/s)	13.0	29.2	62.3	49.6
PGD (cm)	4.3	9.6	33.2	11.7
I_a (cm/s)	906	4547	2629	1322
D_{5-95} (s)	89.8	89.8	107.6	95.7
CAV (cm/s)	6587	14755	12372	7866
T_m (s)	0.16	0.16	0.24	0.55

Figure E.4. One-page output images for motions in scenario II matched to the conditional mean spectrum (CMS), from motion number 1 to 100, generated by the GMM program.

753

File Name: 10 HON-MYGH04-N   Start and End Taper Percentage: 1.0% and 5.0%
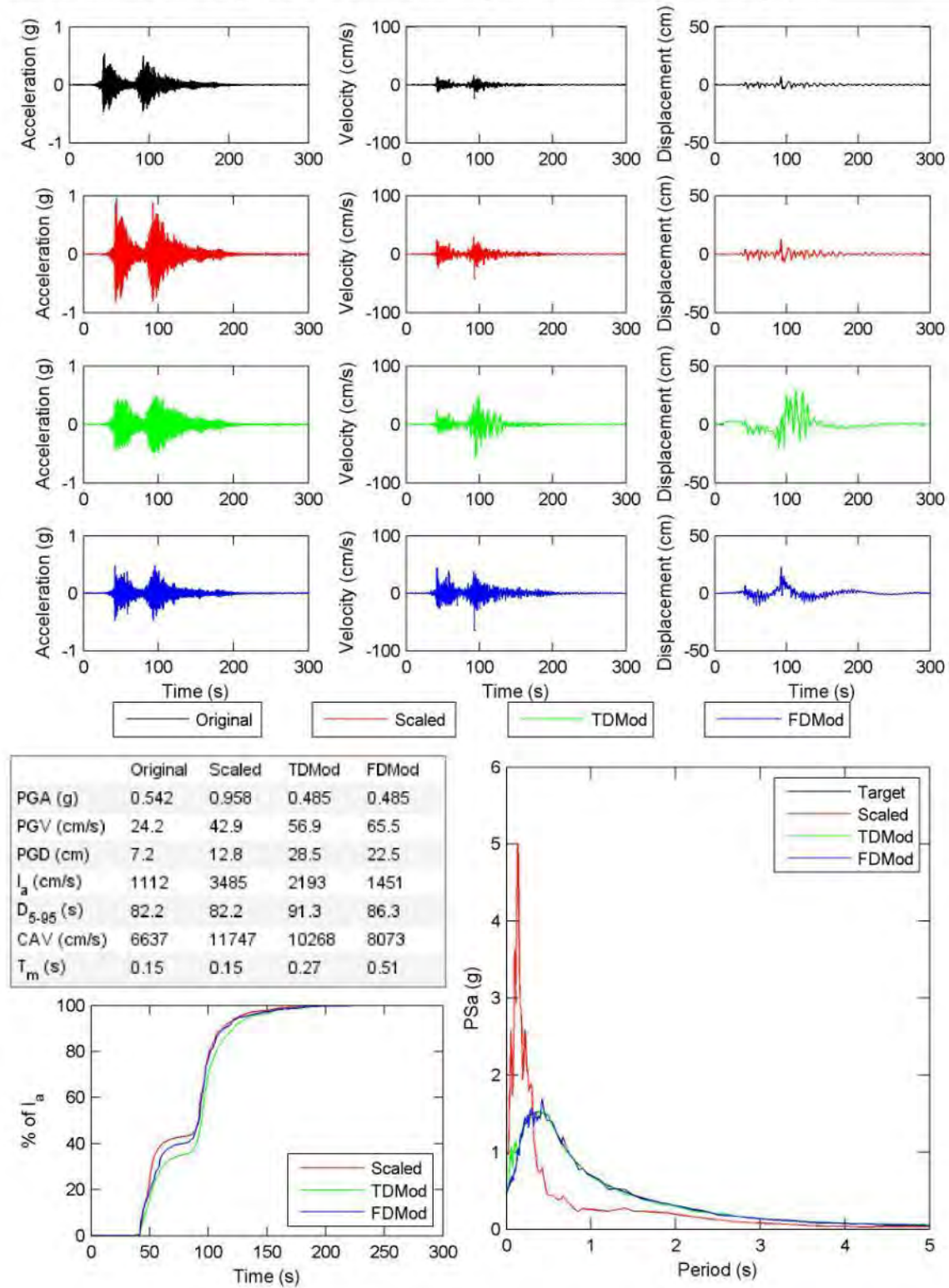Scale Factor: 2.07   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 6
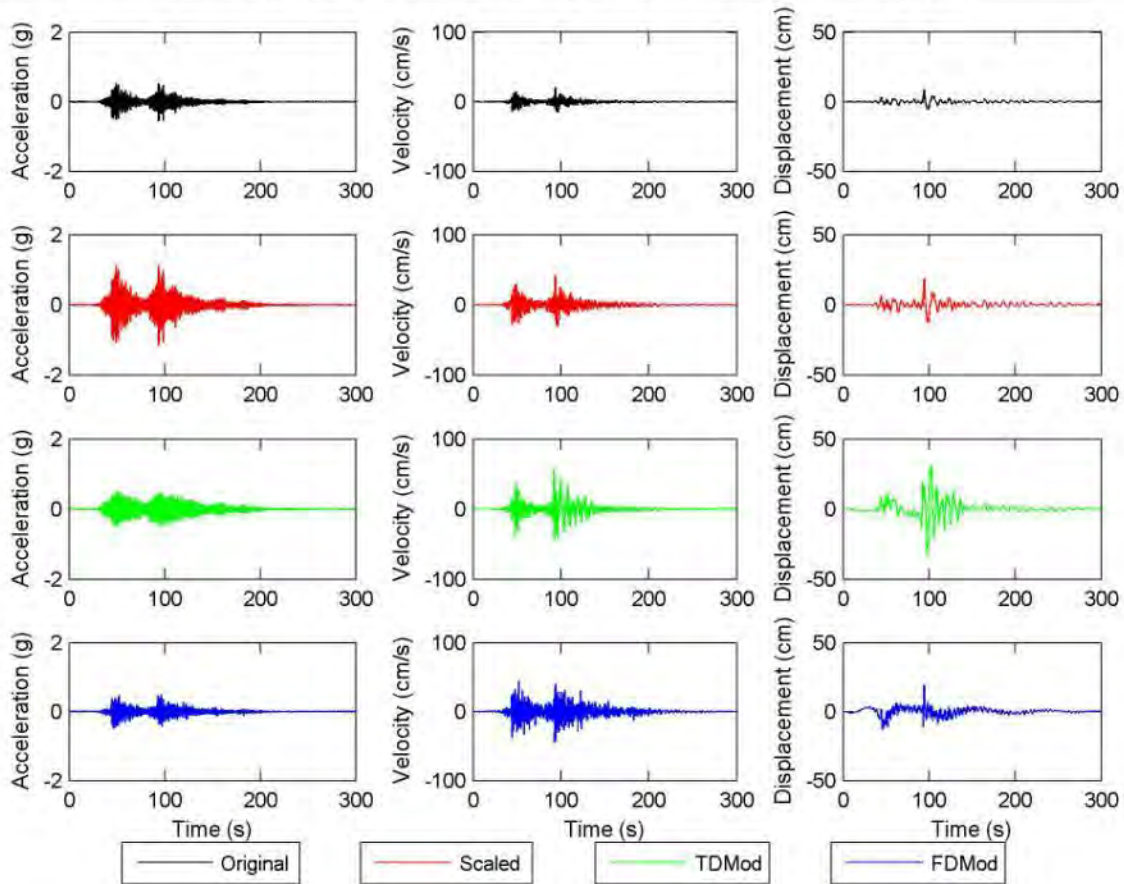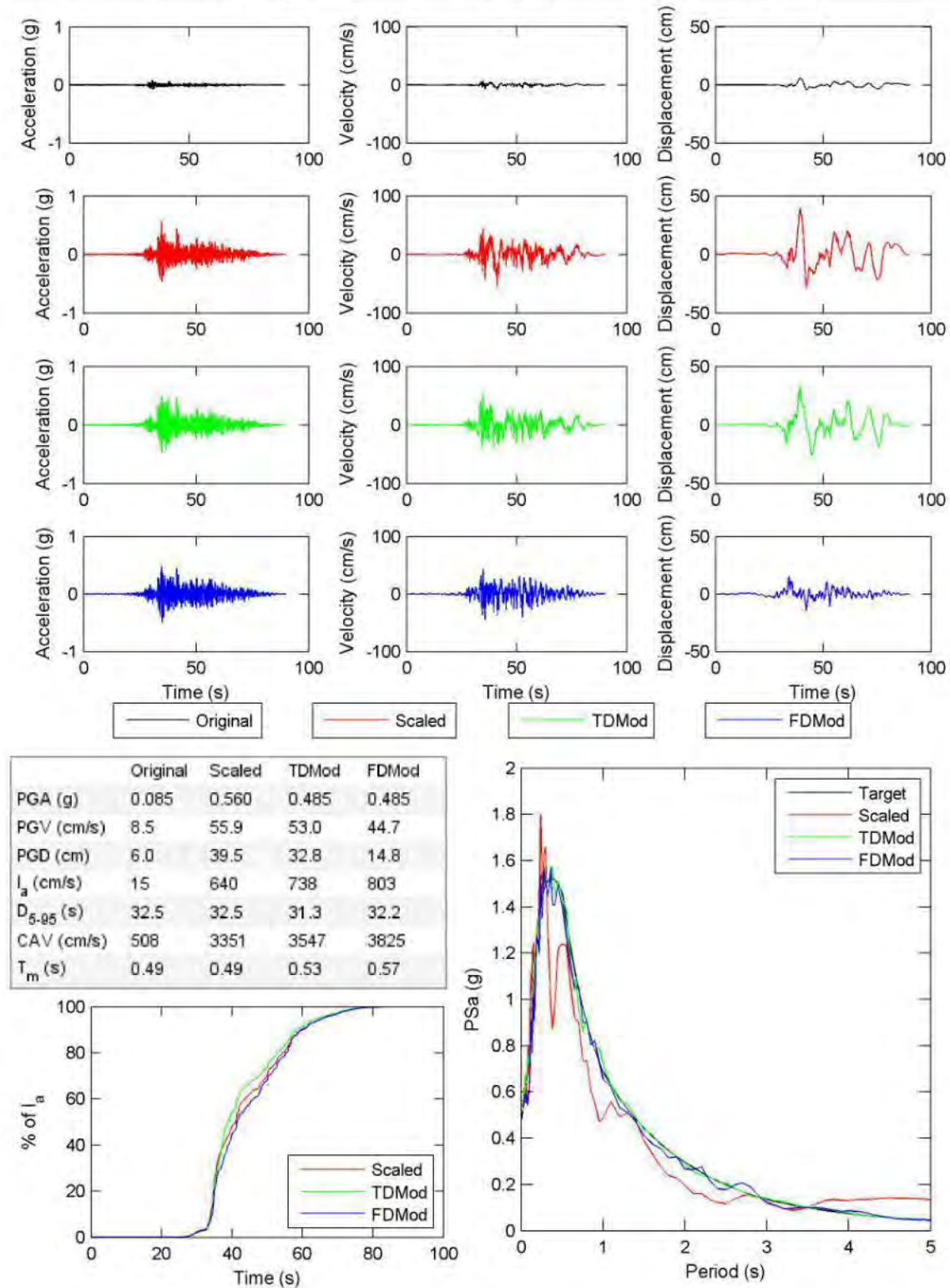

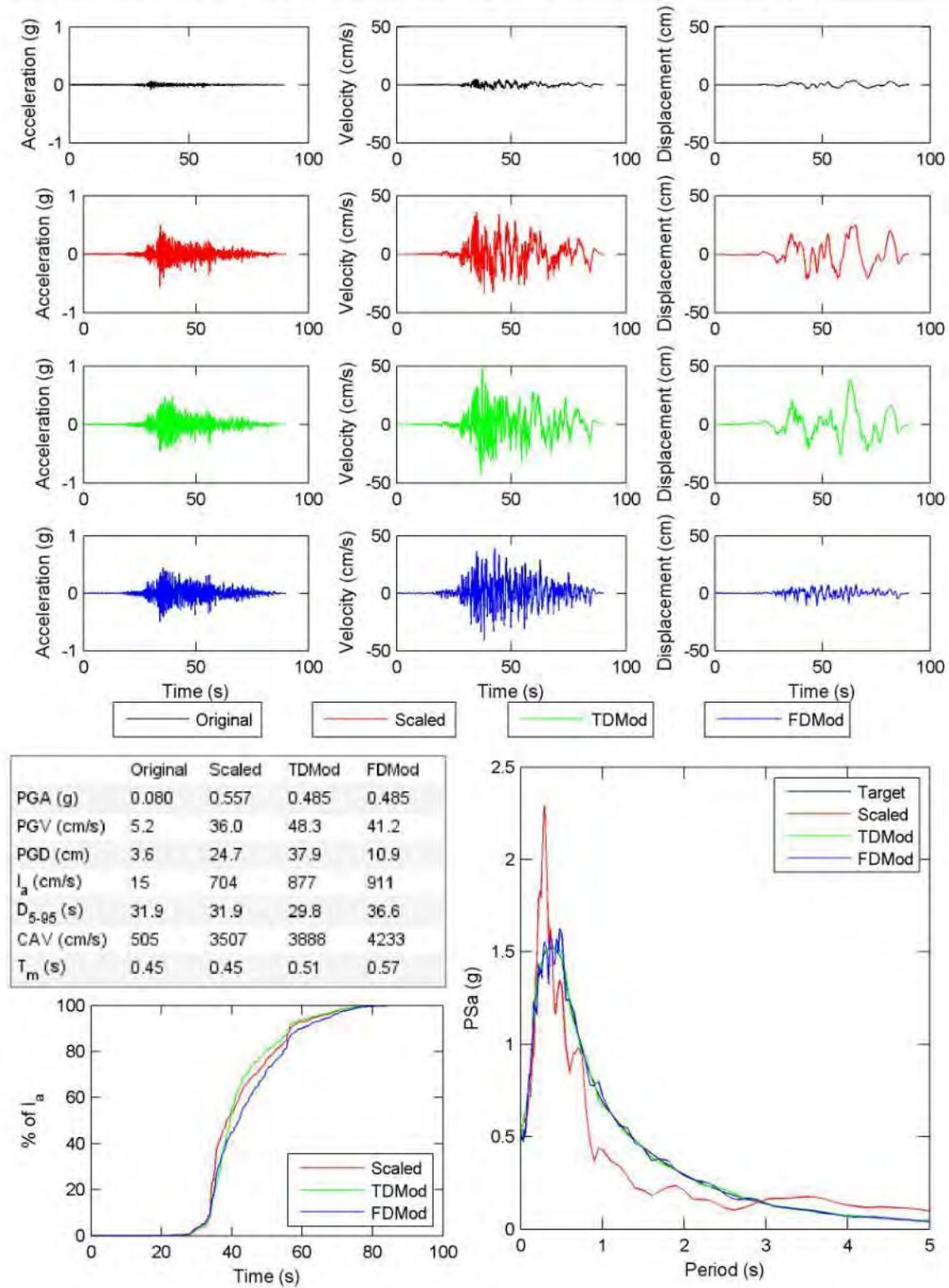|	Original	Scaled	TDMod	FDMod
PGA (g)	0.553	1.144	0.485	0.485
PGV (cm/s)	20.4	42.2	57.0	44.7
PGD (cm)	9.0	18.6	32.8	19.4
I_a (cm/s)	1423	6097	3030	1578
D_{5-95} (s)	82.0	82.0	101.1	100.0
CAV (cm/s)	7891	16335	13175	8868
T_m (s)	0.14	0.14	0.21	0.56

Figure E.4. continued.

754

File Name: 1149 ATK000   Start and End Taper Percentage: 1.0% and 5.0%
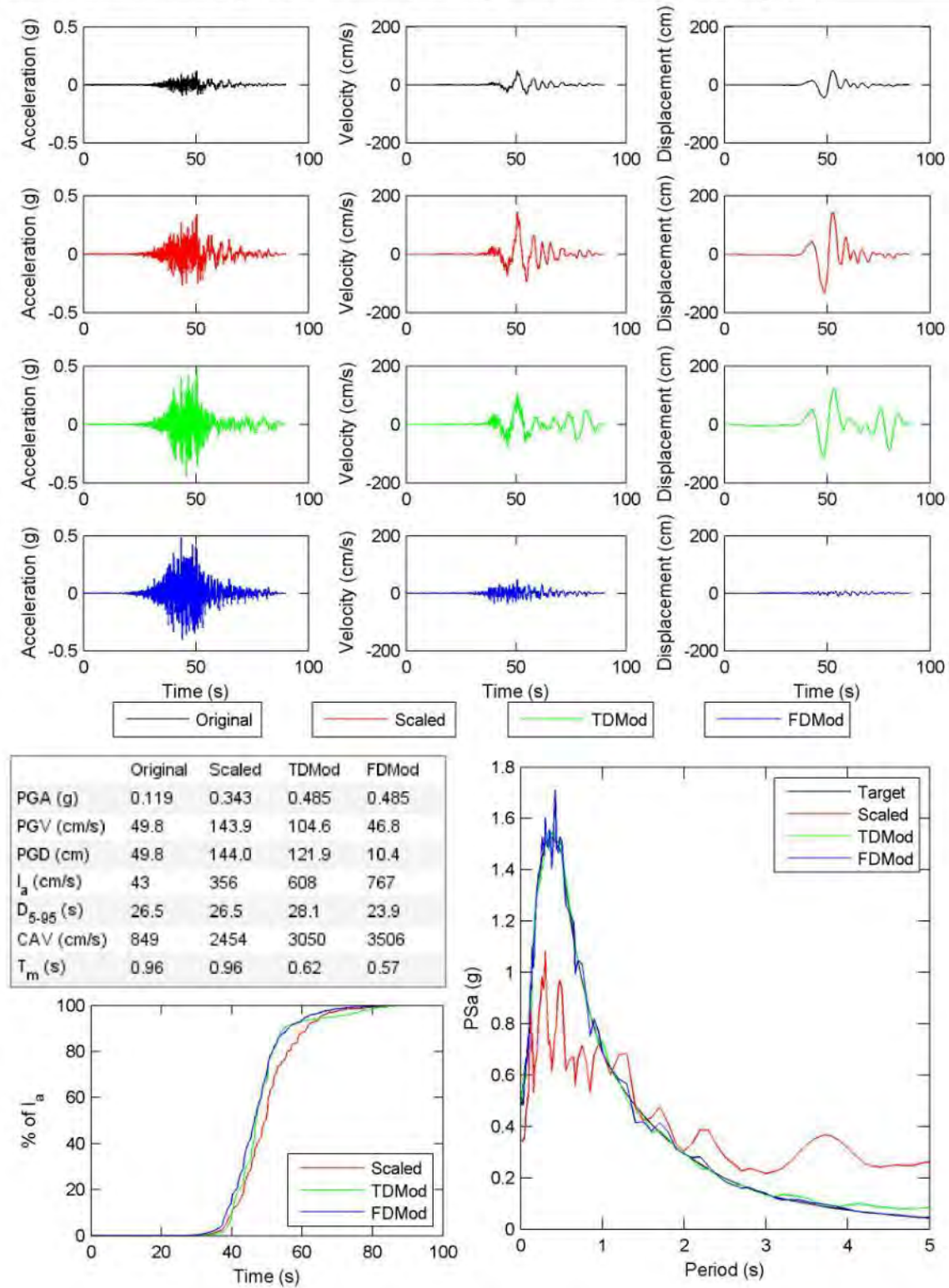Scale Factor: 4.43   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.105	0.464	0.485	0.485
PGV (cm/s)	22.4	99.2	60.5	36.2
PGD (cm)	23.5	104.0	89.1	12.3
I_a (cm/s)	24	463	653	636
D_{5-95} (s)	35.9	35.9	32.4	36.2
CAV (cm/s)	683	3026	3468	3644
T_m (s)	0.84	0.84	0.63	0.60

Figure E.4. continued.

755

File Name: 1149 ATK090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.10   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 4
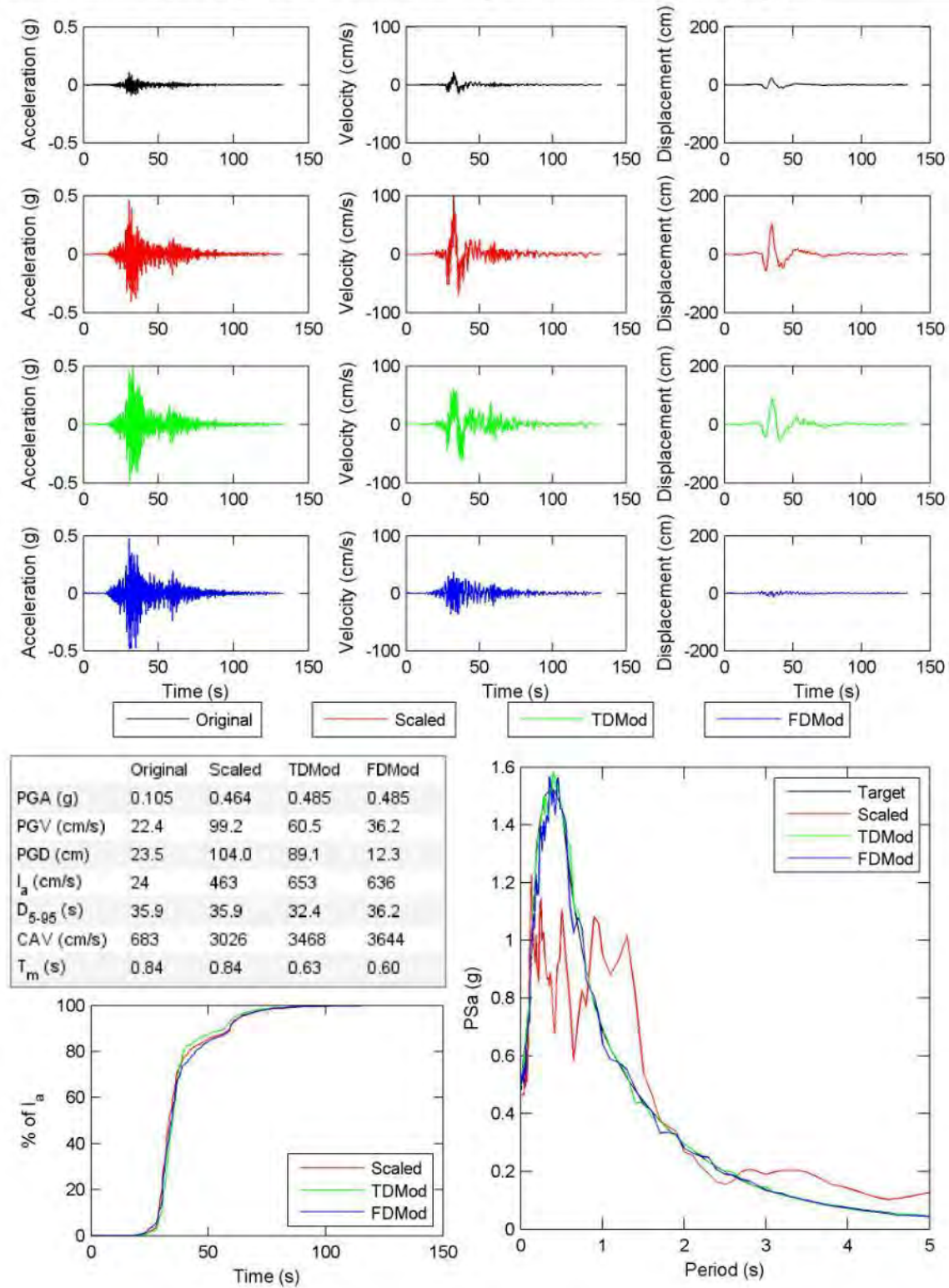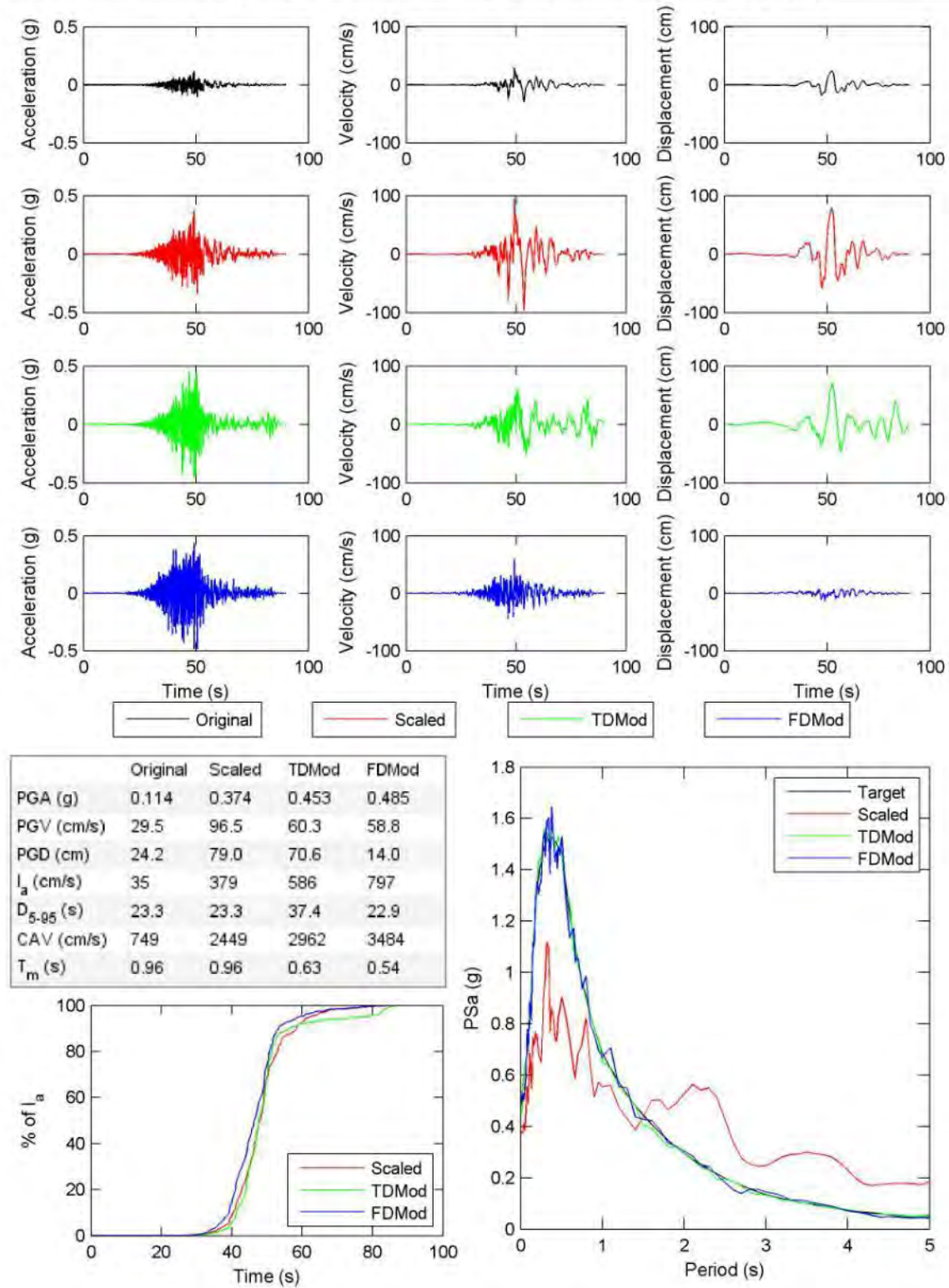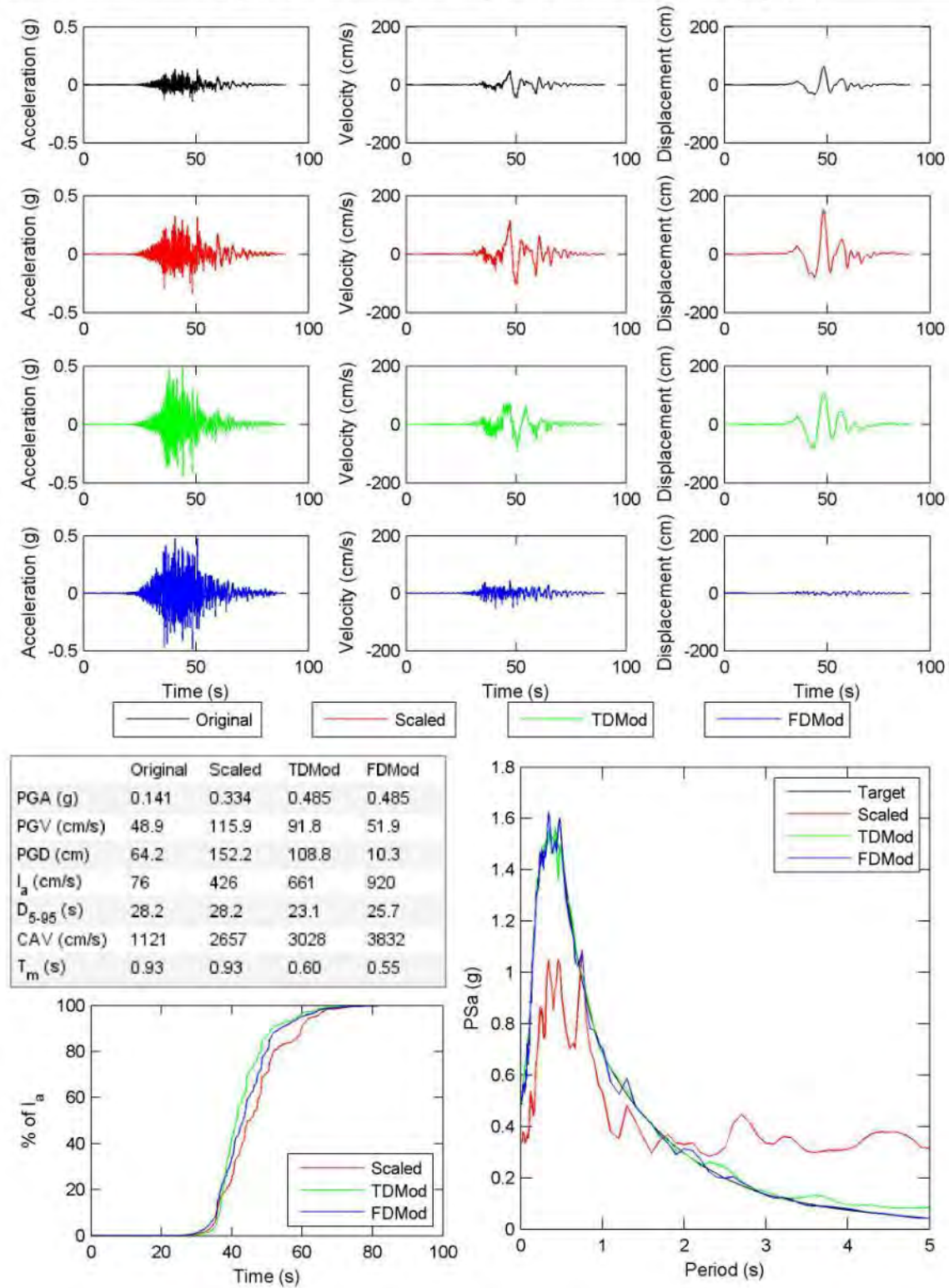

	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.671	0.485	0.485
PGV (cm/s)	16.2	66.3	57.3	50.6
PGD (cm)	11.6	47.5	41.4	12.8
I_a (cm/s)	28	473	524	644
D_{5-95} (s)	31.8	31.8	31.2	37.9
CAV (cm/s)	701	2875	3027	3884
T_m (s)	0.66	0.66	0.65	0.68

Figure E.4. continued.

756

File Name: 1154 BRS090   Start and End Taper Percentage: 1.0% and 5.0%
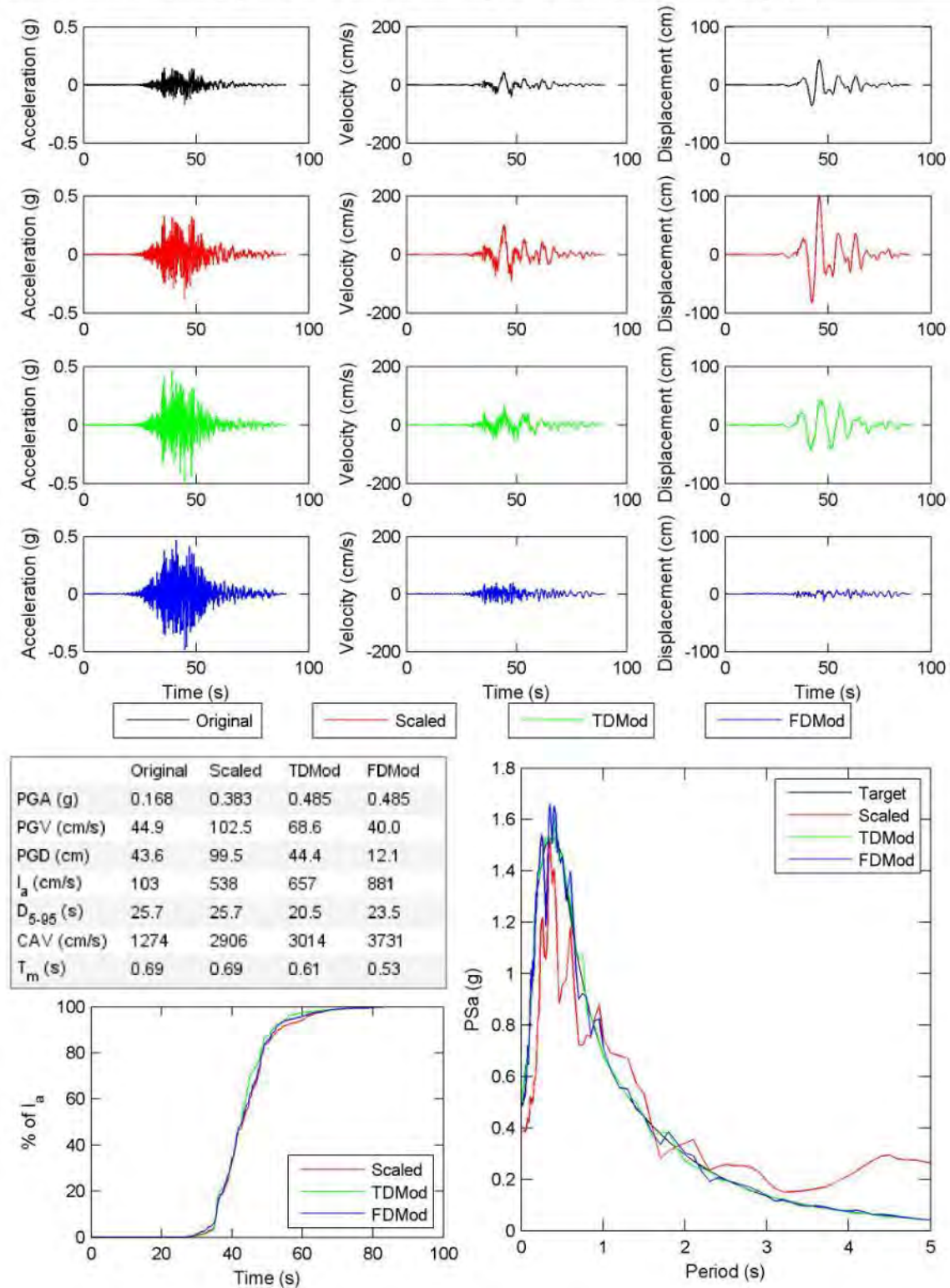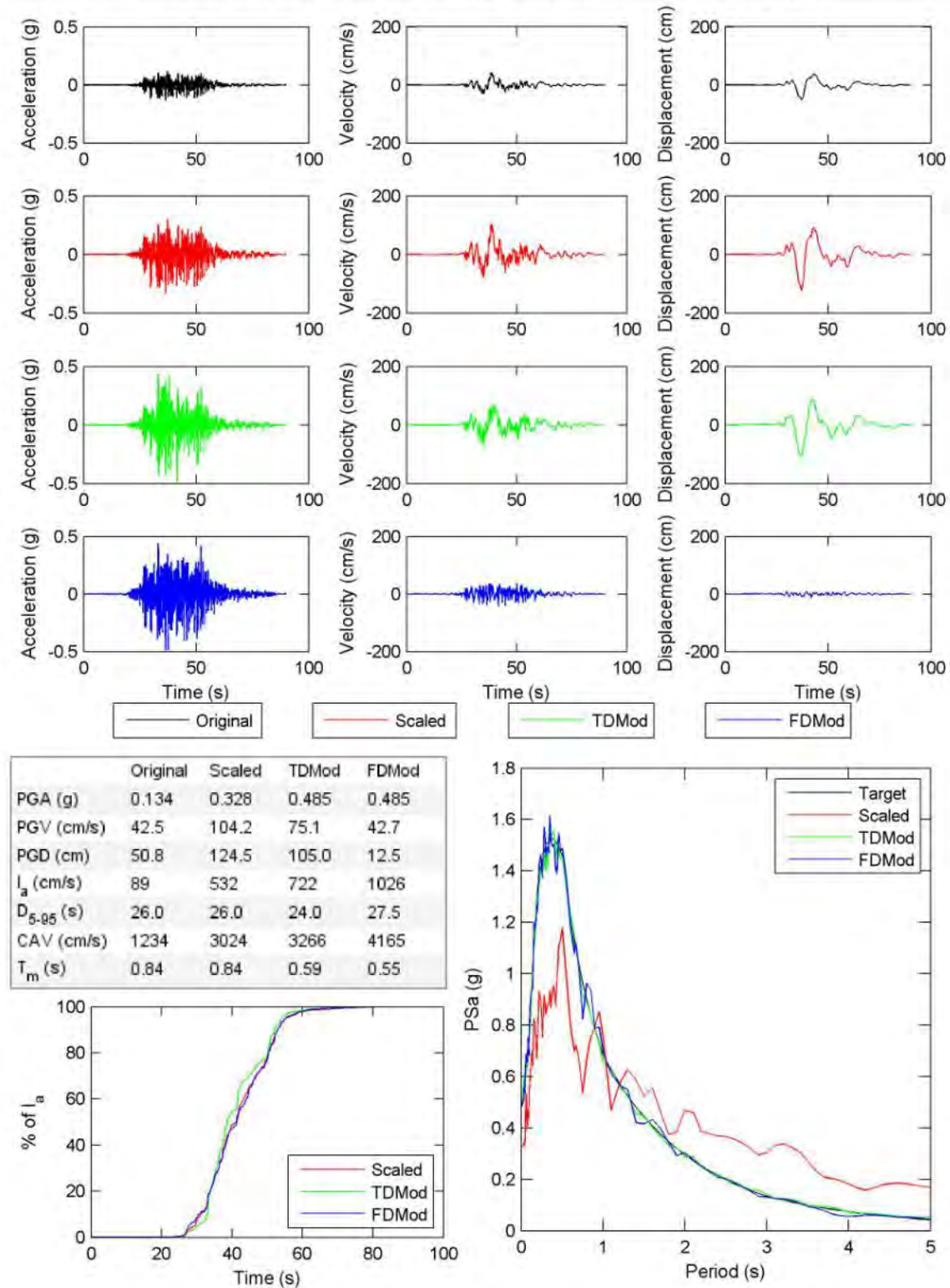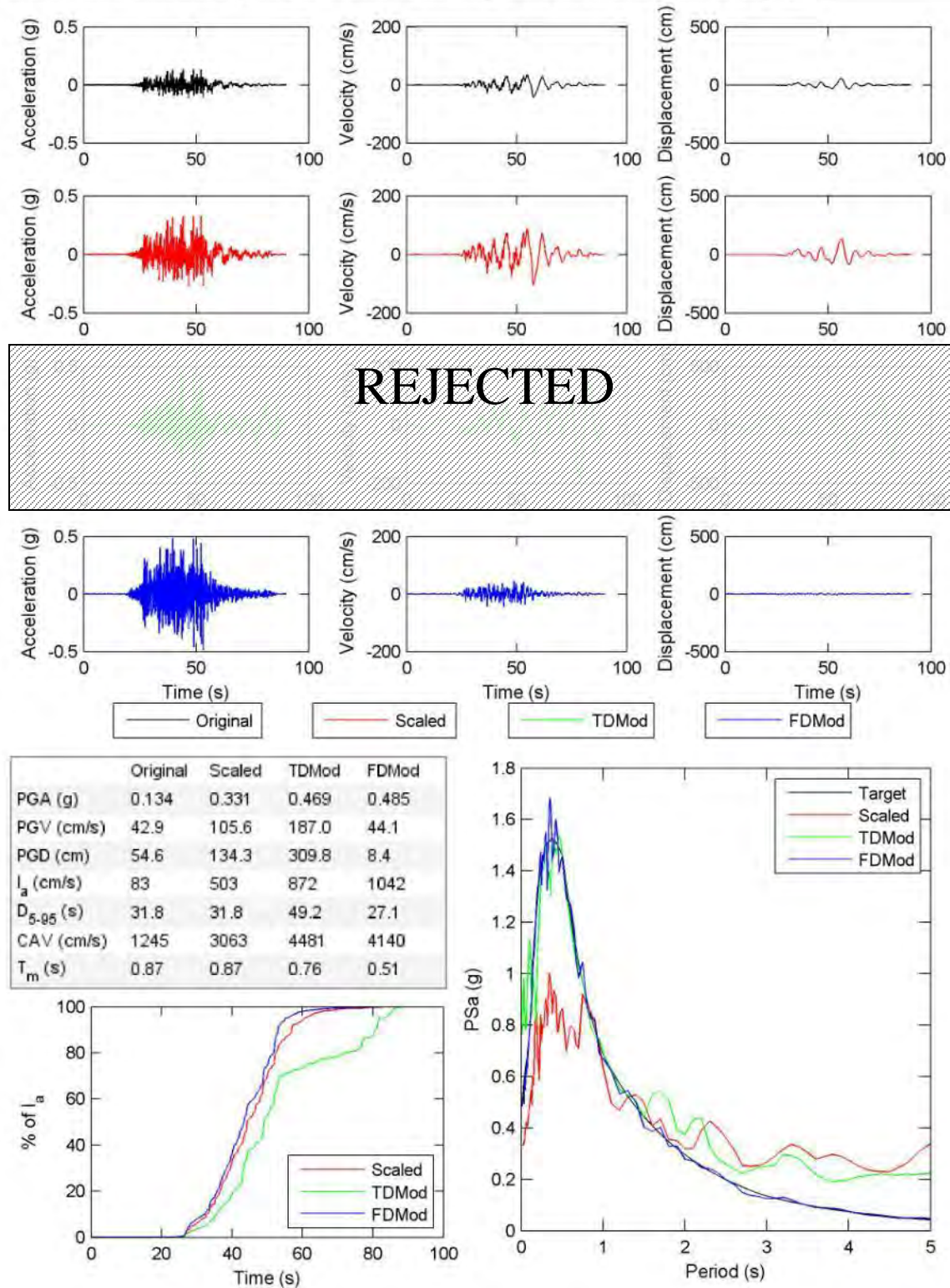Scale Factor: 8.99   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.045	0.407	0.485	0.485
PGV (cm/s)	8.1	72.5	44.3	49.0
PGD (cm)	4.4	39.1	27.0	14.2
I_a (cm/s)	7	568	650	809
D_{5-95} (s)	34.0	34.0	33.8	34.3
CAV (cm/s)	381	3429	3553	4151
T_m (s)	0.90	0.90	0.68	0.57

Figure E.4. continued.

757

	Original	Scaled	TDMod	FDMod
PGA (g)	0.058	0.450	0.485	0.485
PGV (cm/s)	9.0	70.7	58.7	48.7
PGD (cm)	5.9	45.8	31.6	12.9
I_a (cm/s)	8	465	654	779
D_{5-95} (s)	33.7	33.7	32.1	36.7
CAV (cm/s)	394	3082	3380	4153
T_m (s)	0.99	0.99	0.67	0.59

Figure E.4. continued.

758

File Name: 1155 BUR000   Start and End Taper Percentage: 1.0% and 5.0%
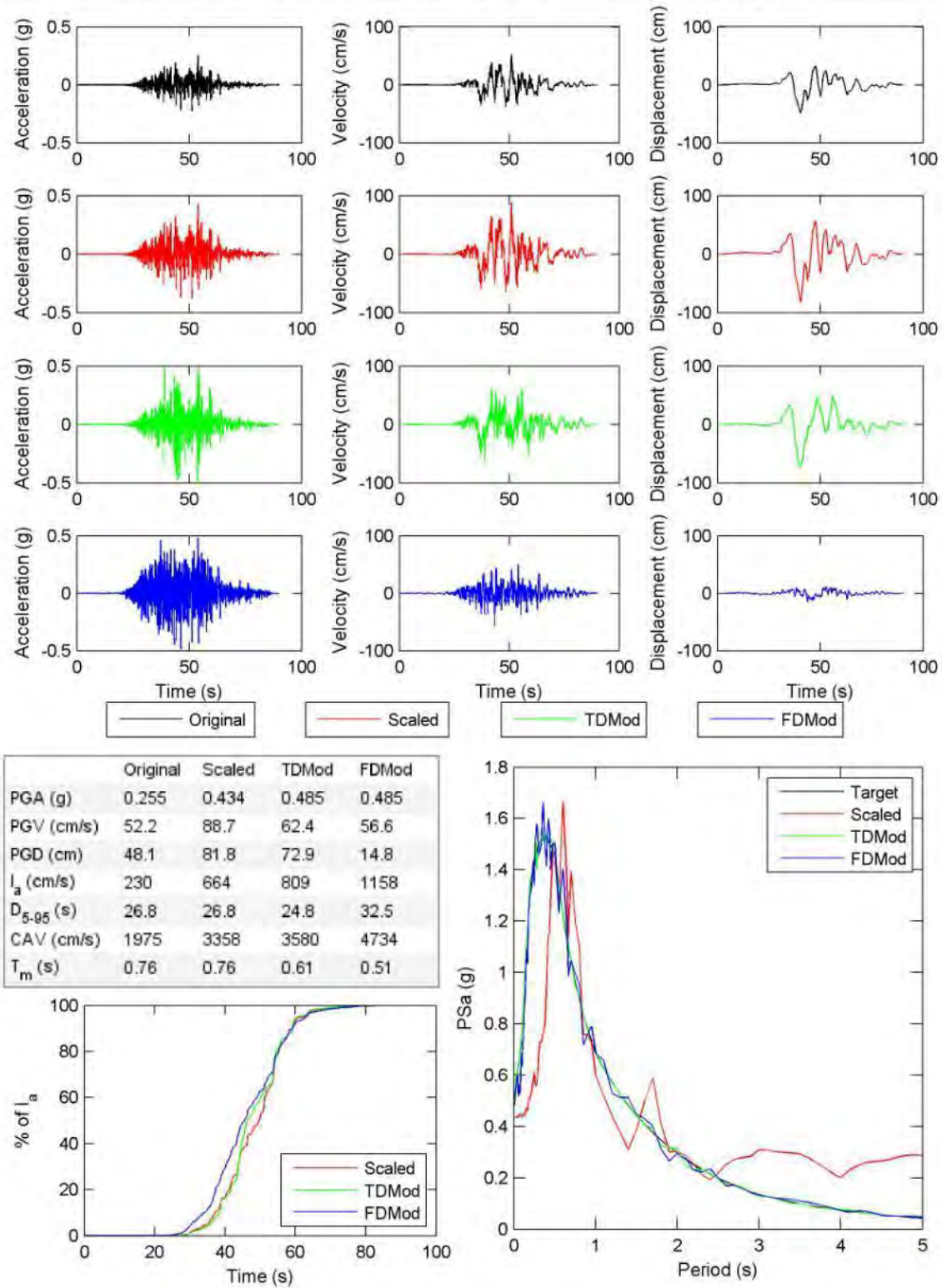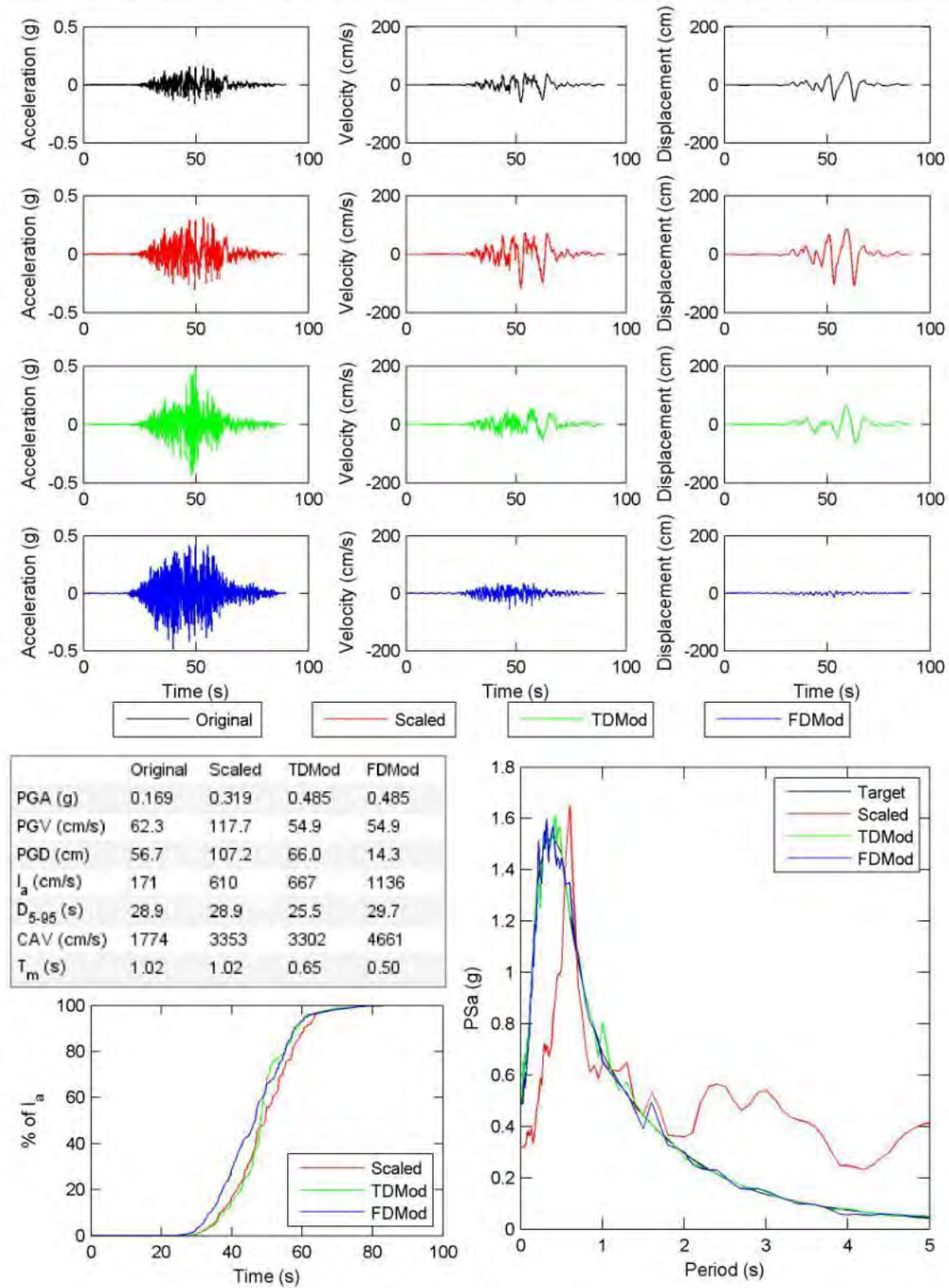Scale Factor: 4.03   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.103	0.417	0.486	0.485
PGV (cm/s)	19.8	79.8	50.9	47.8
PGD (cm)	18.0	72.4	35.1	16.6
I_a (cm/s)	35	569	670	1083
D_{5-95} (s)	41.0	41.0	39.0	40.3
CAV (cm/s)	970	3911	3982	5389
T_m (s)	0.96	0.96	0.71	0.57

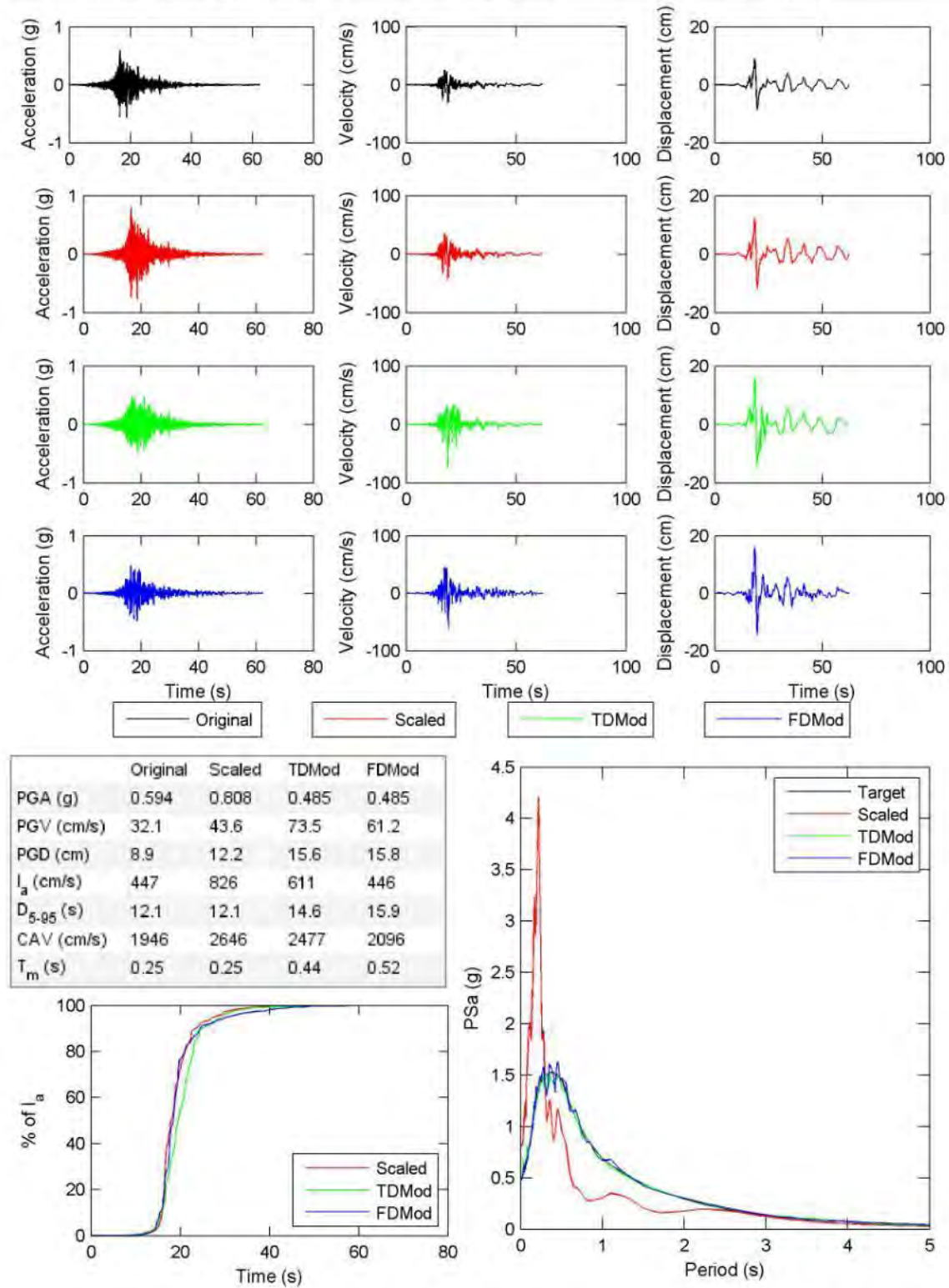**Figure E.4.** continued.

759

File Name: 1155 BUR090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.61   Target Spectrum Matched: targetCMS2.txt   FD poly: 7   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.108	0.390	0.485	0.485
PGV (cm/s)	22.3	80.4	54.7	39.2
PGD (cm)	10.7	38.6	30.9	16.5
I_a (cm/s)	49	642	673	1063
D_{5-95} (s)	37.9	37.9	37.8	37.4
CAV (cm/s)	1090	3934	3923	5083
T_m (s)	0.93	0.93	0.70	0.54

Figure E.4. continued.

760

File Name: 1160 FAT000   Start and End Taper Percentage: 1.0% and 5.0%
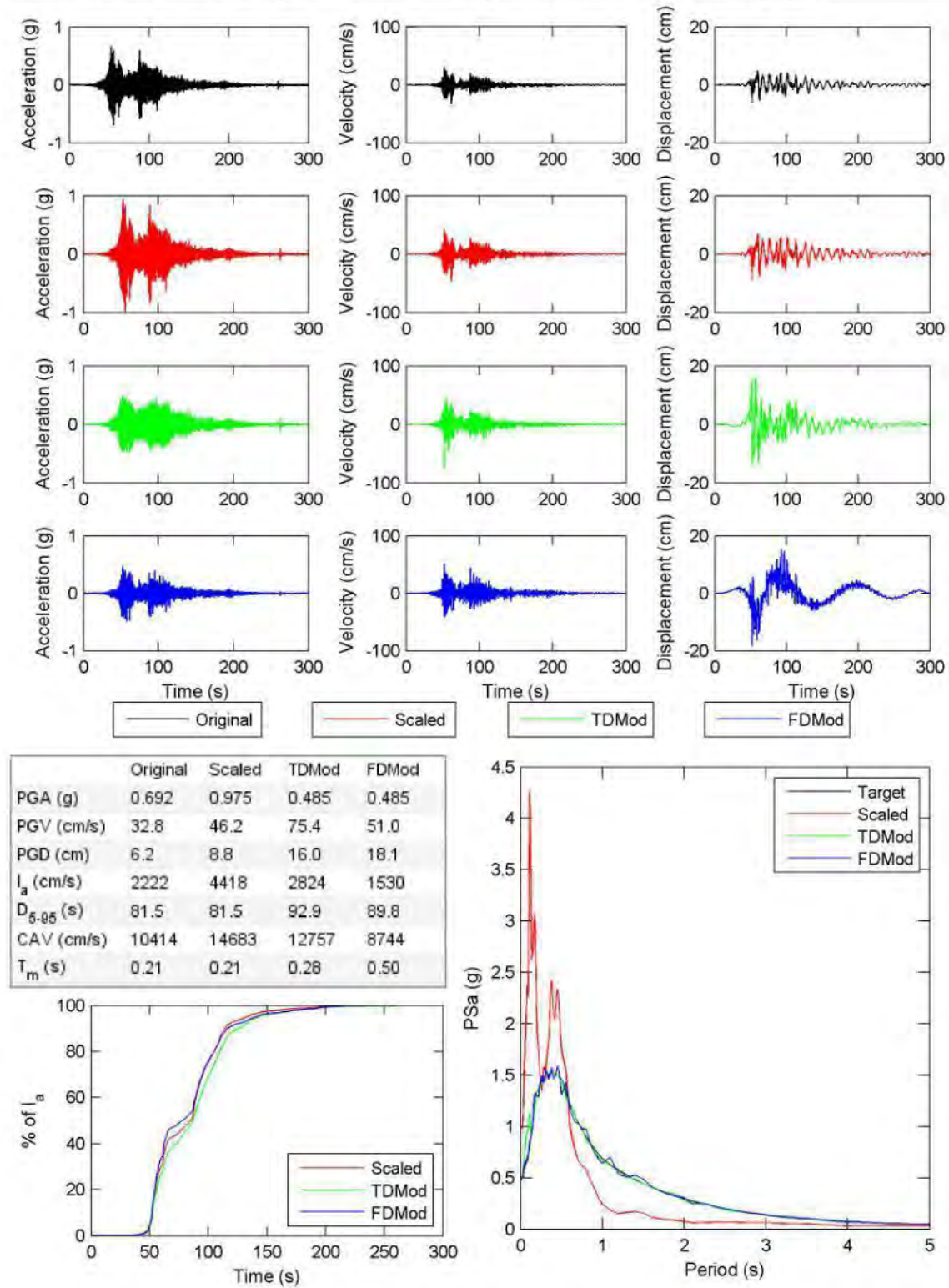Scale Factor: 3.24   Target Spectrum Matched: targetCMS2.txt   FD poly: 6   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.187	0.606	0.485	0.485
PGV (cm/s)	18.5	60.0	55.0	38.5
PGD (cm)	17.1	55.3	58.9	15.0
I_a (cm/s)	96	1005	817	812
D_{5-95} (s)	32.2	32.2	33.5	39.1
CAV (cm/s)	1351	4377	4179	4413
T_m (s)	0.48	0.48	0.51	0.56

Figure E.4. continued.

761

File Name: 1160 FAT090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.14   Target Spectrum Matched: targetCMS2.txt   FD poly: 7   TD poly: 3
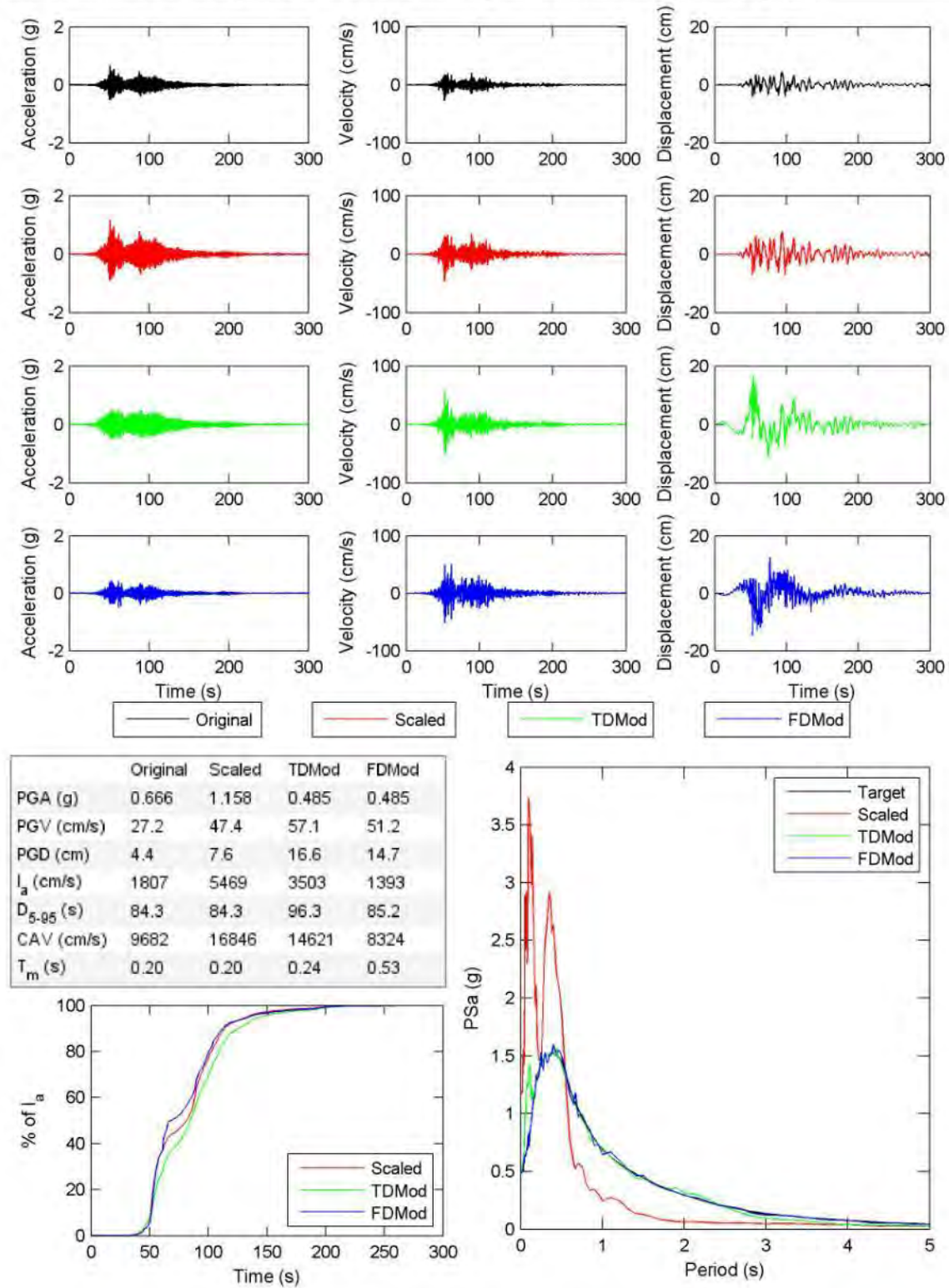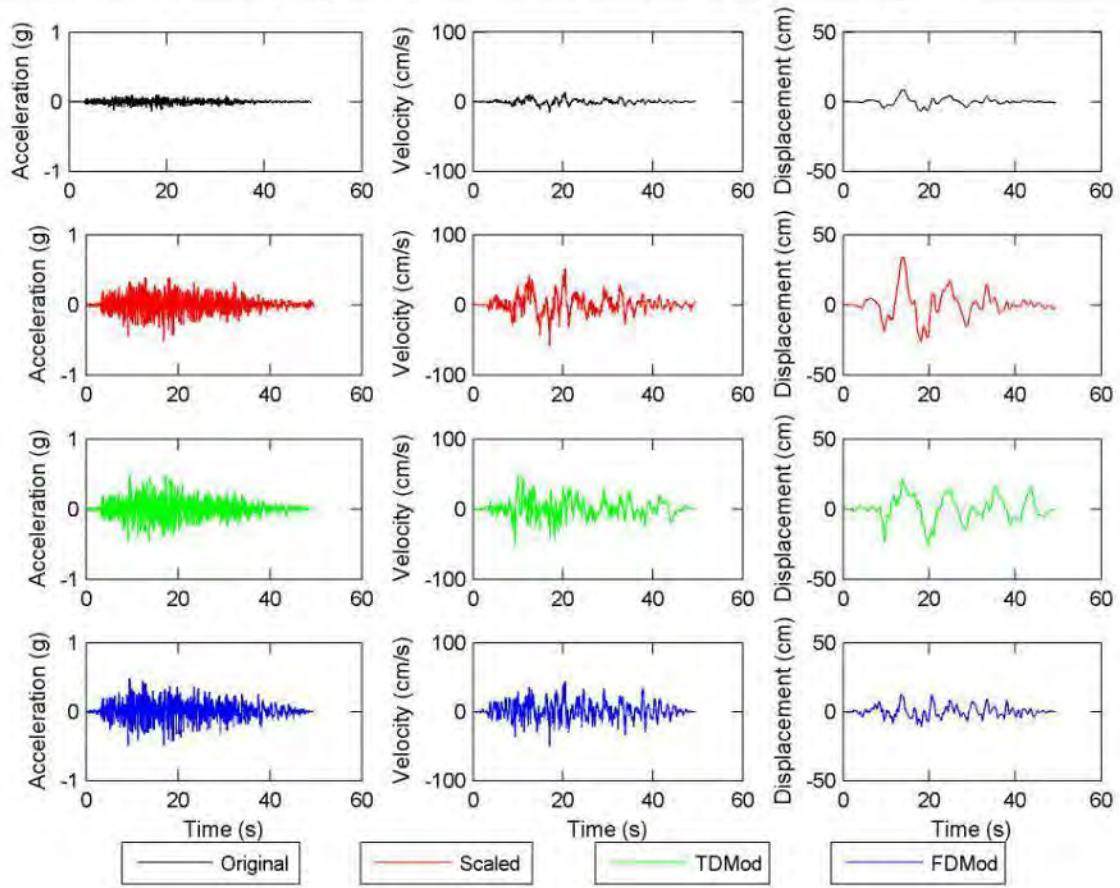

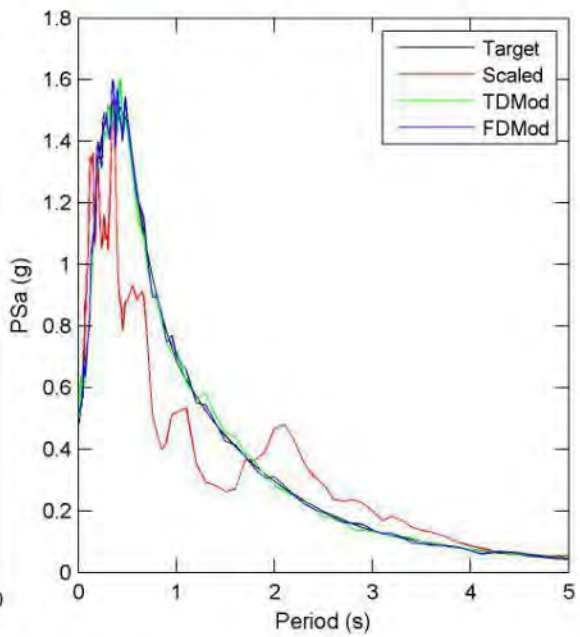|	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.659	0.485	0.485
PGV (cm/s)	14.9	61.5	62.8	52.7
PGD (cm)	17.1	70.6	76.1	16.3
I_a (cm/s)	68	1159	975	790
D_{5-95} (s)	34.3	34.3	41.1	42.6
CAV (cm/s)	1207	4999	5078	4547
T_m (s)	0.42	0.42	0.52	0.60

Figure E.4. continued.

762

File Name: 1162 GYN000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.58   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 4

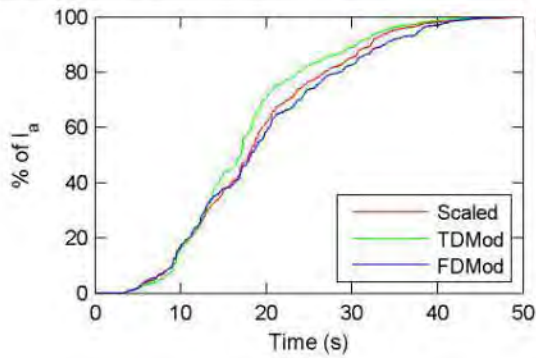|	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.604	0.486	0.485
PGV (cm/s)	8.8	40.2	48.4	45.3
PGD (cm)	3.0	14.0	14.9	14.5
I_a (cm/s)	25	527	538	507
D_{5-95} (s)	11.4	11.4	11.6	13.3
CAV (cm/s)	409	1874	1982	1987
T_m (s)	0.34	0.34	0.49	0.53

Figure E.4. continued.

763

File Name: 1162 GYN090   Start and End Taper Percentage: 1.0% and 5.0%
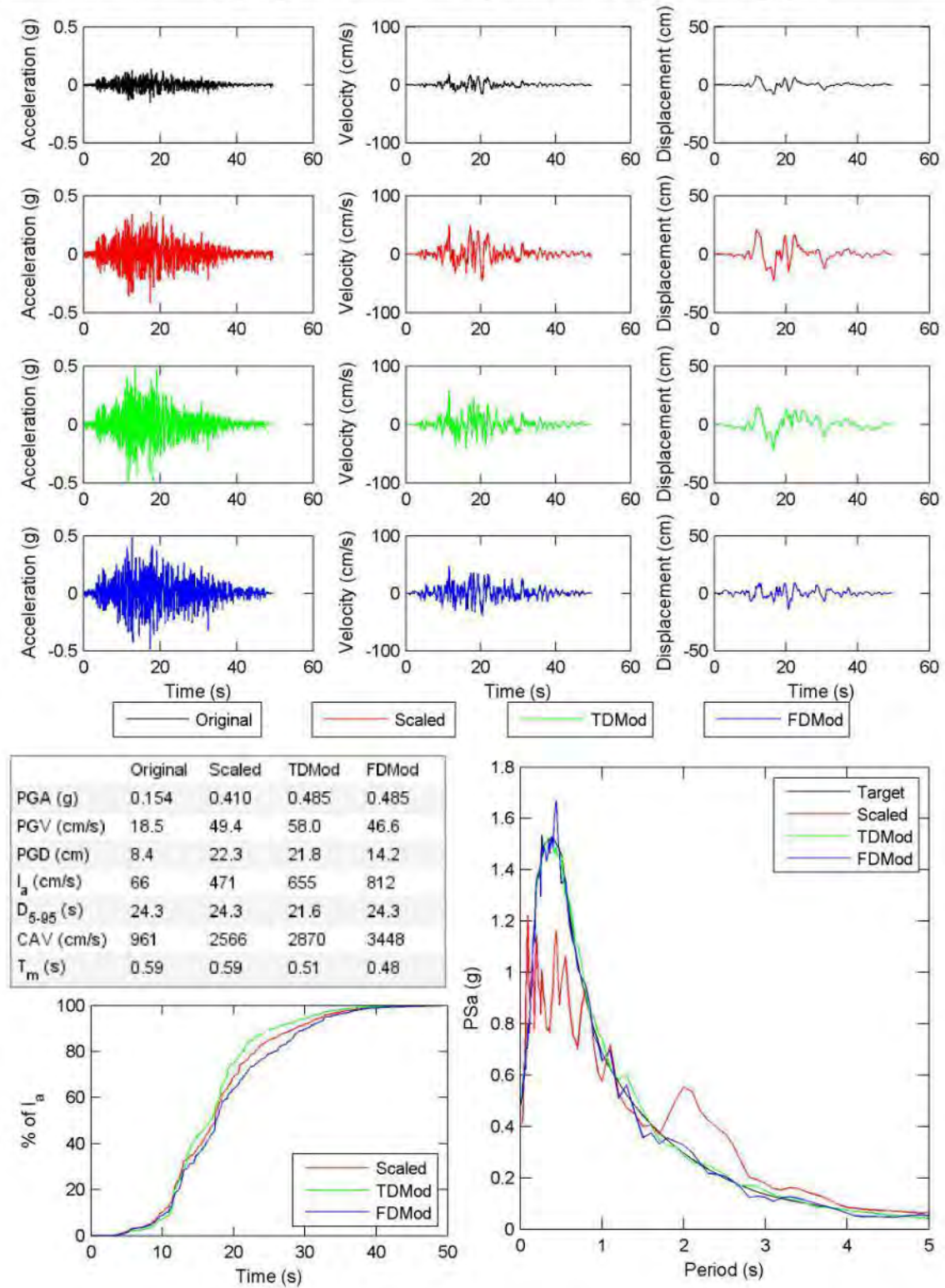Scale Factor: 4.12   Target Spectrum Matched: targetCMS2.txt   FD poly: 7   TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.489	0.484	0.489
PGV (cm/s)	10.5	43.2	55.4	48.9
PGD (cm)	3.9	16.3	9.4	11.9
I_a (cm/s)	19	330	370	372
D_{5-95} (s)	10.4	10.4	10.4	12.3
CAV (cm/s)	349	1436	1537	1605
T_m (s)	0.46	0.46	0.53	0.56

Figure E.4. continued.

764

File Name: 1163 DHM000   Start and End Taper Percentage: 1.0% and 5.0%
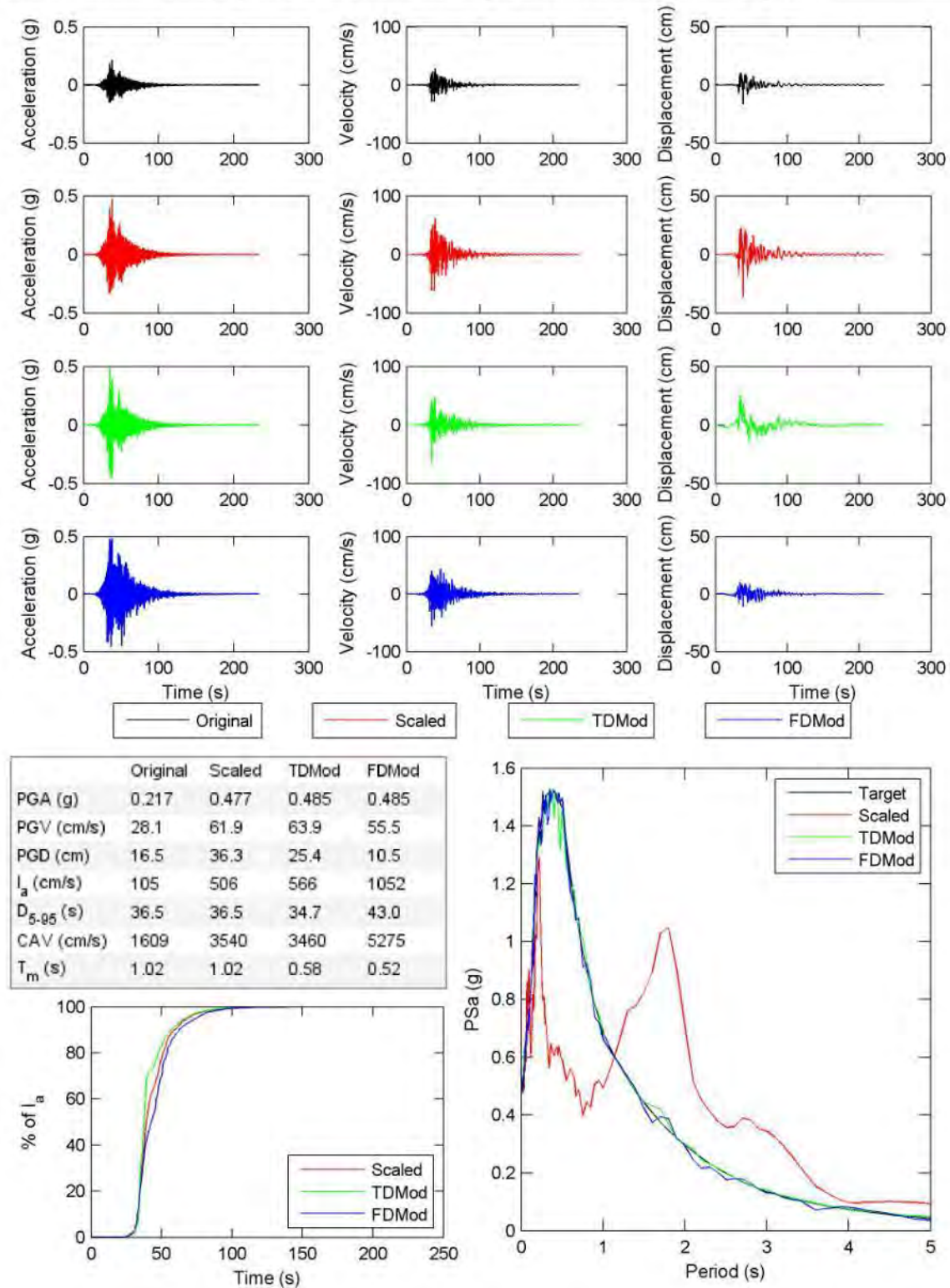Scale Factor: 4.25   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.090	0.383	0.485	0.485
PGV (cm/s)	24.8	105.3	80.9	40.7
PGD (cm)	29.4	125.0	99.4	11.0
I_a (cm/s)	20	361	538	593
D_{5-95} (s)	35.1	35.1	32.7	38.4
CAV (cm/s)	623	2648	2893	3449
T_m (s)	0.98	0.98	0.66	0.62

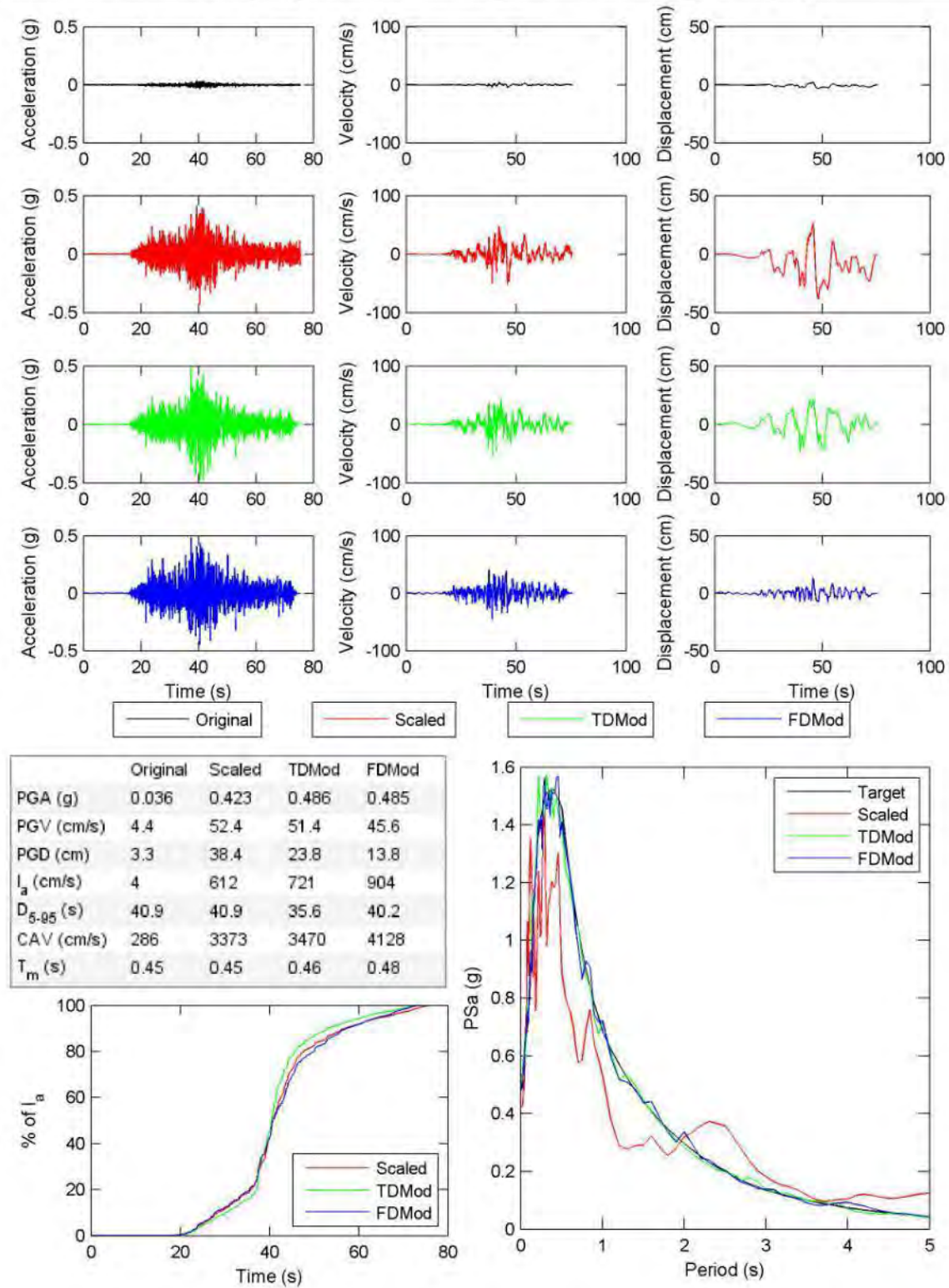**Figure E.4.** continued.

765

File Name: 1163 DHM090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.05   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.083	0.420	0.485	0.485
PGV (cm/s)	17.7	89.4	61.8	40.0
PGD (cm)	16.6	83.6	69.4	12.0
I_a (cm/s)	15	379	430	626
D_{5-95} (s)	36.7	36.7	34.5	38.8
CAV (cm/s)	540	2727	2772	3615
T_m (s)	0.87	0.87	0.71	0.60

Figure E.4. continued.

766

	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.423	0.485	0.485
PGV (cm/s)	28.9	89.8	73.4	53.4
PGD (cm)	17.5	54.3	50.7	14.8
I_a (cm/s)	42	409	510	633
D_{5-95} (s)	16.9	16.9	14.9	19.3
CAV (cm/s)	619	1926	2047	2544
T_m (s)	1.04	1.04	0.61	0.47

Figure E.4. continued.

767

Figure E.4. continued.

Figure E.4. continued.

769

	Original	Scaled	TDMod	FDMod
PGA (g)	0.040	0.408	0.485	0.485
PGV (cm/s)	6.5	66.8	59.2	58.5
PGD (cm)	9.2	95.0	72.8	17.6
I_a (cm/s)	3	301	555	645
D_{5-95} (s)	37.4	37.4	29.6	38.4
CAV (cm/s)	245	2517	3018	3748
T_m (s)	0.59	0.59	0.53	0.57

Figure E.4. continued.

770

File Name: 1170 MCD000   Start and End Taper Percentage: 1.0% and 5.0%
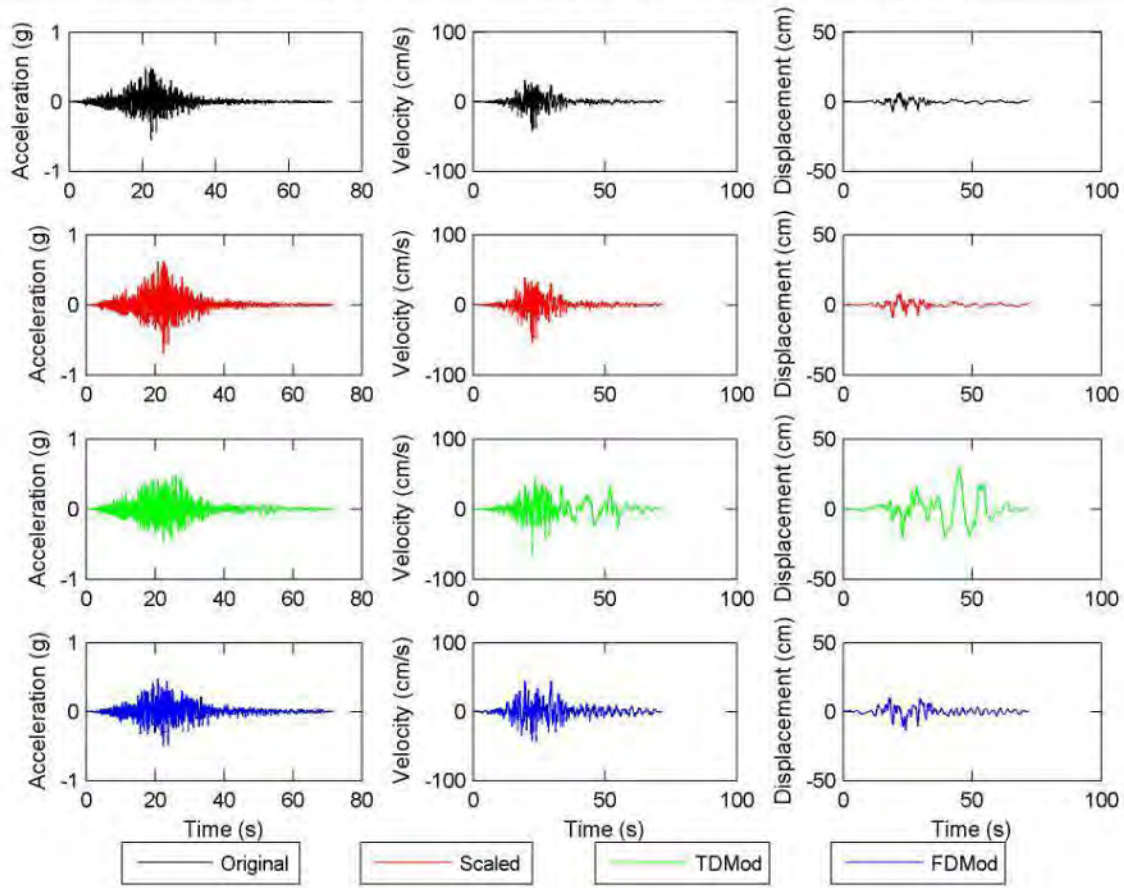Scale Factor: 9.70   Target Spectrum Matched: targetCMS2.txt   FD poly: 5   TD poly: 5

REJECTED

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.054	0.520	0.485	0.485
PGV (cm/s)	6.2	59.9	64.8	45.4
PGD (cm)	4.8	46.1	50.6	15.8
I_a (cm/s)	4	404	574	590
D_{5-95} (s)	16.3	16.3	14.8	18.6
CAV (cm/s)	186	1808	2147	2342
T_m (s)	0.37	0.37	0.57	0.56

Figure E.4. continued.

771

File Name: 1170 MCD090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 8.08   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.068	0.550	0.482	0.488
PGV (cm/s)	8.8	71.4	68.2	47.0
PGD (cm)	10.1	81.7	32.2	12.5
I_a (cm/s)	4	237	496	452
D_{5-95} (s)	14.6	14.6	10.0	12.0
CAV (cm/s)	170	1370	1913	1857
T_m (s)	0.52	0.52	0.52	0.52

Figure E.4. continued.

772

File Name: 1177 ZYT000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.45   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 4
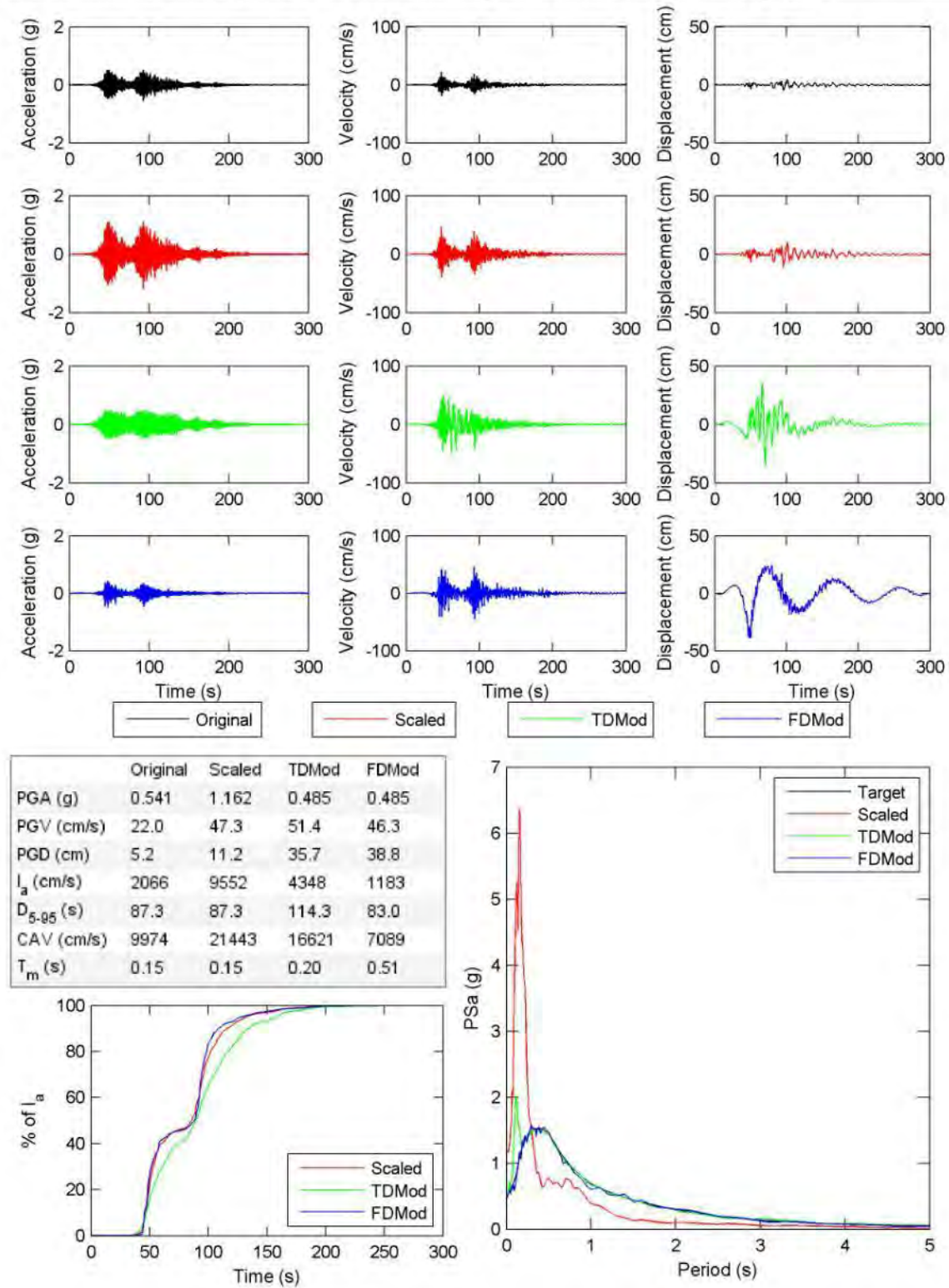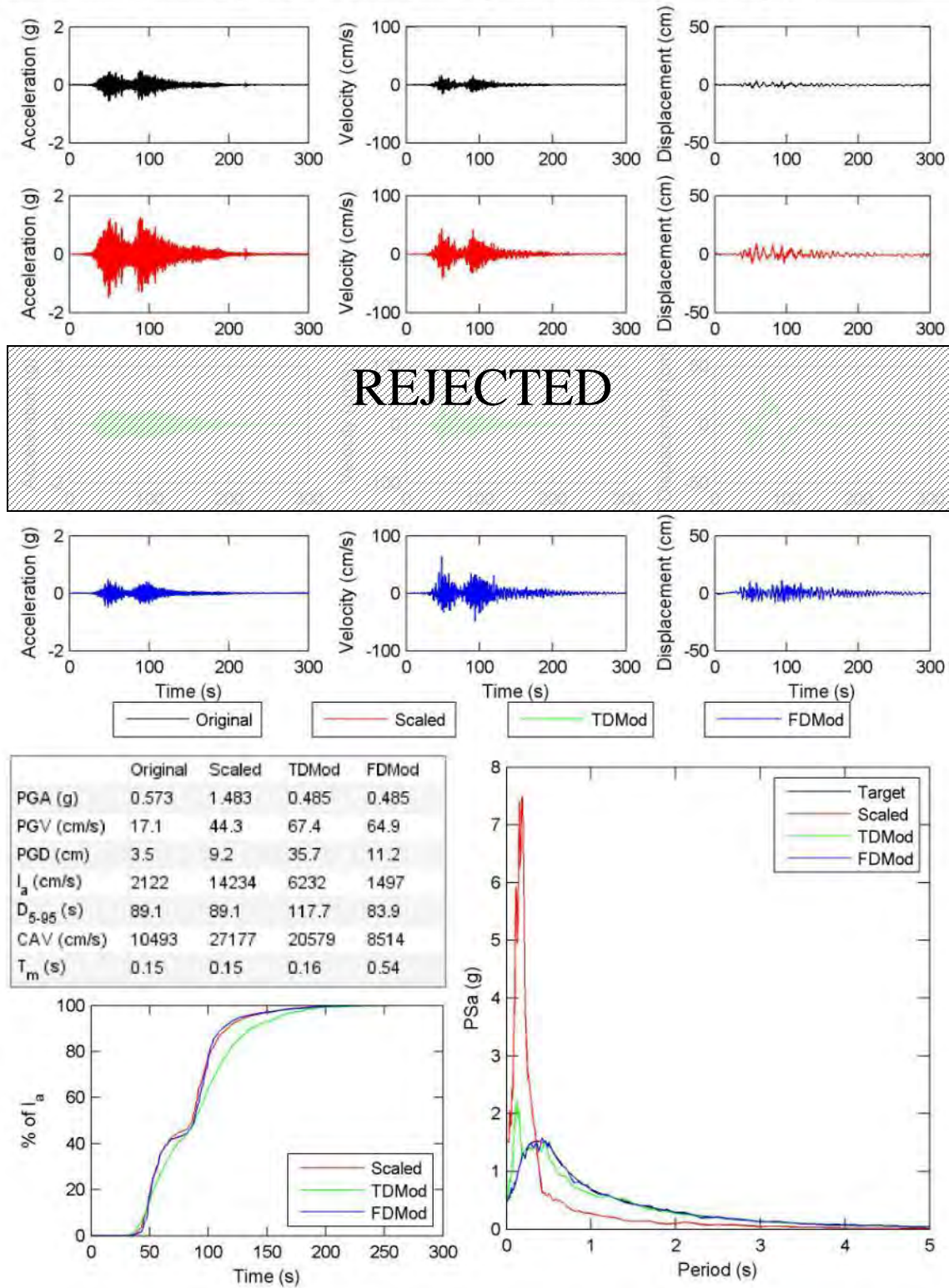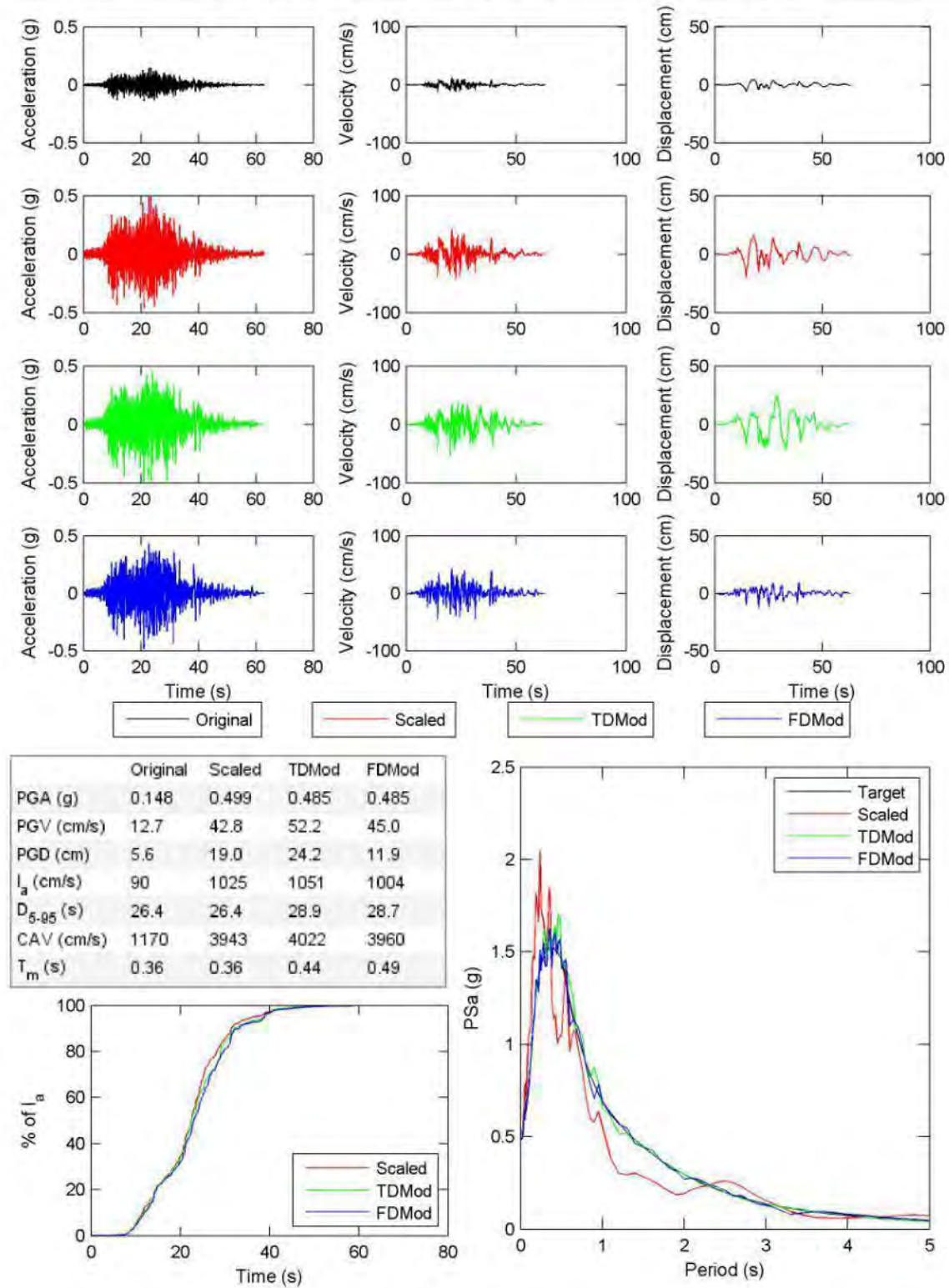
	Original	Scaled	TDMod	FDMod
PGA (g)	0.108	0.481	0.485	0.485
PGV (cm/s)	18.5	82.4	61.9	55.1
PGD (cm)	13.0	57.8	55.1	13.4
I_a (cm/s)	26	505	664	898
D_{5-95} (s)	39.3	39.3	36.5	41.4
CAV (cm/s)	751	3343	3671	4689
T_m (s)	0.79	0.79	0.63	0.54

Figure E.4. continued.

773

	Original	Scaled	TDMod	FDMod
PGA (g)	0.110	0.492	0.485	0.485
PGV (cm/s)	15.2	68.0	62.6	45.7
PGD (cm)	18.2	81.2	73.2	11.5
I_a (cm/s)	34	673	712	873
D_{5-95} (s)	38.9	38.9	38.2	39.8
CAV (cm/s)	854	3808	3871	4571
T_m (s)	0.62	0.62	0.62	0.58

Figure E.4. continued.

774

	Original	Scaled	TDMod	FDMod
PGA (g)	0.288	0.438	0.485	0.485
PGV (cm/s)	32.7	49.7	60.1	53.0
PGD (cm)	16.4	24.9	21.3	29.8
I_a (cm/s)	300	692	890	1261
D_{5-95} (s)	85.6	85.6	75.1	97.9
CAV (cm/s)	3518	5347	5651	7731
T_m (s)	0.62	0.62	0.53	0.50

Figure E.4. continued.

775

	Original	Scaled	TDMod	FDMod
PGA (g)	0.262	0.569	0.485	0.485
PGV (cm/s)	24.7	53.6	50.1	50.1
PGD (cm)	11.5	25.0	26.4	12.7
I_a (cm/s)	230	1085	1145	1230
D_{5-95} (s)	84.5	84.5	82.0	91.7
CAV (cm/s)	3181	6904	7021	7539
T_m (s)	0.47	0.47	0.50	0.55

Figure E.4. continued.

776

File Name: 1201 CHY034-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.75   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 4
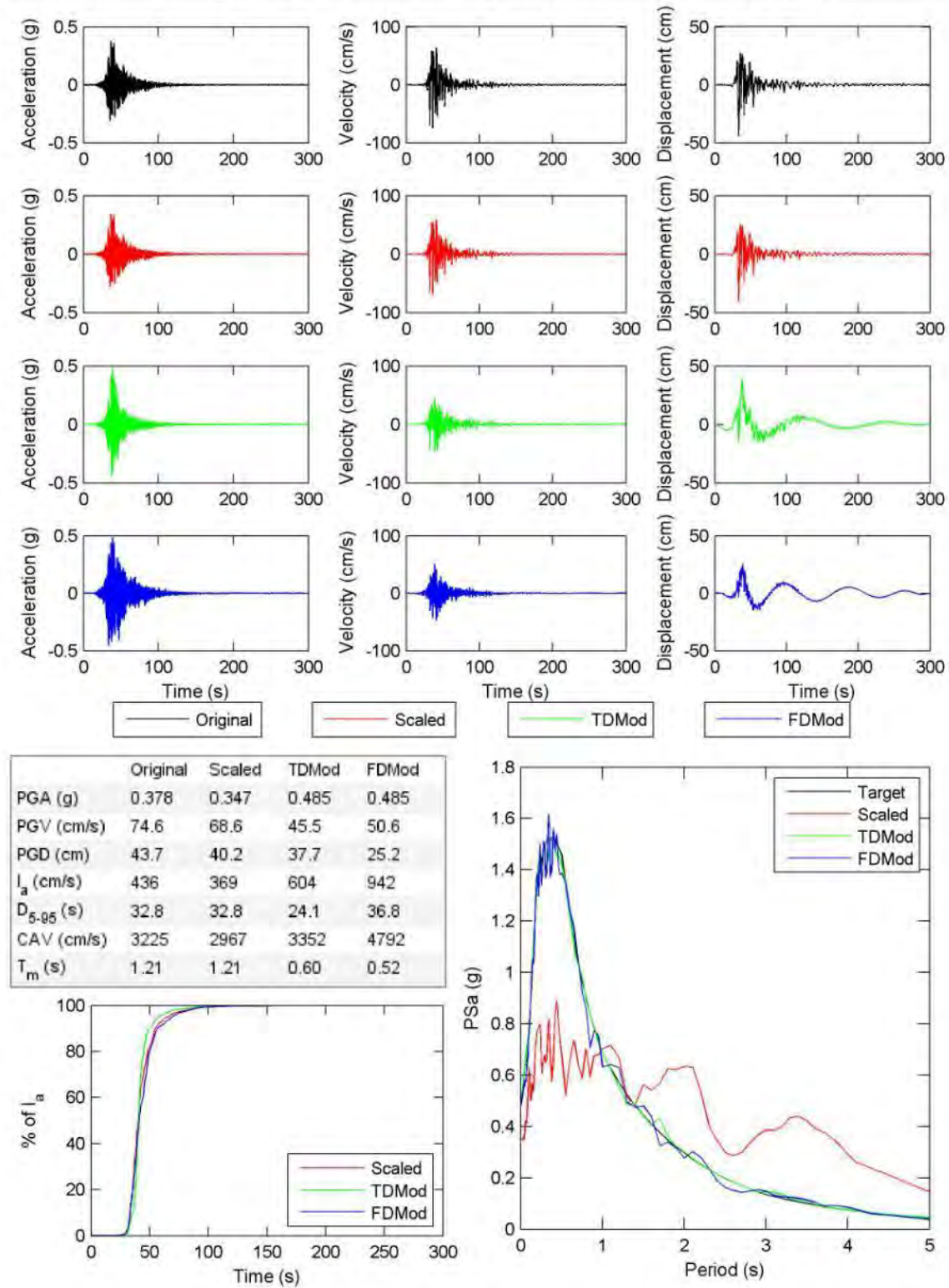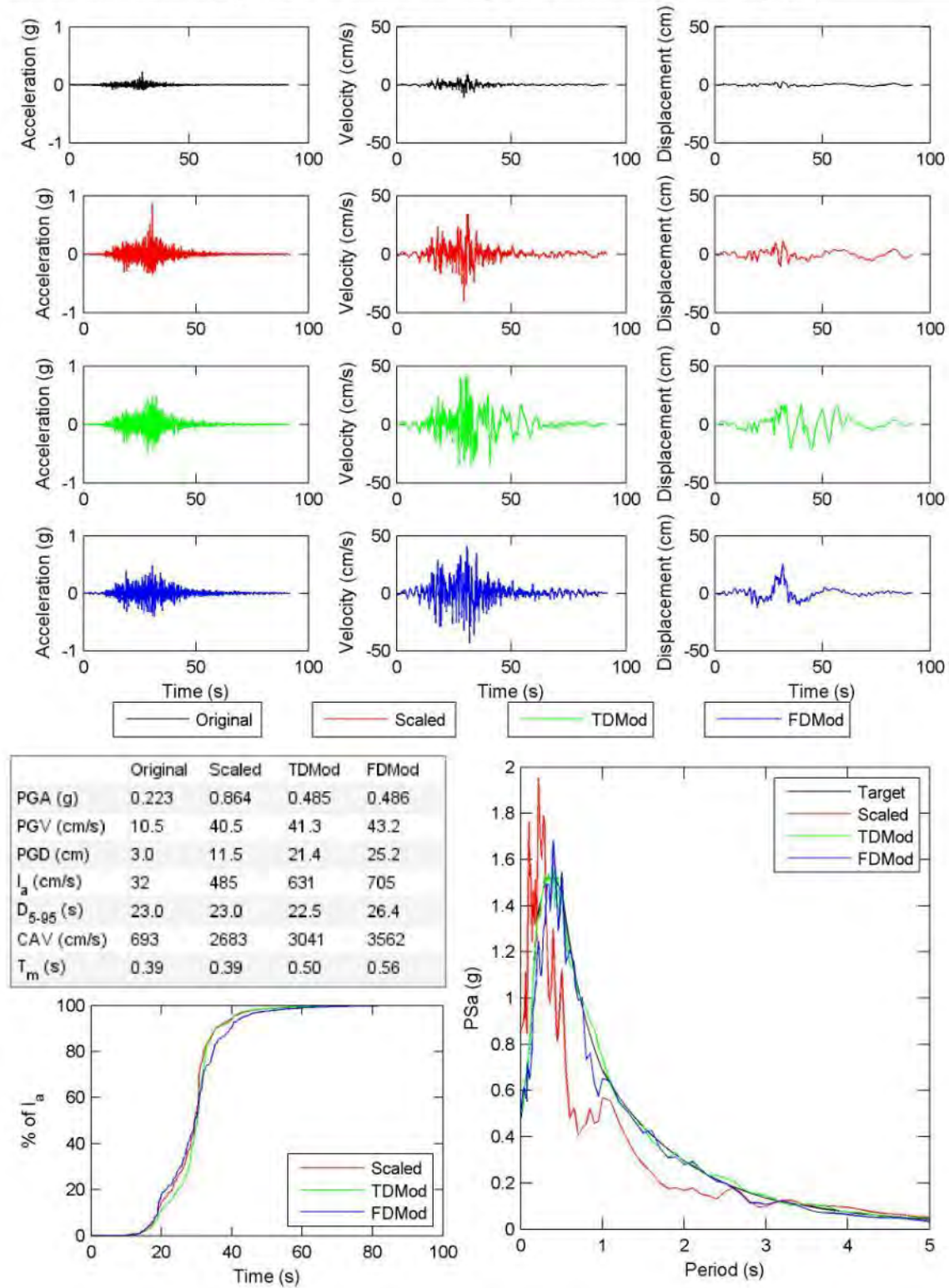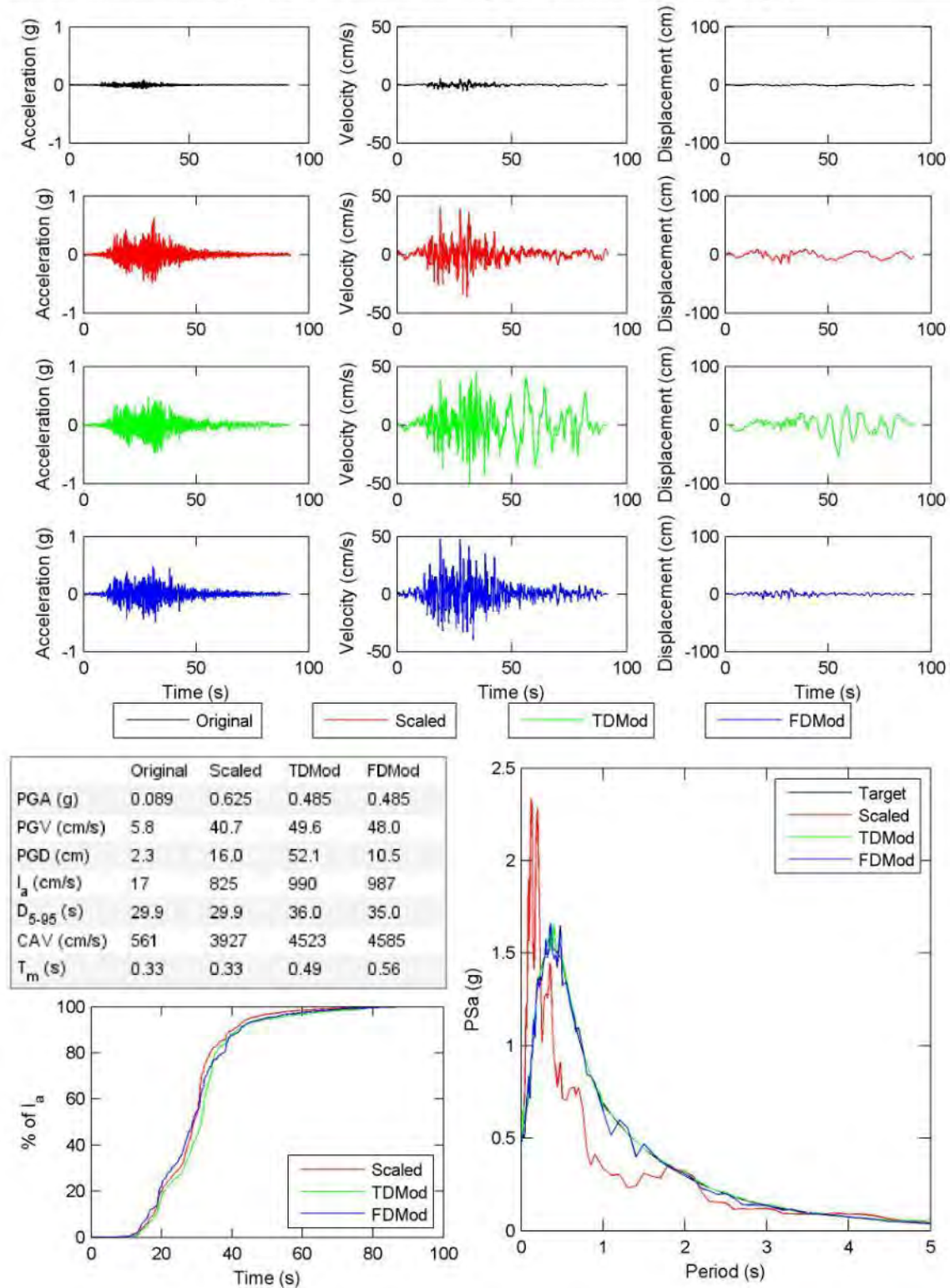

	Original	Scaled	TDMod	FDMod
PGA (g)	0.310	0.542	0.485	0.485
PGV (cm/s)	48.5	84.9	47.5	50.3
PGD (cm)	16.5	29.0	57.0	11.4
I_a (cm/s)	182	557	488	726
D_{5-95} (s)	24.4	24.4	36.6	38.7
CAV (cm/s)	1682	2944	3024	4272
T_m (s)	0.93	0.93	0.73	0.55

Figure E.4. continued.

777

	Original	Scaled	TDMod	FDMod
PGA (g)	0.248	0.477	0.485	0.485
PGV (cm/s)	38.8	74.6	50.3	57.7
PGD (cm)	11.5	22.0	18.0	16.0
I_a (cm/s)	146	539	530	657
D_{5-95} (s)	29.9	29.9	32.7	35.4
CAV (cm/s)	1579	3031	3103	3805
T_m (s)	0.83	0.83	0.66	0.52

Figure E.4. continued.

778

File Name: 1203 CHY036-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.50   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 7
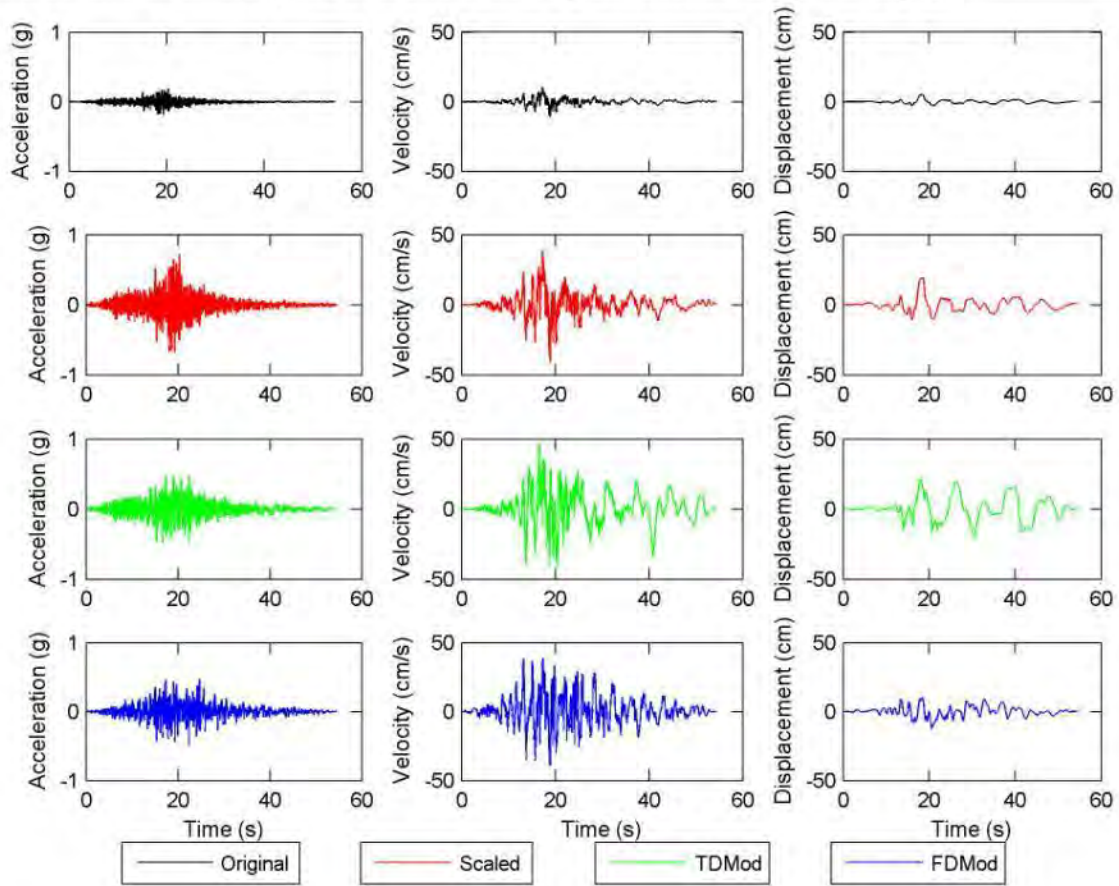
	Original	Scaled	TDMod	FDMod
PGA (g)	0.294	0.441	0.485	0.485
PGV (cm/s)	38.9	58.4	45.0	43.2
PGD (cm)	21.2	31.8	24.1	14.3
I_a (cm/s)	186	420	514	767
D_{5-95} (s)	26.4	26.4	25.1	32.3
CAV (cm/s)	1704	2555	2681	3720
T_m (s)	0.92	0.92	0.67	0.53

Figure E.4. continued.

779

File Name: 1203 CHY036-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.75   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 8


	Original	Scaled	TDMod	FDMod
PGA (g)	0.207	0.362	0.485	0.485
PGV (cm/s)	41.5	72.6	75.6	51.5
PGD (cm)	34.2	59.8	45.8	11.0
I_a (cm/s)	156	478	615	897
D_{5-95} (s)	32.8	32.8	30.9	36.3
CAV (cm/s)	1667	2918	3091	4262
T_m (s)	0.84	0.84	0.67	0.58

Figure E.4. continued.

780

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.302	0.682	0.485	0.485
PGV (cm/s)	20.4	46.1	56.9	50.3
PGD (cm)	8.6	19.5	36.1	15.3
I_a (cm/s)	154	787	776	818
D_{5-95} (s)	30.2	30.2	32.5	35.8
CAV (cm/s)	1556	3516	3625	3917
T_m (s)	0.46	0.46	0.53	0.59

Figure E.4. continued.

781

File Name: 1205 CHY041-N   Start and End Taper Percentage: 1.0% and 5.0%
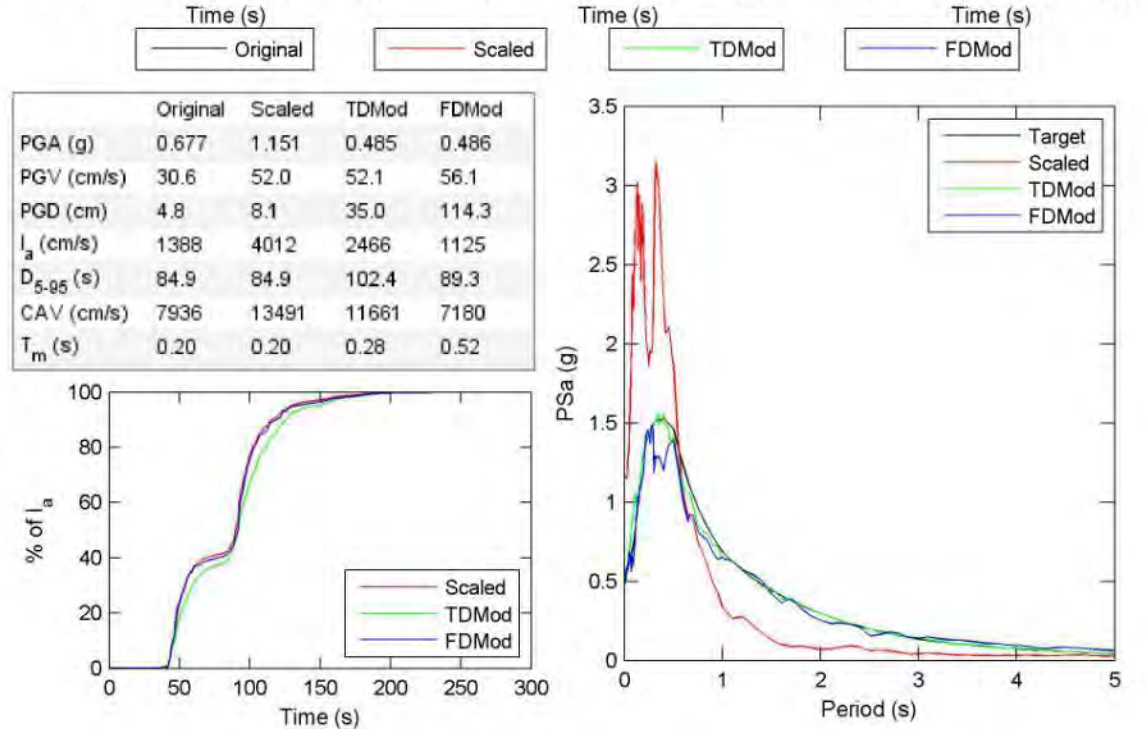Scale Factor: 1.61   Target Spectrum Matched: targetCMS2.txt   FD poly: 8   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.639	1.029	0.485	0.486
PGV (cm/s)	39.6	63.7	54.1	47.3
PGD (cm)	11.3	18.1	24.9	31.7
I_a (cm/s)	364	943	674	631
D_{5-95} (s)	22.1	22.1	26.4	36.3
CAV (cm/s)	2011	3238	3155	3477
T_m (s)	0.45	0.45	0.55	0.63

Figure E.4. continued.

782

File Name: 1221 CHY065-E   Start and End Taper Percentage: 1.0% and 5.0%
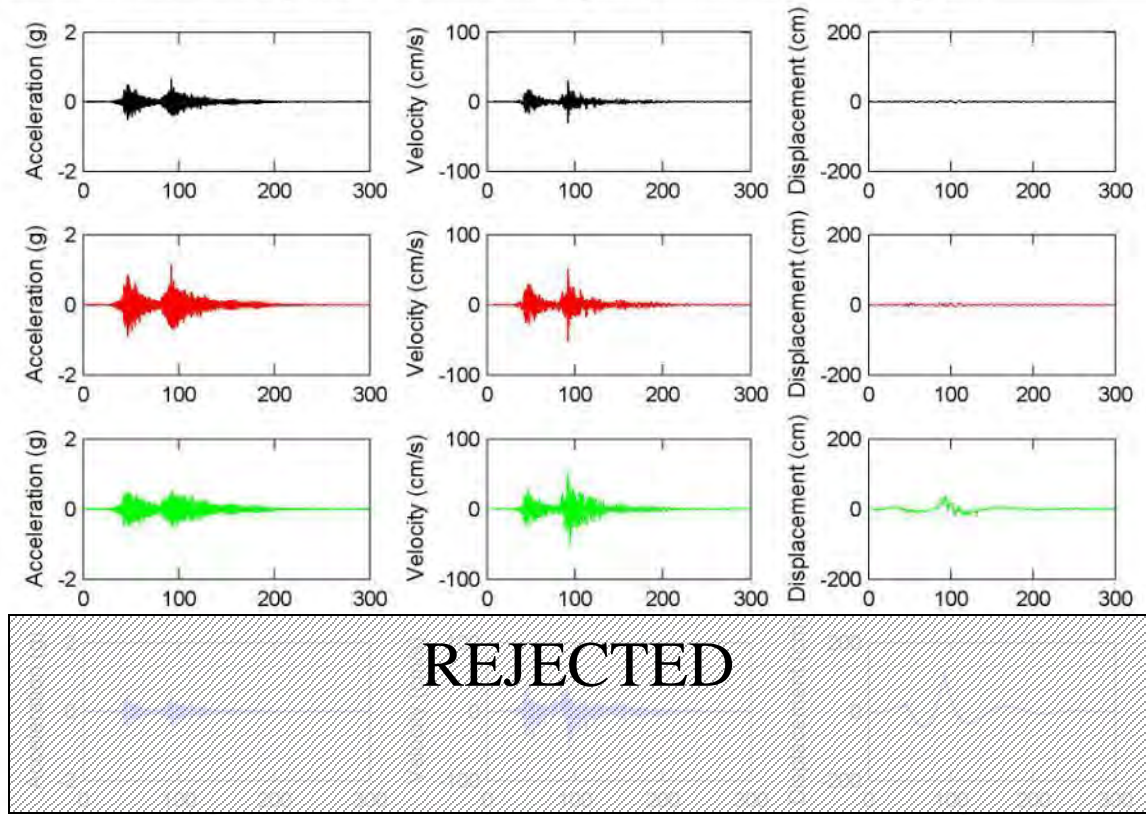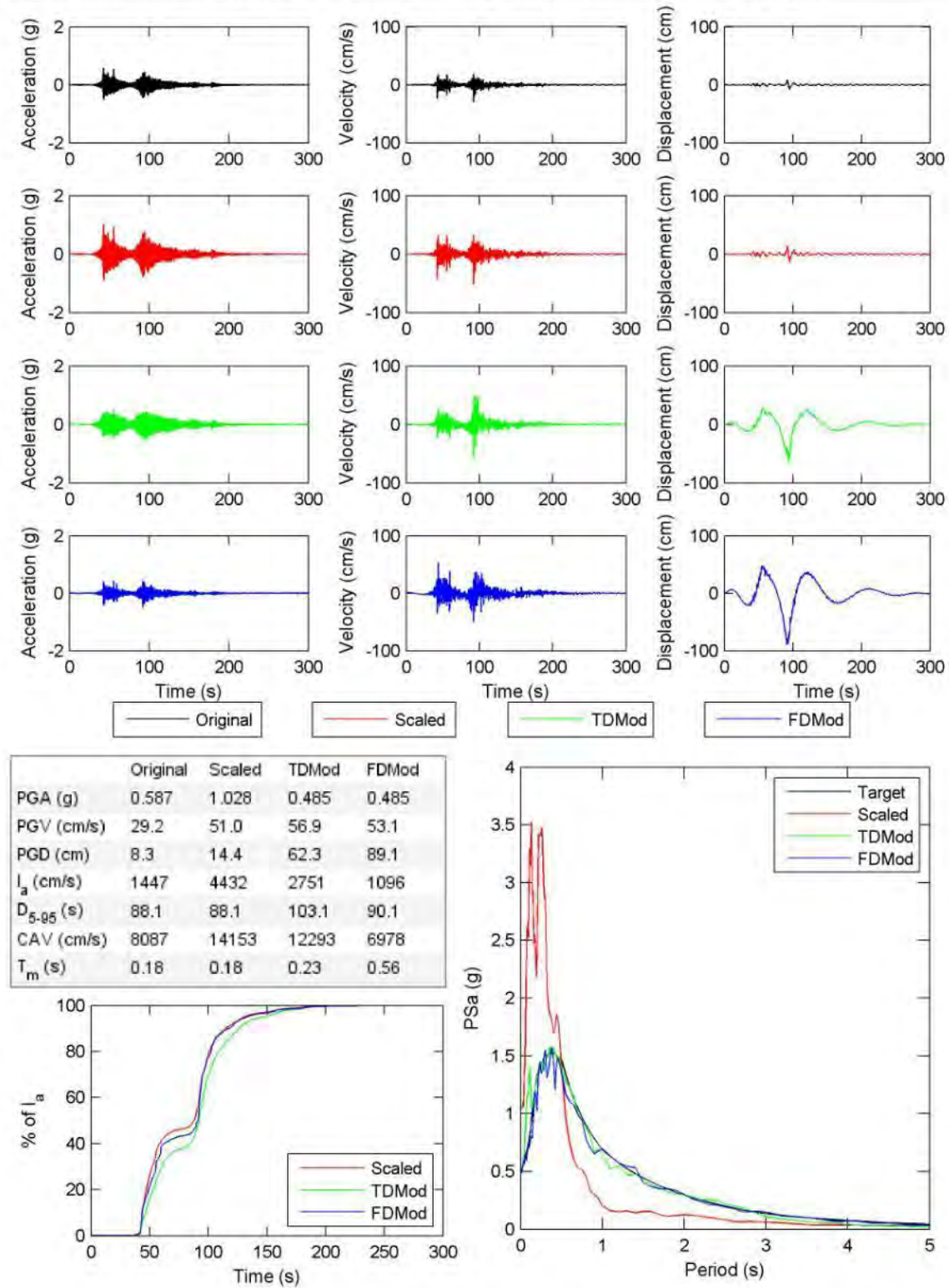Scale Factor: 4.22   Target Spectrum Matched: targetCMS2.txt   FD poly: 5   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.118	0.498	0.485	0.485
PGV (cm/s)	15.8	66.6	48.1	53.4
PGD (cm)	8.4	35.6	25.3	12.3
I_a (cm/s)	50	895	797	1102
D_{5-95} (s)	37.9	37.9	38.7	40.7
CAV (cm/s)	988	4171	4025	4945
T_m (s)	0.79	0.79	0.70	0.54

Figure E.4. continued.

783

File Name: 1221 CHY065-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.72   Target Spectrum Matched: targetCMS2.txt   FD poly: 5   TD poly: 8
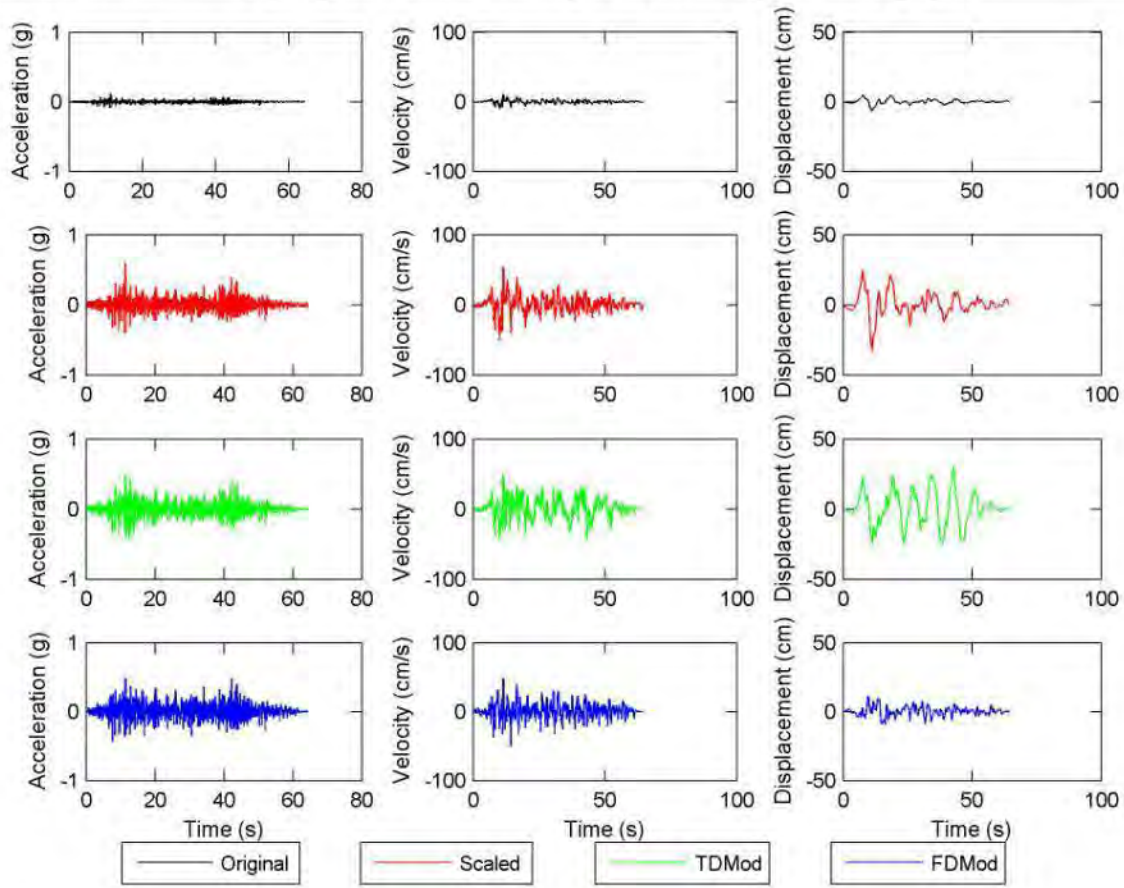

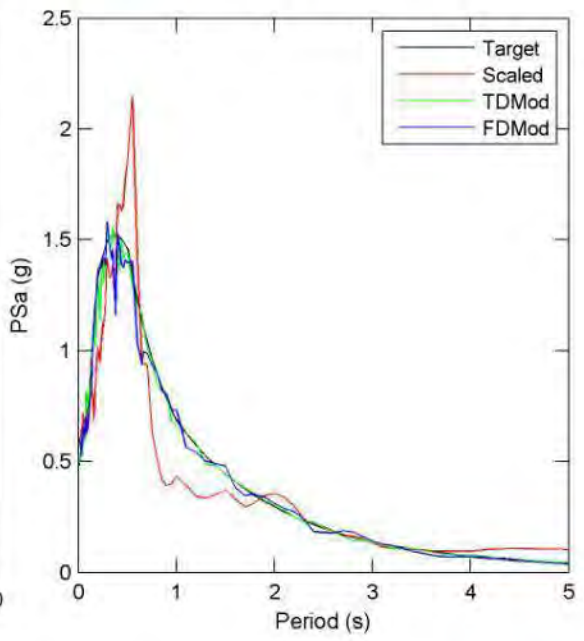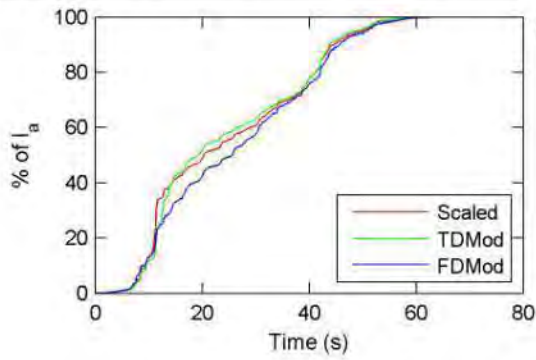|	Original	Scaled	TDMod	FDMod
PGA (g)	0.097	0.460	0.485	0.485
PGV (cm/s)	12.5	59.0	46.6	46.6
PGD (cm)	8.3	39.0	46.1	14.2
I_a (cm/s)	34	765	807	983
D_{5-95} (s)	37.9	37.9	37.4	39.3
CAV (cm/s)	833	3930	3951	4651
T_m (s)	0.91	0.91	0.71	0.58

Figure E.4. continued.

784

File Name: 1265 HWA014-E   Start and End Taper Percentage: 1.0% and 5.0%
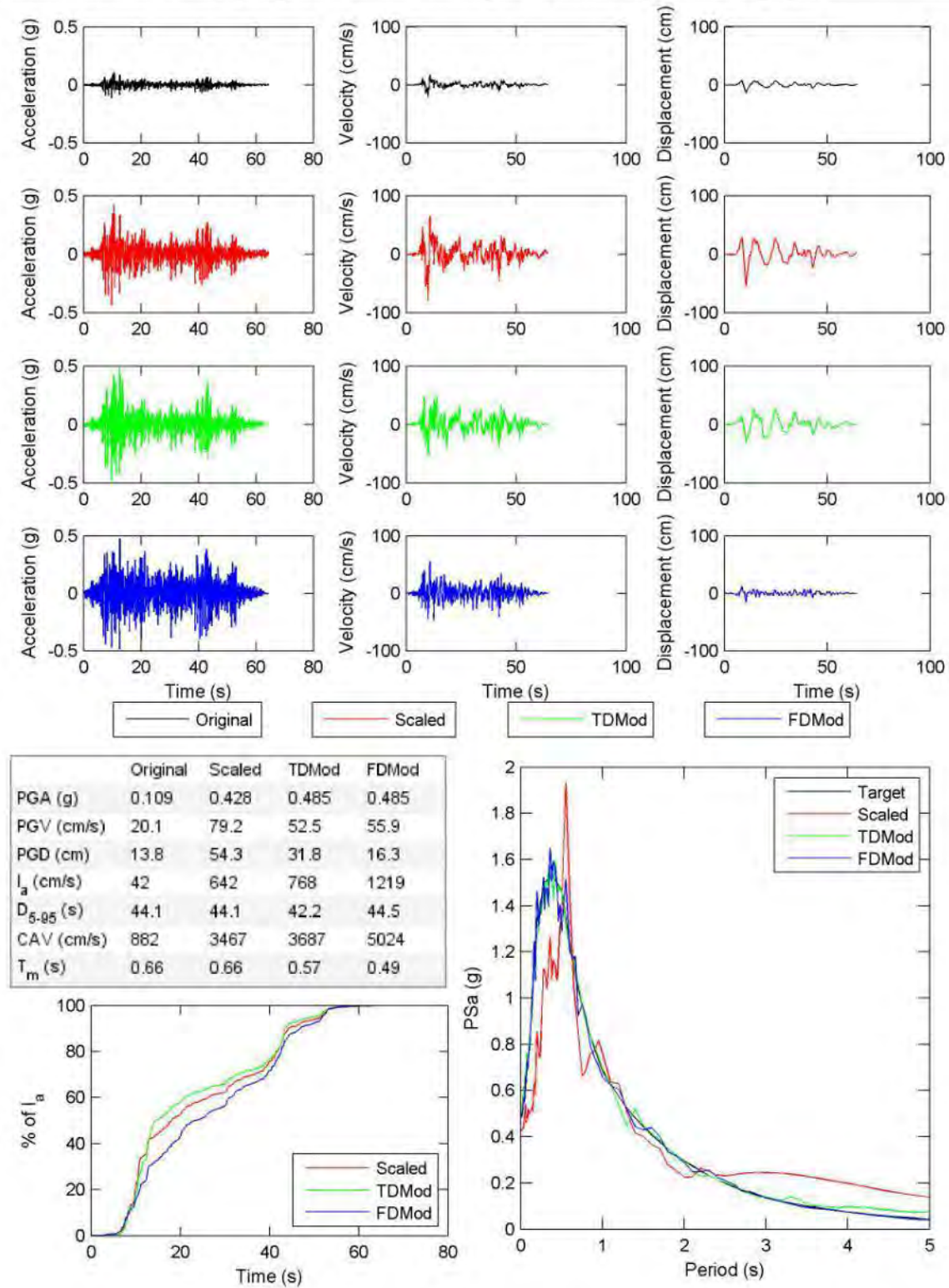Scale Factor: 3.80   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 8
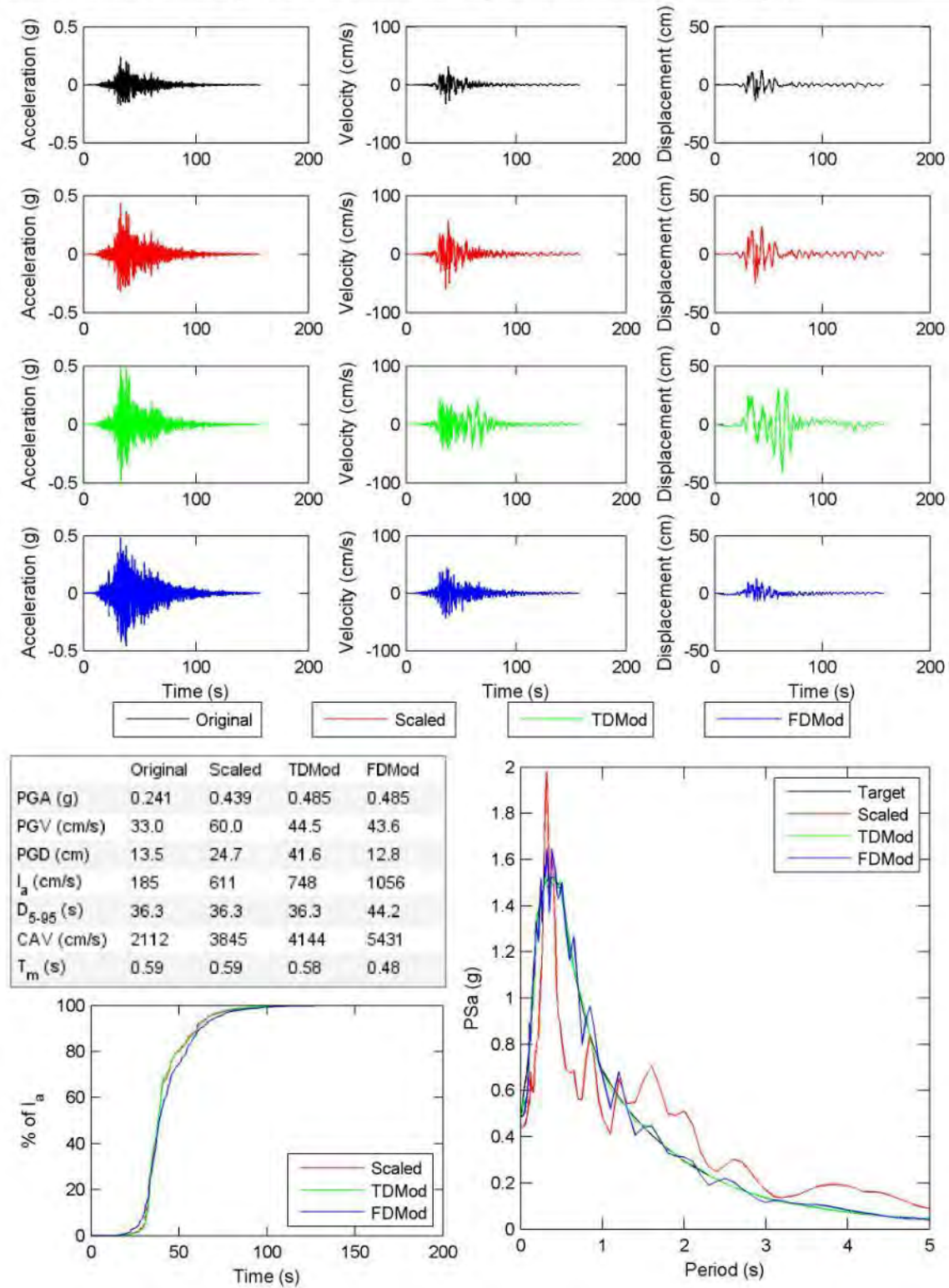

	Original	Scaled	TDMod	FDMod
PGA (g)	0.103	0.392	0.485	0.485
PGV (cm/s)	17.5	66.3	58.0	41.4
PGD (cm)	24.4	92.6	72.1	11.6
I_a (cm/s)	37	538	565	734
D_{5-95} (s)	32.4	32.4	25.0	31.0
CAV (cm/s)	793	3013	2896	3650
T_m (s)	1.11	1.11	0.69	0.54

Figure E.4. continued.

785

	Original	Scaled	TDMod	FDMod
PGA (g)	0.093	0.322	0.485	0.485
PGV (cm/s)	26.0	90.3	48.7	51.5
PGD (cm)	13.7	47.5	26.5	11.6
I_a (cm/s)	31	378	491	782
D_{5-95} (s)	25.2	25.2	21.8	27.5
CAV (cm/s)	708	2457	2509	3632
T_m (s)	1.41	1.41	0.66	0.51

Figure E.4. continued.

786

File Name: 12 HON-MYGH12-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.55   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9
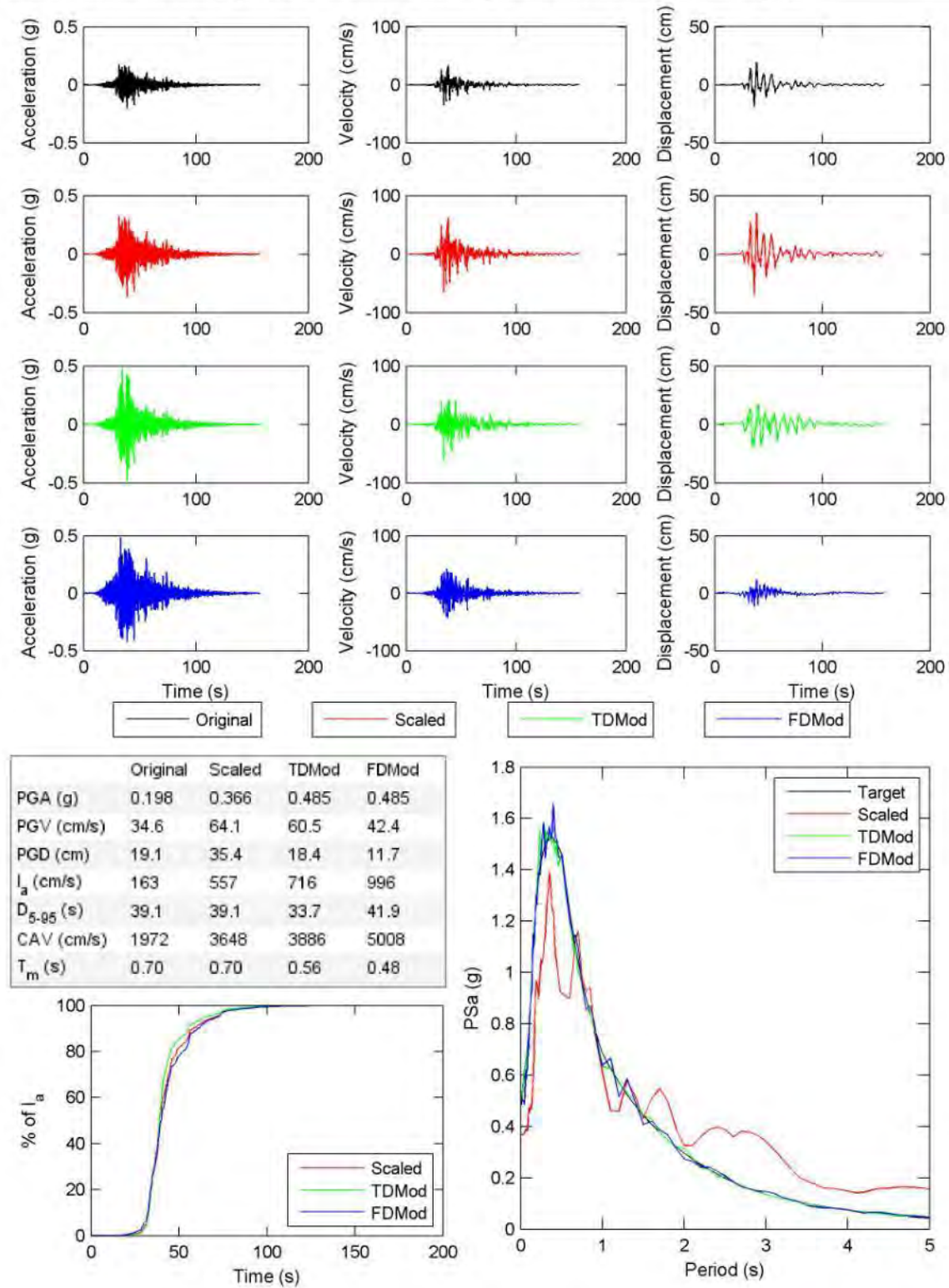

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.453	0.702	0.486	0.485
PGV (cm/s)	24.0	37.2	68.7	42.2
PGD (cm)	9.9	15.3	122.5	17.5
I_a (cm/s)	827	1986	1629	972
D_{5-95} (s)	87.4	87.4	93.0	85.8
CAV (cm/s)	6207	9621	9039	6410
T_m (s)	0.16	0.16	0.26	0.50

Figure E.4. continued.

787

	Original	Scaled	TDMod	FDMod
PGA (g)	0.542	0.958	0.485	0.485
PGV (cm/s)	24.2	42.9	56.9	65.5
PGD (cm)	7.2	12.8	28.5	22.5
I_a (cm/s)	1112	3485	2193	1451
D_{5-95} (s)	82.2	82.2	91.3	86.3
CAV (cm/s)	6637	11747	10268	8073
T_m (s)	0.15	0.15	0.27	0.51

Figure E.4. continued.

788

File Name: 1380 KAU054-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.59   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9

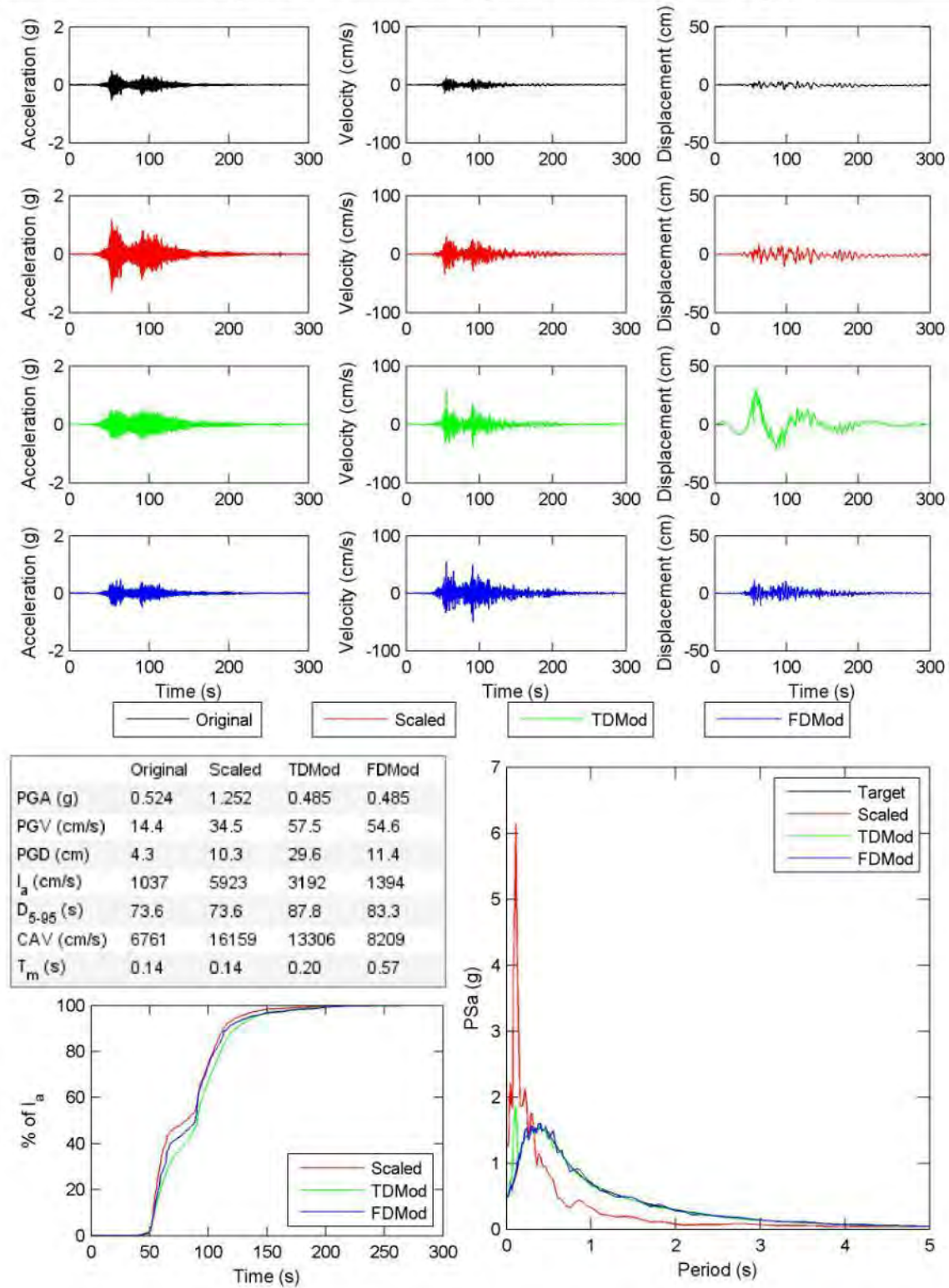|	Original	Scaled	TDMod	FDMod
PGA (g)	0.085	0.560	0.485	0.485
PGV (cm/s)	8.5	55.9	53.0	44.7
PGD (cm)	6.0	39.5	32.8	14.8
I_a (cm/s)	15	640	738	803
D_{5-95} (s)	32.5	32.5	31.3	32.2
CAV (cm/s)	508	3351	3547	3825
T_m (s)	0.49	0.49	0.53	0.57

Figure E.4. continued.

789

File Name: 1380 KAU054-N   Start and End Taper Percentage: 1.0% and 5.0%
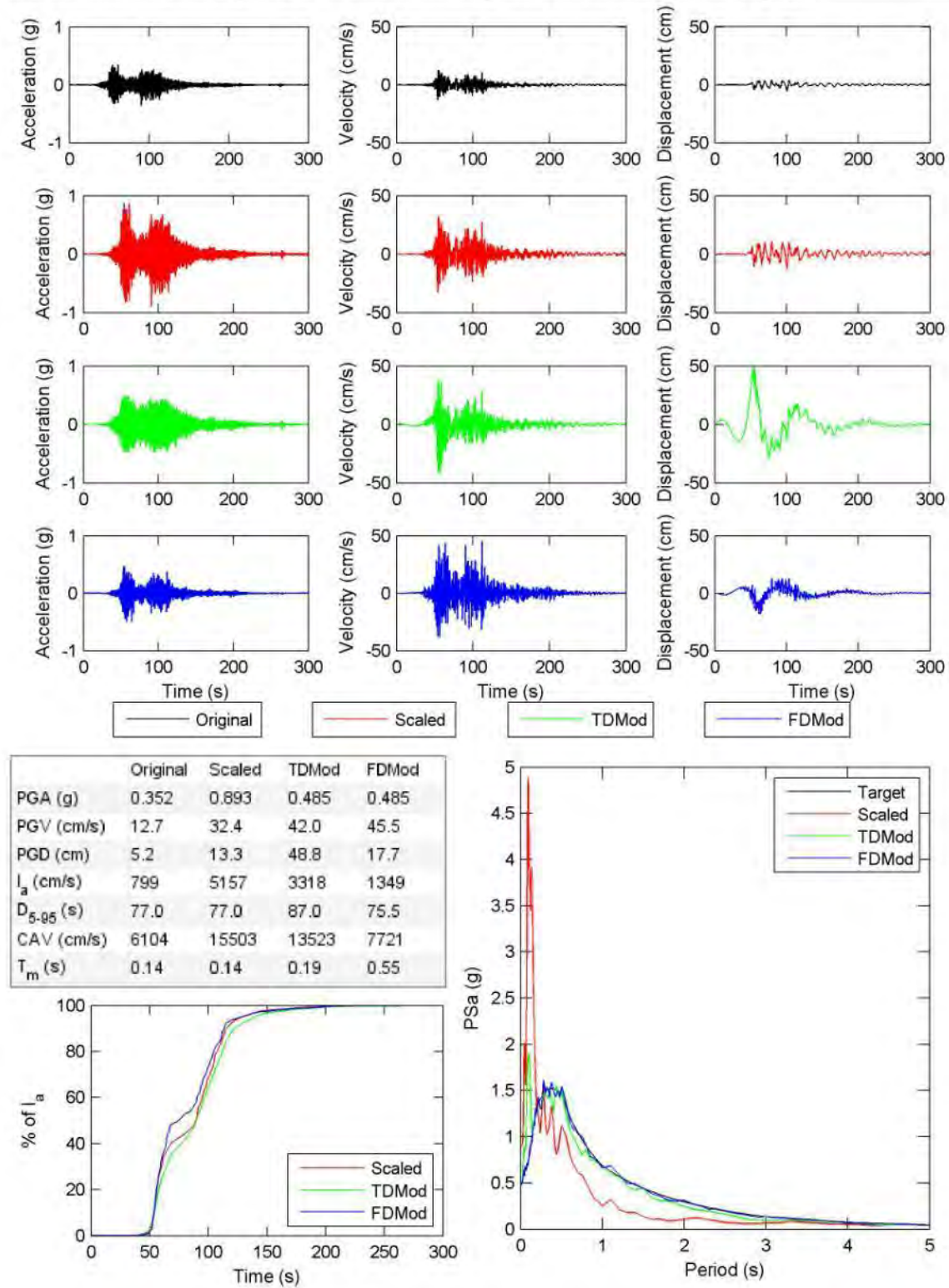Scale Factor: 6.94   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.080	0.557	0.485	0.485
PGV (cm/s)	5.2	36.0	48.3	41.2
PGD (cm)	3.6	24.7	37.9	10.9
I_a (cm/s)	15	704	877	911
D_{5-95} (s)	31.9	31.9	29.8	36.6
CAV (cm/s)	505	3507	3888	4233
T_m (s)	0.45	0.45	0.51	0.57

Figure E.4. continued.

790

File Name: 1471 TCU015-E   Start and End Taper Percentage: 1.0% and 5.0%
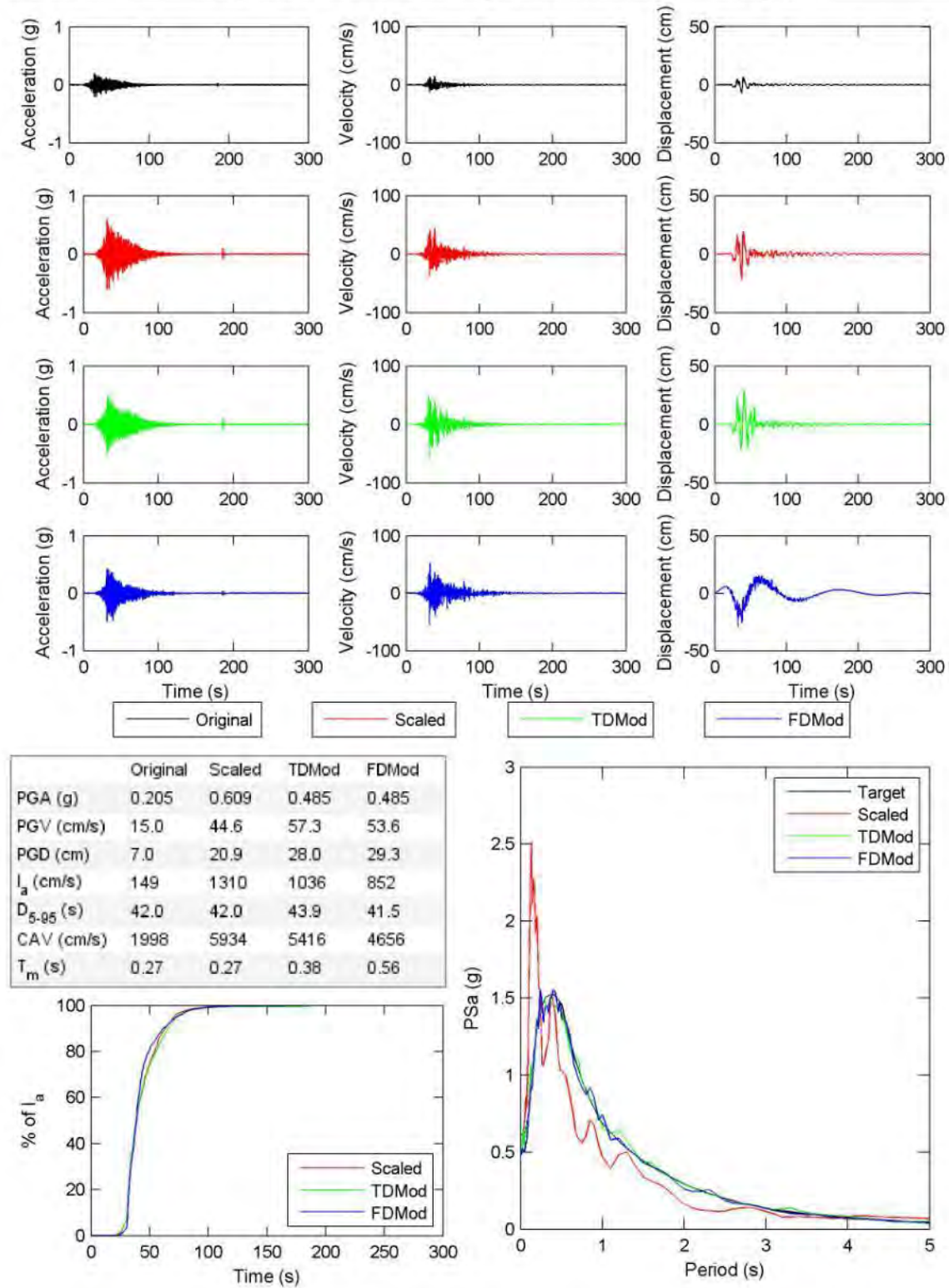Scale Factor: 2.89   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.343	0.485	0.485
PGV (cm/s)	49.8	143.9	104.6	46.8
PGD (cm)	49.8	144.0	121.9	10.4
I_a (cm/s)	43	356	608	767
D_{5-95} (s)	26.5	26.5	28.1	23.9
CAV (cm/s)	849	2454	3050	3506
T_m (s)	0.96	0.96	0.62	0.57

Figure E.4. continued.

791

File Name: 1471 TCU015-N   Start and End Taper Percentage: 1.0% and 5.0%
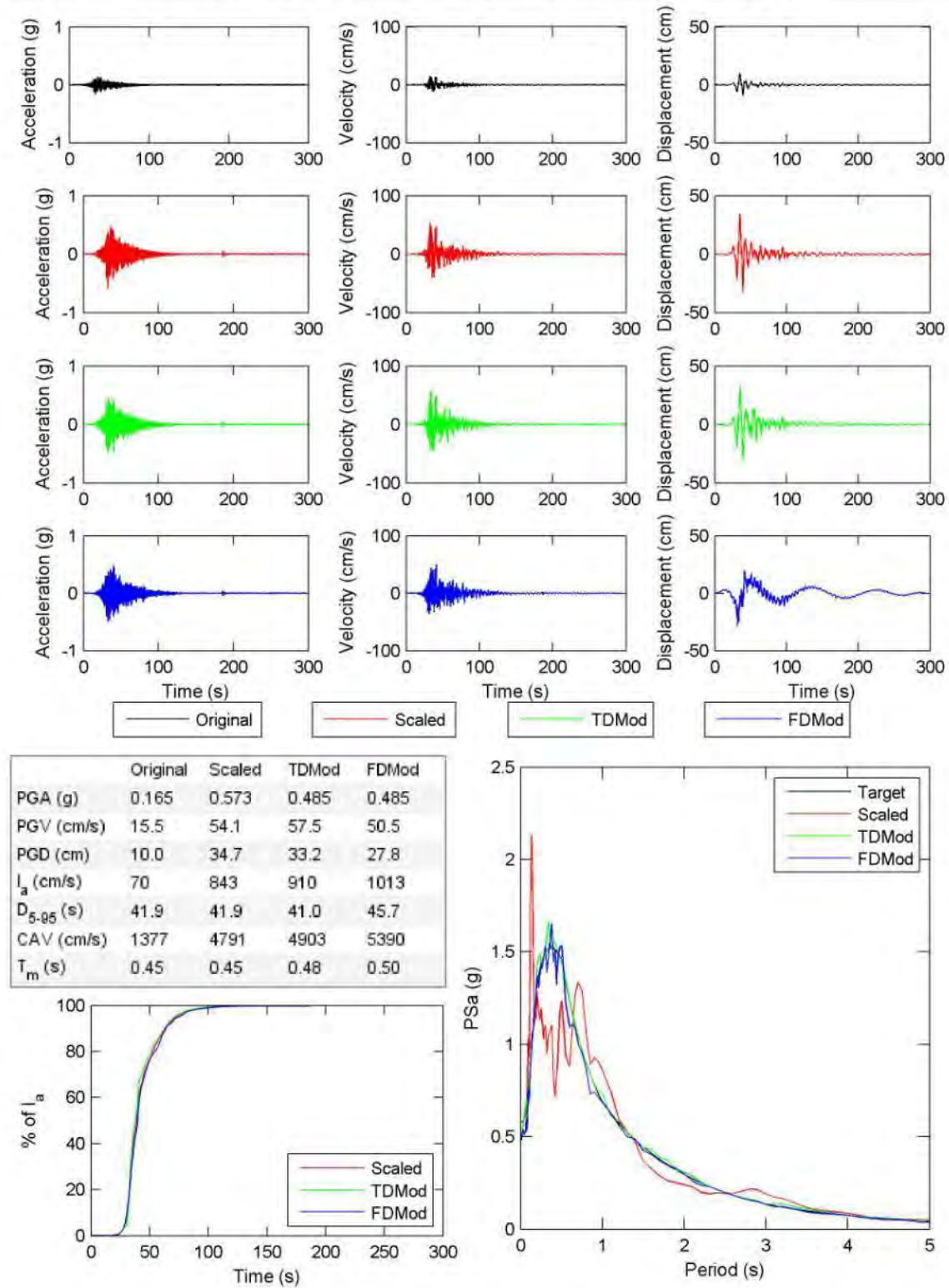Scale Factor: 3.27   Target Spectrum Matched: targetCMS2.txt   FD poly: 5   TD poly: 6
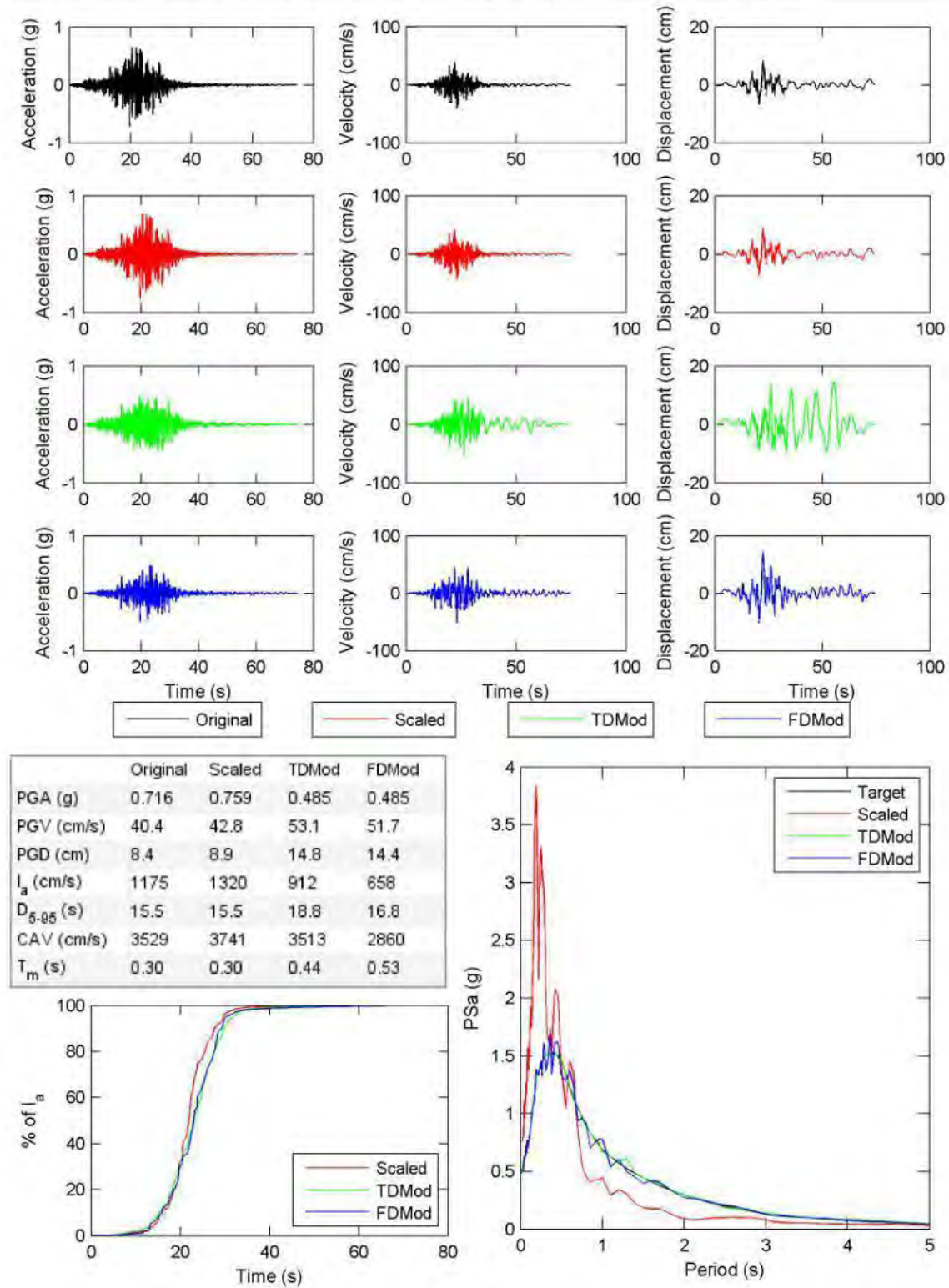

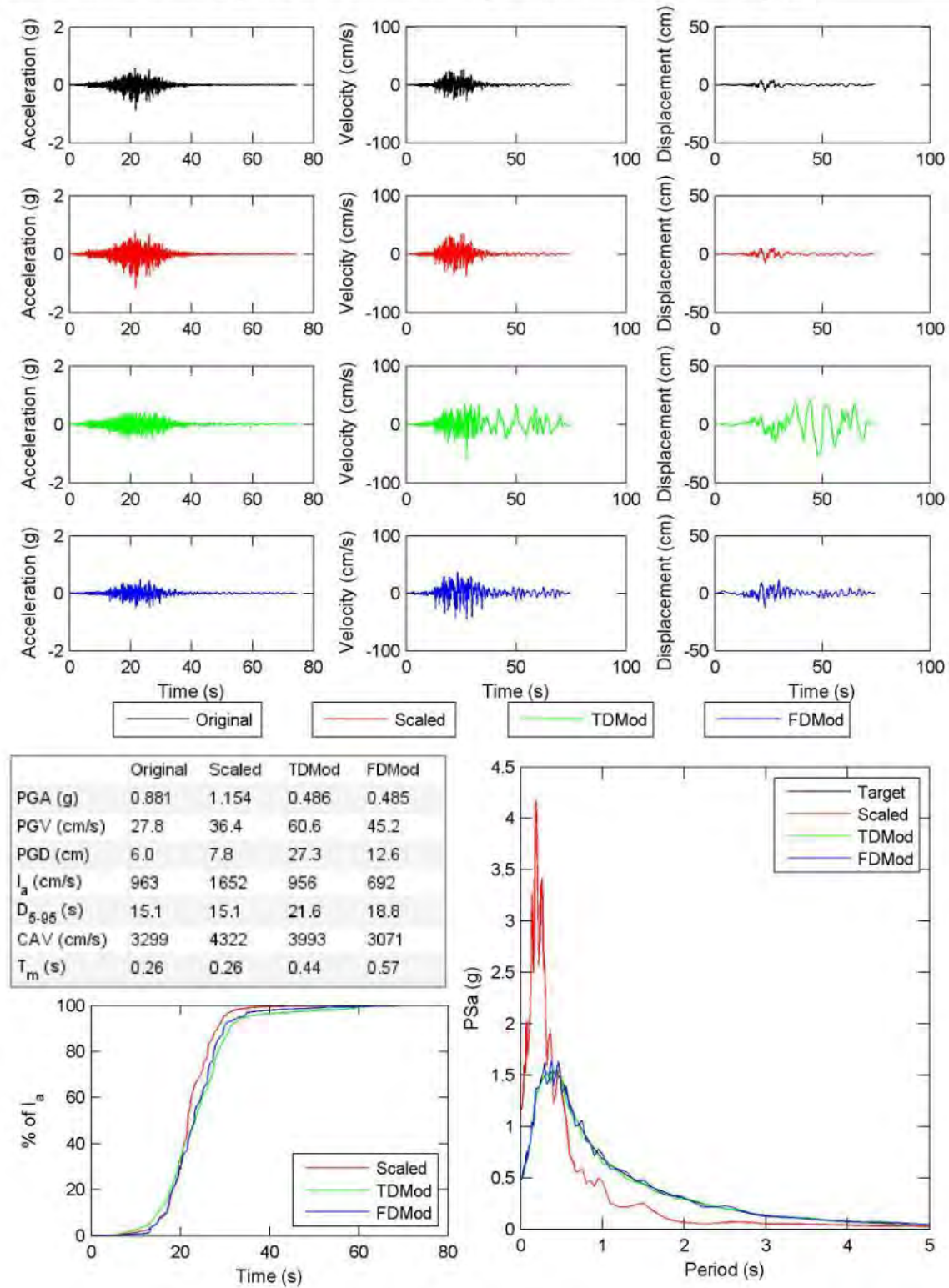|	Original	Scaled	TDMod	FDMod
PGA (g)	0.114	0.374	0.453	0.485
PGV (cm/s)	29.5	96.5	60.3	58.8
PGD (cm)	24.2	79.0	70.6	14.0
I_a (cm/s)	35	379	586	797
D_{5-95} (s)	23.3	23.3	37.4	22.9
CAV (cm/s)	749	2449	2962	3484
T_m (s)	0.96	0.96	0.63	0.54

Figure E.4. continued.

792

File Name: 1481 TCU038-E   Start and End Taper Percentage: 1.0% and 5.0%
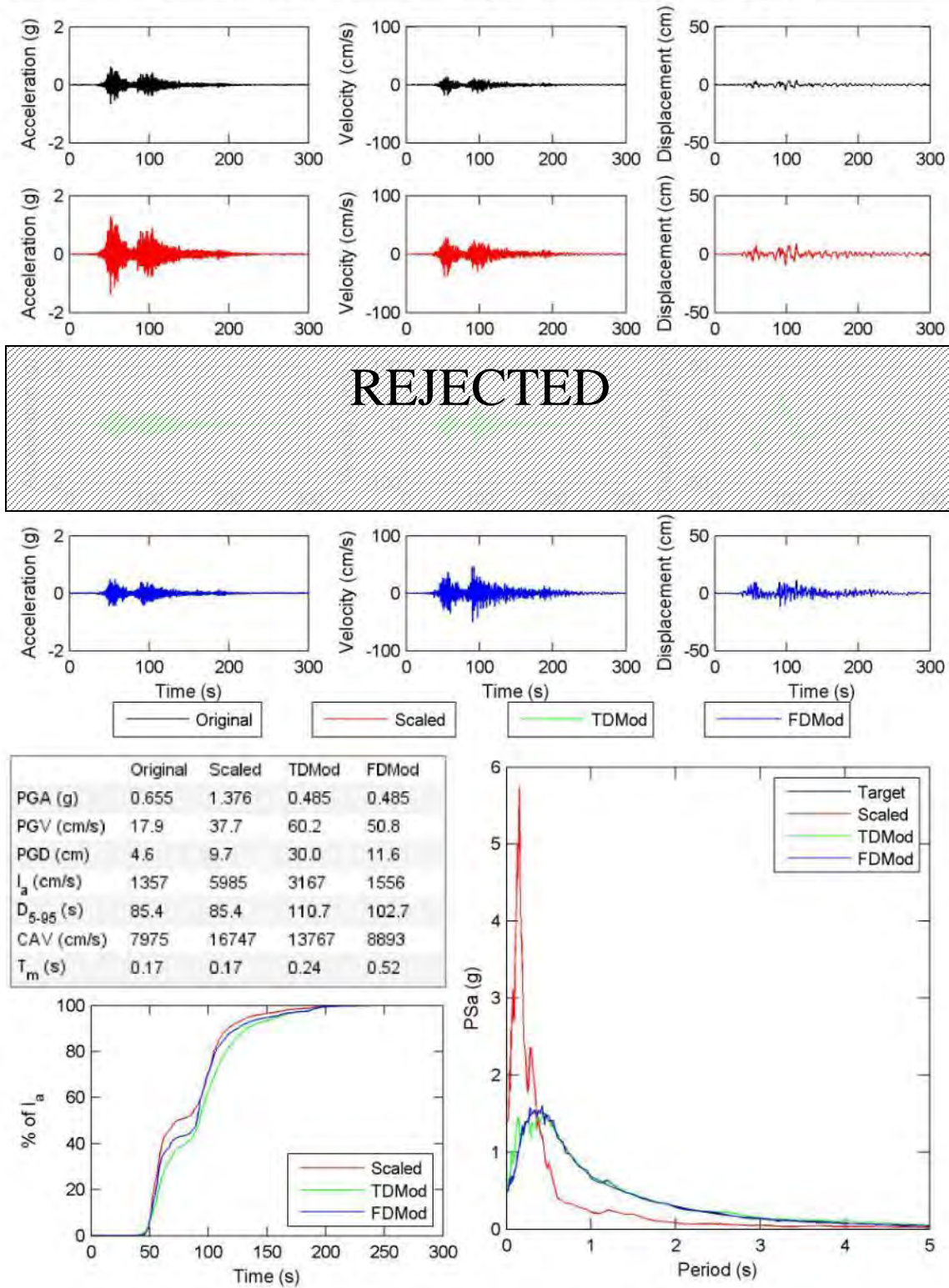Scale Factor: 2.37   Target Spectrum Matched: targetCMS2.txt   FD poly: 6   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.141	0.334	0.485	0.485
PGV (cm/s)	48.9	115.9	91.8	51.9
PGD (cm)	64.2	152.2	108.8	10.3
I_a (cm/s)	76	426	661	920
D_{5-95} (s)	28.2	28.2	23.1	25.7
CAV (cm/s)	1121	2657	3028	3832
T_m (s)	0.93	0.93	0.60	0.55

Figure E.4. continued.

793

File Name: 1481 TCU038-N   Start and End Taper Percentage: 1.0% and 5.0%
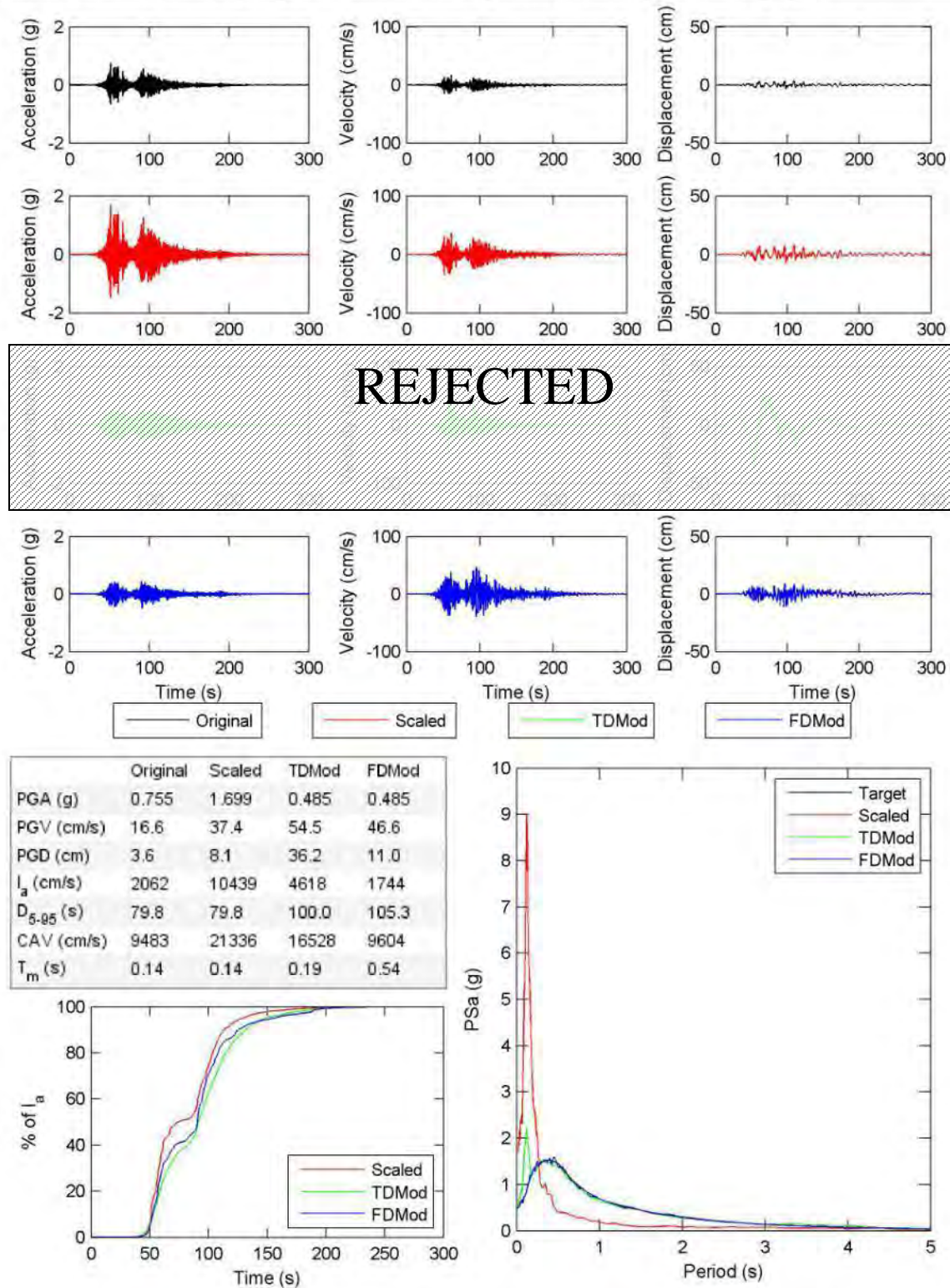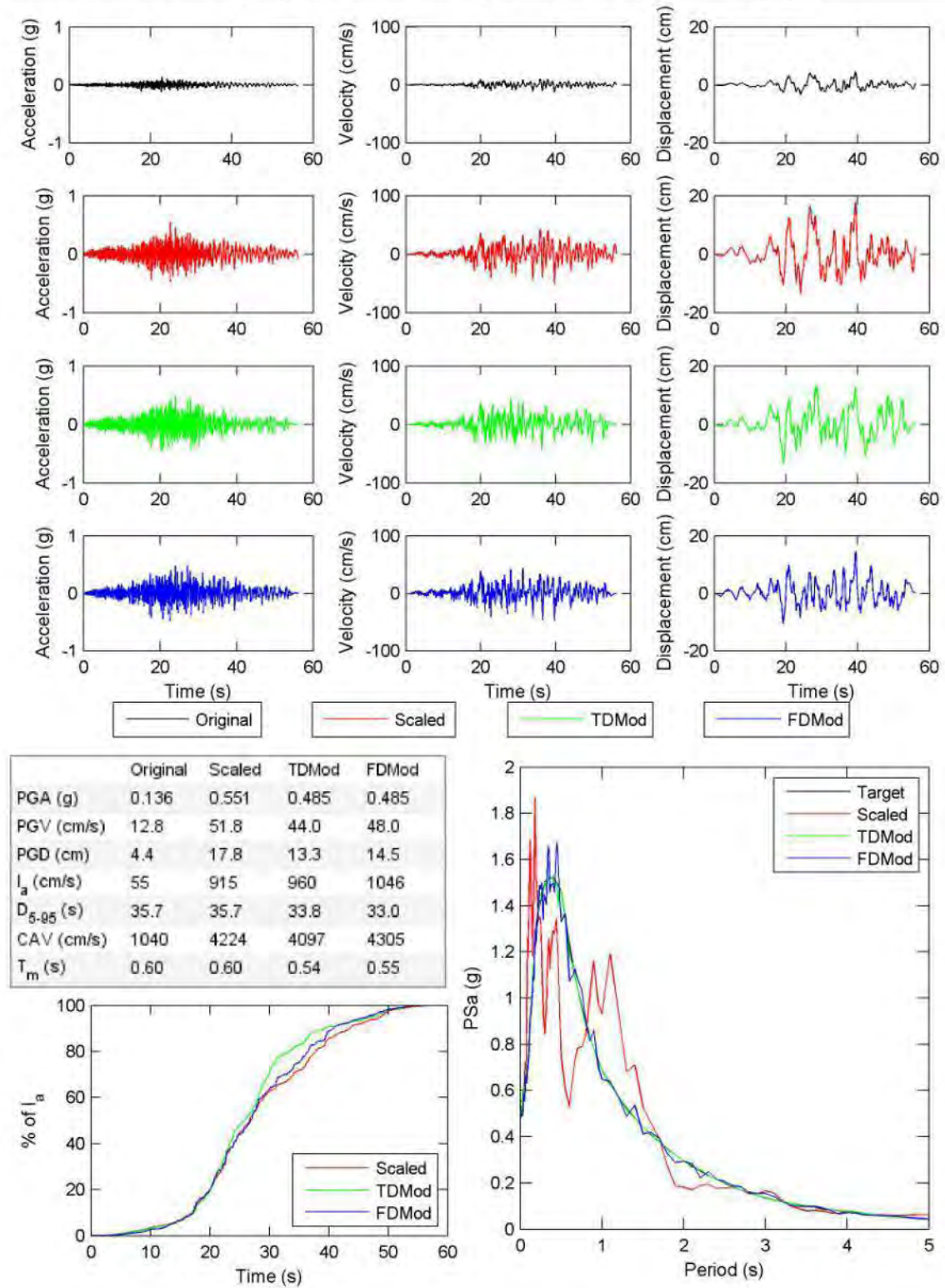Scale Factor: 2.28   Target Spectrum Matched: targetCMS2.txt   FD poly: 5   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.168	0.383	0.485	0.485
PGV (cm/s)	44.9	102.5	68.6	40.0
PGD (cm)	43.6	99.5	44.4	12.1
I_a (cm/s)	103	538	657	881
D_{5-95} (s)	25.7	25.7	20.5	23.5
CAV (cm/s)	1274	2906	3014	3731
T_m (s)	0.69	0.69	0.61	0.53

Figure E.4. continued.

794

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.328	0.485	0.485
PGV (cm/s)	42.5	104.2	75.1	42.7
PGD (cm)	50.8	124.5	105.0	12.5
I_a (cm/s)	89	532	722	1026
D_{5-95} (s)	26.0	26.0	24.0	27.5
CAV (cm/s)	1234	3024	3266	4165
T_m (s)	0.84	0.84	0.59	0.55

Figure E.4. continued.

795

File Name: 1496 TCU056-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.46   Target Spectrum Matched: targetCMS2.txt   FD poly: 7   TD poly: 9
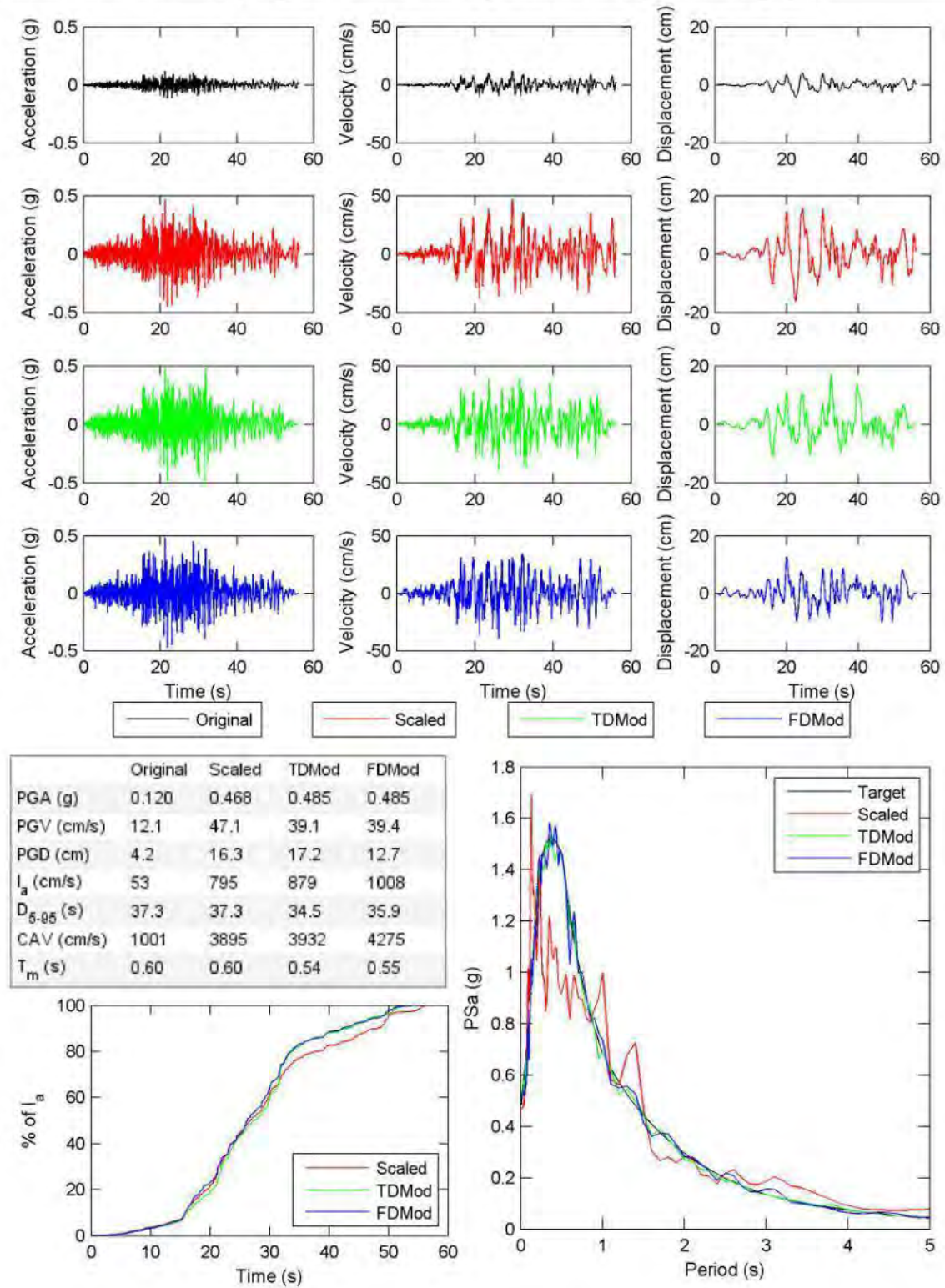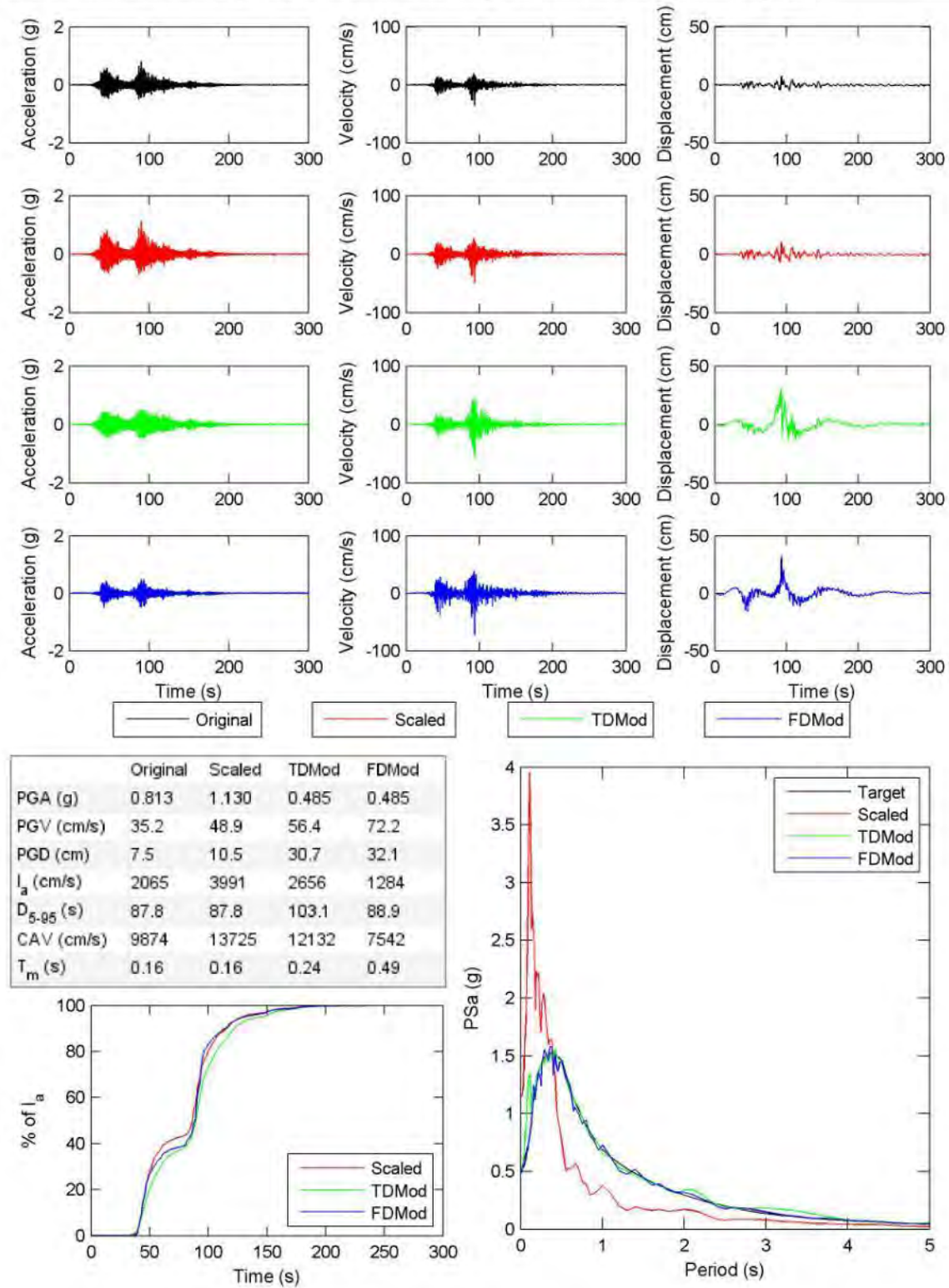

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.331	0.469	0.485
PGV (cm/s)	42.9	105.6	187.0	44.1
PGD (cm)	54.6	134.3	309.8	8.4
I_a (cm/s)	83	503	872	1042
D_{5-95} (s)	31.8	31.8	49.2	27.1
CAV (cm/s)	1245	3063	4481	4140
T_m (s)	0.87	0.87	0.76	0.51

Figure E.4. continued.

796

File Name: 1506 TCU070-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.70   Target Spectrum Matched: targetCMS2.txt   FD poly: 8   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.255	0.434	0.485	0.485
PGV (cm/s)	52.2	88.7	62.4	56.6
PGD (cm)	48.1	81.8	72.9	14.8
I_a (cm/s)	230	664	809	1158
D_{5-95} (s)	26.8	26.8	24.8	32.5
CAV (cm/s)	1975	3358	3580	4734
T_m (s)	0.76	0.76	0.61	0.51

Figure E.4. continued.

797

File Name: 1506 TCU070-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.89   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.169	0.319	0.485	0.485
PGV (cm/s)	62.3	117.7	54.9	54.9
PGD (cm)	56.7	107.2	66.0	14.3
I_a (cm/s)	171	610	667	1136
D_{5-95} (s)	28.9	28.9	25.5	29.7
CAV (cm/s)	1774	3353	3302	4661
T_m (s)	1.02	1.02	0.65	0.50

Figure E.4. continued.

798

	Original	Scaled	TDMod	FDMod
PGA (g)	1.120	0.997	0.485	0.485
PGV (cm/s)	52.0	46.3	49.3	48.1
PGD (cm)	23.7	21.1	16.3	19.3
I_a (cm/s)	970	768	613	515
D_{5-95} (s)	12.8	12.8	16.1	18.8
CAV (cm/s)	2809	2500	2602	2487
T_m (s)	0.26	0.26	0.51	0.54

Figure E.4. continued.

799

Figure E.4. continued.

800

	Original	Scaled	TDMod	FDMod
PGA (g)	0.692	0.975	0.485	0.485
PGV (cm/s)	32.8	46.2	75.4	51.0
PGD (cm)	6.2	8.8	16.0	18.1
I_a (cm/s)	2222	4418	2824	1530
D_{5-95} (s)	81.5	81.5	92.9	89.8
CAV (cm/s)	10414	14683	12757	8744
T_m (s)	0.21	0.21	0.28	0.50

Figure E.4. continued.

801

	Original	Scaled	TDMod	FDMod
PGA (g)	0.666	1.158	0.485	0.485
PGV (cm/s)	27.2	47.4	57.1	51.2
PGD (cm)	4.4	7.6	16.6	14.7
I_a (cm/s)	1807	5469	3503	1393
D_{5-95} (s)	84.3	84.3	96.3	85.2
CAV (cm/s)	9682	16846	14621	8324
T_m (s)	0.20	0.20	0.24	0.53

Figure E.4. continued.

802

File Name: 1 MIC-CALE090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.94   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 5
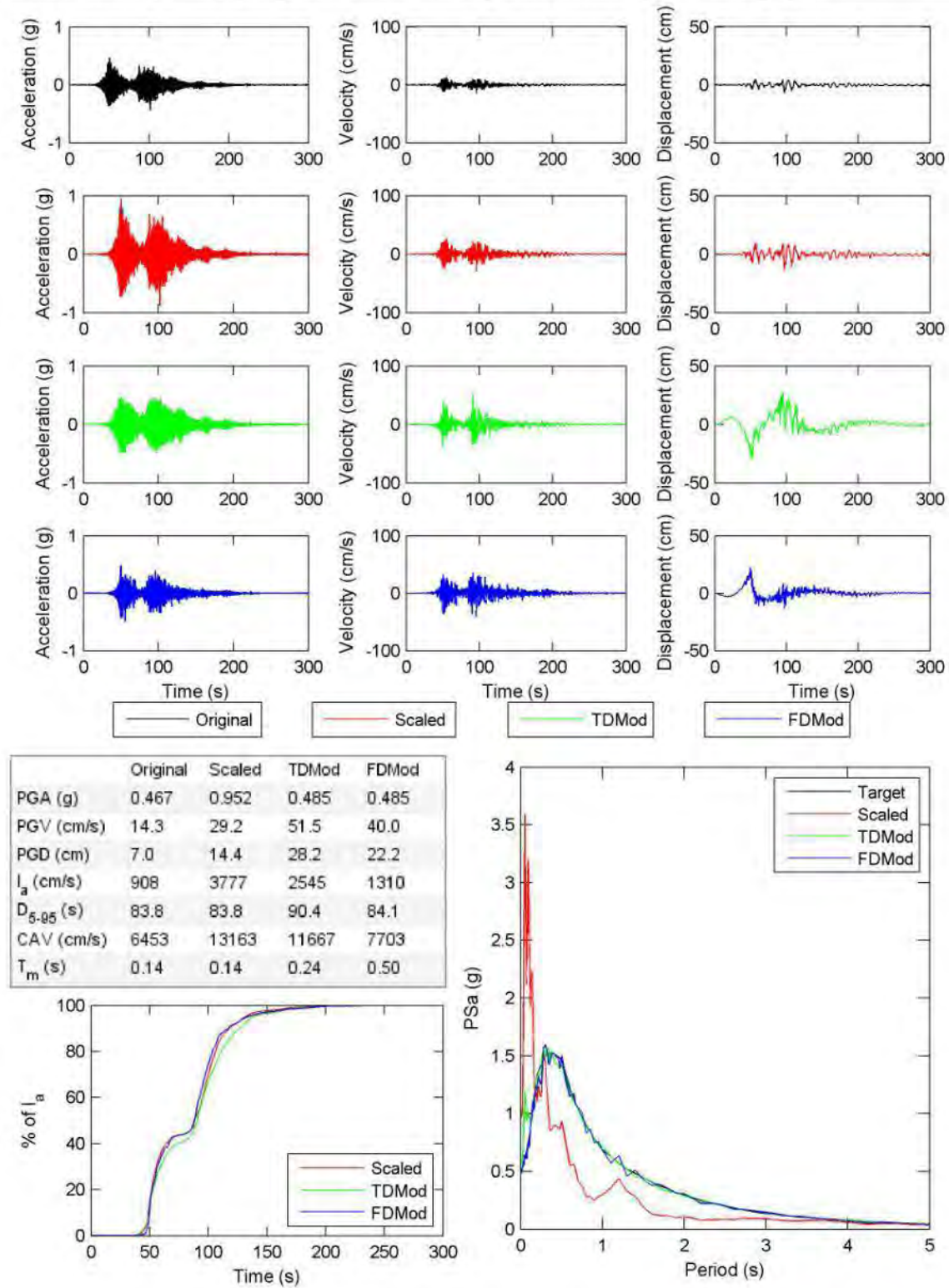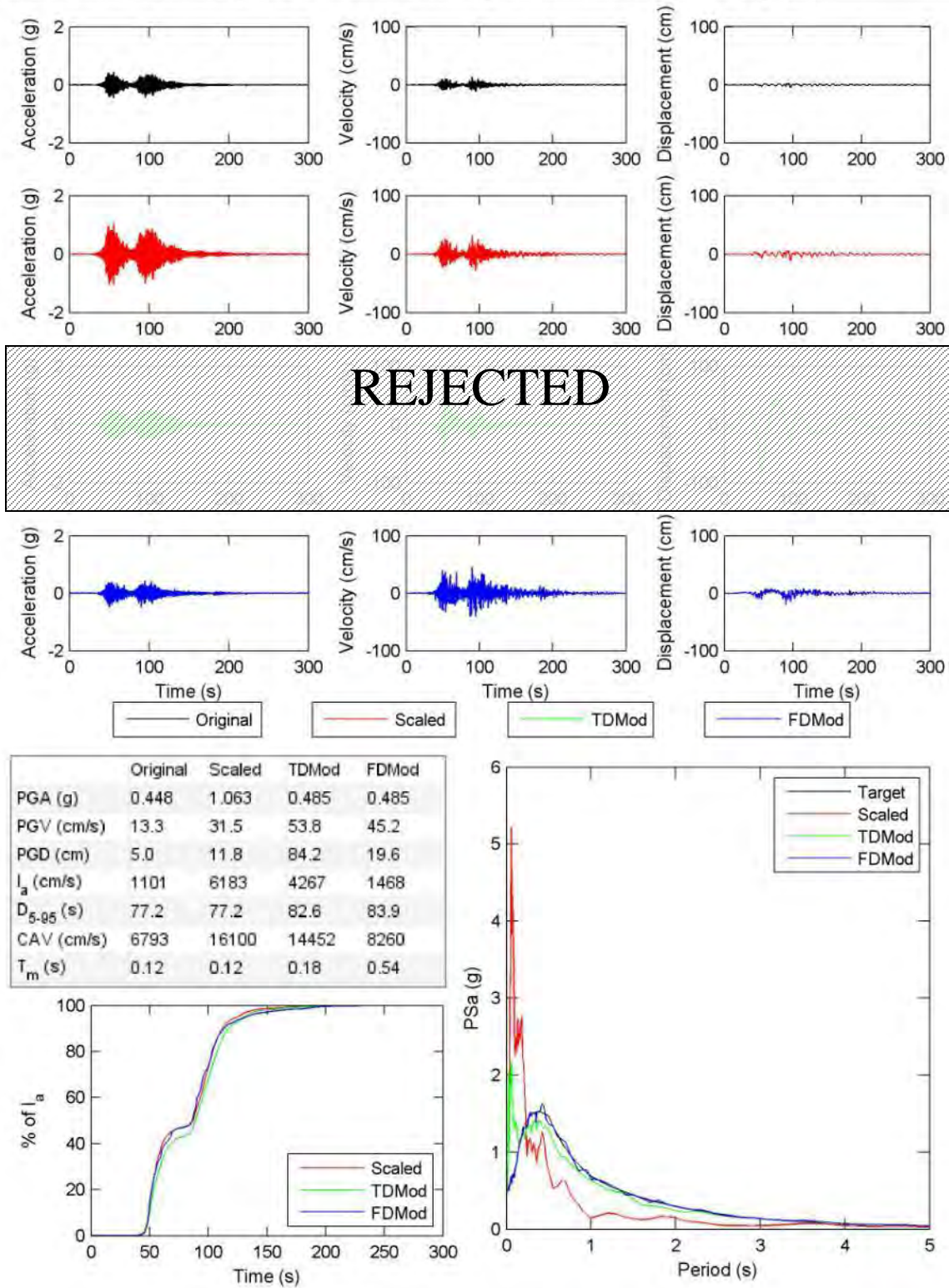

	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.522	0.486	0.485
PGV (cm/s)	14.8	58.3	50.2	49.5
PGD (cm)	8.7	34.3	25.6	12.6
I_a (cm/s)	47	737	926	1082
D_{5-95} (s)	27.7	27.7	26.1	31.7
CAV (cm/s)	858	3381	3647	4179
T_m (s)	0.44	0.44	0.46	0.51

Figure E.4. continued.

803

File Name: 1 MIC-CALE180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.67   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 3

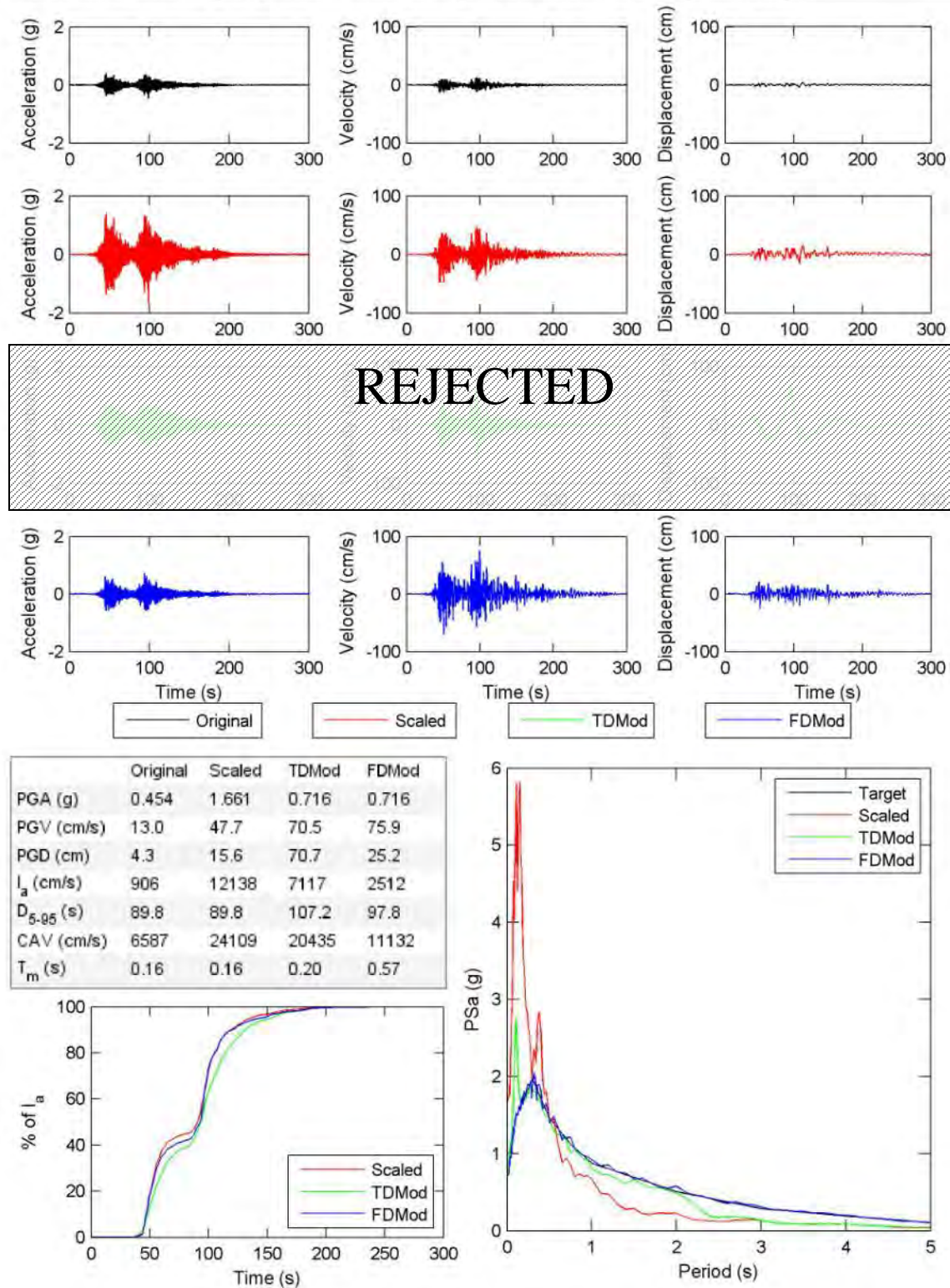|	Original	Scaled	TDMod	FDMod
PGA (g)	0.154	0.410	0.485	0.485
PGV (cm/s)	18.5	49.4	58.0	46.6
PGD (cm)	8.4	22.3	21.8	14.2
I_a (cm/s)	66	471	655	812
D_{5-95} (s)	24.3	24.3	21.6	24.3
CAV (cm/s)	961	2566	2870	3448
T_m (s)	0.59	0.59	0.51	0.48

Figure E.4. continued.

804

File Name: 1 TOK-HKD096-E   Start and End Taper Percentage: 1.0% and 5.0%
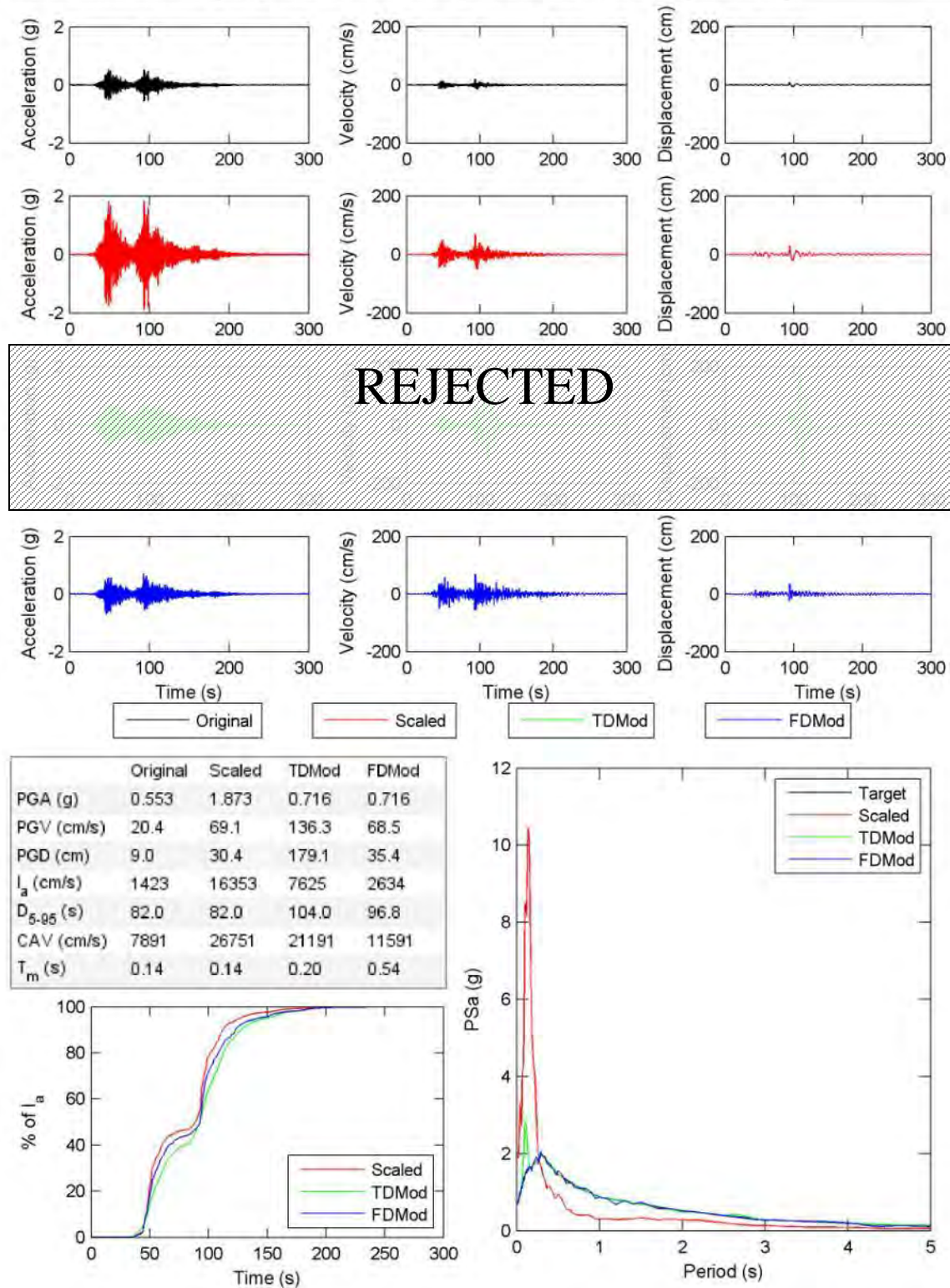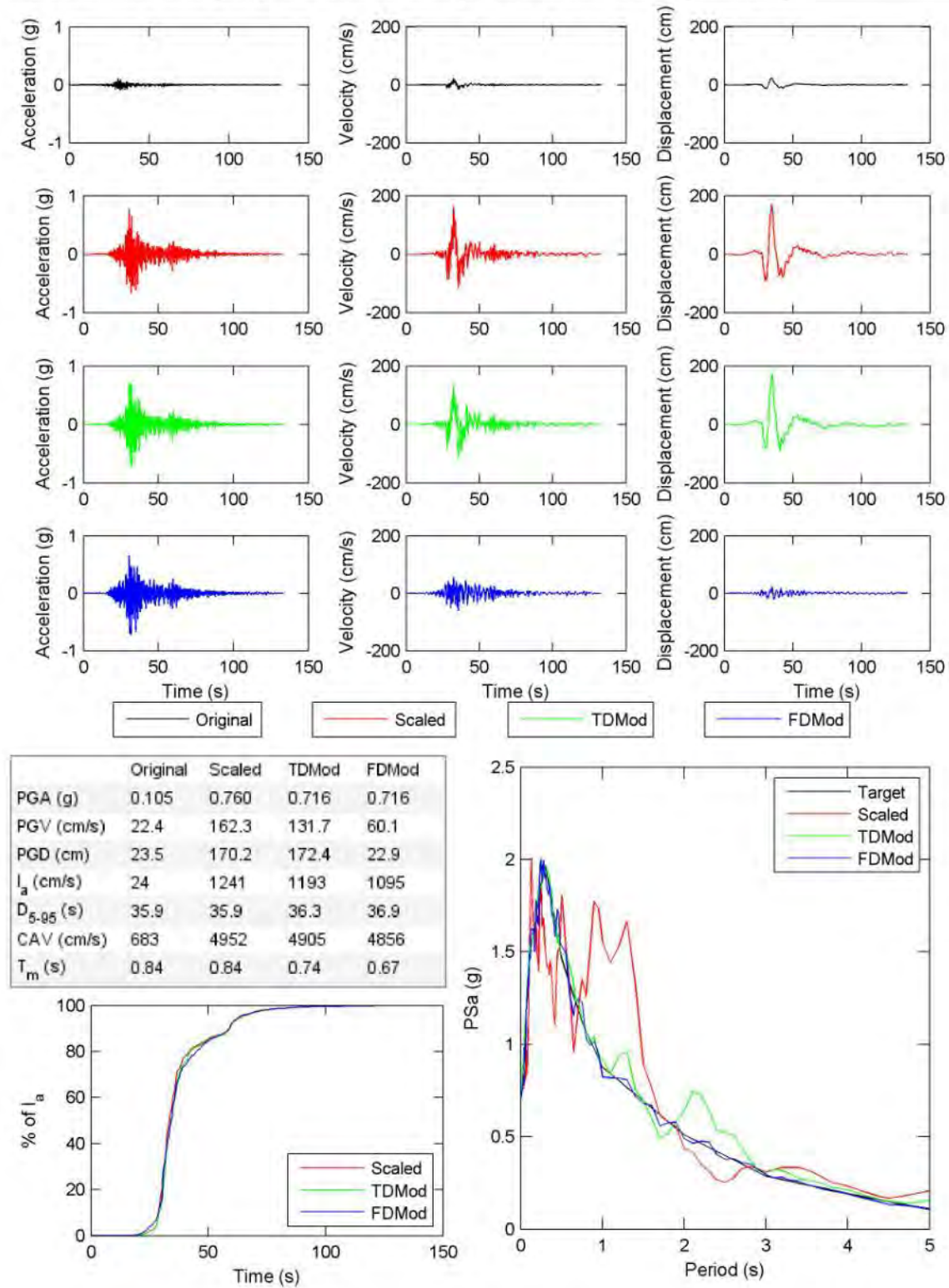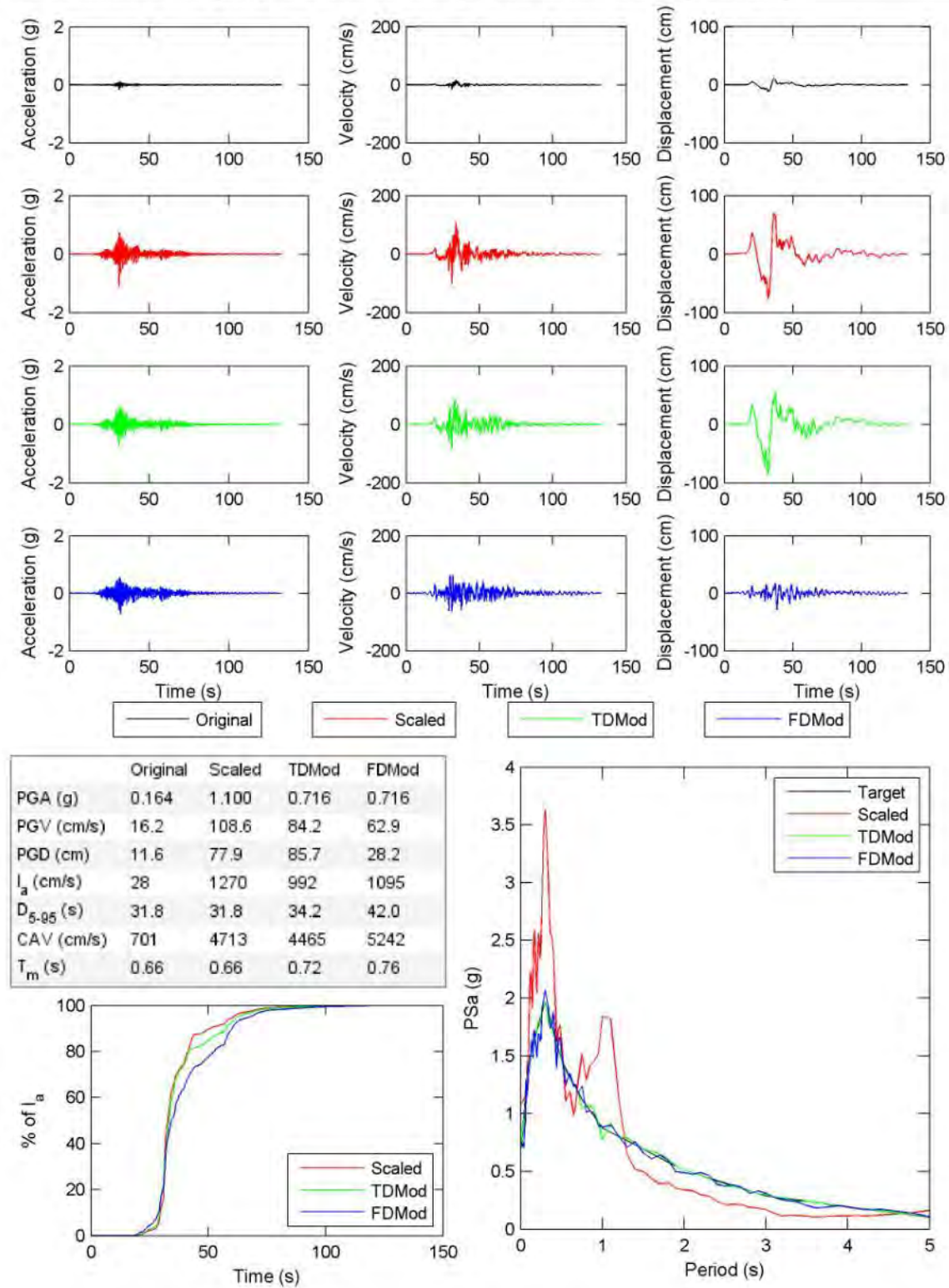Scale Factor: 2.20   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.217	0.477	0.485	0.485
PGV (cm/s)	28.1	61.9	63.9	55.5
PGD (cm)	16.5	36.3	25.4	10.5
I_a (cm/s)	105	506	566	1052
D_{5-95} (s)	36.5	36.5	34.7	43.0
CAV (cm/s)	1609	3540	3460	5275
T_m (s)	1.02	1.02	0.58	0.52

Figure E.4. continued.

805

	Original	Scaled	TDMod	FDMod
PGA (g)	0.180	0.439	0.485	0.485
PGV (cm/s)	24.7	60.2	46.8	49.2
PGD (cm)	12.8	31.3	21.9	22.6
I_a (cm/s)	87	520	661	989
D_{5-95} (s)	41.5	41.5	37.0	43.8
CAV (cm/s)	1515	3697	3886	5171
T_m (s)	0.77	0.77	0.58	0.57

Figure E.4. continued.

806

	Original	Scaled	TDMod	FDMod
PGA (g)	0.100	0.627	0.485	0.485
PGV (cm/s)	7.6	47.4	53.7	44.2
PGD (cm)	3.9	24.3	22.6	14.0
I_a (cm/s)	15	603	828	760
D_{5-95} (s)	24.6	24.6	23.3	25.8
CAV (cm/s)	482	3025	3509	3527
T_m (s)	0.33	0.33	0.49	0.56

Figure E.4. continued.

807

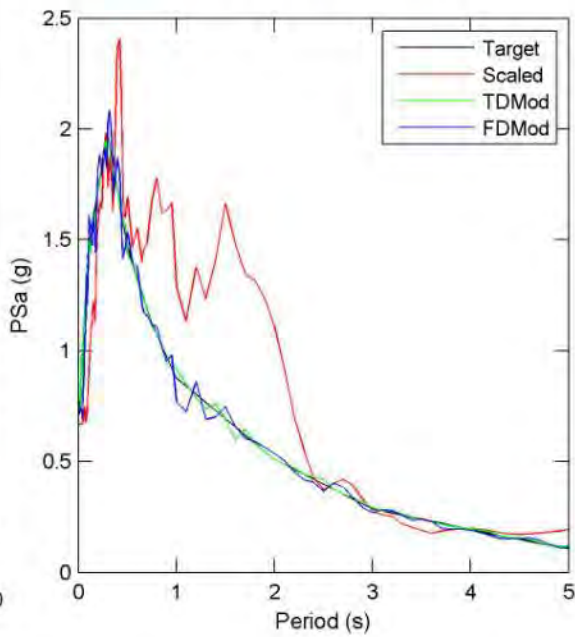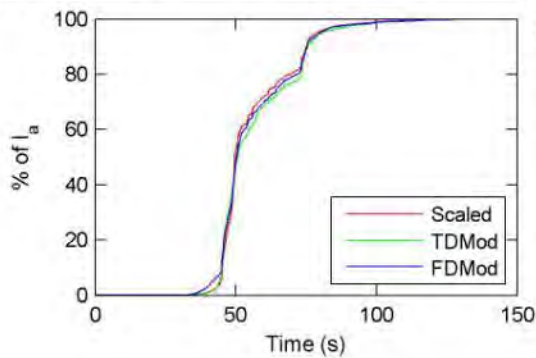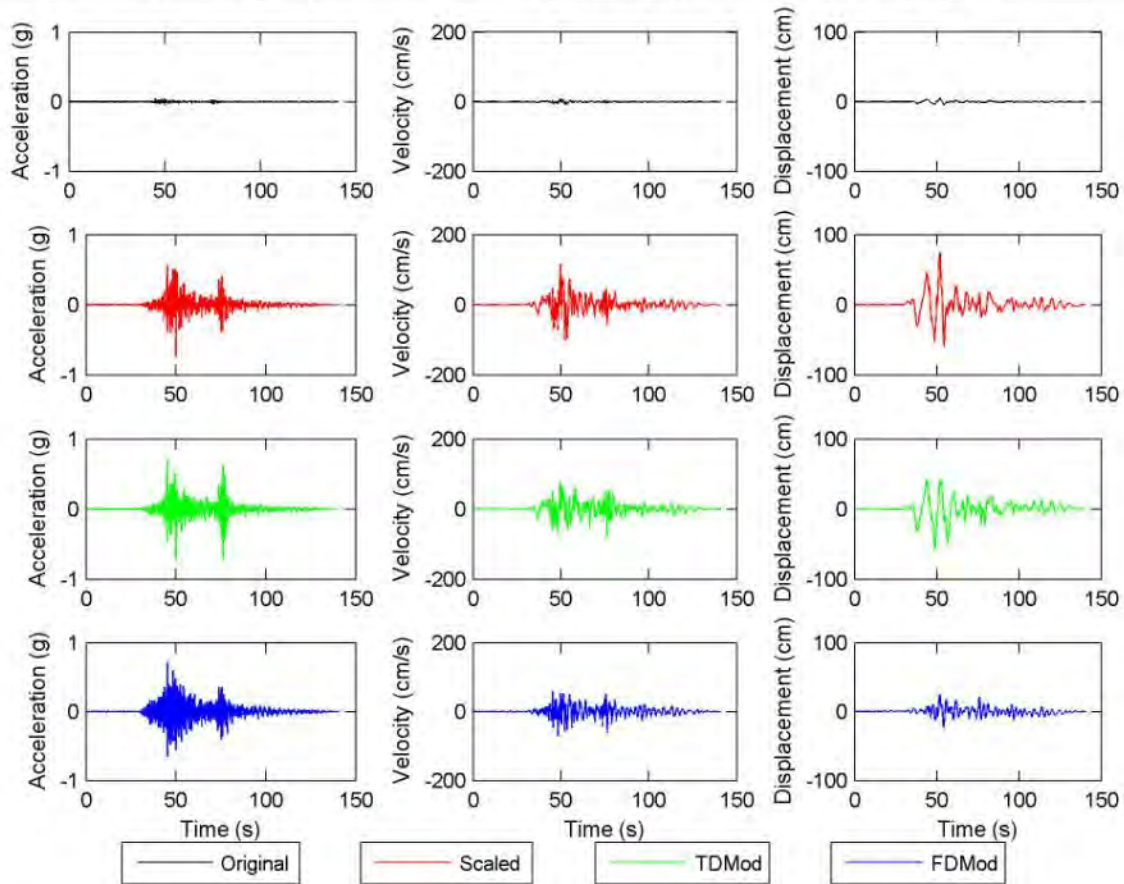|	Original	Scaled	TDMod	FDMod
PGA (g)	0.060	0.482	0.485	0.485
PGV (cm/s)	6.2	50.3	56.4	54.3
PGD (cm)	3.9	31.1	24.1	13.8
I_a (cm/s)	8	509	713	865
D_{5-95} (s)	23.7	23.7	20.1	25.0
CAV (cm/s)	331	2668	3032	3634
T_m (s)	0.51	0.51	0.53	0.54

Figure E.4. continued.

808

File Name: 2112 PS08049   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 10.12   Target Spectrum Matched: targetCMS2.txt   FD poly: 6   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.046	0.468	0.485	0.485
PGV (cm/s)	5.3	53.2	50.3	49.8
PGD (cm)	3.6	36.6	29.8	14.8
I_a (cm/s)	5	505	651	848
D_{5-95} (s)	33.7	33.7	28.3	36.5
CAV (cm/s)	284	2870	3115	3863
T_m (s)	0.56	0.56	0.51	0.51

Figure E.4. continued.

809

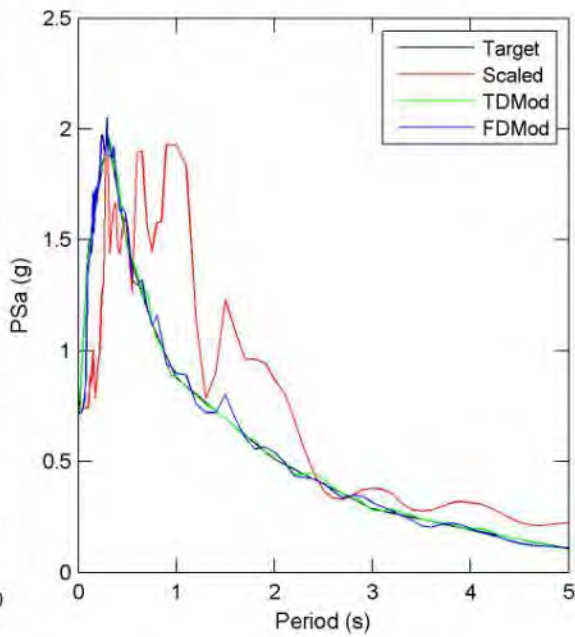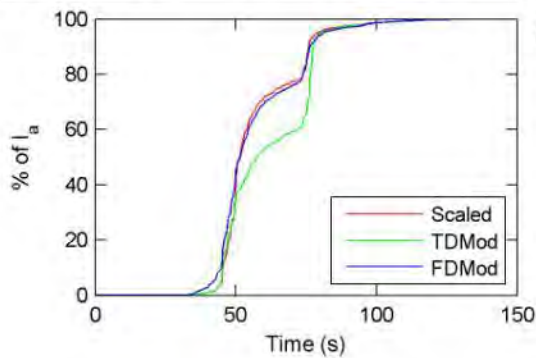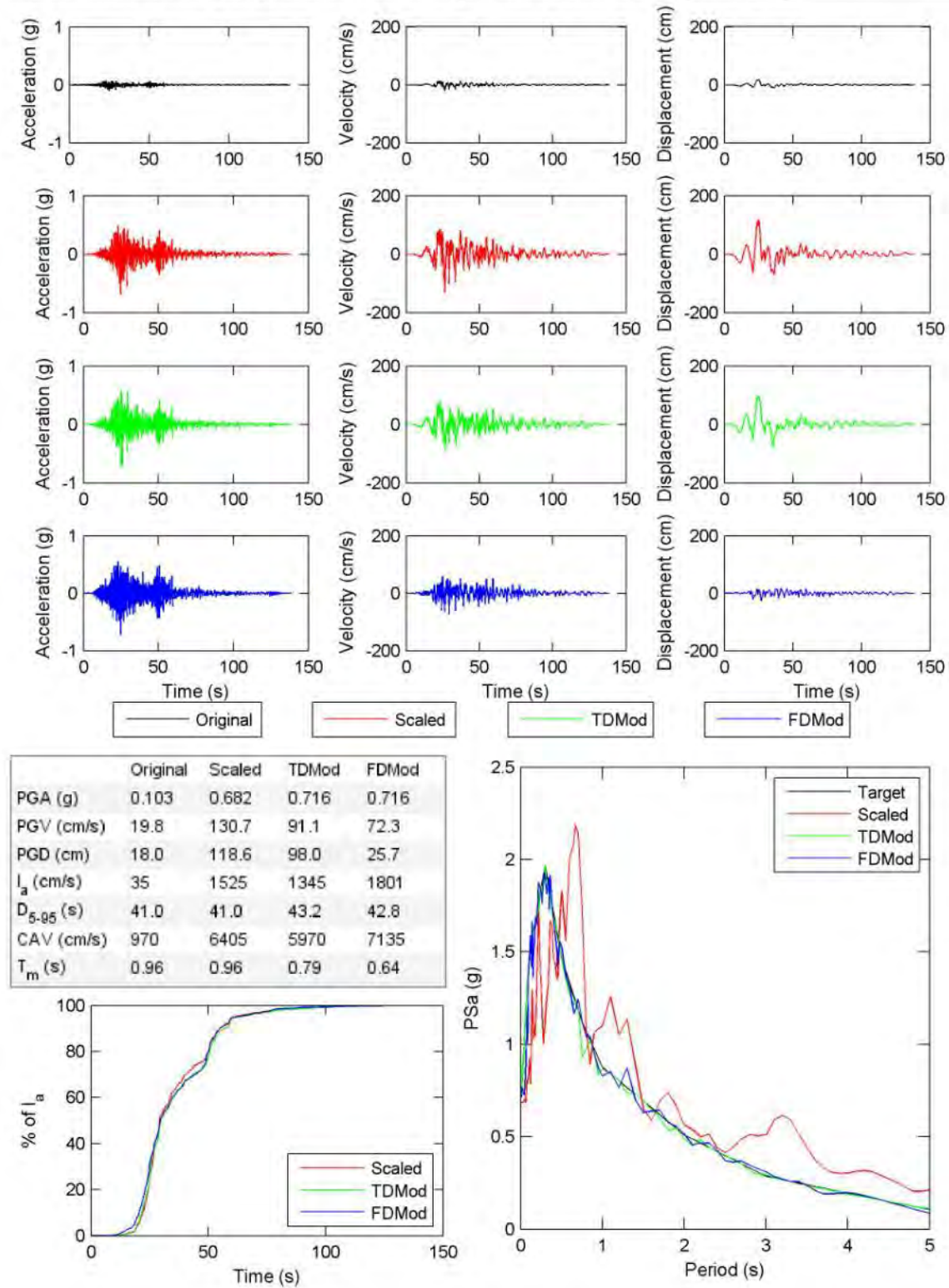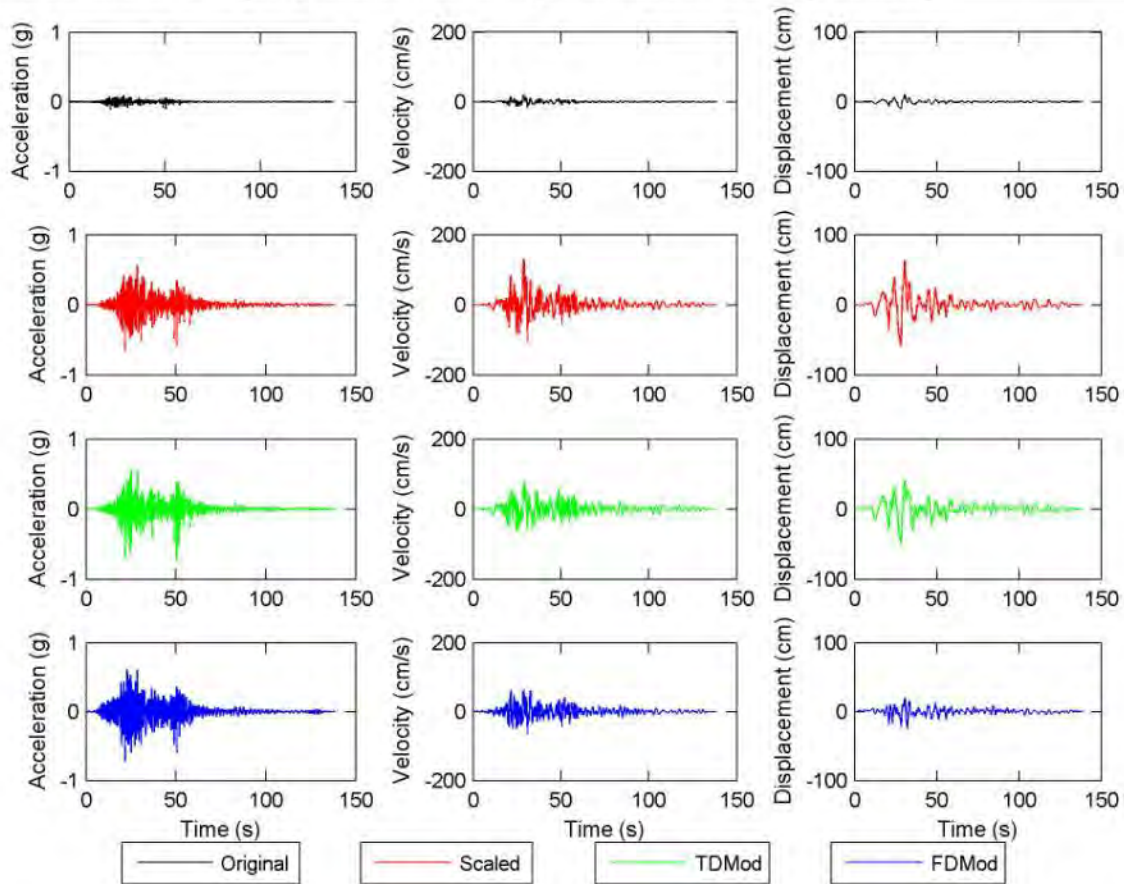|	Original	Scaled	TDMod	FDMod
PGA (g)	0.036	0.423	0.486	0.485
PGV (cm/s)	4.4	52.4	51.4	45.6
PGD (cm)	3.3	38.4	23.8	13.8
I_a (cm/s)	4	612	721	904
D_{5-95} (s)	40.9	40.9	35.6	40.2
CAV (cm/s)	286	3373	3470	4128
T_m (s)	0.45	0.45	0.46	0.48

Figure E.4. continued.

810

File Name: 2113 PS09013   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.93   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.056	0.334	0.485	0.486
PGV (cm/s)	11.4	67.7	53.4	55.8
PGD (cm)	9.0	53.3	59.6	40.9
I_a (cm/s)	21	726	1009	2096
D_{5-95} (s)	98.7	98.7	87.0	98.8
CAV (cm/s)	954	5658	6048	9852
T_m (s)	0.57	0.57	0.52	0.56

Figure E.4. continued.

811

	Original	Scaled	TDMod	FDMod
PGA (g)	0.075	0.406	0.485	0.485
PGV (cm/s)	12.1	66.1	64.7	54.1
PGD (cm)	11.0	60.0	42.0	12.2
I_a (cm/s)	20	604	907	1869
D_{5-95} (s)	97.5	97.5	77.5	98.1
CAV (cm/s)	933	5085	5544	9215
T_m (s)	0.54	0.54	0.54	0.58

Figure E.4. continued.

812

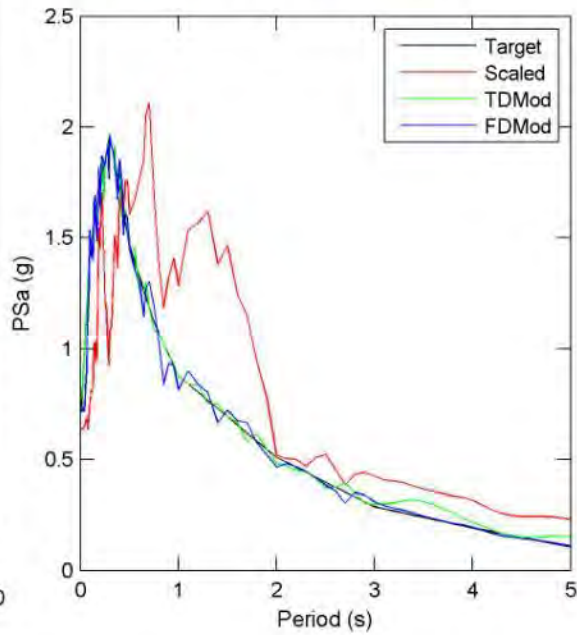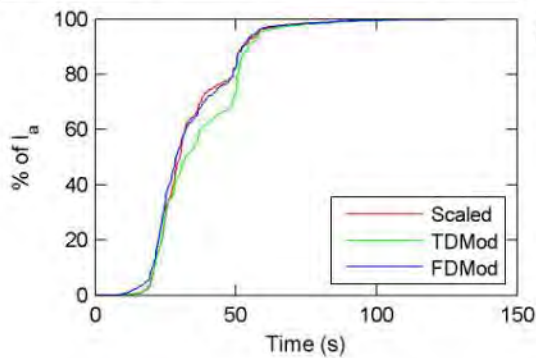|	Original	Scaled	TDMod	FDMod
PGA (g)	0.542	0.694	0.486	0.486
PGV (cm/s)	41.7	53.4	62.9	44.4
PGD (cm)	7.2	9.2	29.2	13.2
I_a (cm/s)	589	966	824	746
D_{5-95} (s)	16.5	16.5	20.0	21.1
CAV (cm/s)	2709	3468	3478	3452
T_m (s)	0.42	0.42	0.50	0.54
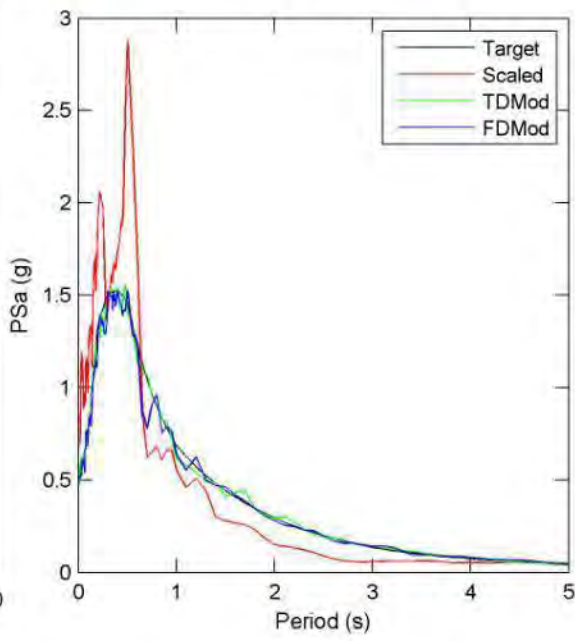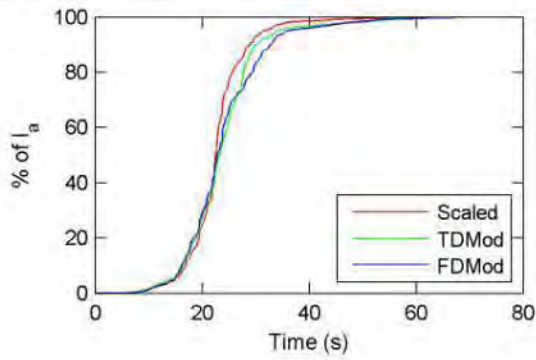
Figure E.4. continued.
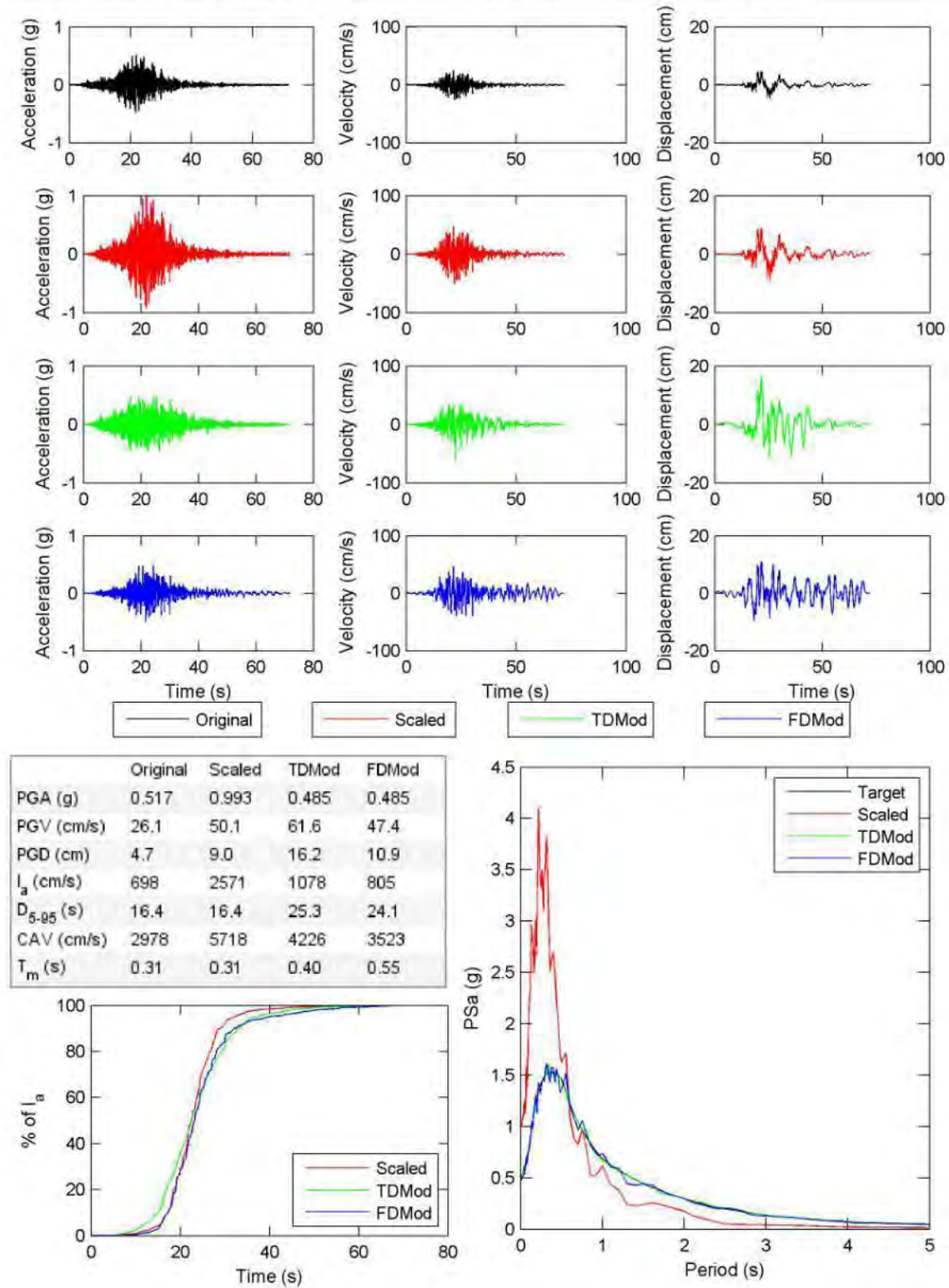
813

Figure E.4. continued.

814

File Name: 2 HON-IWT009-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.15   Target Spectrum Matched: targetCMS2.txt   FD poly: 8   TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.541	1.162	0.485	0.485
PGV (cm/s)	22.0	47.3	51.4	46.3
PGD (cm)	5.2	11.2	35.7	38.8
I_a (cm/s)	2066	9552	4348	1183
D_{5-95} (s)	87.3	87.3	114.3	83.0
CAV (cm/s)	9974	21443	16621	7089
T_m (s)	0.15	0.15	0.20	0.51

Figure E.4. continued.

815

Figure E.4. continued.

816

File Name: 2 MIC-UNIO090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.37   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 4

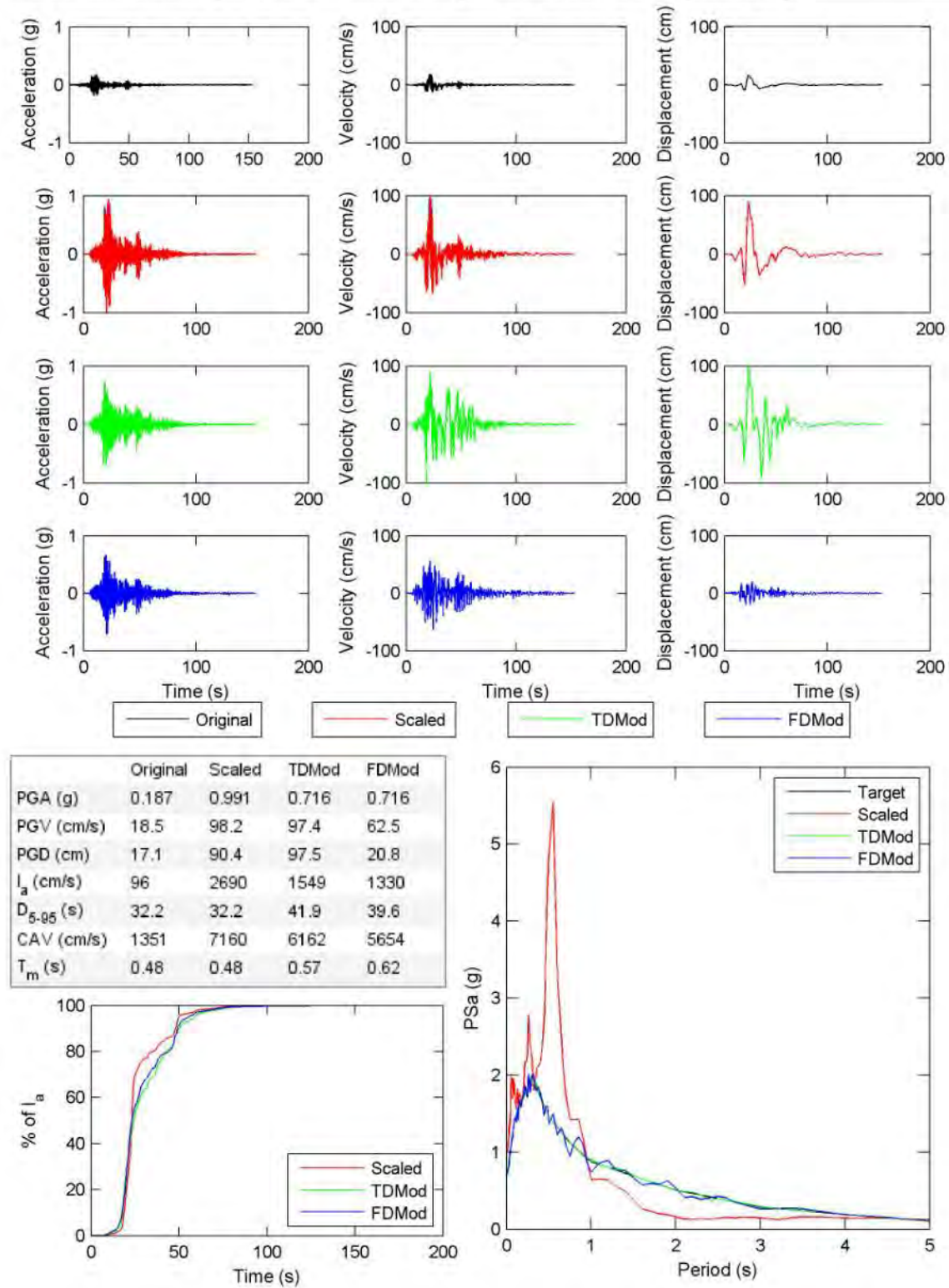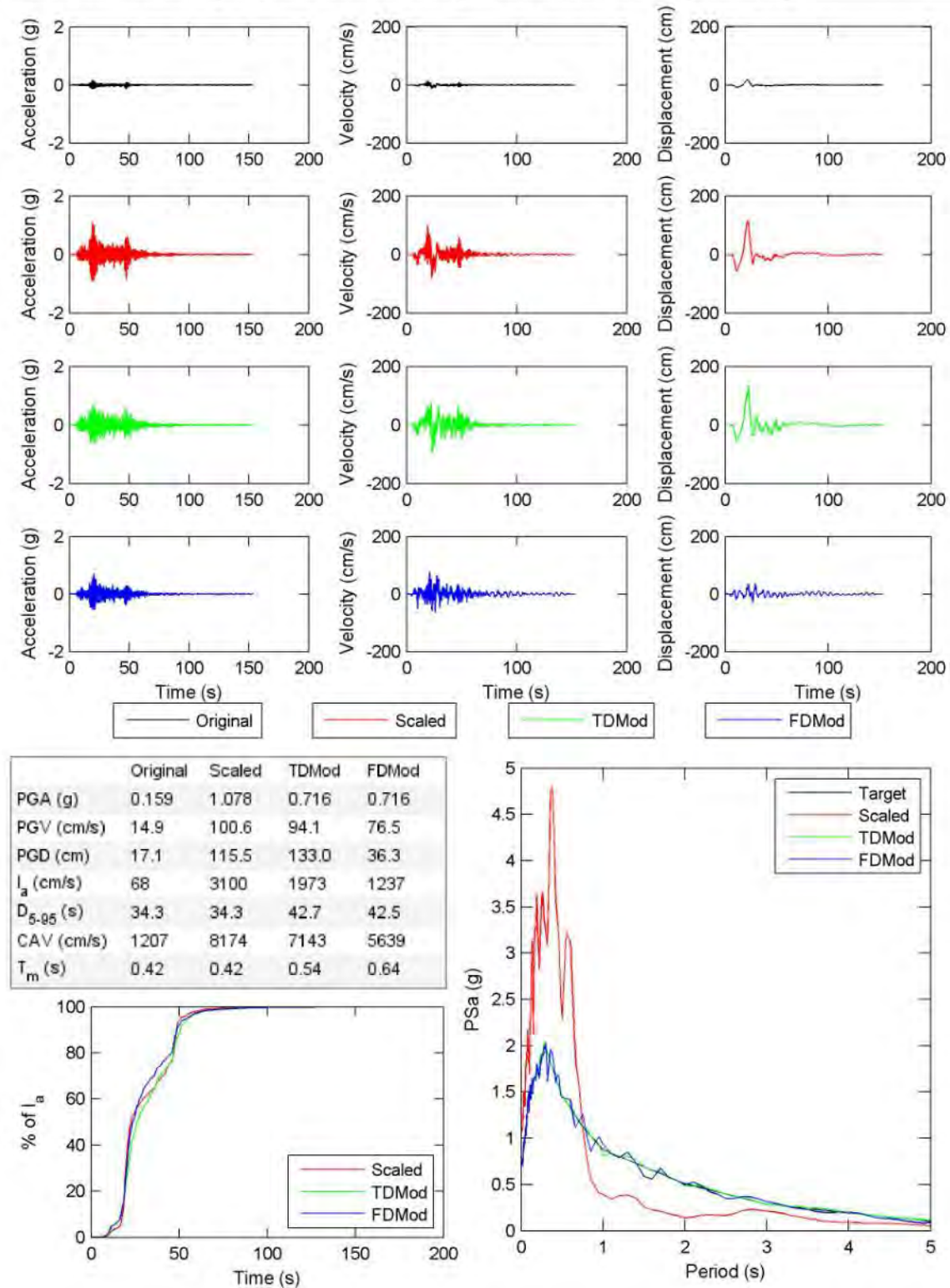|	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.499	0.485	0.485
PGV (cm/s)	12.7	42.8	52.2	45.0
PGD (cm)	5.6	19.0	24.2	11.9
I_a (cm/s)	90	1025	1051	1004
D_{5-95} (s)	26.4	26.4	28.9	28.7
CAV (cm/s)	1170	3943	4022	3960
T_m (s)	0.36	0.36	0.44	0.49

Figure E.4. continued.

817

File Name: 2 MIC-UNIO180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.47   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 3
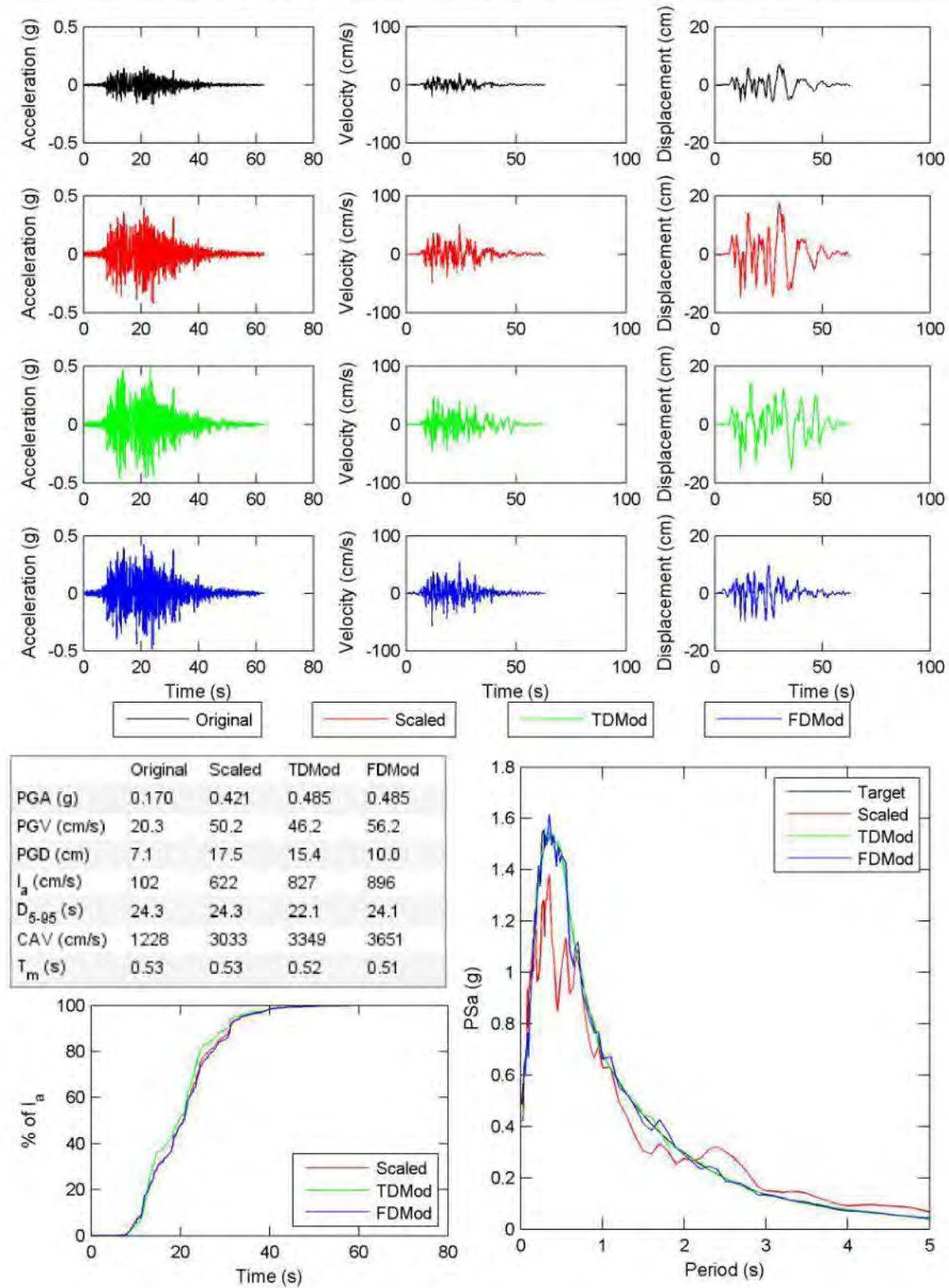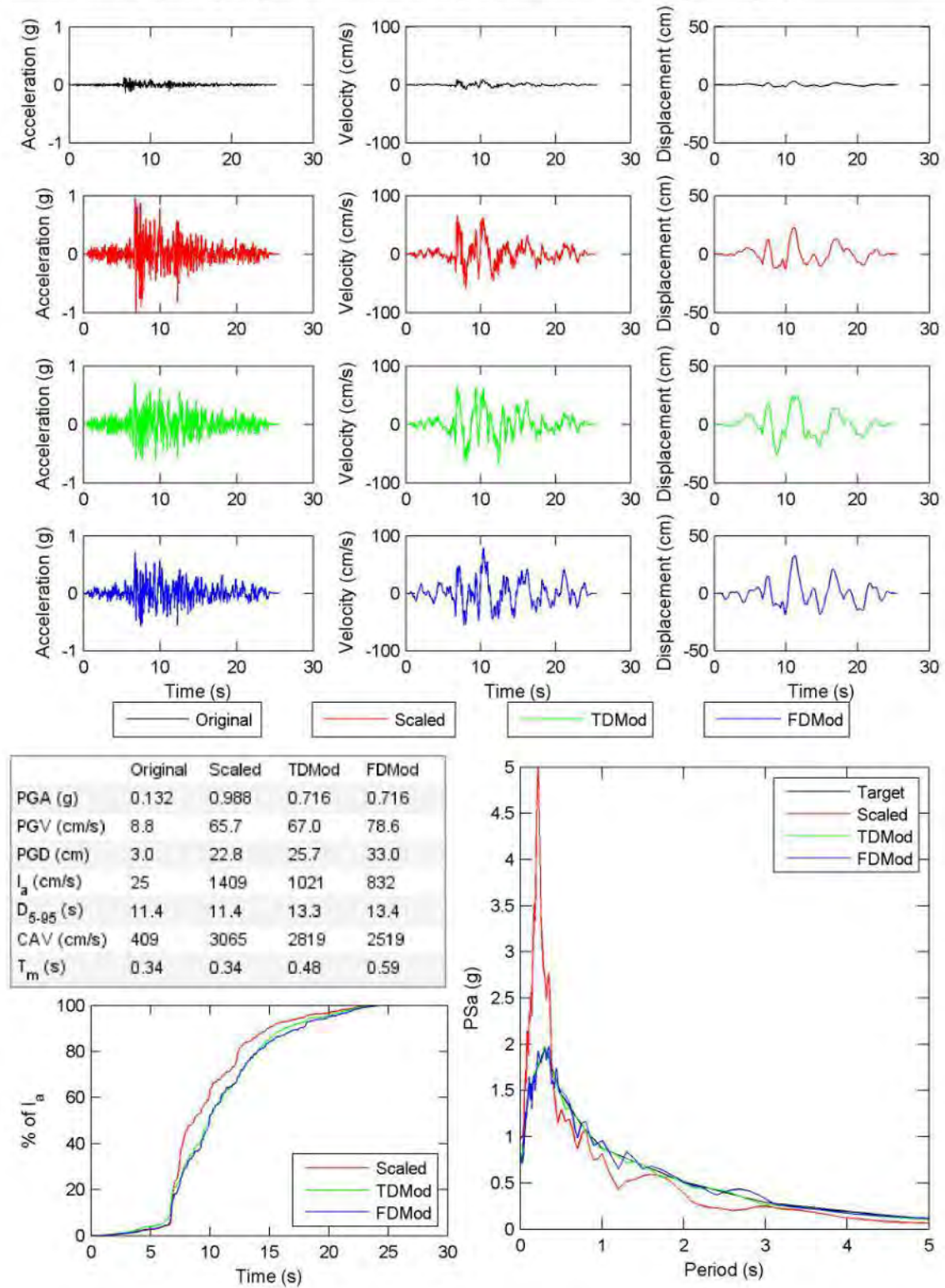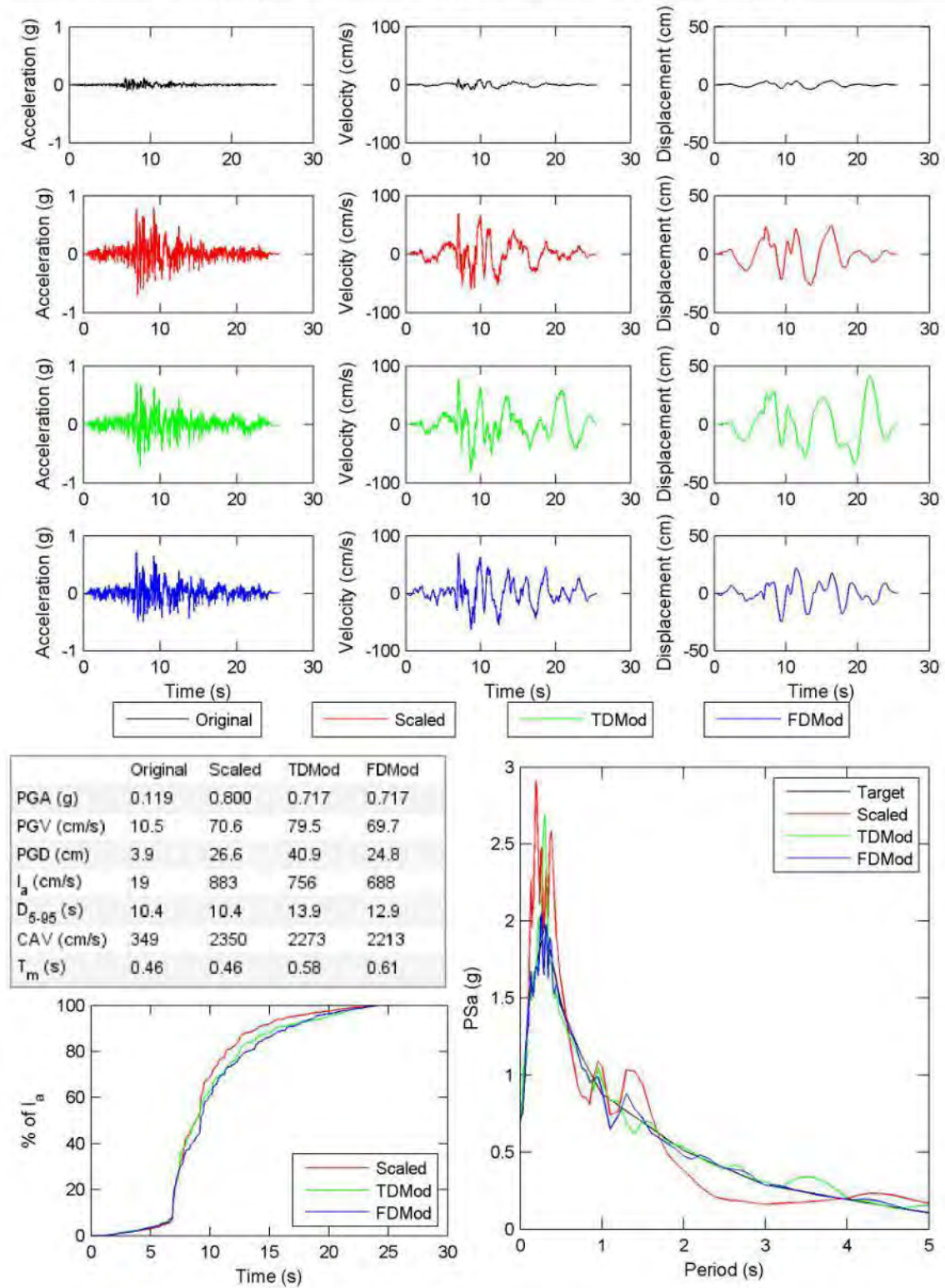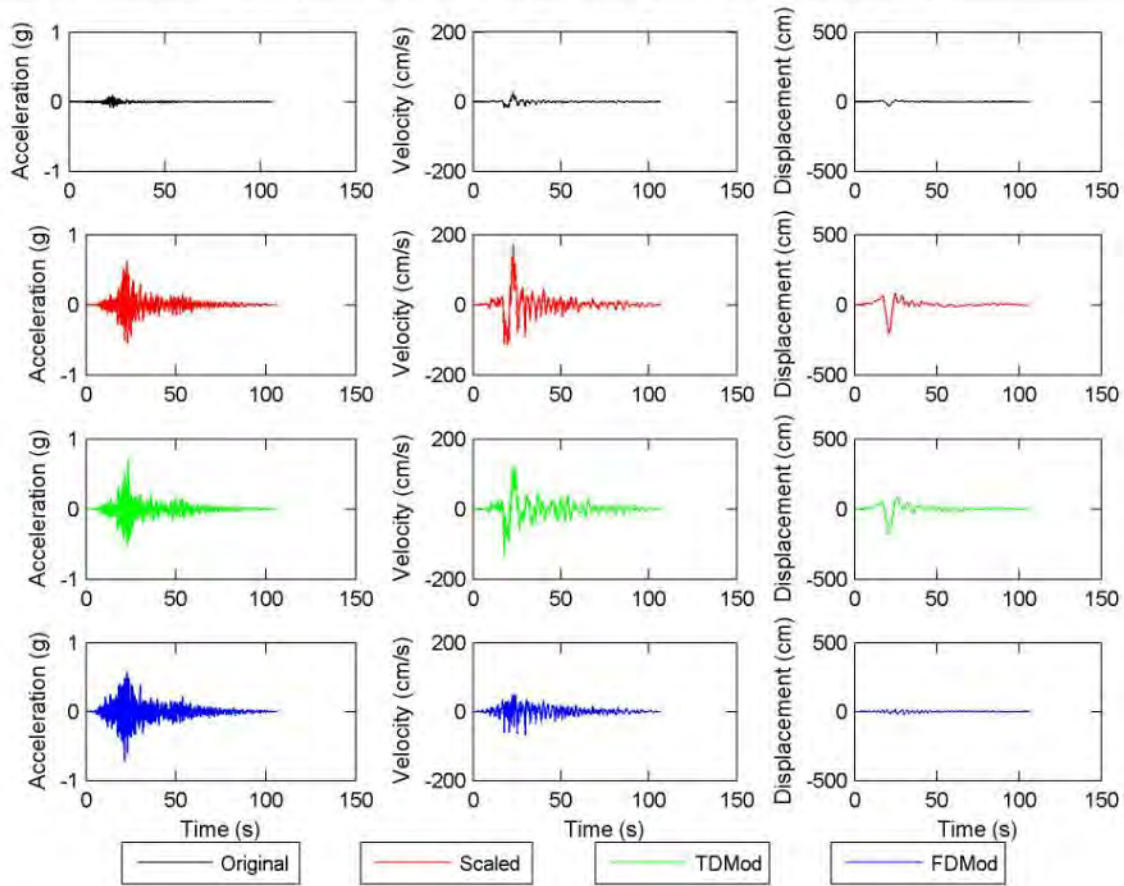
	Original	Scaled	TDMod	FDMod
PGA (g)	0.170	0.421	0.485	0.485
PGV (cm/s)	20.3	50.2	46.2	56.2
PGD (cm)	7.1	17.5	15.4	10.0
I_a (cm/s)	102	622	827	896
D_{5-95} (s)	24.3	24.3	22.1	24.1
CAV (cm/s)	1228	3033	3349	3651
T_m (s)	0.53	0.53	0.52	0.51

Figure E.4. continued.

818

	Original	Scaled	TDMod	FDMod
PGA (g)	0.340	0.354	0.485	0.485
PGV (cm/s)	81.8	85.1	51.2	50.5
PGD (cm)	28.6	29.7	12.3	23.8
I_a (cm/s)	409	442	604	1153
D_{5-95} (s)	33.4	33.4	27.6	41.3
CAV (cm/s)	3078	3201	3399	5535
T_m (s)	1.12	1.12	0.60	0.48

Figure E.4. continued.

819

File Name: 2 TOK-HKD098-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.92   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 7

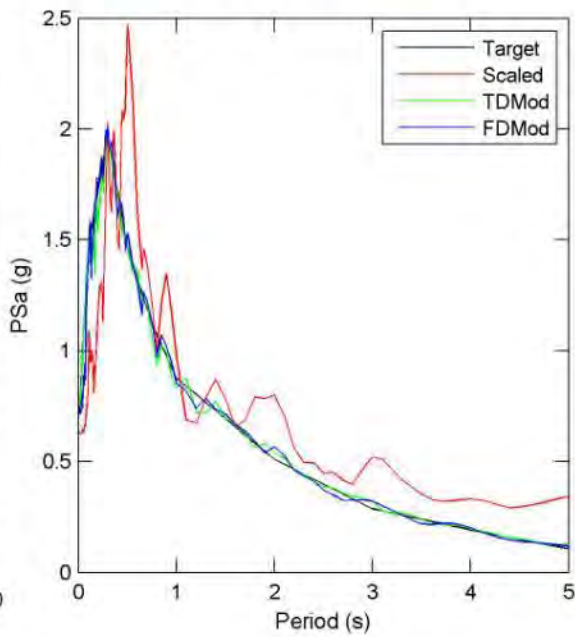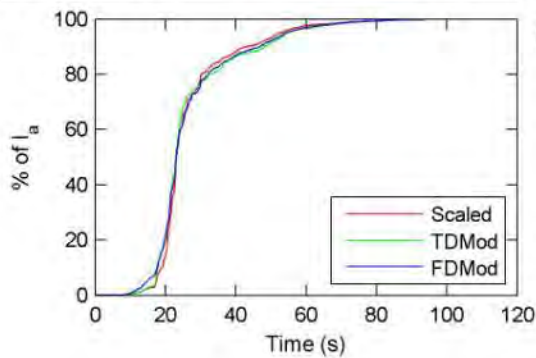|	Original	Scaled	TDMod	FDMod
PGA (g)	0.378	0.347	0.485	0.485
PGV (cm/s)	74.6	68.6	45.5	50.6
PGD (cm)	43.7	40.2	37.7	25.2
I_a (cm/s)	436	369	604	942
D_{5-95} (s)	32.8	32.8	24.1	36.8
CAV (cm/s)	3225	2967	3352	4792
T_m (s)	1.21	1.21	0.60	0.52

Figure E.4. continued.

820

File Name: 2 VAL-RAP000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.87   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.223	0.864	0.485	0.486
PGV (cm/s)	10.5	40.5	41.3	43.2
PGD (cm)	3.0	11.5	21.4	25.2
I_a (cm/s)	32	485	631	705
D_{5-95} (s)	23.0	23.0	22.5	26.4
CAV (cm/s)	693	2683	3041	3562
T_m (s)	0.39	0.39	0.50	0.56

Figure E.4. continued.

821
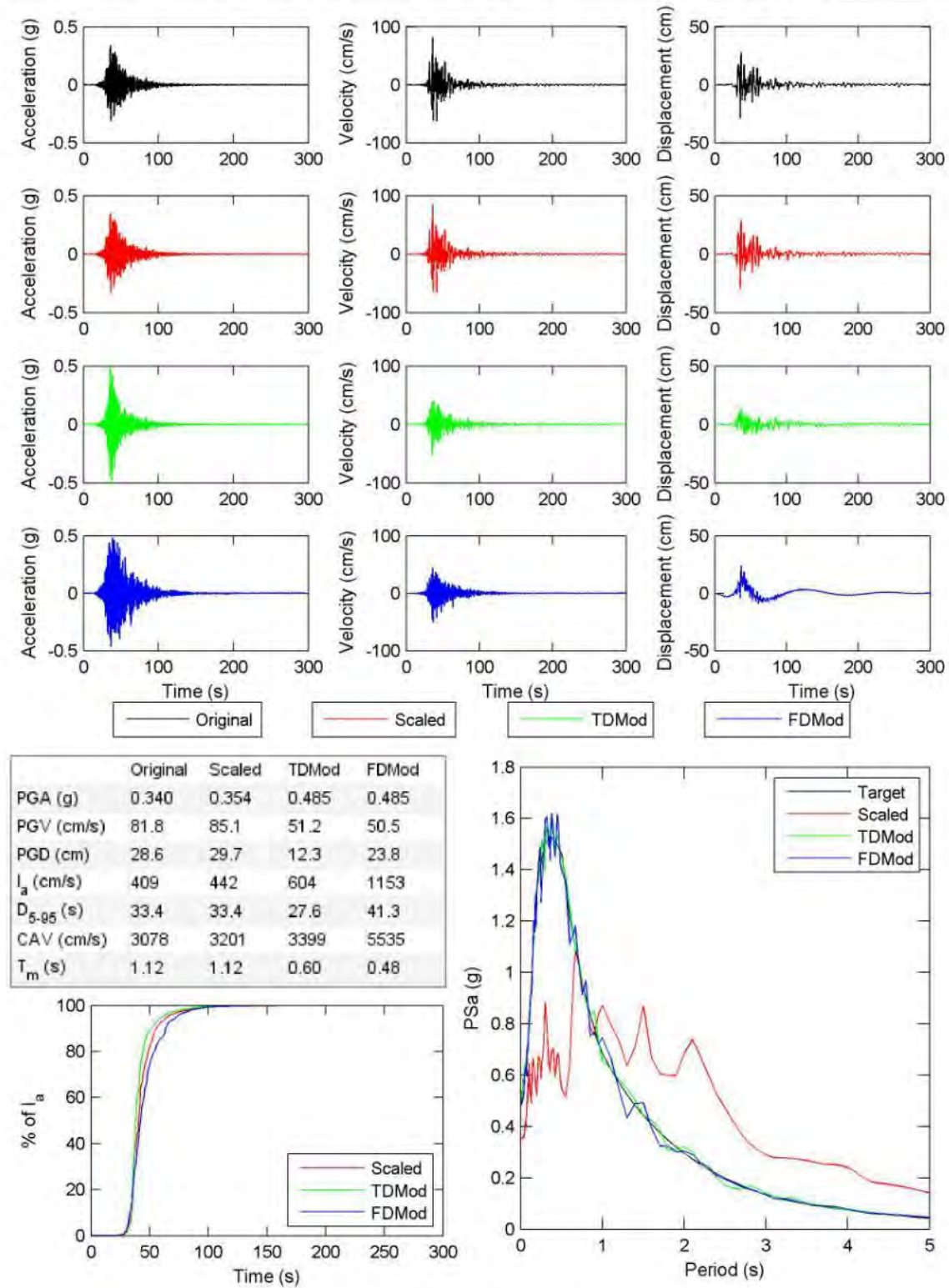
File Name: 2 VAL-RAP090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 7.00   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 4
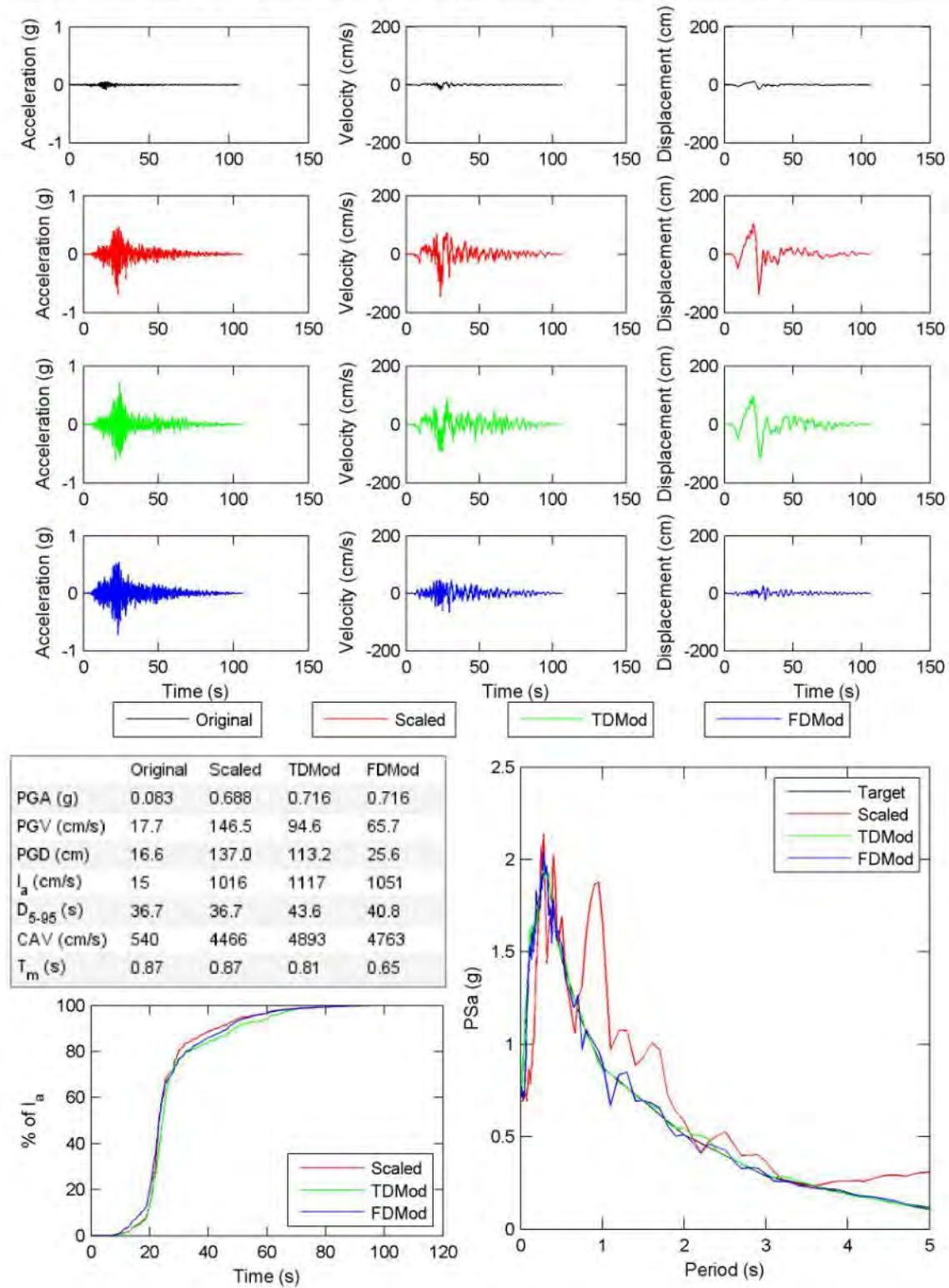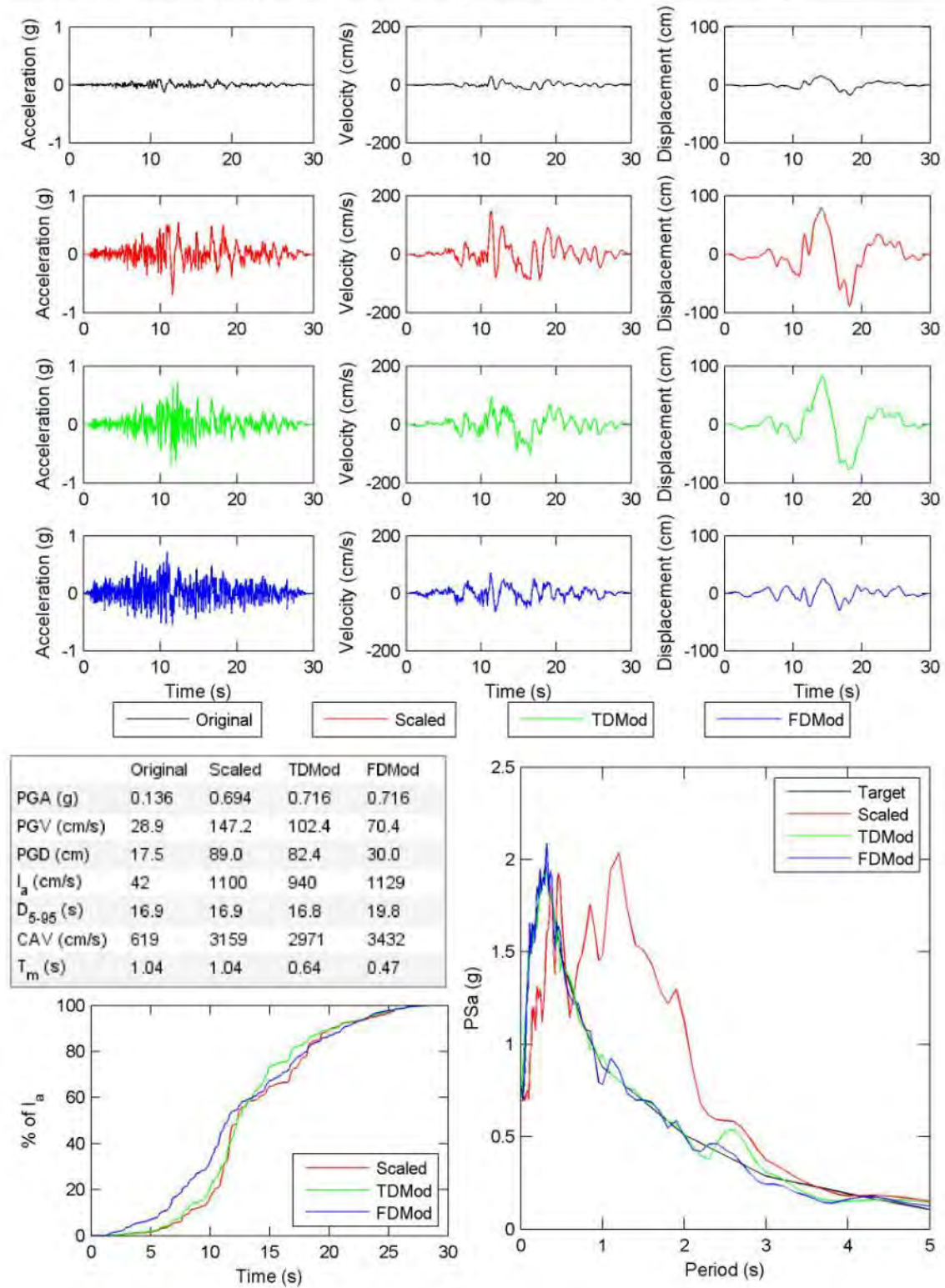

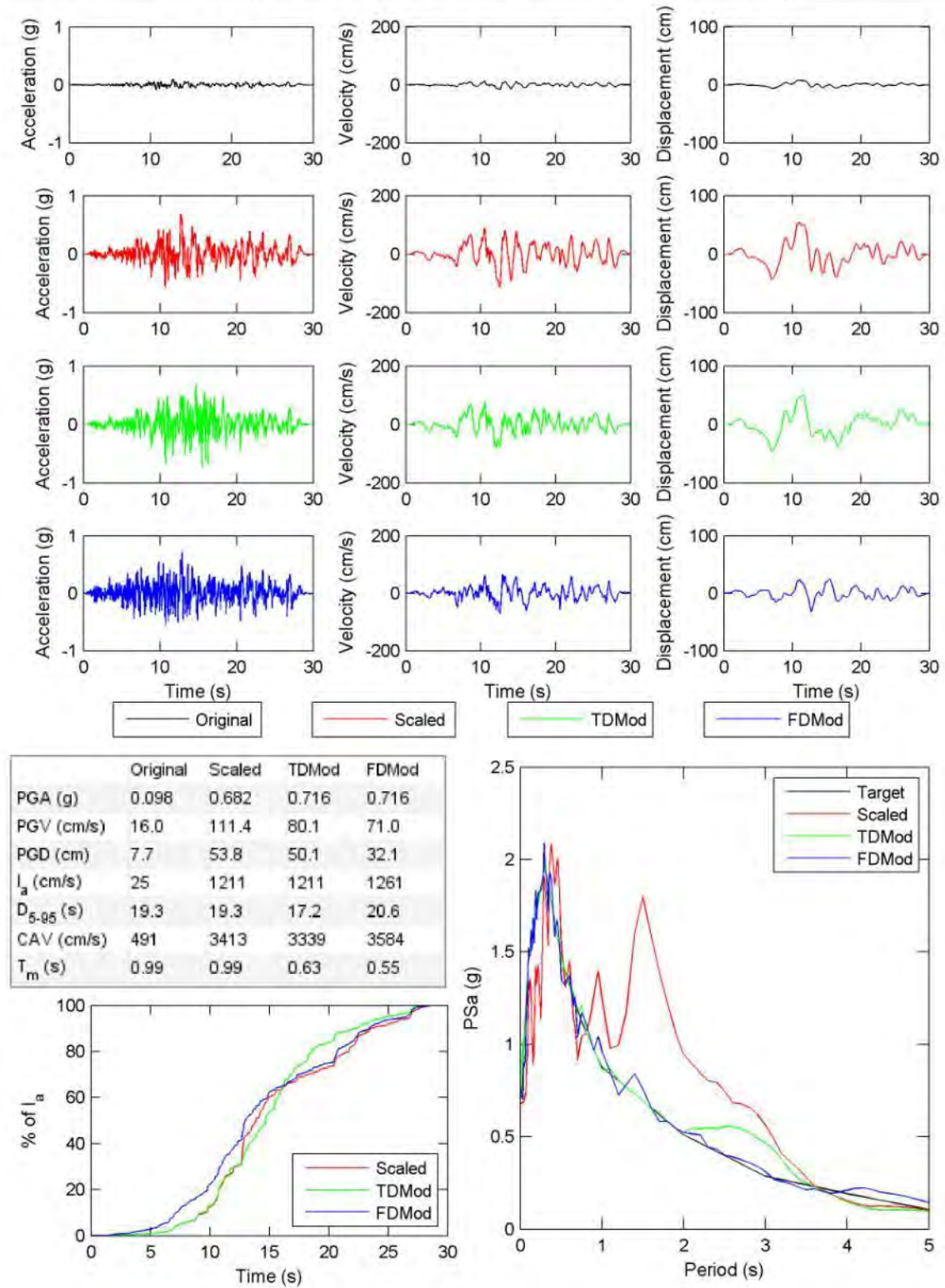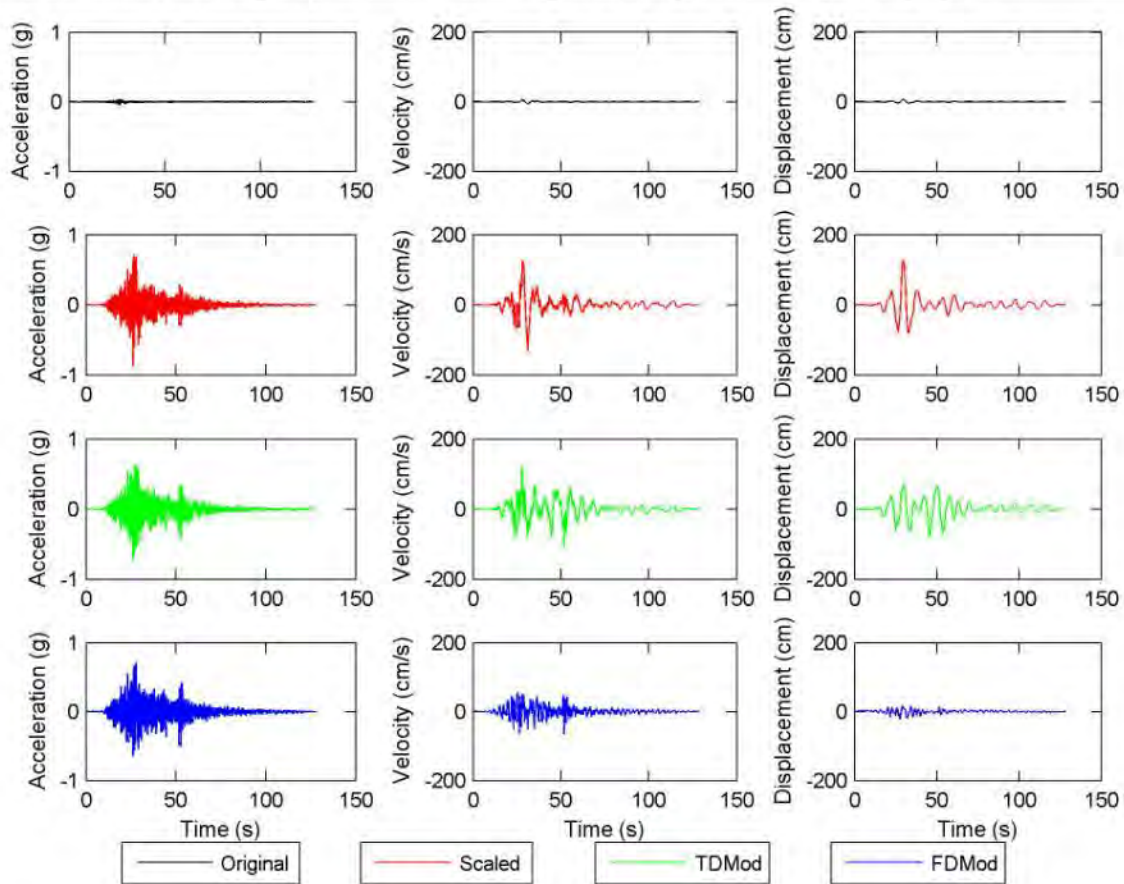|	Original	Scaled	TDMod	FDMod
PGA (g)	0.089	0.625	0.485	0.485
PGV (cm/s)	5.8	40.7	49.6	48.0
PGD (cm)	2.3	16.0	52.1	10.5
I_a (cm/s)	17	825	990	987
D_{5-95} (s)	29.9	29.9	36.0	35.0
CAV (cm/s)	561	3927	4523	4585
T_m (s)	0.33	0.33	0.49	0.56

Figure E.4. continued.

822

File Name: 3 ELS-PA000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.77   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.190	0.716	0.485	0.485
PGV (cm/s)	10.8	40.8	46.8	38.7
PGD (cm)	5.2	19.6	21.7	12.2
I_a (cm/s)	56	803	675	721
D_{5-95} (s)	19.0	19.0	20.7	22.1
CAV (cm/s)	816	3076	2988	3116
T_m (s)	0.22	0.22	0.46	0.54

Figure E.4. continued.

823

File Name: 3 ELS-PA090　　Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.80　　Target Spectrum Matched: targetCMS2.txt　FD poly: 3　TD poly: 3
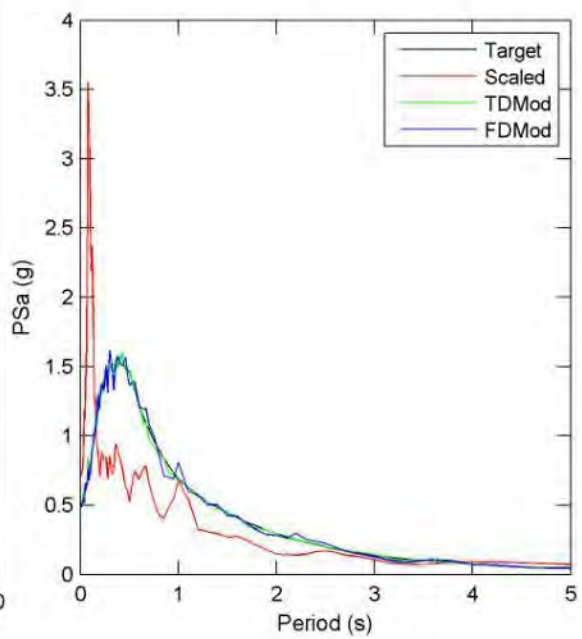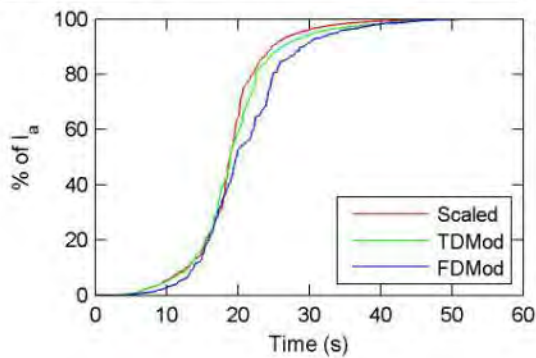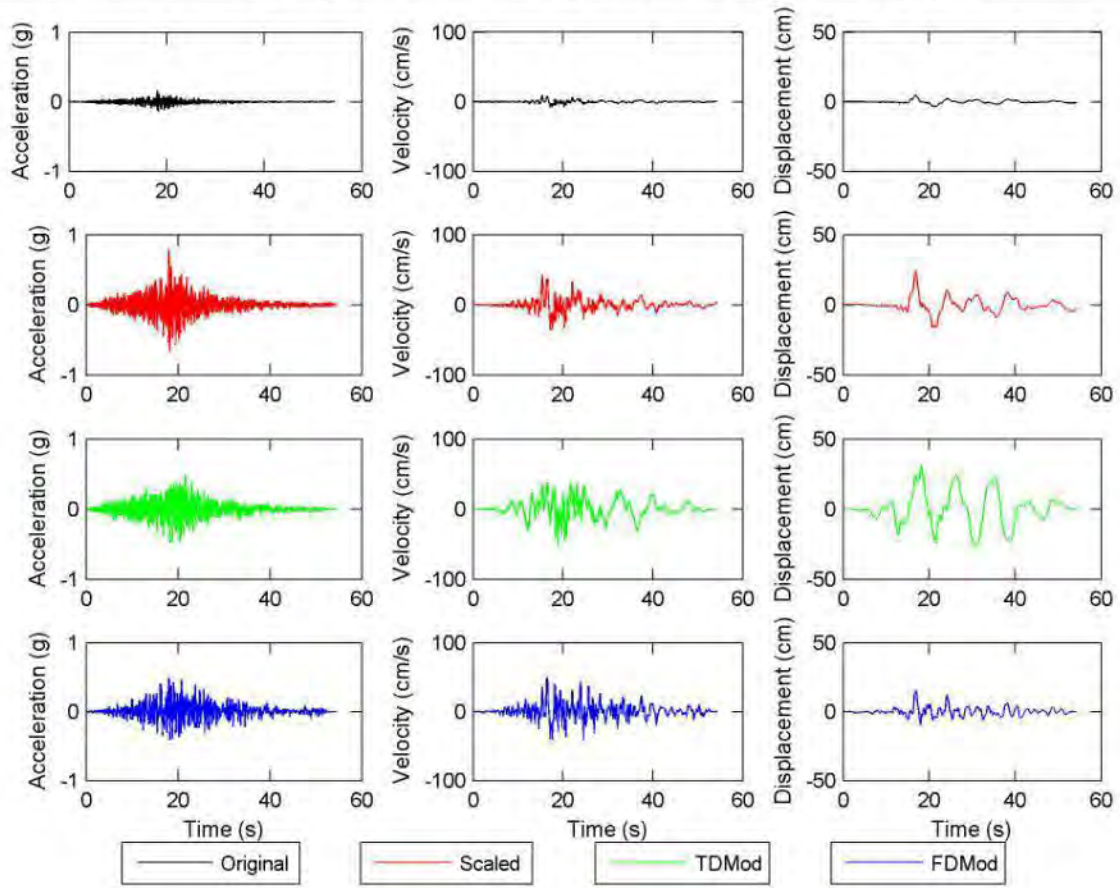
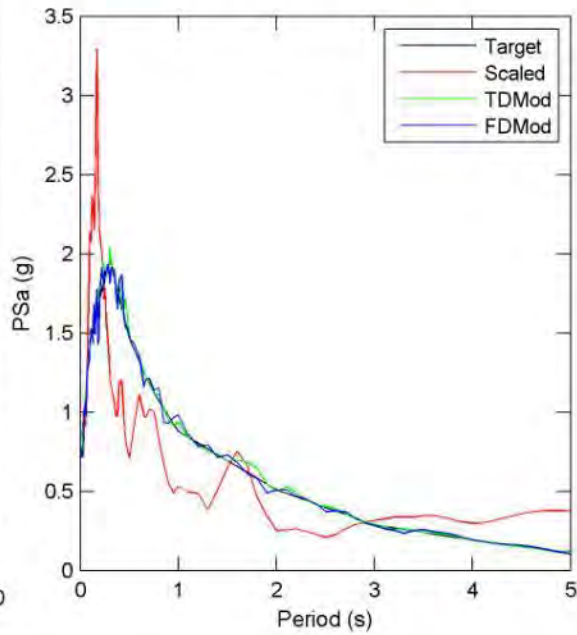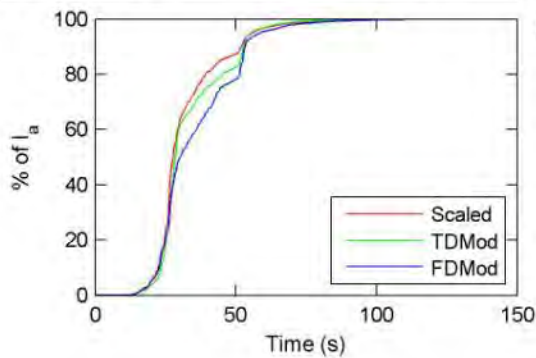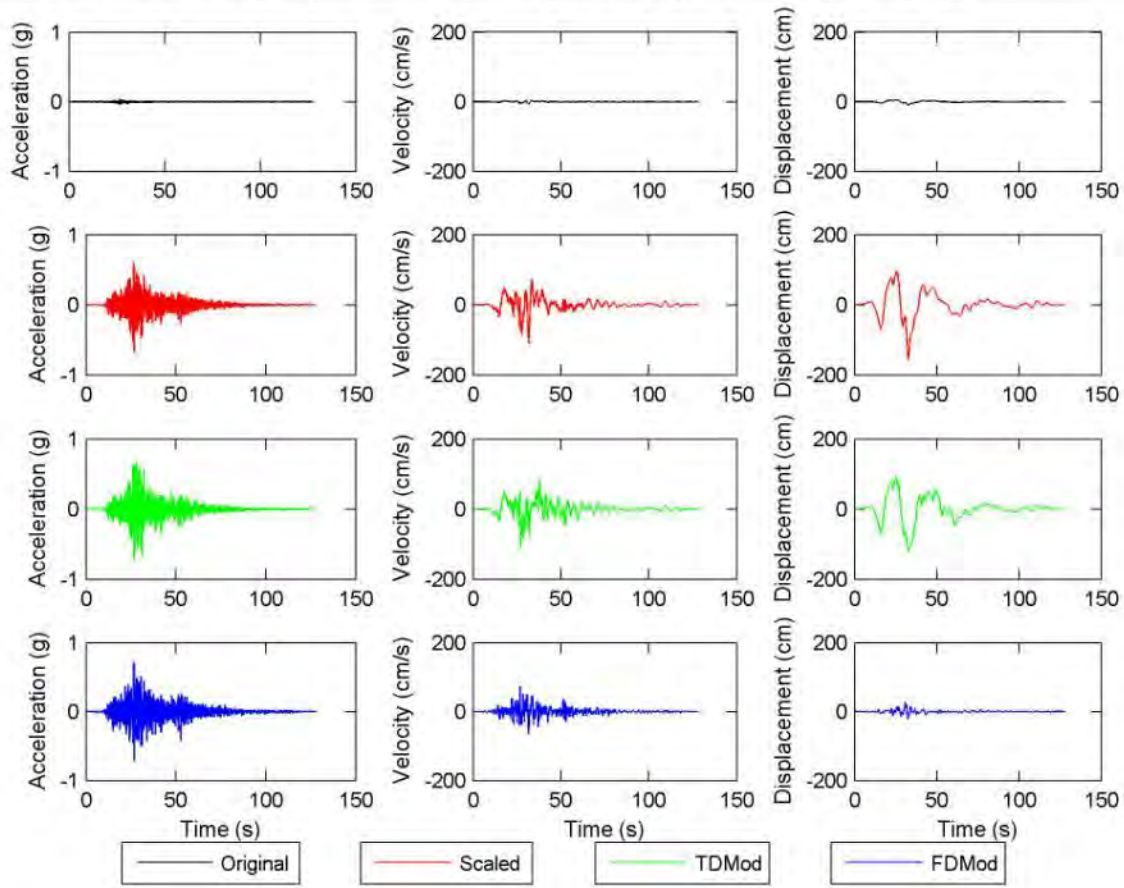|	Original	Scaled	TDMod	FDMod
PGA (g)	0.162	0.777	0.485	0.485
PGV (cm/s)	8.9	42.8	53.6	49.2
PGD (cm)	5.0	23.9	31.1	15.4
I_a (cm/s)	26	610	645	754
D_{5-95} (s)	19.7	19.7	20.4	23.4
CAV (cm/s)	568	2727	2871	3265
T_m (s)	0.29	0.29	0.48	0.55
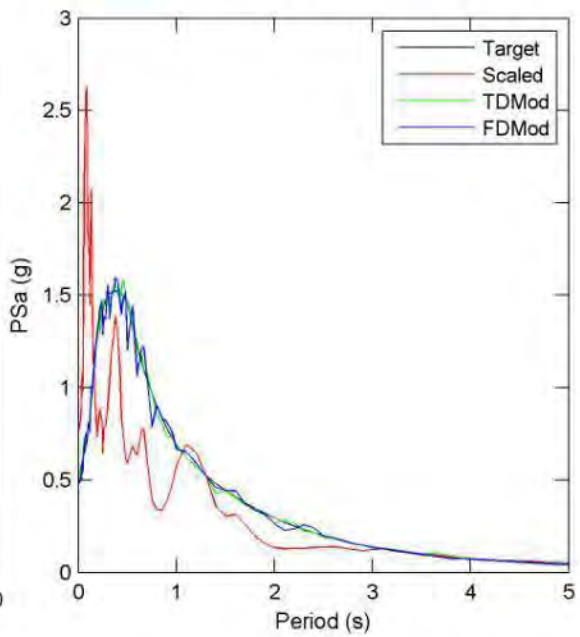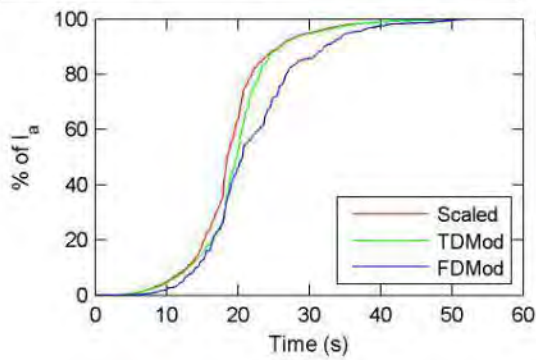
Figure E.4. continued.

824

File Name: 3 HON-IWTH05-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.70   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9

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|	Original	Scaled	TDMod	FDMod
PGA (g)	0.677	1.151	0.485	0.486
PGV (cm/s)	30.6	52.0	52.1	56.1
PGD (cm)	4.8	8.1	35.0	114.3
I_a (cm/s)	1388	4012	2466	1125
D_{5-95} (s)	84.9	84.9	102.4	89.3
CAV (cm/s)	7936	13491	11661	7180
T_m (s)	0.20	0.20	0.28	0.52

Figure E.4. continued.

825

File Name: 3 HON-IWTH05-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.75   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.587	1.028	0.485	0.485
PGV (cm/s)	29.2	51.0	56.9	53.1
PGD (cm)	8.3	14.4	62.3	89.1
I_a (cm/s)	1447	4432	2751	1096
D_{5-95} (s)	88.1	88.1	103.1	90.1
CAV (cm/s)	8087	14153	12293	6978
T_m (s)	0.18	0.18	0.23	0.56

Figure E.4. continued.

826

File Name: 3 MIC-VILE090   Start and End Taper Percentage: 1.0% and 5.0%
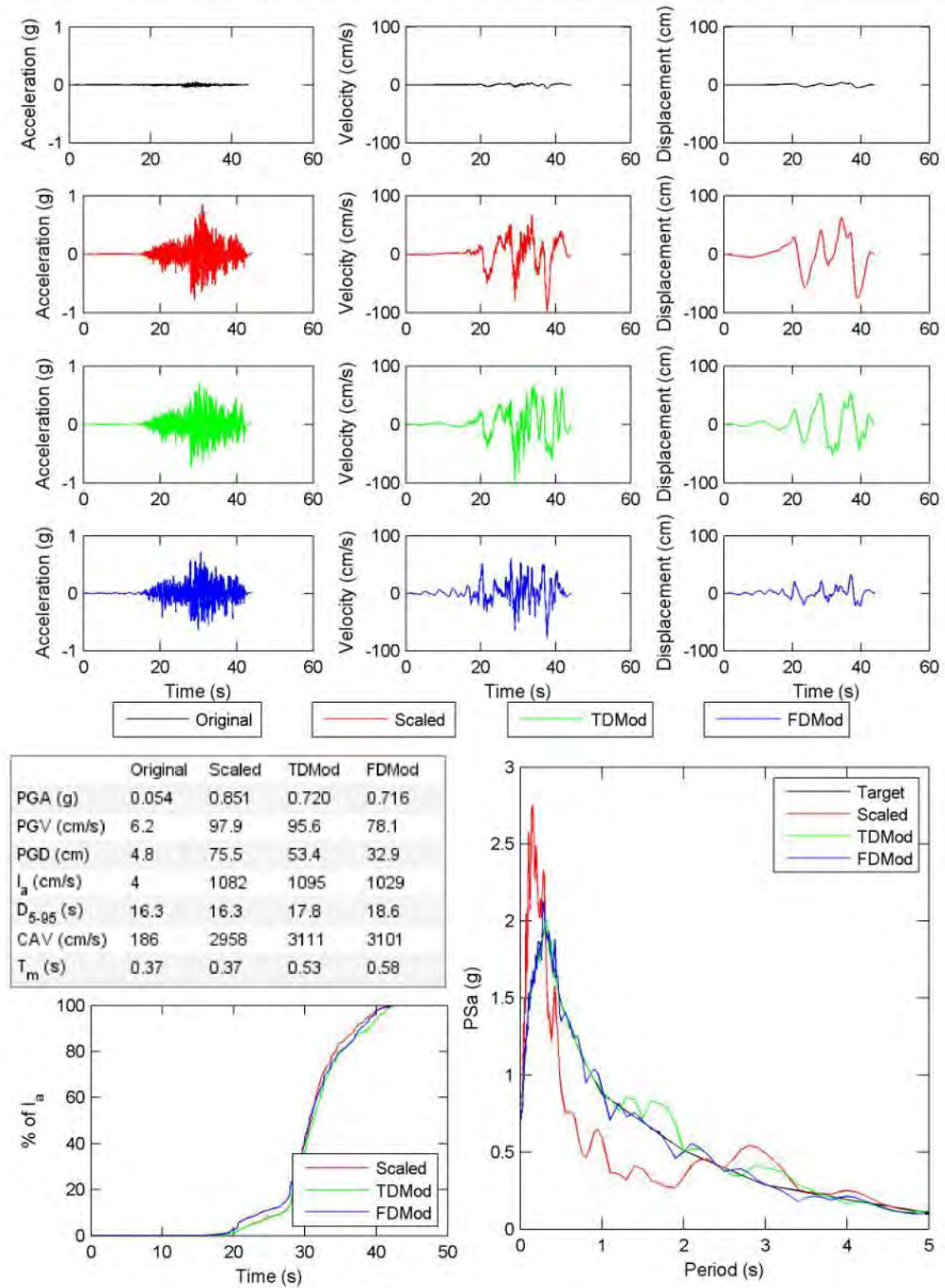Scale Factor: 5.00   Target Spectrum Matched: targetCMS2.txt   FD poly: 8   TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.596	0.486	0.486
PGV (cm/s)	10.8	53.9	50.5	50.7
PGD (cm)	6.6	32.9	30.1	10.9
I_a (cm/s)	28	695	793	1027
D_{5-95} (s)	41.9	41.9	40.2	43.3
CAV (cm/s)	733	3667	3879	4627
T_m (s)	0.52	0.52	0.55	0.51

Figure E.4. continued.

827

Figure E.4. continued.

Figure E.4. continued.

829

File Name: 3 TOK-HKD109-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.85   Target Spectrum Matched: targetCMS2.txt   FD poly: 6   TD poly: 4
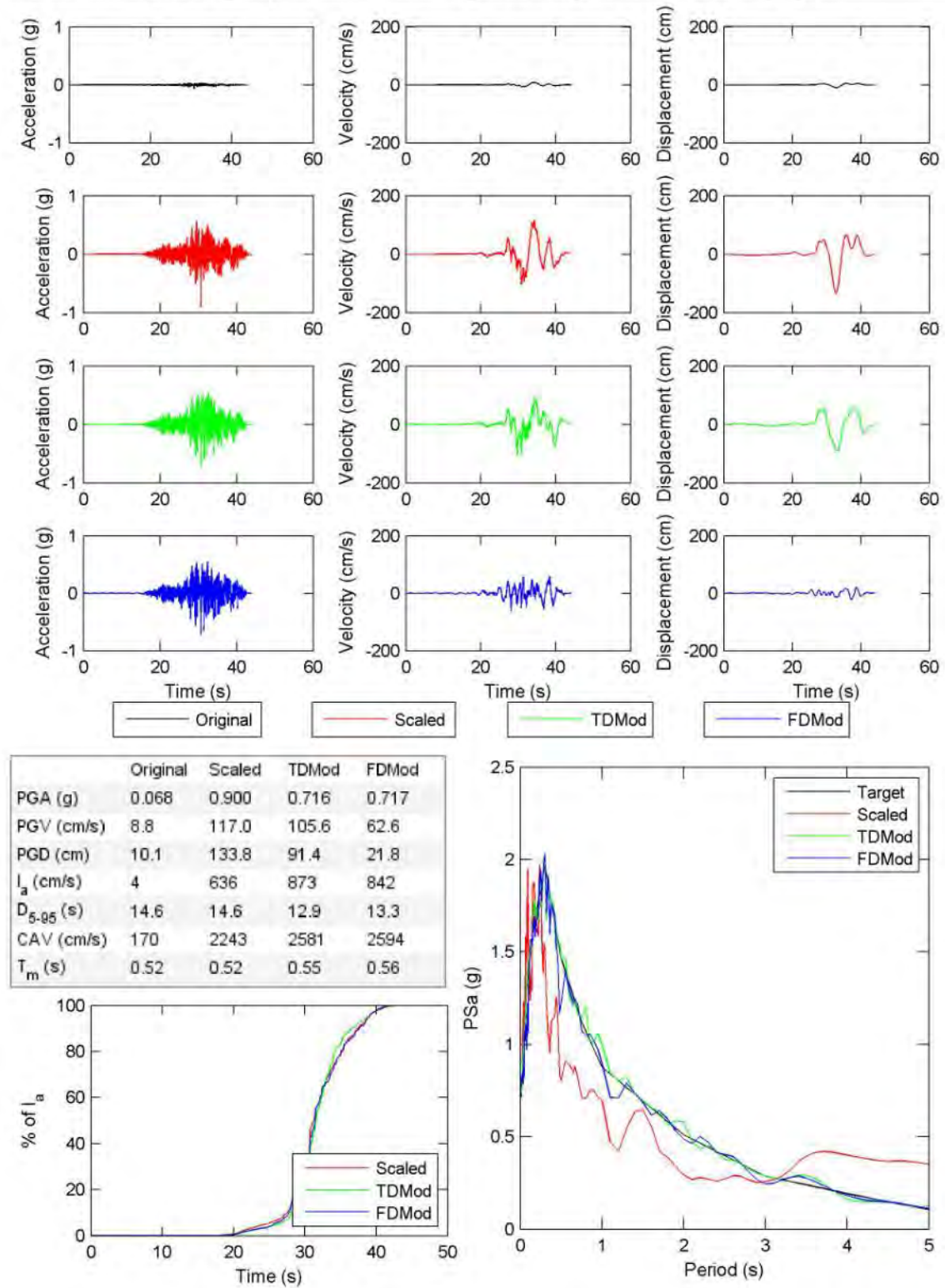

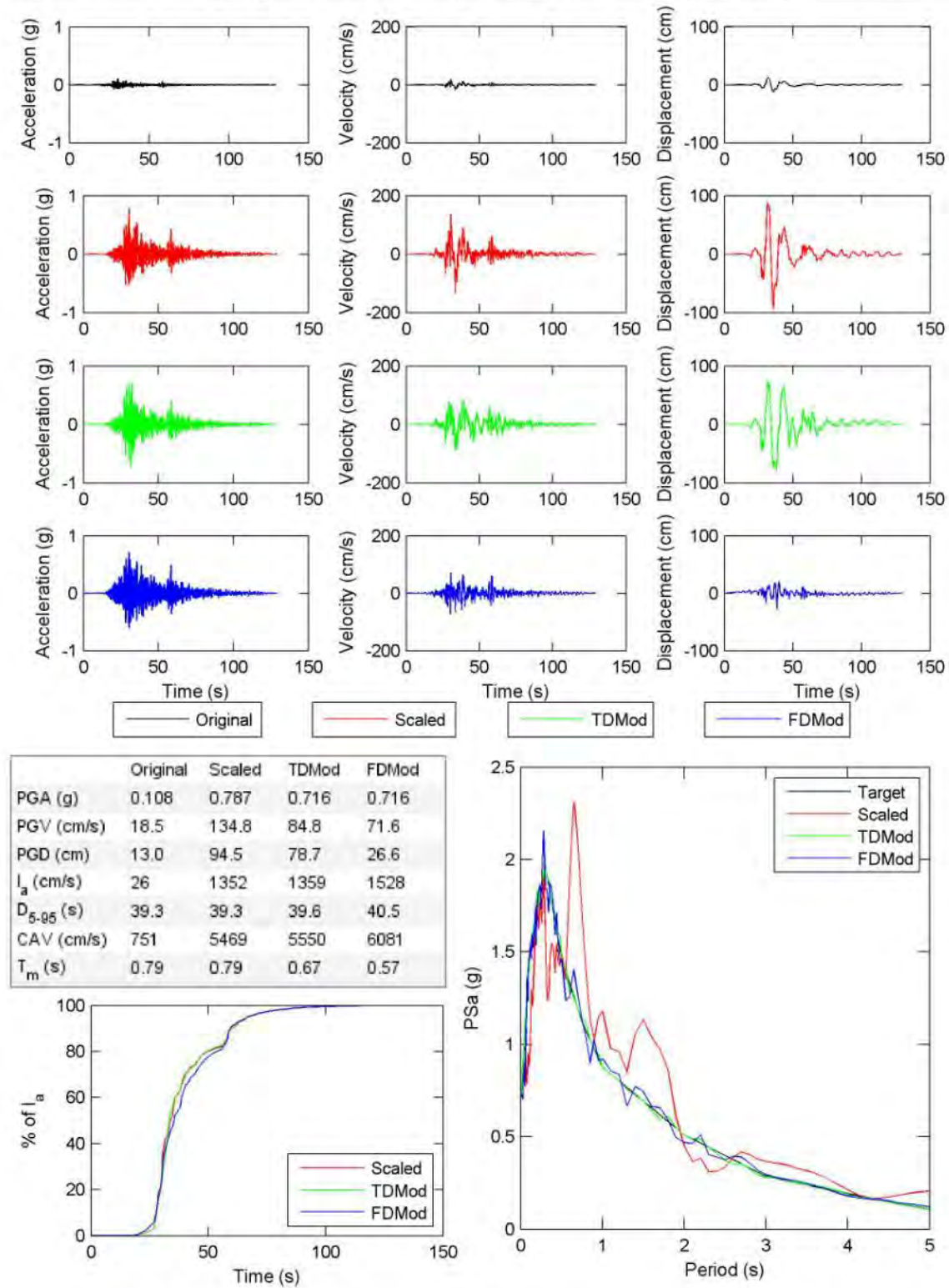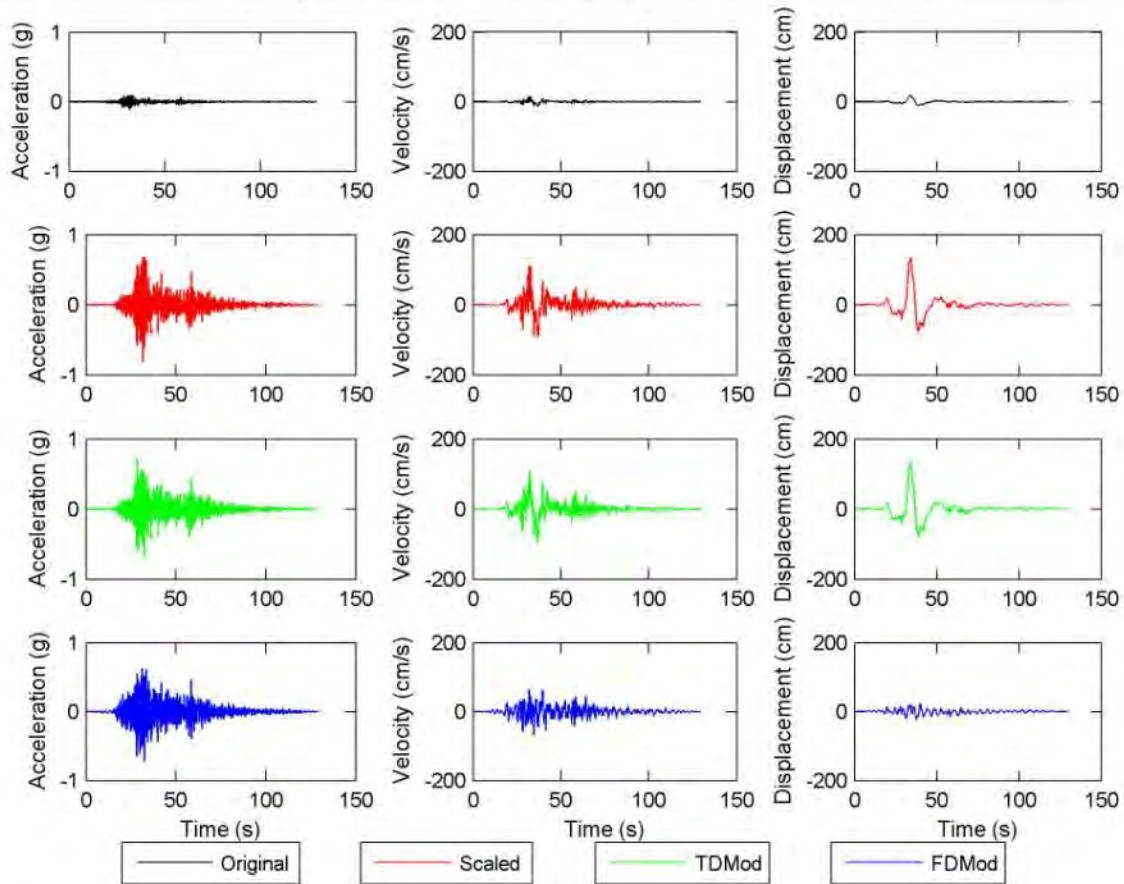|	Original	Scaled	TDMod	FDMod
PGA (g)	0.198	0.366	0.485	0.485
PGV (cm/s)	34.6	64.1	60.5	42.4
PGD (cm)	19.1	35.4	18.4	11.7
I_a (cm/s)	163	557	716	996
D_{5-95} (s)	39.1	39.1	33.7	41.9
CAV (cm/s)	1972	3648	3886	5008
T_m (s)	0.70	0.70	0.56	0.48

Figure E.4. continued.

830

File Name: 4 ELS-QC090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.04   Target Spectrum Matched: targetCMS2.txt   FD poly: 3   TD poly: 8
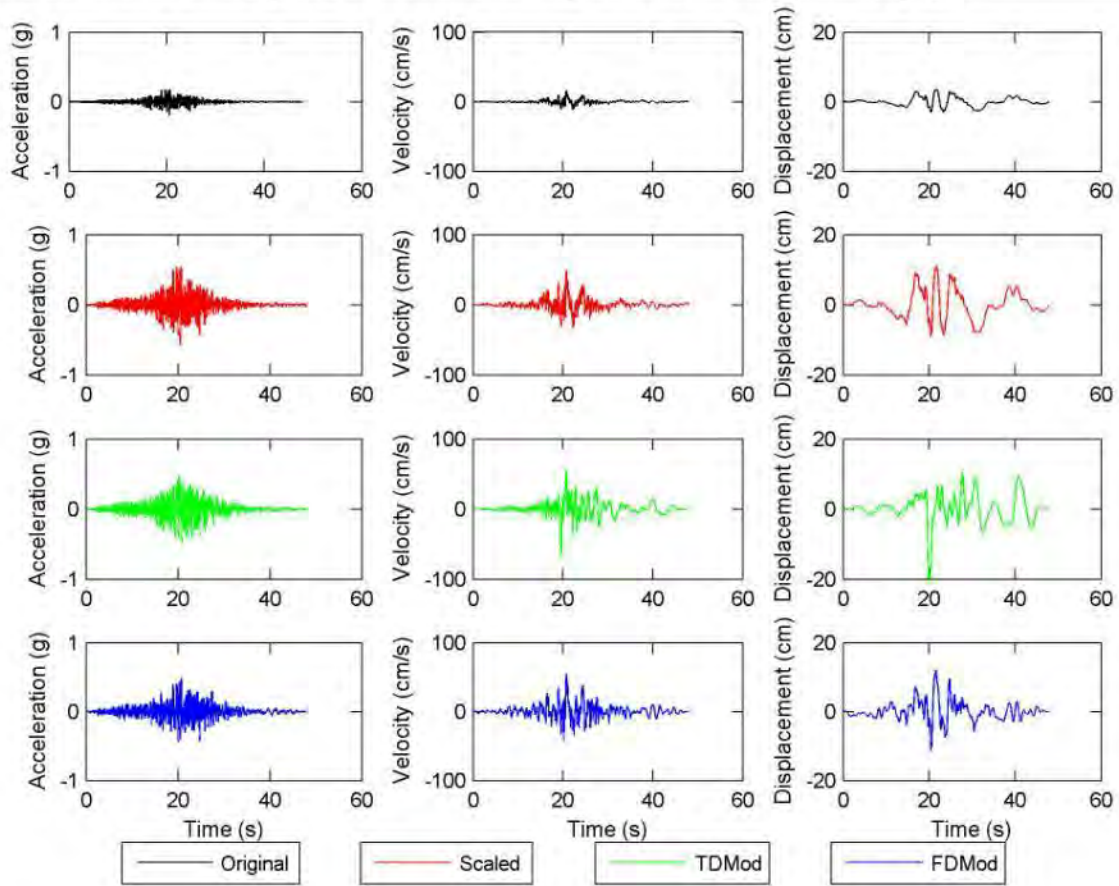
	Original	Scaled	TDMod	FDMod
PGA (g)	0.187	0.567	0.485	0.485
PGV (cm/s)	16.0	48.7	66.2	54.4
PGD (cm)	3.6	10.9	19.8	11.9
I_a (cm/s)	70	643	602	558
D_{5-95} (s)	12.6	12.6	13.7	15.2
CAV (cm/s)	811	2467	2478	2480
T_m (s)	0.33	0.33	0.47	0.54

Figure E.4. continued.

831

	Original	Scaled	TDMod	FDMod
PGA (g)	0.152	0.398	0.485	0.485
PGV (cm/s)	23.5	61.5	54.7	53.8
PGD (cm)	10.2	26.7	28.7	18.7
I_a (cm/s)	49	334	539	611
D_{5-95} (s)	15.0	15.0	16.9	15.7
CAV (cm/s)	721	1889	2407	2624
T_m (s)	0.60	0.60	0.54	0.47

Figure E.4. continued.

832

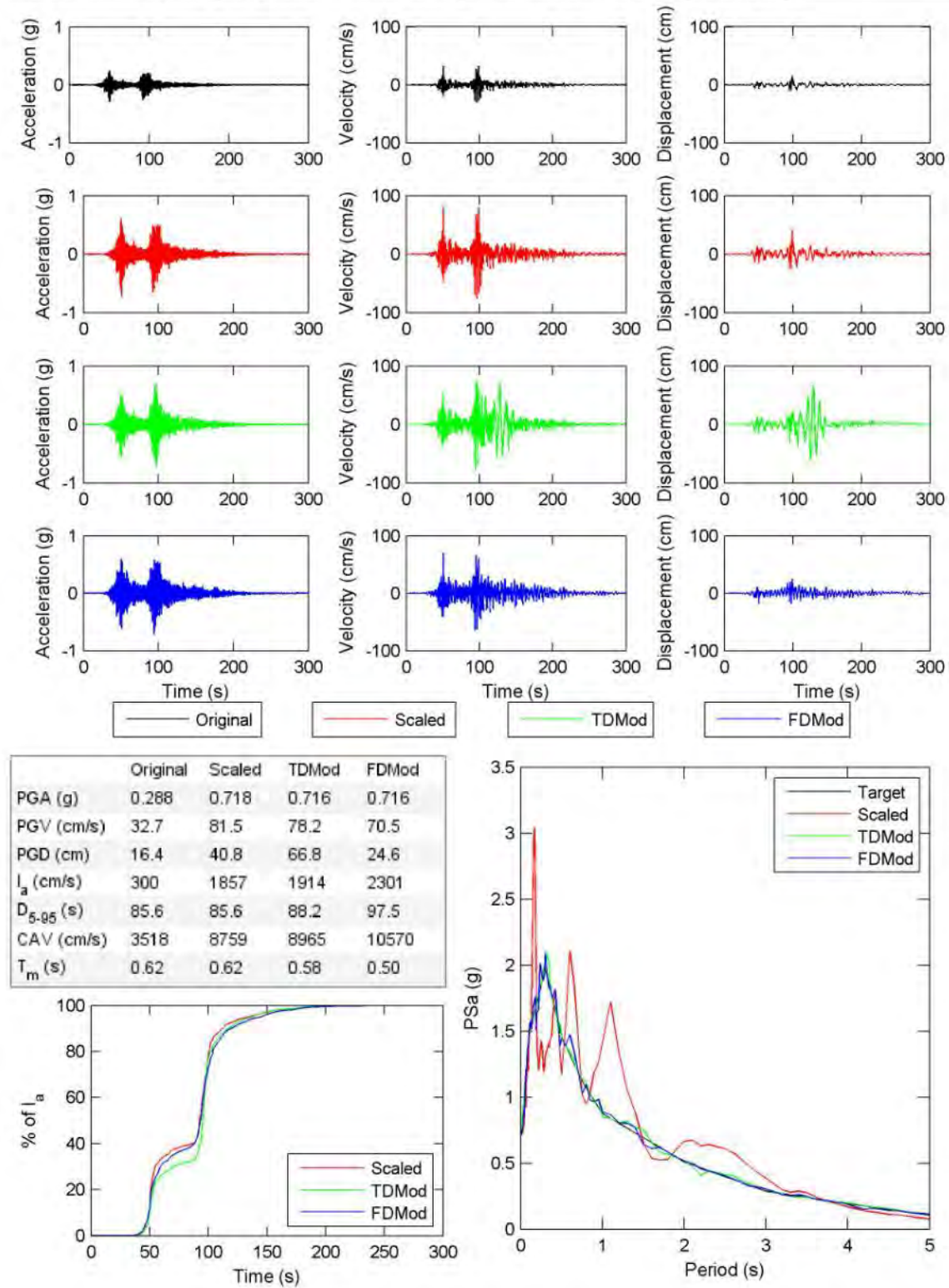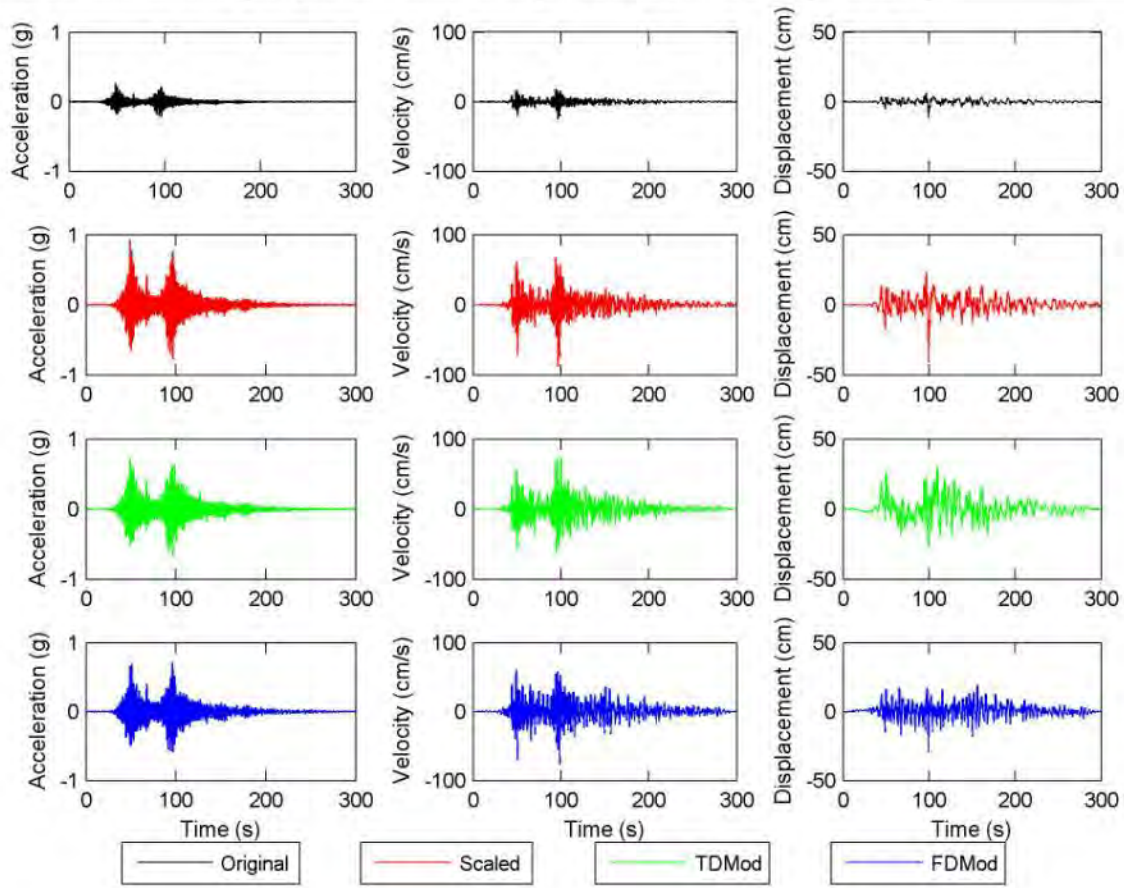|	Original	Scaled	TDMod	FDMod
PGA (g)	0.524	1.252	0.485	0.485
PGV (cm/s)	14.4	34.5	57.5	54.6
PGD (cm)	4.3	10.3	29.6	11.4
I_a (cm/s)	1037	5923	3192	1394
D_{5-95} (s)	73.6	73.6	87.8	83.3
CAV (cm/s)	6761	16159	13306	8209
T_m (s)	0.14	0.14	0.20	0.57

Figure E.4. continued.

833

File Name: 4 HON-IWTH23-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.54   Target Spectrum Matched: targetCMS2.txt   FD poly: 8   TD poly: 9

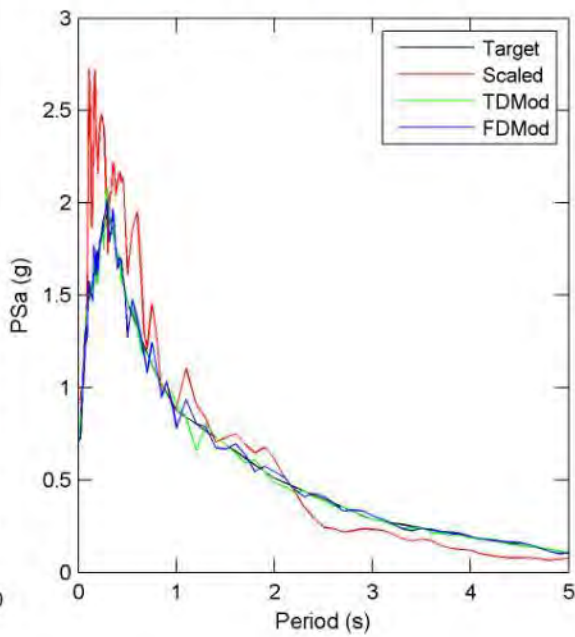|	Original	Scaled	TDMod	FDMod
PGA (g)	0.352	0.893	0.485	0.485
PGV (cm/s)	12.7	32.4	42.0	45.5
PGD (cm)	5.2	13.3	48.8	17.7
I_a (cm/s)	799	5157	3318	1349
D_{5-95} (s)	77.0	77.0	87.0	75.5
CAV (cm/s)	6104	15503	13523	7721
T_m (s)	0.14	0.14	0.19	0.55

Figure E.4. continued.

834

File Name: 4 TOK-HKD113-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.97   Target Spectrum Matched: targetCMS2.txt   FD poly: 7   TD poly: 3

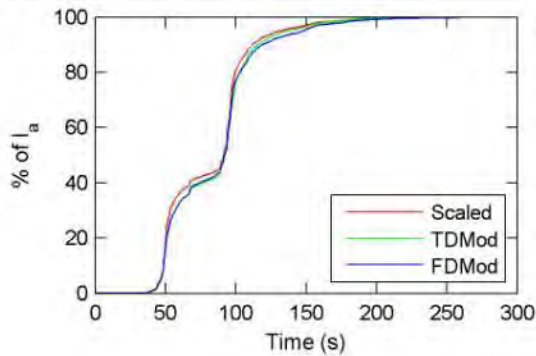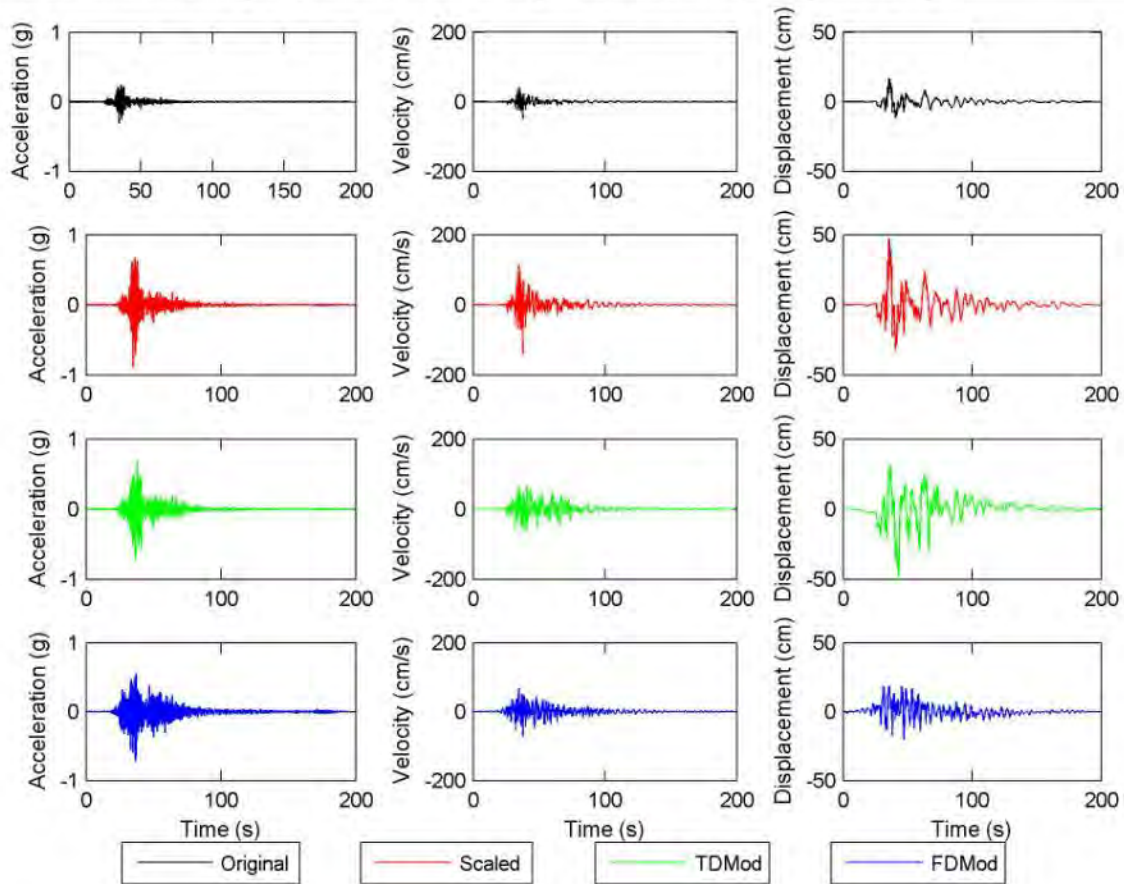|	Original	Scaled	TDMod	FDMod
PGA (g)	0.205	0.609	0.485	0.485
PGV (cm/s)	15.0	44.6	57.3	53.6
PGD (cm)	7.0	20.9	28.0	29.3
I_a (cm/s)	149	1310	1036	852
D_{5-95} (s)	42.0	42.0	43.9	41.5
CAV (cm/s)	1998	5934	5416	4656
T_m (s)	0.27	0.27	0.38	0.56

Figure E.4. continued.

835

Figure E.4. continued.

836

File Name: 5 ELS-SM090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.06   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.716	0.759	0.485	0.485
PGV (cm/s)	40.4	42.8	53.1	51.7
PGD (cm)	8.4	8.9	14.8	14.4
I_a (cm/s)	1175	1320	912	658
D_{5-95} (s)	15.5	15.5	18.8	16.8
CAV (cm/s)	3529	3741	3513	2860
T_m (s)	0.30	0.30	0.44	0.53

Figure E.4. continued.

837

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.881	1.154	0.486	0.485
PGV (cm/s)	27.8	36.4	60.6	45.2
PGD (cm)	6.0	7.8	27.3	12.6
I_a (cm/s)	963	1652	956	692
D_{5-95} (s)	15.1	15.1	21.6	18.8
CAV (cm/s)	3299	4322	3993	3071
T_m (s)	0.26	0.26	0.44	0.57

Figure E.4. continued.

838

File Name: 5 HON-IWTH27-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.10   Target Spectrum Matched: targetCMS2.txt   FD poly: 8   TD poly: 8
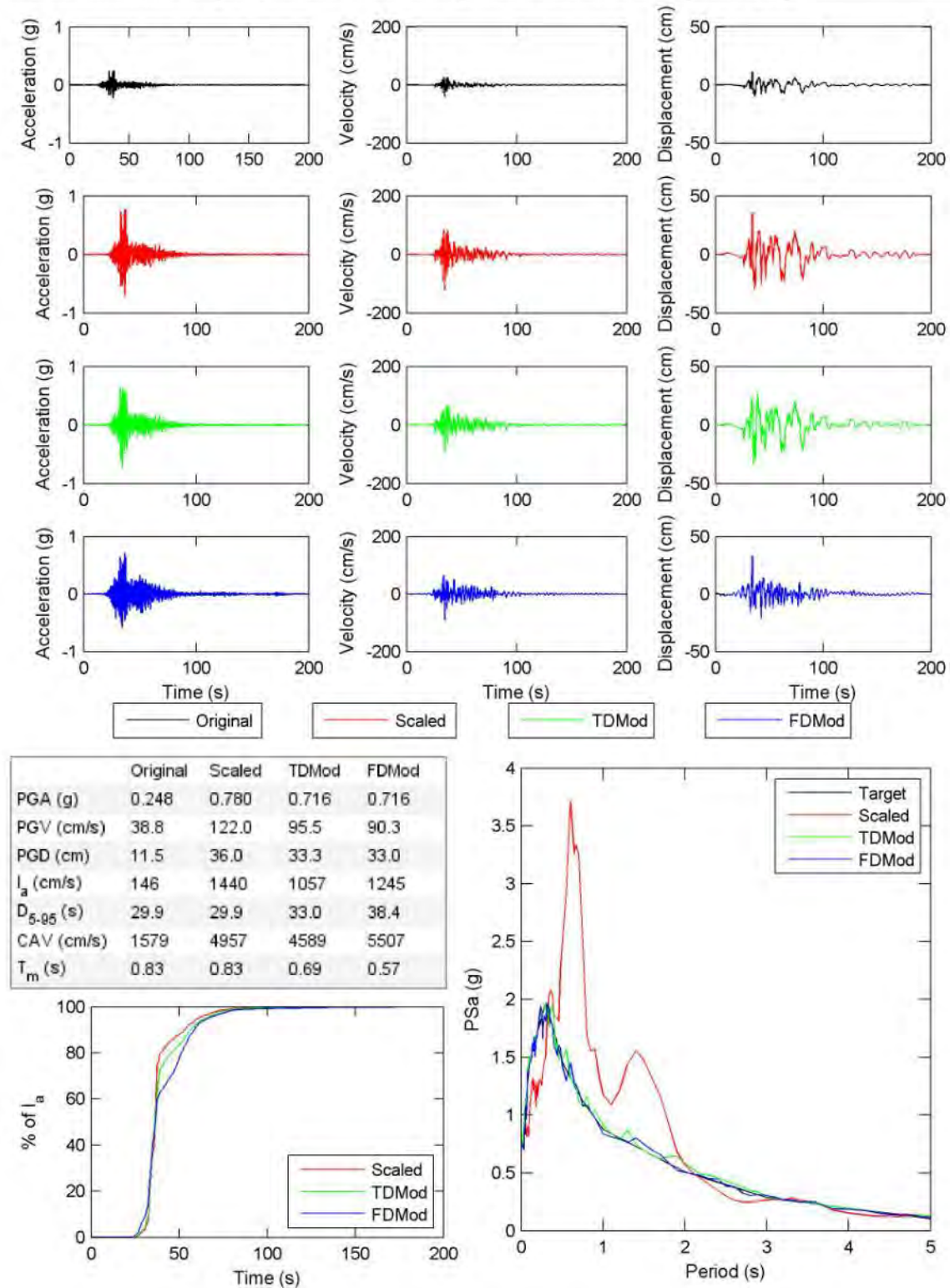
REJECTED

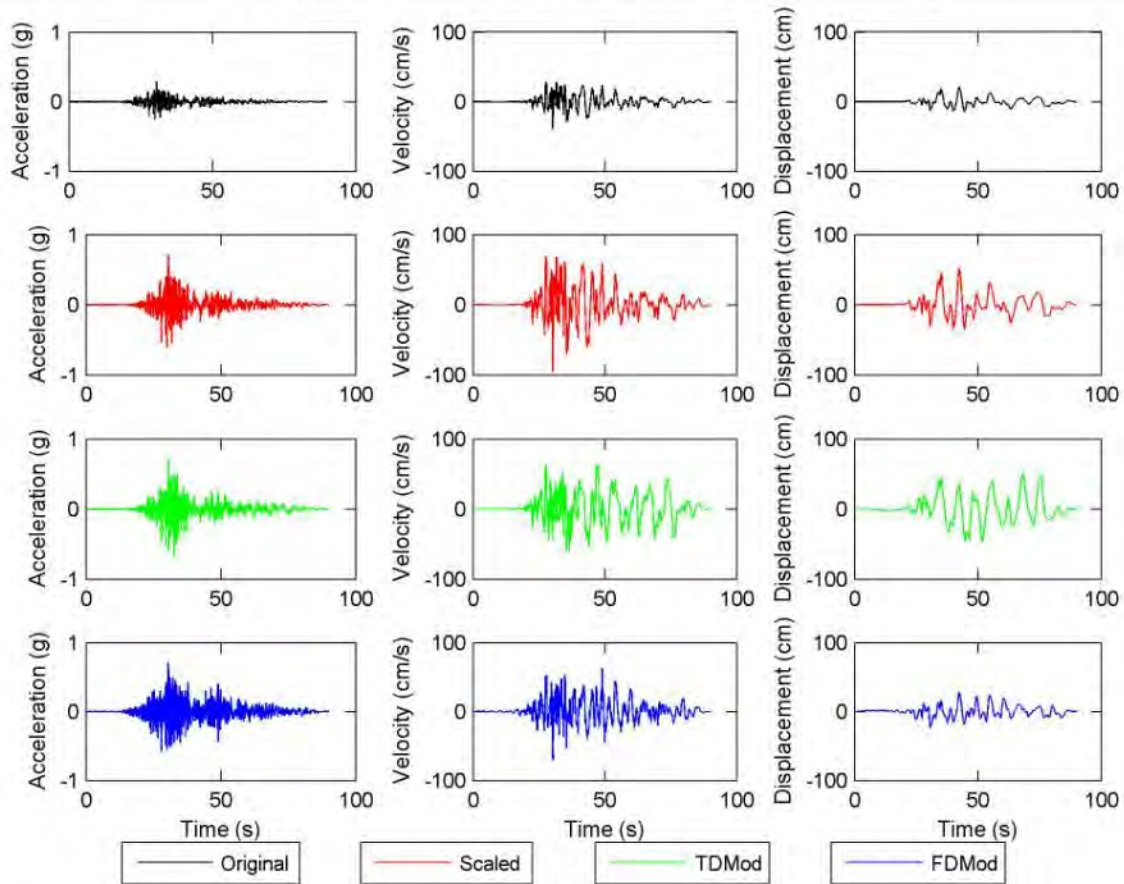|	Original	Scaled	TDMod	FDMod
PGA (g)	0.655	1.376	0.485	0.485
PGV (cm/s)	17.9	37.7	60.2	50.8
PGD (cm)	4.6	9.7	30.0	11.6
I_a (cm/s)	1357	5985	3167	1556
D_{5-95} (s)	85.4	85.4	110.7	102.7
CAV (cm/s)	7975	16747	13767	8893
T_m (s)	0.17	0.17	0.24	0.52

Figure E.4. continued.

839

File Name: 5 HON-IWTH27-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.25   Target Spectrum Matched: targetCMS2.txt   FD poly: 5   TD poly: 9

REJECTED

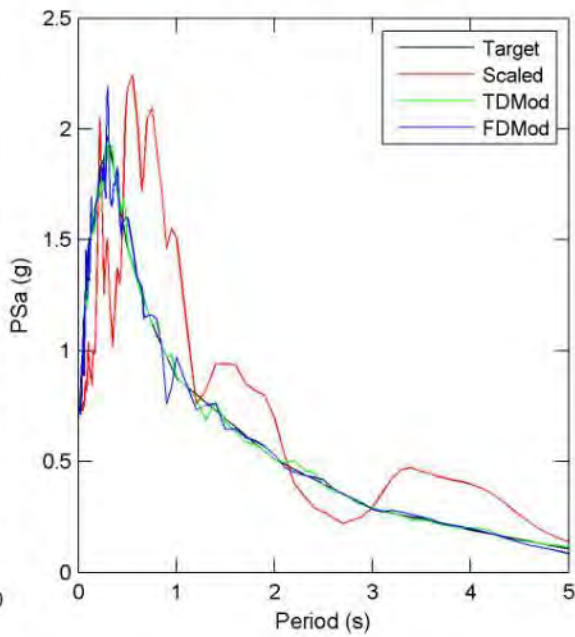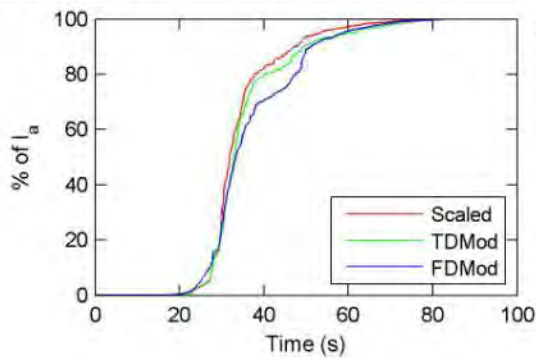|	Original	Scaled	TDMod	FDMod
PGA (g)	0.755	1.699	0.485	0.485
PGV (cm/s)	16.6	37.4	54.5	46.6
PGD (cm)	3.6	8.1	36.2	11.0
I_a (cm/s)	2062	10439	4618	1744
D_{5-95} (s)	79.8	79.8	100.0	105.3
CAV (cm/s)	9483	21336	16528	9604
T_m (s)	0.14	0.14	0.19	0.54

Figure E.4. continued.

840

Figure E.4. continued.

841

File Name: 6 ELS-SG360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.89   Target Spectrum Matched: targetCMS2.txt   FD poly: 6   TD poly: 5

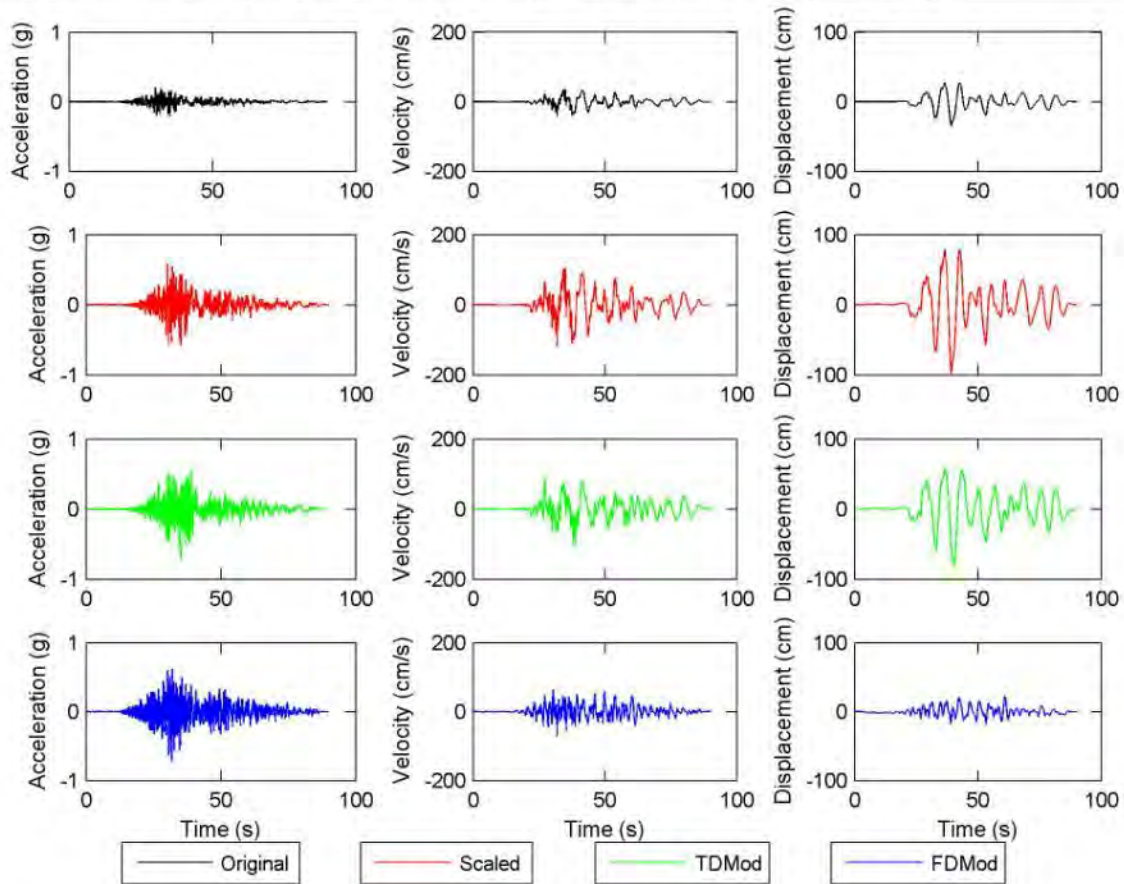|	Original	Scaled	TDMod	FDMod
PGA (g)	0.120	0.468	0.485	0.485
PGV (cm/s)	12.1	47.1	39.1	39.4
PGD (cm)	4.2	16.3	17.2	12.7
I_a (cm/s)	53	795	879	1008
D_{5-95} (s)	37.3	37.3	34.5	35.9
CAV (cm/s)	1001	3895	3932	4275
T_m (s)	0.60	0.60	0.54	0.55

Figure E.4. continued.

842

File Name: 6 HON-MYG003-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.39   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9

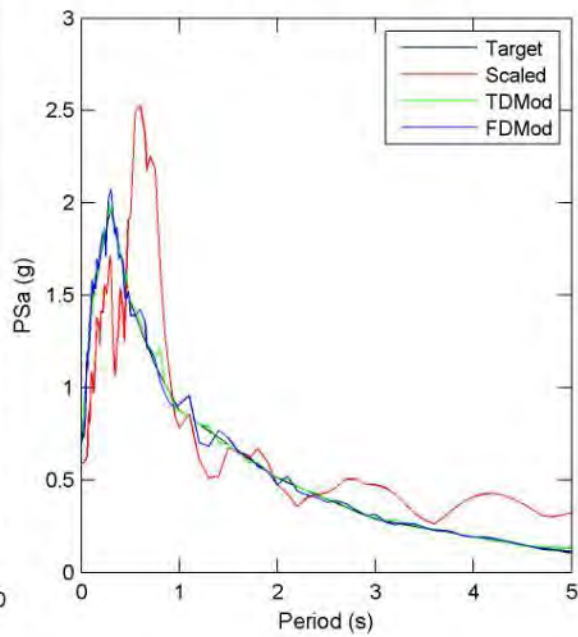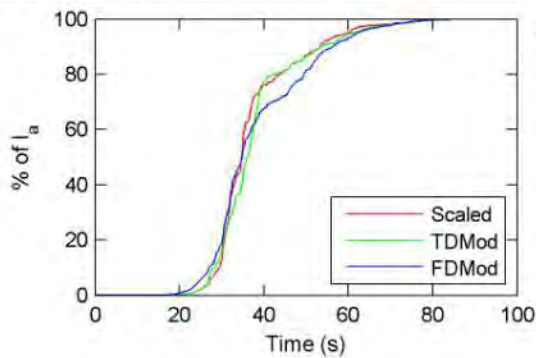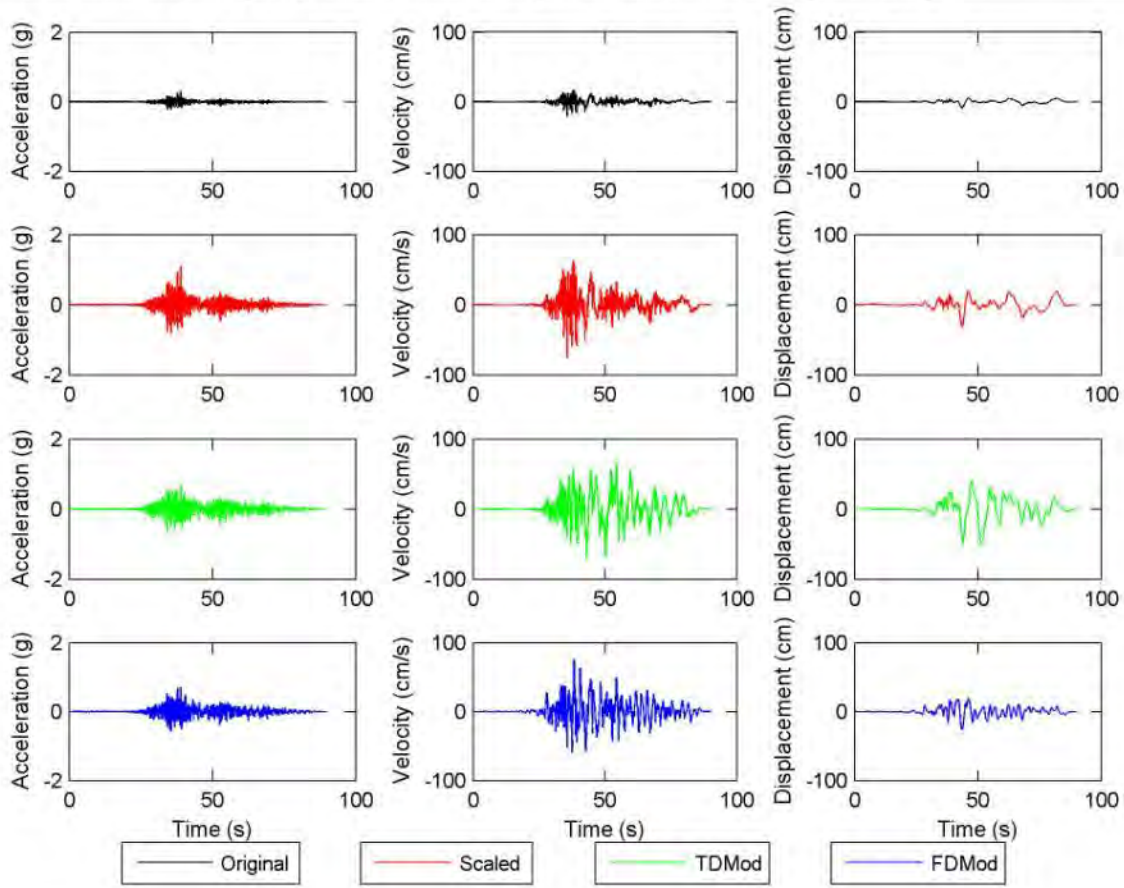|	Original	Scaled	TDMod	FDMod
PGA (g)	0.813	1.130	0.485	0.485
PGV (cm/s)	35.2	48.9	56.4	72.2
PGD (cm)	7.5	10.5	30.7	32.1
I_a (cm/s)	2065	3991	2656	1284
D_{5-95} (s)	87.8	87.8	103.1	88.9
CAV (cm/s)	9874	13725	12132	7542
T_m (s)	0.16	0.16	0.24	0.49

Figure E.4. continued.

843

File Name: 6 HON-MYG003-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.71   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9
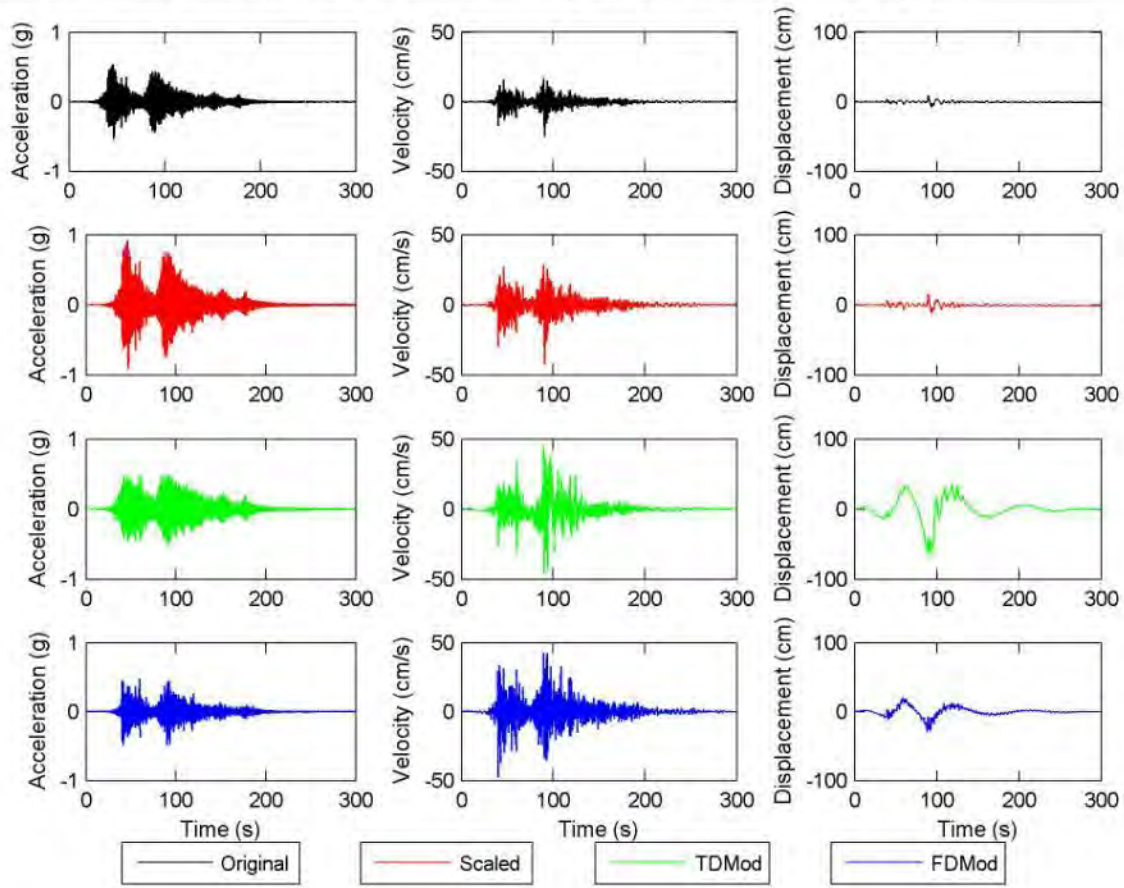
	Original	Scaled	TDMod	FDMod
PGA (g)	0.539	0.921	0.485	0.485
PGV (cm/s)	24.7	42.2	45.9	47.8
PGD (cm)	9.0	15.4	64.5	29.0
I_a (cm/s)	1569	4589	2906	1641
D_{5-95} (s)	94.9	94.9	109.3	103.9
CAV (cm/s)	8714	14901	12912	8983
T_m (s)	0.16	0.16	0.23	0.49

Figure E.4. continued.

844

	Original	Scaled	TDMod	FDMod
PGA (g)	0.260	0.746	0.485	0.485
PGV (cm/s)	13.0	37.3	43.4	53.2
PGD (cm)	4.5	13.0	15.7	13.6
I_a (cm/s)	167	1378	953	753
D_{5-95} (s)	19.0	19.0	21.6	22.7
CAV (cm/s)	1488	4270	3794	3334
T_m (s)	0.24	0.24	0.40	0.53

Figure E.4. continued.

845

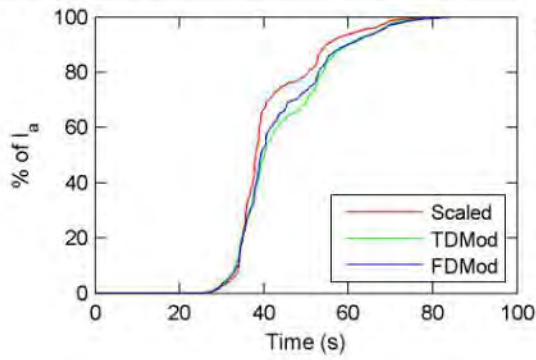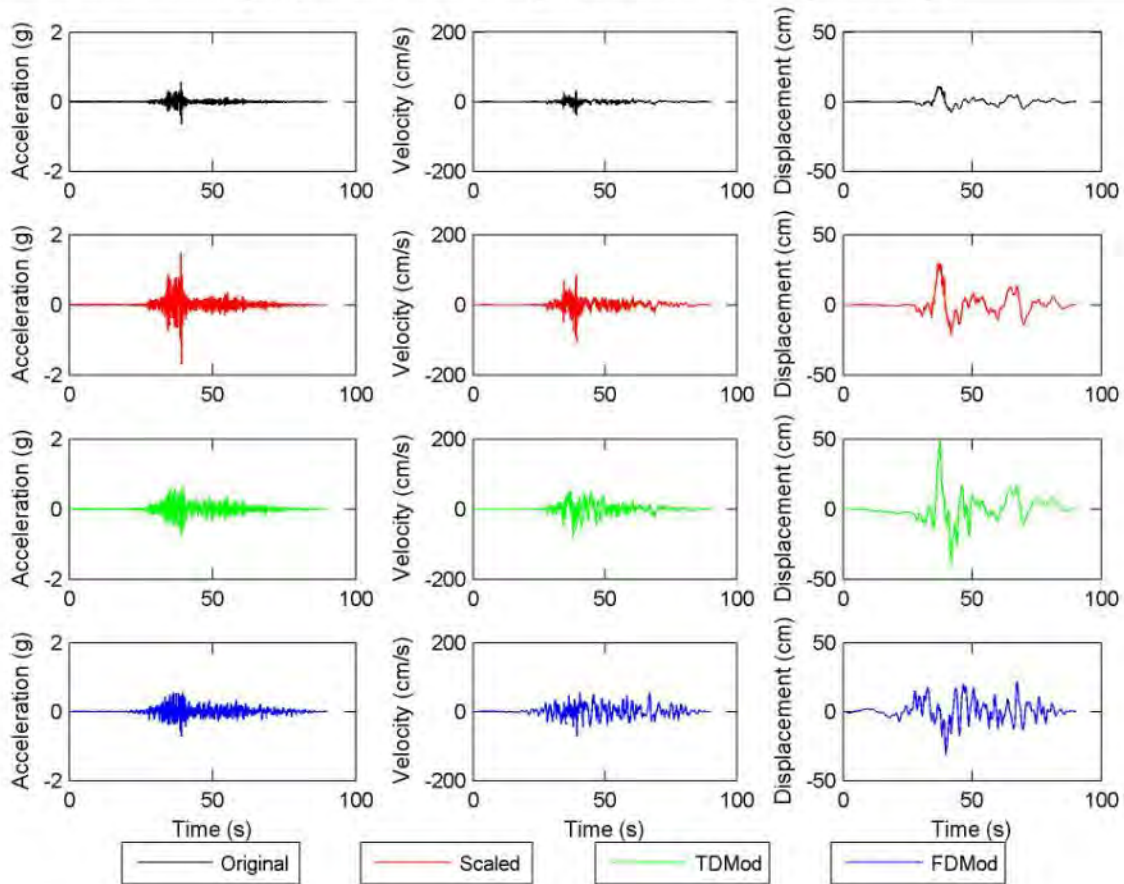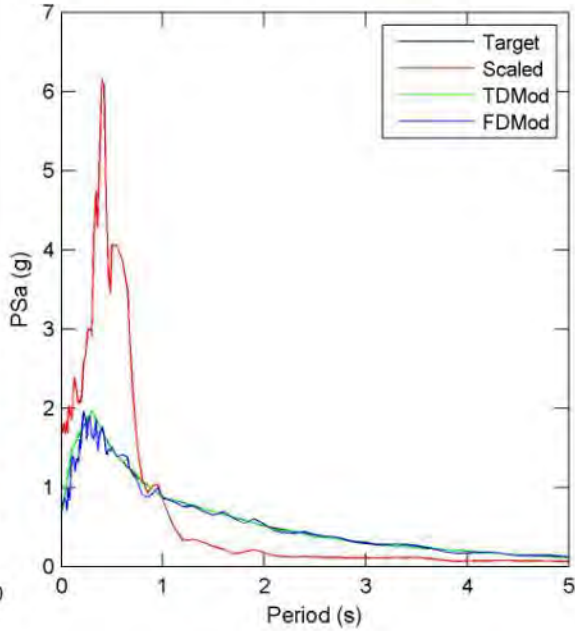|	Original	Scaled	TDMod	FDMod
PGA (g)	0.317	0.725	0.485	0.485
PGV (cm/s)	18.1	41.5	52.6	46.1
PGD (cm)	8.4	19.1	33.2	14.9
I_a (cm/s)	148	774	895	885
D_{5-95} (s)	20.0	20.0	23.4	21.8
CAV (cm/s)	1411	3232	3640	3567
T_m (s)	0.29	0.29	0.47	0.50

Figure E.4. continued.

846

File Name: 7 HON-MYG008-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.76   Target Spectrum Matched: targetCMS2.txt   FD poly: 4   TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.305	0.536	0.485	0.485
PGV (cm/s)	42.6	74.9	58.3	53.6
PGD (cm)	9.5	16.7	26.5	13.6
I_a (cm/s)	486	1504	1510	1923
D_{5-95} (s)	110.5	110.5	109.9	131.5
CAV (cm/s)	5227	9200	9131	10980
T_m (s)	0.44	0.44	0.44	0.46

Figure E.4. continued.

847

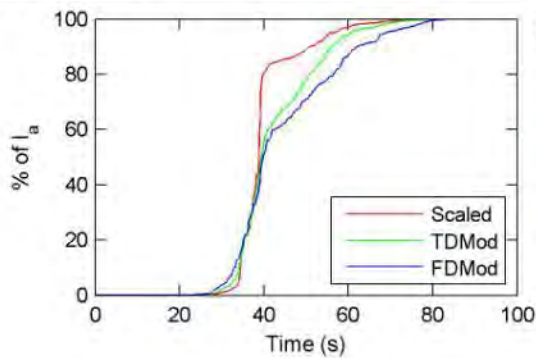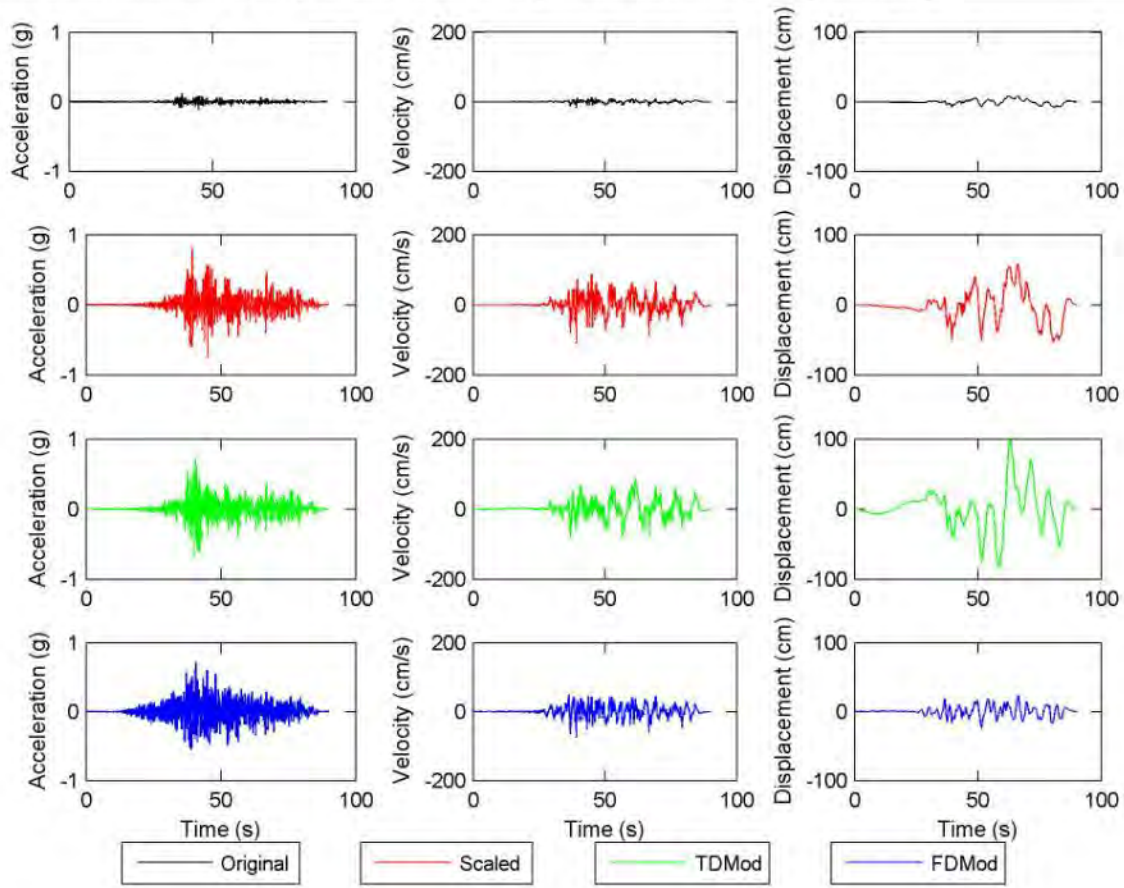|	Original	Scaled	TDMod	FDMod
PGA (g)	0.397	0.623	0.485	0.485
PGV (cm/s)	23.6	37.0	54.0	57.3
PGD (cm)	8.3	13.0	25.3	21.8
I_a (cm/s)	617	1521	1433	1573
D_{5-95} (s)	80.7	80.7	84.2	110.9
CAV (cm/s)	5373	8435	8358	9309
T_m (s)	0.29	0.29	0.40	0.54

Figure E.4. continued.

848

File Name: 8 HON-MYG011-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.03   Target Spectrum Matched: targetCMS2.txt   FD poly: 9   TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.763	0.786	0.485	0.485
PGV (cm/s)	37.0	38.1	49.9	53.1
PGD (cm)	11.0	11.3	60.4	20.0
I_a (cm/s)	2016	2139	1637	1025
D_{5-95} (s)	77.2	77.2	88.0	70.5
CAV (cm/s)	8758	9021	8466	5906
T_m (s)	0.19	0.19	0.32	0.45

Figure E.4. continued.

849

Figure E.4. continued.

850

File Name: 9 HON-MYGH03-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.04   Target Spectrum Matched: targetCMS2.txt   FD poly: 6   TD poly: 6

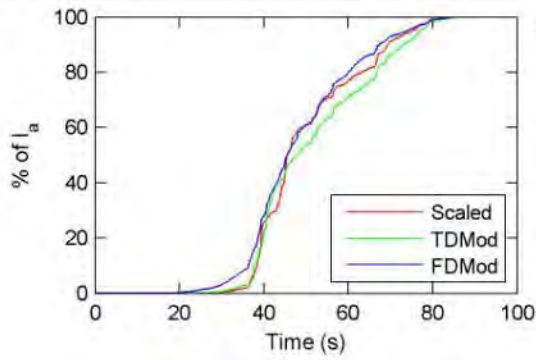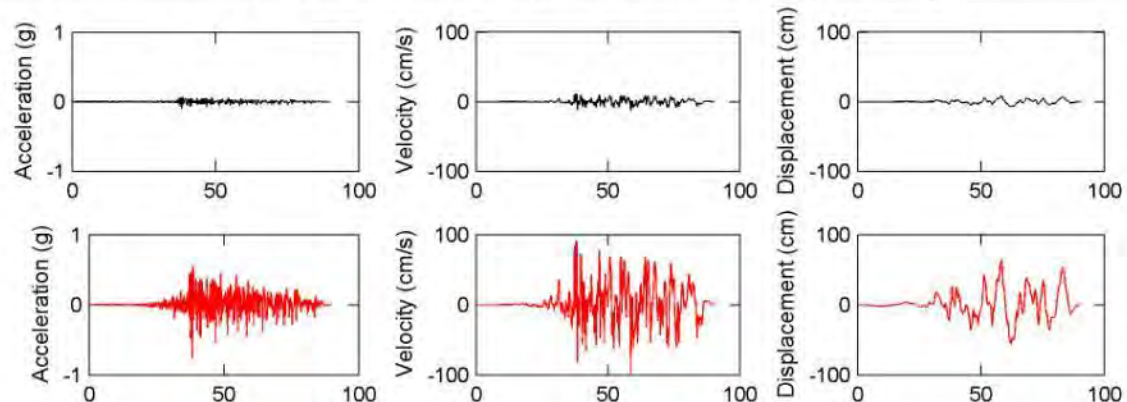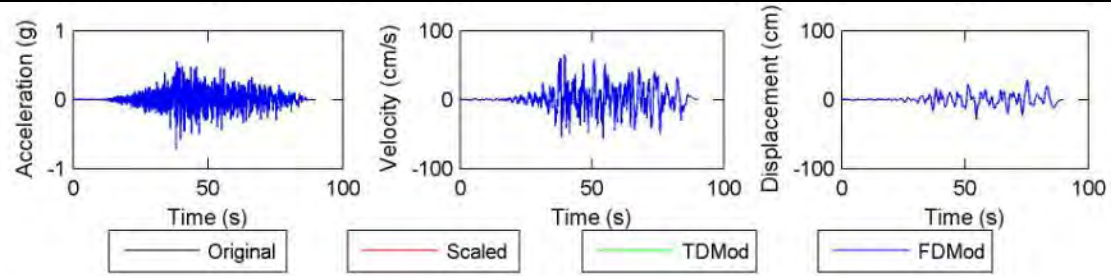|	Original	Scaled	TDMod	FDMod
PGA (g)	0.467	0.952	0.485	0.485
PGV (cm/s)	14.3	29.2	51.5	40.0
PGD (cm)	7.0	14.4	28.2	22.2
I_a (cm/s)	908	3777	2545	1310
D_{5-95} (s)	83.8	83.8	90.4	84.1
CAV (cm/s)	6453	13163	11667	7703
T_m (s)	0.14	0.14	0.24	0.50

Figure E.4. continued.

851

File Name: 9 HON-MYGH03-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.37   Target Spectrum Matched: targetCMS2.txt   FD poly: 7   TD poly: 8

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.448	1.063	0.485	0.485
PGV (cm/s)	13.3	31.5	53.8	45.2
PGD (cm)	5.0	11.8	84.2	19.6
I_a (cm/s)	1101	6183	4267	1468
D_{5-95} (s)	77.2	77.2	82.6	83.9
CAV (cm/s)	6793	16100	14452	8260
T_m (s)	0.12	0.12	0.18	0.54

Figure E.4. continued.

852

Figure E.5. One-page output images for motions in scenario II matched to the 2% uniform hazard spectrum (2% UHS), from motion number 1 to 100, generated by the GMM program.
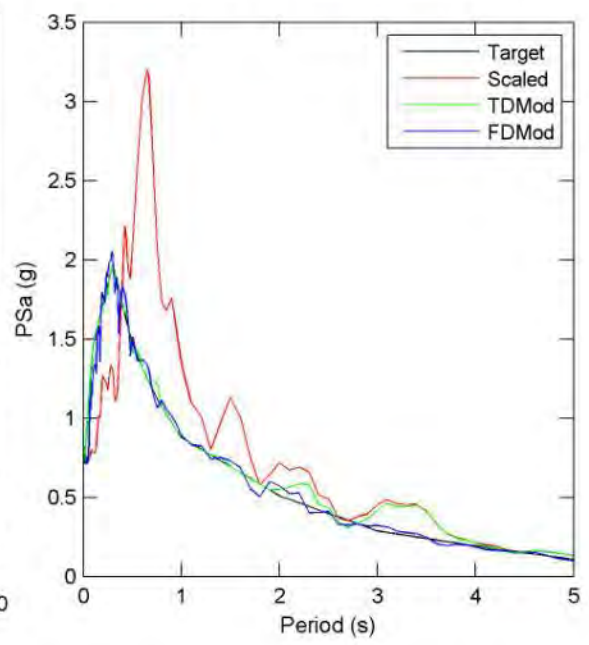
853

Figure E.5. continued.

File Name: 1149 ATK000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 7.25 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 2

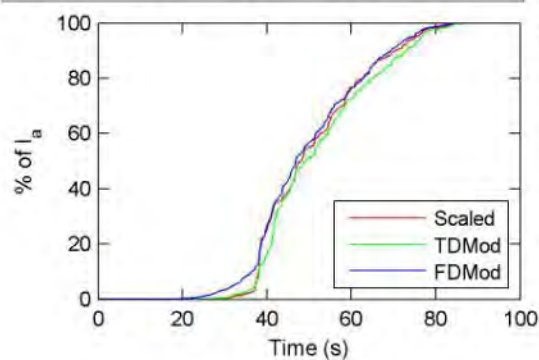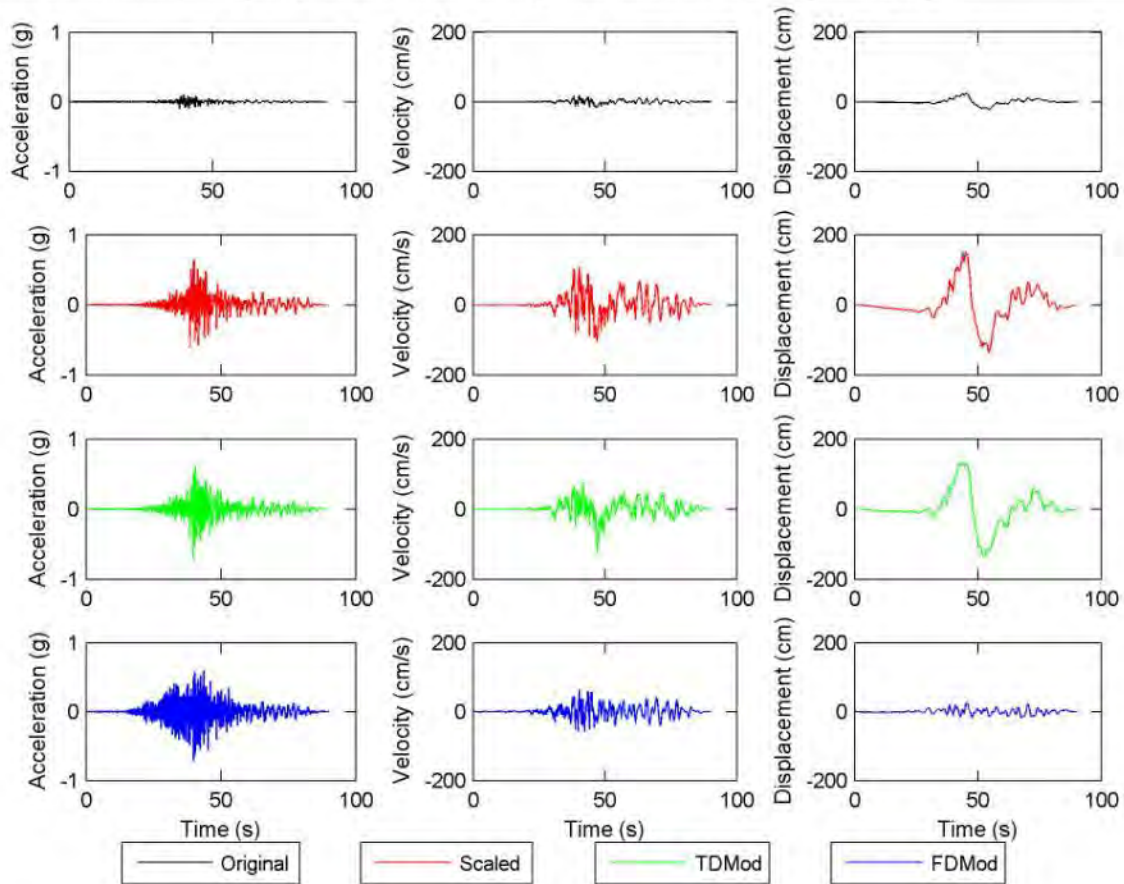|	Original	Scaled	TDMod	FDMod
PGA (g)	0.105	0.760	0.716	0.716
PGV (cm/s)	22.4	162.3	131.7	60.1
PGD (cm)	23.5	170.2	172.4	22.9
I_a (cm/s)	24	1241	1193	1095
D_{5-95} (s)	35.9	35.9	36.3	36.9
CAV (cm/s)	683	4952	4905	4856
T_m (s)	0.84	0.84	0.74	0.67

Figure E.5. continued.

855

File Name: 1149 ATK090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.72 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 2

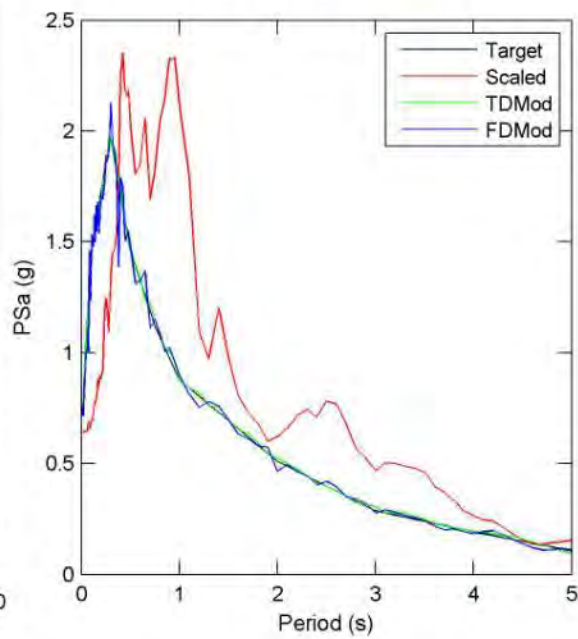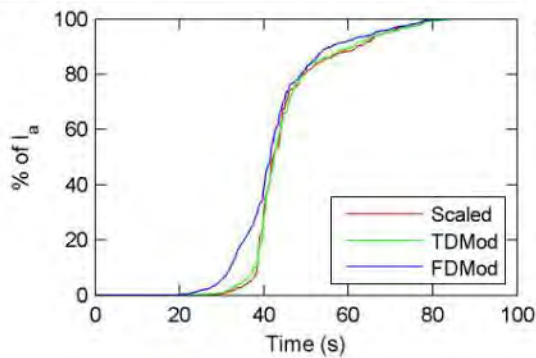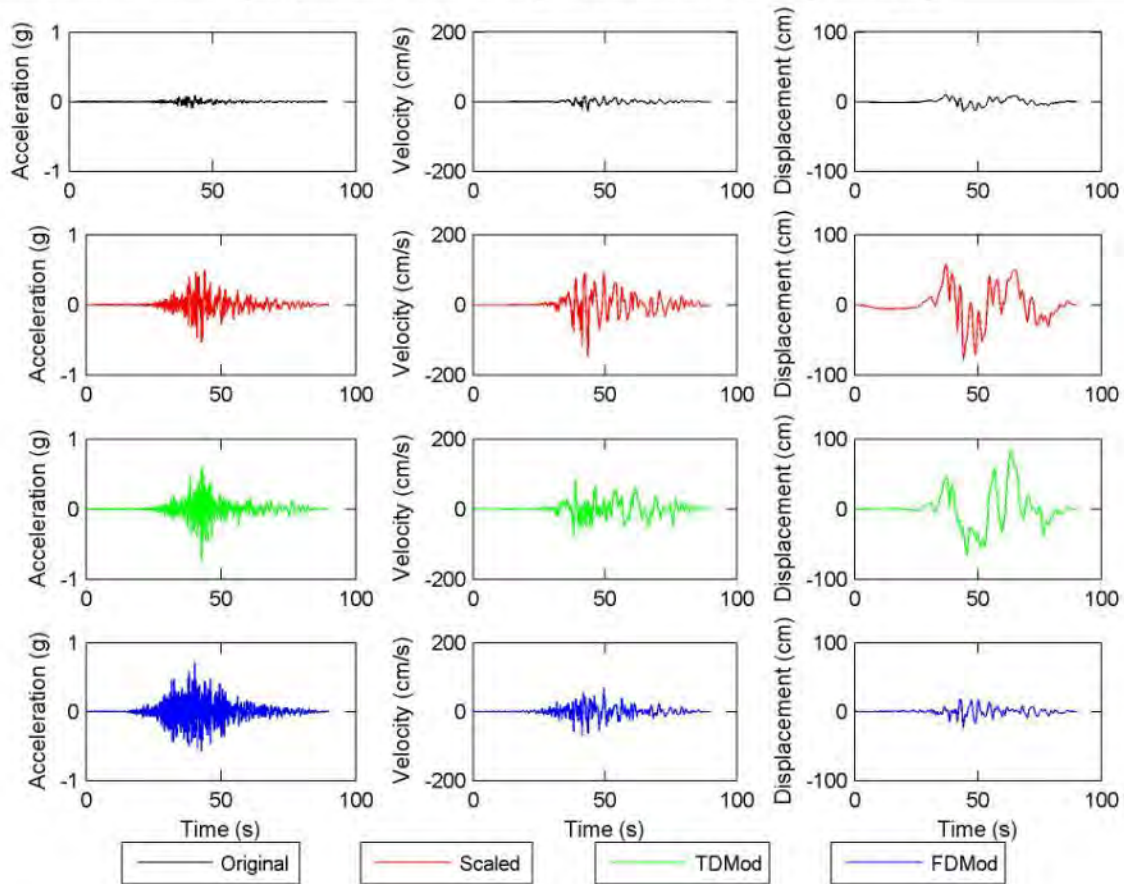|	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	1.100	0.716	0.716
PGV (cm/s)	16.2	108.6	84.2	62.9
PGD (cm)	11.6	77.9	85.7	28.2
I_a (cm/s)	28	1270	992	1095
D_{5-95} (s)	31.8	31.8	34.2	42.0
CAV (cm/s)	701	4713	4465	5242
T_m (s)	0.66	0.66	0.72	0.76

Figure E.5. continued.

856

File Name: 1154 BRS090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 14.72 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 5
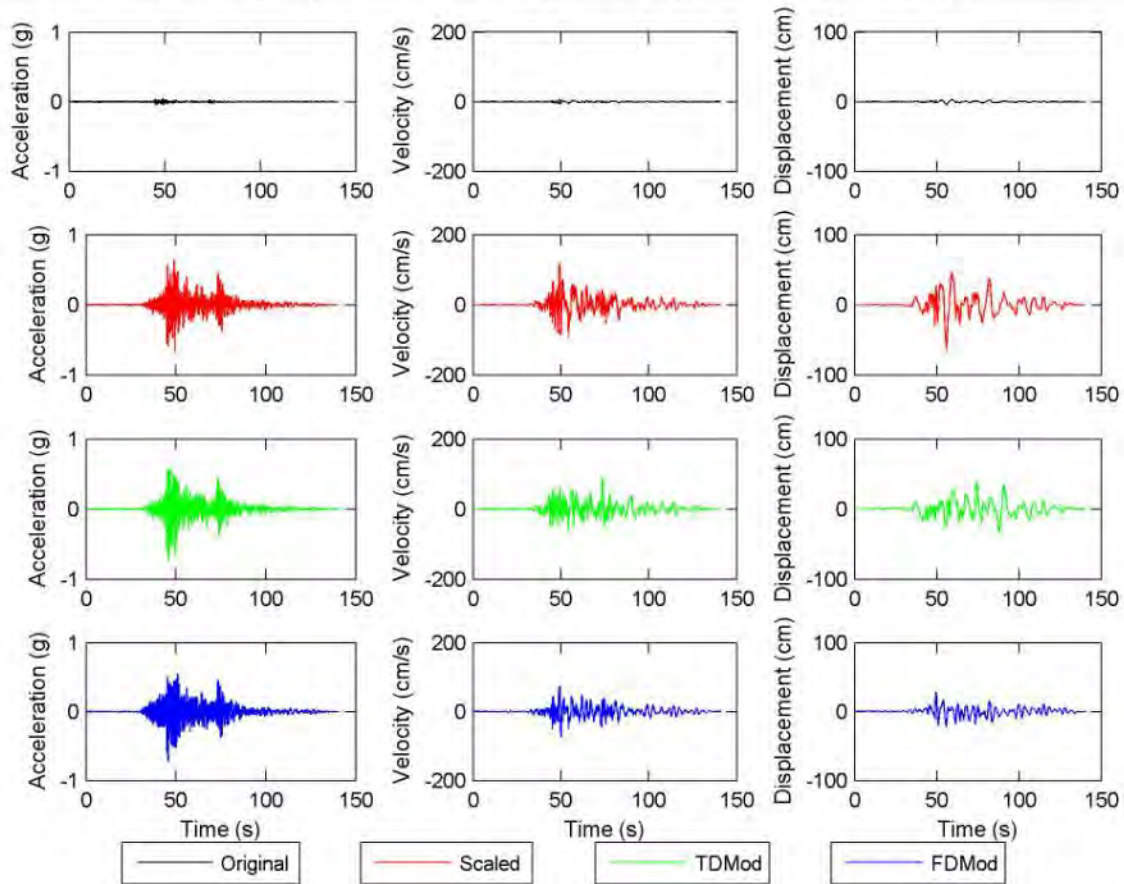
	Original	Scaled	TDMod	FDMod
PGA (g)	0.045	0.667	0.716	0.716
PGV (cm/s)	8.1	118.7	92.9	75.0
PGD (cm)	4.4	64.1	38.9	28.5
I_a (cm/s)	7	1524	1315	1355
D_{5-95} (s)	34.0	34.0	36.6	38.2
CAV (cm/s)	381	5614	5314	5607
T_m (s)	0.90	0.90	0.75	0.61

Figure E.5. continued.

857

	Original	Scaled	TDMod	FDMod
PGA (g)	0.058	0.736	0.716	0.716
PGV (cm/s)	9.0	115.8	78.5	71.8
PGD (cm)	5.9	74.9	56.4	25.2
I_a (cm/s)	8	1247	1187	1358
D_{5-95} (s)	33.7	33.7	35.4	39.2
CAV (cm/s)	394	5044	5052	5665
T_m (s)	0.99	0.99	0.78	0.66

Figure E.5. continued.

858

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.103	0.682	0.716	0.716
PGV (cm/s)	19.8	130.7	91.1	72.3
PGD (cm)	18.0	118.6	98.0	25.7
I_a (cm/s)	35	1525	1345	1801
D_{5-95} (s)	41.0	41.0	43.2	42.8
CAV (cm/s)	970	6405	5970	7135
T_m (s)	0.96	0.96	0.79	0.64

Figure E.5. continued.

859

File Name: 1155 BUR090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.91 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 2

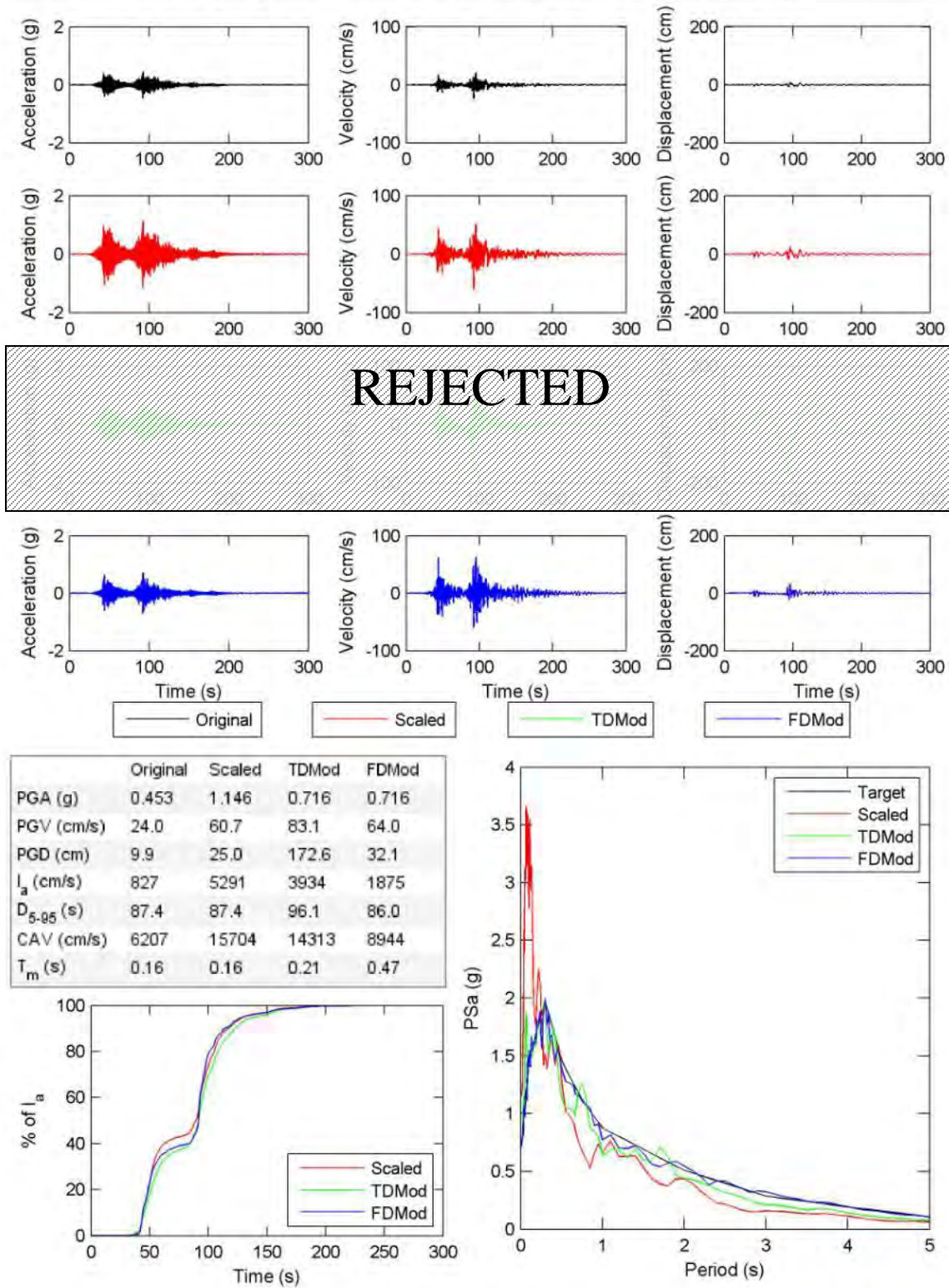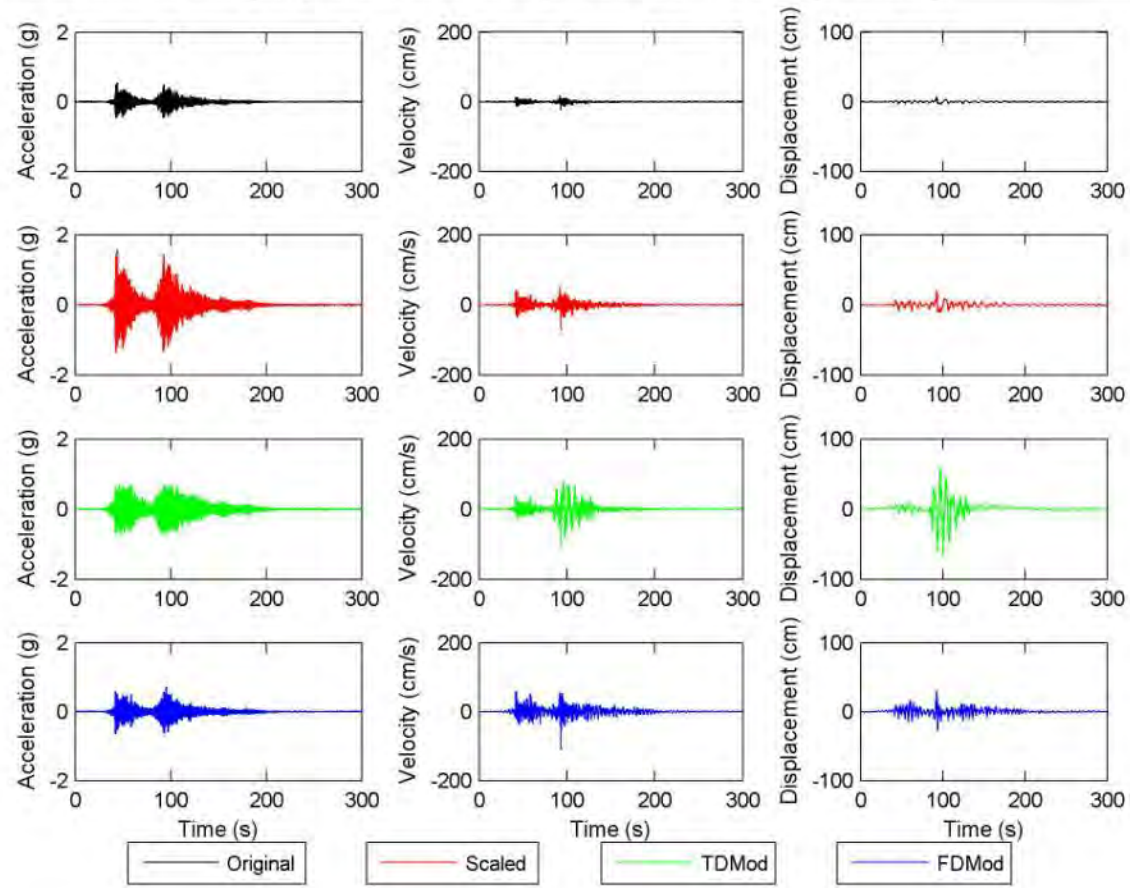|	Original	Scaled	TDMod	FDMod
PGA (g)	0.108	0.639	0.716	0.716
PGV (cm/s)	22.3	131.6	77.2	65.4
PGD (cm)	10.7	63.2	50.2	24.3
I_a (cm/s)	49	1719	1389	1722
D_{5-95} (s)	37.9	37.9	38.9	39.0
CAV (cm/s)	1090	6440	5839	6630
T_m (s)	0.93	0.93	0.76	0.58

Figure E.5. continued.

860

	Original	Scaled	TDMod	FDMod
PGA (g)	0.187	0.991	0.716	0.716
PGV (cm/s)	18.5	98.2	97.4	62.5
PGD (cm)	17.1	90.4	97.5	20.8
I_a (cm/s)	96	2690	1549	1330
D_{5-95} (s)	32.2	32.2	41.9	39.6
CAV (cm/s)	1351	7160	6162	5654
T_m (s)	0.48	0.48	0.57	0.62

Figure E.5. continued.

861

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	1.078	0.716	0.716
PGV (cm/s)	14.9	100.6	94.1	76.5
PGD (cm)	17.1	115.5	133.0	36.3
I_a (cm/s)	68	3100	1973	1237
D_{5-95} (s)	34.3	34.3	42.7	42.5
CAV (cm/s)	1207	8174	7143	5639
T_m (s)	0.42	0.42	0.54	0.64

Figure E.5. continued.

862

	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.988	0.716	0.716
PGV (cm/s)	8.8	65.7	67.0	78.6
PGD (cm)	3.0	22.8	25.7	33.0
I_a (cm/s)	25	1409	1021	832
D_{5-95} (s)	11.4	11.4	13.3	13.4
CAV (cm/s)	409	3065	2819	2519
T_m (s)	0.34	0.34	0.48	0.59

Figure E.5. continued.

863

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.800	0.717	0.717
PGV (cm/s)	10.5	70.6	79.5	69.7
PGD (cm)	3.9	26.6	40.9	24.8
I_a (cm/s)	19	883	756	688
D_{5-95} (s)	10.4	10.4	13.9	12.9
CAV (cm/s)	349	2350	2273	2213
T_m (s)	0.46	0.46	0.58	0.61

Figure E.5. continued.

864

File Name: 1163 DHM000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.96 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

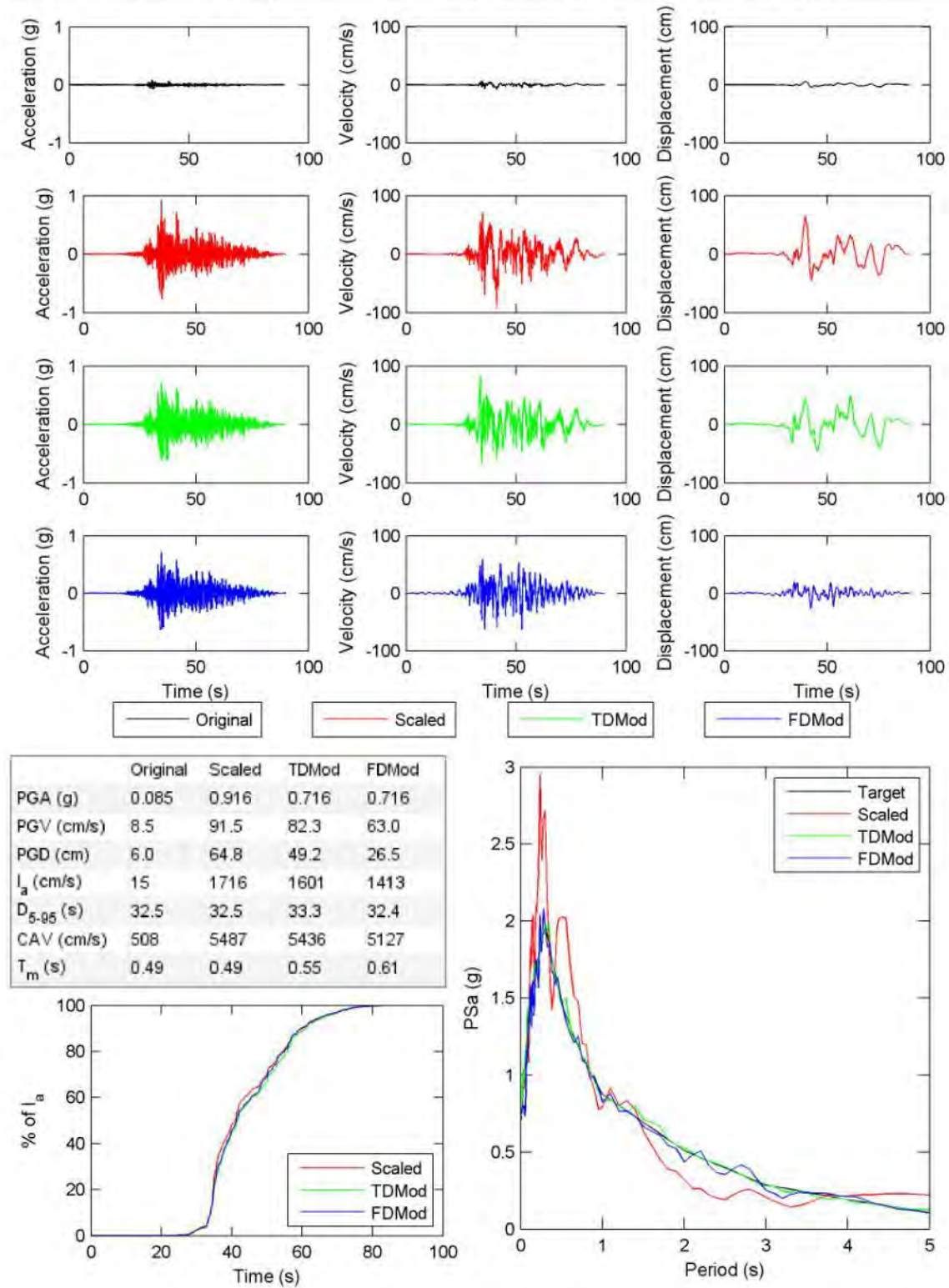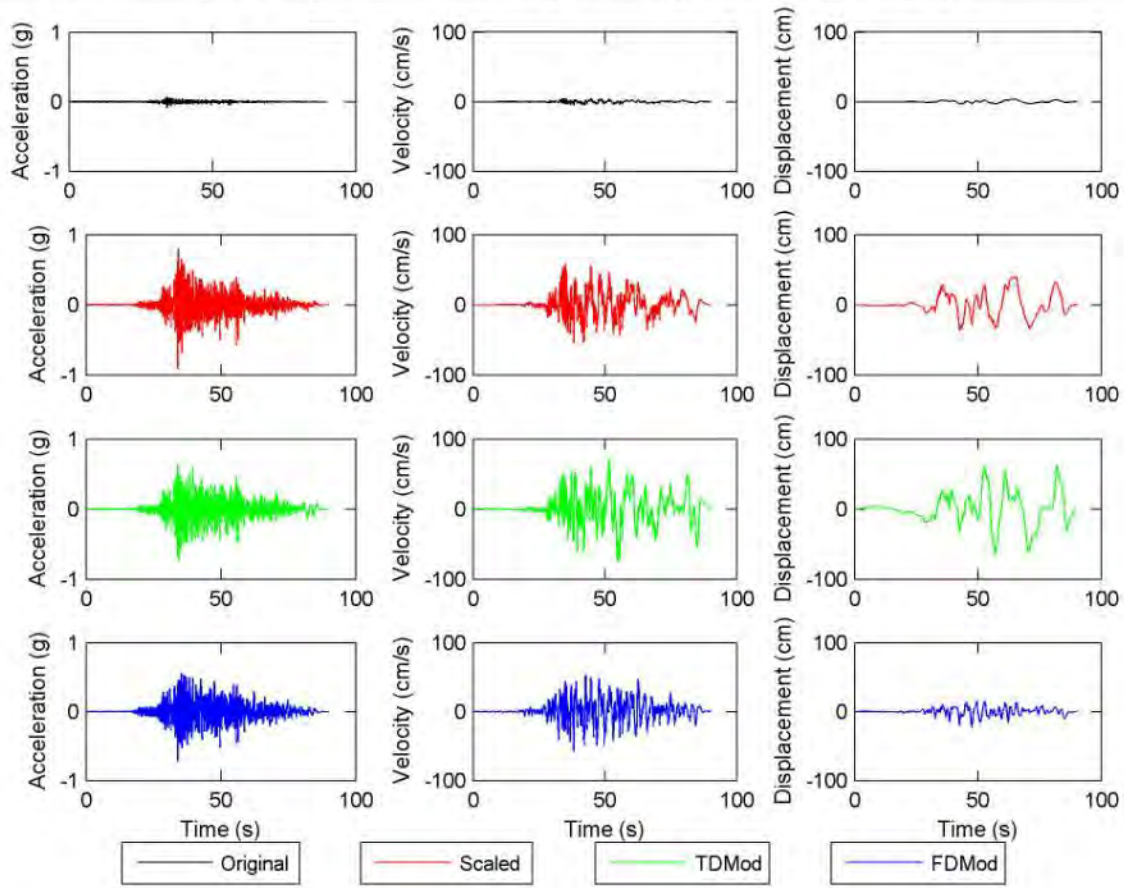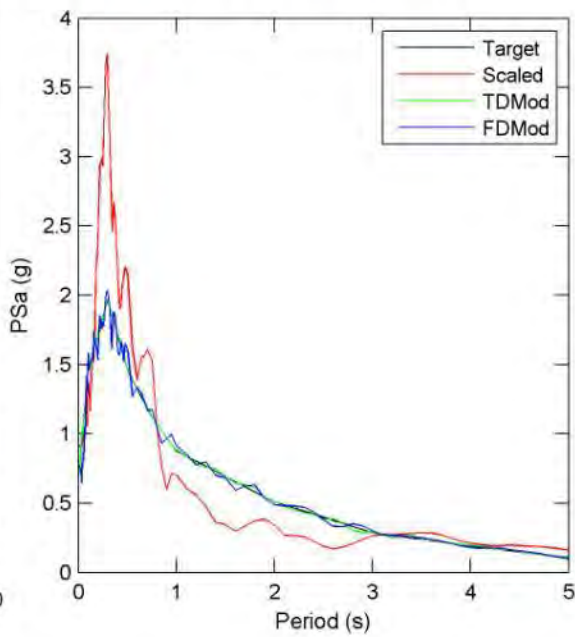|	Original	Scaled	TDMod	FDMod
PGA (g)	0.090	0.627	0.716	0.716
PGV (cm/s)	24.8	172.5	129.7	66.8
PGD (cm)	29.4	204.7	180.9	24.1
I_a (cm/s)	20	968	855	1077
D_{5-95} (s)	35.1	35.1	37.5	39.4
CAV (cm/s)	623	4336	4156	4802
T_m (s)	0.98	0.98	0.85	0.69

Figure E.5. continued.

865

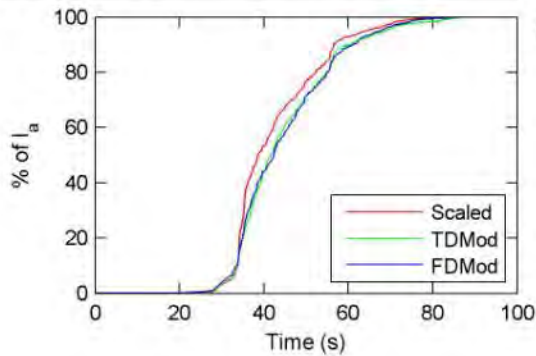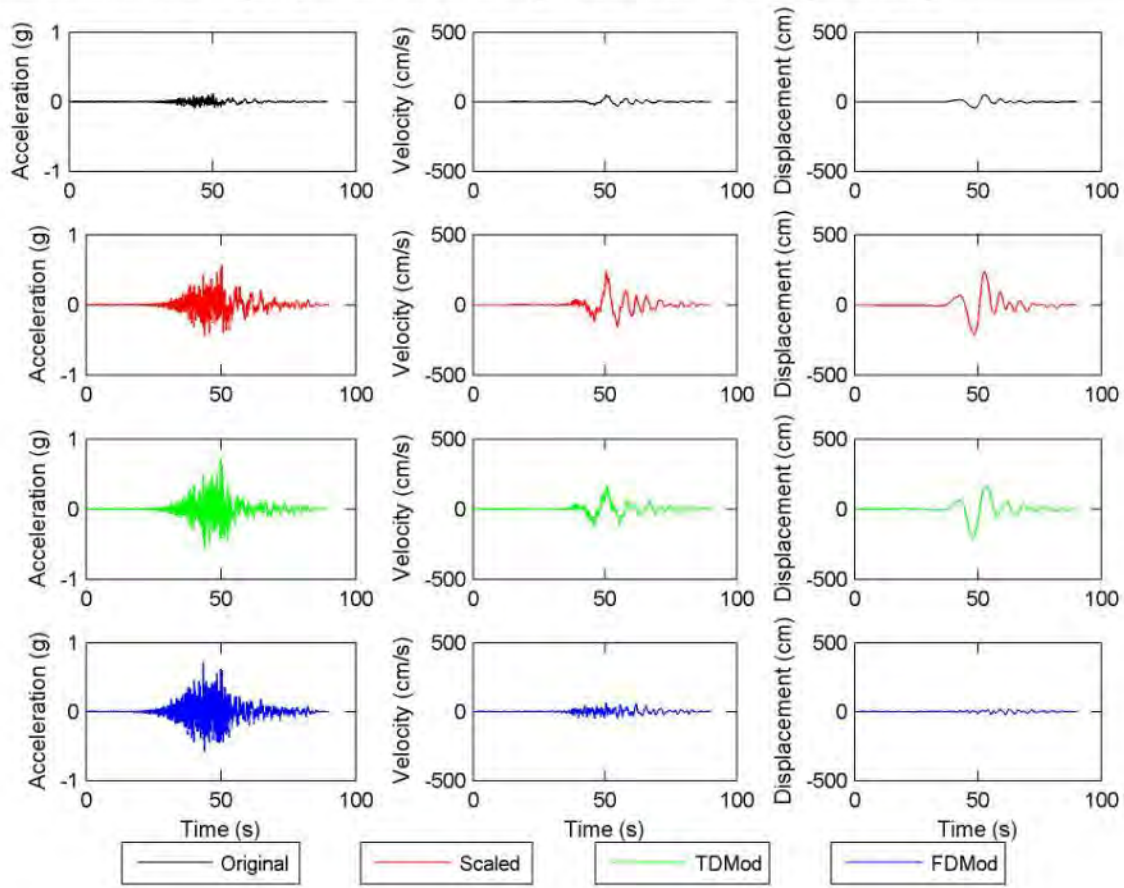|	Original	Scaled	TDMod	FDMod
PGA (g)	0.083	0.688	0.716	0.716
PGV (cm/s)	17.7	146.5	94.6	65.7
PGD (cm)	16.6	137.0	113.2	25.6
I_a (cm/s)	15	1016	1117	1051
D_{5-95} (s)	36.7	36.7	43.6	40.8
CAV (cm/s)	540	4466	4893	4763
T_m (s)	0.87	0.87	0.81	0.65

Figure E.5. continued.

866

File Name: 1166 IZN090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.10 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

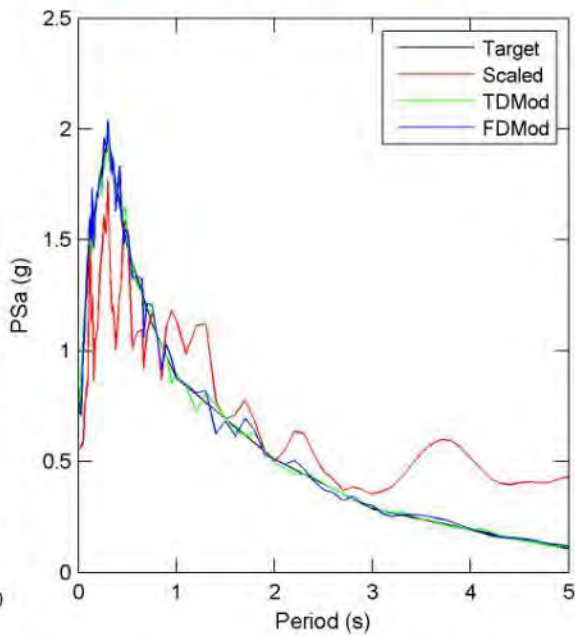|	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.694	0.716	0.716
PGV (cm/s)	28.9	147.2	102.4	70.4
PGD (cm)	17.5	89.0	82.4	30.0
I_a (cm/s)	42	1100	940	1129
D_{5-95} (s)	16.9	16.9	16.8	19.8
CAV (cm/s)	619	3159	2971	3432
T_m (s)	1.04	1.04	0.64	0.47

Figure E.5. continued.

867

File Name: 1166 IZN180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.95 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 2

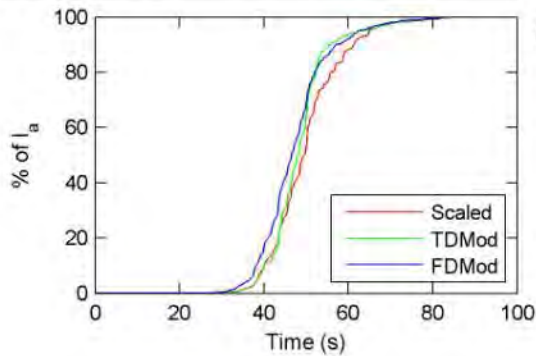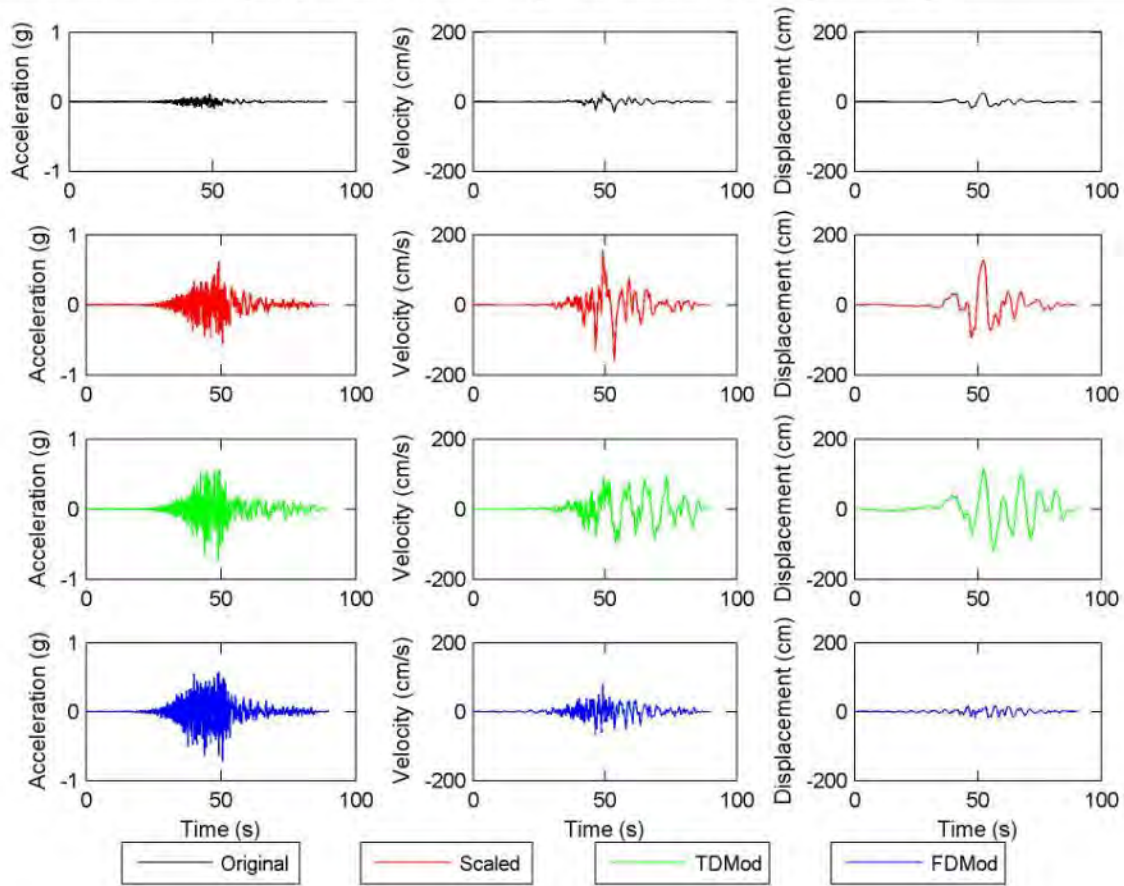|	Original	Scaled	TDMod	FDMod
PGA (g)	0.098	0.682	0.716	0.716
PGV (cm/s)	16.0	111.4	80.1	71.0
PGD (cm)	7.7	53.8	50.1	32.1
I_a (cm/s)	25	1211	1211	1261
D_{5-95} (s)	19.3	19.3	17.2	20.6
CAV (cm/s)	491	3413	3339	3584
T_m (s)	0.99	0.99	0.63	0.55

Figure E.5. continued.

868

File Name: 1169 MSK000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 19.66 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 2

	Original	Scaled	TDMod	FDMod
PGA (g)	0.044	0.864	0.716	0.716
PGV (cm/s)	6.6	129.4	121.2	64.9
PGD (cm)	6.5	128.2	80.8	22.4
I_a (cm/s)	3	1064	1363	1490
D_{5-95} (s)	35.8	35.8	34.0	38.9
CAV (cm/s)	237	4666	5290	5957
T_m (s)	0.40	0.40	0.55	0.61

Figure E.5. continued.

869

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.040	0.667	0.716	0.716
PGV (cm/s)	6.5	109.3	107.8	74.0
PGD (cm)	9.2	155.5	122.4	27.6
I_a (cm/s)	3	806	1175	1193
D_{5-95} (s)	37.4	37.4	32.6	39.1
CAV (cm/s)	245	4119	4715	5145
T_m (s)	0.59	0.59	0.59	0.58
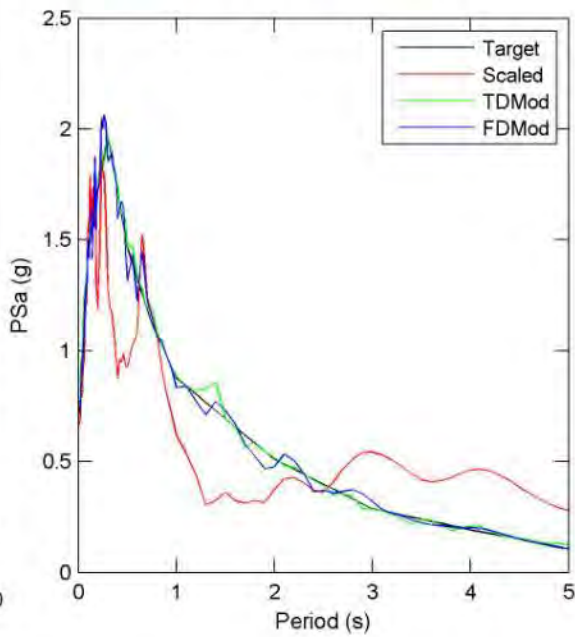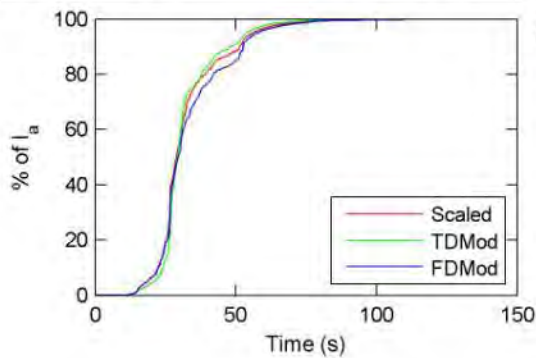
Figure D.5. continued.

870

File Name: 1170 MCD000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 15.87 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.054	0.851	0.720	0.716
PGV (cm/s)	6.2	97.9	95.6	78.1
PGD (cm)	4.8	75.5	53.4	32.9
I_a (cm/s)	4	1082	1095	1029
D_{5-95} (s)	16.3	16.3	17.8	18.6
CAV (cm/s)	186	2958	3111	3101
T_m (s)	0.37	0.37	0.53	0.58

Figure D.5. continued.

871

File Name: 1170 MCD090   Start and End Taper Percentage: 1.0% and 5.0%
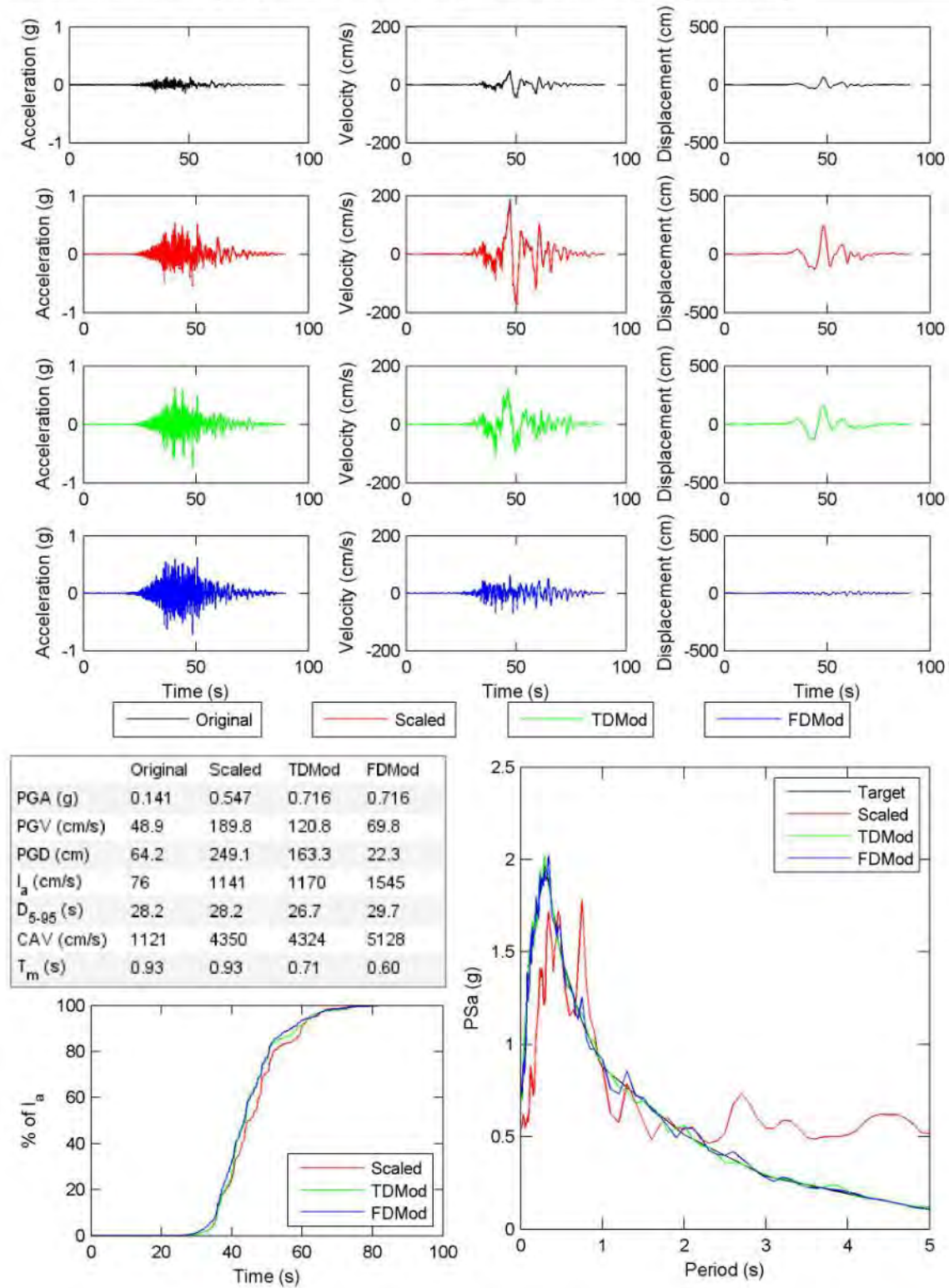Scale Factor: 13.23 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 6 TD poly: 5

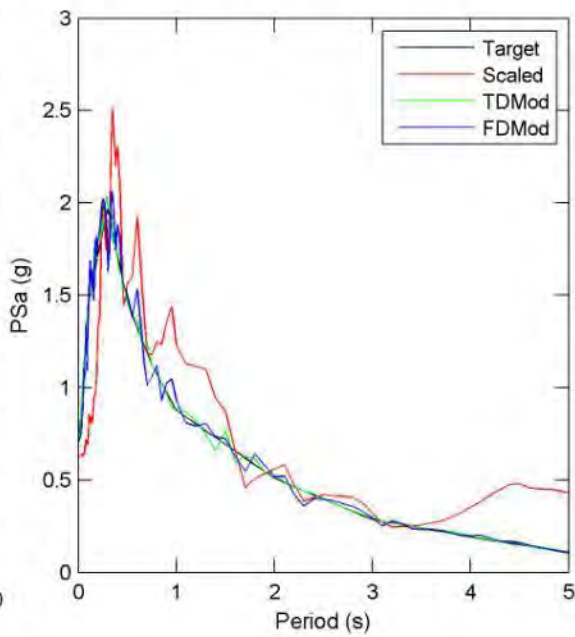|	Original	Scaled	TDMod	FDMod
PGA (g)	0.068	0.900	0.716	0.717
PGV (cm/s)	8.8	117.0	105.6	62.6
PGD (cm)	10.1	133.8	91.4	21.8
I_a (cm/s)	4	636	873	842
D_{5-95} (s)	14.6	14.6	12.9	13.3
CAV (cm/s)	170	2243	2581	2594
T_m (s)	0.52	0.52	0.55	0.56

Figure E.5. continued.

872

Figure E.5. continued.

873

File Name: 1177 ZYT090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 7.30 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 2

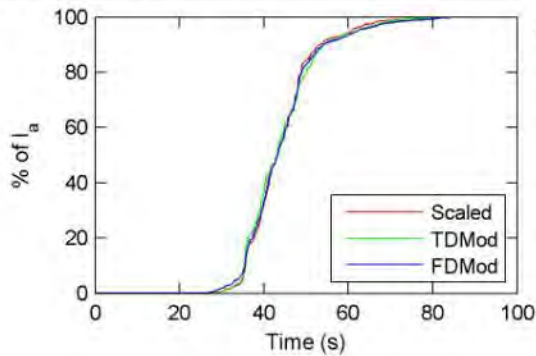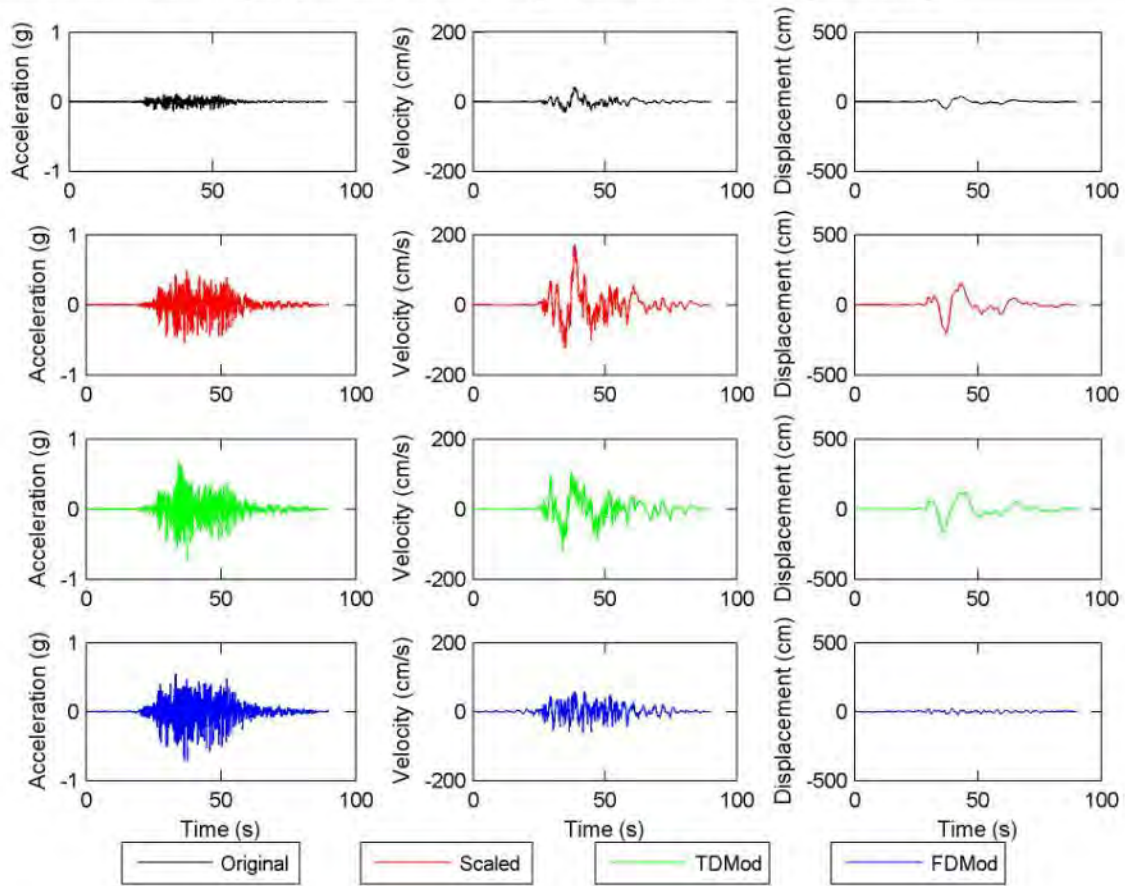|	Original	Scaled	TDMod	FDMod
PGA (g)	0.110	0.805	0.716	0.716
PGV (cm/s)	15.2	111.3	109.4	67.9
PGD (cm)	18.2	132.9	130.2	24.4
I_a (cm/s)	34	1803	1493	1586
D_{5-95} (s)	38.9	38.9	40.3	42.3
CAV (cm/s)	854	6233	5913	6290
T_m (s)	0.62	0.62	0.62	0.62
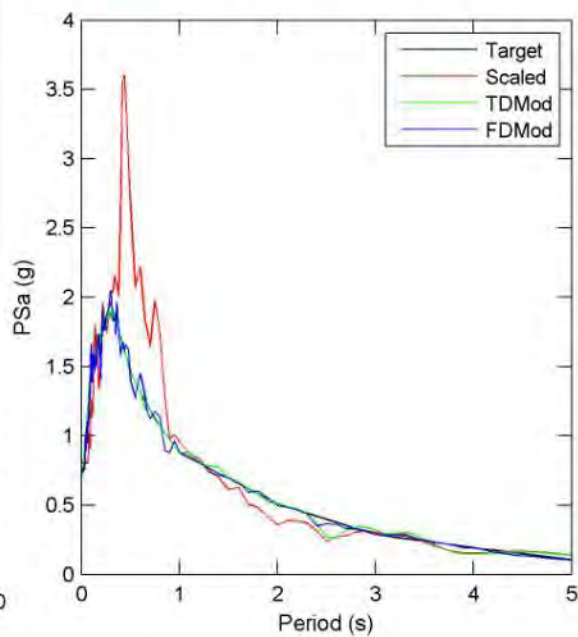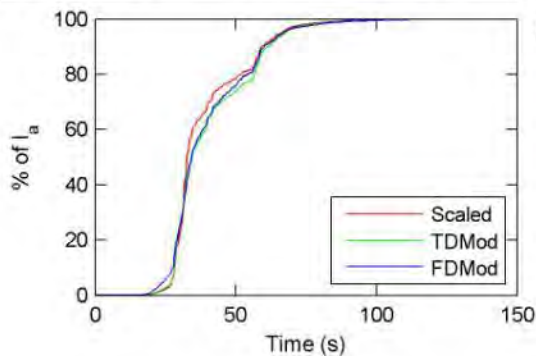
Figure E.5. continued.

874

File Name: 11 HON-MYGH06-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.49 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 2

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.288	0.718	0.716	0.716
PGV (cm/s)	32.7	81.5	78.2	70.5
PGD (cm)	16.4	40.8	66.8	24.6
I_a (cm/s)	300	1857	1914	2301
D_{5-95} (s)	85.6	85.6	88.2	97.5
CAV (cm/s)	3518	8759	8965	10570
T_m (s)	0.62	0.62	0.58	0.50

Figure E.5. continued.

875

File Name: 11 HON-MYGH06-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.55 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.262	0.930	0.716	0.716
PGV (cm/s)	24.7	87.7	72.2	75.8
PGD (cm)	11.5	40.9	30.1	29.3
I_a (cm/s)	230	2905	2555	2254
D_{5-95} (s)	84.5	84.5	90.0	101.4
CAV (cm/s)	3181	11294	11012	10688
T_m (s)	0.47	0.47	0.52	0.60

Figure E.5. continued.

876

File Name: 1201 CHY034-N   Start and End Taper Percentage: 1.0% and 5.0%
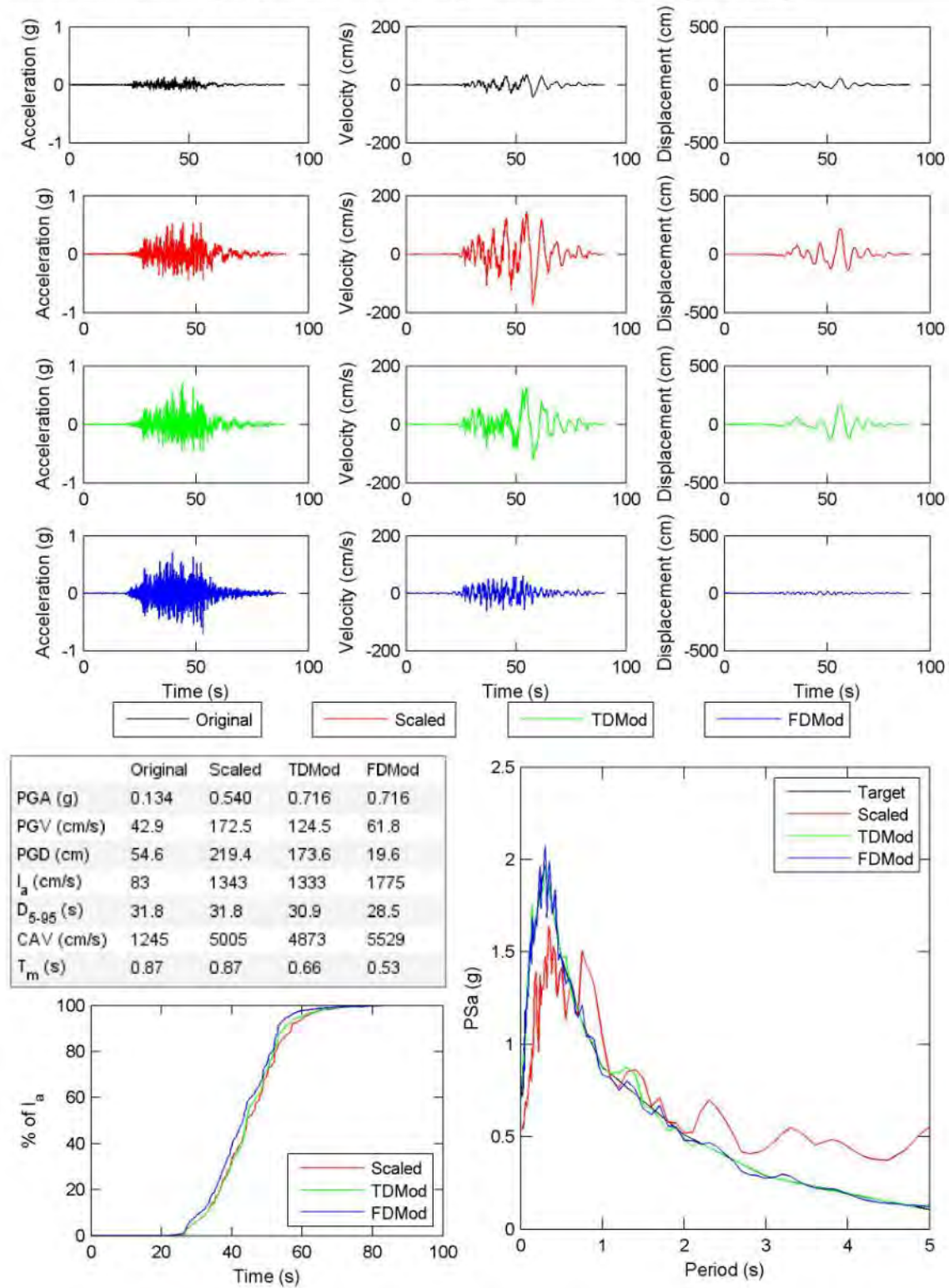Scale Factor: 2.86 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 2 TD poly: 2

	Original	Scaled	TDMod	FDMod
PGA (g)	0.310	0.886	0.716	0.716
PGV (cm/s)	48.5	138.8	67.3	70.6
PGD (cm)	16.5	47.3	47.7	20.0
I_a (cm/s)	182	1486	1047	1240
D_{5-95} (s)	24.4	24.4	34.4	40.8
CAV (cm/s)	1682	4811	4650	5823
T_m (s)	0.93	0.93	0.76	0.61

Figure E.5. continued.

877
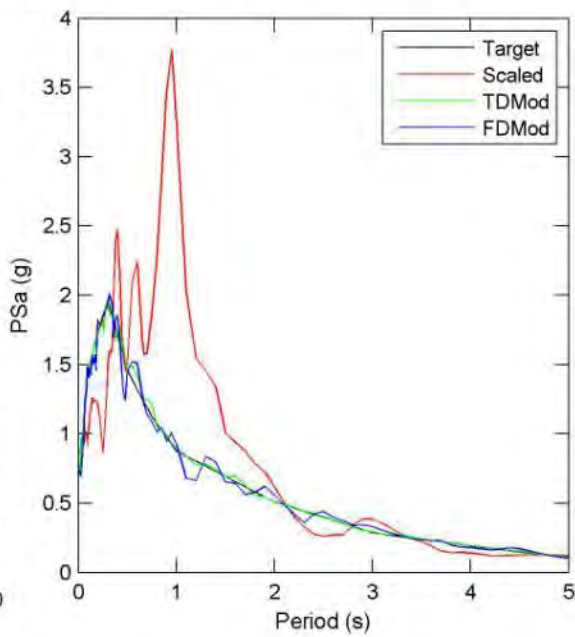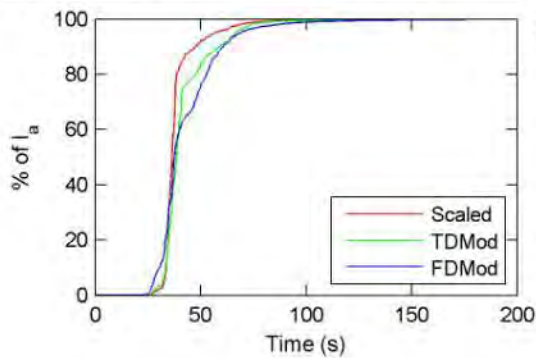
File Name: 1201 CHY034-W   Start and End Taper Percentage: 1.0% and 5.0%
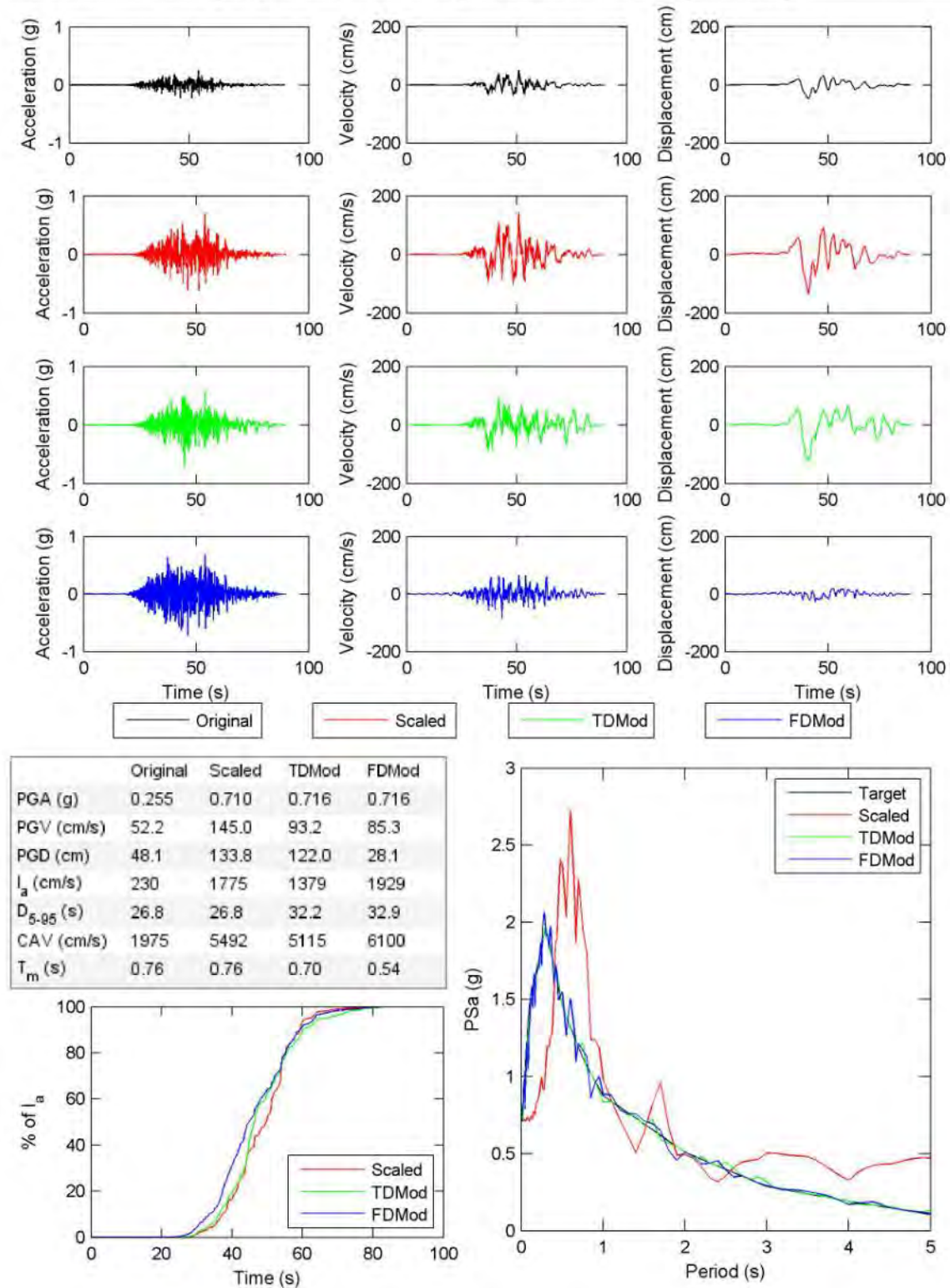Scale Factor: 3.14 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 6 TD poly: 2

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.248	0.780	0.716	0.716
PGV (cm/s)	38.8	122.0	95.5	90.3
PGD (cm)	11.5	36.0	33.3	33.0
I_a (cm/s)	146	1440	1057	1245
D_{5-95} (s)	29.9	29.9	33.0	38.4
CAV (cm/s)	1579	4957	4589	5507
T_m (s)	0.83	0.83	0.69	0.57

Figure E.5. continued.

878

File Name: 1203 CHY036-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.45 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.294	0.720	0.716	0.716
PGV (cm/s)	38.9	95.4	63.4	69.8
PGD (cm)	21.2	51.9	51.4	27.6
I_a (cm/s)	186	1119	1026	1302
D_{5-95} (s)	26.4	26.4	34.2	33.7
CAV (cm/s)	1704	4174	4158	4967
T_m (s)	0.92	0.92	0.73	0.59

Figure E.5. continued.

879

File Name: 1203 CHY036-N   Start and End Taper Percentage: 1.0% and 5.0%
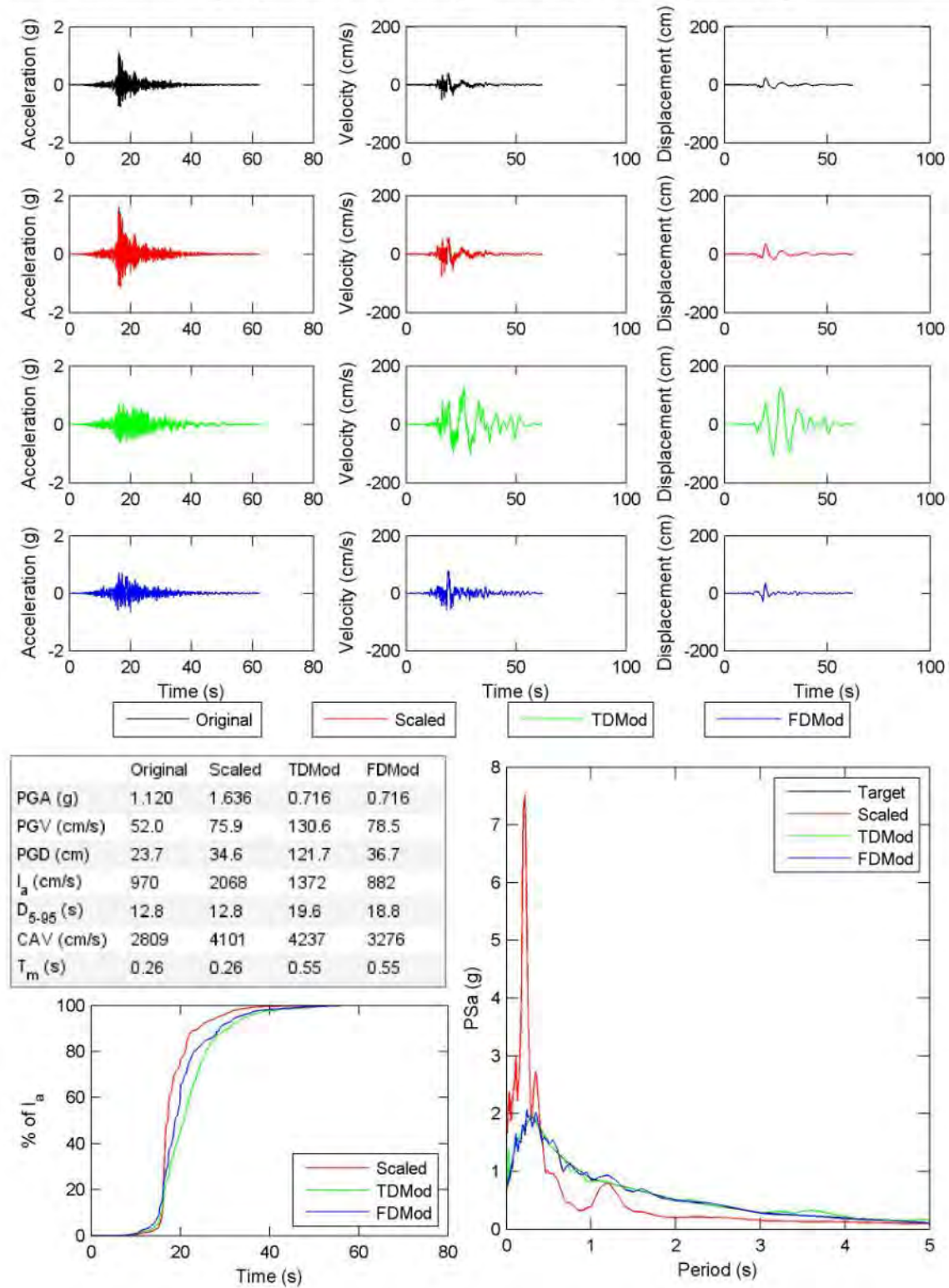Scale Factor: 2.86 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.207	0.591	0.716	0.716
PGV (cm/s)	41.5	118.6	99.2	70.5
PGD (cm)	34.2	97.8	80.0	22.0
I_a (cm/s)	156	1276	1285	1473
D_{5-95} (s)	32.8	32.8	34.0	37.7
CAV (cm/s)	1667	4768	4864	5575
T_m (s)	0.84	0.84	0.69	0.67

Figure E.5. continued.

880

File Name: 1205 CHY041-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.70 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 6

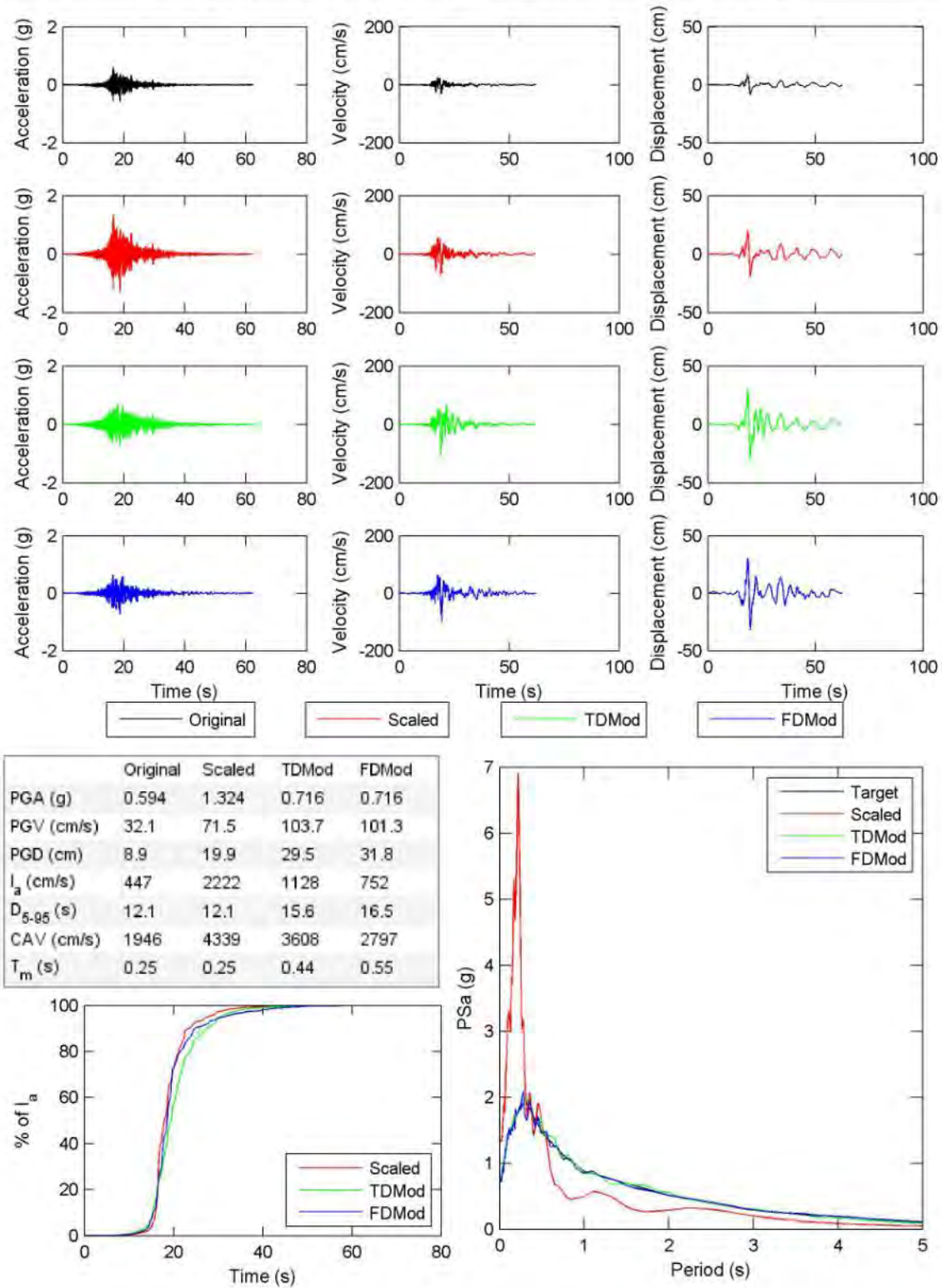|	Original	Scaled	TDMod	FDMod
PGA (g)	0.302	1.117	0.716	0.716
PGV (cm/s)	20.4	75.5	70.0	76.3
PGD (cm)	8.6	31.9	51.2	25.5
I_a (cm/s)	154	2109	1524	1293
D_{5-95} (s)	30.2	30.2	36.2	35.9
CAV (cm/s)	1556	5756	5387	4944
T_m (s)	0.46	0.46	0.59	0.66
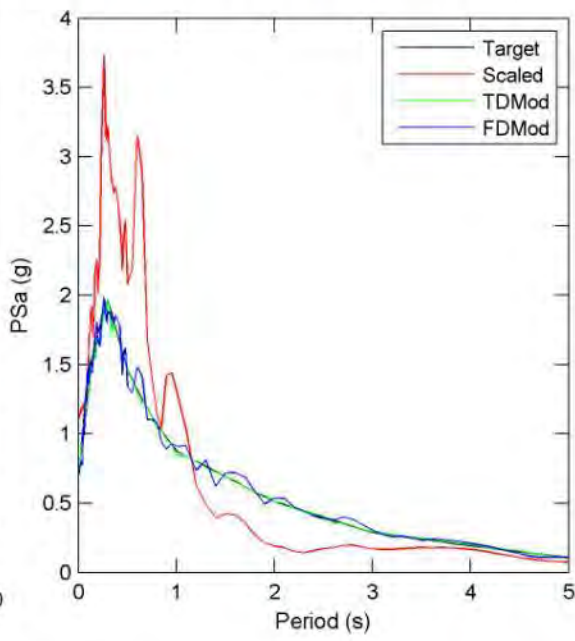
Figure E.5. continued.

881

File Name: 1205 CHY041-N   Start and End Taper Percentage: 1.0% and 5.0%
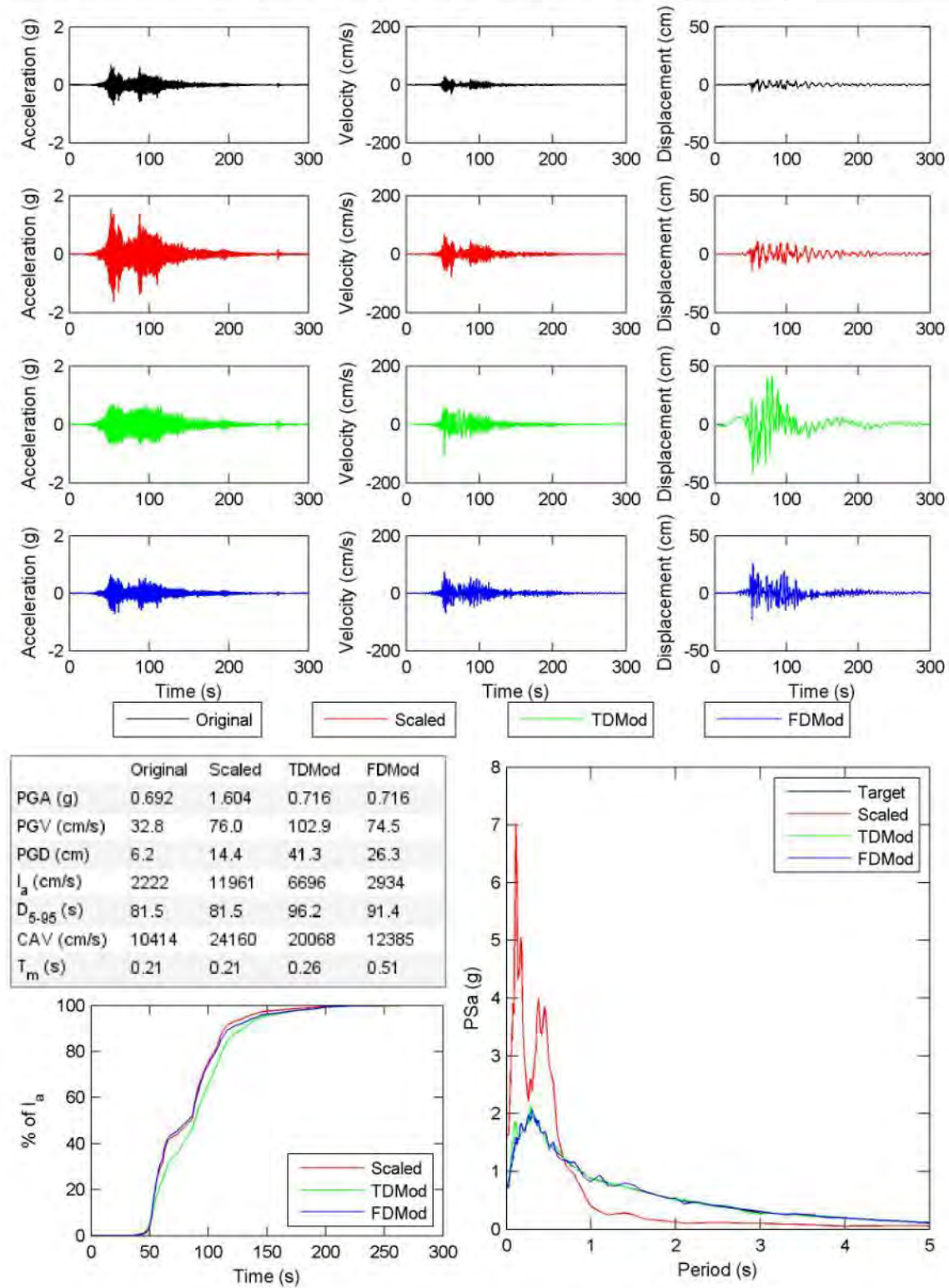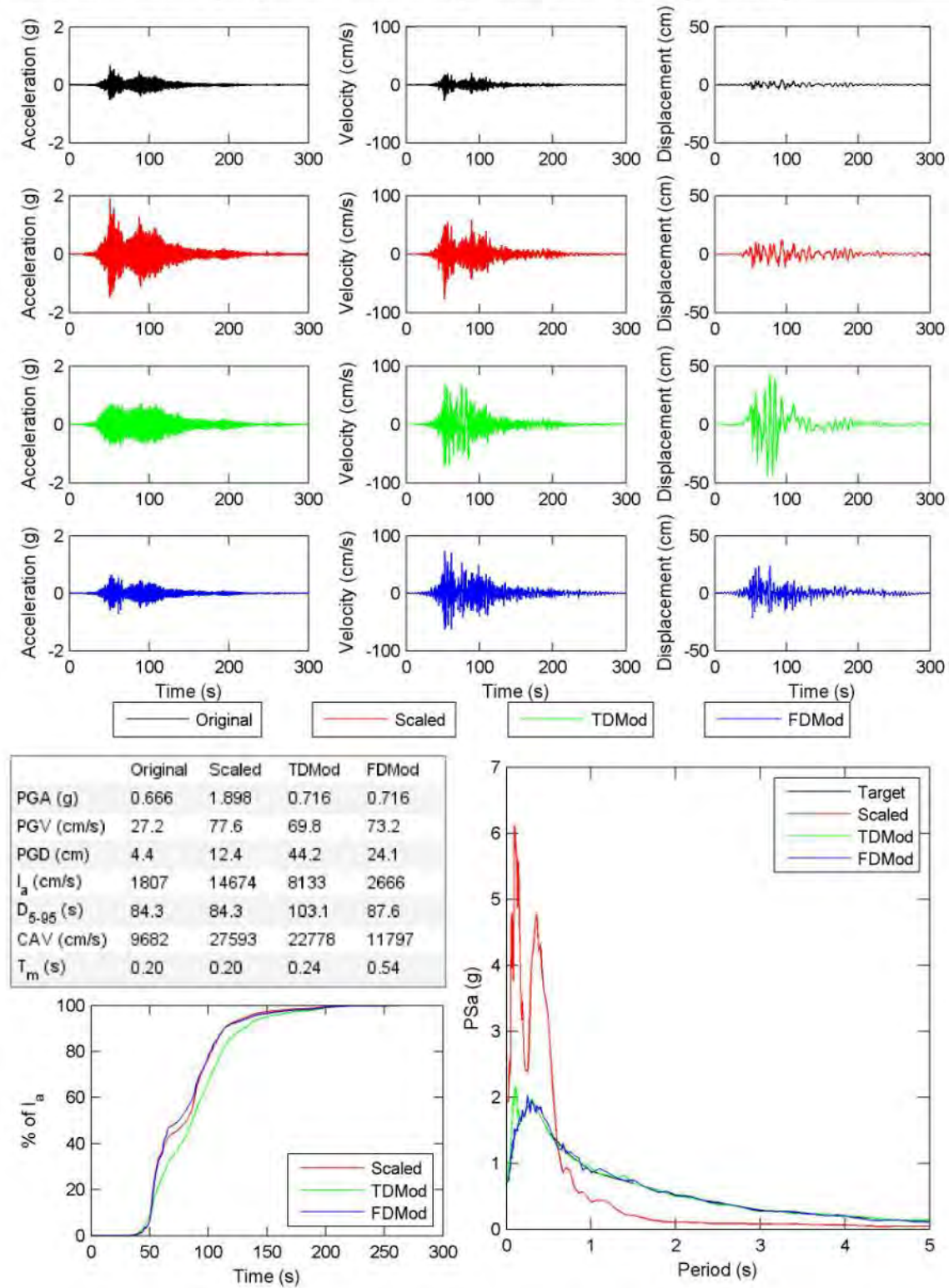Scale Factor: 2.63 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 9 TD poly: 2

	Original	Scaled	TDMod	FDMod
PGA (g)	0.639	1.680	0.716	0.717
PGV (cm/s)	39.6	104.0	79.8	70.4
PGD (cm)	11.3	29.6	48.6	31.2
I_a (cm/s)	364	2516	1269	1184
D_{5-95} (s)	22.1	22.1	28.1	37.6
CAV (cm/s)	2011	5289	4610	4809
T_m (s)	0.45	0.45	0.56	0.69

Figure E.5. continued.

882

File Name: 1221 CHY065-E   Start and End Taper Percentage: 1.0% and 5.0%
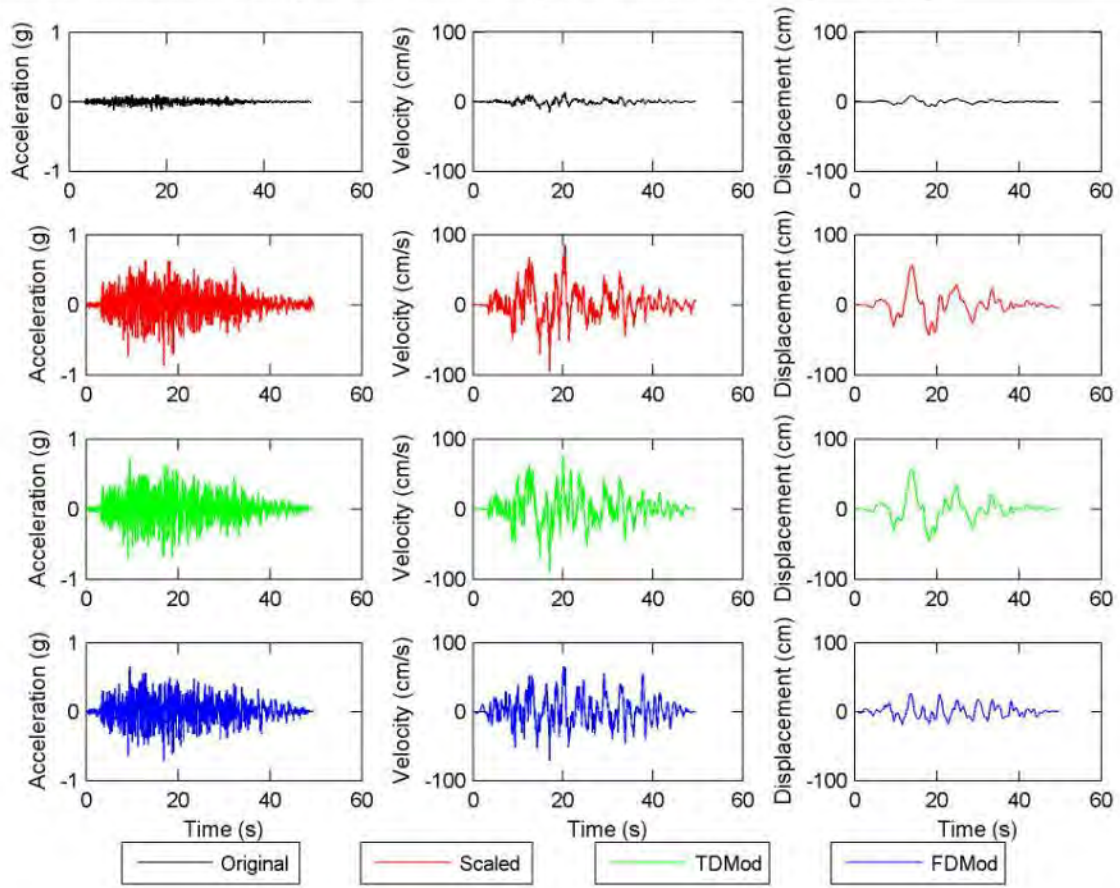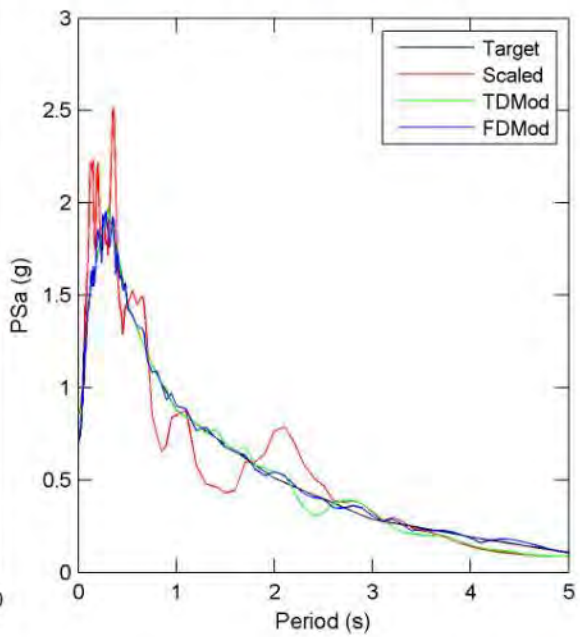Scale Factor: 6.90 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.118	0.815	0.716	0.716
PGV (cm/s)	15.8	108.9	87.0	75.1
PGD (cm)	8.4	58.2	99.9	24.4
I_a (cm/s)	50	2393	1571	1773
D_{5-95} (s)	37.9	37.9	40.0	41.7
CAV (cm/s)	988	6821	5748	6347
T_m (s)	0.79	0.79	0.74	0.58
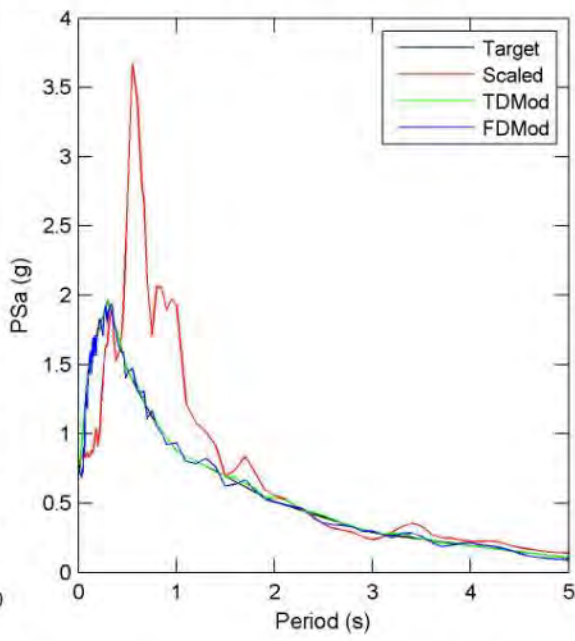
Figure E.5. continued.

883

REJECTED

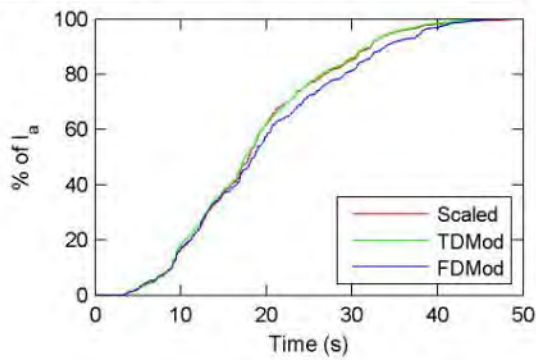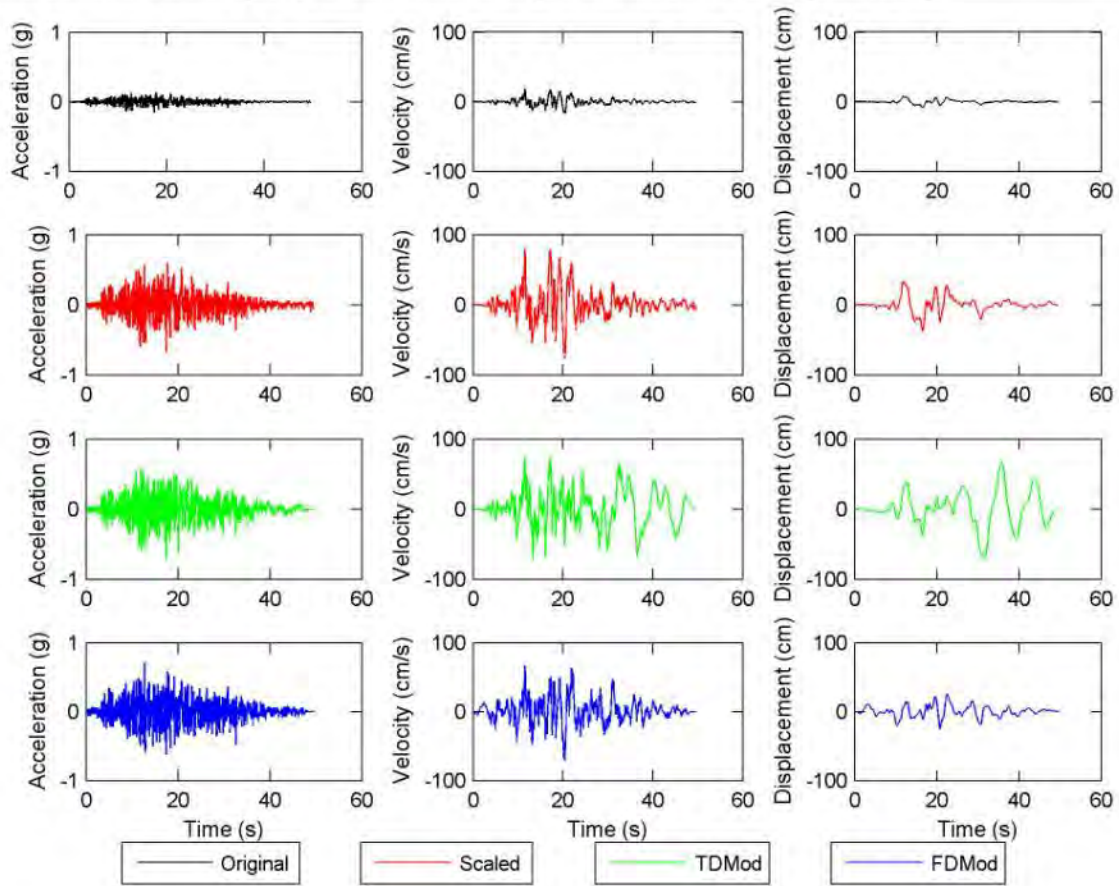|	Original	Scaled	TDMod	FDMod
PGA (g)	0.097	0.753	0.716	0.716
PGV (cm/s)	12.5	96.6	73.5	65.3
PGD (cm)	8.3	63.8	65.6	28.6
I_a (cm/s)	34	2052	1448	1712
D_{5-95} (s)	37.9	37.9	39.5	42.2
CAV (cm/s)	833	6436	5525	6318
T_m (s)	0.91	0.91	0.87	0.62

Figure E.5. continued.

884

File Name: 1265 HWA014-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.22 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

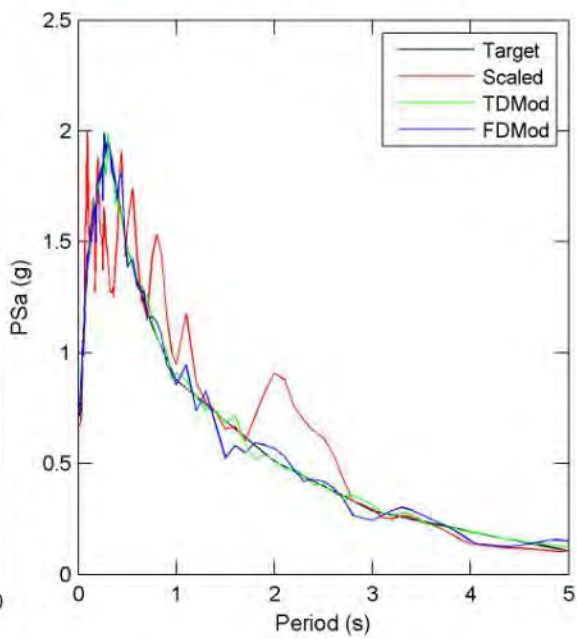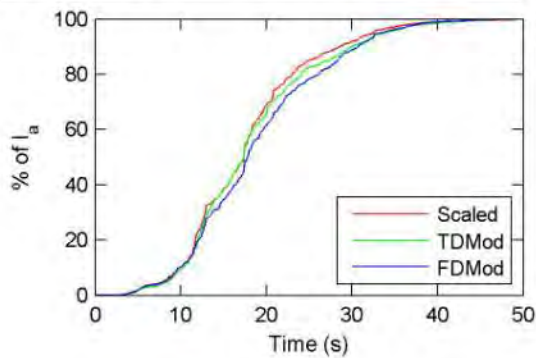|	Original	Scaled	TDMod	FDMod
PGA (g)	0.103	0.641	0.716	0.716
PGV (cm/s)	17.5	108.6	123.0	64.5
PGD (cm)	24.4	151.6	136.0	25.7
I_a (cm/s)	37	1442	982	1398
D_{5-95} (s)	32.4	32.4	33.8	36.7
CAV (cm/s)	793	4931	4153	5289
T_m (s)	1.11	1.11	0.83	0.59

Figure E.5. continued.

885

File Name: 1265 HWA014-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.68 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.093	0.527	0.716	0.716
PGV (cm/s)	26.0	147.8	83.7	69.6
PGD (cm)	13.7	77.7	83.7	23.3
I_a (cm/s)	31	1013	921	1361
D_{5-95} (s)	25.2	25.2	30.6	28.7
CAV (cm/s)	708	4021	3862	4905
T_m (s)	1.41	1.41	0.82	0.54
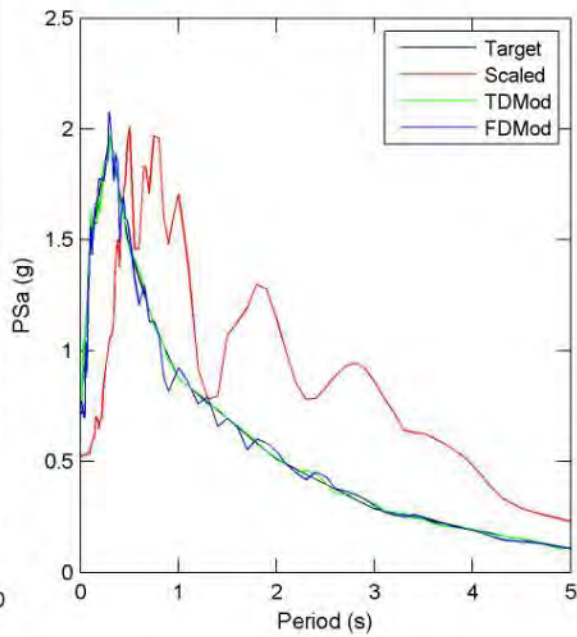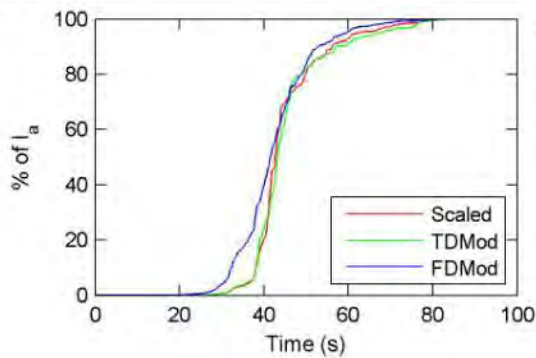
Figure E.5. continued.

886

File Name: 12 HON-MYGH12-E   Start and End Taper Percentage: 1.0% and 5.0%
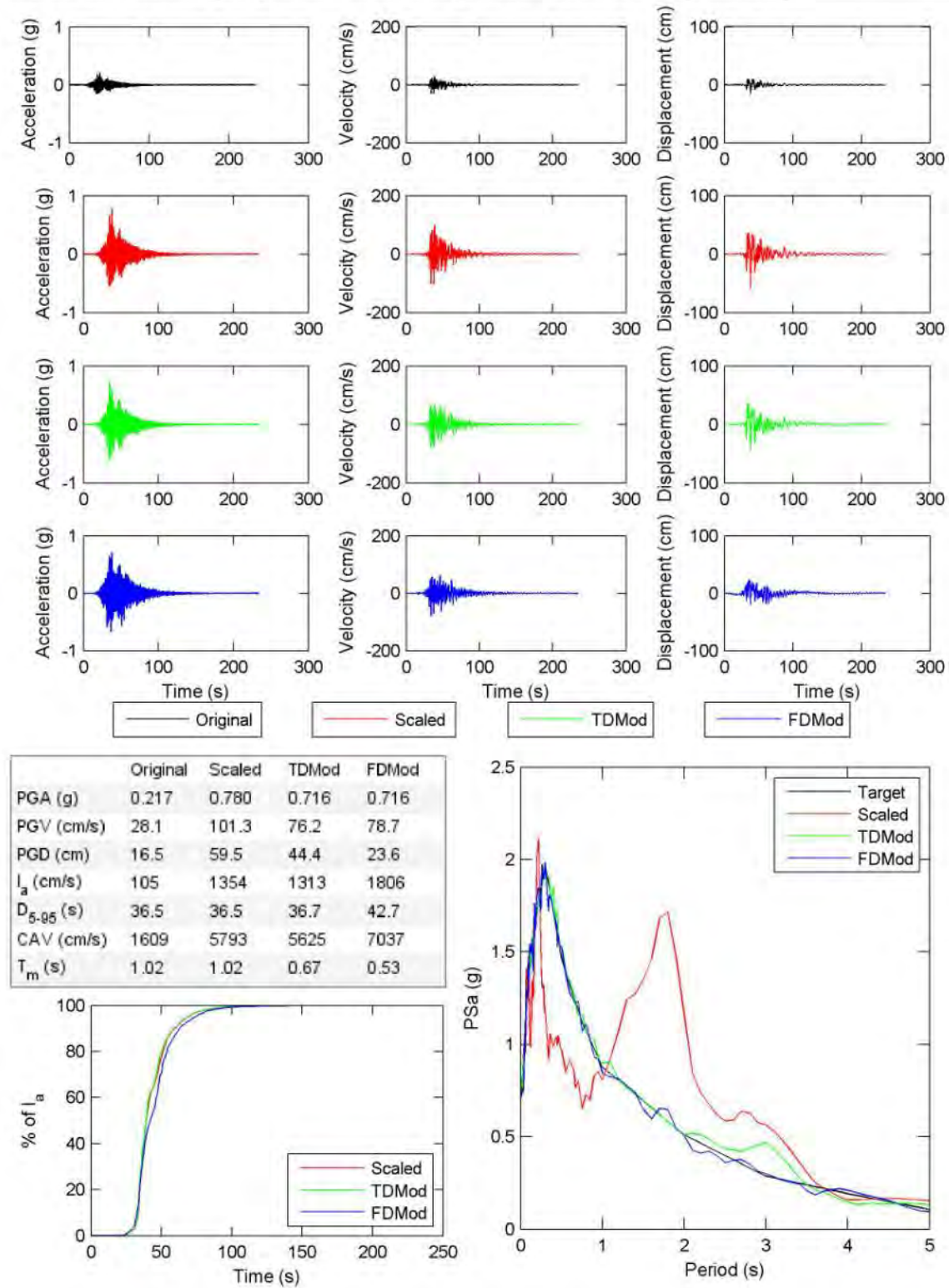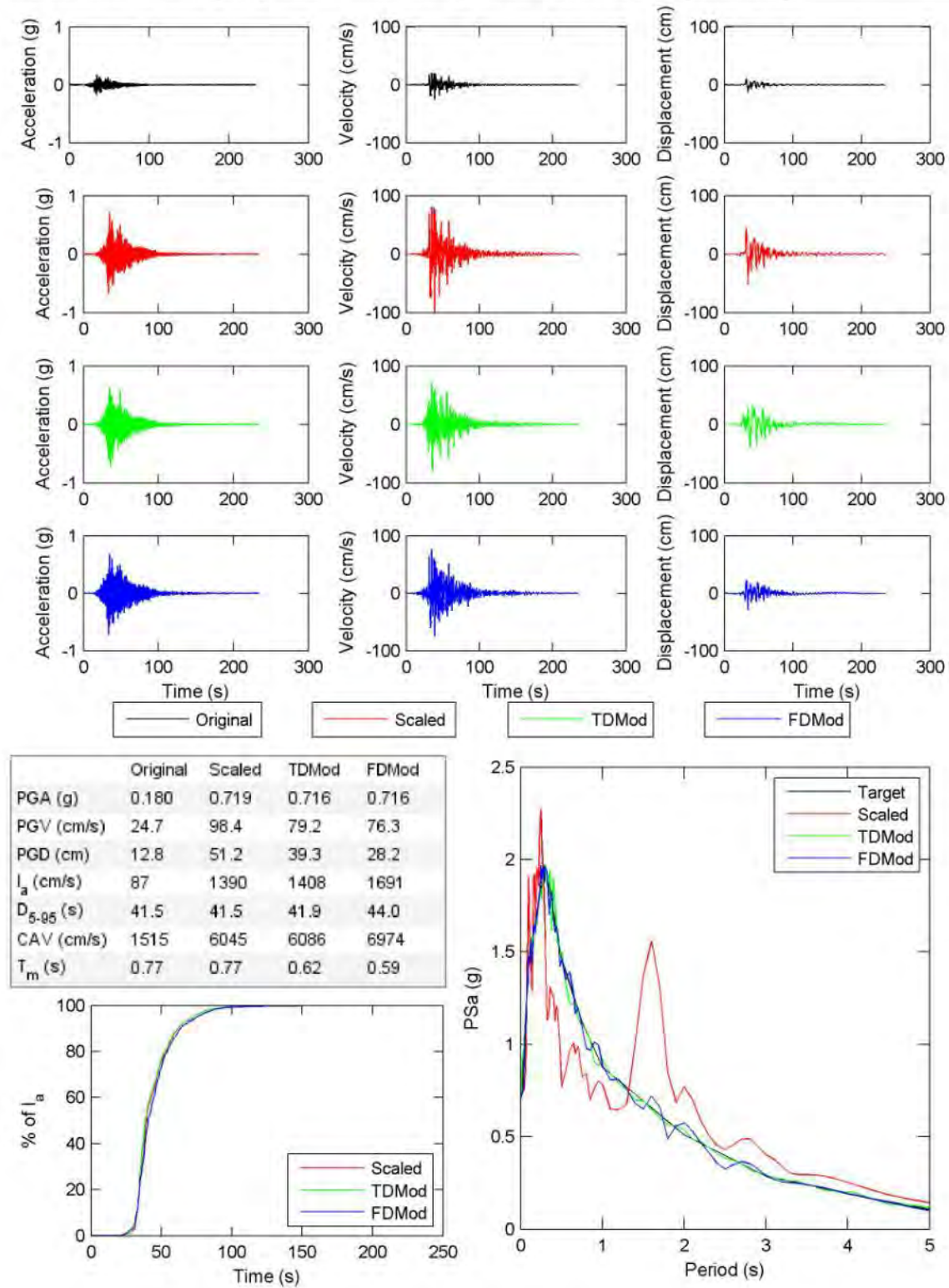Scale Factor: 2.53 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 7

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.453	1.146	0.716	0.716
PGV (cm/s)	24.0	60.7	83.1	64.0
PGD (cm)	9.9	25.0	172.6	32.1
I_a (cm/s)	827	5291	3934	1875
D_{5-95} (s)	87.4	87.4	96.1	86.0
CAV (cm/s)	6207	15704	14313	8944
T_m (s)	0.16	0.16	0.21	0.47

Figure E.5. continued.

887

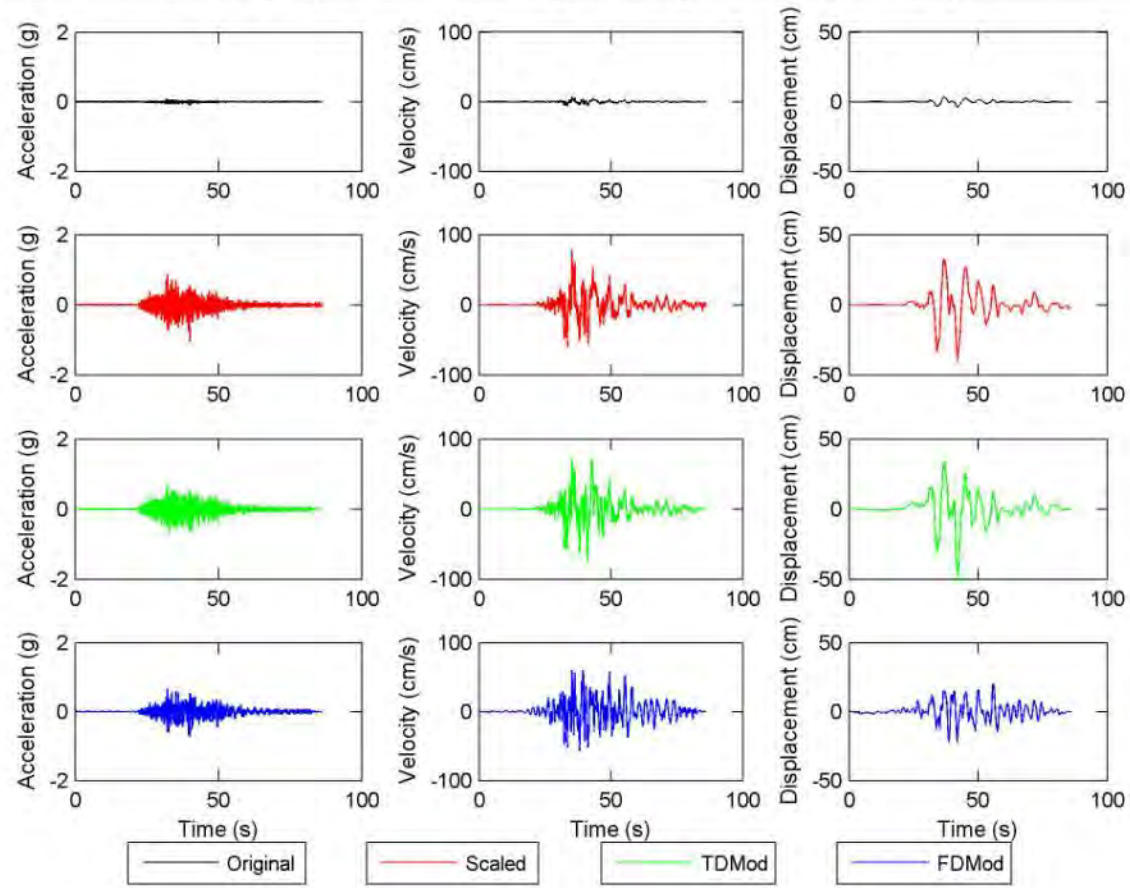|	Original	Scaled	TDMod	FDMod
PGA (g)	0.542	1.570	0.716	0.716
PGV (cm/s)	24.2	70.3	102.9	109.6
PGD (cm)	7.2	20.9	63.8	29.1
I_a (cm/s)	1112	9354	5341	2443
D_{5-95} (s)	82.2	82.2	94.0	89.3
CAV (cm/s)	6637	19246	16383	10538
T_m (s)	0.15	0.15	0.26	0.50
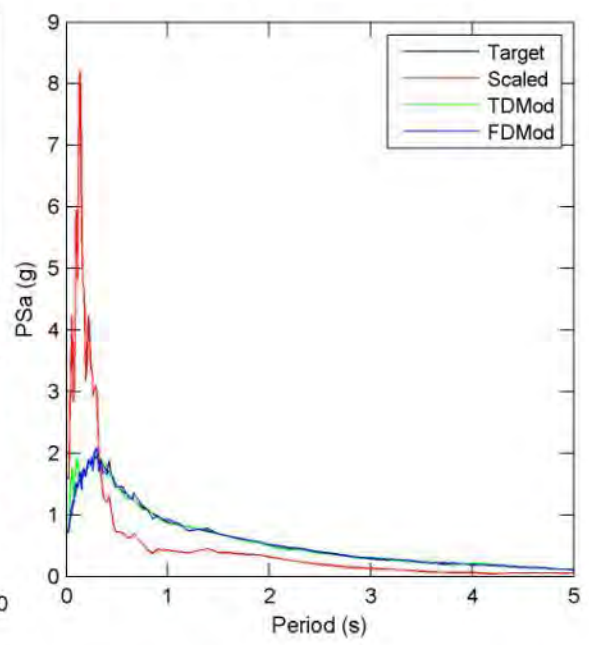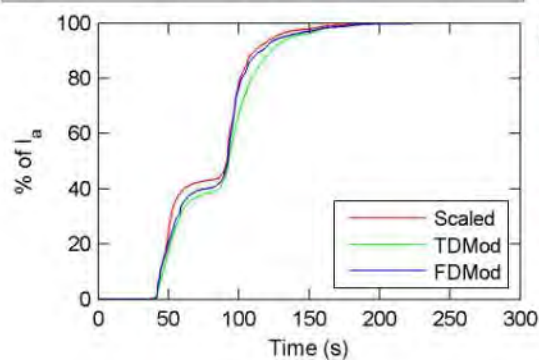
Figure E.5. continued.

File Name: 1380 KAU054-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 10.79 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 7 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.085	0.916	0.716	0.716
PGV (cm/s)	8.5	91.5	82.3	63.0
PGD (cm)	6.0	64.8	49.2	26.5
I_a (cm/s)	15	1716	1601	1413
D_{5-95} (s)	32.5	32.5	33.3	32.4
CAV (cm/s)	508	5487	5436	5127
T_m (s)	0.49	0.49	0.55	0.61

Figure E.5. continued.

889

	Original	Scaled	TDMod	FDMod
PGA (g)	0.080	0.912	0.716	0.716
PGV (cm/s)	5.2	58.8	73.8	57.4
PGD (cm)	3.6	40.5	64.1	23.0
I_a (cm/s)	15	1883	1765	1535
D_{5-95} (s)	31.9	31.9	37.1	36.6
CAV (cm/s)	505	5736	5968	5584
T_m (s)	0.45	0.45	0.57	0.61

Figure E.5. continued.

890

File Name: 1471 TCU015-E   Start and End Taper Percentage: 1.0% and 5.0%
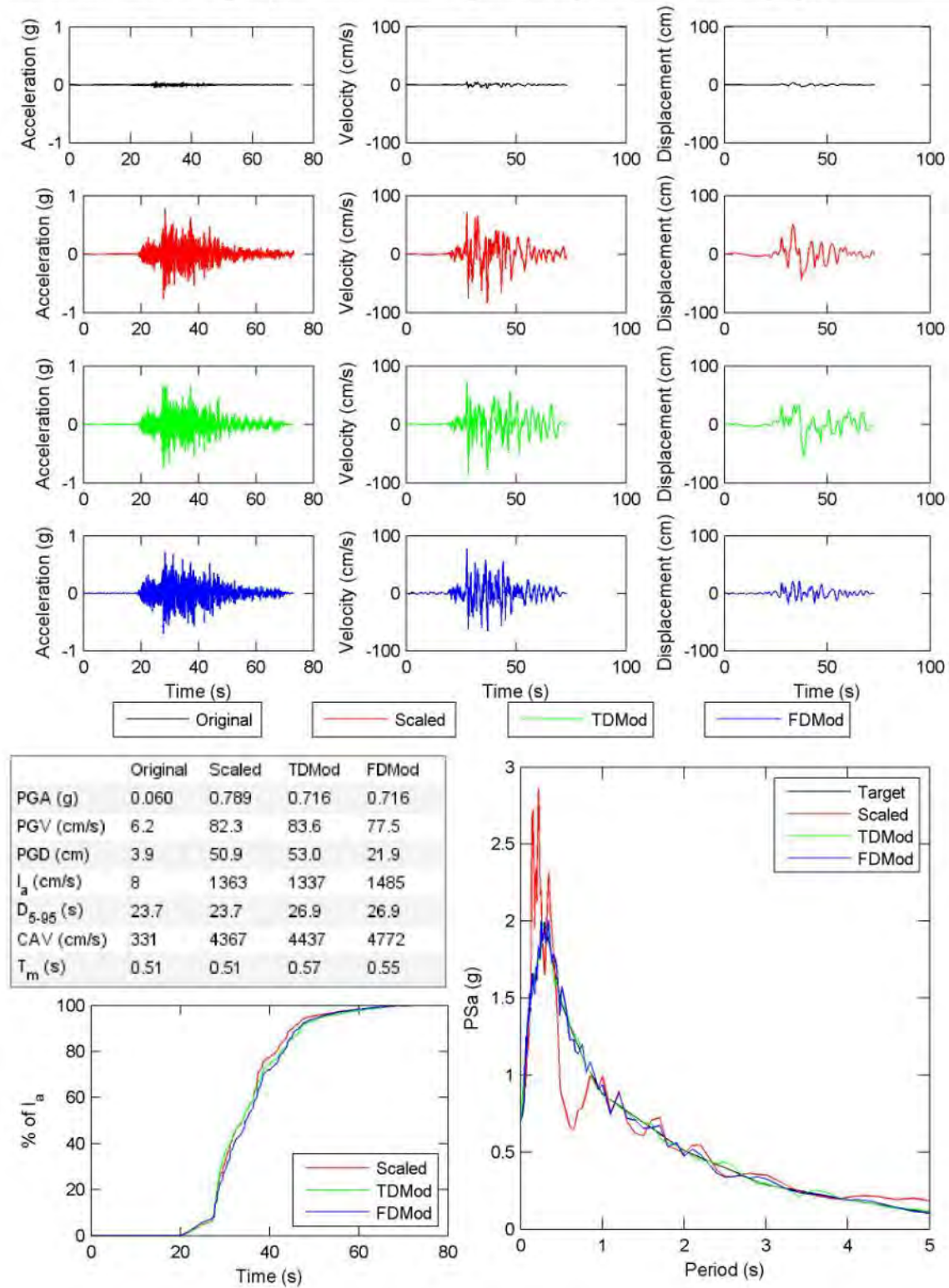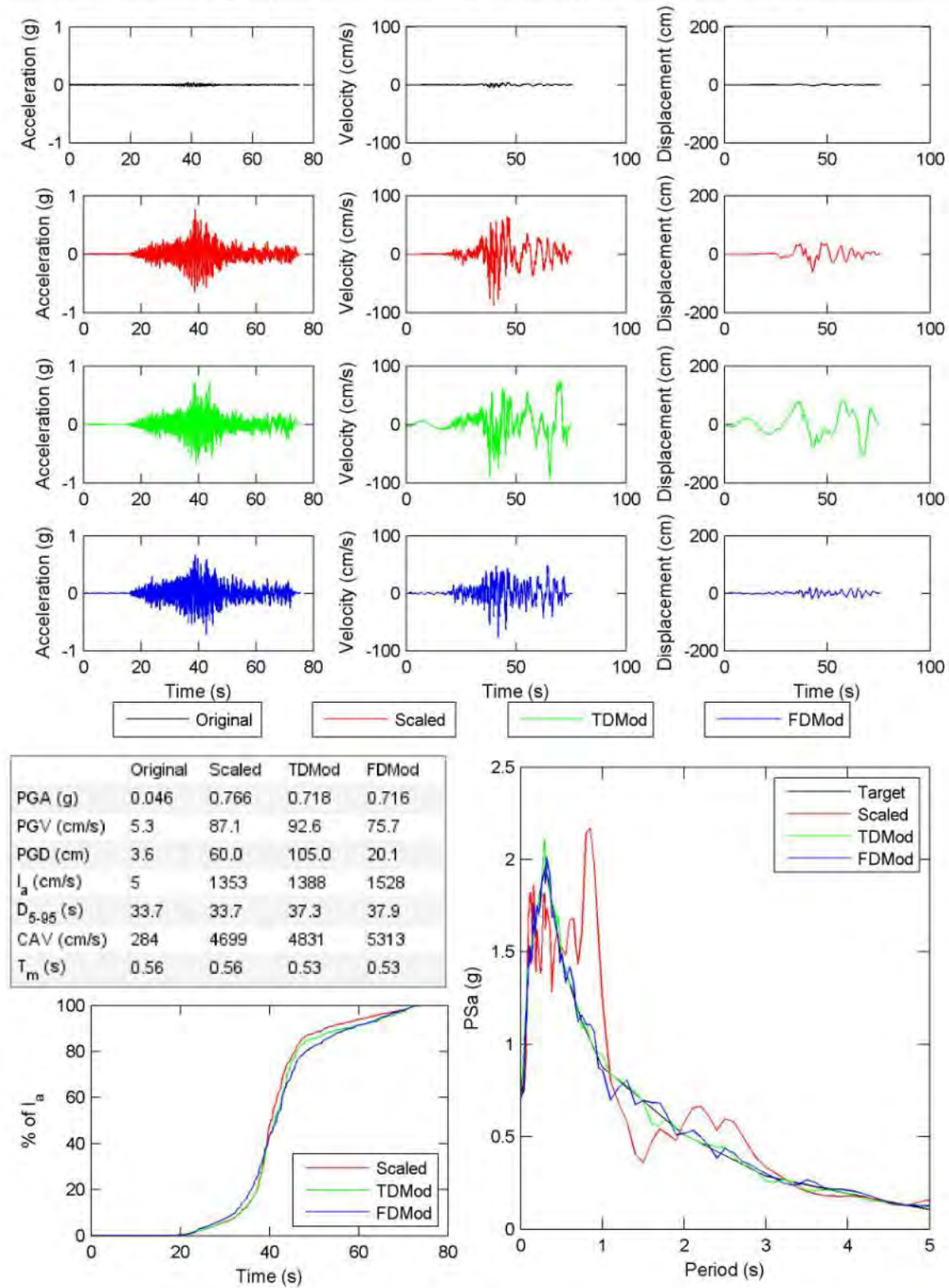Scale Factor: 4.73 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.562	0.716	0.716
PGV (cm/s)	49.8	235.5	168.6	64.4
PGD (cm)	49.8	235.6	204.9	23.0
I_a (cm/s)	43	953	1039	1281
D_{5-95} (s)	26.5	26.5	23.6	25.6
CAV (cm/s)	849	4017	3959	4672
T_m (s)	0.96	0.96	0.67	0.61

Figure E.5. continued.

891

	Original	Scaled	TDMod	FDMod
PGA (g)	0.114	0.612	0.716	0.716
PGV (cm/s)	29.5	157.8	98.7	79.4
PGD (cm)	24.2	129.2	118.4	18.2
I_a (cm/s)	35	1015	1189	1357
D_{5-95} (s)	23.3	23.3	32.9	24.5
CAV (cm/s)	749	4007	4567	4629
T_m (s)	0.96	0.96	0.70	0.56
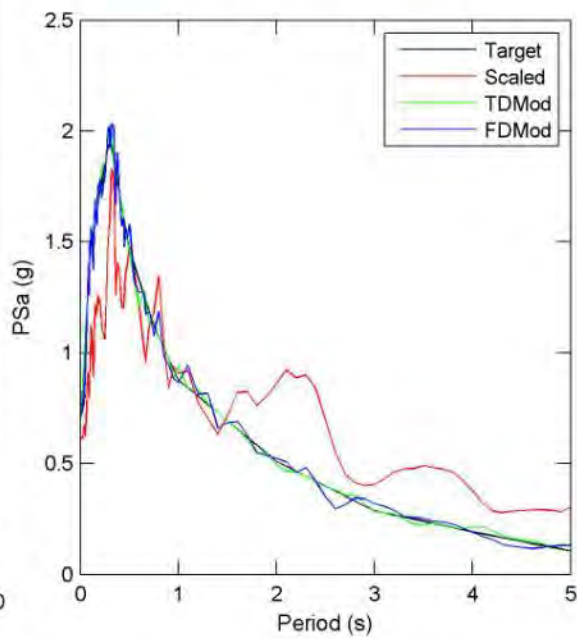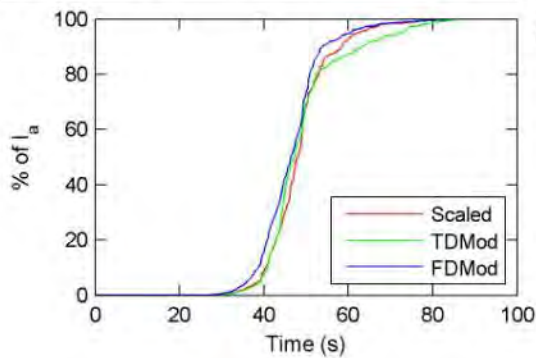
Figure E.5. continued.

892

File Name: 1481 TCU038-E   Start and End Taper Percentage: 1.0% and 5.0%
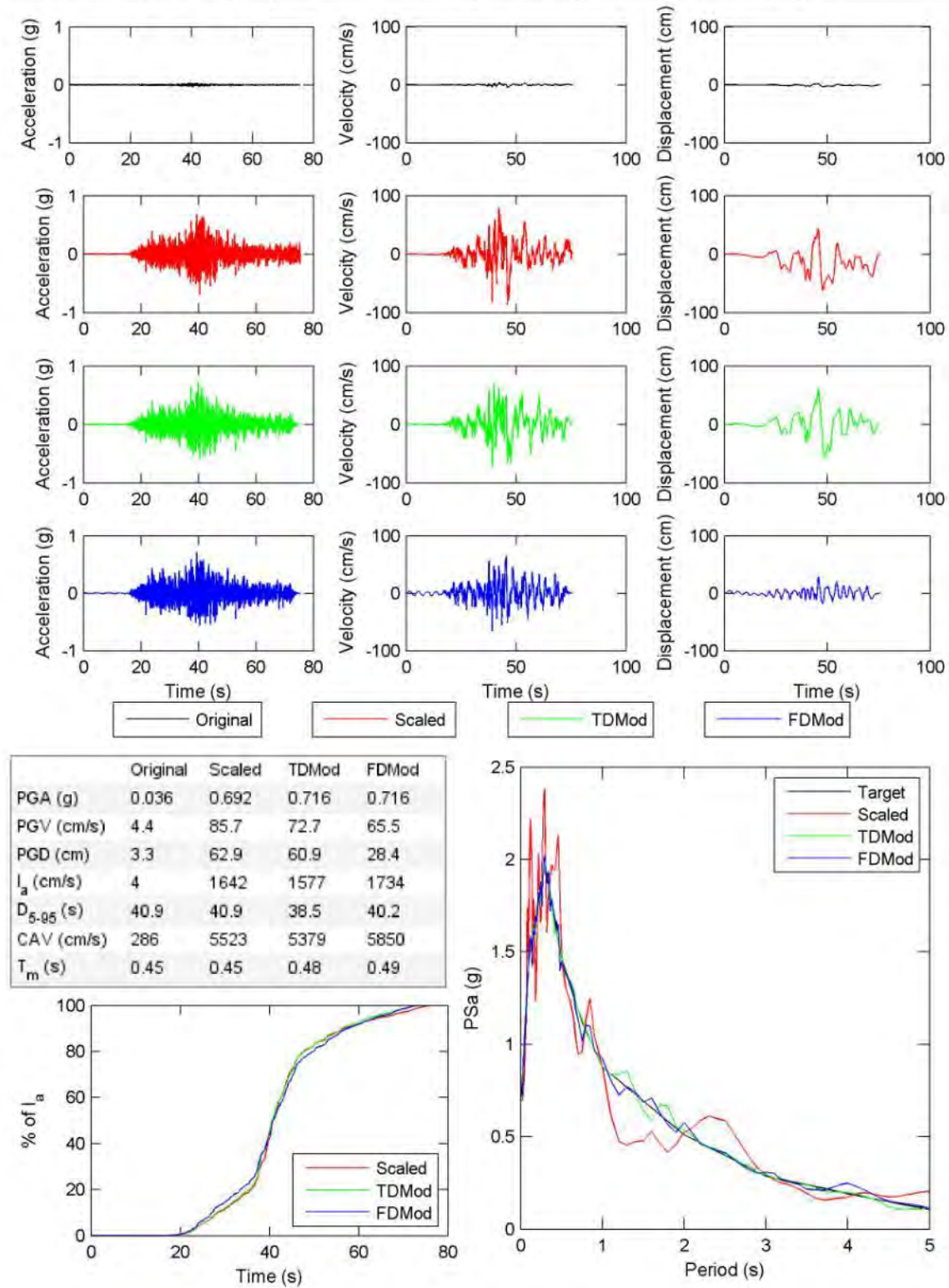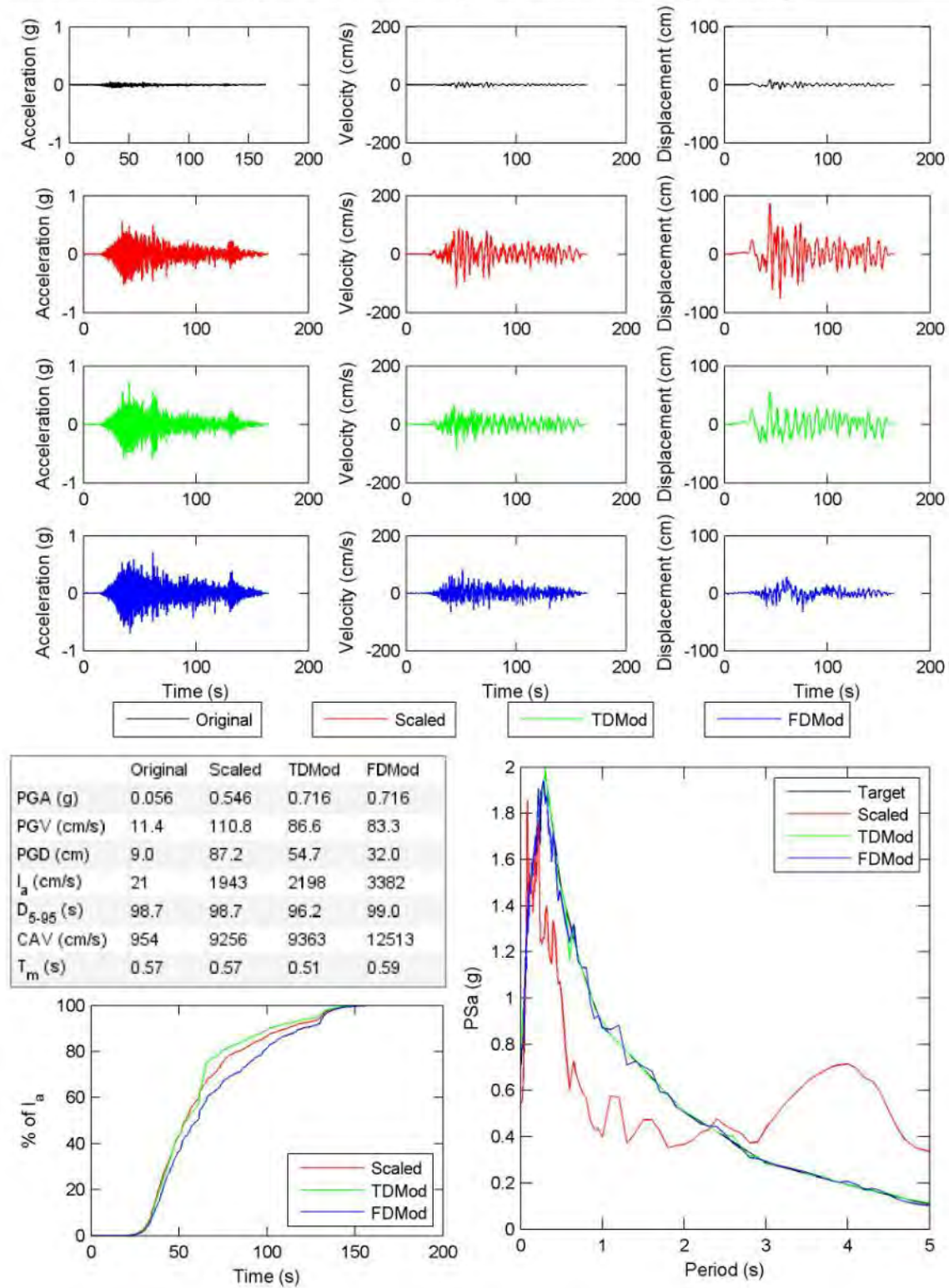Scale Factor: 3.88 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 2

	Original	Scaled	TDMod	FDMod
PGA (g)	0.141	0.547	0.716	0.716
PGV (cm/s)	48.9	189.8	120.8	69.8
PGD (cm)	64.2	249.1	163.3	22.3
I_a (cm/s)	76	1141	1170	1545
D_{5-95} (s)	28.2	28.2	26.7	29.7
CAV (cm/s)	1121	4350	4324	5128
T_m (s)	0.93	0.93	0.71	0.60

Figure E.5. continued.

893

File Name: 1481 TCU038-N   Start and End Taper Percentage: 1.0% and 5.0%
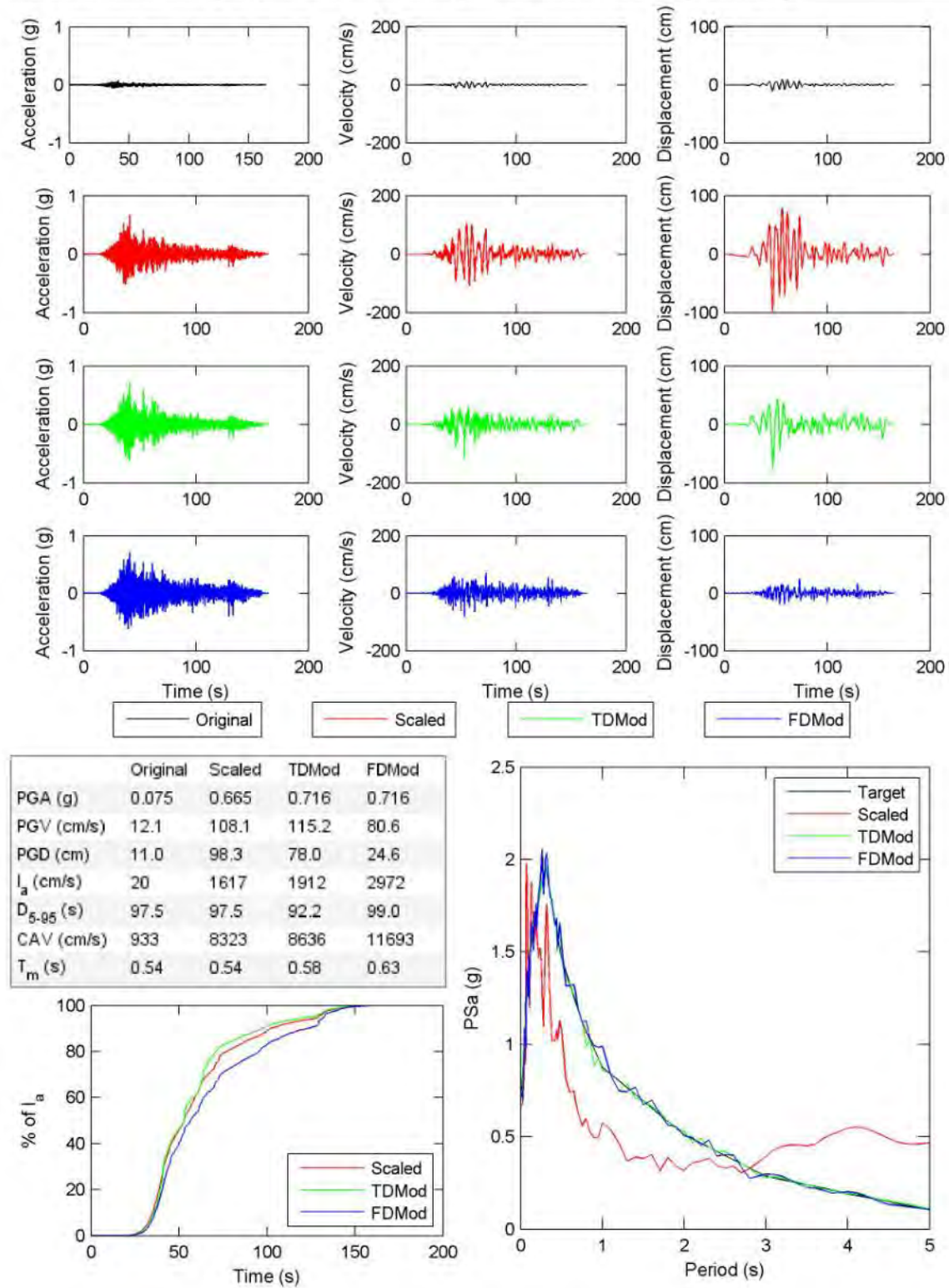Scale Factor: 3.73 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 3
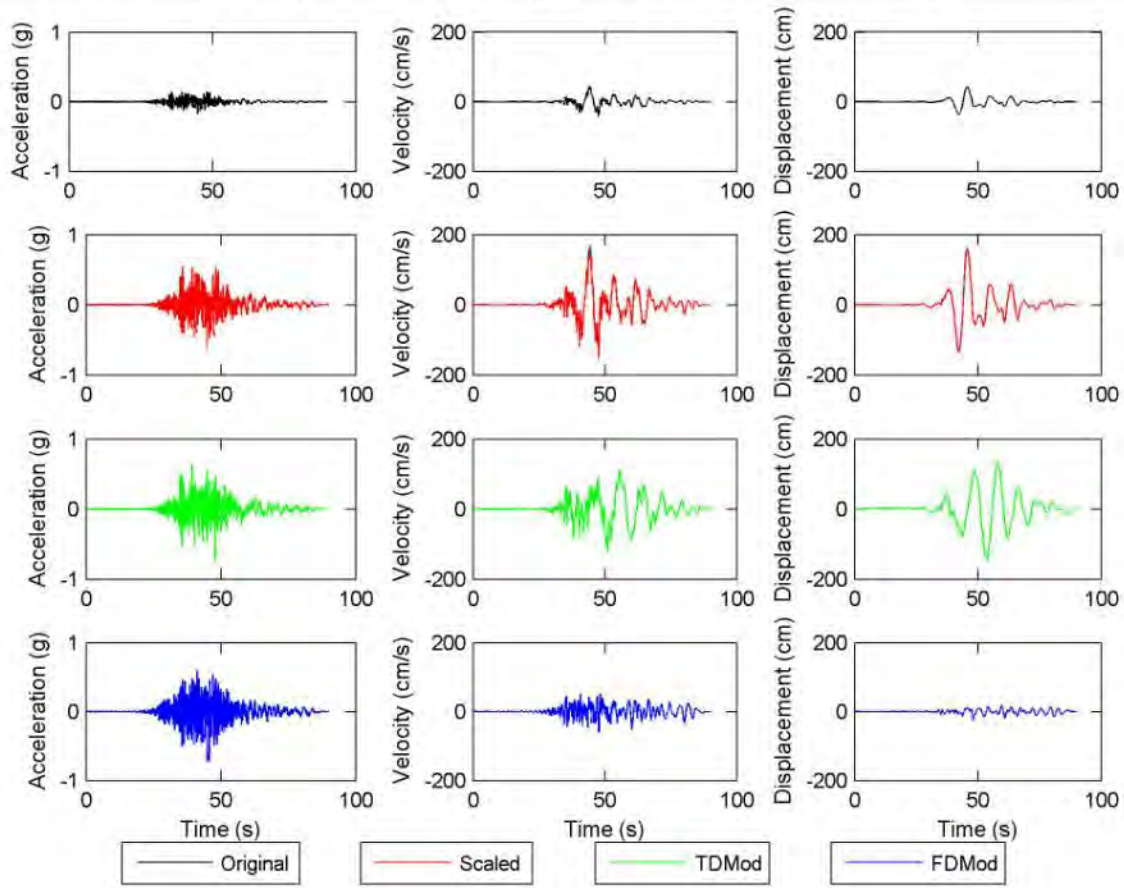
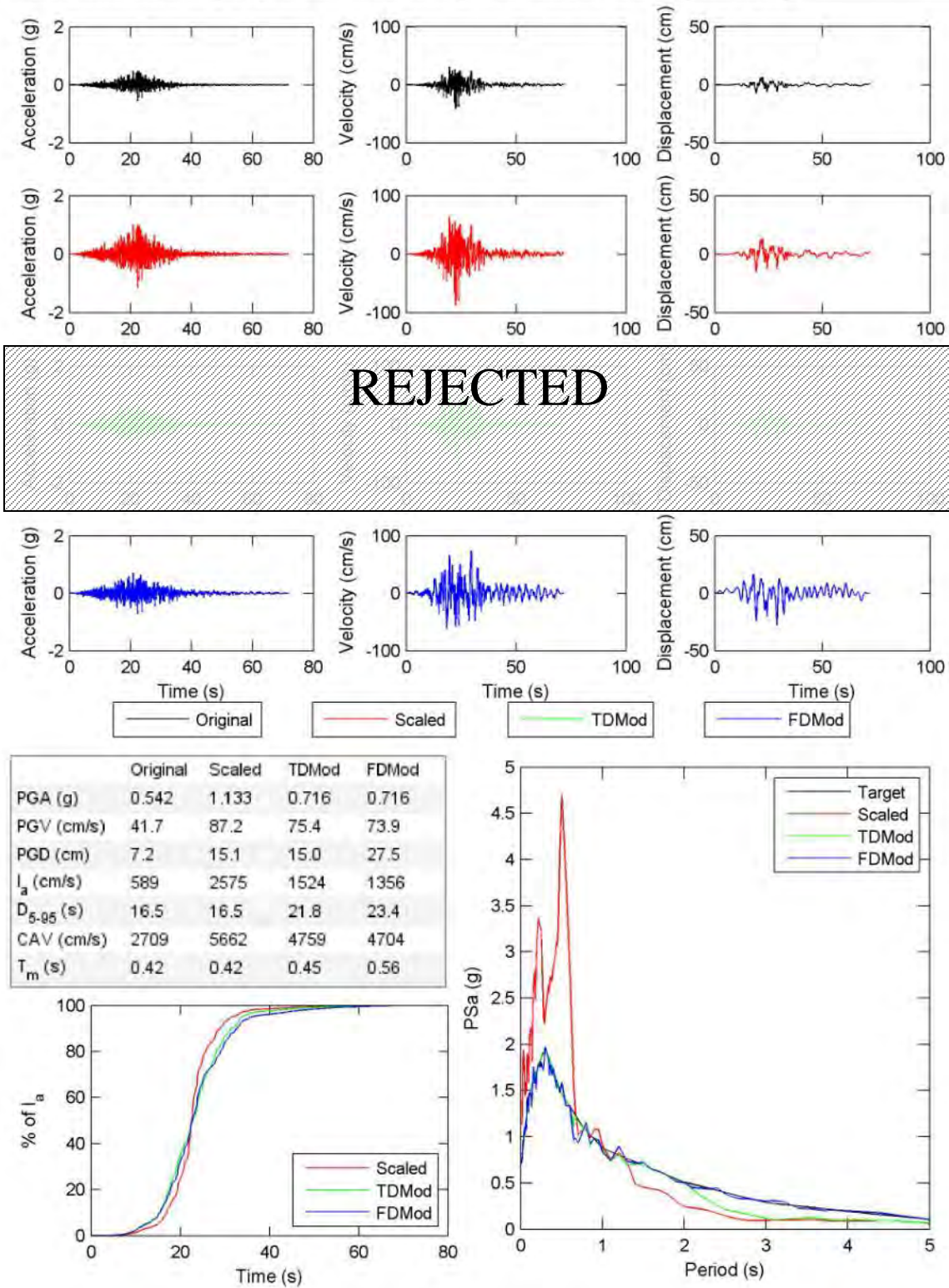|	Original	Scaled	TDMod	FDMod
PGA (g)	0.168	0.627	0.716	0.716
PGV (cm/s)	44.9	167.6	123.7	59.0
PGD (cm)	43.6	162.7	142.9	23.7
I_a (cm/s)	103	1439	1253	1508
D_{5-95} (s)	25.7	25.7	27.7	28.6
CAV (cm/s)	1274	4754	4587	5142
T_m (s)	0.69	0.69	0.71	0.57

Figure E.5. continued.

894

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.538	0.716	0.716
PGV (cm/s)	42.5	171.0	119.7	60.3
PGD (cm)	50.8	204.2	163.8	24.6
I_a (cm/s)	89	1433	1467	1749
D_{5-95} (s)	26.0	26.0	25.9	27.9
CAV (cm/s)	1234	4961	4878	5512
T_m (s)	0.84	0.84	0.64	0.57
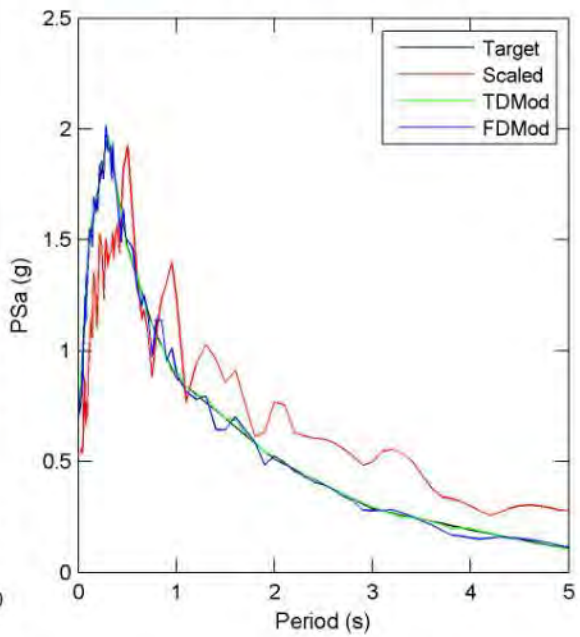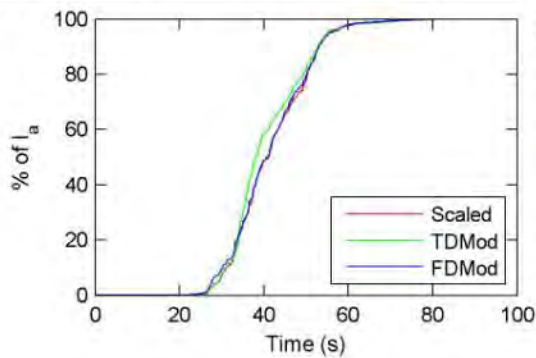
Figure E.5. continued.

895

File Name: 1496 TCU056-N   Start and End Taper Percentage: 1.0% and 5.0%
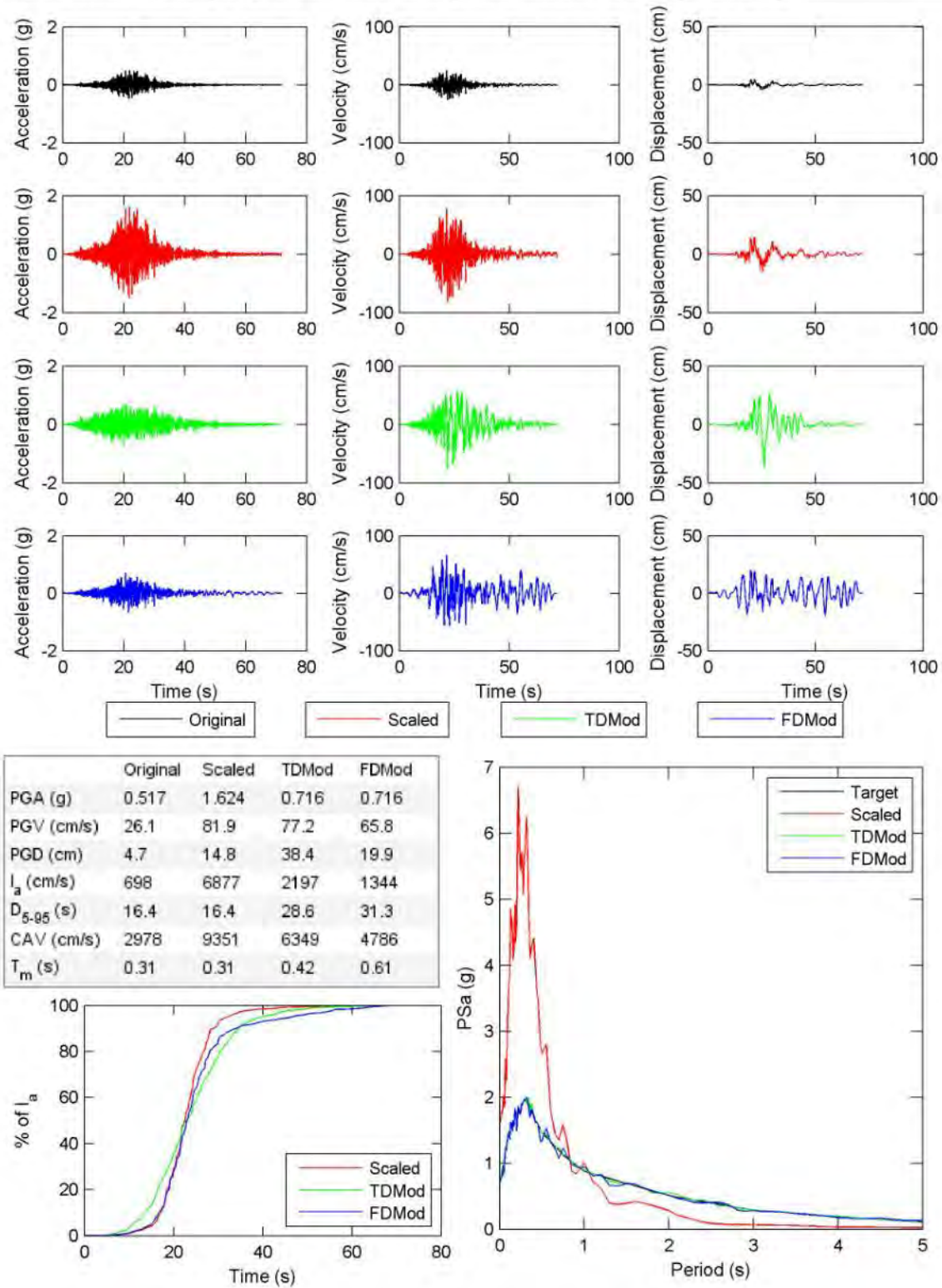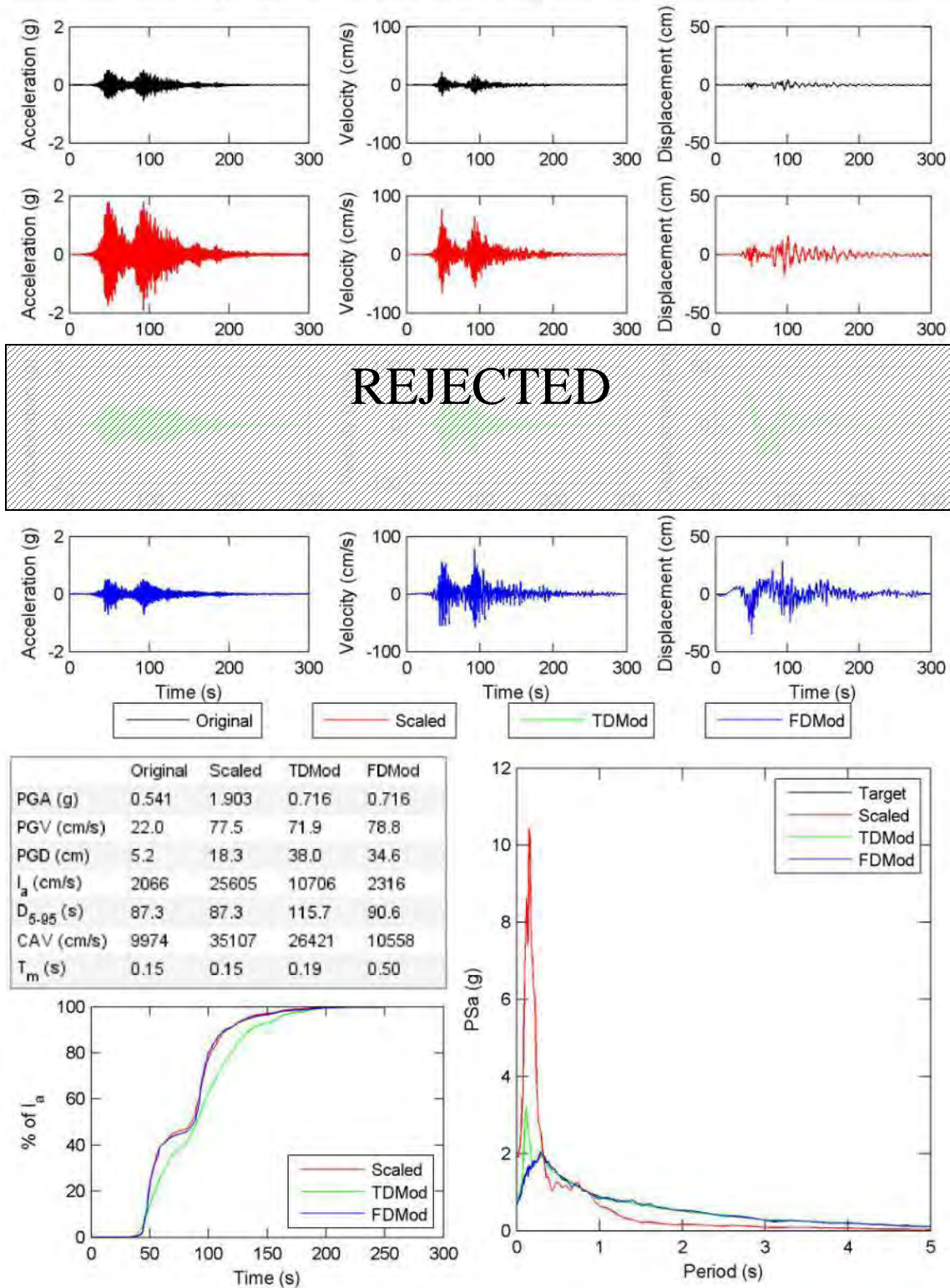Scale Factor: 4.02 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.540	0.716	0.716
PGV (cm/s)	42.9	172.5	124.5	61.8
PGD (cm)	54.6	219.4	173.6	19.6
I_a (cm/s)	83	1343	1333	1775
D_{5-95} (s)	31.8	31.8	30.9	28.5
CAV (cm/s)	1245	5005	4873	5529
T_m (s)	0.87	0.87	0.66	0.53

Figure E.5. continued.

896

File Name: 1506 TCU070-E   Start and End Taper Percentage: 1.0% and 5.0%
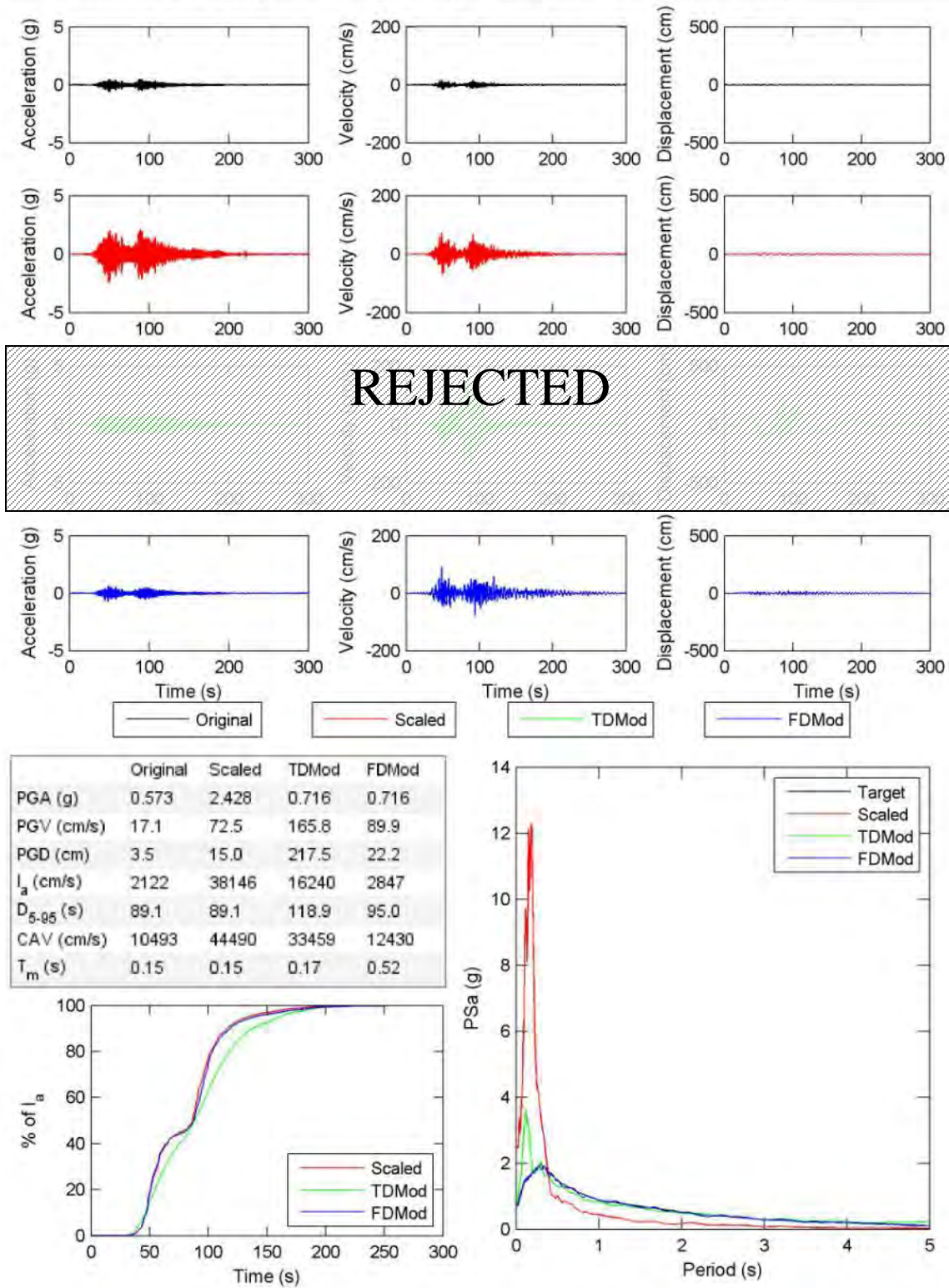Scale Factor: 2.78 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.255	0.710	0.716	0.716
PGV (cm/s)	52.2	145.0	93.2	85.3
PGD (cm)	48.1	133.8	122.0	28.1
I_a (cm/s)	230	1775	1379	1929
D_{5-95} (s)	26.8	26.8	32.2	32.9
CAV (cm/s)	1975	5492	5115	6100
T_m (s)	0.76	0.76	0.70	0.54

Figure E.5. continued.

897

File Name: 1506 TCU070-N   Start and End Taper Percentage: 1.0% and 5.0%
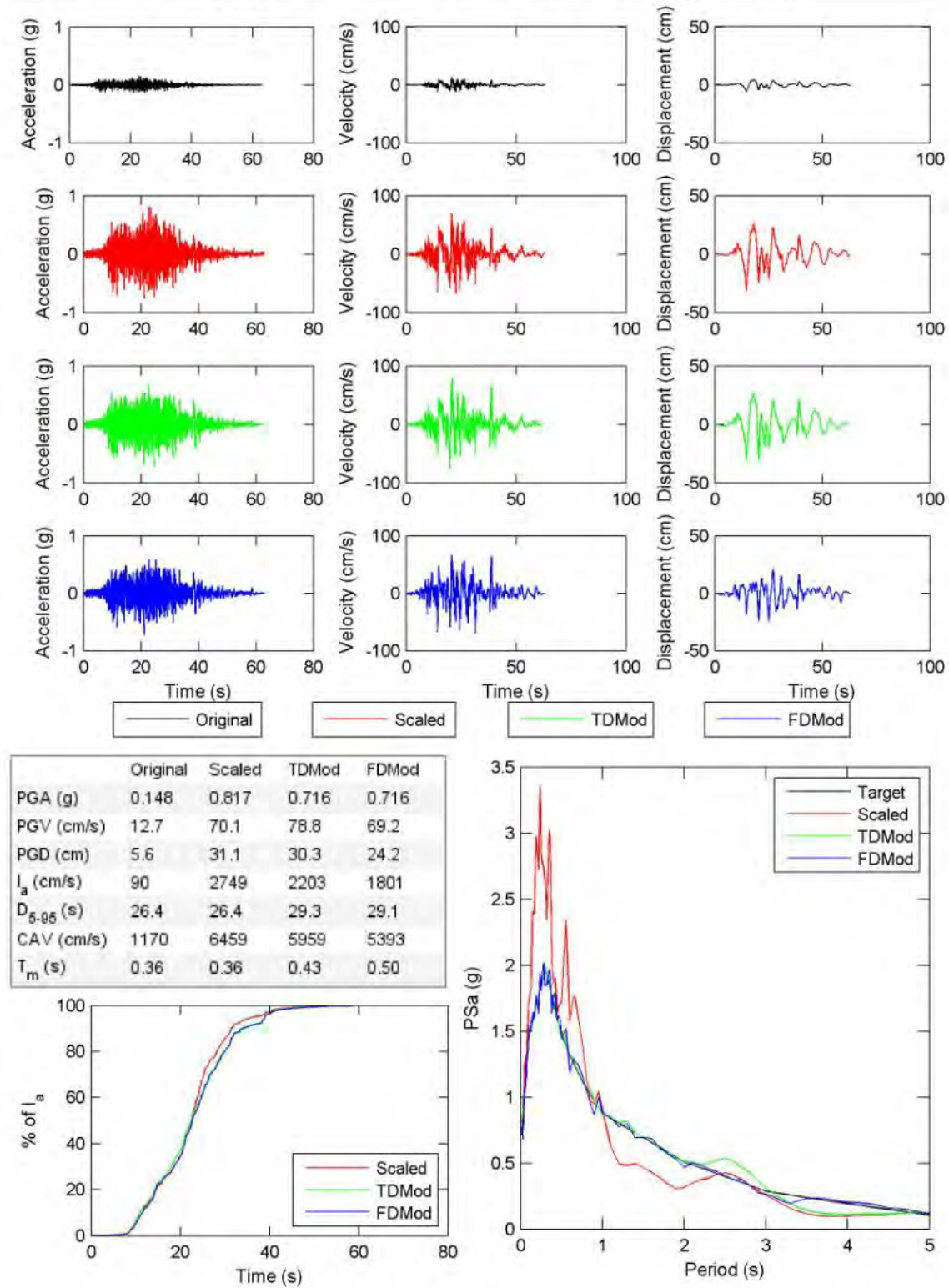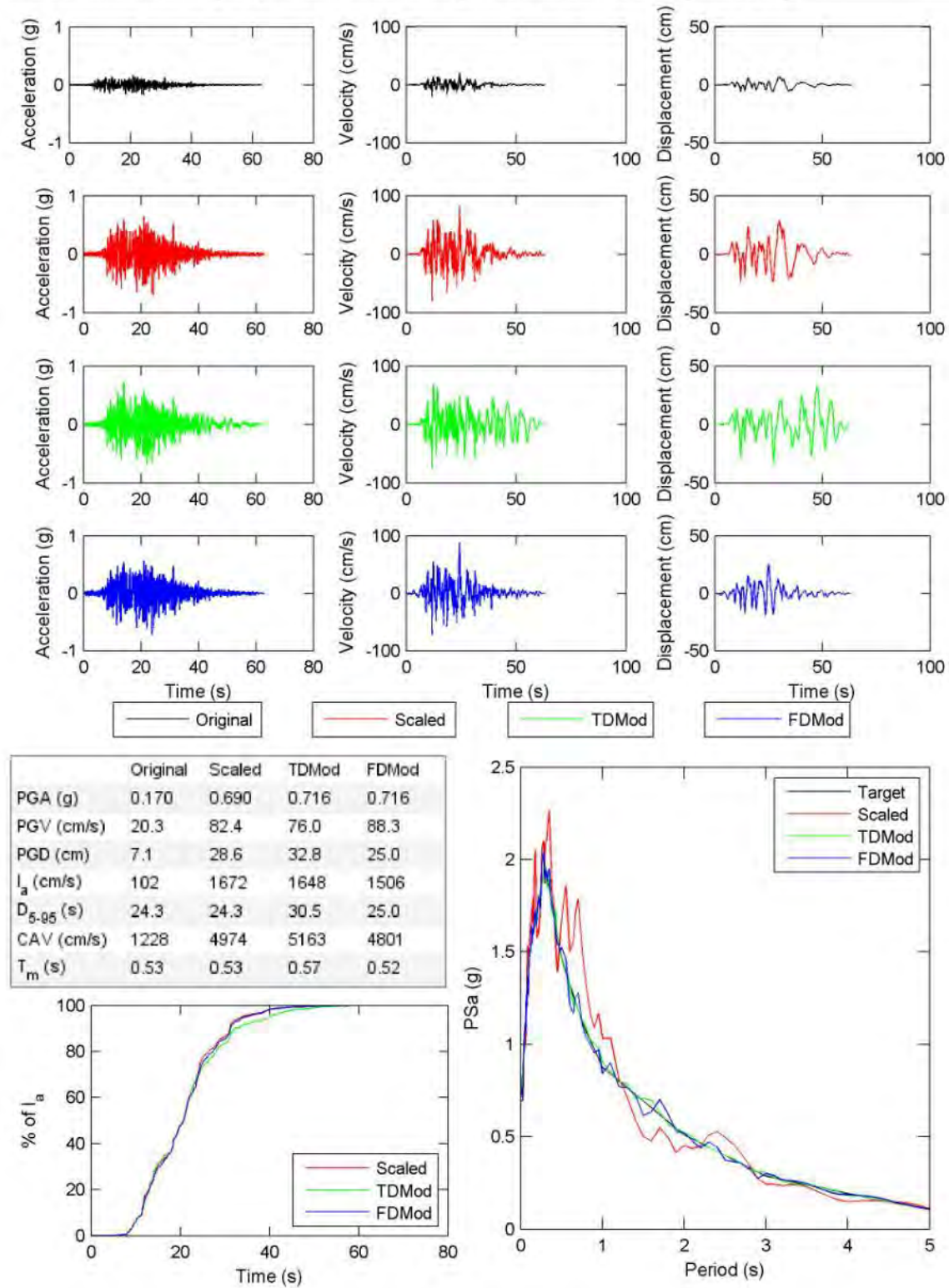Scale Factor: 3.09 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4
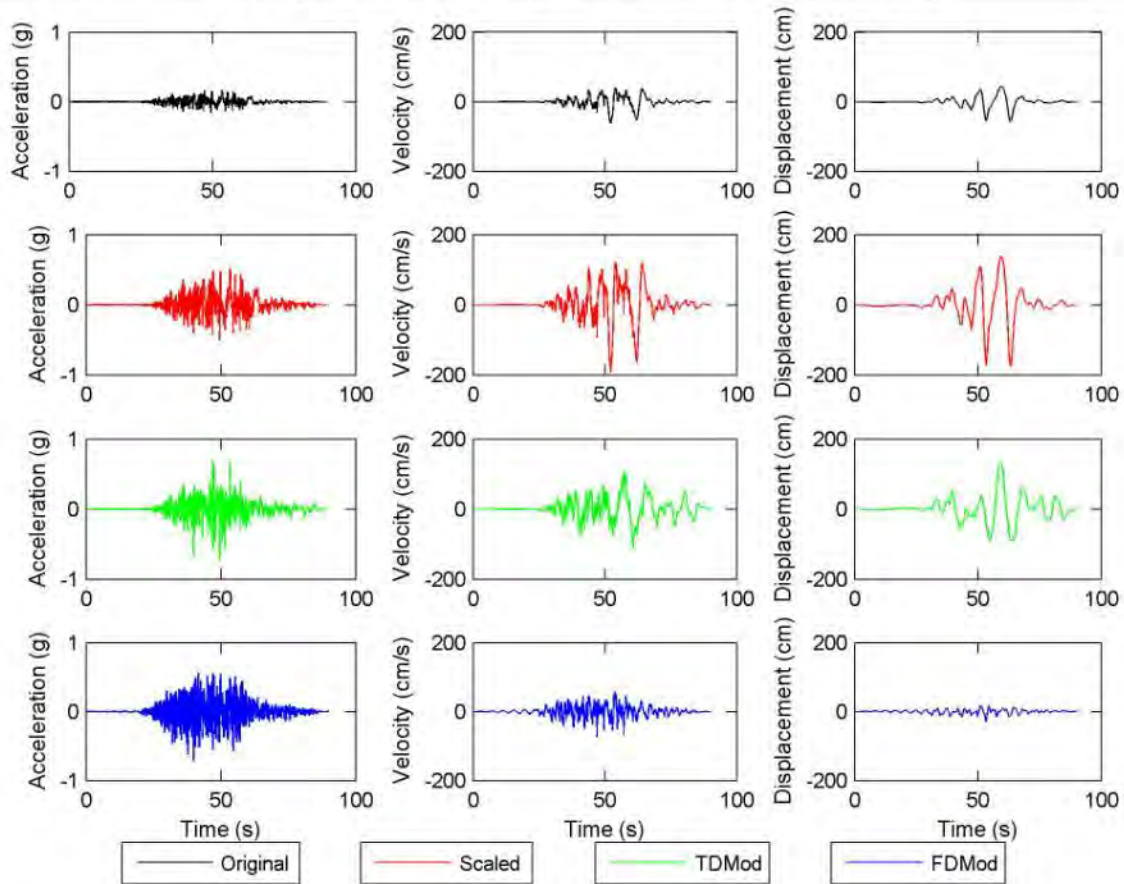
	Original	Scaled	TDMod	FDMod
PGA (g)	0.169	0.521	0.716	0.716
PGV (cm/s)	62.3	192.5	111.9	72.3
PGD (cm)	56.7	175.2	132.2	29.3
I_a (cm/s)	171	1629	1410	1840
D_{5-95} (s)	28.9	28.9	31.1	30.3
CAV (cm/s)	1774	5482	5075	5964
T_m (s)	1.02	1.02	0.71	0.52

Figure E.5. continued.

898
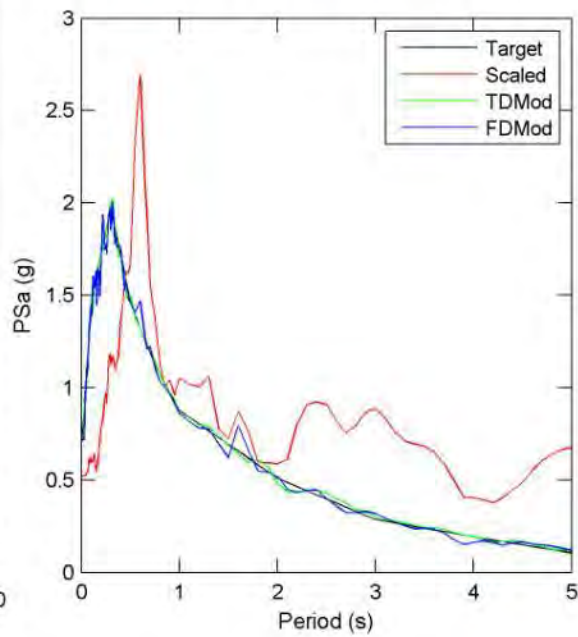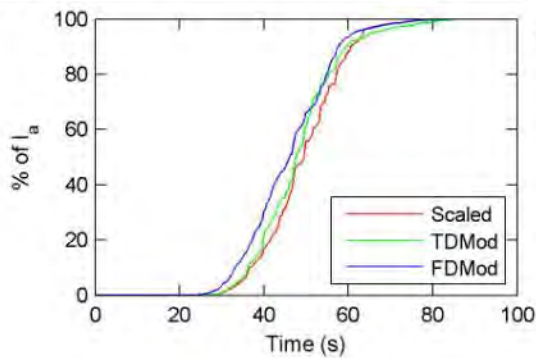
File Name: 1 ELS-LI000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.46 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

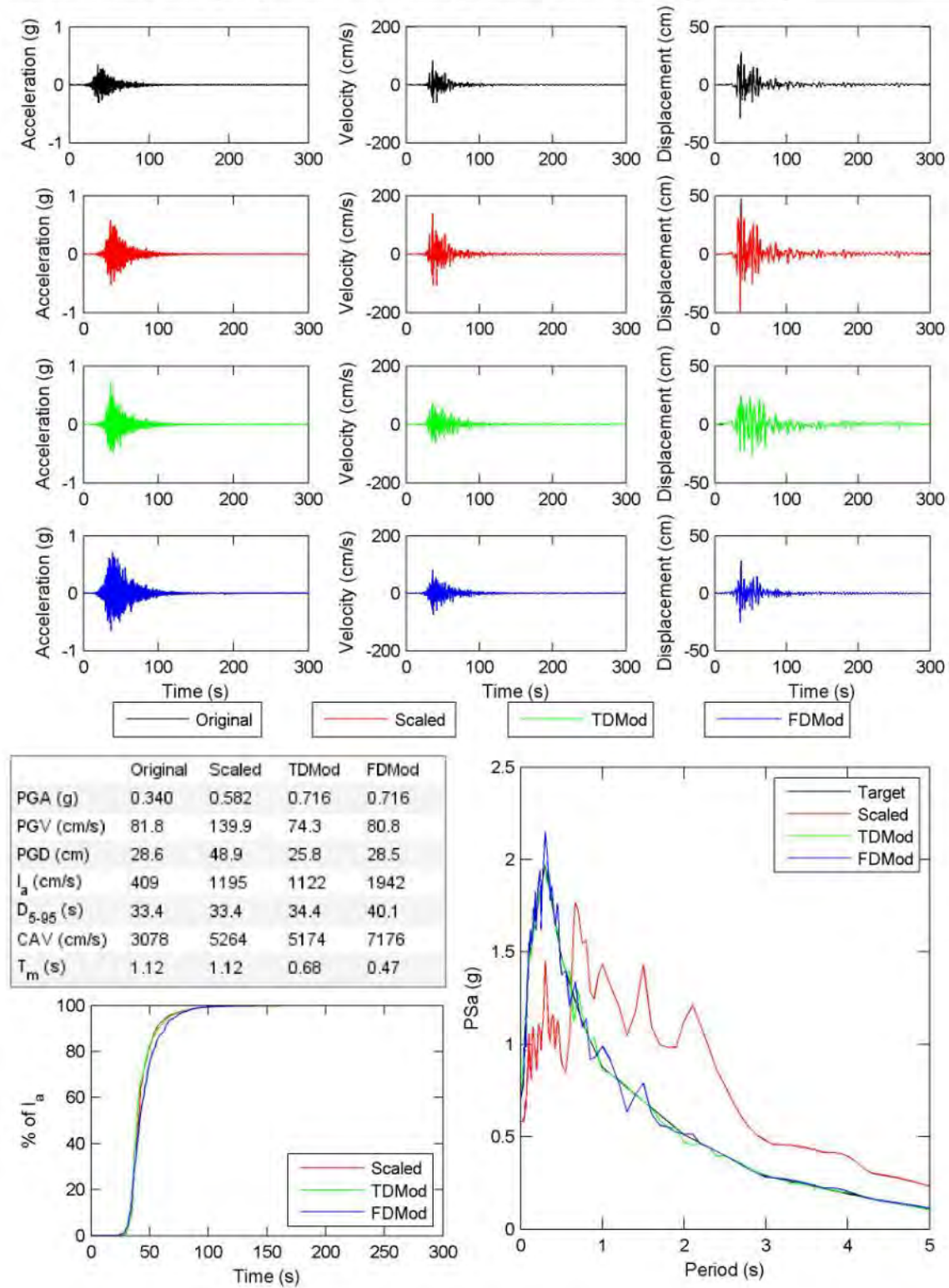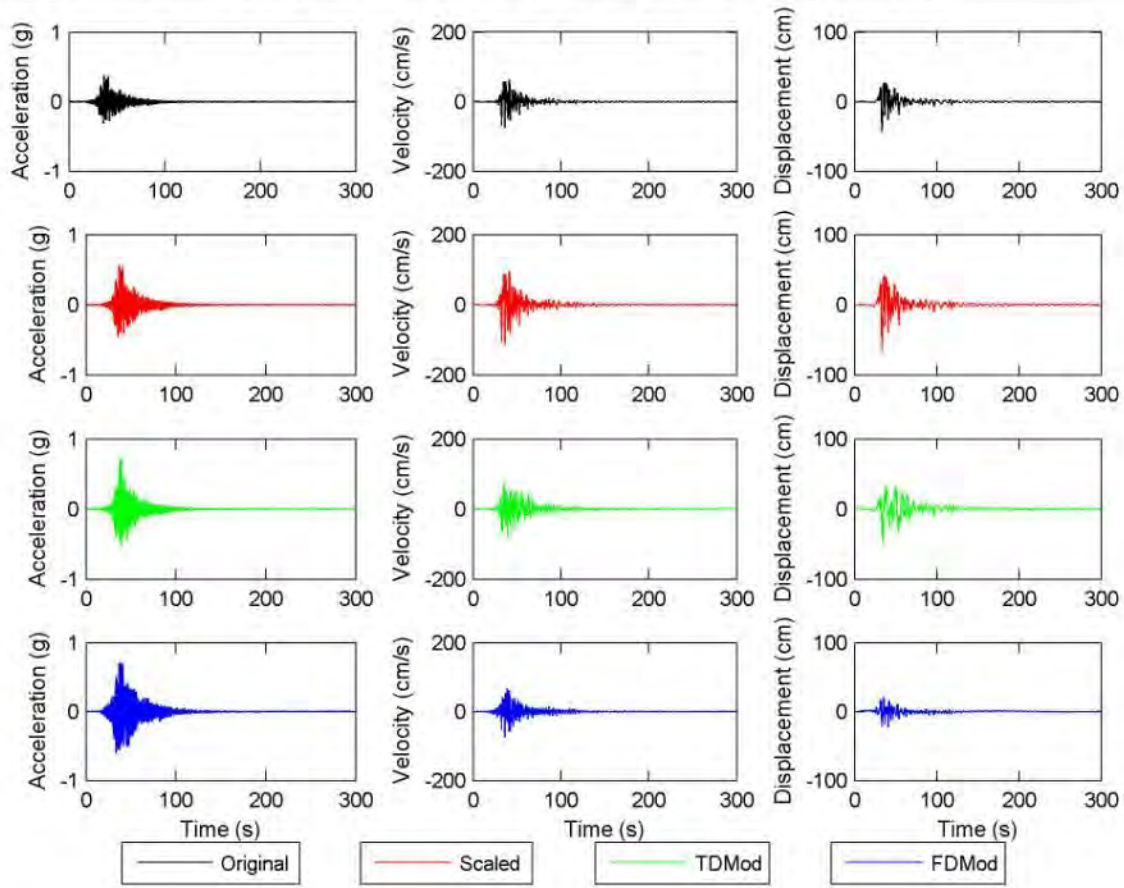|	Original	Scaled	TDMod	FDMod
PGA (g)	1.120	1.636	0.716	0.716
PGV (cm/s)	52.0	75.9	130.6	78.5
PGD (cm)	23.7	34.6	121.7	36.7
I_a (cm/s)	970	2068	1372	882
D_{5-95} (s)	12.8	12.8	19.6	18.8
CAV (cm/s)	2809	4101	4237	3276
T_m (s)	0.26	0.26	0.55	0.55

Figure E.5. continued.

899

	Original	Scaled	TDMod	FDMod
PGA (g)	0.594	1.324	0.716	0.716
PGV (cm/s)	32.1	71.5	103.7	101.3
PGD (cm)	8.9	19.9	29.5	31.8
I_a (cm/s)	447	2222	1128	752
D_{5-95} (s)	12.1	12.1	15.6	16.5
CAV (cm/s)	1946	4339	3608	2797
T_m (s)	0.25	0.25	0.44	0.55

Figure E.5. continued.

900

	Original	Scaled	TDMod	FDMod
PGA (g)	0.692	1.604	0.716	0.716
PGV (cm/s)	32.8	76.0	102.9	74.5
PGD (cm)	6.2	14.4	41.3	26.3
I_a (cm/s)	2222	11961	6696	2934
D_{5-95} (s)	81.5	81.5	96.2	91.4
CAV (cm/s)	10414	24160	20068	12385
T_m (s)	0.21	0.21	0.26	0.51

Figure E.5. continued.

901

File Name: 1 HON-IWT007-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.85 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 6
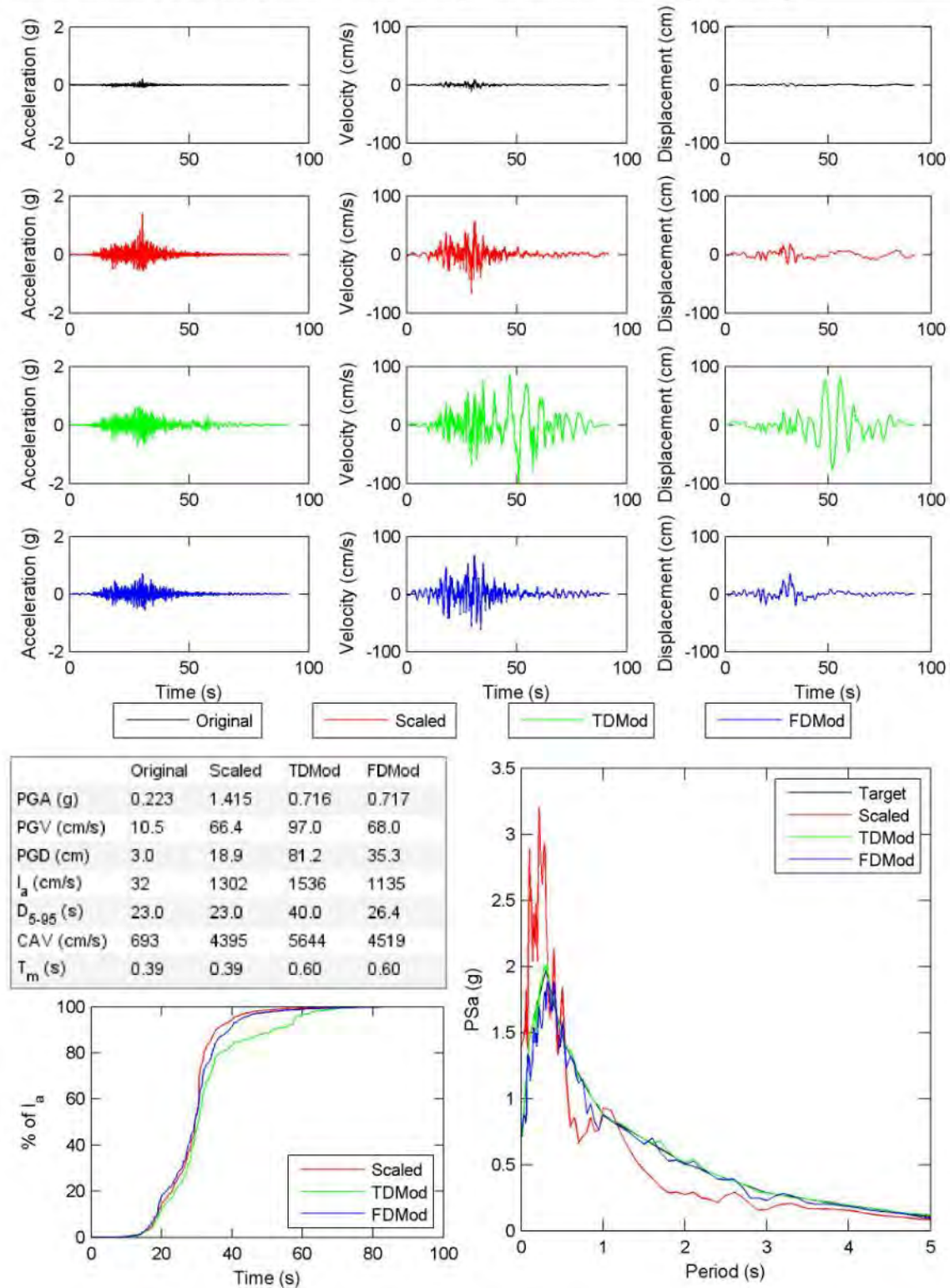

	Original	Scaled	TDMod	FDMod
PGA (g)	0.666	1.898	0.716	0.716
PGV (cm/s)	27.2	77.6	69.8	73.2
PGD (cm)	4.4	12.4	44.2	24.1
I_a (cm/s)	1807	14674	8133	2666
D_{5-95} (s)	84.3	84.3	103.1	87.6
CAV (cm/s)	9682	27593	22778	11797
T_m (s)	0.20	0.20	0.24	0.54

Figure E.5. continued.

902

File Name: 1 MIC-CALE090   Start and End Taper Percentage: 1.0% and 5.0%
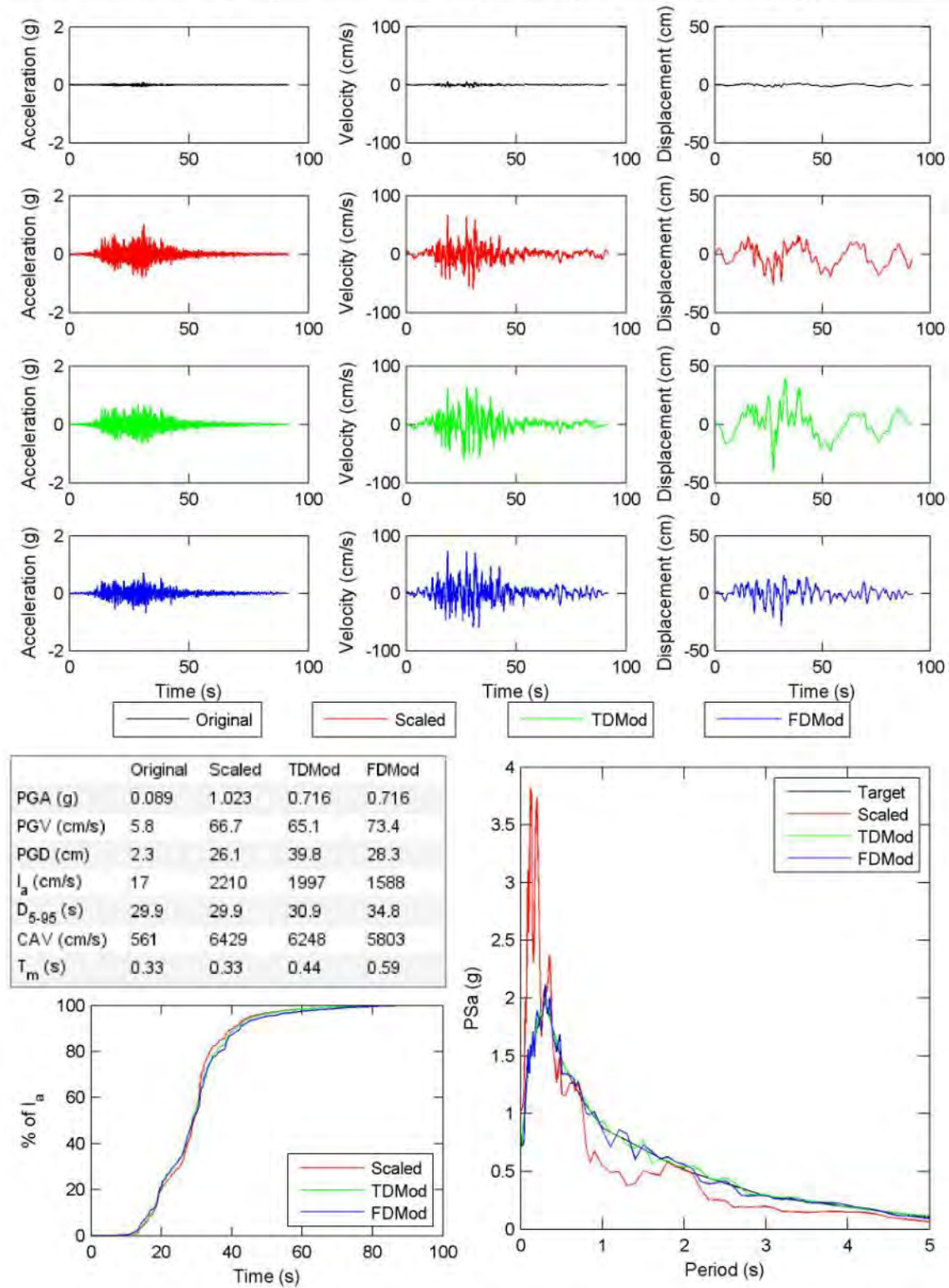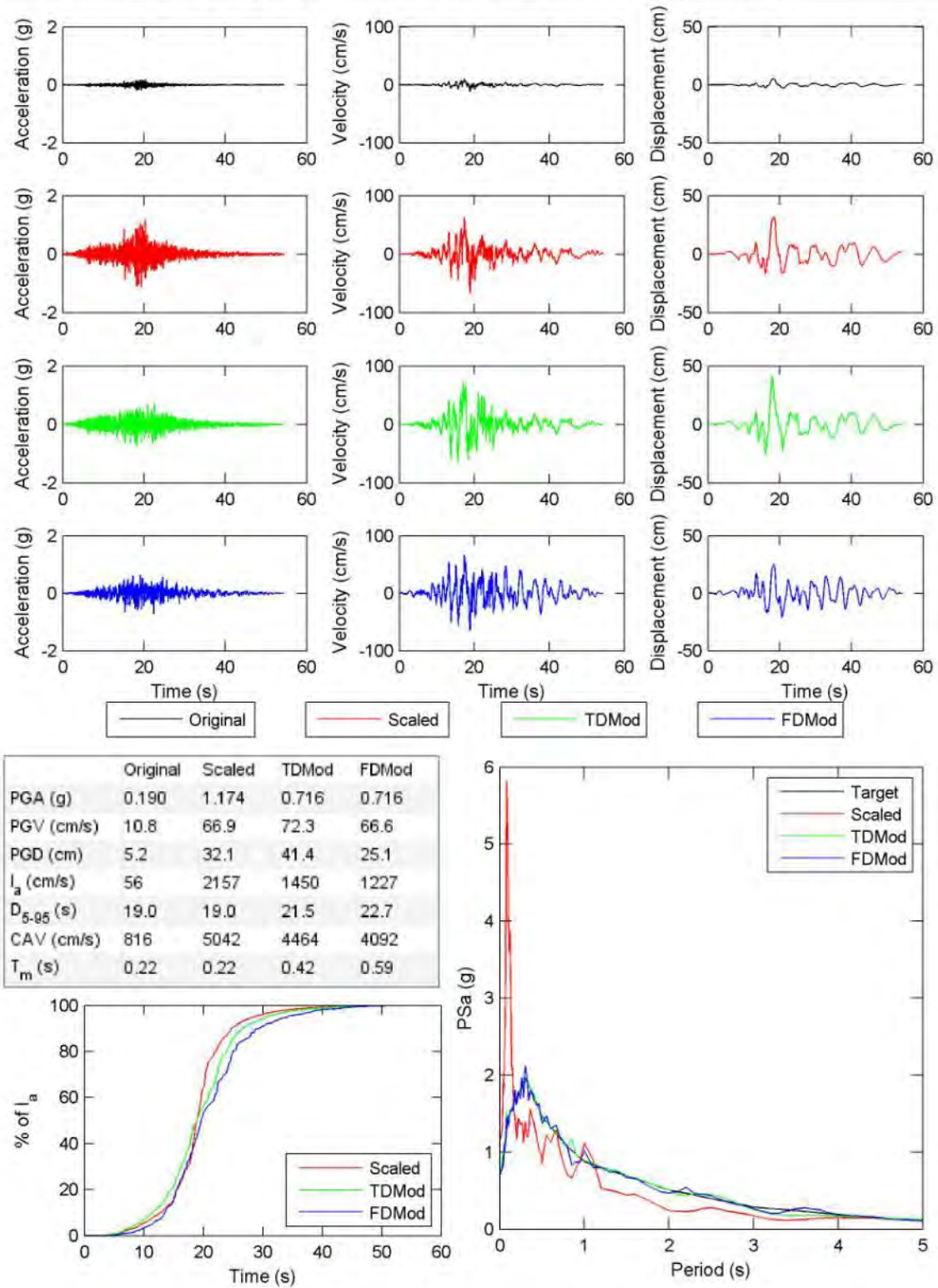Scale Factor: 6.46 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.855	0.716	0.716
PGV (cm/s)	14.8	95.6	89.7	70.8
PGD (cm)	8.7	56.2	56.7	26.2
I_a (cm/s)	47	1981	1926	1822
D_{5-95} (s)	27.7	27.7	27.5	31.8
CAV (cm/s)	858	5544	5413	5432
T_m (s)	0.44	0.44	0.47	0.53

Figure E.5. continued.

903

File Name: 1 MIC-CALE180   Start and End Taper Percentage: 1.0% and 5.0%
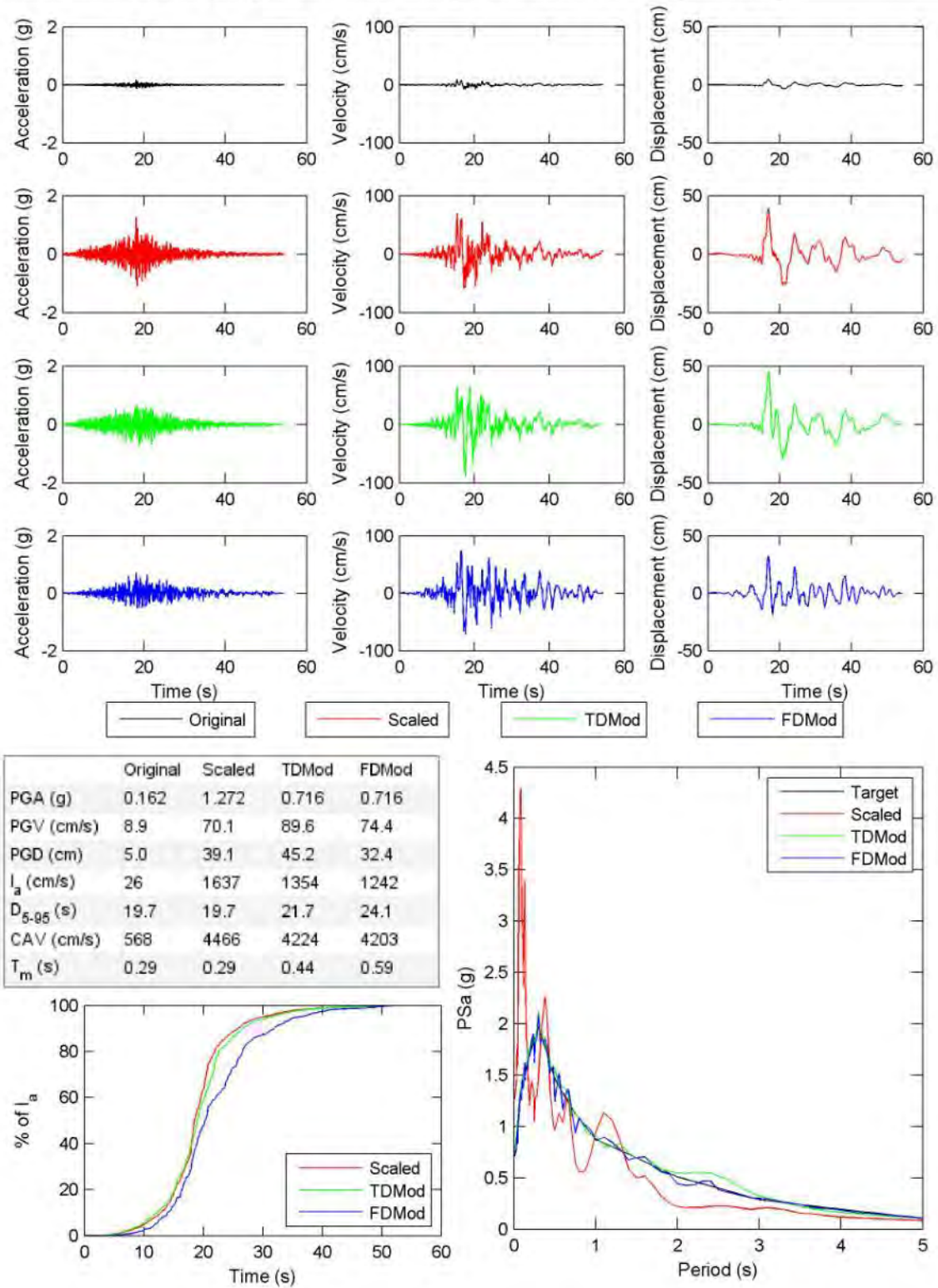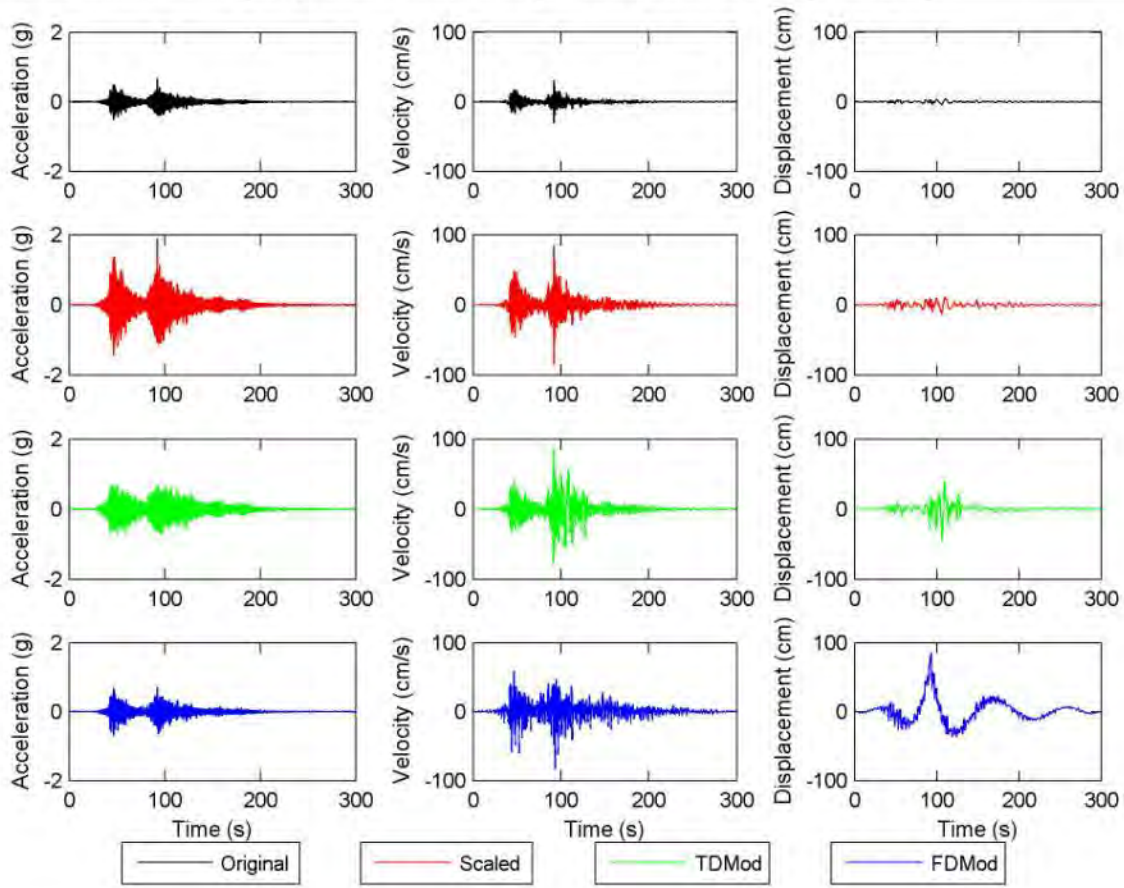Scale Factor: 4.38 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.154	0.673	0.716	0.716
PGV (cm/s)	18.5	81.0	73.7	70.3
PGD (cm)	8.4	36.7	69.7	25.3
I_a (cm/s)	66	1267	1392	1475
D_{5-95} (s)	24.3	24.3	25.4	25.4
CAV (cm/s)	961	4209	4482	4690
T_m (s)	0.59	0.59	0.58	0.49

Figure E.5. continued.

904

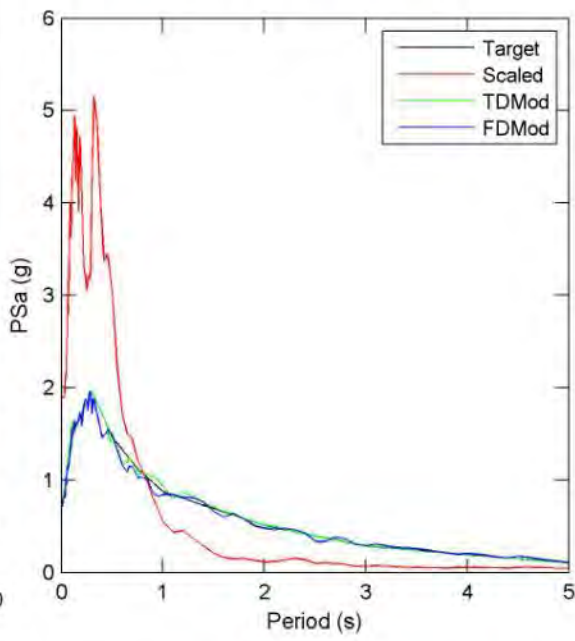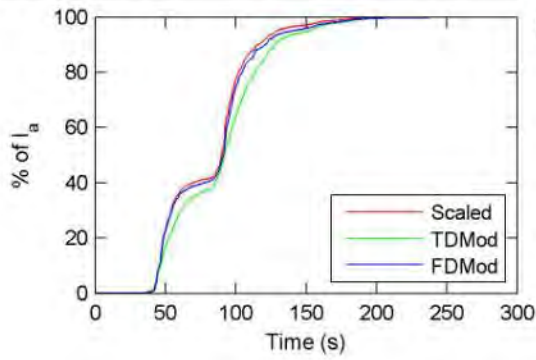|	Original	Scaled	TDMod	FDMod
PGA (g)	0.217	0.780	0.716	0.716
PGV (cm/s)	28.1	101.3	76.2	78.7
PGD (cm)	16.5	59.5	44.4	23.6
I_a (cm/s)	105	1354	1313	1806
D_{5-95} (s)	36.5	36.5	36.7	42.7
CAV (cm/s)	1609	5793	5625	7037
T_m (s)	1.02	1.02	0.67	0.53

Figure E.5. continued.

905

File Name: 1 TOK-HKD096-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.99 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.180	0.719	0.716	0.716
PGV (cm/s)	24.7	98.4	79.2	76.3
PGD (cm)	12.8	51.2	39.3	28.2
I_a (cm/s)	87	1390	1408	1691
D_{5-95} (s)	41.5	41.5	41.9	44.0
CAV (cm/s)	1515	6045	6086	6974
T_m (s)	0.77	0.77	0.62	0.59

Figure E.5. continued.

906

File Name: 2107 5595-090   Start and End Taper Percentage: 1.0% and 5.0%
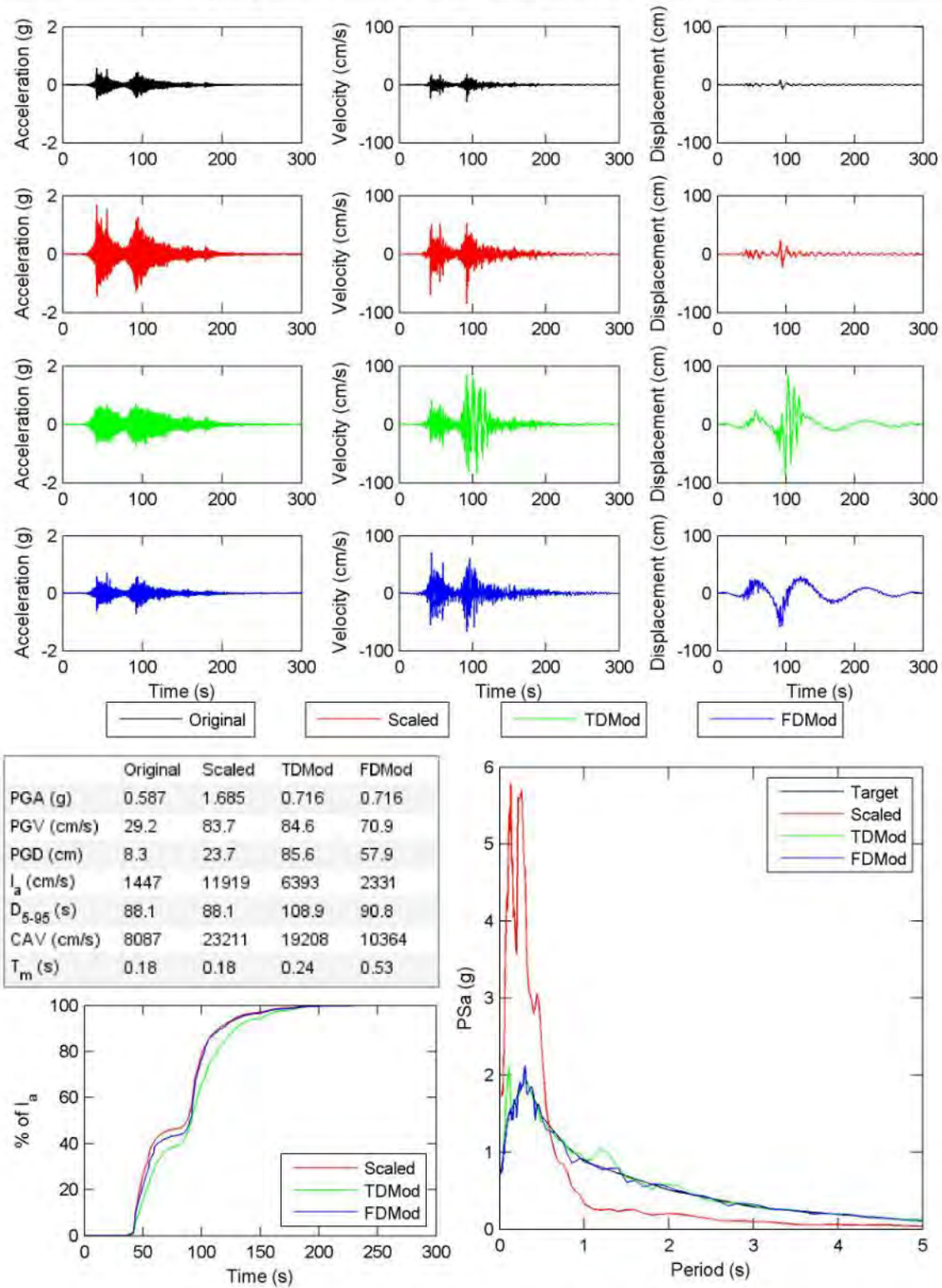Scale Factor: 10.27 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

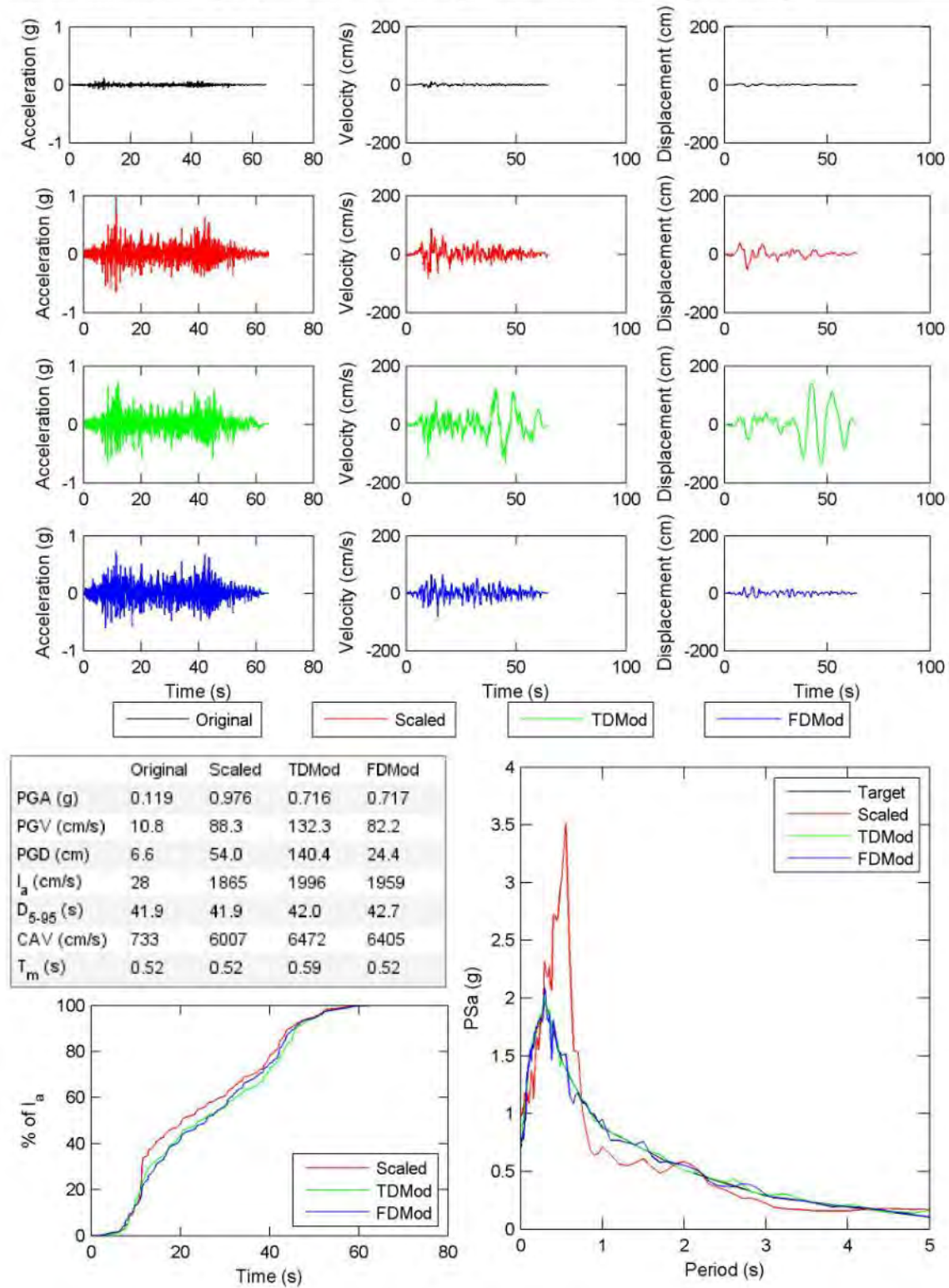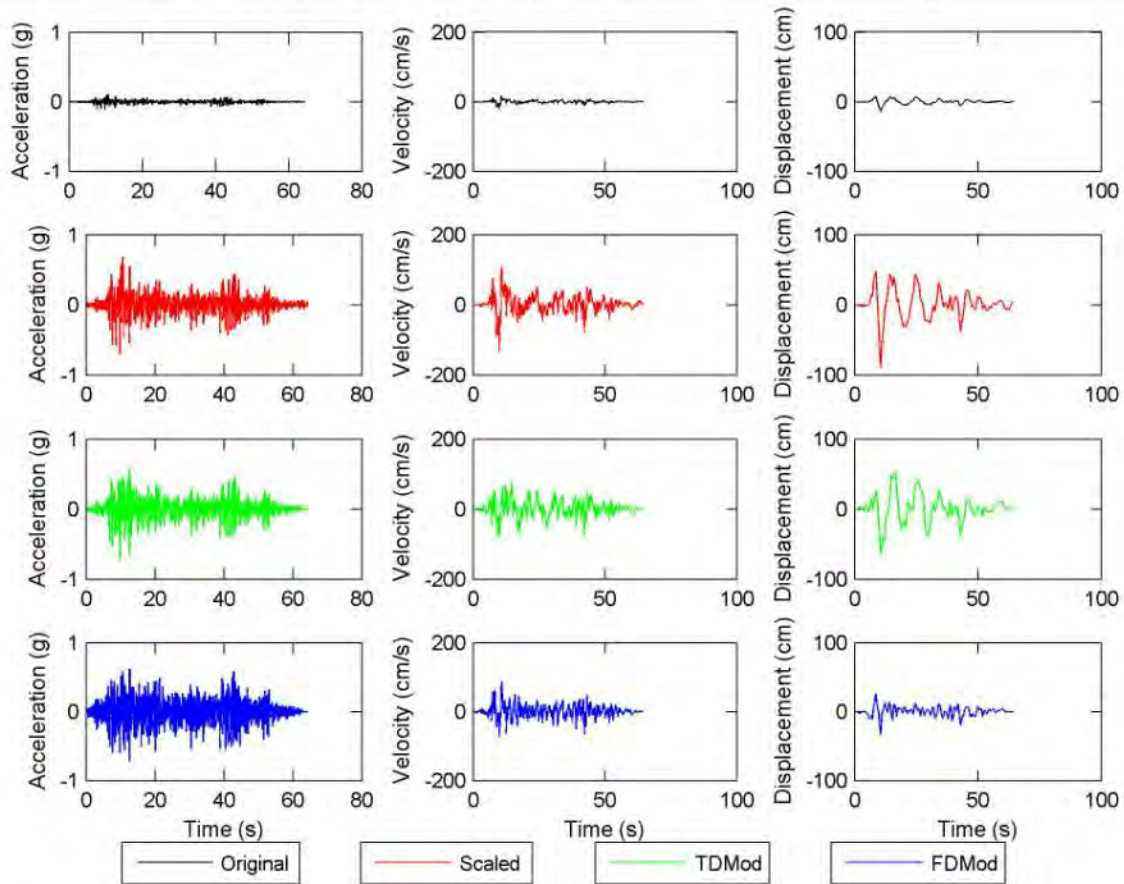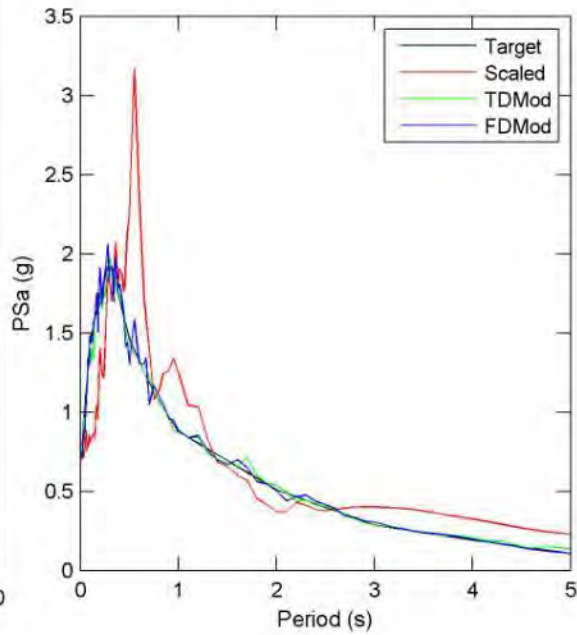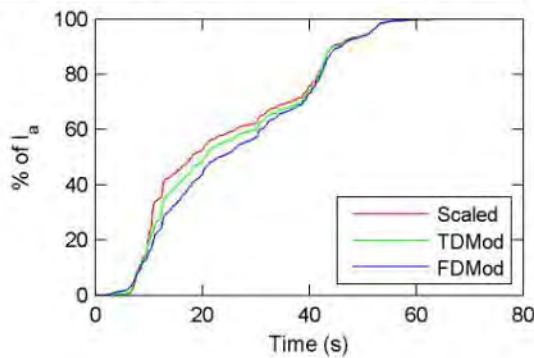|	Original	Scaled	TDMod	FDMod
PGA (g)	0.100	1.026	0.716	0.716
PGV (cm/s)	7.6	77.7	74.3	60.1
PGD (cm)	3.9	39.9	47.1	22.6
I_a (cm/s)	15	1617	1539	1355
D_{5-95} (s)	24.6	24.6	24.8	27.9
CAV (cm/s)	482	4955	4888	4869
T_m (s)	0.33	0.33	0.44	0.60

Figure E.5. continued.

907
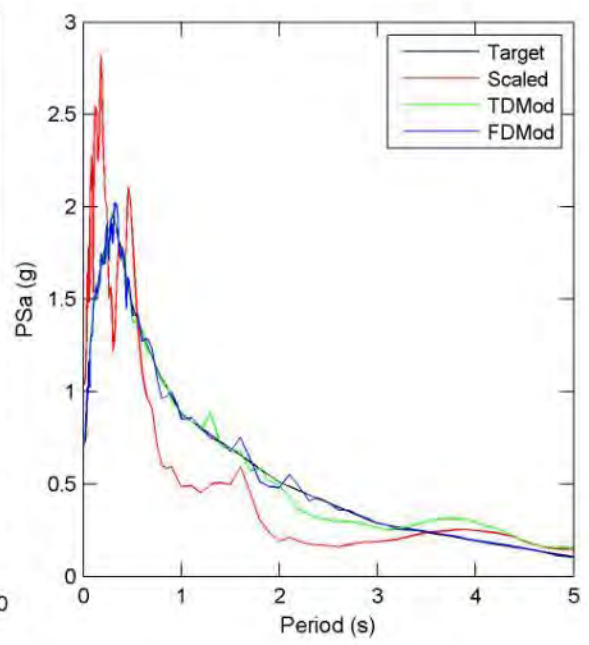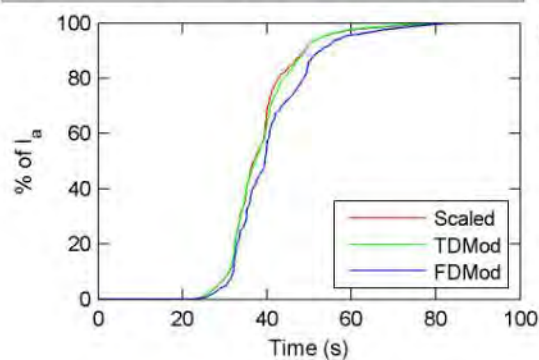
File Name: 2111 5596-090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 13.21 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.060	0.789	0.716	0.716
PGV (cm/s)	6.2	82.3	83.6	77.5
PGD (cm)	3.9	50.9	53.0	21.9
I_a (cm/s)	8	1363	1337	1485
D_{5-95} (s)	23.7	23.7	26.9	26.9
CAV (cm/s)	331	4367	4437	4772
T_m (s)	0.51	0.51	0.57	0.55

Figure E.5. continued.

	Original	Scaled	TDMod	FDMod
PGA (g)	0.046	0.766	0.718	0.716
PGV (cm/s)	5.3	87.1	92.6	75.7
PGD (cm)	3.6	60.0	105.0	20.1
I_a (cm/s)	5	1353	1388	1528
D_{5-95} (s)	33.7	33.7	37.3	37.9
CAV (cm/s)	284	4699	4831	5313
T_m (s)	0.56	0.56	0.53	0.53

Figure E.5. continued.

909

Figure E.5. continued.

910

Figure E.5. continued.

911

File Name: 2113 PS09103   Start and End Taper Percentage: 1.0% and 5.0%
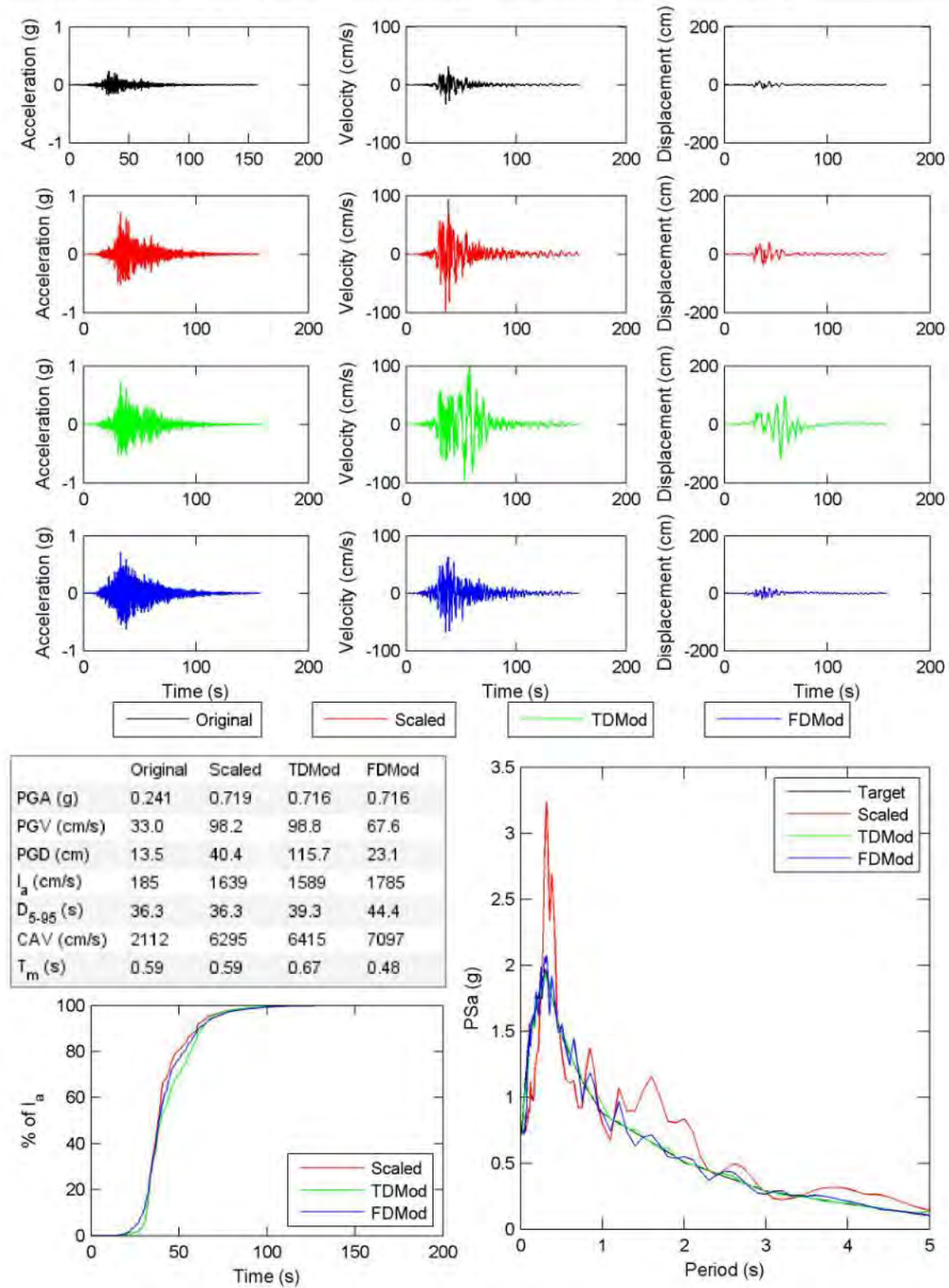Scale Factor: 8.92 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

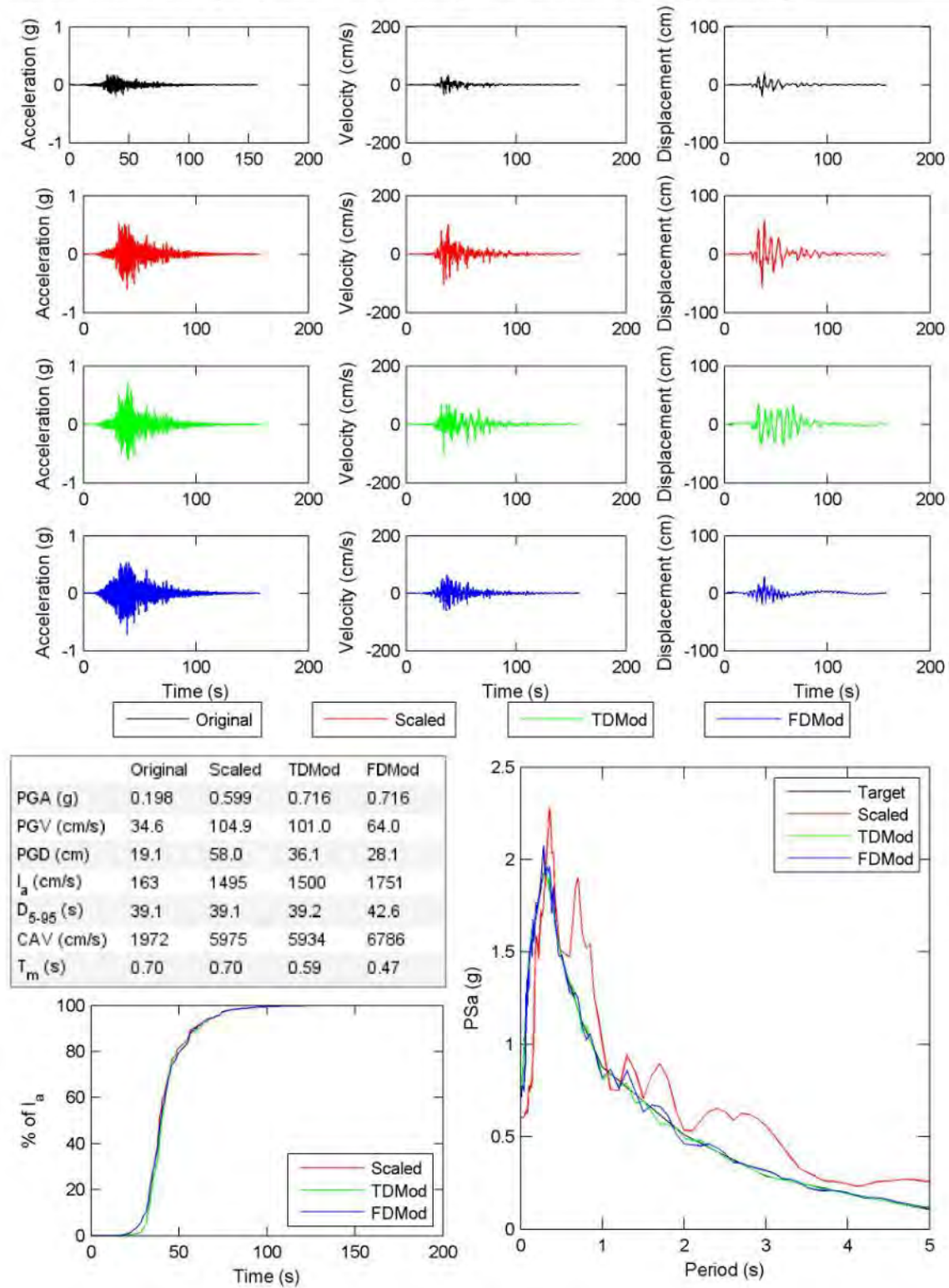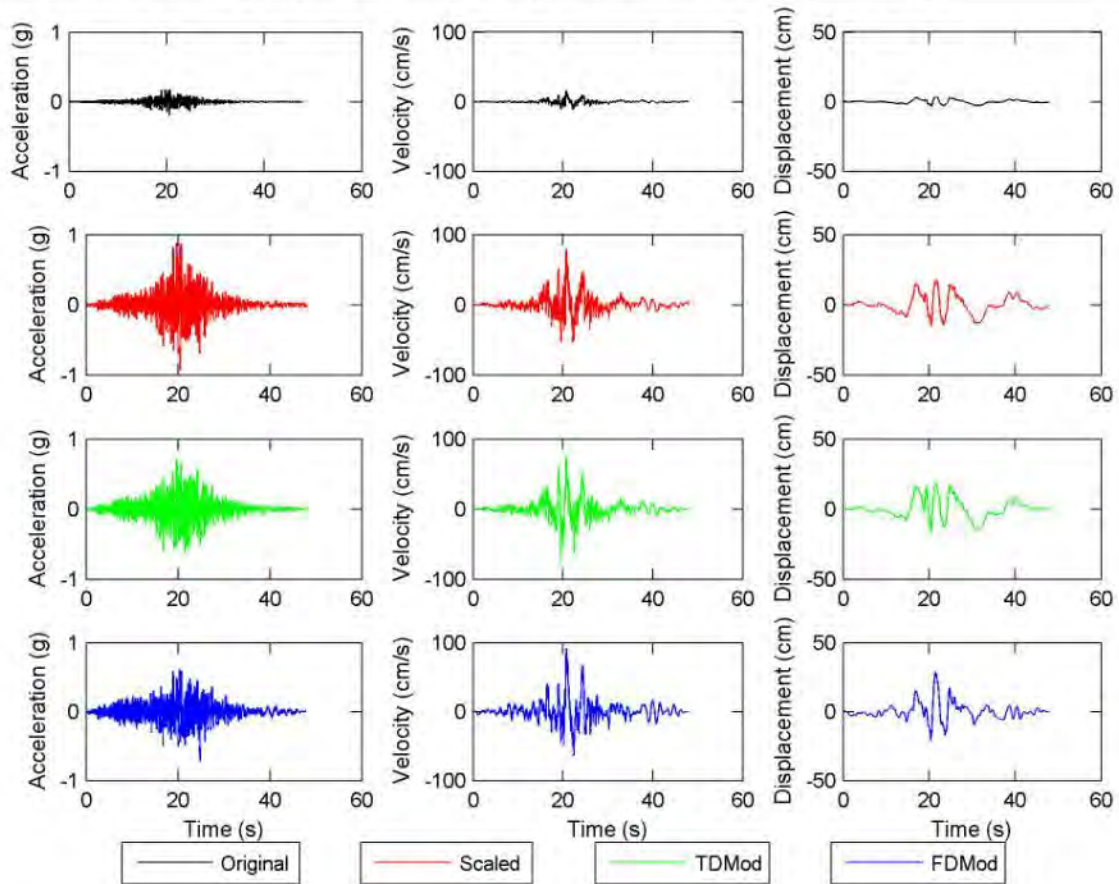|	Original	Scaled	TDMod	FDMod
PGA (g)	0.075	0.665	0.716	0.716
PGV (cm/s)	12.1	108.1	115.2	80.6
PGD (cm)	11.0	98.3	78.0	24.6
I_a (cm/s)	20	1617	1912	2972
D_{5-95} (s)	97.5	97.5	92.2	99.0
CAV (cm/s)	933	8323	8636	11693
T_m (s)	0.54	0.54	0.58	0.63

Figure E.5. continued.

912

File Name: 2 ELS-NO000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.09 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

REJECTED

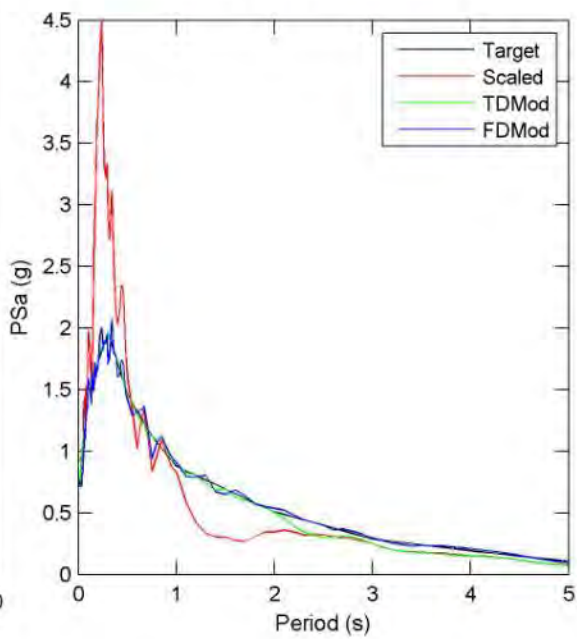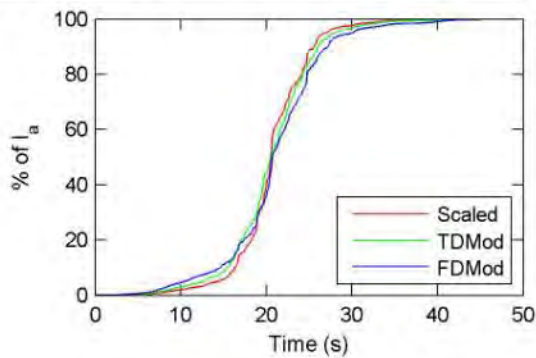|	Original	Scaled	TDMod	FDMod
PGA (g)	0.542	1.133	0.716	0.716
PGV (cm/s)	41.7	87.2	75.4	73.9
PGD (cm)	7.2	15.1	15.0	27.5
I_a (cm/s)	589	2575	1524	1356
D_{5-95} (s)	16.5	16.5	21.8	23.4
CAV (cm/s)	2709	5662	4759	4704
T_m (s)	0.42	0.42	0.45	0.56

Figure E.5. continued.

913

Figure E.5. continued.

914

File Name: 2 HON-IWT009-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.52 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 9 TD poly: 5

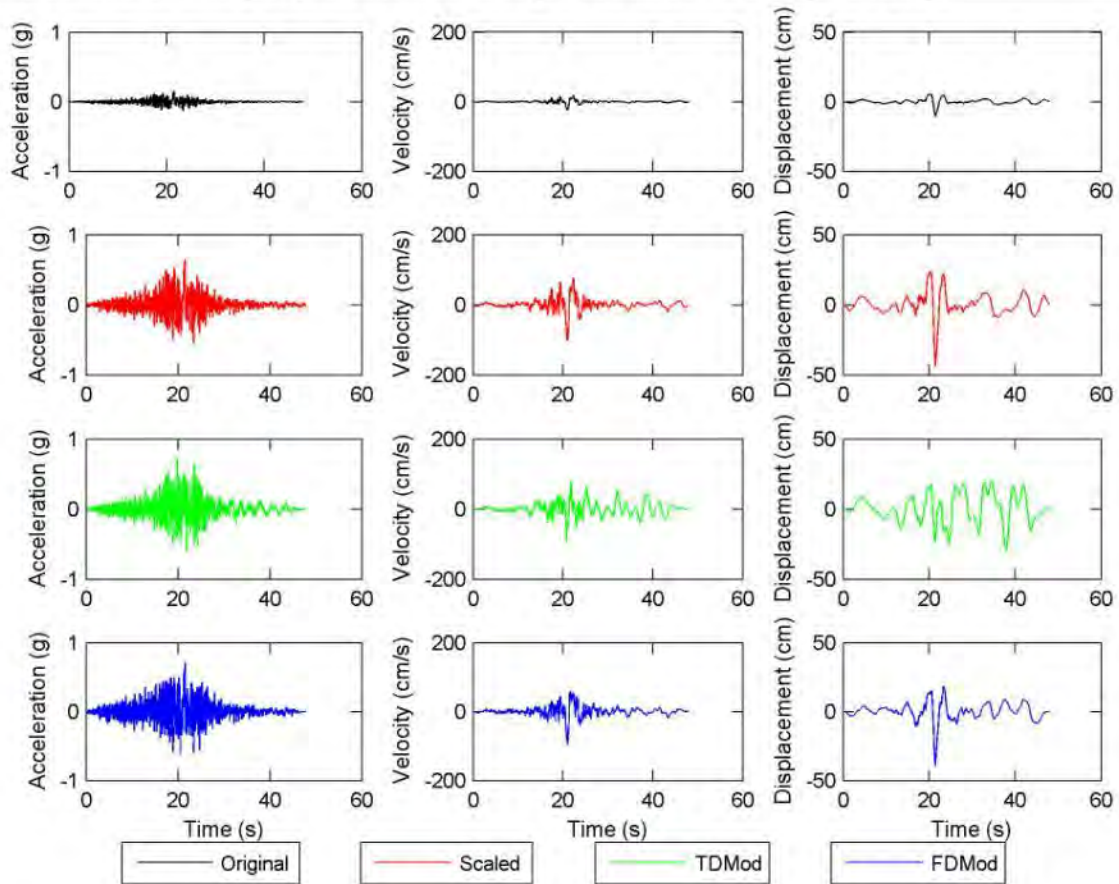|	Original	Scaled	TDMod	FDMod
PGA (g)	0.541	1.903	0.716	0.716
PGV (cm/s)	22.0	77.5	71.9	78.8
PGD (cm)	5.2	18.3	38.0	34.6
I_a (cm/s)	2066	25605	10706	2316
D_{5-95} (s)	87.3	87.3	115.7	90.6
CAV (cm/s)	9974	35107	26421	10558
T_m (s)	0.15	0.15	0.19	0.50

Figure E.5. continued.

915

File Name: 2 HON-IWT009-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.24 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 7 TD poly: 8

REJECTED

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.573	2.428	0.716	0.716
PGV (cm/s)	17.1	72.5	165.8	89.9
PGD (cm)	3.5	15.0	217.5	22.2
I_a (cm/s)	2122	38146	16240	2847
D_{5-95} (s)	89.1	89.1	118.9	95.0
CAV (cm/s)	10493	44490	33459	12430
T_m (s)	0.15	0.15	0.17	0.52

Figure E.5. continued.

916

File Name: 2 MIC-UNIO090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.52 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.817	0.716	0.716
PGV (cm/s)	12.7	70.1	78.8	69.2
PGD (cm)	5.6	31.1	30.3	24.2
I_a (cm/s)	90	2749	2203	1801
D_{5-95} (s)	26.4	26.4	29.3	29.1
CAV (cm/s)	1170	6459	5959	5393
T_m (s)	0.36	0.36	0.43	0.50

Figure E.5. continued.

917

File Name: 2 MIC-UNIO180   Start and End Taper Percentage: 1.0% and 5.0%
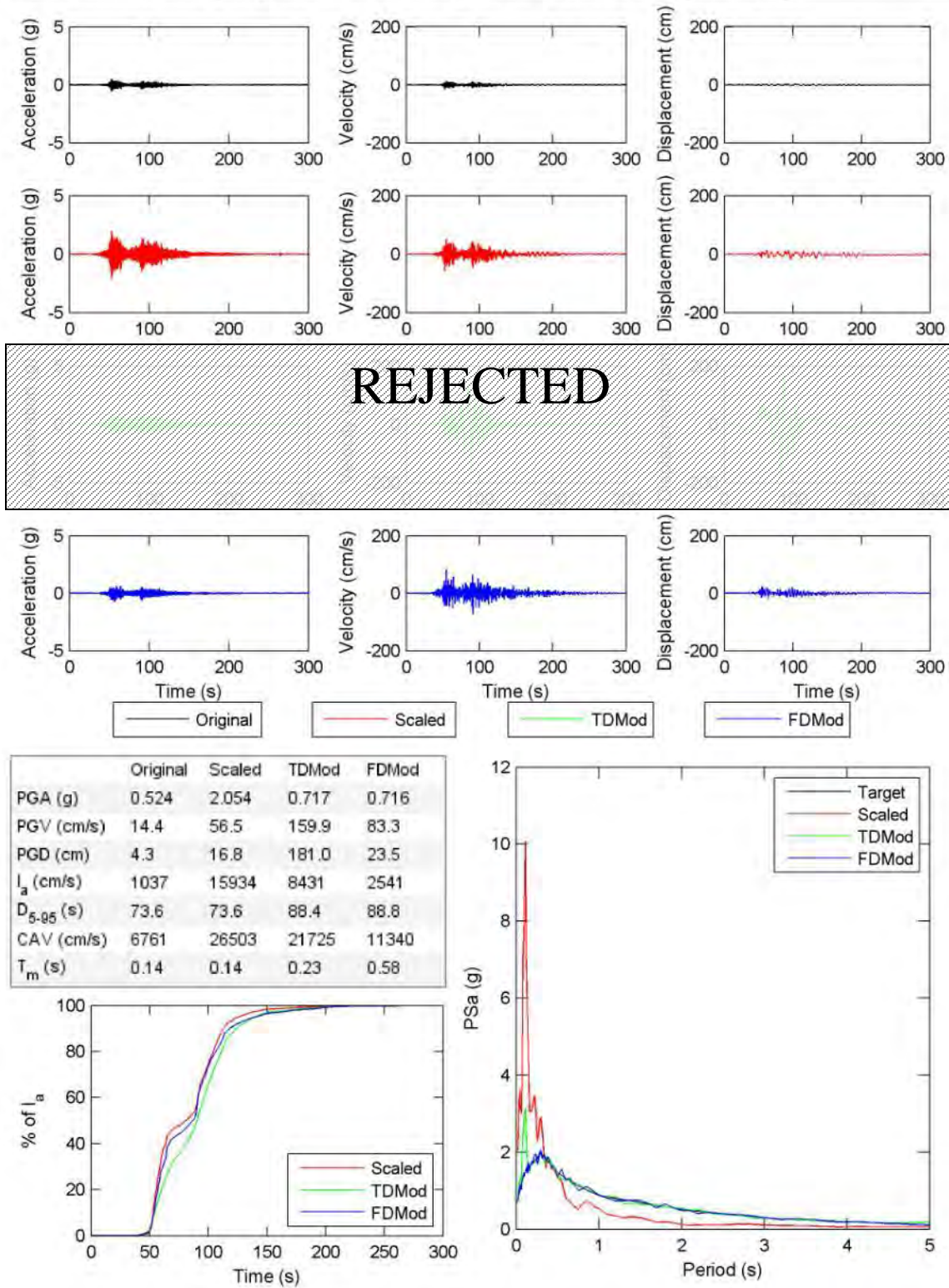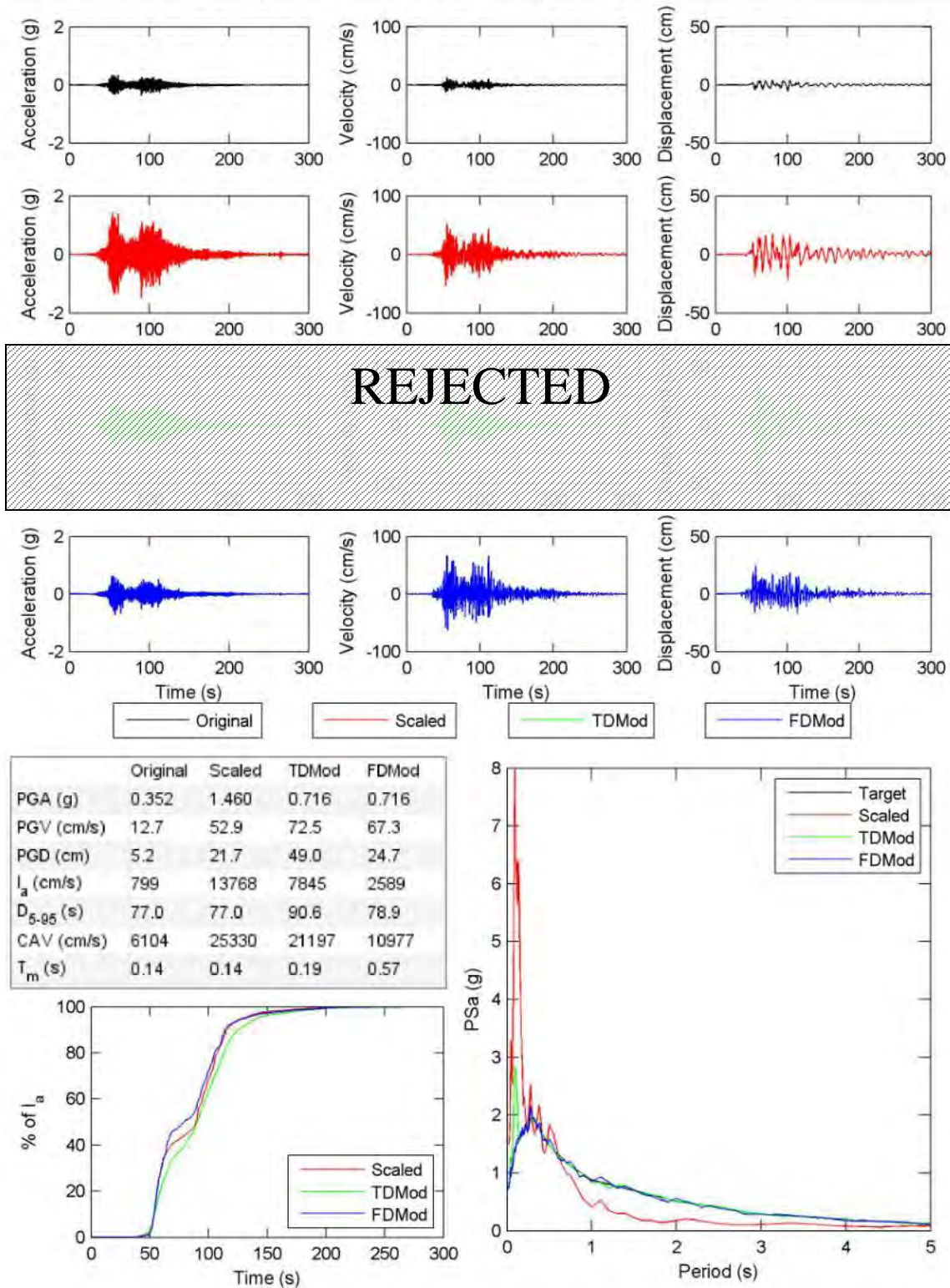Scale Factor: 4.05 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.170	0.690	0.716	0.716
PGV (cm/s)	20.3	82.4	76.0	88.3
PGD (cm)	7.1	28.6	32.8	25.0
I_a (cm/s)	102	1672	1648	1506
D_{5-95} (s)	24.3	24.3	30.5	25.0
CAV (cm/s)	1228	4974	5163	4801
T_m (s)	0.53	0.53	0.57	0.52

Figure E.5. continued.

918

	Original	Scaled	TDMod	FDMod
PGA (g)	0.340	0.582	0.716	0.716
PGV (cm/s)	81.8	139.9	74.3	80.8
PGD (cm)	28.6	48.9	25.8	28.5
I_a (cm/s)	409	1195	1122	1942
D_{5-95} (s)	33.4	33.4	34.4	40.1
CAV (cm/s)	3078	5264	5174	7176
T_m (s)	1.12	1.12	0.68	0.47

Figure E.5. continued.

919

File Name: 2 TOK-HKD098-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.50 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 3
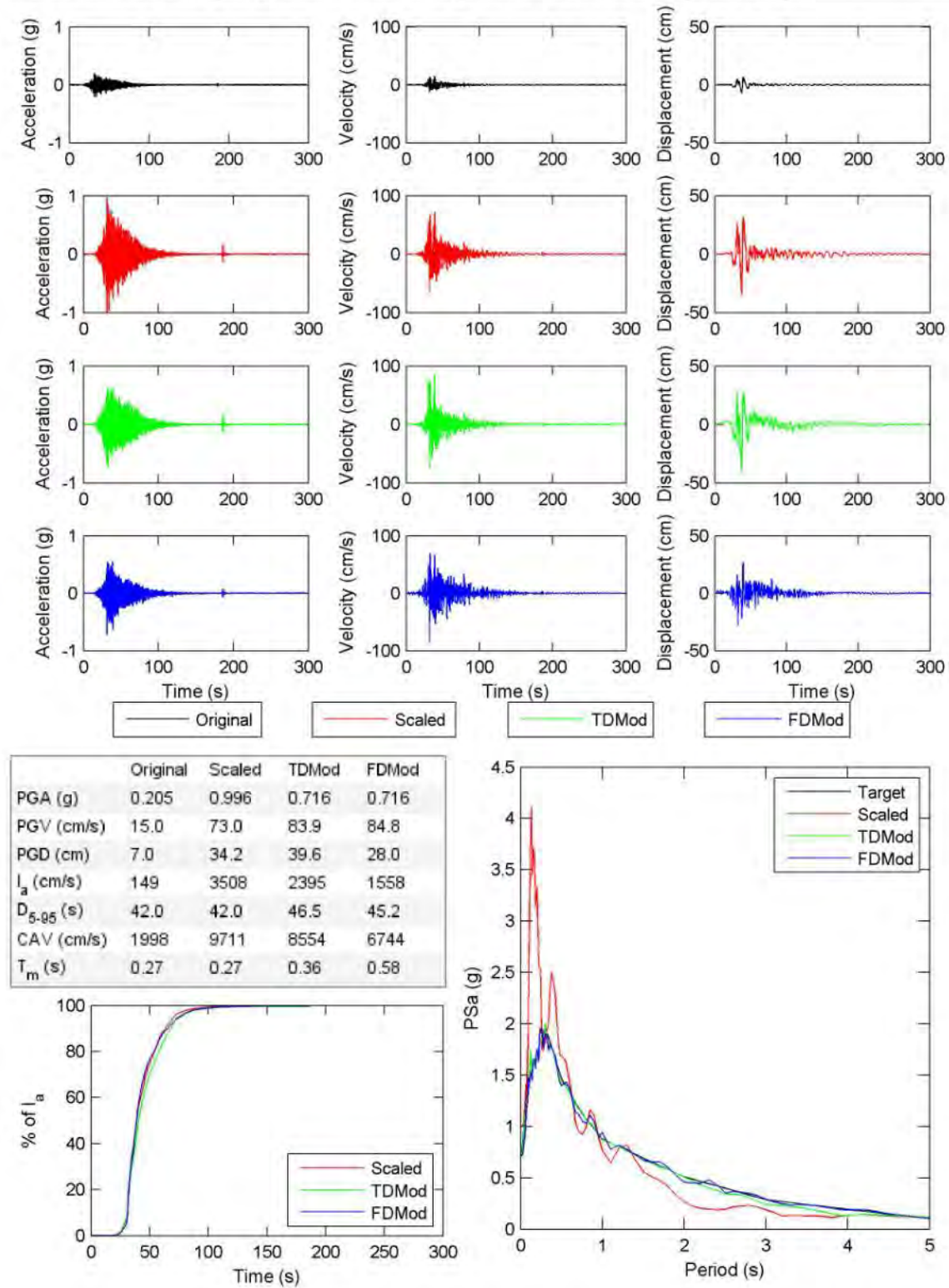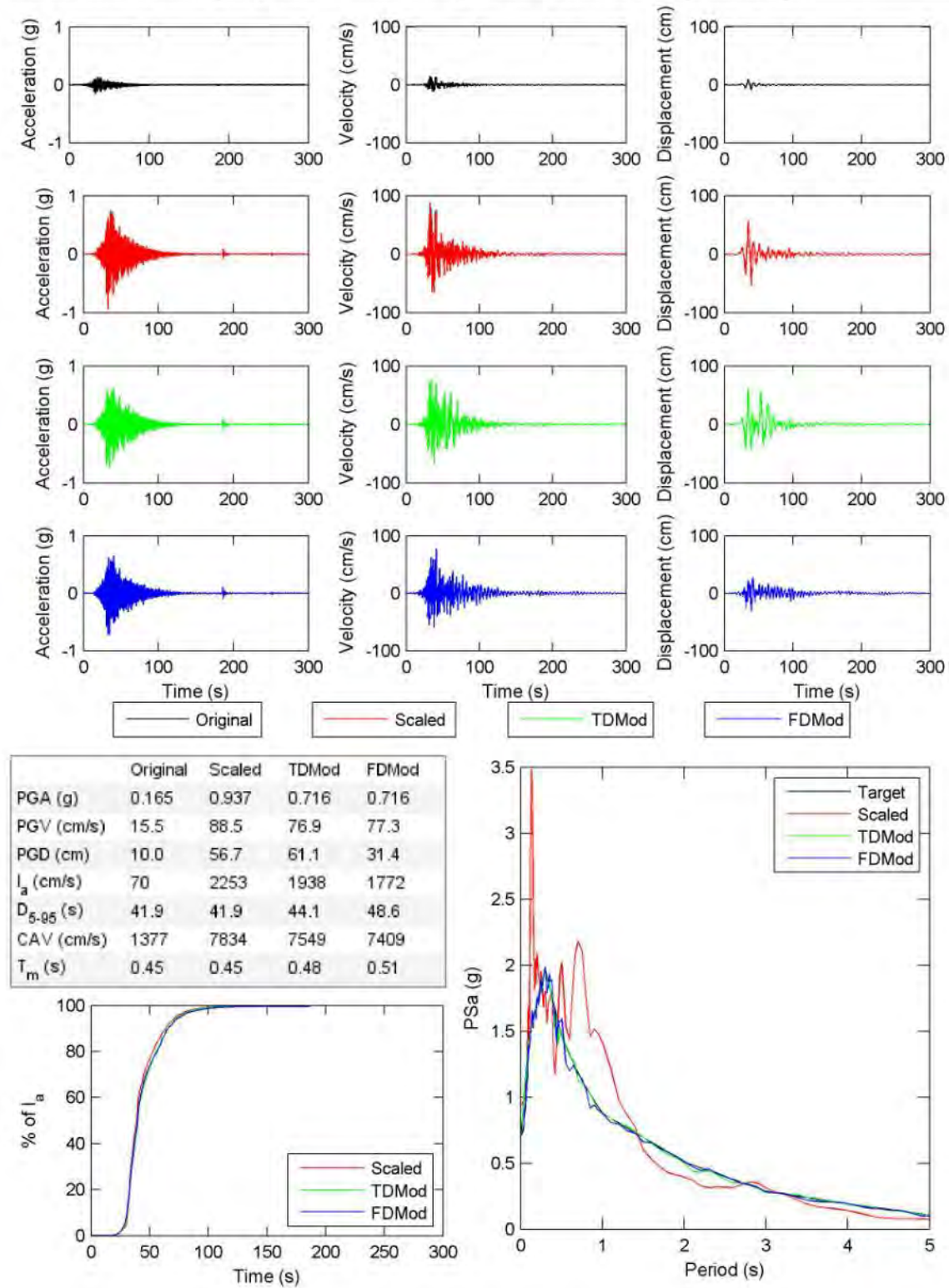

	Original	Scaled	TDMod	FDMod
PGA (g)	0.378	0.567	0.716	0.716
PGV (cm/s)	74.6	111.8	76.4	74.1
PGD (cm)	43.7	65.6	49.3	22.4
I_a (cm/s)	436	980	1129	1635
D_{5-95} (s)	32.8	32.8	31.2	37.6
CAV (cm/s)	3225	4837	5079	6420
T_m (s)	1.21	1.21	0.72	0.52
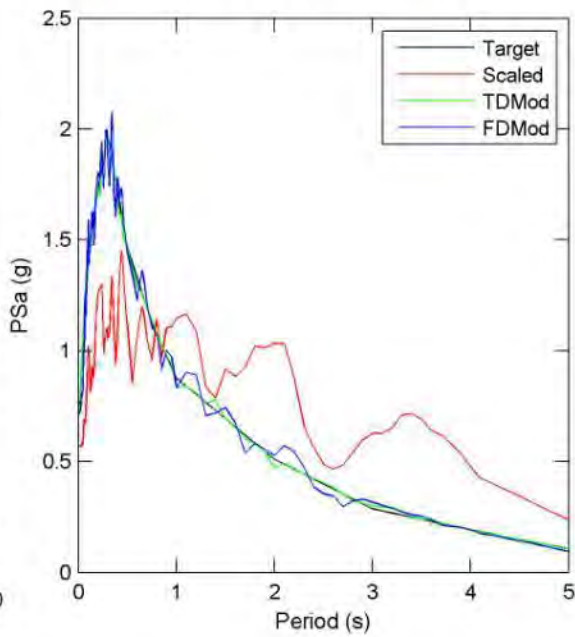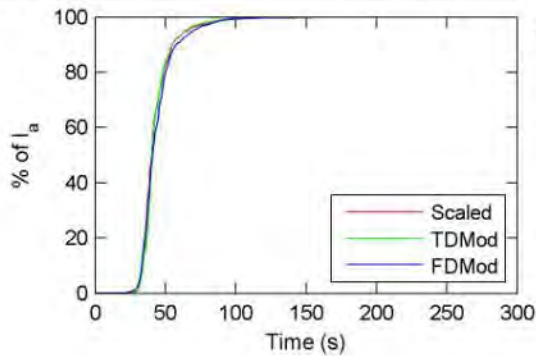
Figure E.5. continued.

920

File Name: 2 VAL-RAP000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.34 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 9 TD poly: 4
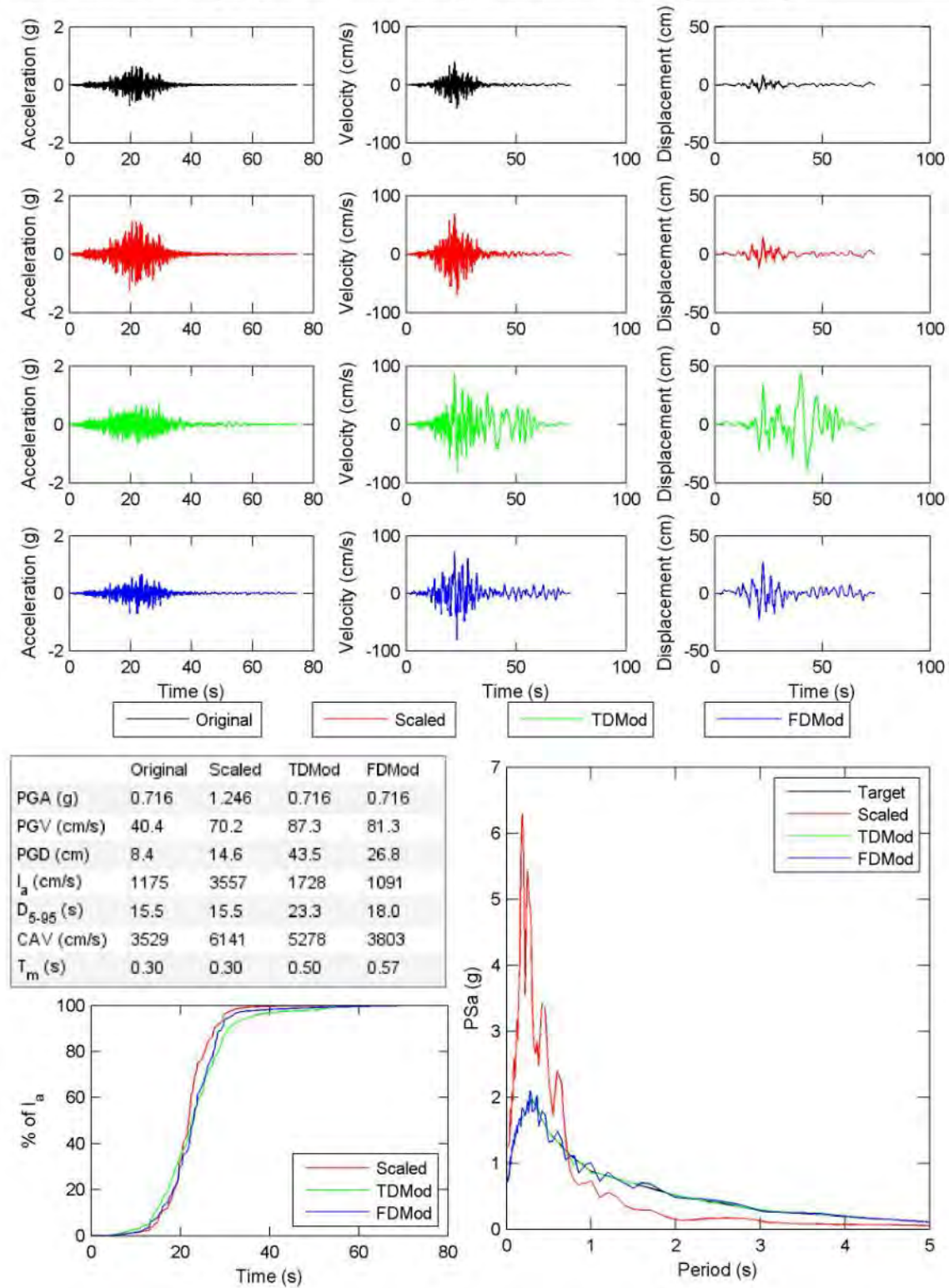

	Original	Scaled	TDMod	FDMod
PGA (g)	0.223	1.415	0.716	0.717
PGV (cm/s)	10.5	66.4	97.0	68.0
PGD (cm)	3.0	18.9	81.2	35.3
I_a (cm/s)	32	1302	1536	1135
D_{5-95} (s)	23.0	23.0	40.0	26.4
CAV (cm/s)	693	4395	5644	4519
T_m (s)	0.39	0.39	0.60	0.60

Figure E.5. continued.

921

File Name: 2 VAL-RAP090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 11.46 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 7 TD poly: 4
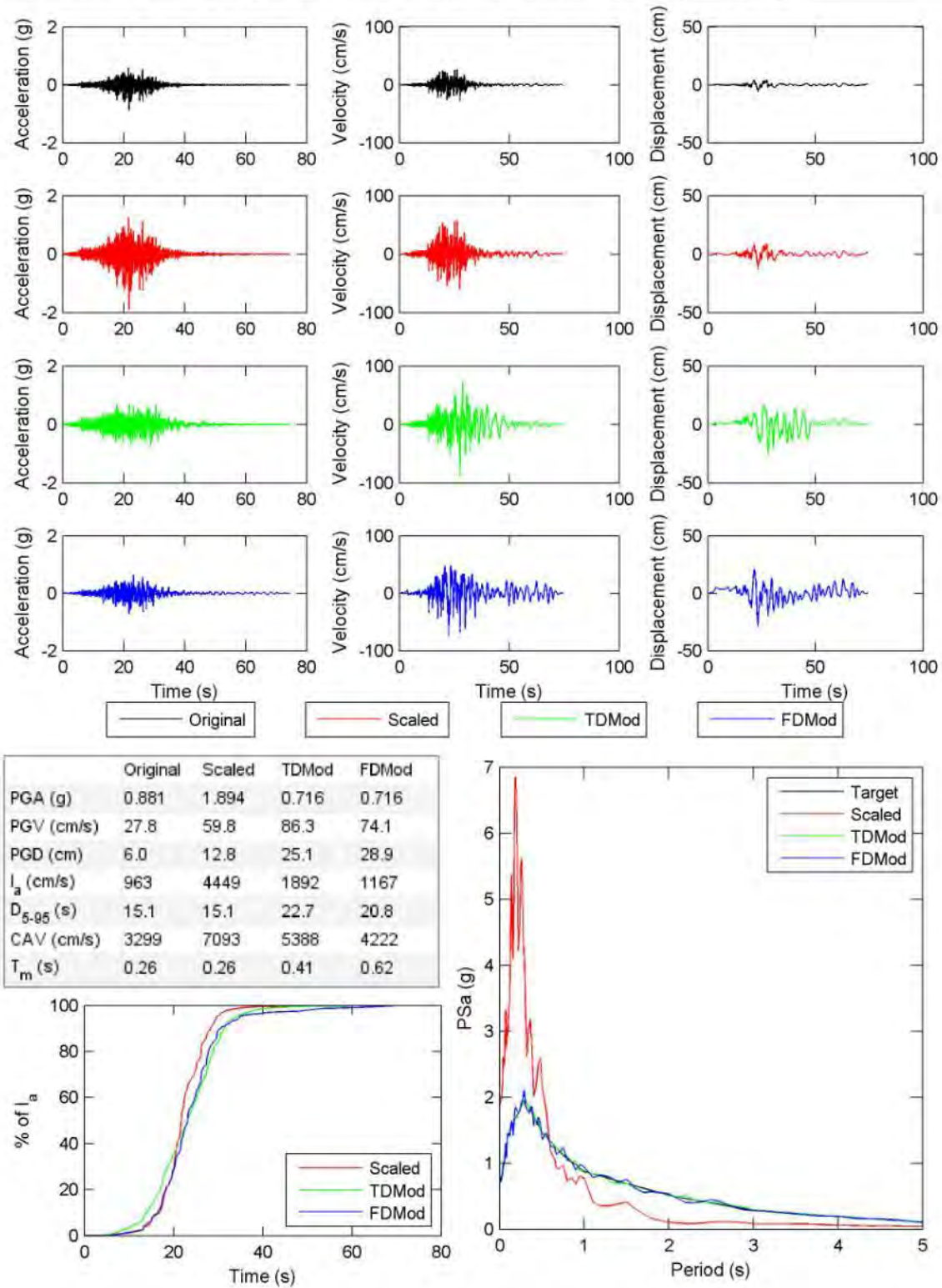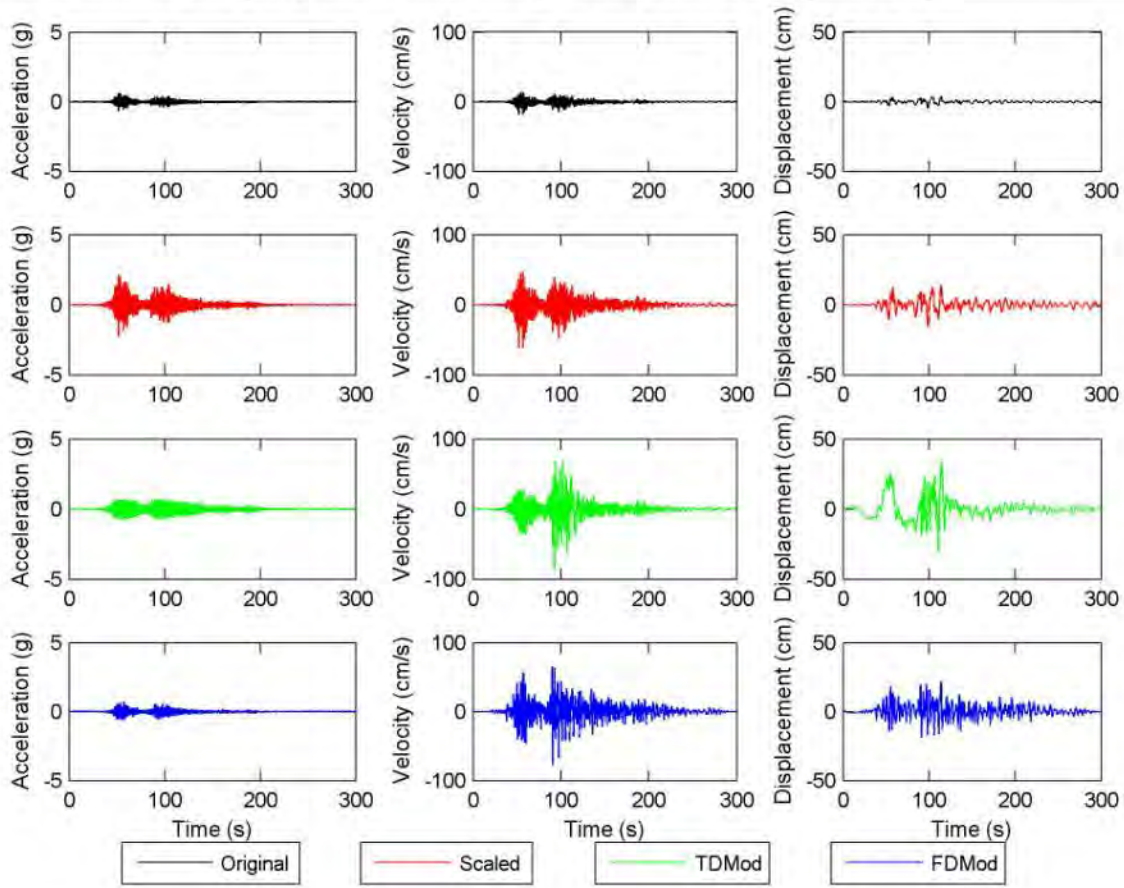

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.089	1.023	0.716	0.716
PGV (cm/s)	5.8	66.7	65.1	73.4
PGD (cm)	2.3	26.1	39.8	28.3
I_a (cm/s)	17	2210	1997	1588
D_{5-95} (s)	29.9	29.9	30.9	34.8
CAV (cm/s)	561	6429	6248	5803
T_m (s)	0.33	0.33	0.44	0.59

Figure E.5. continued.

922

File Name: 3 ELS-PA000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 6.18 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.190	1.174	0.716	0.716
PGV (cm/s)	10.8	66.9	72.3	66.6
PGD (cm)	5.2	32.1	41.4	25.1
I_a (cm/s)	56	2157	1450	1227
D_{5-95} (s)	19.0	19.0	21.5	22.7
CAV (cm/s)	816	5042	4464	4092
T_m (s)	0.22	0.22	0.42	0.59

Figure E.5. continued.

923

File Name: 3 ELS-PA090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 7.86 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

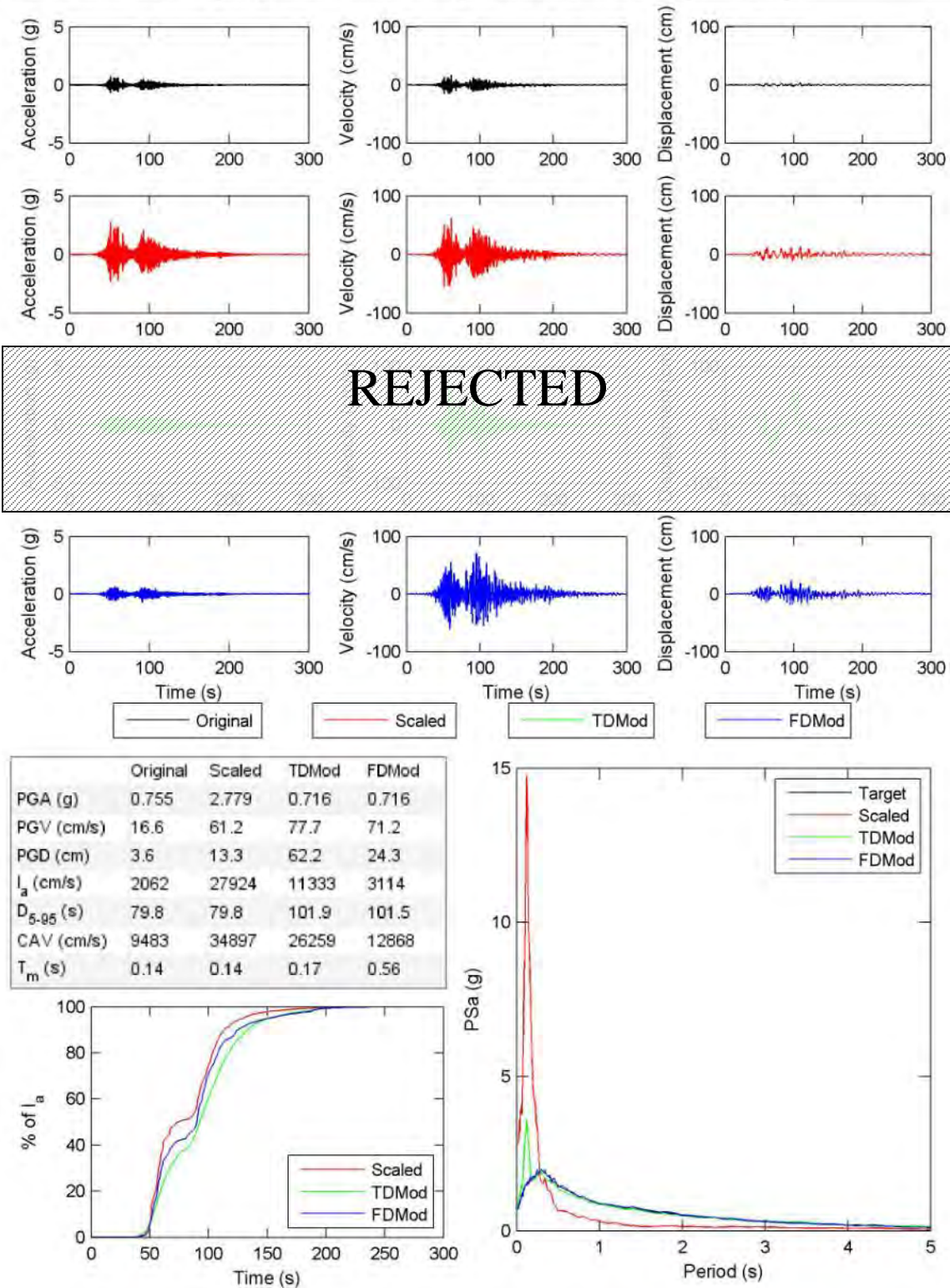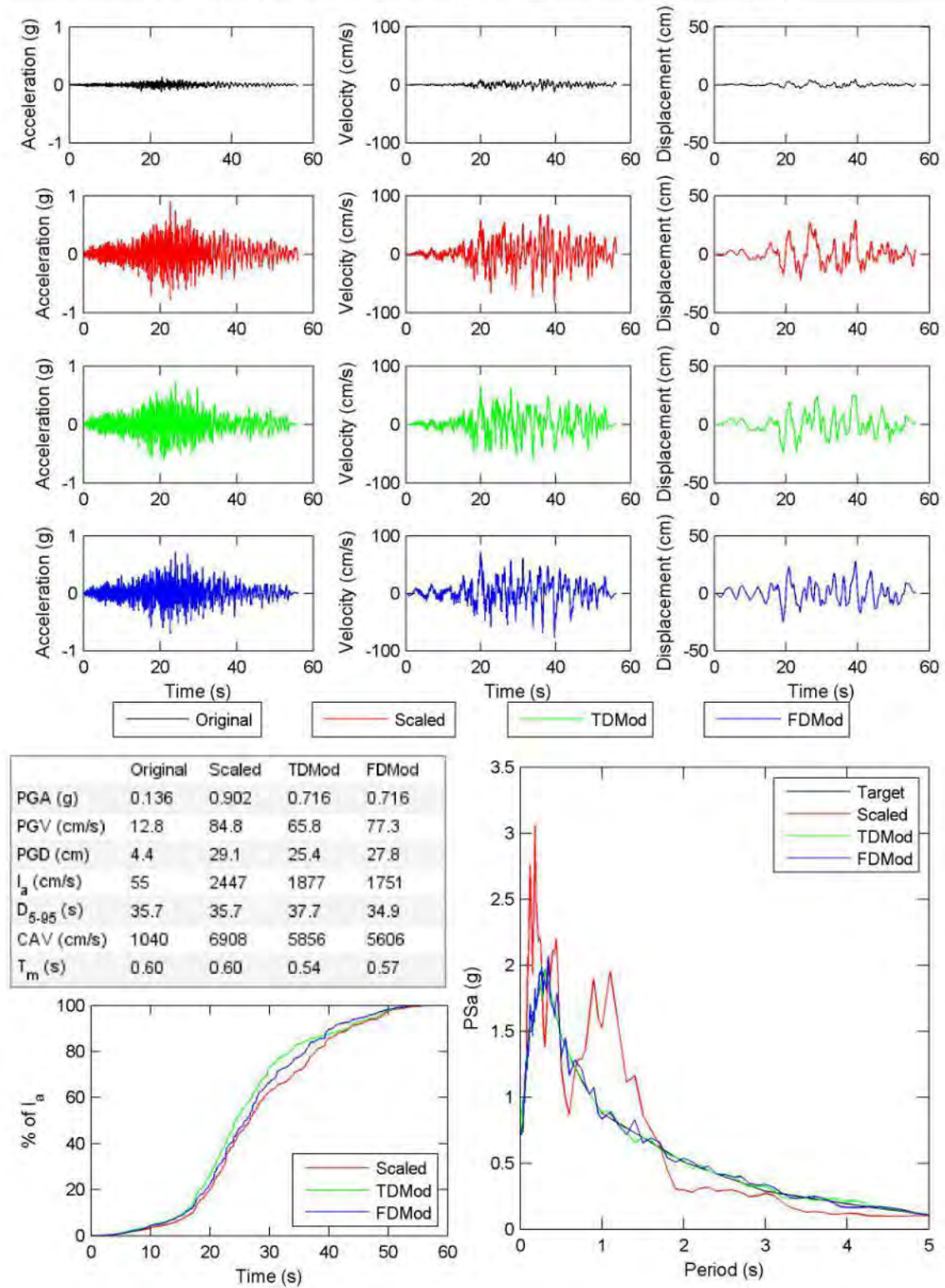|	Original	Scaled	TDMod	FDMod
PGA (g)	0.162	1.272	0.716	0.716
PGV (cm/s)	8.9	70.1	89.6	74.4
PGD (cm)	5.0	39.1	45.2	32.4
I_a (cm/s)	26	1637	1354	1242
D_{5-95} (s)	19.7	19.7	21.7	24.1
CAV (cm/s)	568	4466	4224	4203
T_m (s)	0.29	0.29	0.44	0.59

Figure E.5. continued.

924

File Name: 3 HON-IWTH05-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.78 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 8 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.677	1.882	0.716	0.716
PGV (cm/s)	30.6	85.0	86.1	83.0
PGD (cm)	4.8	13.3	45.9	85.4
I_a (cm/s)	1388	10729	5833	2472
D_{5-95} (s)	84.9	84.9	107.7	96.1
CAV (cm/s)	7936	22061	18376	11000
T_m (s)	0.20	0.20	0.27	0.52

Figure E.5. continued.

925

File Name: 3 HON-IWTH05-N   Start and End Taper Percentage: 1.0% and 5.0%
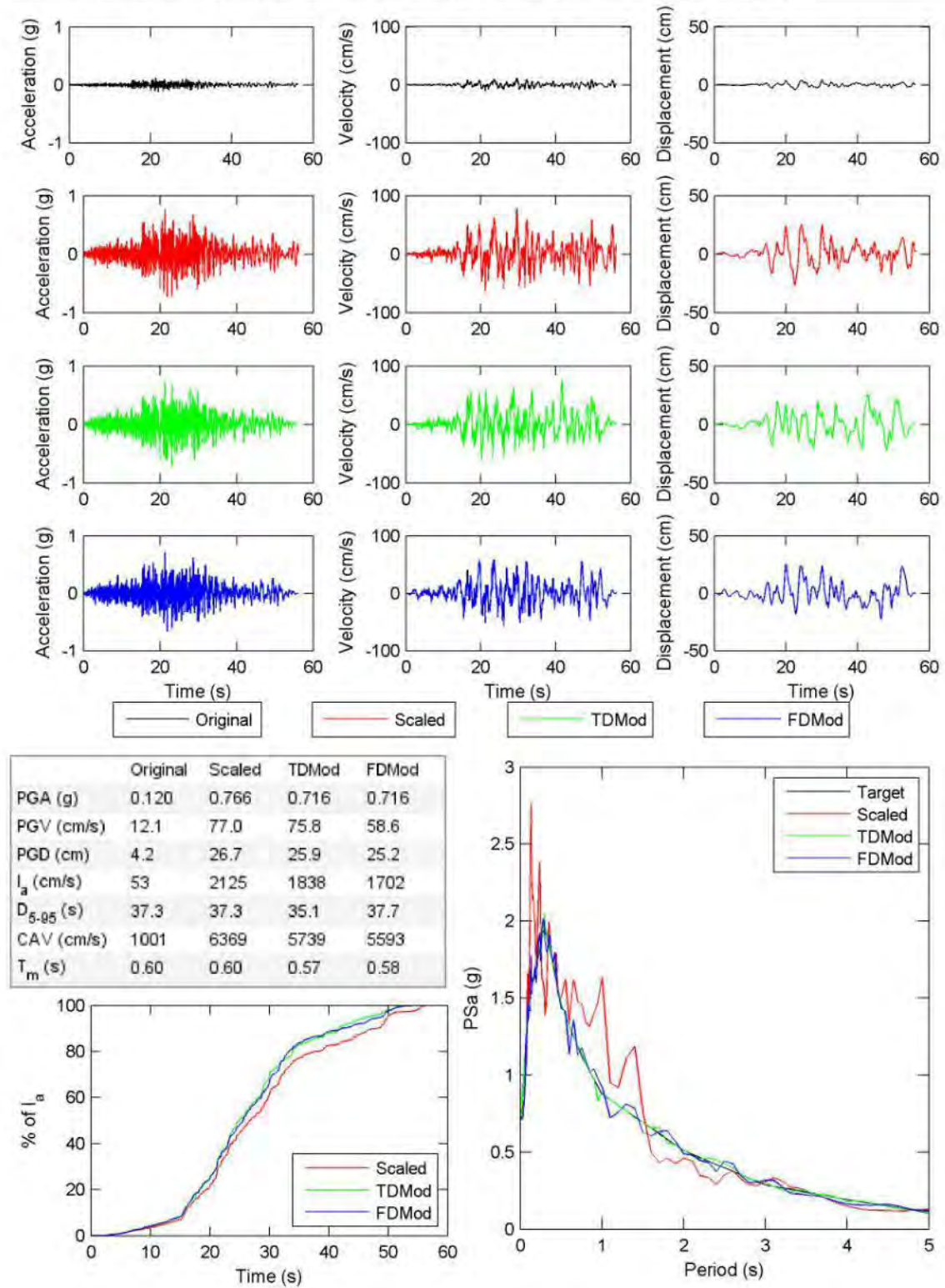Scale Factor: 2.87 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 8 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.587	1.685	0.716	0.716
PGV (cm/s)	29.2	83.7	84.6	70.9
PGD (cm)	8.3	23.7	85.6	57.9
I_a (cm/s)	1447	11919	6393	2331
D_{5-95} (s)	88.1	88.1	108.9	90.8
CAV (cm/s)	8087	23211	19208	10364
T_m (s)	0.18	0.18	0.24	0.53

Figure D.5. continued.

926

File Name: 3 MIC-VILE090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 8.19 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 6 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.976	0.716	0.717
PGV (cm/s)	10.8	88.3	132.3	82.2
PGD (cm)	6.6	54.0	140.4	24.4
I_a (cm/s)	28	1865	1996	1959
D_{5-95} (s)	41.9	41.9	42.0	42.7
CAV (cm/s)	733	6007	6472	6405
T_m (s)	0.52	0.52	0.59	0.52

Figure D.5. continued.

927

Figure E.5. continued.

928

File Name: 3 TOK-HKD109-E   Start and End Taper Percentage: 1.0% and 5.0%
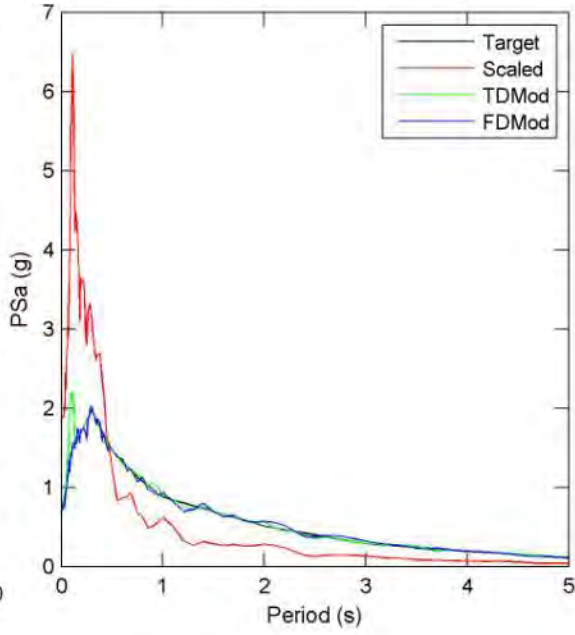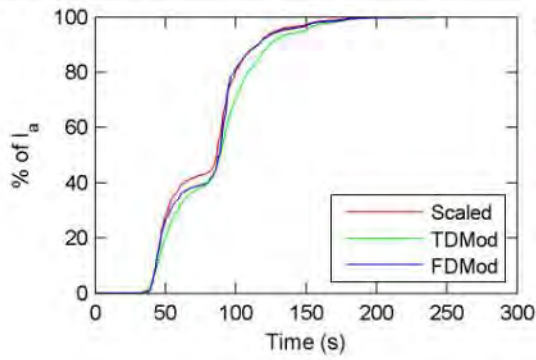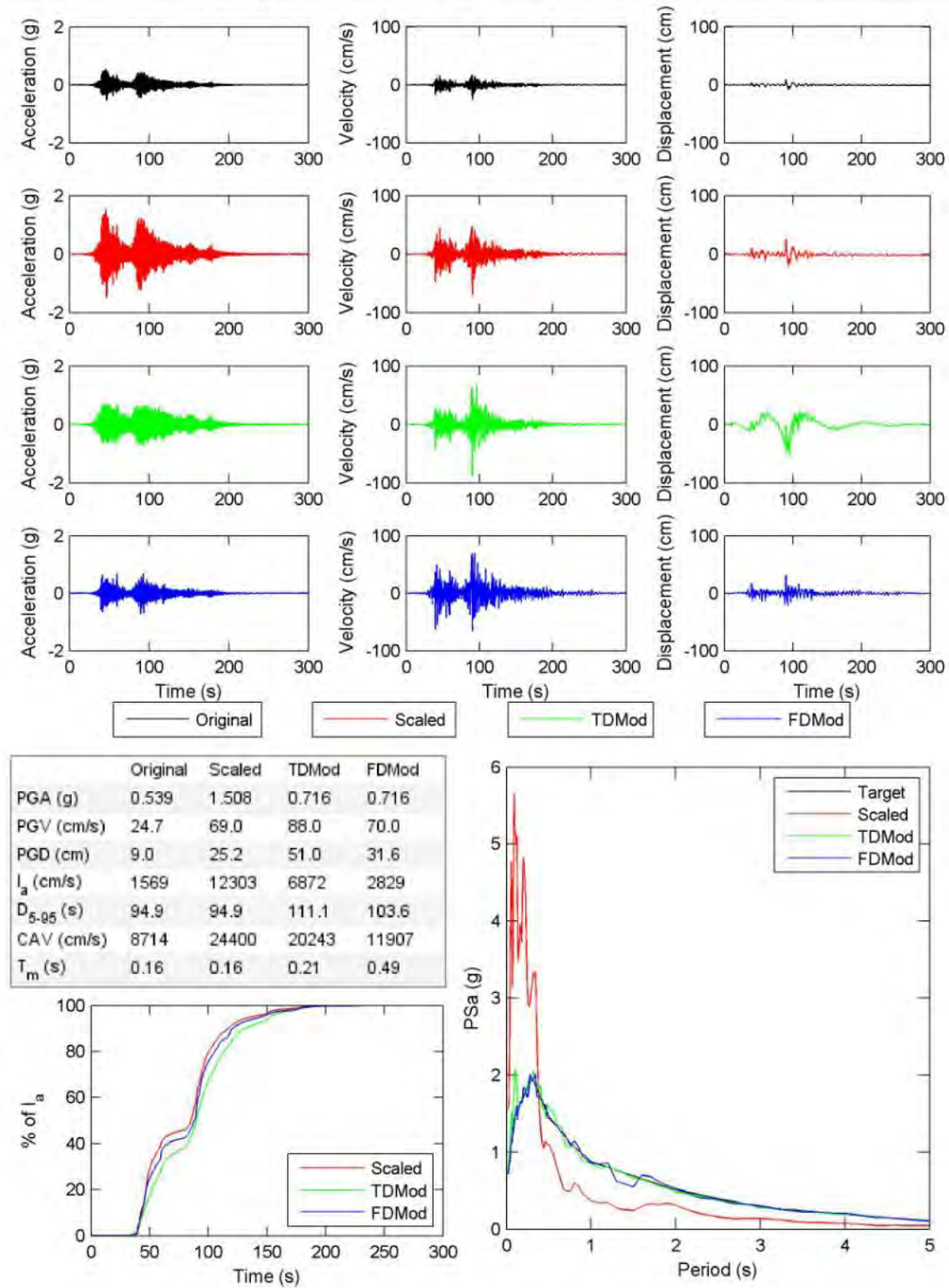Scale Factor: 2.98 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

Figure E.5. continued.

File Name: 3 TOK-HKD109-N   Start and End Taper Percentage: 1.0% and 5.0%
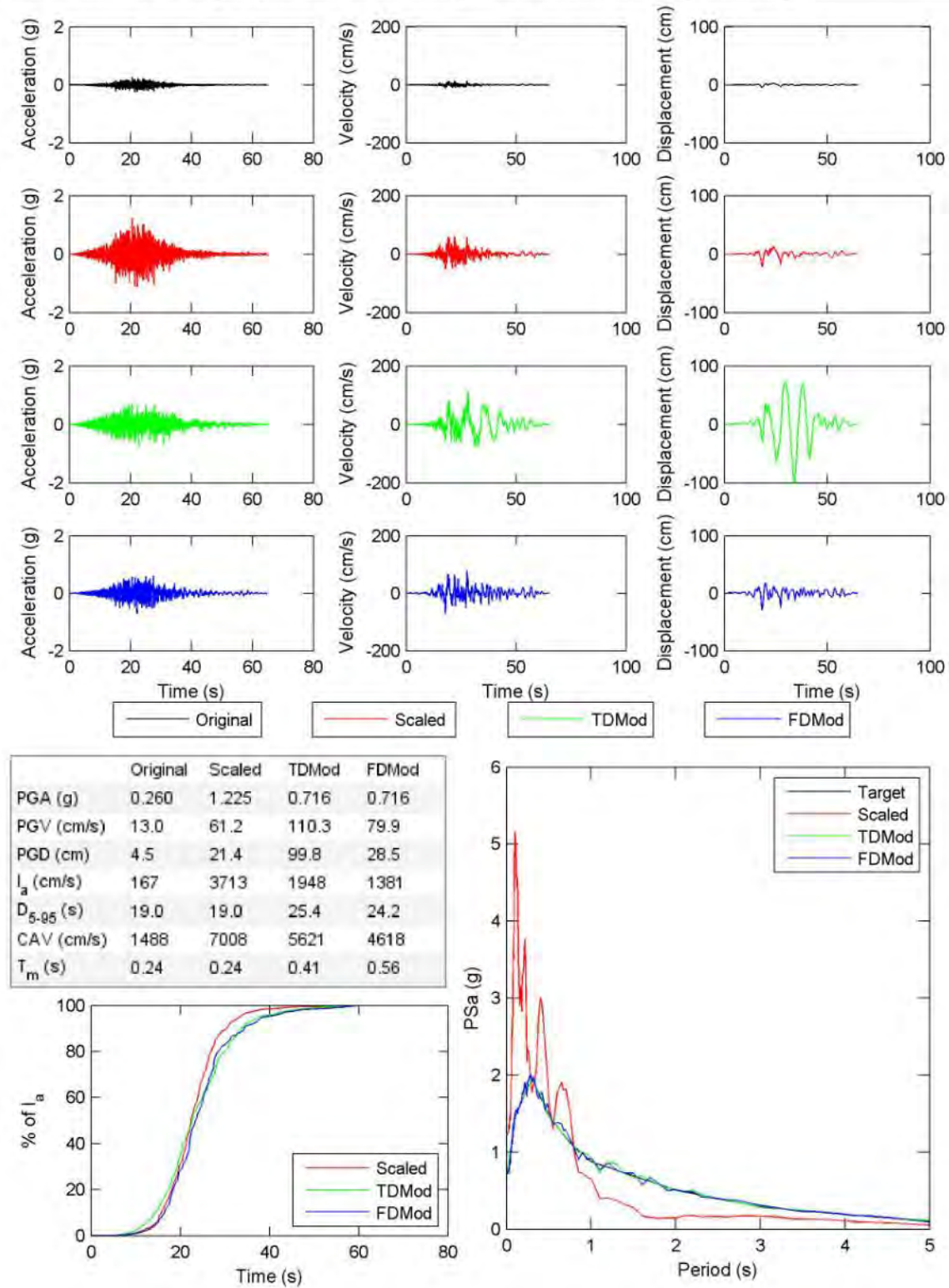Scale Factor: 3.03 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.198	0.599	0.716	0.716
PGV (cm/s)	34.6	104.9	101.0	64.0
PGD (cm)	19.1	58.0	36.1	28.1
I_a (cm/s)	163	1495	1500	1751
D_{5-95} (s)	39.1	39.1	39.2	42.6
CAV (cm/s)	1972	5975	5934	6786
T_m (s)	0.70	0.70	0.59	0.47

Figure E.5. continued.

930

	Original	Scaled	TDMod	FDMod
PGA (g)	0.187	0.930	0.716	0.716
PGV (cm/s)	16.0	79.8	77.2	91.4
PGD (cm)	3.6	17.9	18.6	28.6
I_a (cm/s)	70	1724	1180	1028
D_{5-95} (s)	12.6	12.6	15.1	19.7
CAV (cm/s)	811	4041	3561	3516
T_m (s)	0.33	0.33	0.42	0.52

Figure E.5. continued.

931

	Original	Scaled	TDMod	FDMod
PGA (g)	0.152	0.652	0.716	0.716
PGV (cm/s)	23.5	100.7	92.6	93.5
PGD (cm)	10.2	43.7	29.5	39.4
I_a (cm/s)	49	896	1036	1082
D_{5-95} (s)	15.0	15.0	19.8	17.5
CAV (cm/s)	721	3093	3498	3543
T_m (s)	0.60	0.60	0.60	0.46

Figure E.5. continued.

932
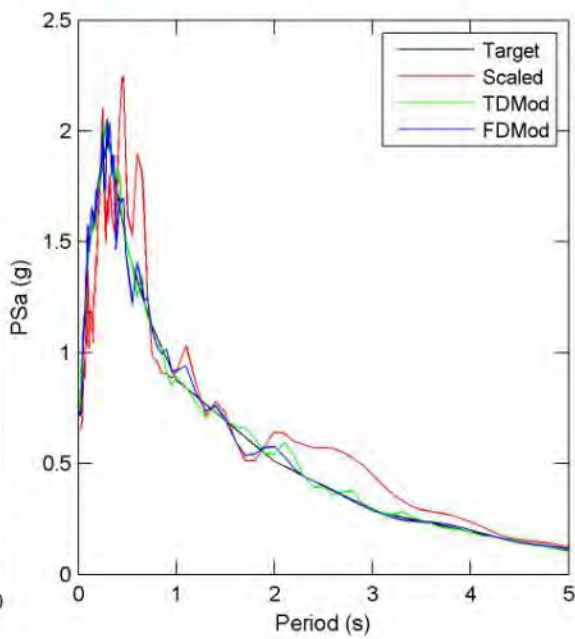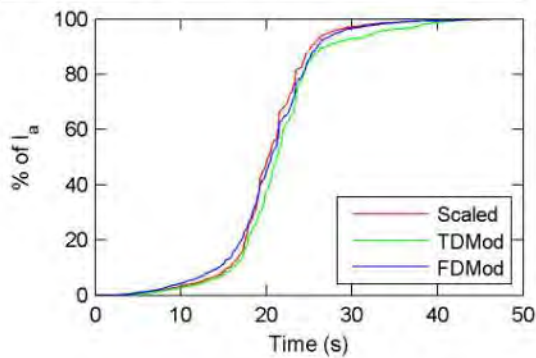
File Name: 4 HON-IWTH23-E   Start and End Taper Percentage: 1.0% and 5.0%
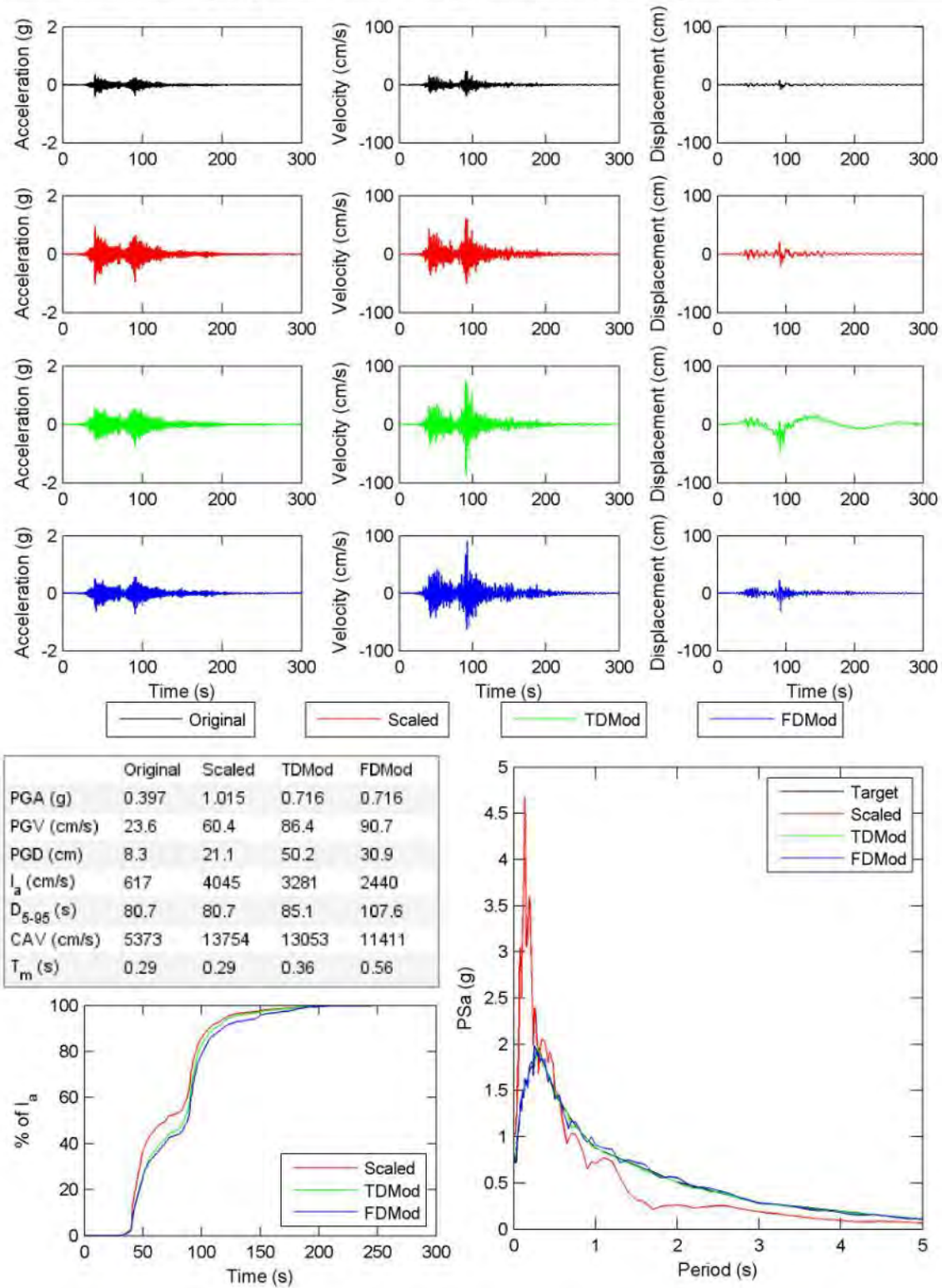Scale Factor: 3.92 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 8

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.524	2.054	0.717	0.716
PGV (cm/s)	14.4	56.5	159.9	83.3
PGD (cm)	4.3	16.8	181.0	23.5
I_a (cm/s)	1037	15934	8431	2541
D_{5-95} (s)	73.6	73.6	88.4	88.8
CAV (cm/s)	6761	26503	21725	11340
T_m (s)	0.14	0.14	0.23	0.58

Figure E.5. continued.

933

File Name: 4 HON-IWTH23-N   Start and End Taper Percentage: 1.0% and 5.0%
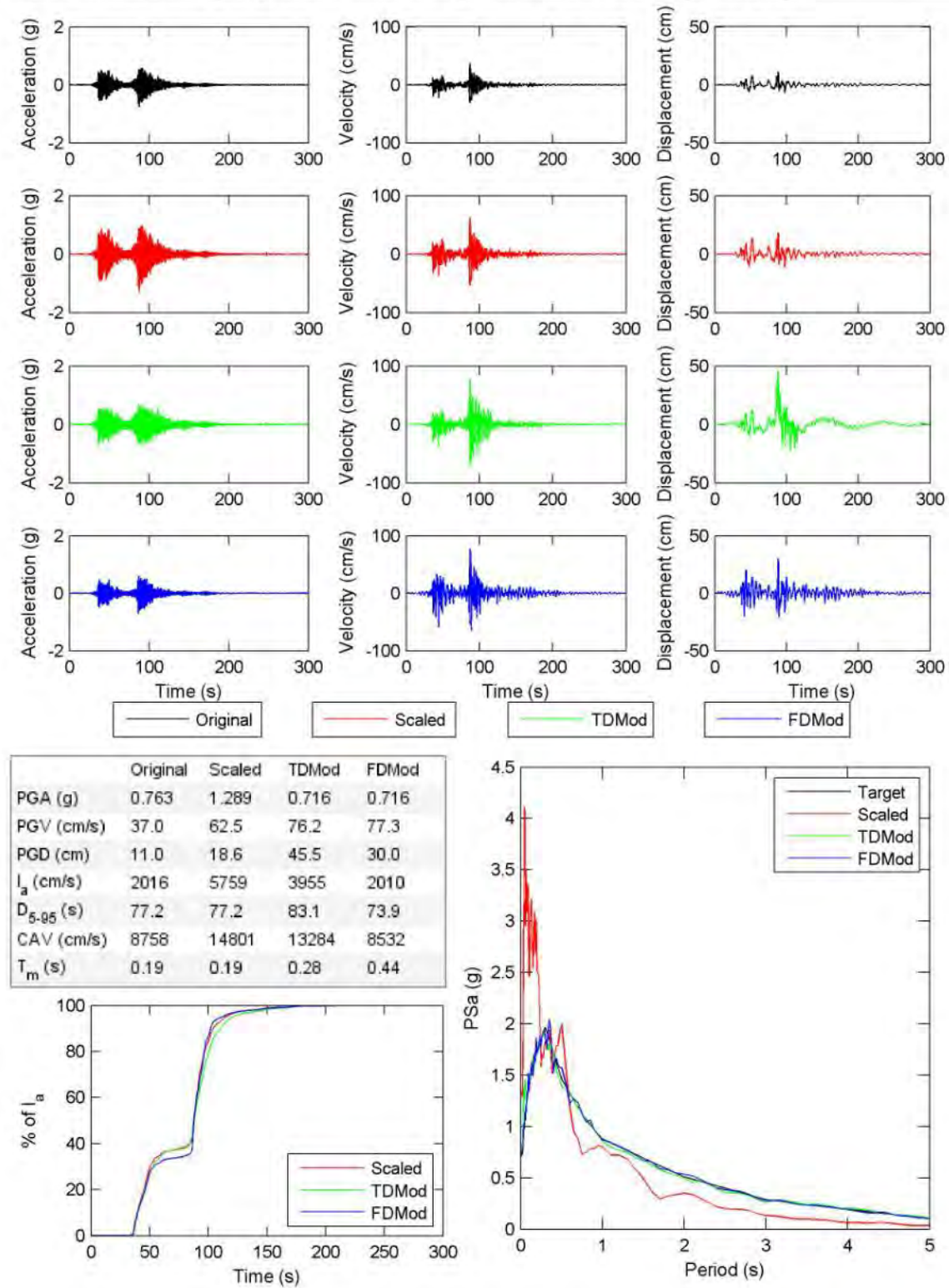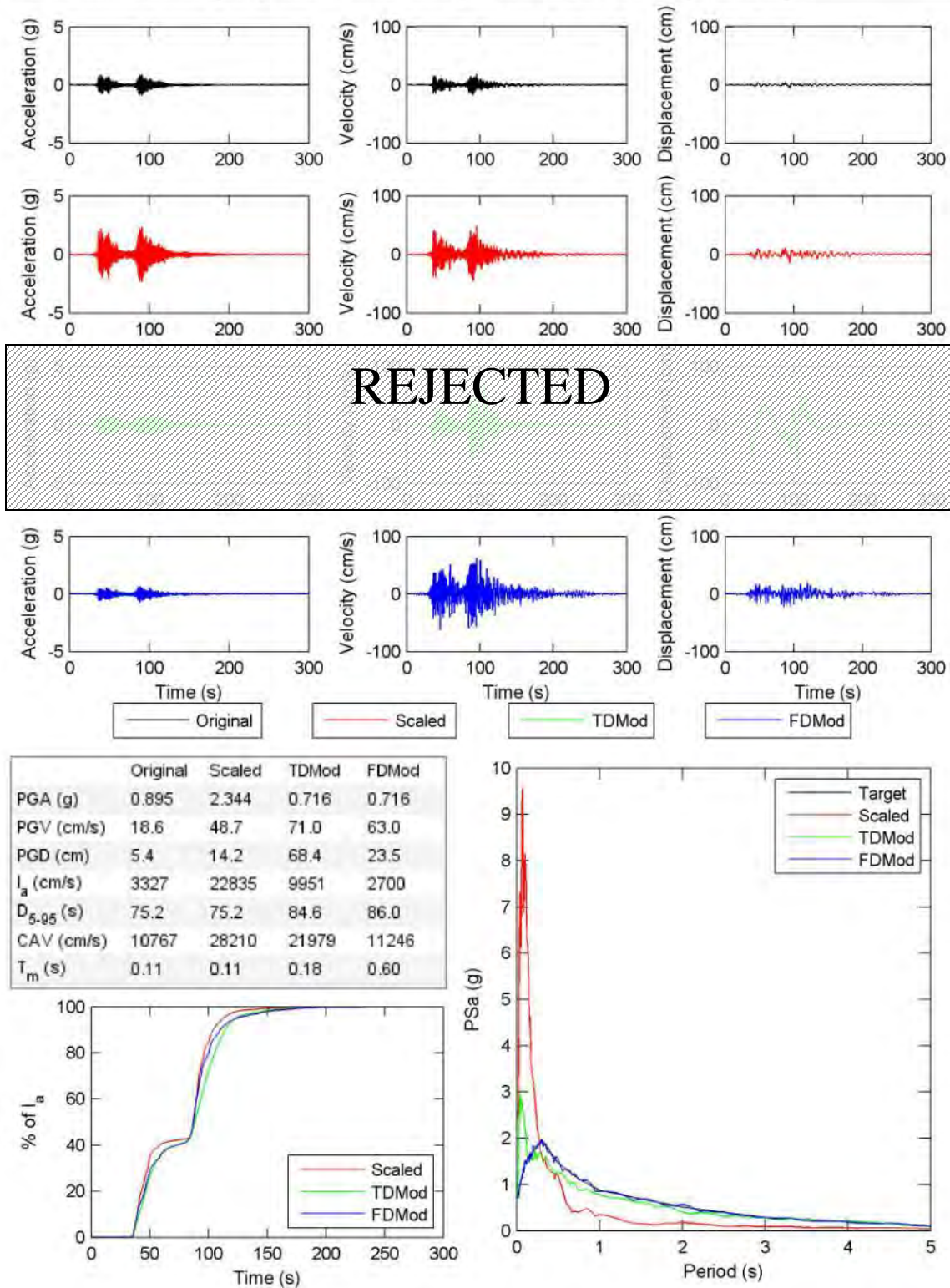Scale Factor: 4.15 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 7

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.352	1.460	0.716	0.716
PGV (cm/s)	12.7	52.9	72.5	67.3
PGD (cm)	5.2	21.7	49.0	24.7
I_a (cm/s)	799	13768	7845	2589
D_{5-95} (s)	77.0	77.0	90.6	78.9
CAV (cm/s)	6104	25330	21197	10977
T_m (s)	0.14	0.14	0.19	0.57

Figure E.5. continued.

934

File Name: 4 TOK-HKD113-E   Start and End Taper Percentage: 1.0% and 5.0%
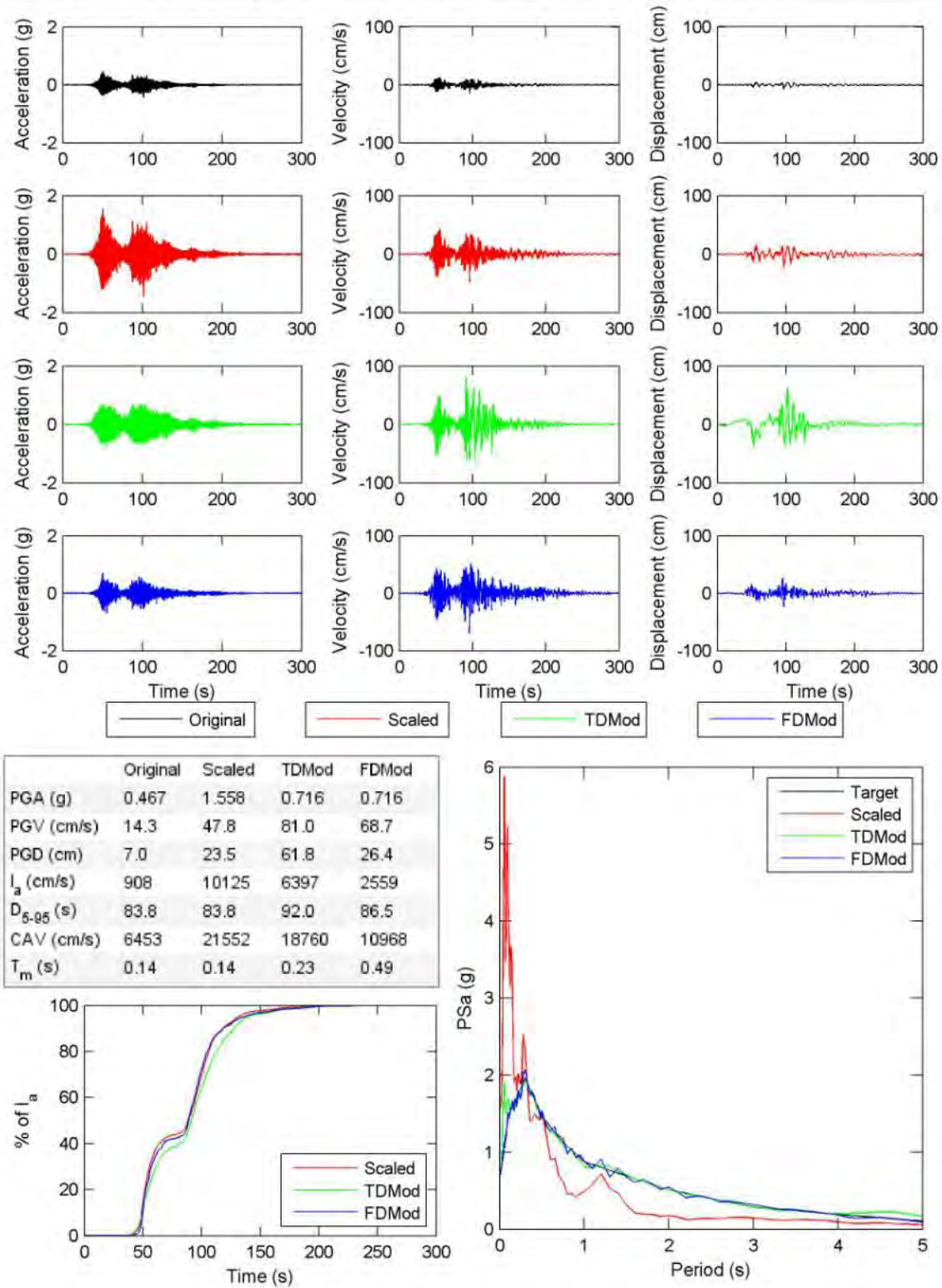Scale Factor: 4.86 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 6 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.205	0.996	0.716	0.716
PGV (cm/s)	15.0	73.0	83.9	84.8
PGD (cm)	7.0	34.2	39.6	28.0
I_a (cm/s)	149	3508	2395	1558
D_{5-95} (s)	42.0	42.0	46.5	45.2
CAV (cm/s)	1998	9711	8554	6744
T_m (s)	0.27	0.27	0.36	0.58

Figure E.5. continued.

935

File Name: 4 TOK-HKD113-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.69 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 6 TD poly: 7
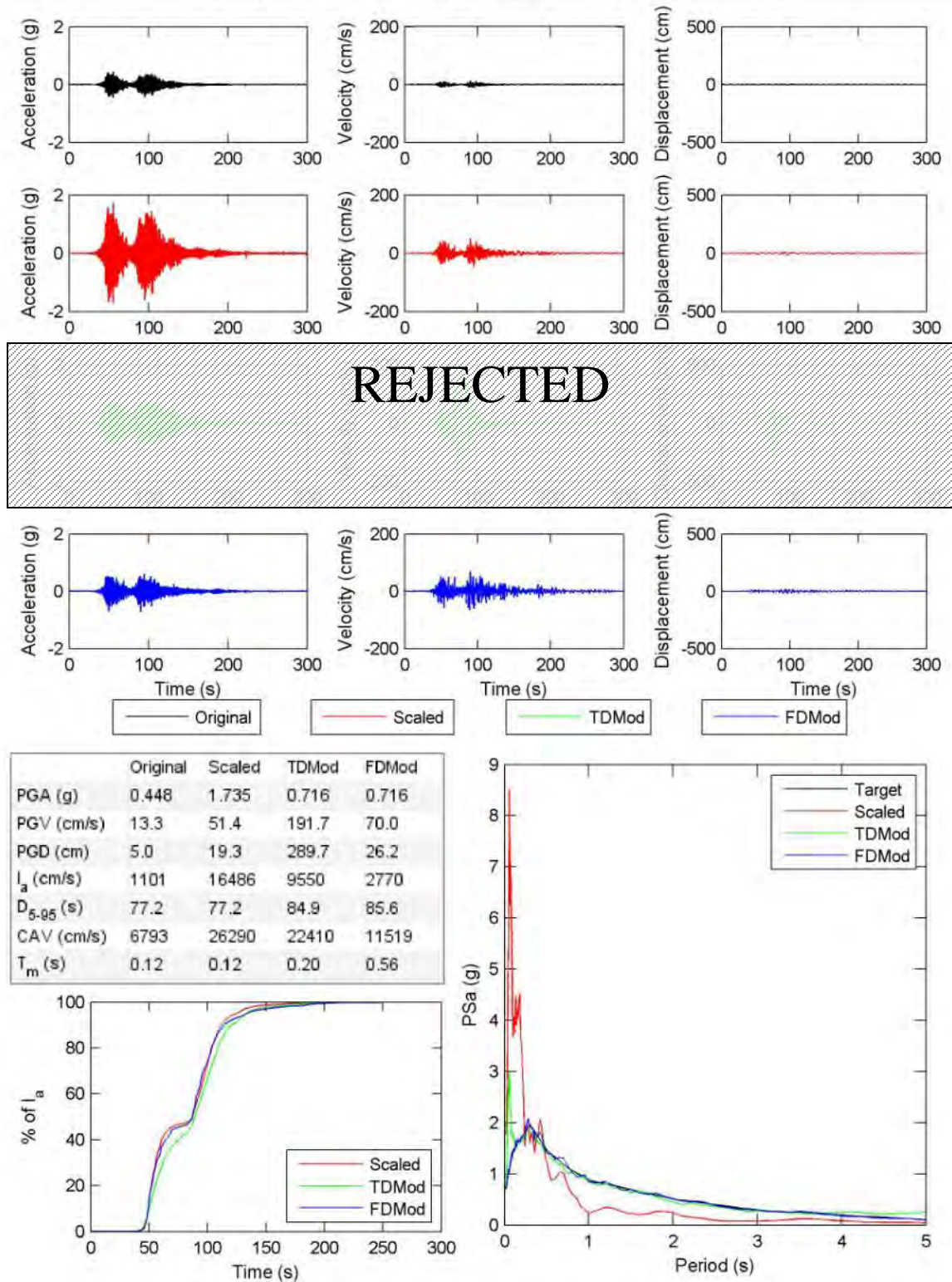

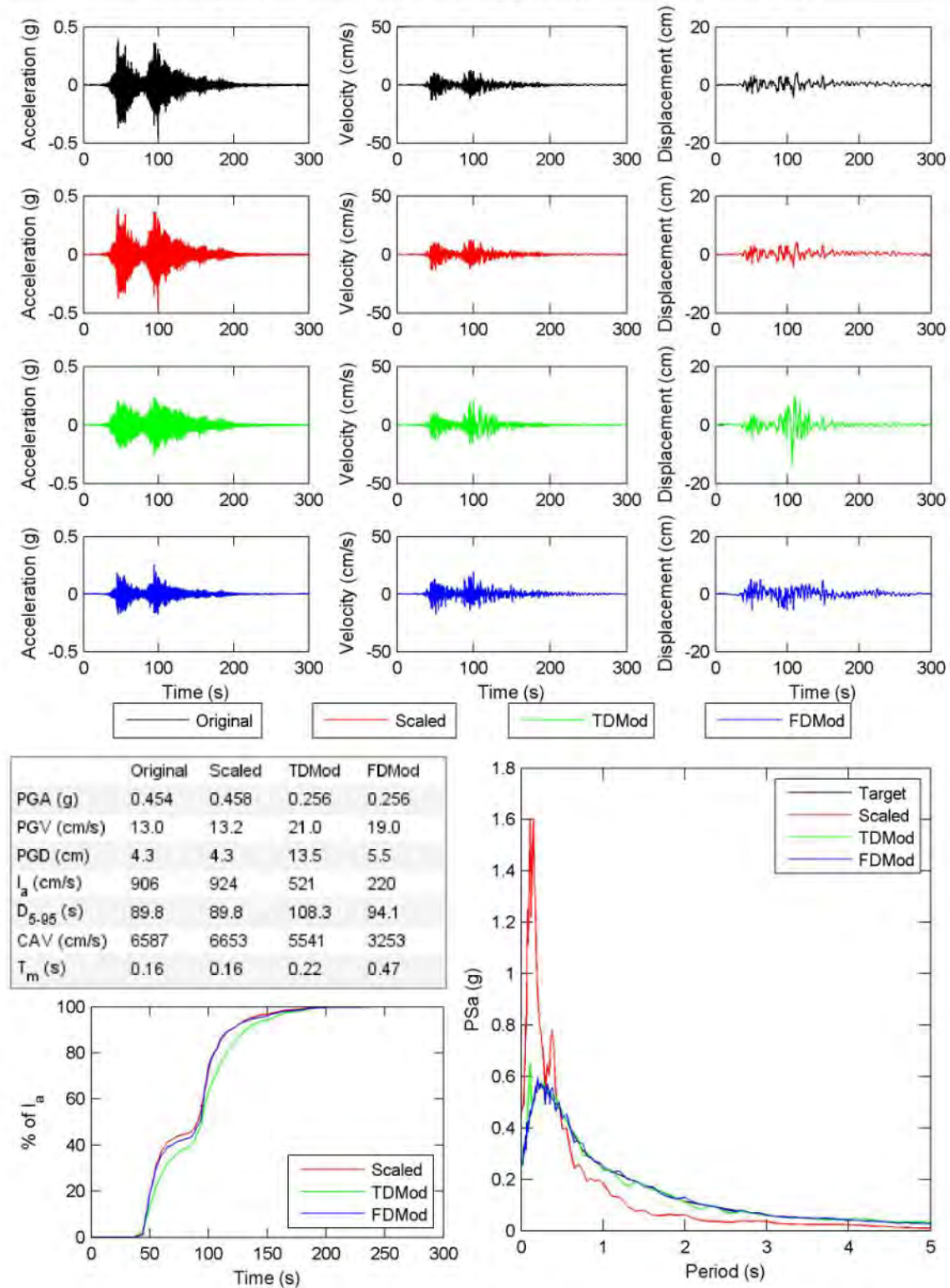|	Original	Scaled	TDMod	FDMod
PGA (g)	0.165	0.937	0.716	0.716
PGV (cm/s)	15.5	88.5	76.9	77.3
PGD (cm)	10.0	56.7	61.1	31.4
I_a (cm/s)	70	2253	1938	1772
D_{5-95} (s)	41.9	41.9	44.1	48.6
CAV (cm/s)	1377	7834	7549	7409
T_m (s)	0.45	0.45	0.48	0.51

Figure E.5. continued.

936

File Name: 5 ELS-SM090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.74 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

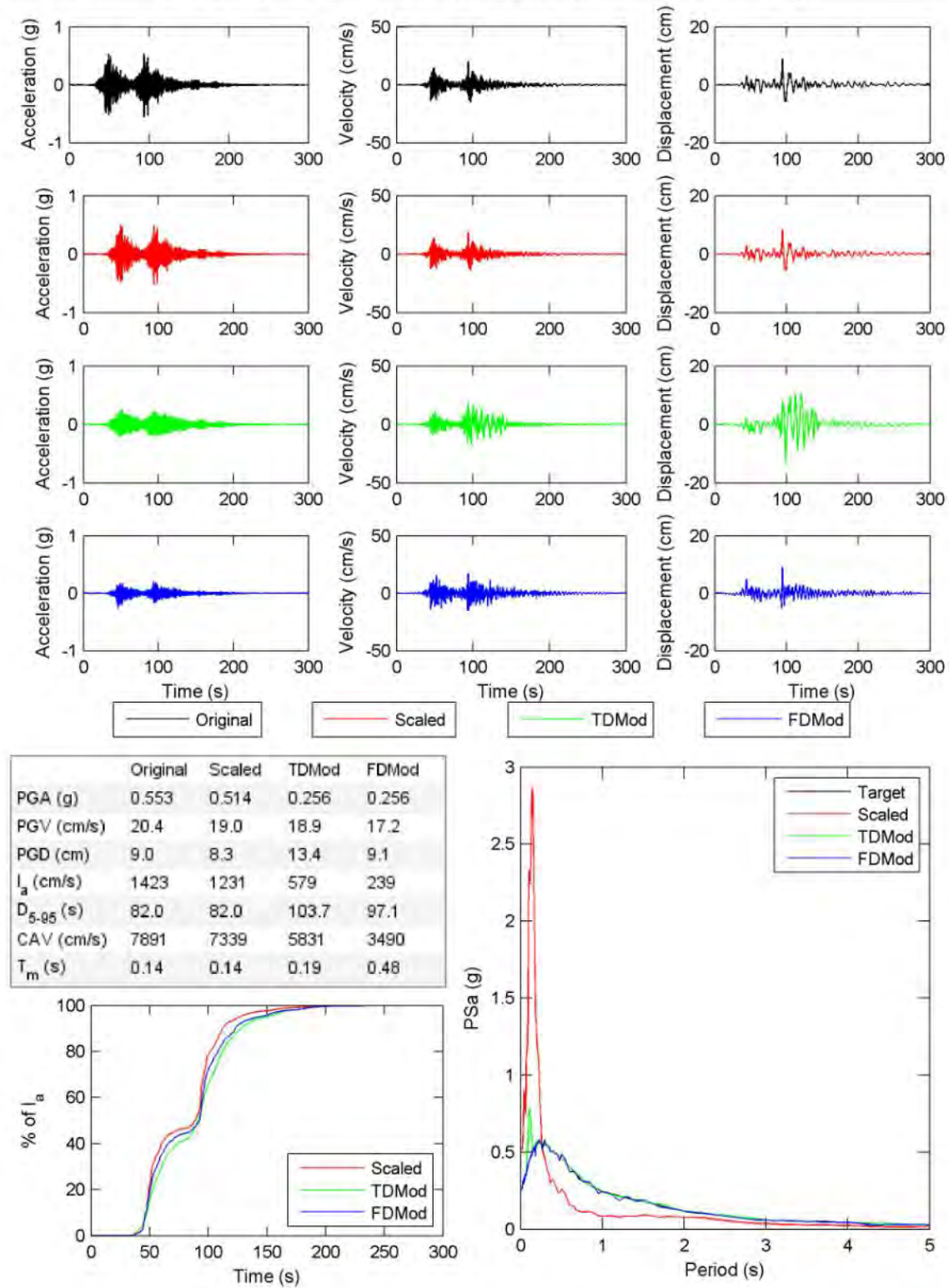|	Original	Scaled	TDMod	FDMod
PGA (g)	0.716	1.246	0.716	0.716
PGV (cm/s)	40.4	70.2	87.3	81.3
PGD (cm)	8.4	14.6	43.5	26.8
I_a (cm/s)	1175	3557	1728	1091
D_{5-95} (s)	15.5	15.5	23.3	18.0
CAV (cm/s)	3529	6141	5278	3803
T_m (s)	0.30	0.30	0.50	0.57

Figure E.5. continued.

937

File Name: 5 ELS-SM360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.15 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 3

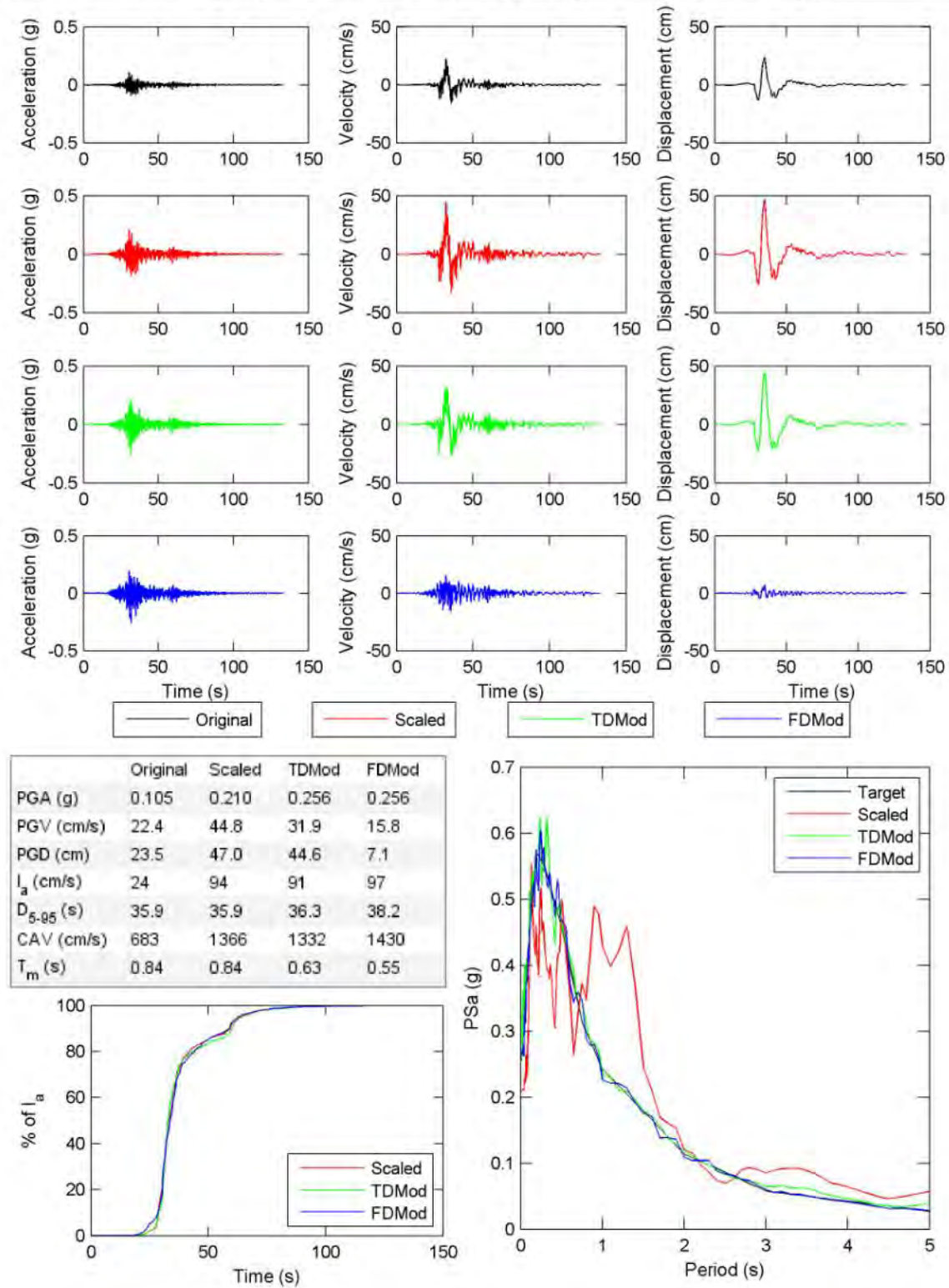|	Original	Scaled	TDMod	FDMod
PGA (g)	0.881	1.894	0.716	0.716
PGV (cm/s)	27.8	59.8	86.3	74.1
PGD (cm)	6.0	12.8	25.1	28.9
I_a (cm/s)	963	4449	1892	1167
D_{5-95} (s)	15.1	15.1	22.7	20.8
CAV (cm/s)	3299	7093	5388	4222
T_m (s)	0.26	0.26	0.41	0.62

Figure E.5. continued.

938

File Name: 5 HON-IWTH27-E   Start and End Taper Percentage: 1.0% and 5.0%
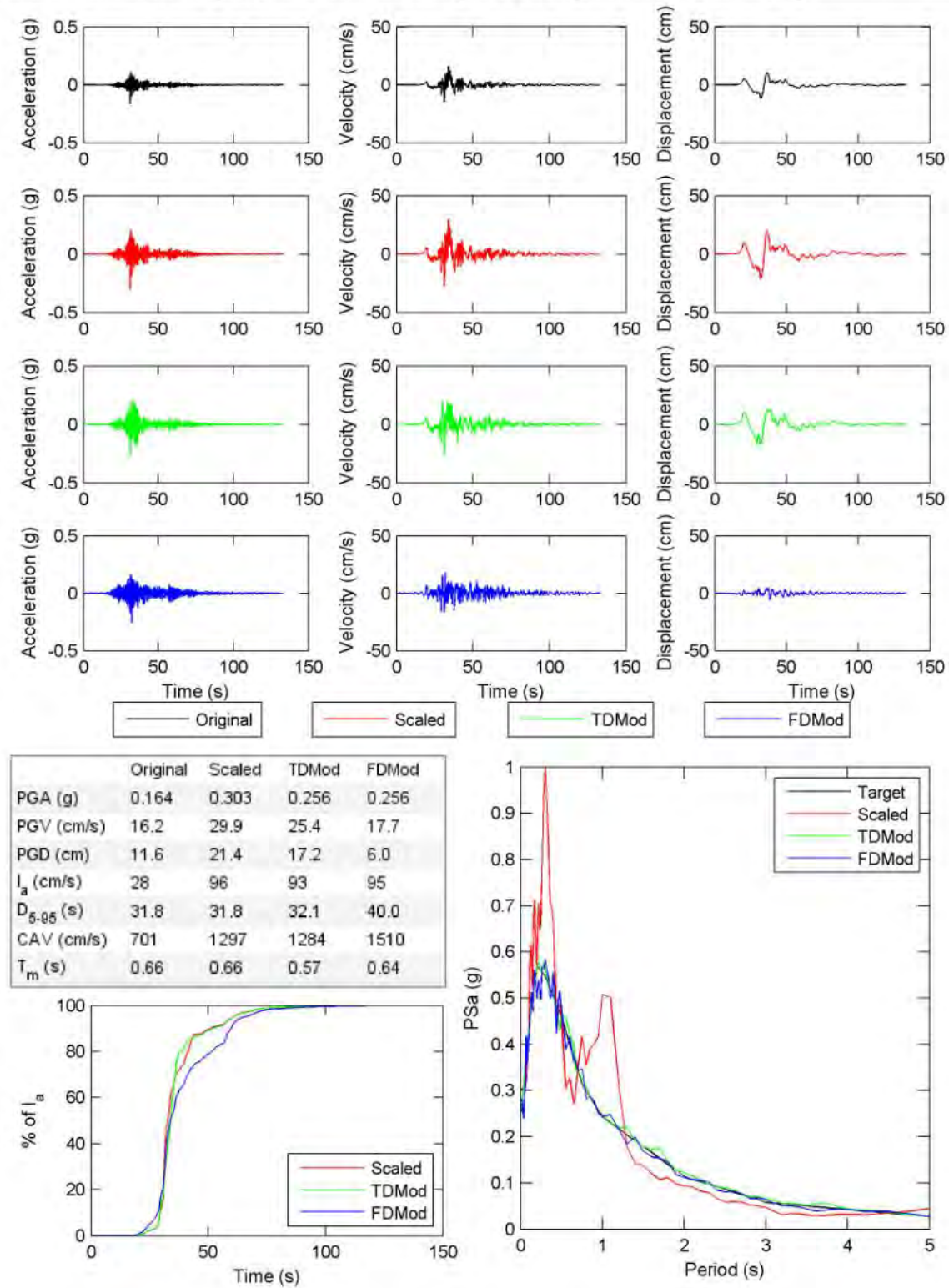Scale Factor: 3.44 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 9

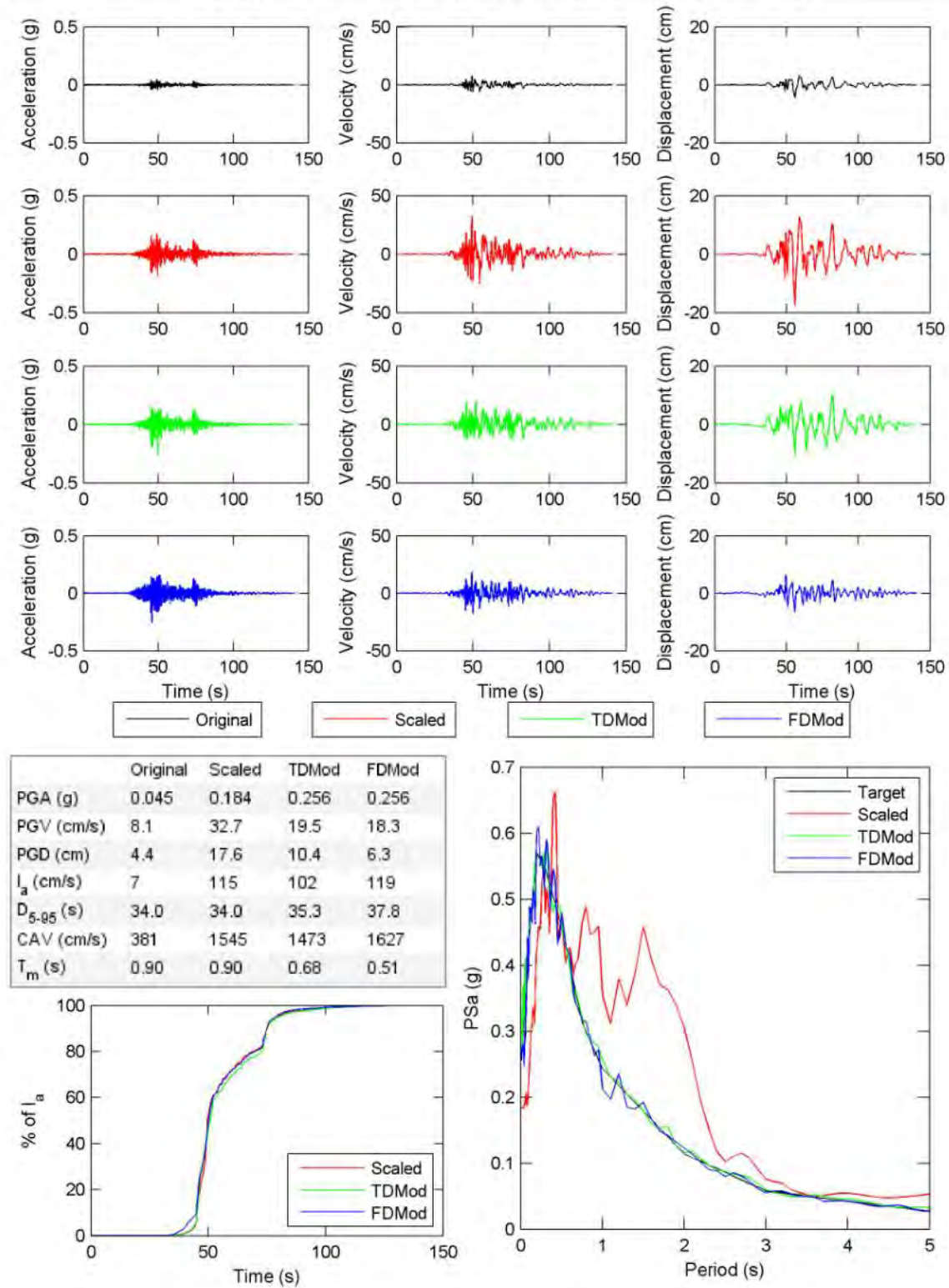|	Original	Scaled	TDMod	FDMod
PGA (g)	0.655	2.254	0.716	0.716
PGV (cm/s)	17.9	61.7	85.4	76.7
PGD (cm)	4.6	15.9	33.4	21.5
I_a (cm/s)	1357	16061	7989	2617
D_{5-95} (s)	85.4	85.4	112.3	103.9
CAV (cm/s)	7975	27434	22084	11652
T_m (s)	0.17	0.17	0.23	0.55
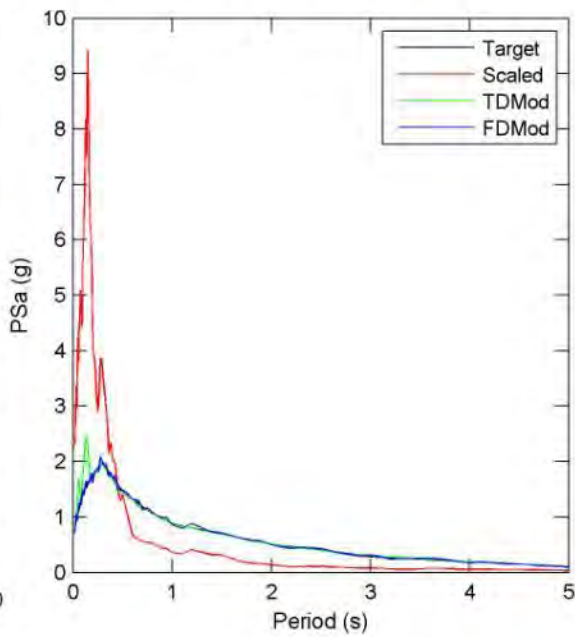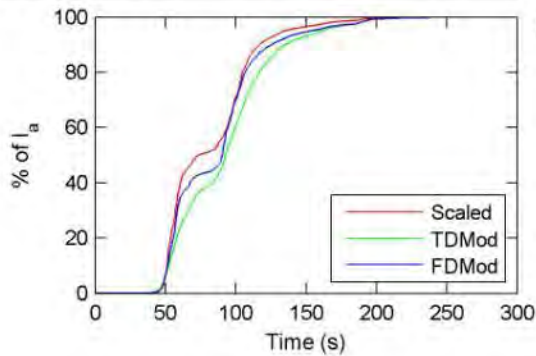
Figure E.5. continued.

939

File Name: 5 HON-IWTH27-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.68 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 3 TD poly: 8

REJECTED

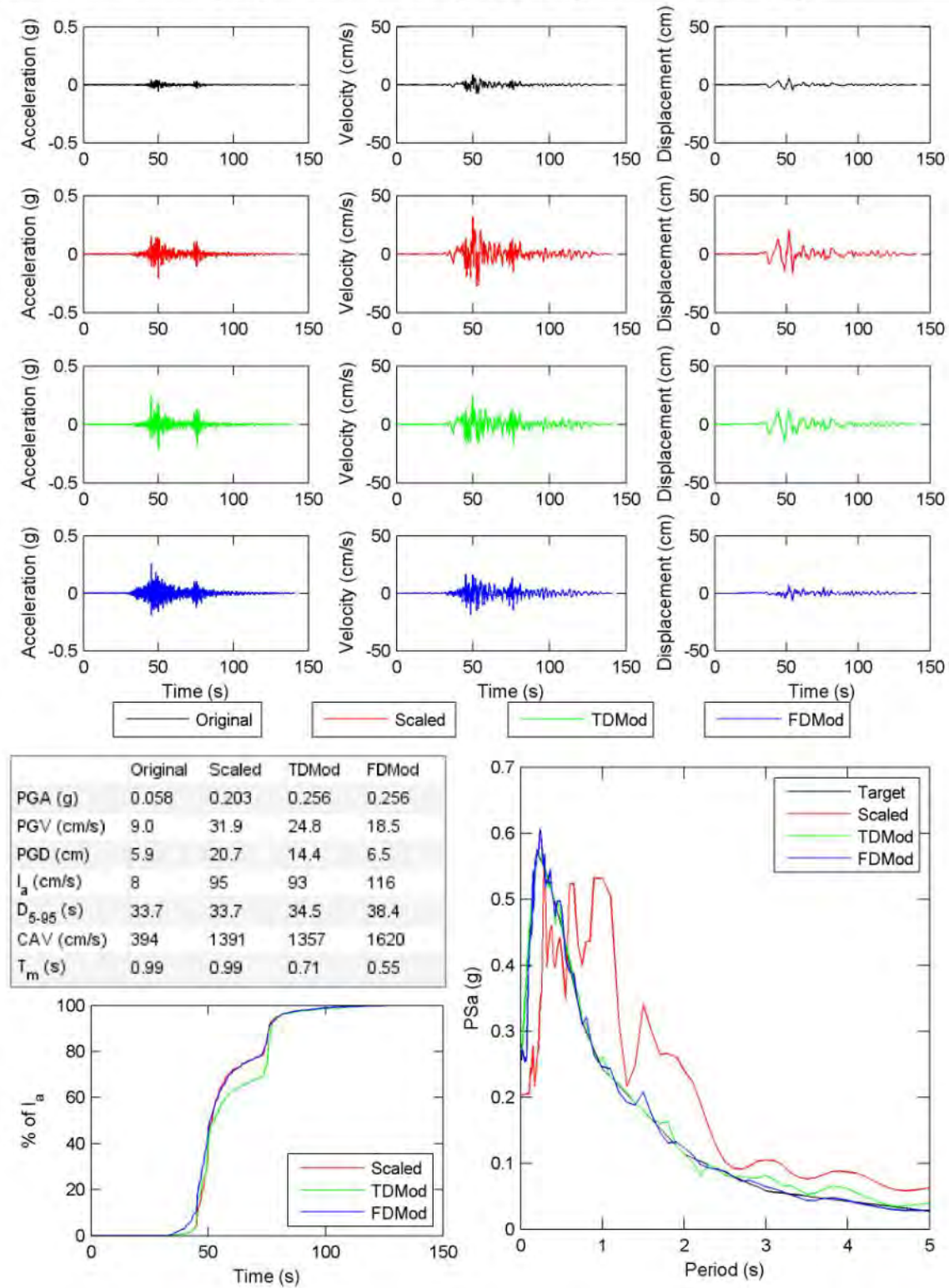|	Original	Scaled	TDMod	FDMod
PGA (g)	0.755	2.779	0.716	0.716
PGV (cm/s)	16.6	61.2	77.7	71.2
PGD (cm)	3.6	13.3	62.2	24.3
I_a (cm/s)	2062	27924	11333	3114
D_{5-95} (s)	79.8	79.8	101.9	101.5
CAV (cm/s)	9483	34897	26259	12868
T_m (s)	0.14	0.14	0.17	0.56

Figure E.5. continued.

940

File Name: 6 ELS-SG270   Start and End Taper Percentage: 1.0% and 5.0%
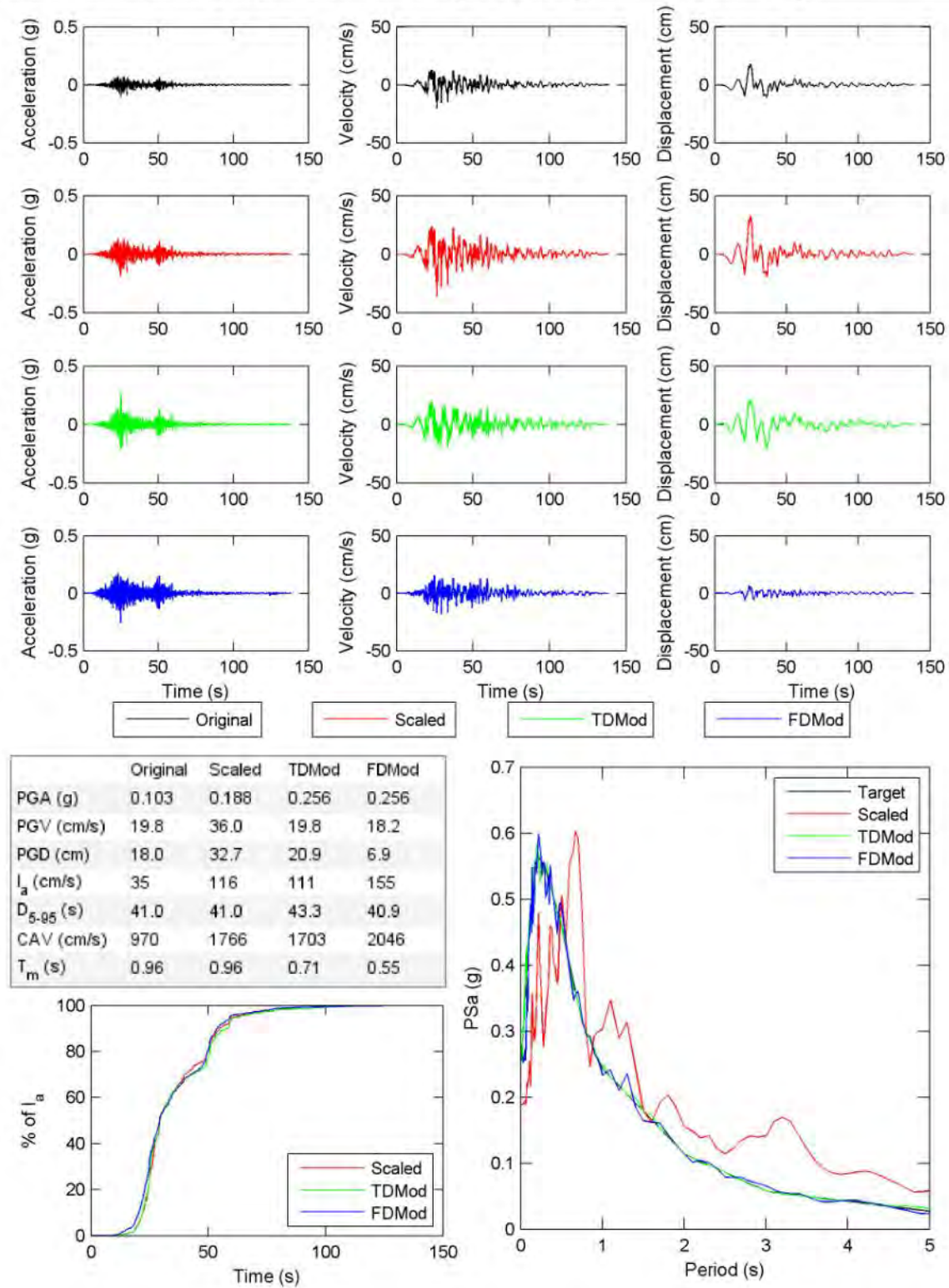Scale Factor: 6.64 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.902	0.716	0.716
PGV (cm/s)	12.8	84.8	65.8	77.3
PGD (cm)	4.4	29.1	25.4	27.8
I_a (cm/s)	55	2447	1877	1751
D_{5-95} (s)	35.7	35.7	37.7	34.9
CAV (cm/s)	1040	6908	5856	5606
T_m (s)	0.60	0.60	0.54	0.57

Figure E.5. continued.

941

File Name: 6 ELS-SG360   Start and End Taper Percentage: 1.0% and 5.0%
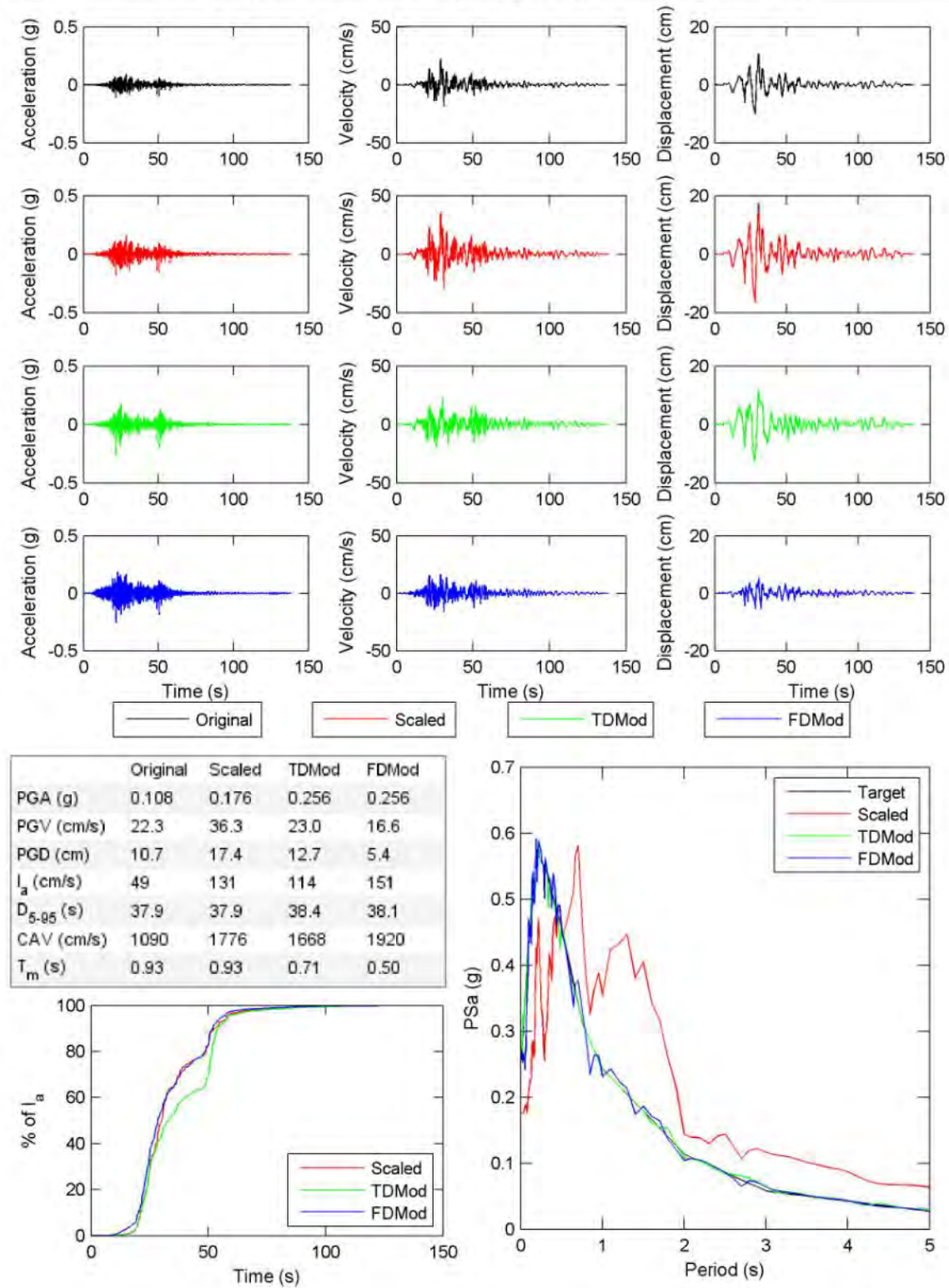Scale Factor: 6.36 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 5
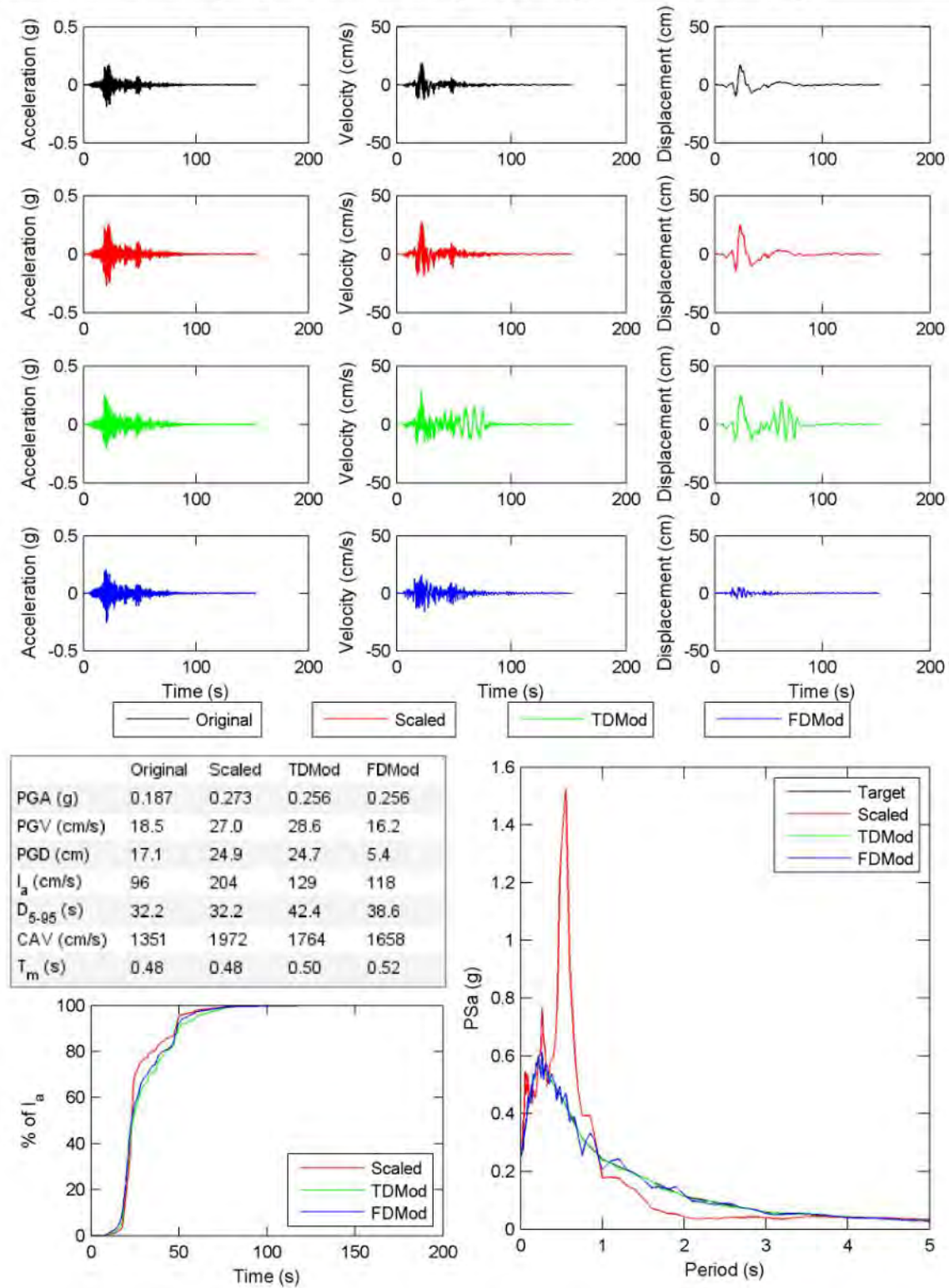

	Original	Scaled	TDMod	FDMod
PGA (g)	0.120	0.766	0.716	0.716
PGV (cm/s)	12.1	77.0	75.8	58.6
PGD (cm)	4.2	26.7	25.9	25.2
I_a (cm/s)	53	2125	1838	1702
D_{5-95} (s)	37.3	37.3	35.1	37.7
CAV (cm/s)	1001	6369	5739	5593
T_m (s)	0.60	0.60	0.57	0.58

Figure E.5. continued.

942

File Name: 6 HON-MYG003-E   Start and End Taper Percentage: 1.0% and 5.0%
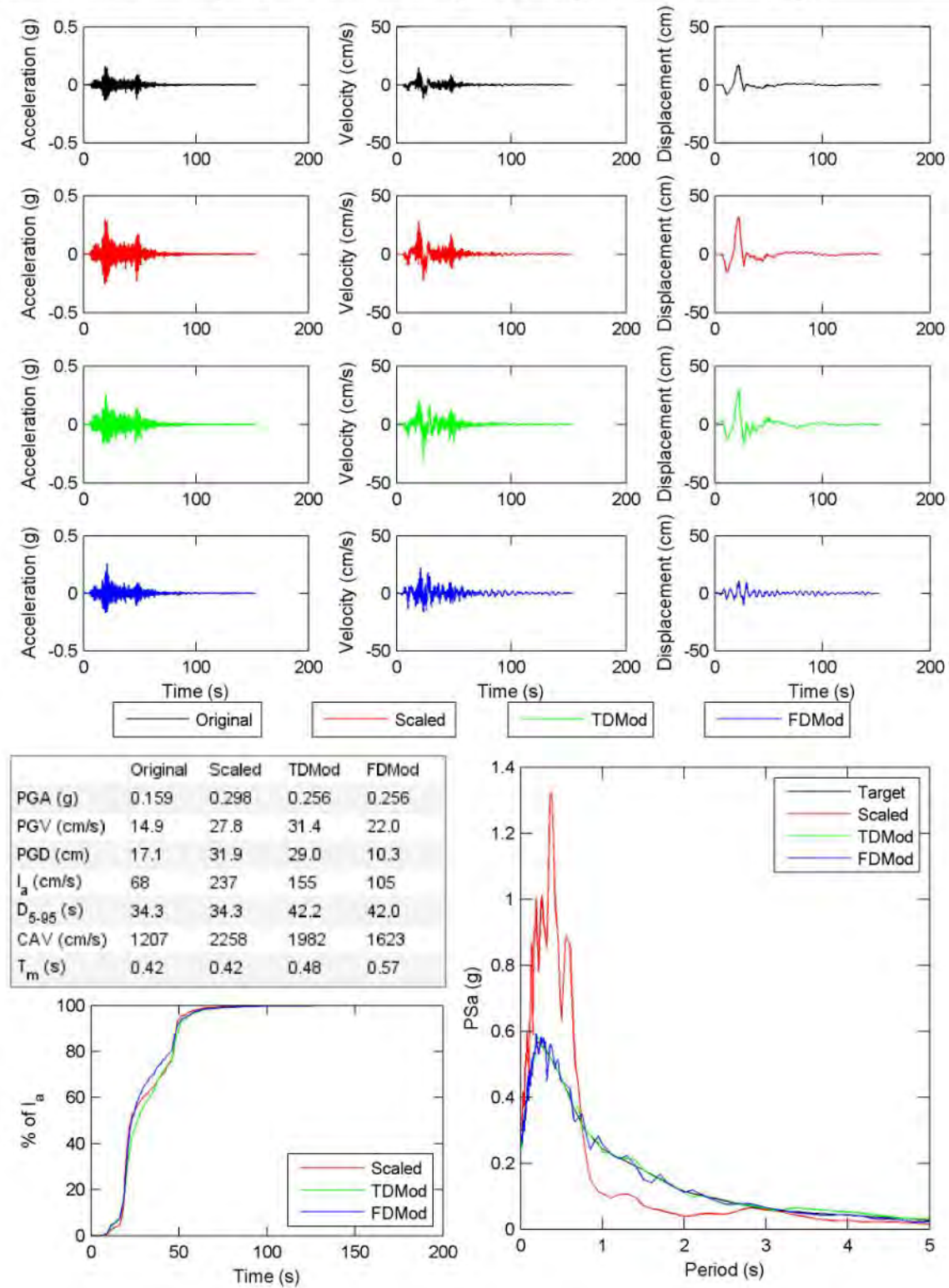Scale Factor: 2.27 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 9 TD poly: 6
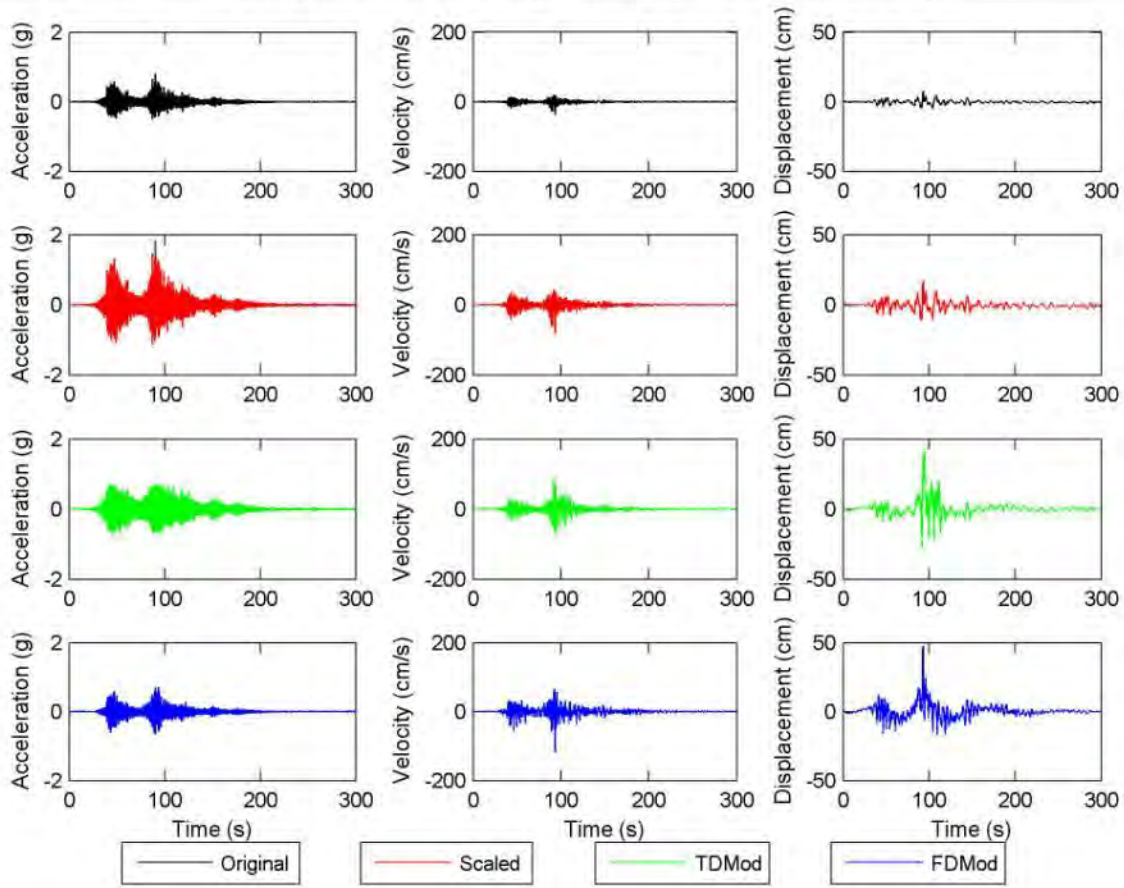
	Original	Scaled	TDMod	FDMod
PGA (g)	0.813	1.845	0.716	0.716
PGV (cm/s)	35.2	79.9	89.2	116.2
PGD (cm)	7.5	17.1	41.2	47.5
I_a (cm/s)	2065	10643	6492	2392
D_{5-95} (s)	87.8	87.8	107.2	89.9
CAV (cm/s)	9874	22414	19280	10586
T_m (s)	0.16	0.16	0.22	0.47

Figure E.5. continued.

943

File Name: 6 HON-MYG003-N   Start and End Taper Percentage: 1.0% and 5.0%
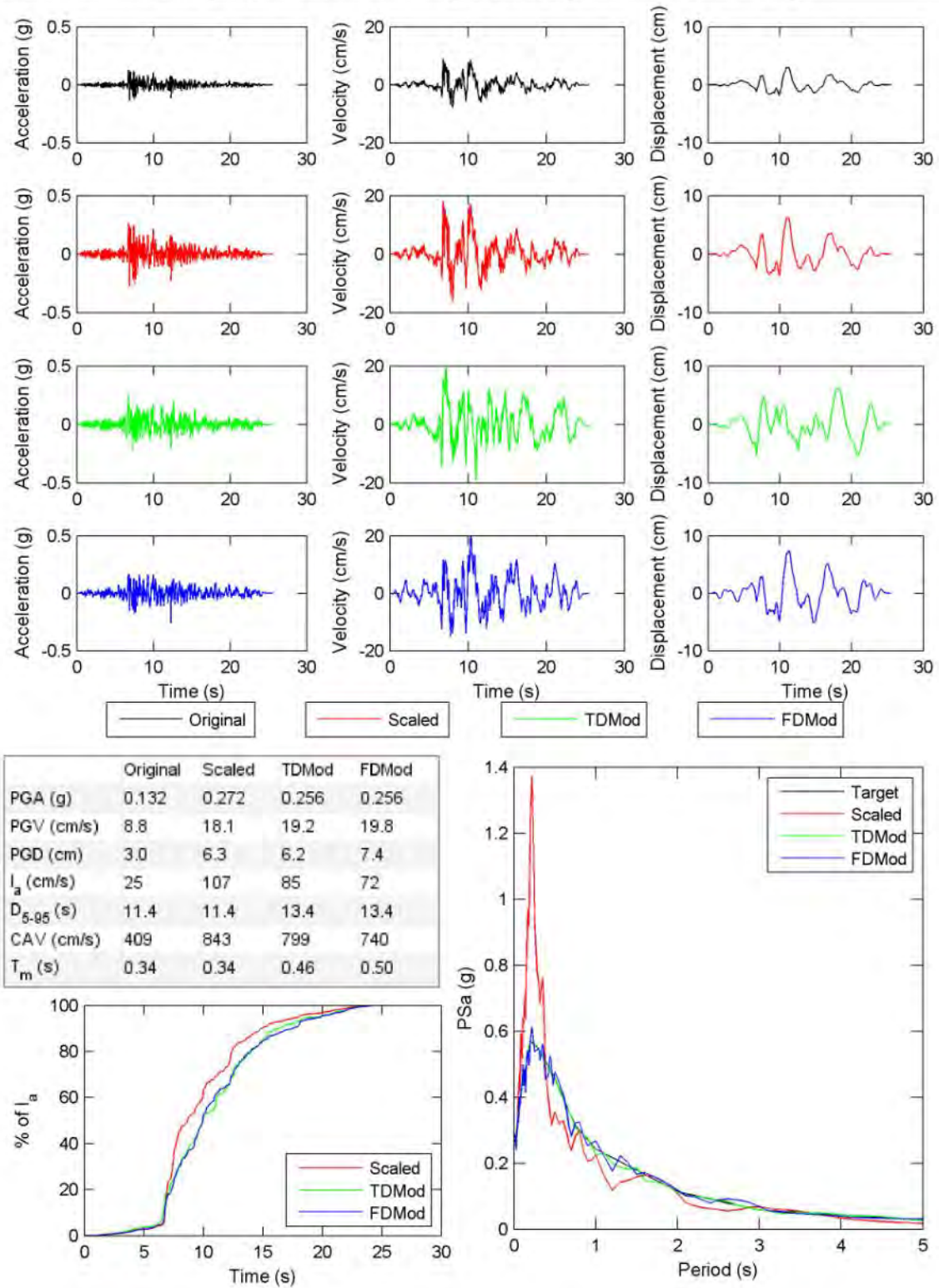Scale Factor: 2.80 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 9 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.539	1.508	0.716	0.716
PGV (cm/s)	24.7	69.0	88.0	70.0
PGD (cm)	9.0	25.2	51.0	31.6
I_a (cm/s)	1569	12303	6872	2829
D_{5-95} (s)	94.9	94.9	111.1	103.6
CAV (cm/s)	8714	24400	20243	11907
T_m (s)	0.16	0.16	0.21	0.49

Figure E.5. continued.

944

File Name: 7 ELS-ZA000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.71 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 3
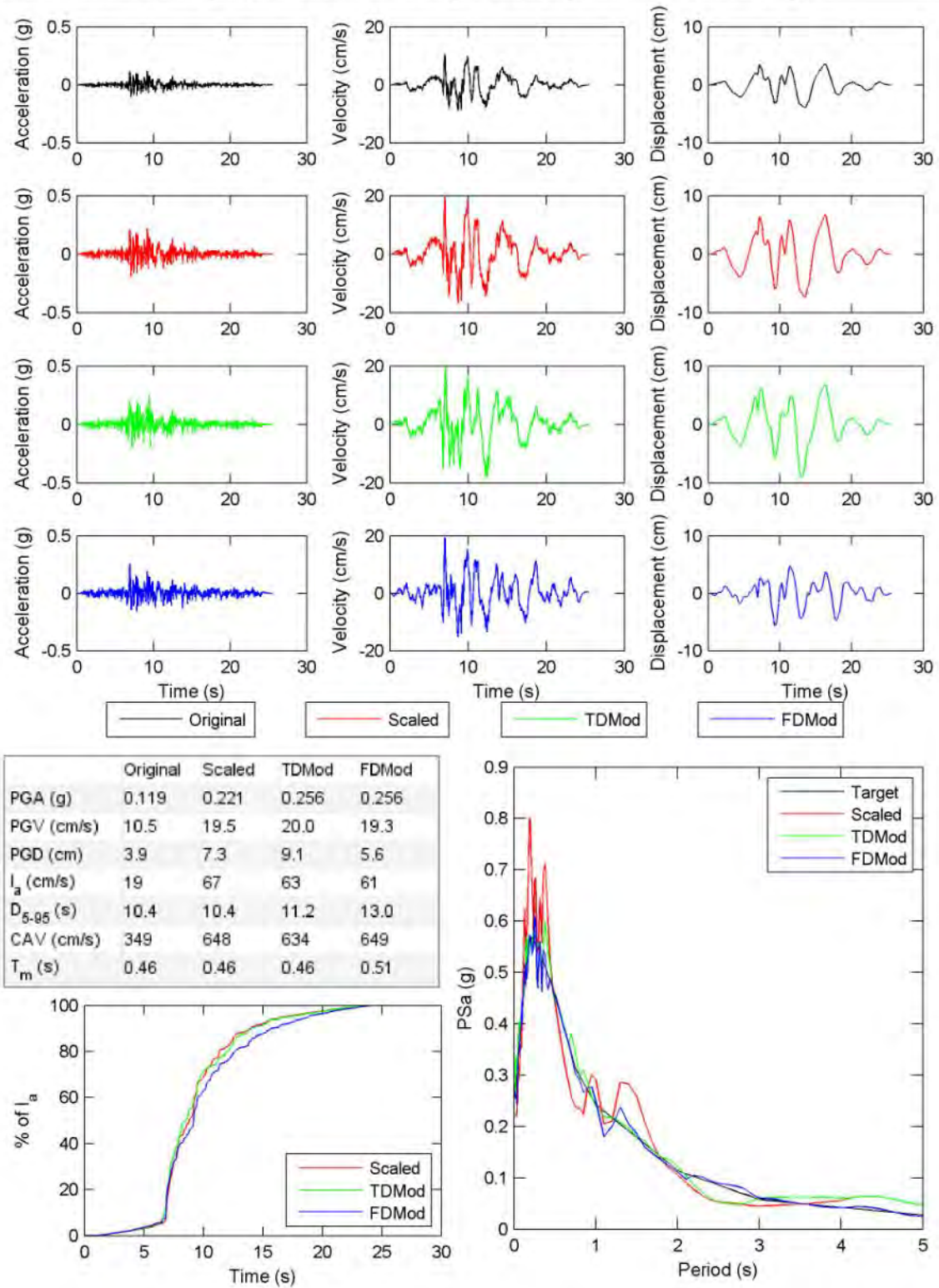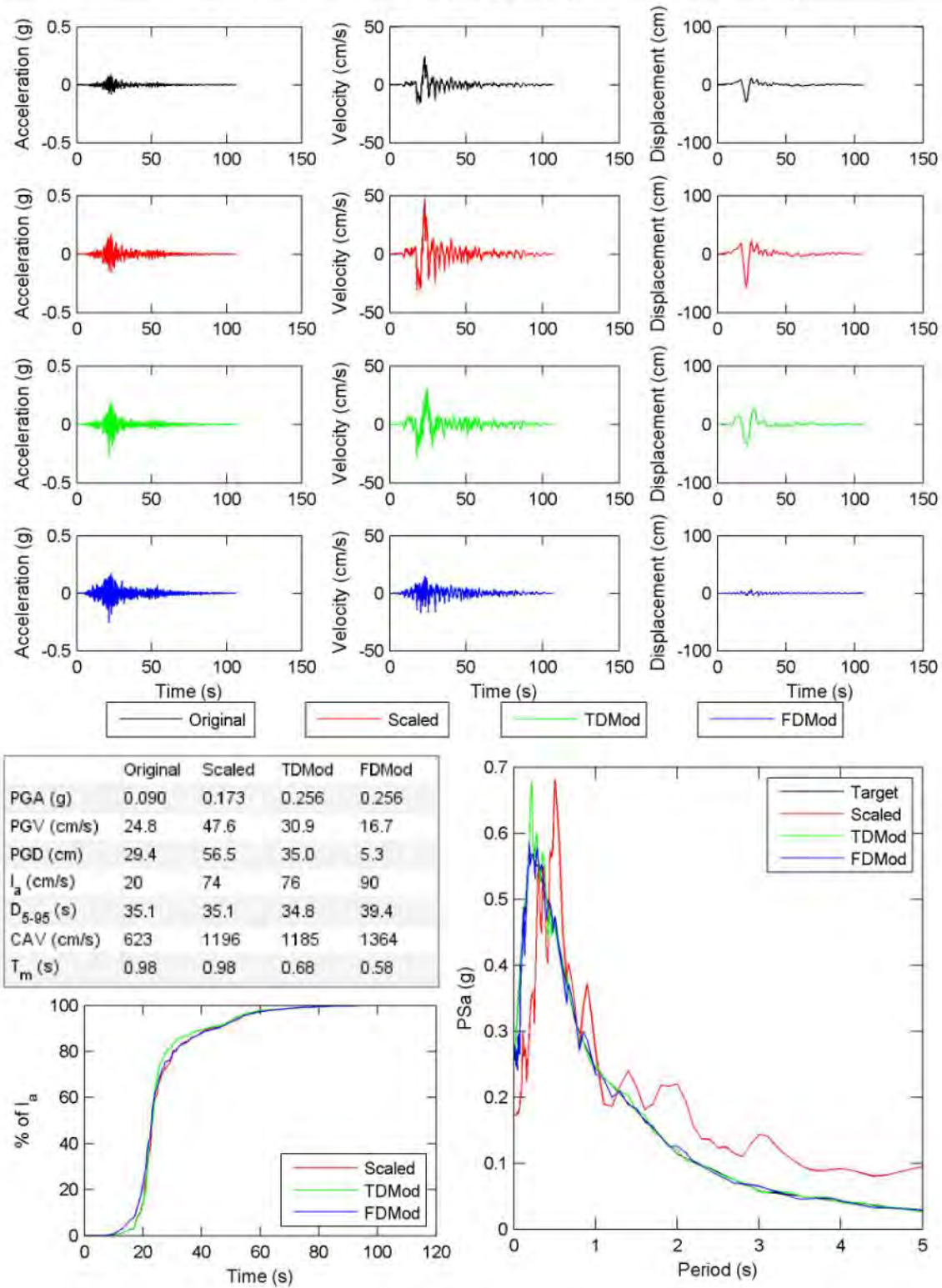

	Original	Scaled	TDMod	FDMod
PGA (g)	0.260	1.225	0.716	0.716
PGV (cm/s)	13.0	61.2	110.3	79.9
PGD (cm)	4.5	21.4	99.8	28.5
I_a (cm/s)	167	3713	1948	1381
D_{5-95} (s)	19.0	19.0	25.4	24.2
CAV (cm/s)	1488	7008	5621	4618
T_m (s)	0.24	0.24	0.41	0.56

Figure E.5. continued.

945

File Name: 7 ELS-ZA090   Start and End Taper Percentage: 1.0% and 5.0%
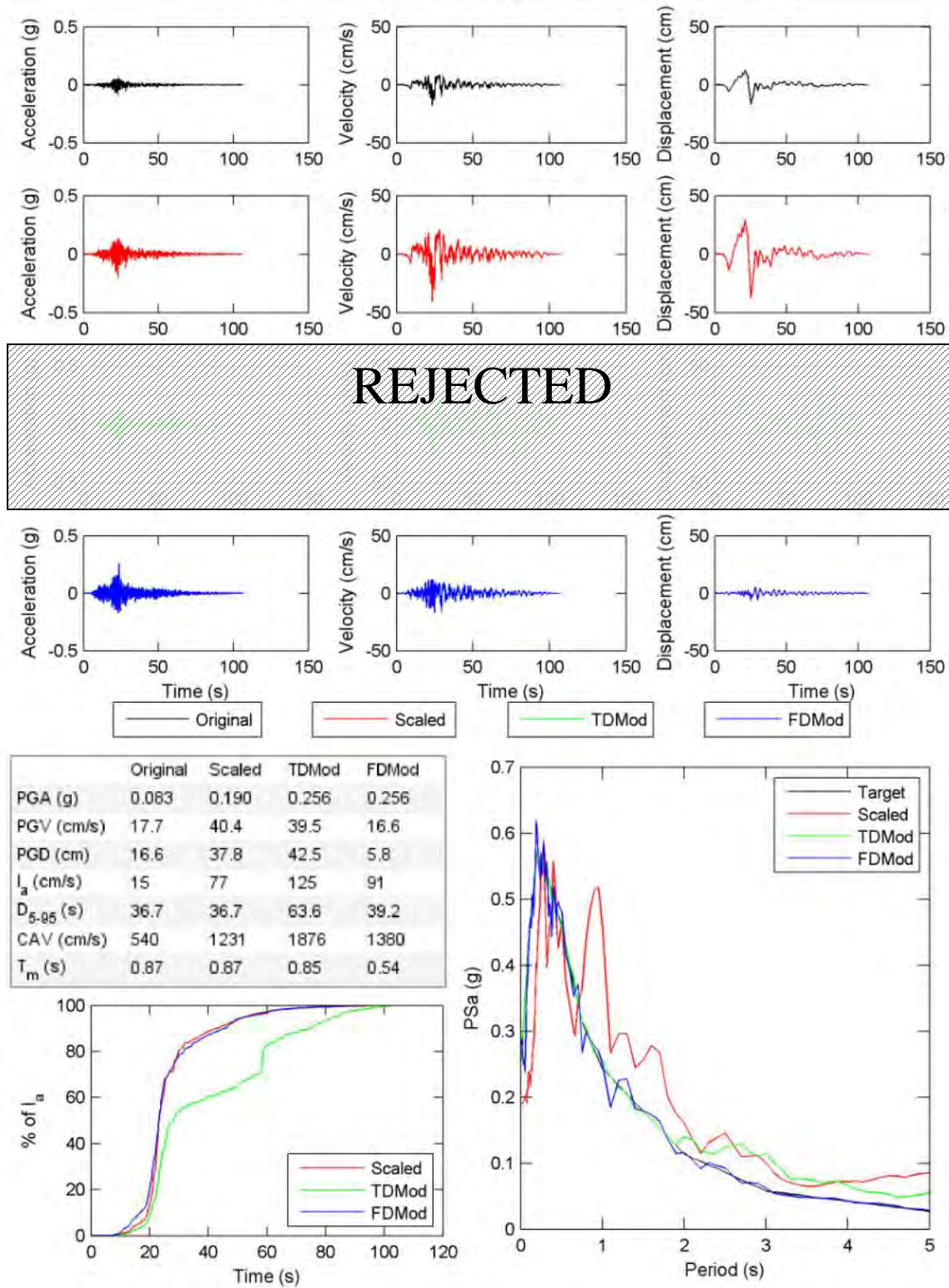Scale Factor: 3.74 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 4 TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.317	1.184	0.716	0.716
PGV (cm/s)	18.1	67.8	69.6	77.1
PGD (cm)	8.4	31.3	34.8	35.2
I_a (cm/s)	148	2064	1746	1483
D_{5-95} (s)	20.0	20.0	20.7	22.7
CAV (cm/s)	1411	5278	5015	4649
T_m (s)	0.29	0.29	0.39	0.51

Figure E.5. continued.

946
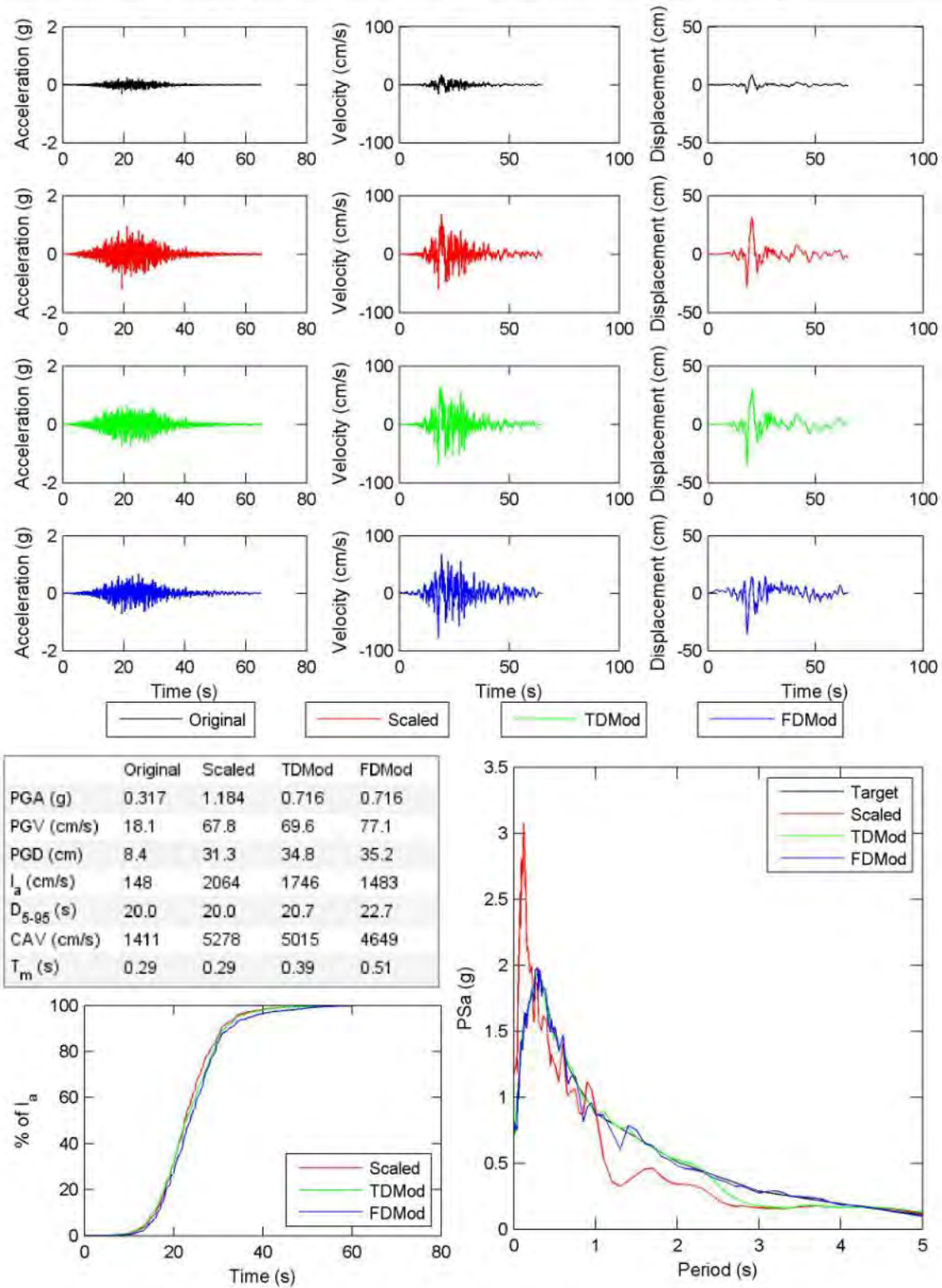
File Name: 7 HON-MYG008-E   Start and End Taper Percentage: 1.0% and 5.0%
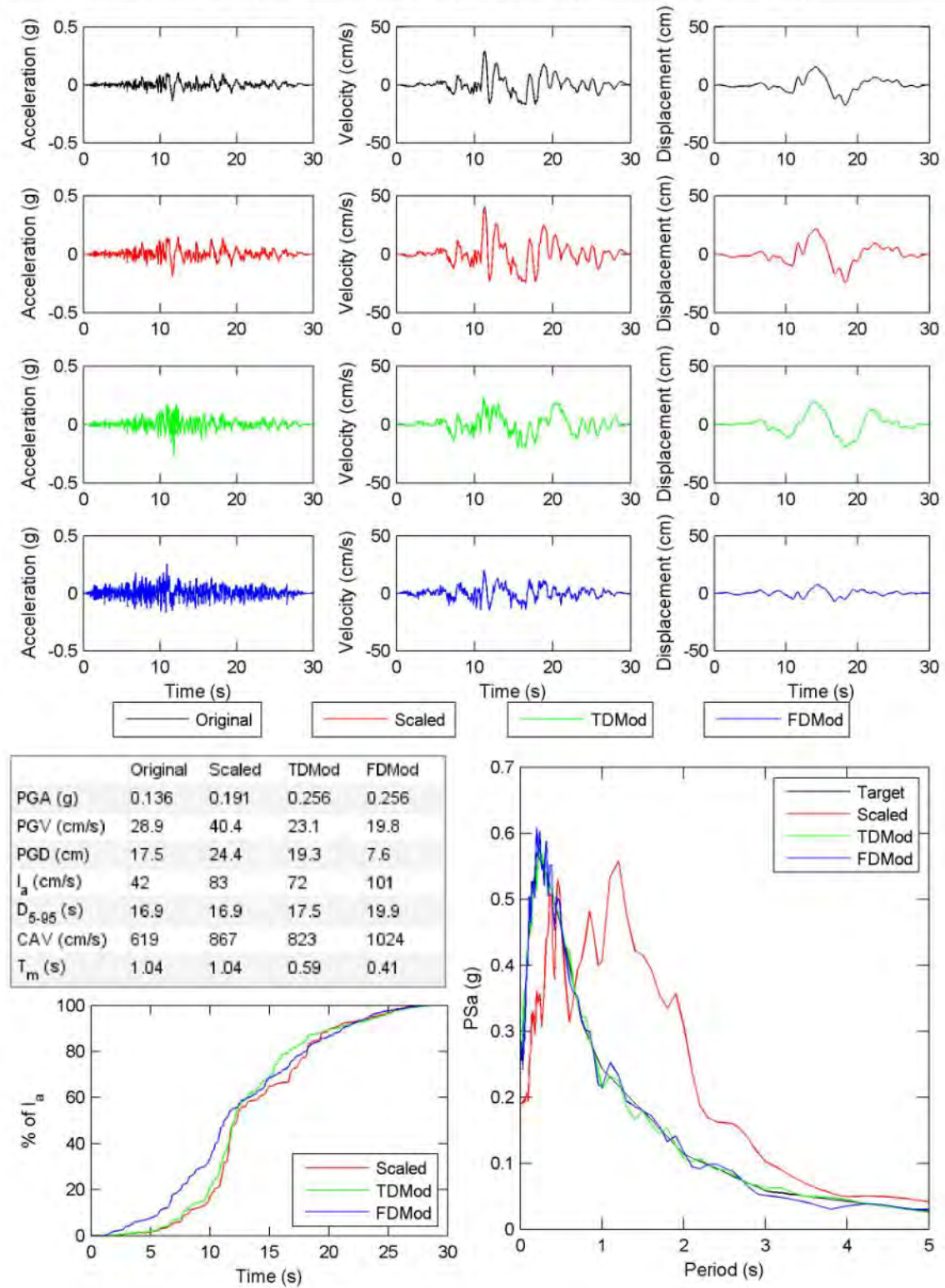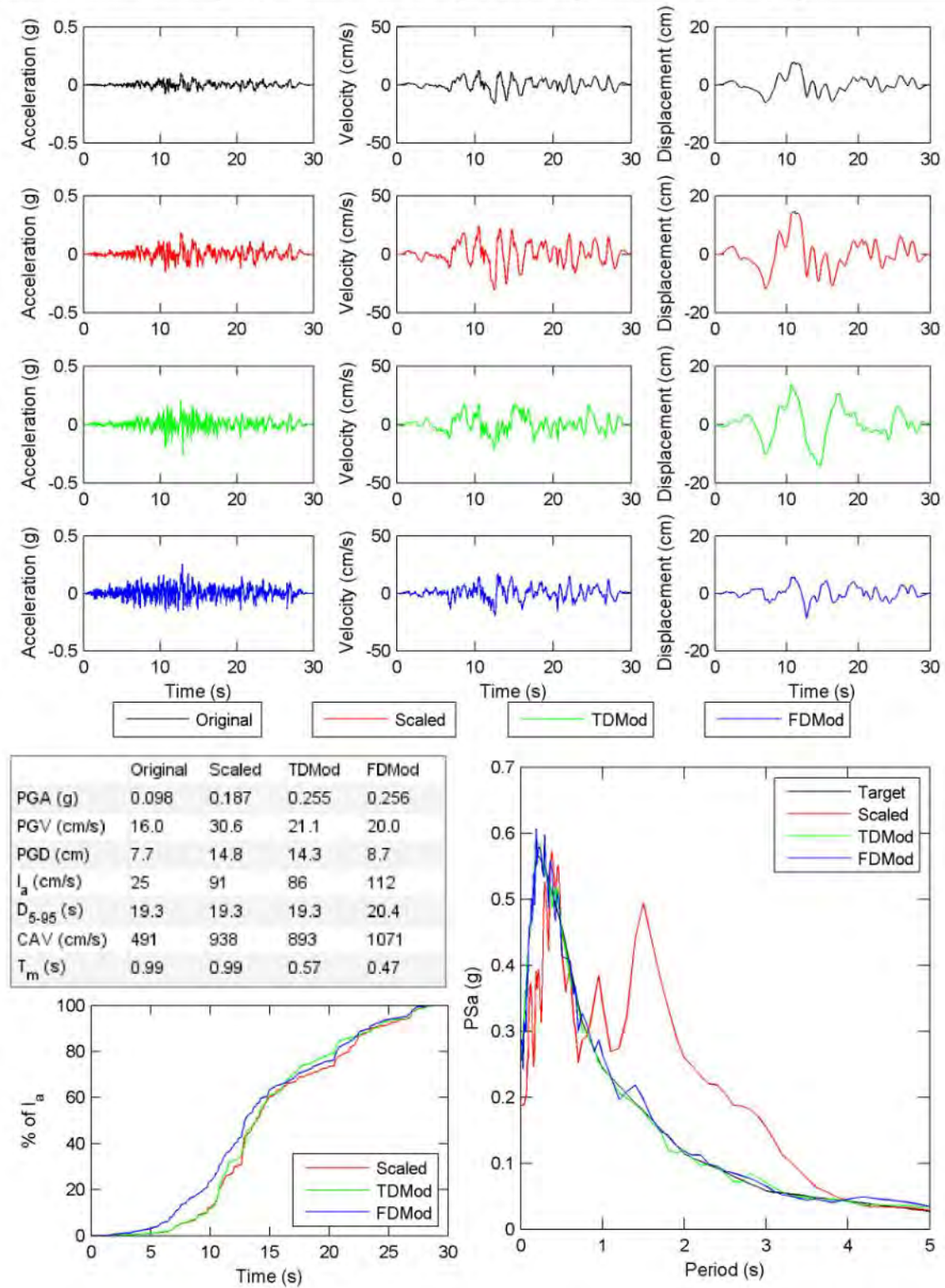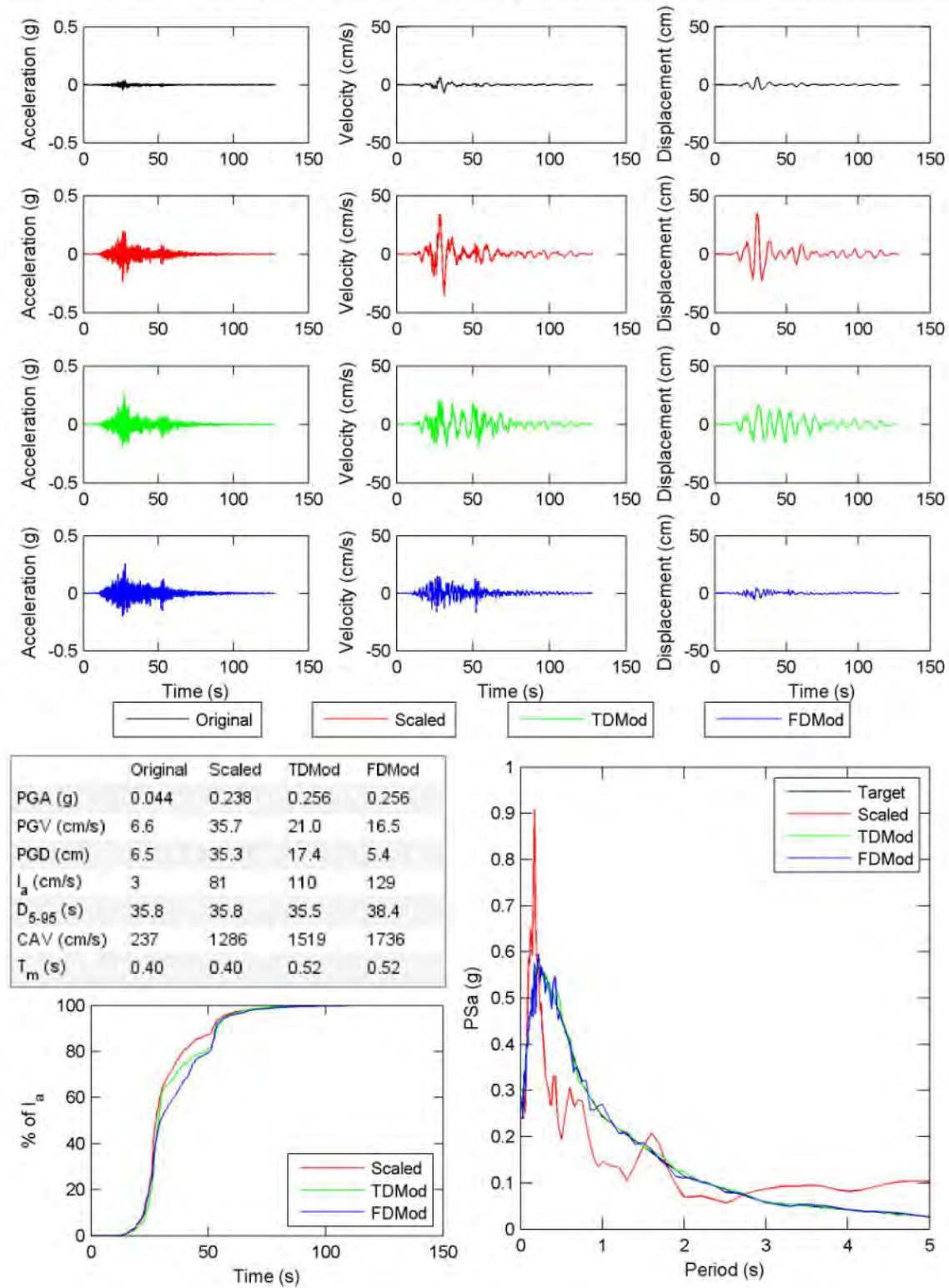Scale Factor: 2.88 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 3
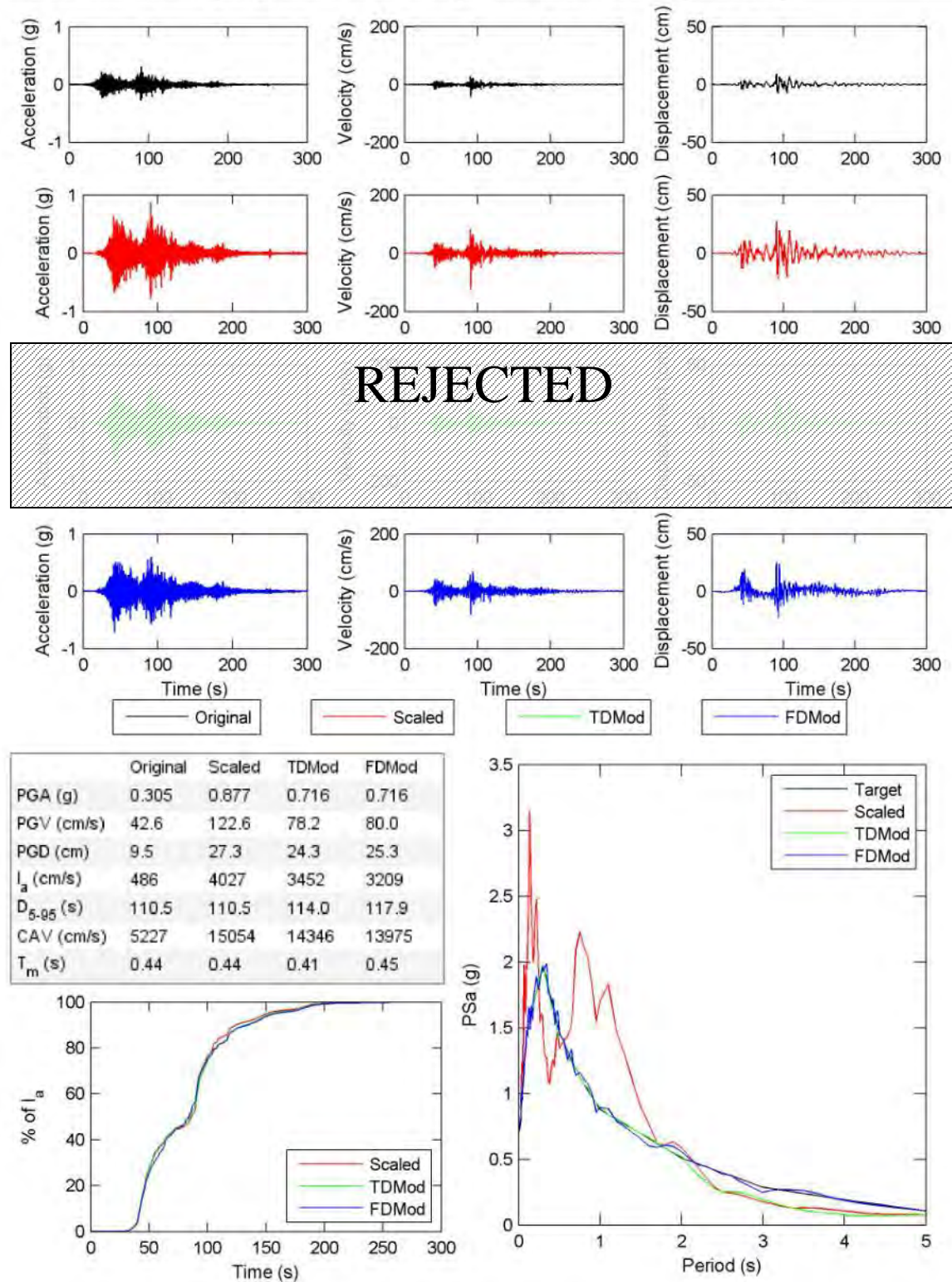
REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.305	0.877	0.716	0.716
PGV (cm/s)	42.6	122.6	78.2	80.0
PGD (cm)	9.5	27.3	24.3	25.3
I_a (cm/s)	486	4027	3452	3209
D_{5-95} (s)	110.5	110.5	114.0	117.9
CAV (cm/s)	5227	15054	14346	13975
T_m (s)	0.44	0.44	0.41	0.45

Figure E.5. continued.

947

	Original	Scaled	TDMod	FDMod
PGA (g)	0.397	1.015	0.716	0.716
PGV (cm/s)	23.6	60.4	86.4	90.7
PGD (cm)	8.3	21.1	50.2	30.9
I_a (cm/s)	617	4045	3281	2440
D_{5-95} (s)	80.7	80.7	85.1	107.6
CAV (cm/s)	5373	13754	13053	11411
T_m (s)	0.29	0.29	0.36	0.56

Figure E.5. continued.

948

File Name: 8 HON-MYG011-E   Start and End Taper Percentage: 1.0% and 5.0%
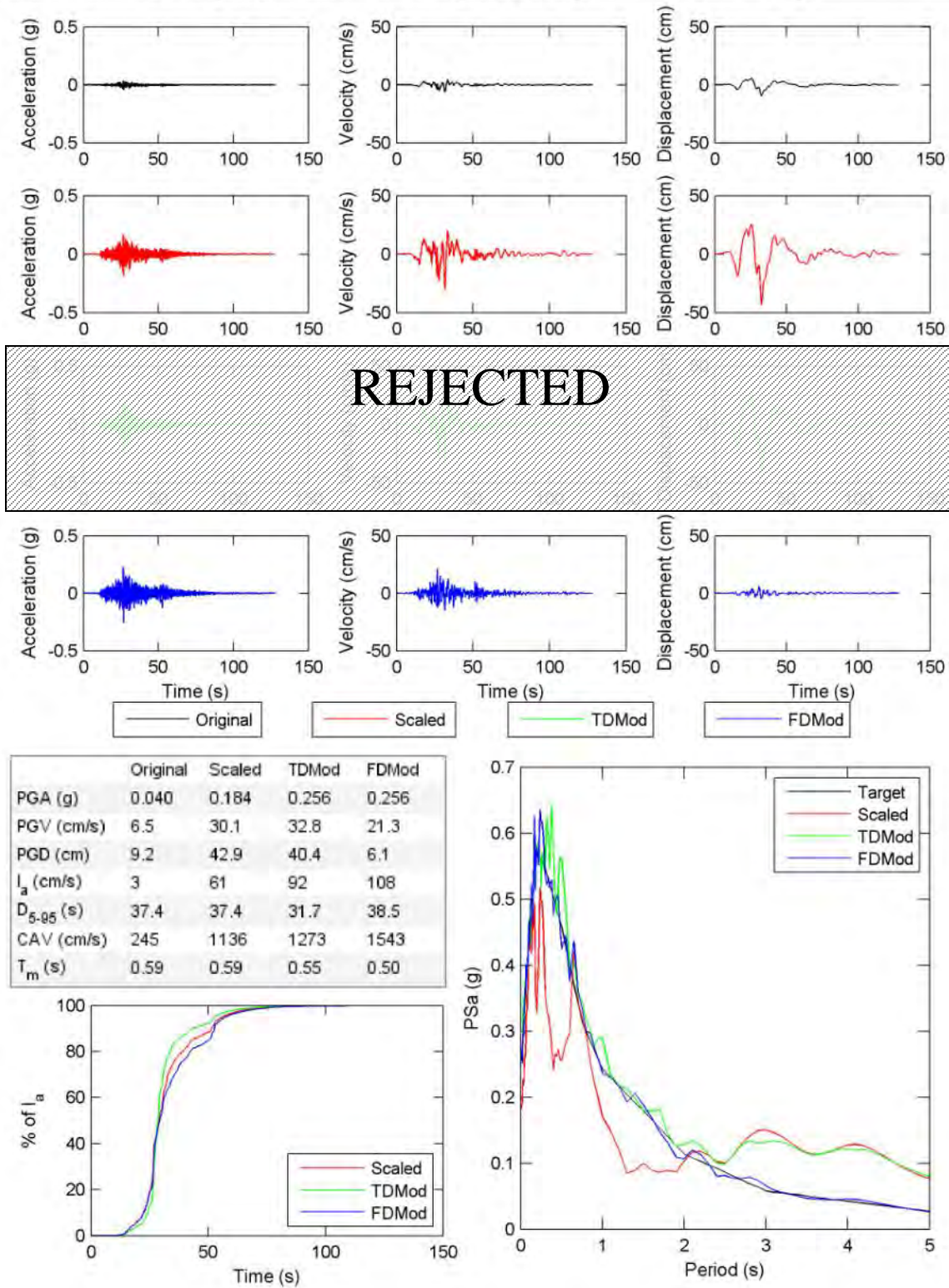Scale Factor: 1.69 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 7 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.763	1.289	0.716	0.716
PGV (cm/s)	37.0	62.5	76.2	77.3
PGD (cm)	11.0	18.6	45.5	30.0
I_a (cm/s)	2016	5759	3955	2010
D_{5-95} (s)	77.2	77.2	83.1	73.9
CAV (cm/s)	8758	14801	13284	8532
T_m (s)	0.19	0.19	0.28	0.44

Figure E.5. continued.

949

File Name: 8 HON-MYG011-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.62 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 8 TD poly: 9

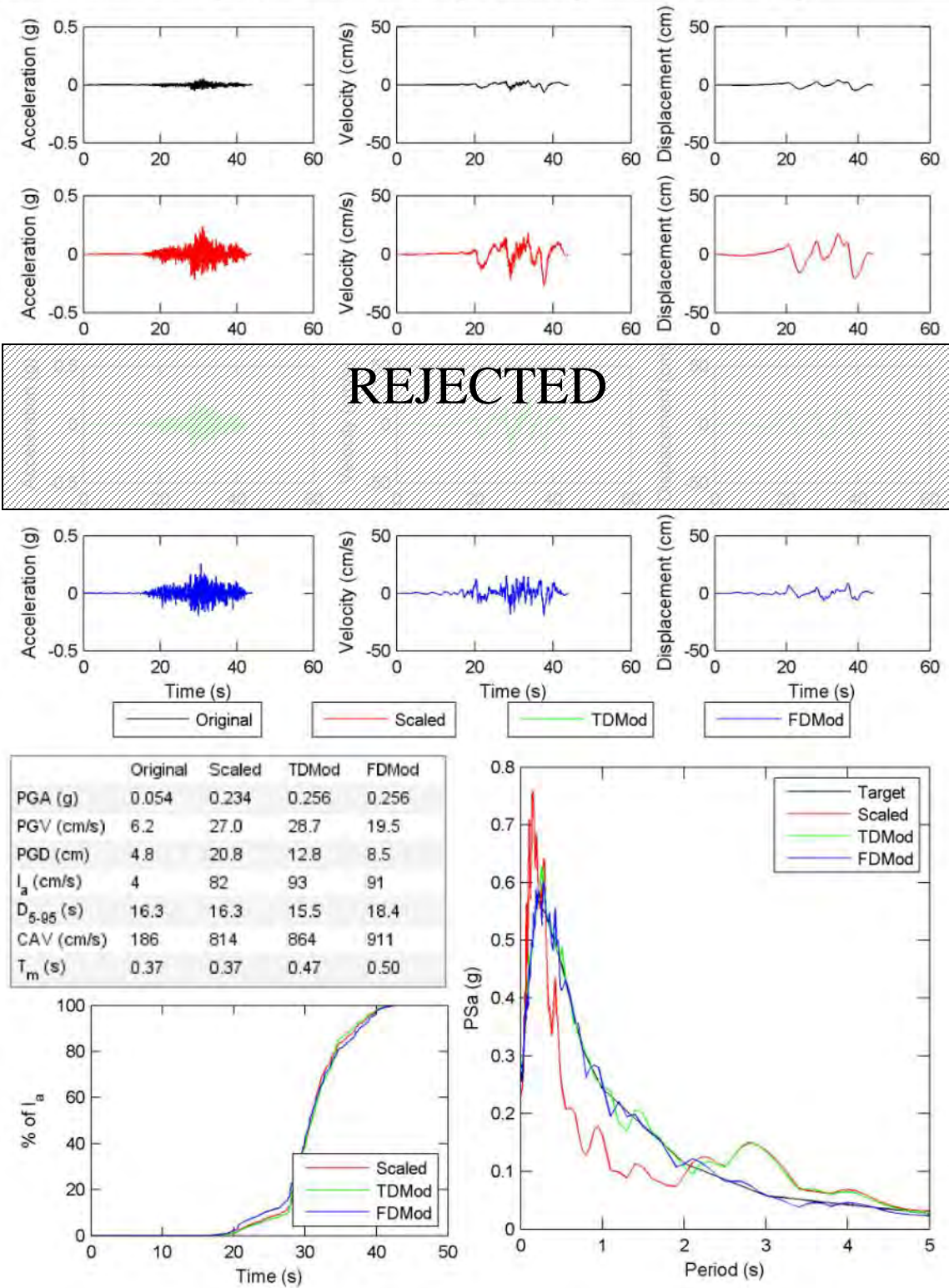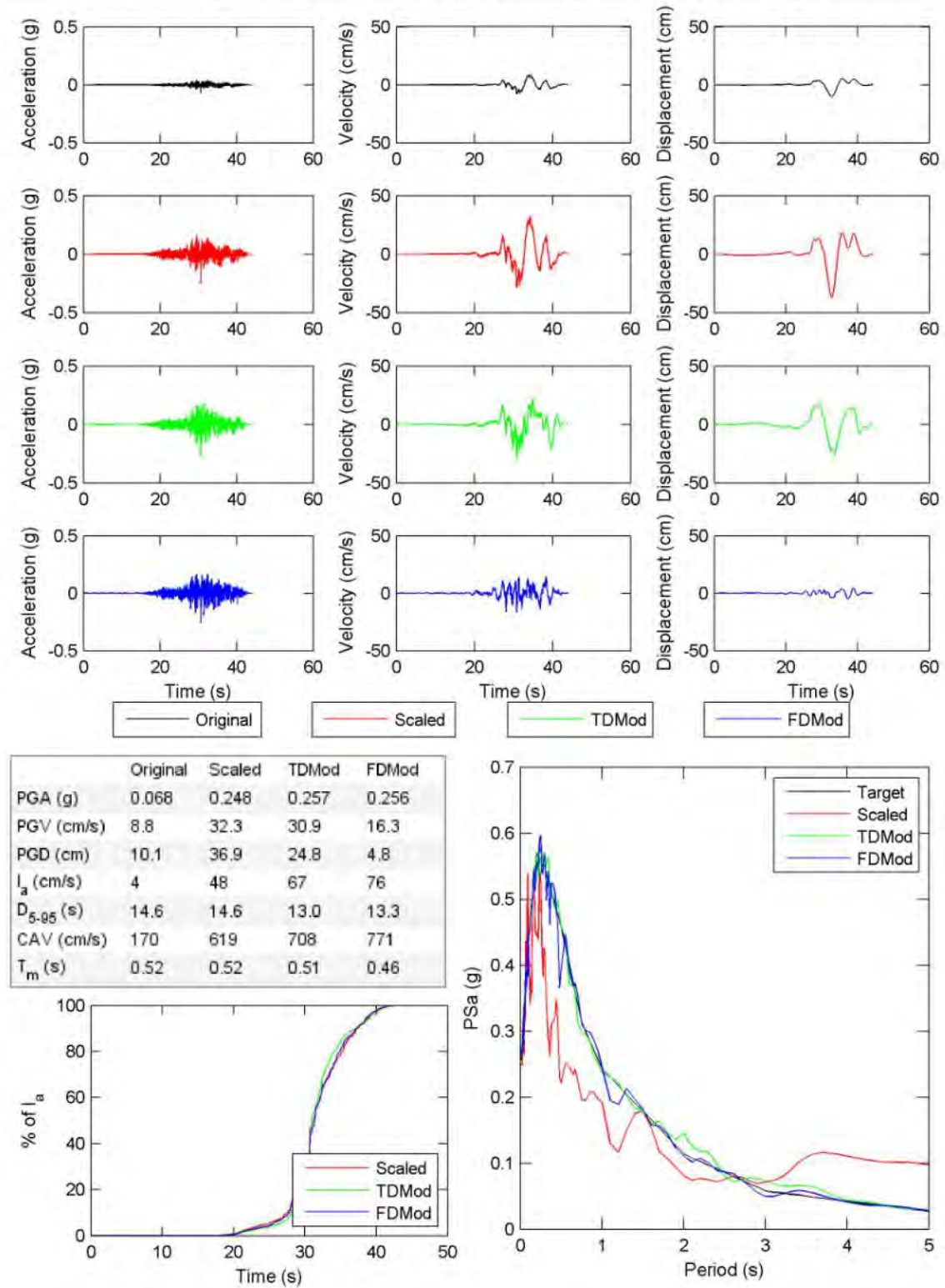|	Original	Scaled	TDMod	FDMod
PGA (g)	0.895	2.344	0.716	0.716
PGV (cm/s)	18.6	48.7	71.0	63.0
PGD (cm)	5.4	14.2	68.4	23.5
I_a (cm/s)	3327	22835	9951	2700
D_{5-95} (s)	75.2	75.2	84.6	86.0
CAV (cm/s)	10767	28210	21979	11246
T_m (s)	0.11	0.11	0.18	0.60

Figure E.5. continued.

950

File Name: 9 HON-MYGH03-E   Start and End Taper Percentage: 1.0% and 5.0%
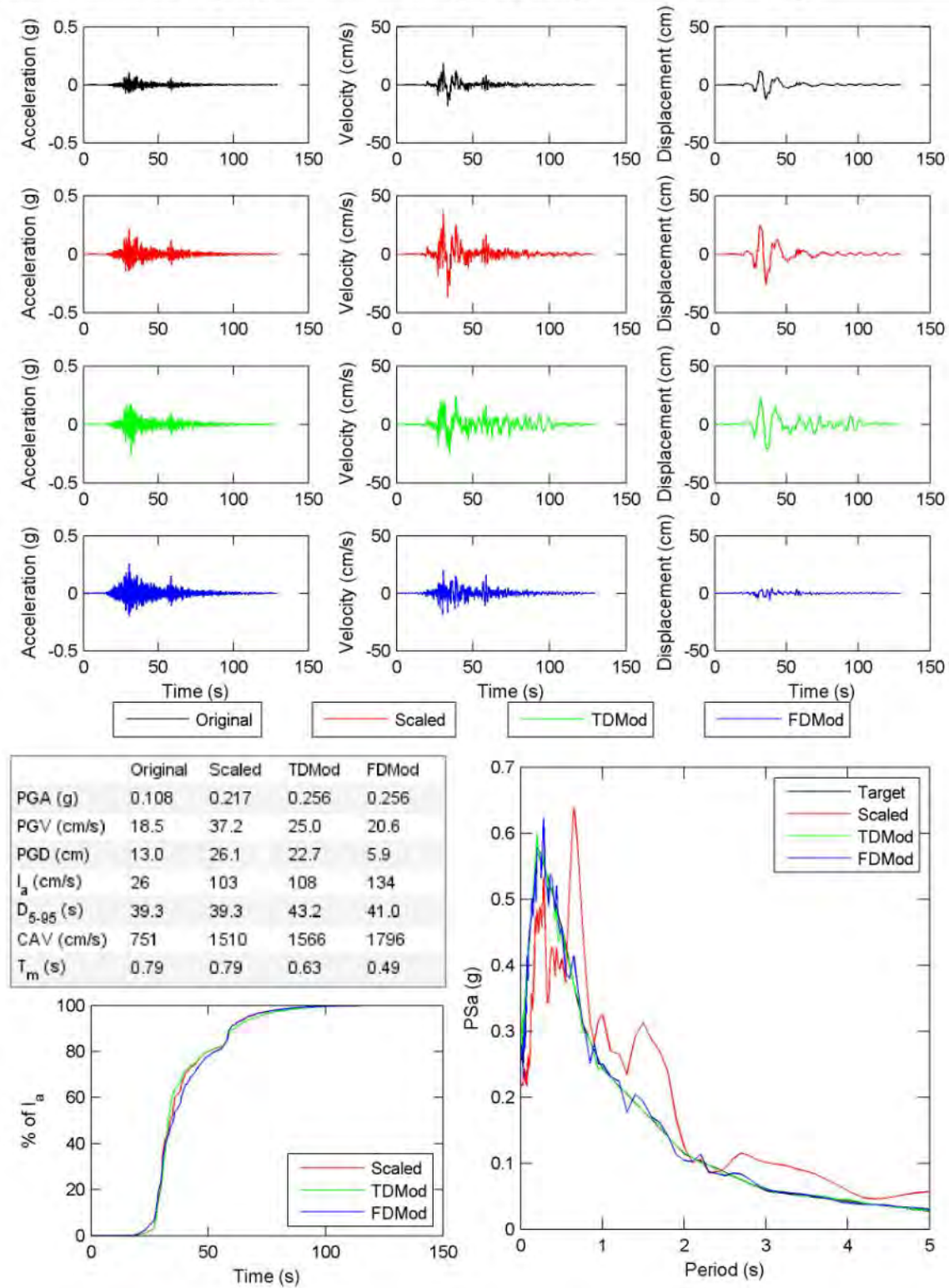Scale Factor: 3.34 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 9 TD poly: 8

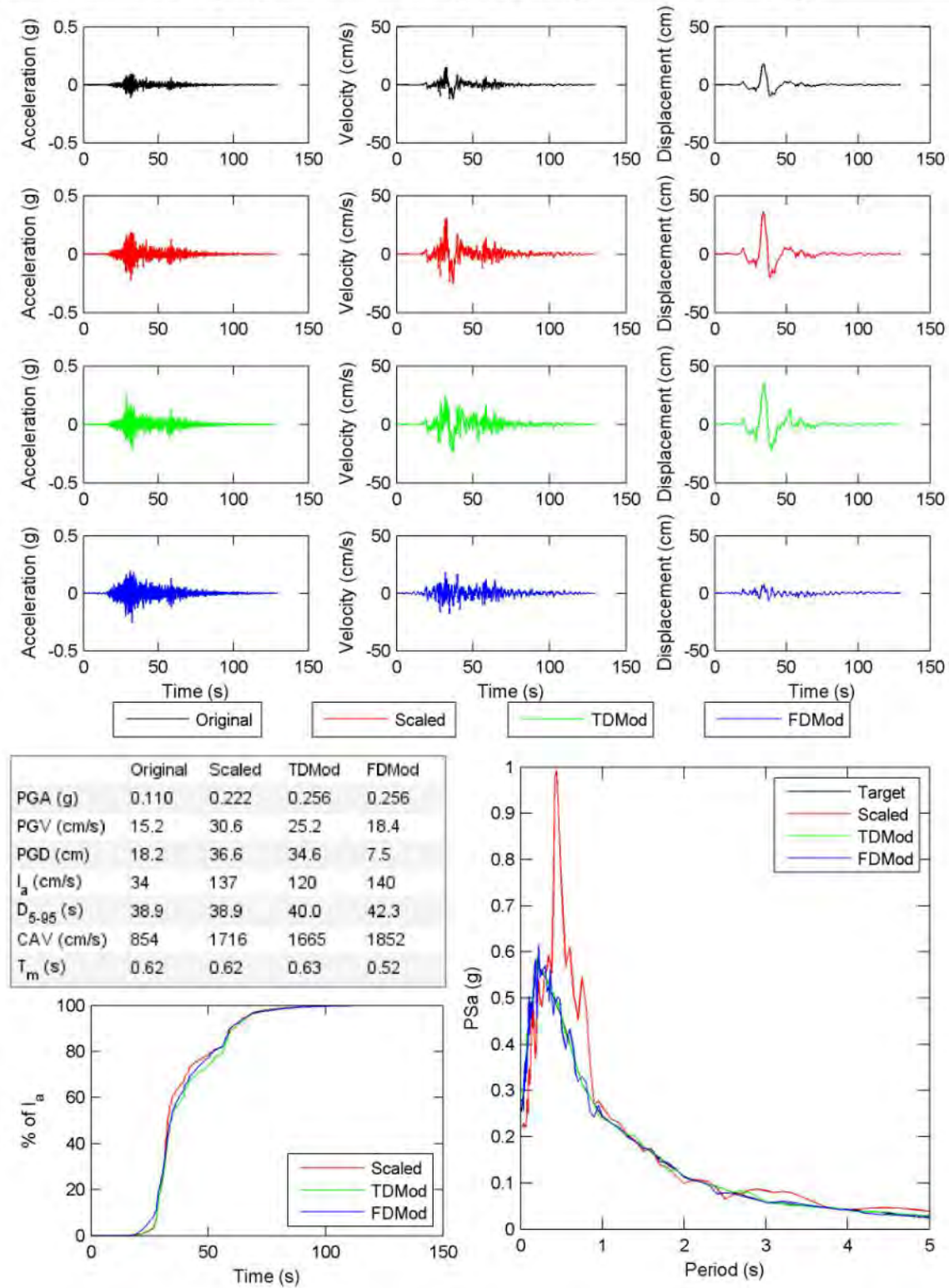|	Original	Scaled	TDMod	FDMod
PGA (g)	0.467	1.558	0.716	0.716
PGV (cm/s)	14.3	47.8	81.0	68.7
PGD (cm)	7.0	23.5	61.8	26.4
I_a (cm/s)	908	10125	6397	2559
D_{5-95} (s)	83.8	83.8	92.0	86.5
CAV (cm/s)	6453	21552	18760	10968
T_m (s)	0.14	0.14	0.23	0.49

Figure E.5. continued.

951

File Name: 9 HON-MYGH03-N   Start and End Taper Percentage: 1.0% and 5.0%
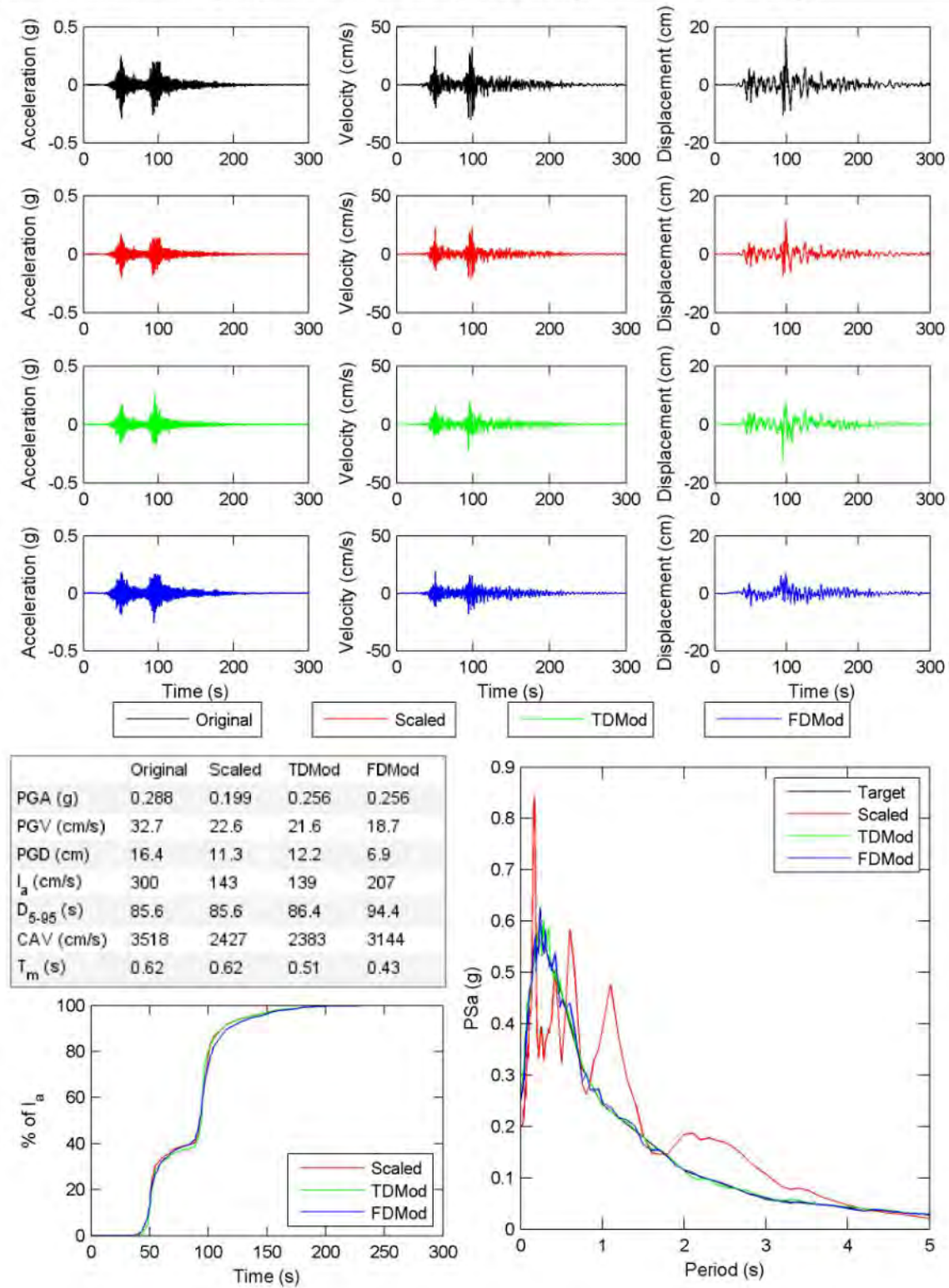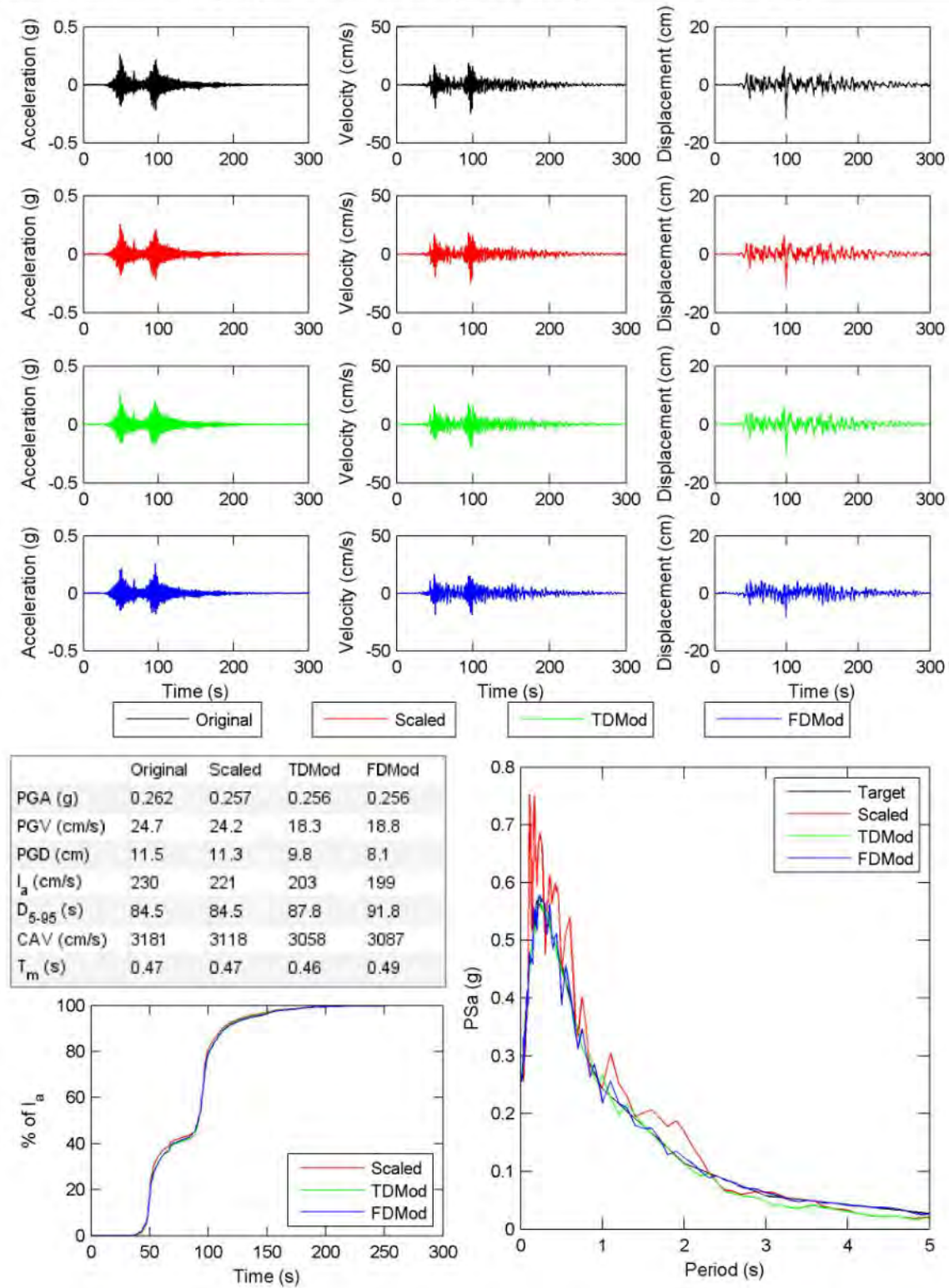Scale Factor: 3.87 Target Spectrum Matched: target2UHS50yr2.txt FD poly: 5 TD poly: 8

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.448	1.735	0.716	0.716
PGV (cm/s)	13.3	51.4	191.7	70.0
PGD (cm)	5.0	19.3	289.7	26.2
I_a (cm/s)	1101	16486	9550	2770
D_{5-95} (s)	77.2	77.2	84.9	85.6
CAV (cm/s)	6793	26290	22410	11519
T_m (s)	0.12	0.12	0.20	0.56

Figure E.5. continued.

952

Figure E.6. One-page output images for motions in scenario II matched to the 10% uniform hazard spectrum (10% UHS), from motion number 1 to 100, generated by the GMM program.

953

	Original	Scaled	TDMod	FDMod
PGA (g)	0.553	0.514	0.256	0.256
PGV (cm/s)	20.4	19.0	18.9	17.2
PGD (cm)	9.0	8.3	13.4	9.1
I_a (cm/s)	1423	1231	579	239
D_{5-95} (s)	82.0	82.0	103.7	97.1
CAV (cm/s)	7891	7339	5831	3490
T_m (s)	0.14	0.14	0.19	0.48

Figure E.6. continued.

954

	Original	Scaled	TDMod	FDMod
PGA (g)	0.105	0.210	0.256	0.256
PGV (cm/s)	22.4	44.8	31.9	15.8
PGD (cm)	23.5	47.0	44.6	7.1
I_a (cm/s)	24	94	91	97
D_{5-95} (s)	35.9	35.9	36.3	38.2
CAV (cm/s)	683	1366	1332	1430
T_m (s)	0.84	0.84	0.63	0.55

Figure E.6. continued.

955

File Name: 1149 ATK090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.85 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 8
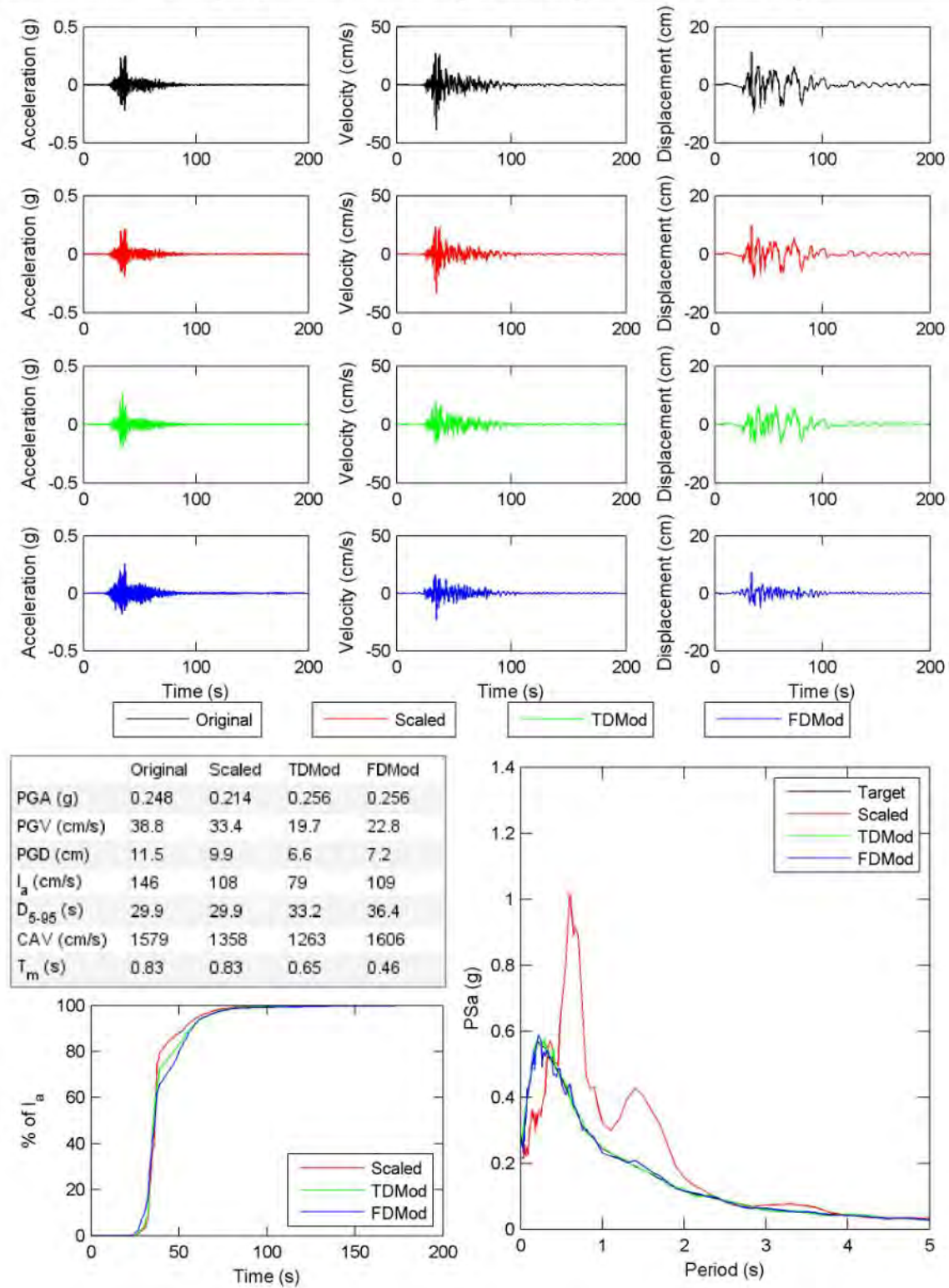

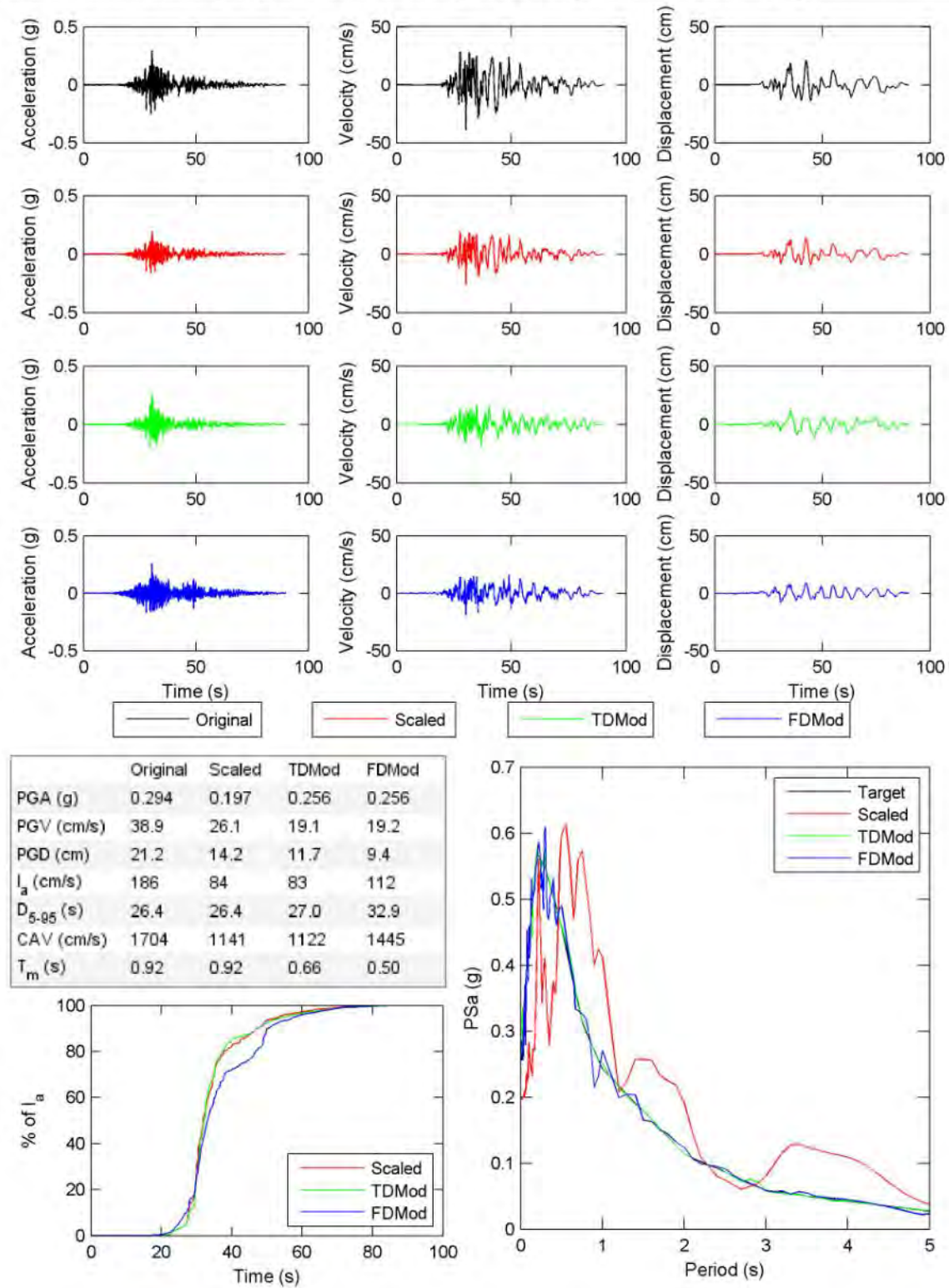|	Original	Scaled	TDMod	FDMod
PGA (g)	0.164	0.303	0.256	0.256
PGV (cm/s)	16.2	29.9	25.4	17.7
PGD (cm)	11.6	21.4	17.2	6.0
I_a (cm/s)	28	96	93	95
D_{5-95} (s)	31.8	31.8	32.1	40.0
CAV (cm/s)	701	1297	1284	1510
T_m (s)	0.66	0.66	0.57	0.64

Figure E.6. continued.

956

File Name: 1154 BRS090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.05 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 5

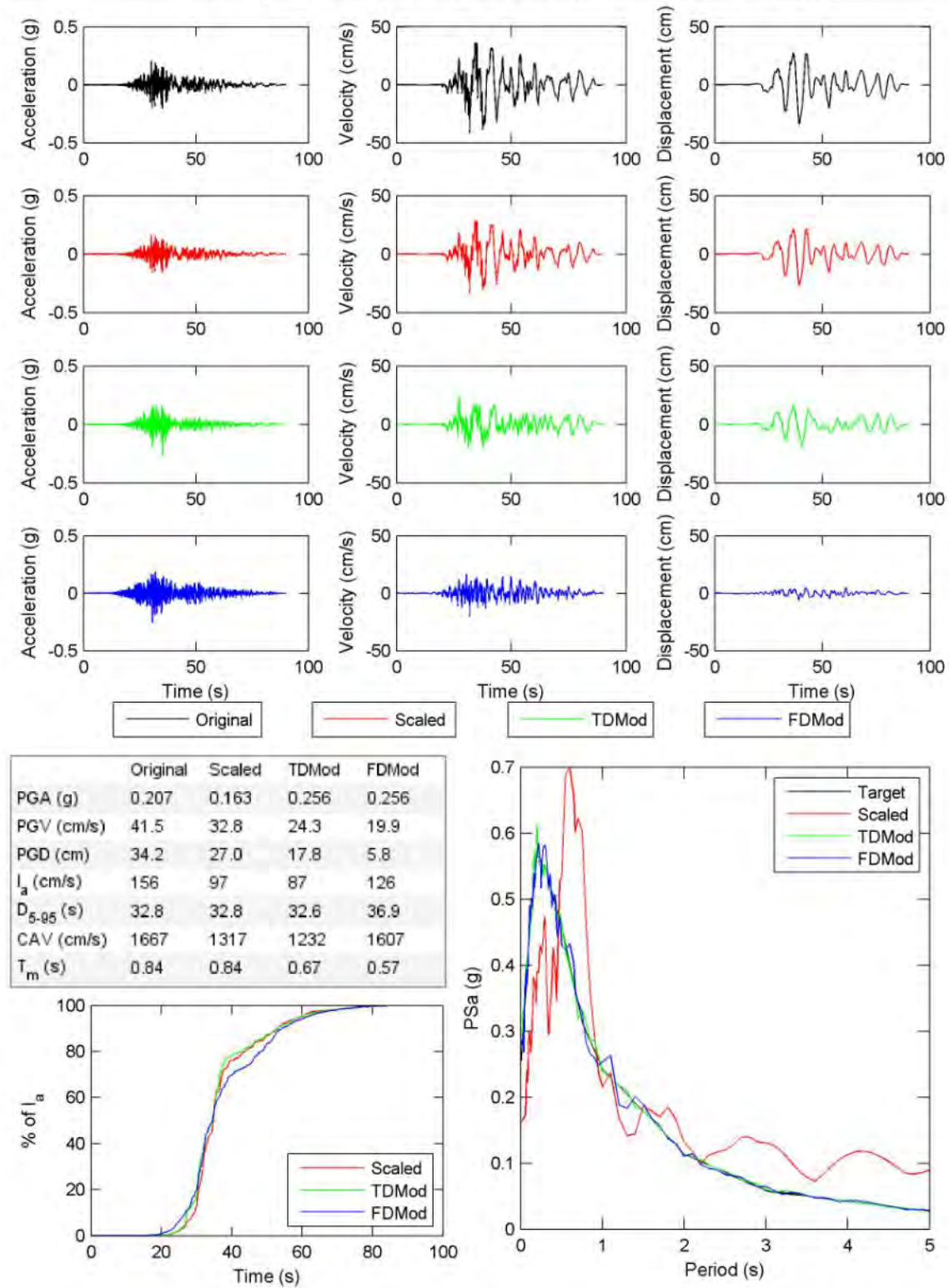|	Original	Scaled	TDMod	FDMod
PGA (g)	0.045	0.184	0.256	0.256
PGV (cm/s)	8.1	32.7	19.5	18.3
PGD (cm)	4.4	17.6	10.4	6.3
I_a (cm/s)	7	115	102	119
D_{5-95} (s)	34.0	34.0	35.3	37.8
CAV (cm/s)	381	1545	1473	1627
T_m (s)	0.90	0.90	0.68	0.51

Figure E.6. continued.

957

File Name: 1154 BRS180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 3.53 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 3
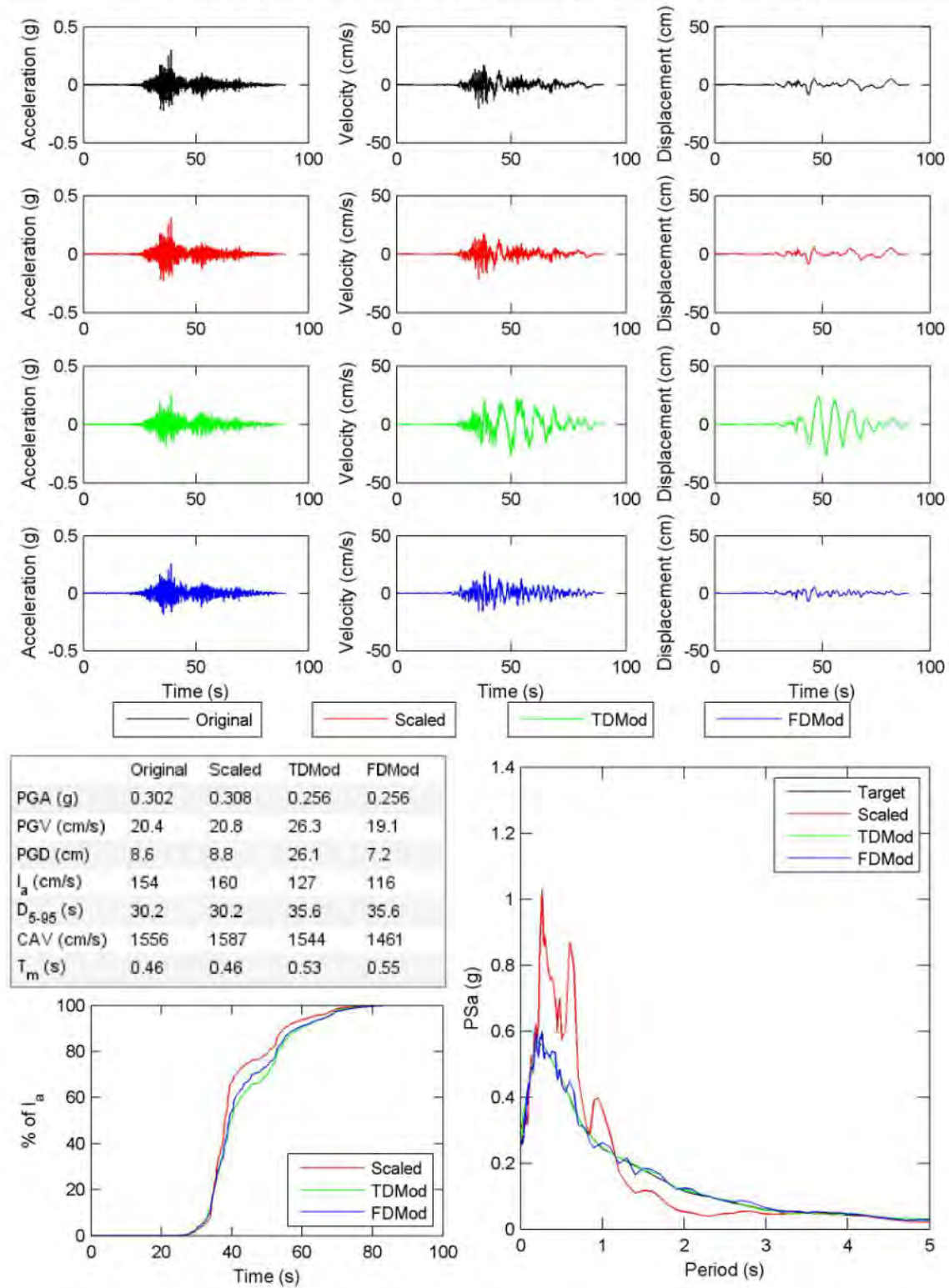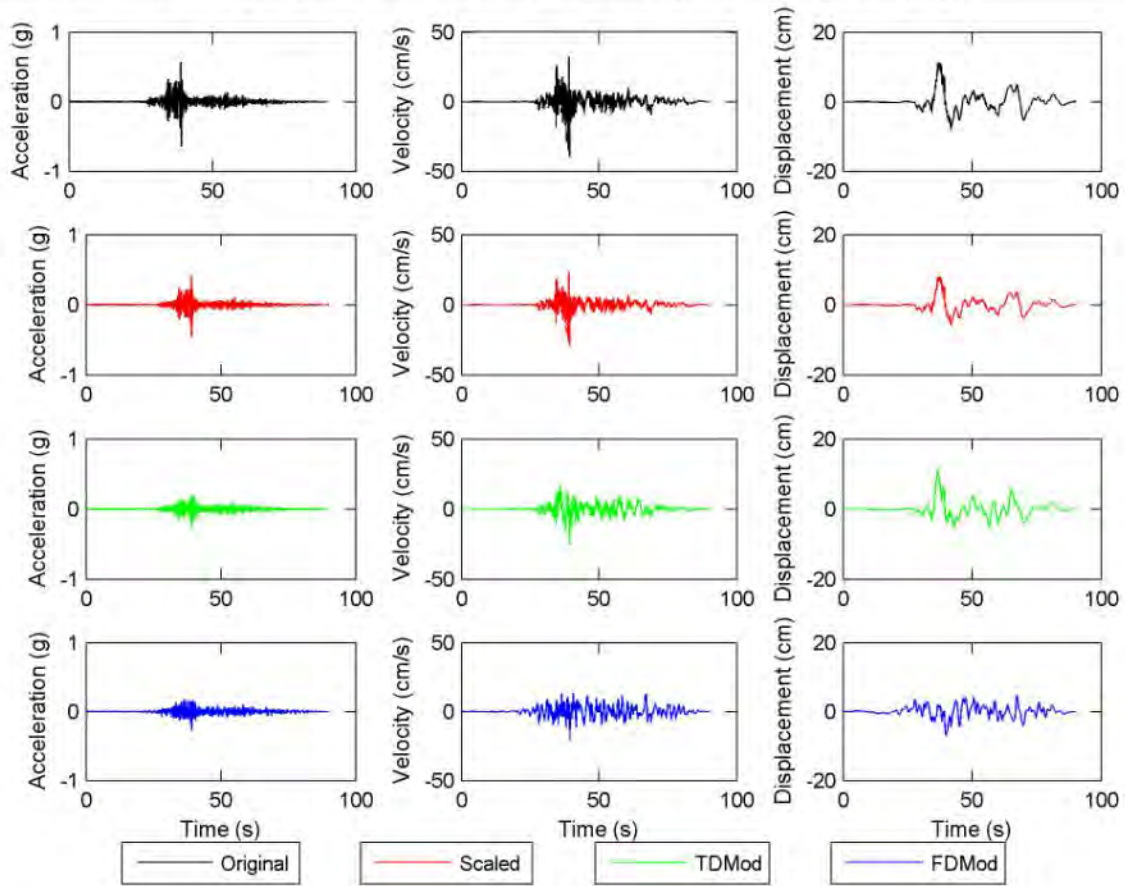

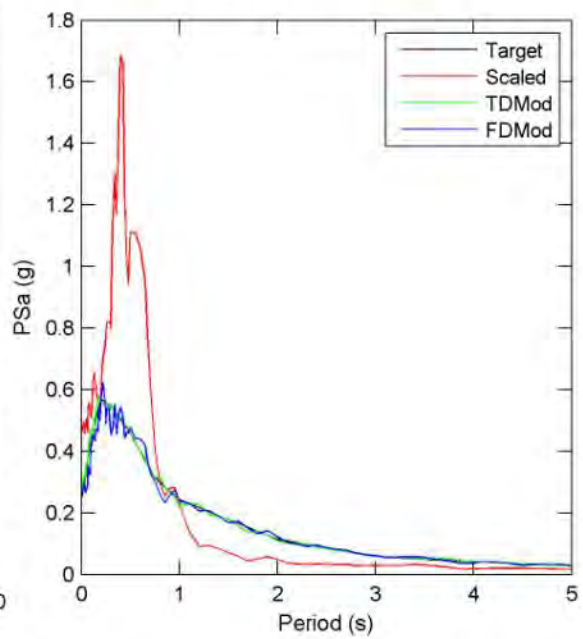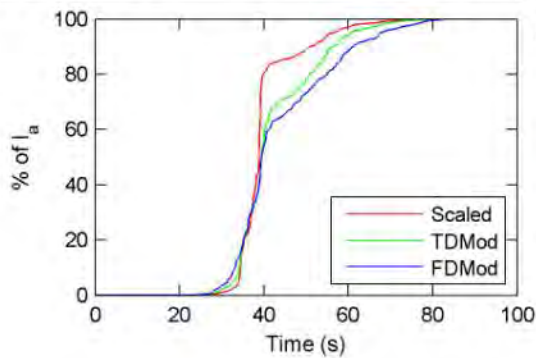|	Original	Scaled	TDMod	FDMod
PGA (g)	0.058	0.203	0.256	0.256
PGV (cm/s)	9.0	31.9	24.8	18.5
PGD (cm)	5.9	20.7	14.4	6.5
I_a (cm/s)	8	95	93	116
D_{5-95} (s)	33.7	33.7	34.5	38.4
CAV (cm/s)	394	1391	1357	1620
T_m (s)	0.99	0.99	0.71	0.55

Figure E.6. continued.

958

File Name: 1155 BUR000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.82 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 3 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.103	0.188	0.256	0.256
PGV (cm/s)	19.8	36.0	19.8	18.2
PGD (cm)	18.0	32.7	20.9	6.9
I_a (cm/s)	35	116	111	155
D_{5-95} (s)	41.0	41.0	43.3	40.9
CAV (cm/s)	970	1766	1703	2046
T_m (s)	0.96	0.96	0.71	0.55

Figure E.6. continued.

959

	Original	Scaled	TDMod	FDMod
PGA (g)	0.108	0.176	0.256	0.256
PGV (cm/s)	22.3	36.3	23.0	16.6
PGD (cm)	10.7	17.4	12.7	5.4
I_a (cm/s)	49	131	114	151
D_{5-95} (s)	37.9	37.9	38.4	38.1
CAV (cm/s)	1090	1776	1668	1920
T_m (s)	0.93	0.93	0.71	0.50

Figure E.6. continued.

960

File Name: 1160 FAT000   Start and End Taper Percentage: 1.0% and 5.0%
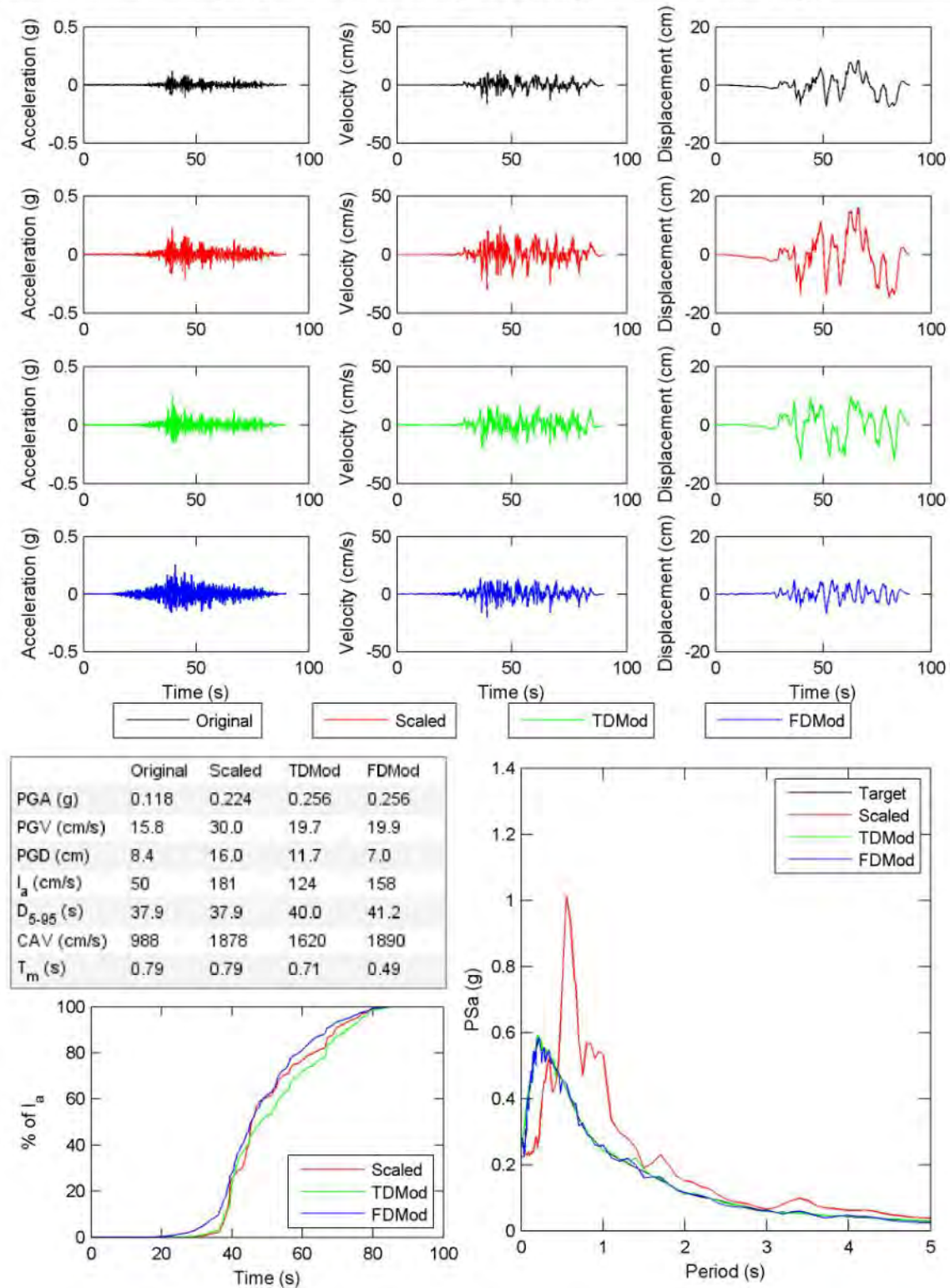Scale Factor: 1.46 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 3 TD poly: 3
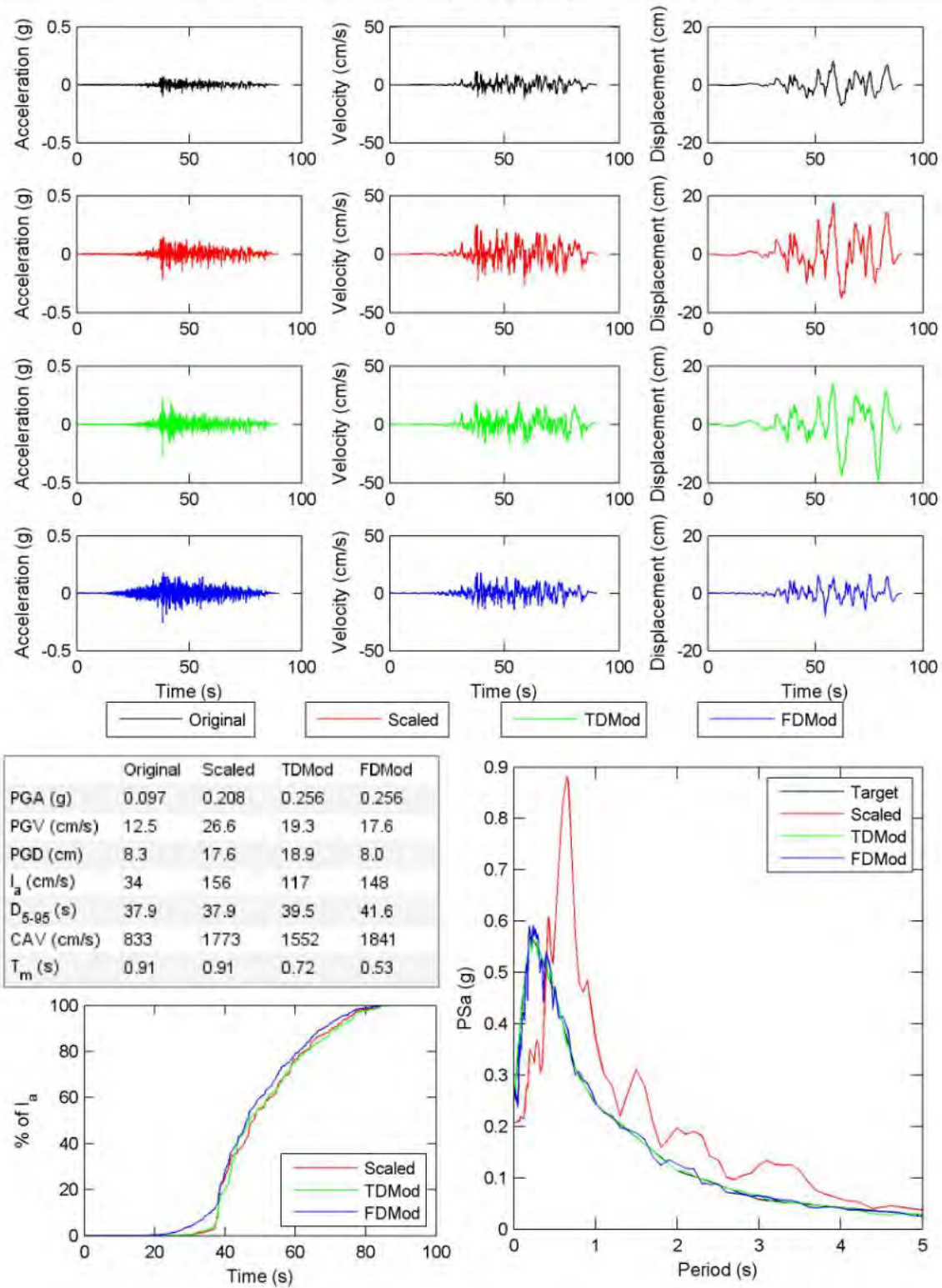
	Original	Scaled	TDMod	FDMod
PGA (g)	0.187	0.273	0.256	0.256
PGV (cm/s)	18.5	27.0	28.6	16.2
PGD (cm)	17.1	24.9	24.7	5.4
I_a (cm/s)	96	204	129	118
D_{5-95} (s)	32.2	32.2	42.4	38.6
CAV (cm/s)	1351	1972	1764	1658
T_m (s)	0.48	0.48	0.50	0.52

Figure E.6. continued.

961

	Original	Scaled	TDMod	FDMod
PGA (g)	0.159	0.298	0.256	0.256
PGV (cm/s)	14.9	27.8	31.4	22.0
PGD (cm)	17.1	31.9	29.0	10.3
I_a (cm/s)	68	237	155	105
D_{5-95} (s)	34.3	34.3	42.2	42.0
CAV (cm/s)	1207	2258	1982	1623
T_m (s)	0.42	0.42	0.48	0.57

Figure E.6. continued.

962

File Name: 1162 GYN000   Start and End Taper Percentage: 1.0% and 5.0%
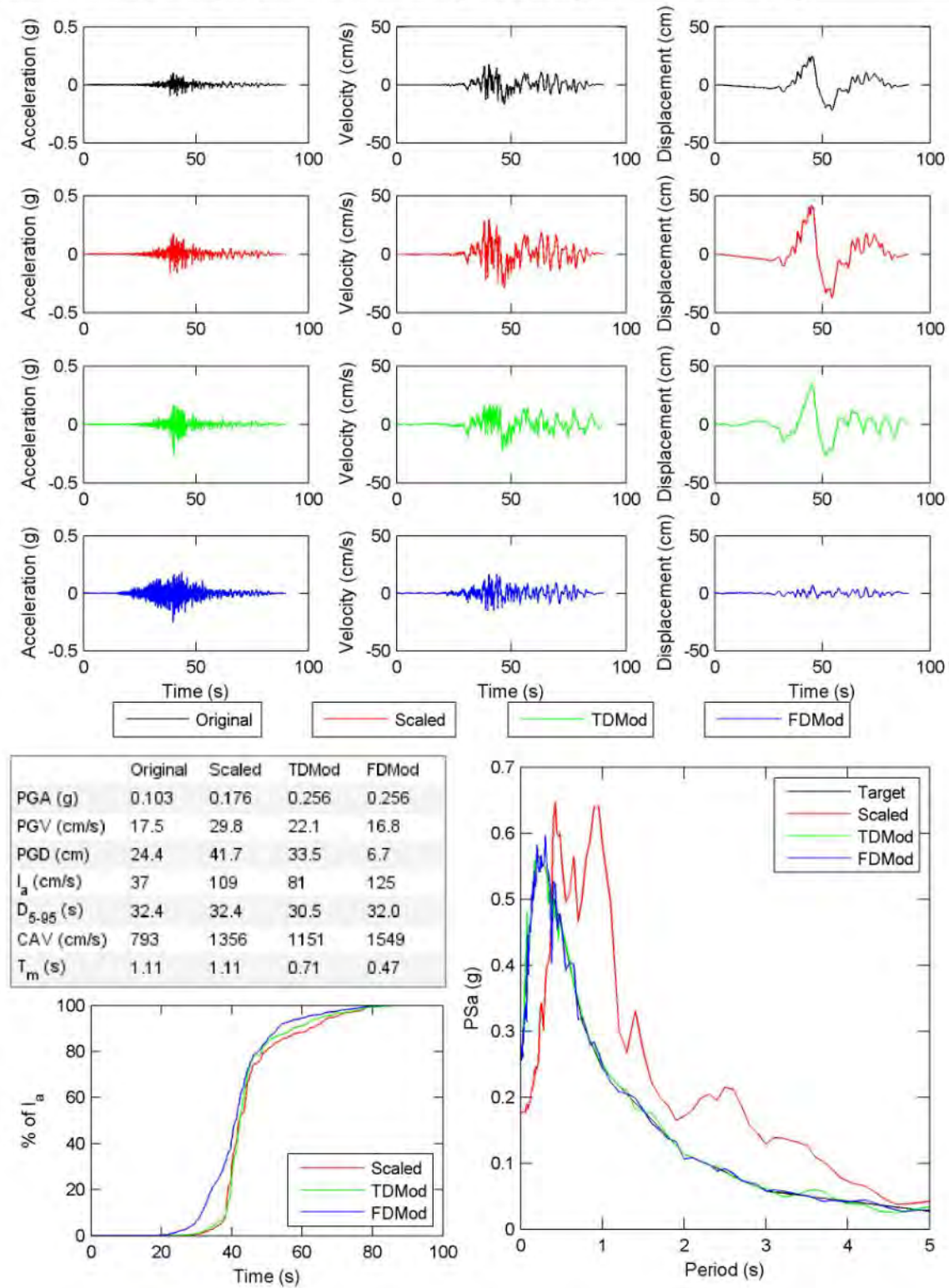Scale Factor: 2.06 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 6
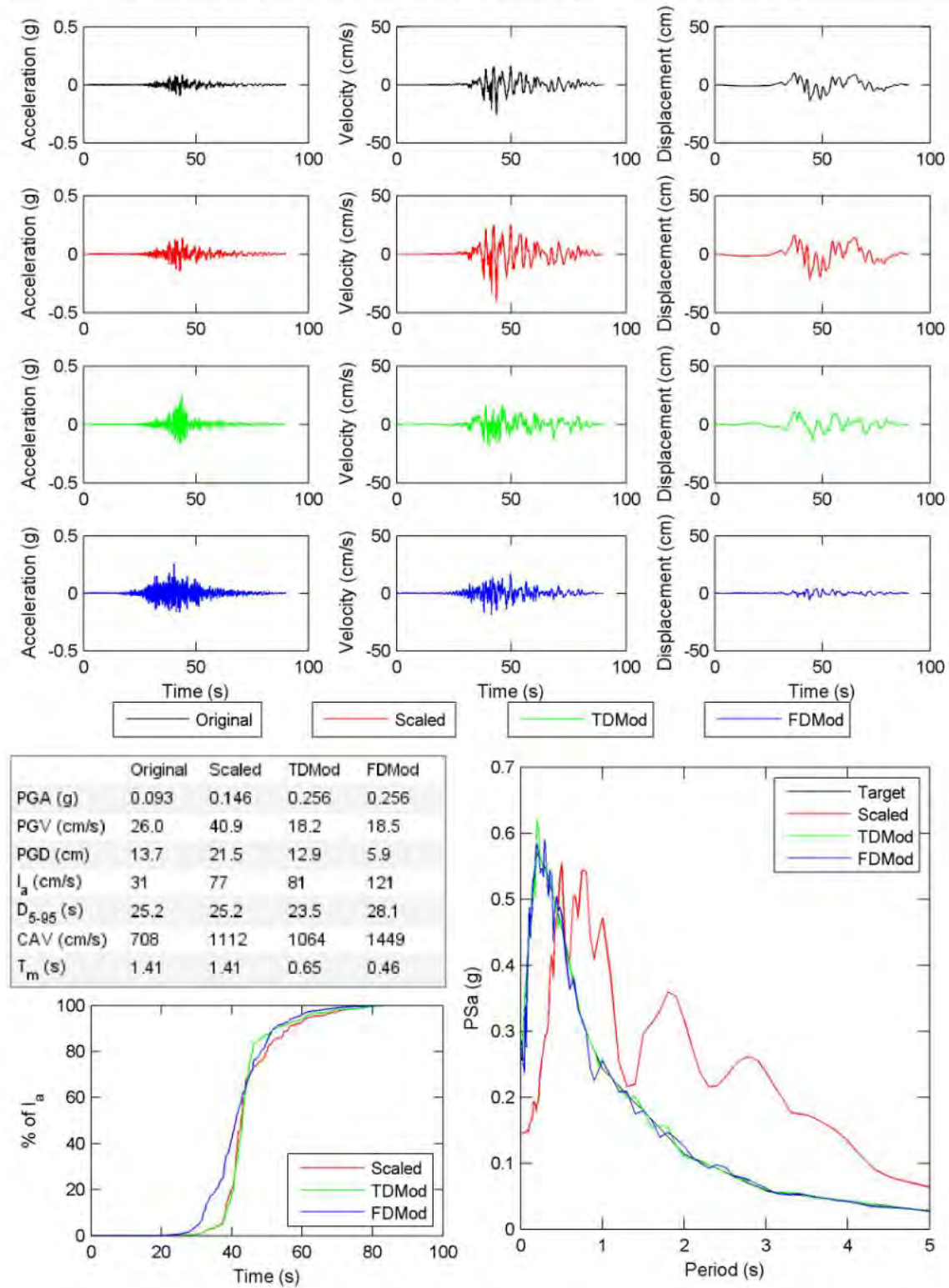
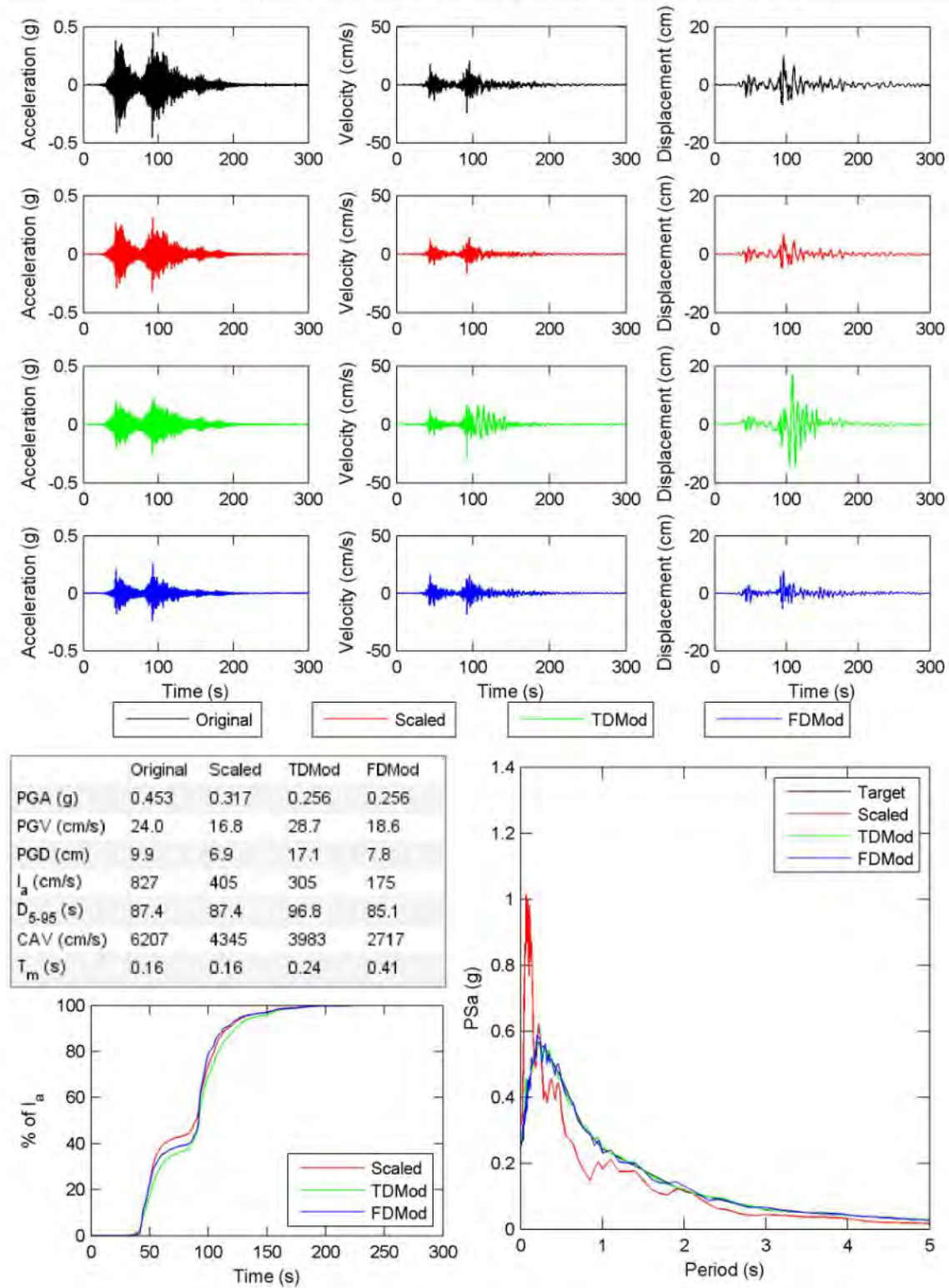|	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.272	0.256	0.256
PGV (cm/s)	8.8	18.1	19.2	19.8
PGD (cm)	3.0	6.3	6.2	7.4
I_a (cm/s)	25	107	85	72
D_{5-95} (s)	11.4	11.4	13.4	13.4
CAV (cm/s)	409	843	799	740
T_m (s)	0.34	0.34	0.46	0.50

Figure E.6. continued.

963

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.221	0.256	0.256
PGV (cm/s)	10.5	19.5	20.0	19.3
PGD (cm)	3.9	7.3	9.1	5.6
I_a (cm/s)	19	67	63	61
D_{5-95} (s)	10.4	10.4	11.2	13.0
CAV (cm/s)	349	648	634	649
T_m (s)	0.46	0.46	0.46	0.51

Figure E.6. continued.

964

	Original	Scaled	TDMod	FDMod
PGA (g)	0.090	0.173	0.256	0.256
PGV (cm/s)	24.8	47.6	30.9	16.7
PGD (cm)	29.4	56.5	35.0	5.3
I_a (cm/s)	20	74	76	90
D_{5-95} (s)	35.1	35.1	34.8	39.4
CAV (cm/s)	623	1196	1185	1364
T_m (s)	0.98	0.98	0.68	0.58

Figure E.6. continued.

965

File Name: 1163 DHM090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.28 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 6

REJECTED
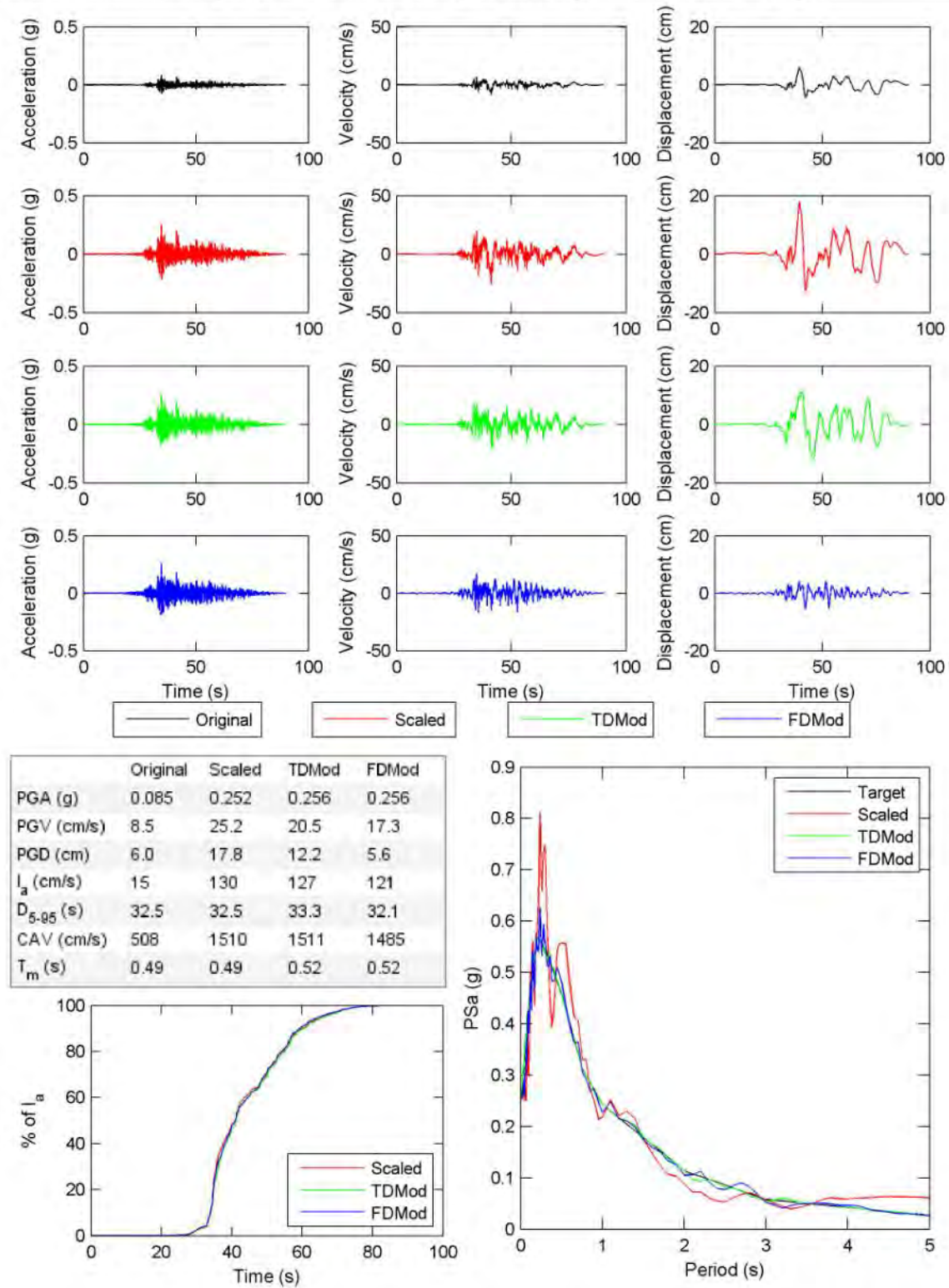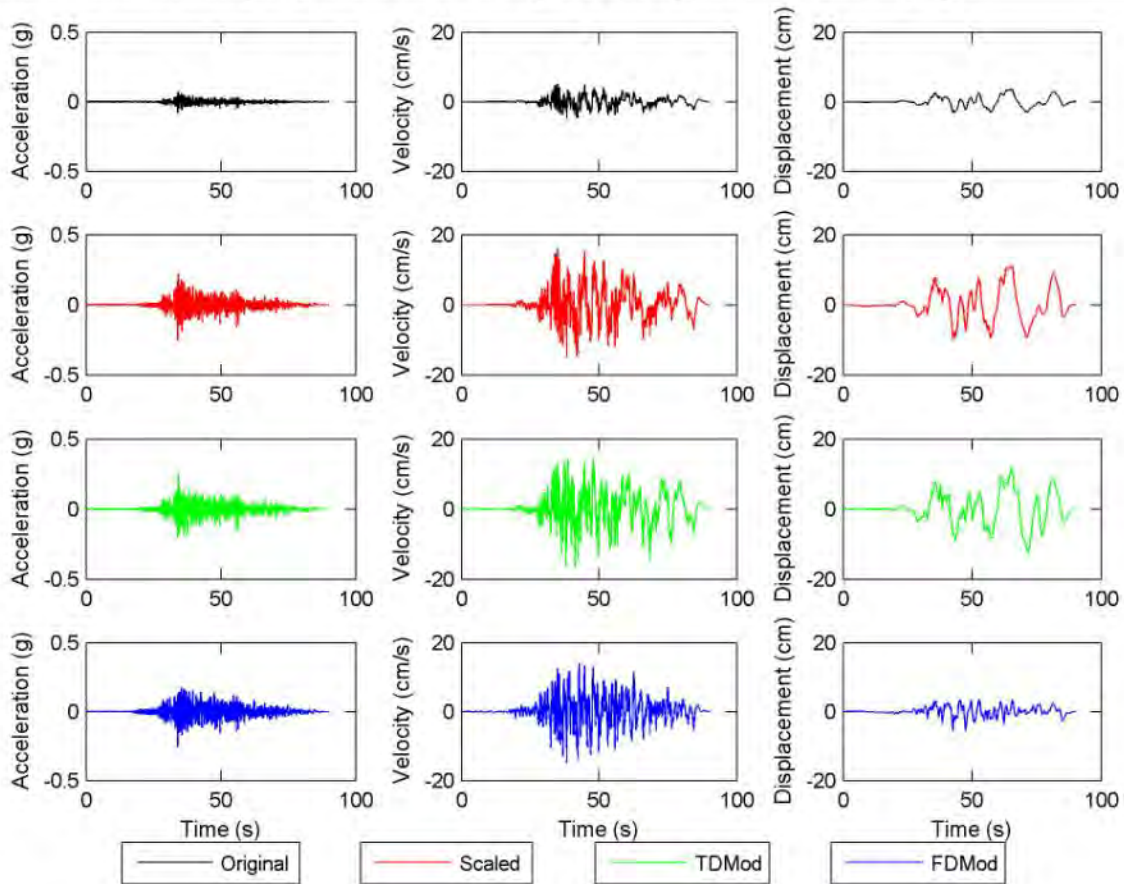
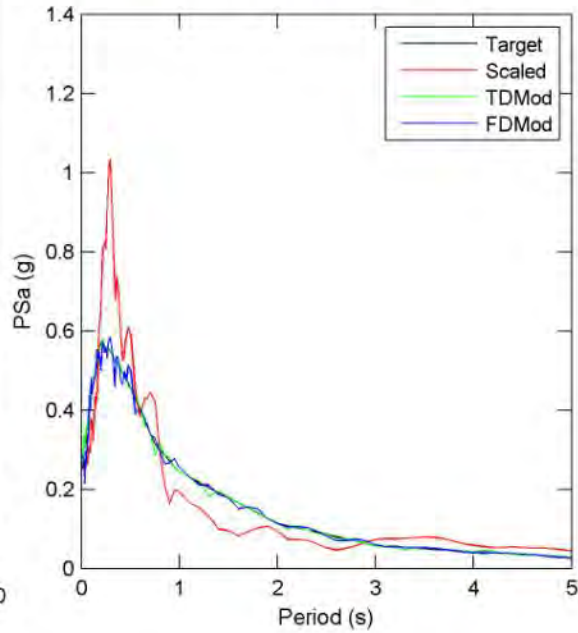|	Original	Scaled	TDMod	FDMod
PGA (g)	0.083	0.190	0.256	0.256
PGV (cm/s)	17.7	40.4	39.5	16.6
PGD (cm)	16.6	37.8	42.5	5.8
I_a (cm/s)	15	77	125	91
D_{5-95} (s)	36.7	36.7	63.6	39.2
CAV (cm/s)	540	1231	1876	1380
T_m (s)	0.87	0.87	0.85	0.54

Figure E.6. continued.

966

File Name: 1166 IZN090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.40 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 6

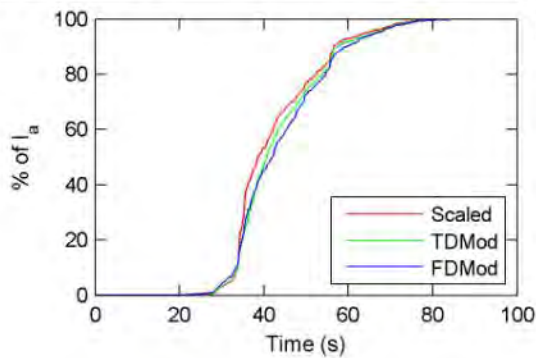|	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.191	0.256	0.256
PGV (cm/s)	28.9	40.4	23.1	19.8
PGD (cm)	17.5	24.4	19.3	7.6
I_a (cm/s)	42	83	72	101
D_{5-95} (s)	16.9	16.9	17.5	19.9
CAV (cm/s)	619	867	823	1024
T_m (s)	1.04	1.04	0.59	0.41

Figure E.6. continued.

967

File Name: 1166 IZN180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.91 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 7 TD poly: 9
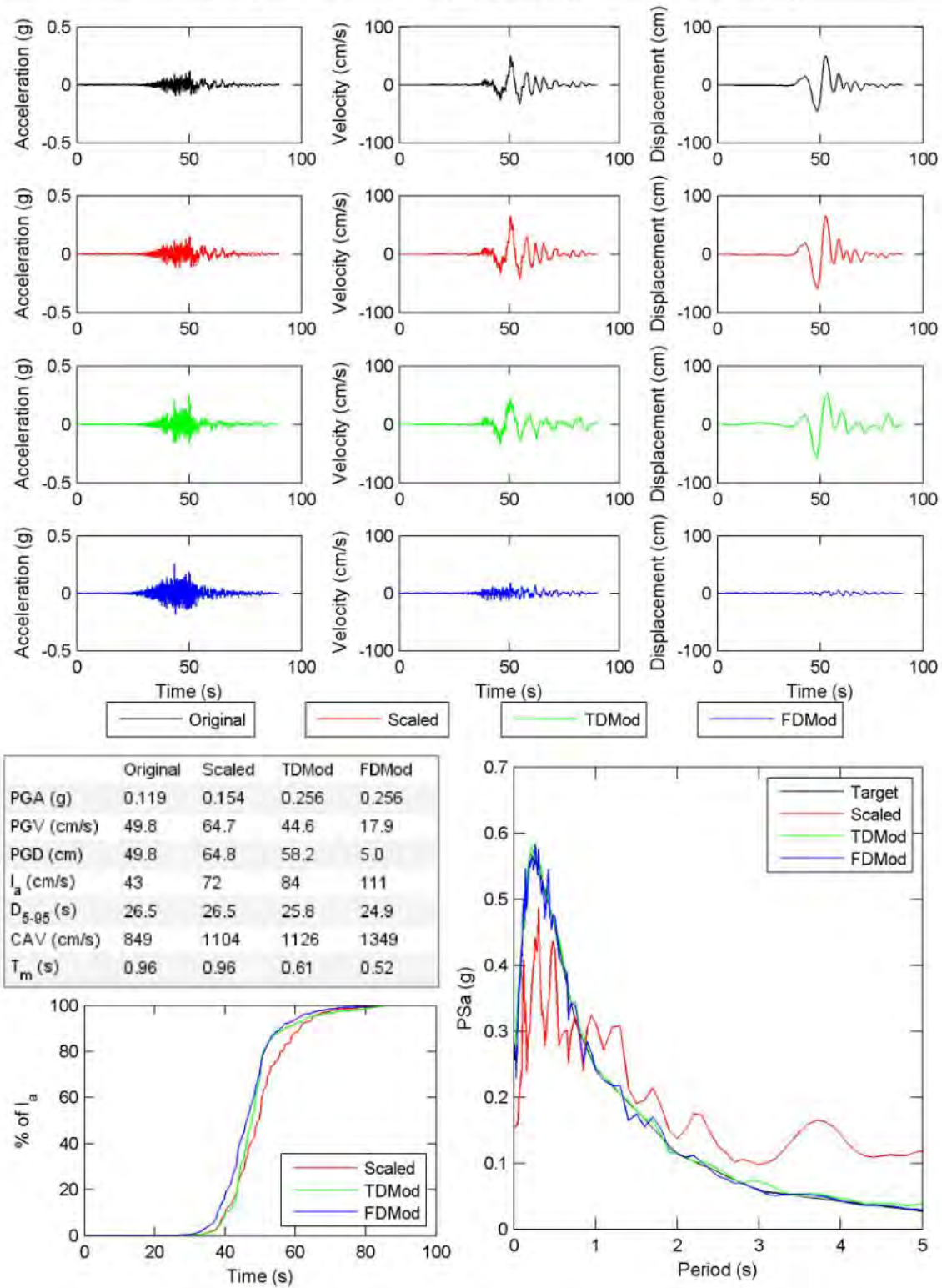

	Original	Scaled	TDMod	FDMod
PGA (g)	0.098	0.187	0.255	0.256
PGV (cm/s)	16.0	30.6	21.1	20.0
PGD (cm)	7.7	14.8	14.3	8.7
I_a (cm/s)	25	91	86	112
D_{5-95} (s)	19.3	19.3	19.3	20.4
CAV (cm/s)	491	938	893	1071
T_m (s)	0.99	0.99	0.57	0.47

Figure E.6. continued.

968

File Name: 1169 MSK000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 5.42 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 4
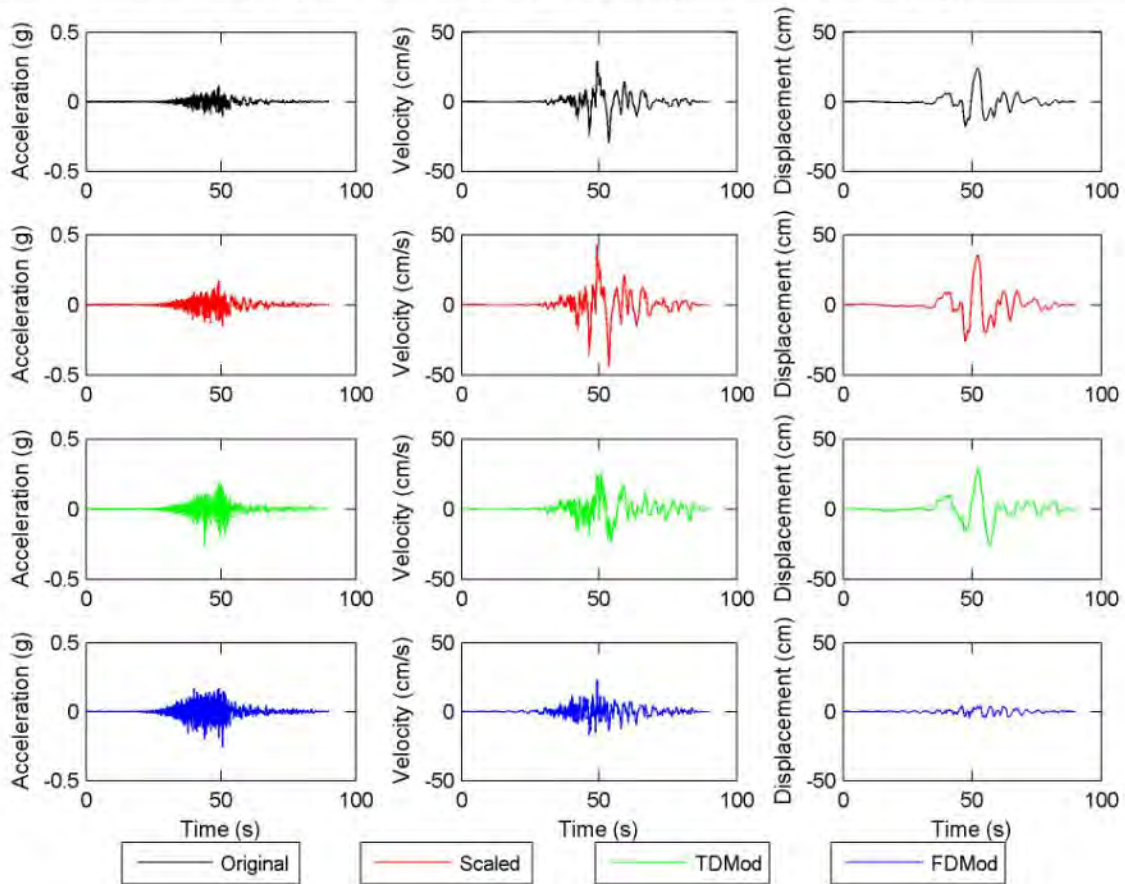

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.044	0.238	0.256	0.256
PGV (cm/s)	6.6	35.7	21.0	16.5
PGD (cm)	6.5	35.3	17.4	5.4
I_a (cm/s)	3	81	110	129
D_{5-95} (s)	35.8	35.8	35.5	38.4
CAV (cm/s)	237	1286	1519	1736
T_m (s)	0.40	0.40	0.52	0.52

Figure E.6. continued.

969

File Name: 1169 MSK090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.64 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 5

REJECTED

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.040	0.184	0.256	0.256
PGV (cm/s)	6.5	30.1	32.8	21.3
PGD (cm)	9.2	42.9	40.4	6.1
I_a (cm/s)	3	61	92	108
D_{5-95} (s)	37.4	37.4	31.7	38.5
CAV (cm/s)	245	1136	1273	1543
T_m (s)	0.59	0.59	0.55	0.50

Figure E.6. continued.

970

File Name: 1170 MCD000   Start and End Taper Percentage: 1.0% and 5.0%
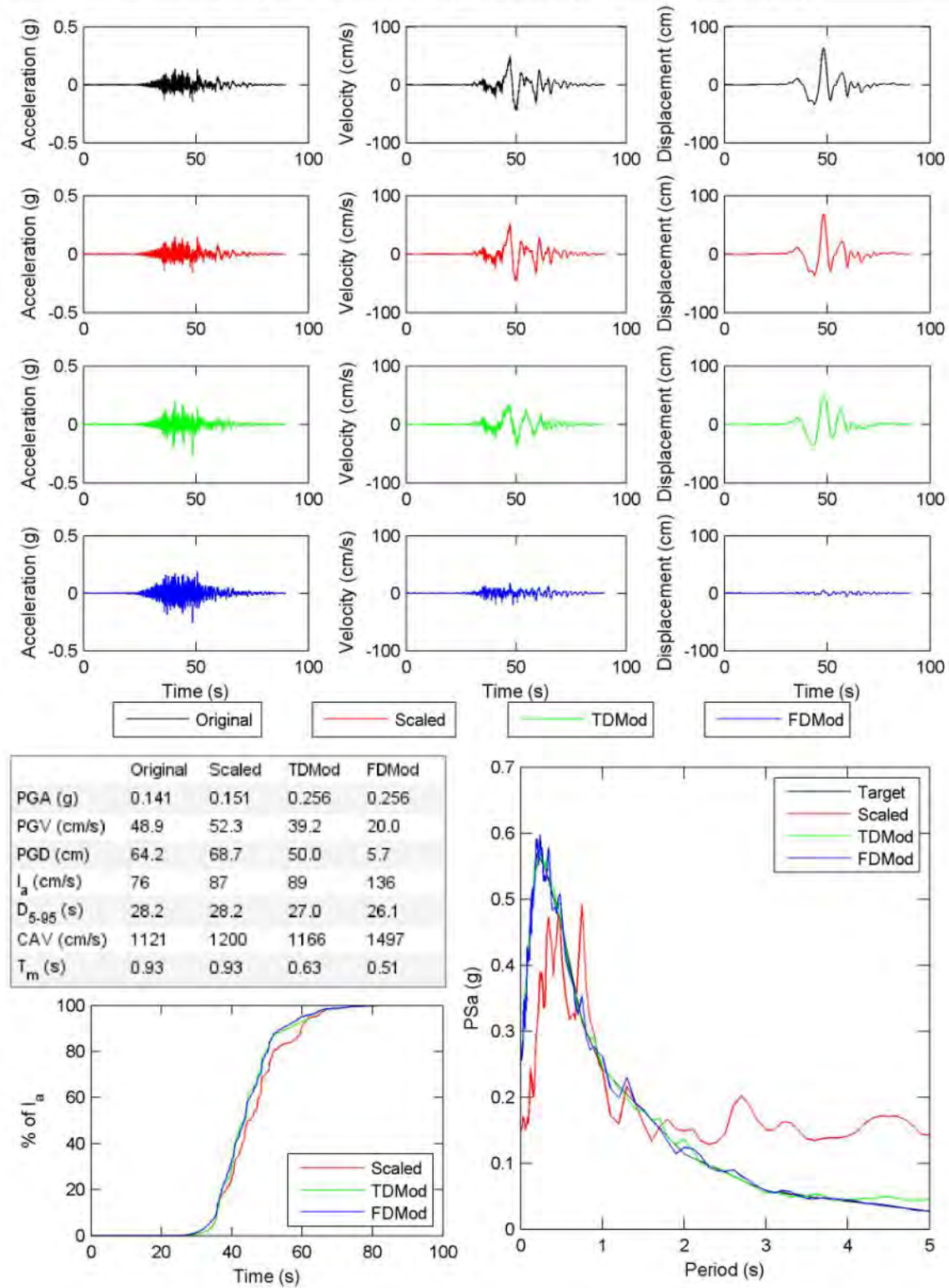Scale Factor: 4.37 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 8 TD poly: 8

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.054	0.234	0.256	0.256
PGV (cm/s)	6.2	27.0	28.7	19.5
PGD (cm)	4.8	20.8	12.8	8.5
I_a (cm/s)	4	82	93	91
D_{5-95} (s)	16.3	16.3	15.5	18.4
CAV (cm/s)	186	814	864	911
T_m (s)	0.37	0.37	0.47	0.50

Figure E.6. continued.

971

File Name: 1170 MCD090   Start and End Taper Percentage: 1.0% and 5.0%
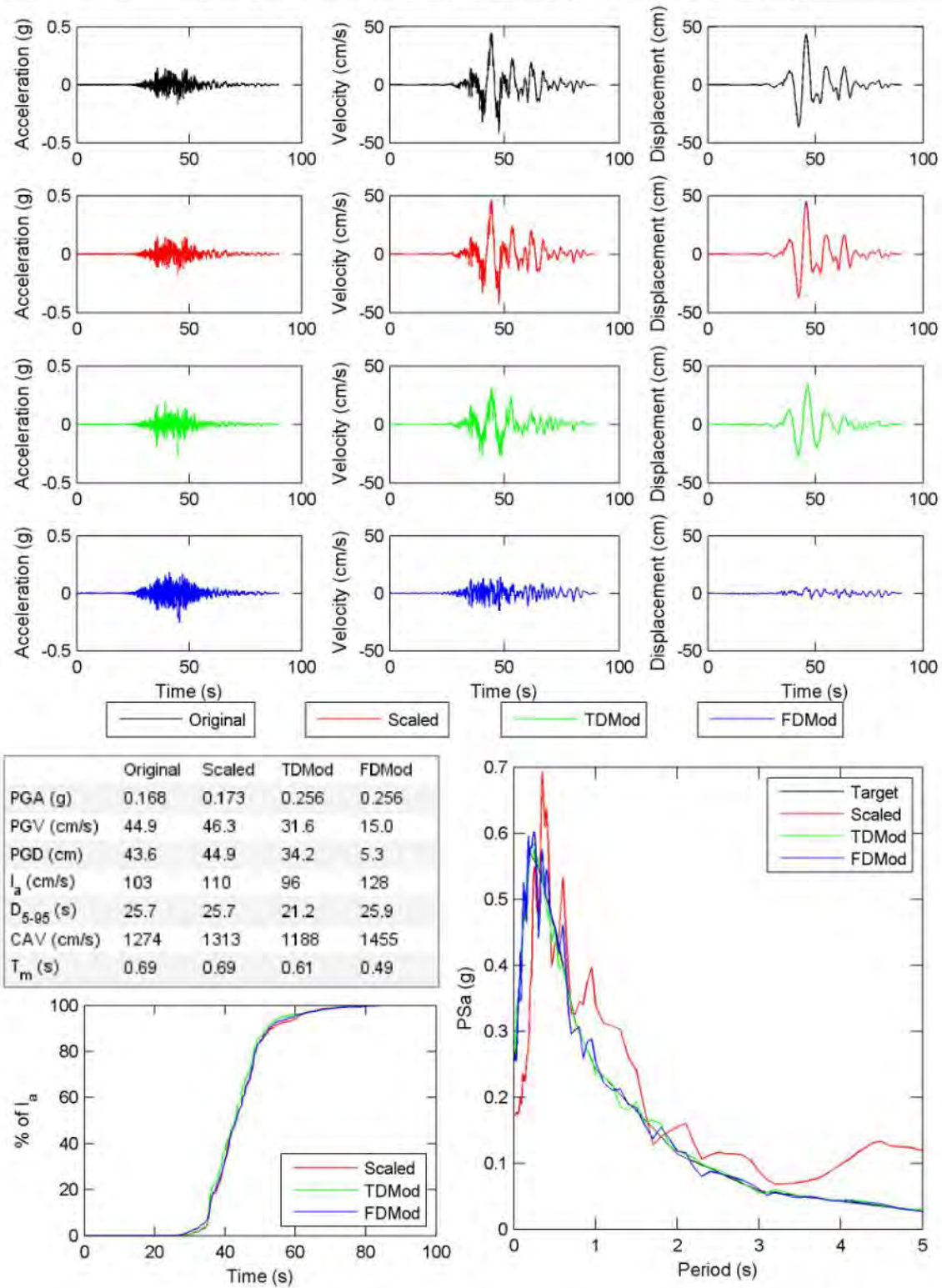Scale Factor: 3.65 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 7
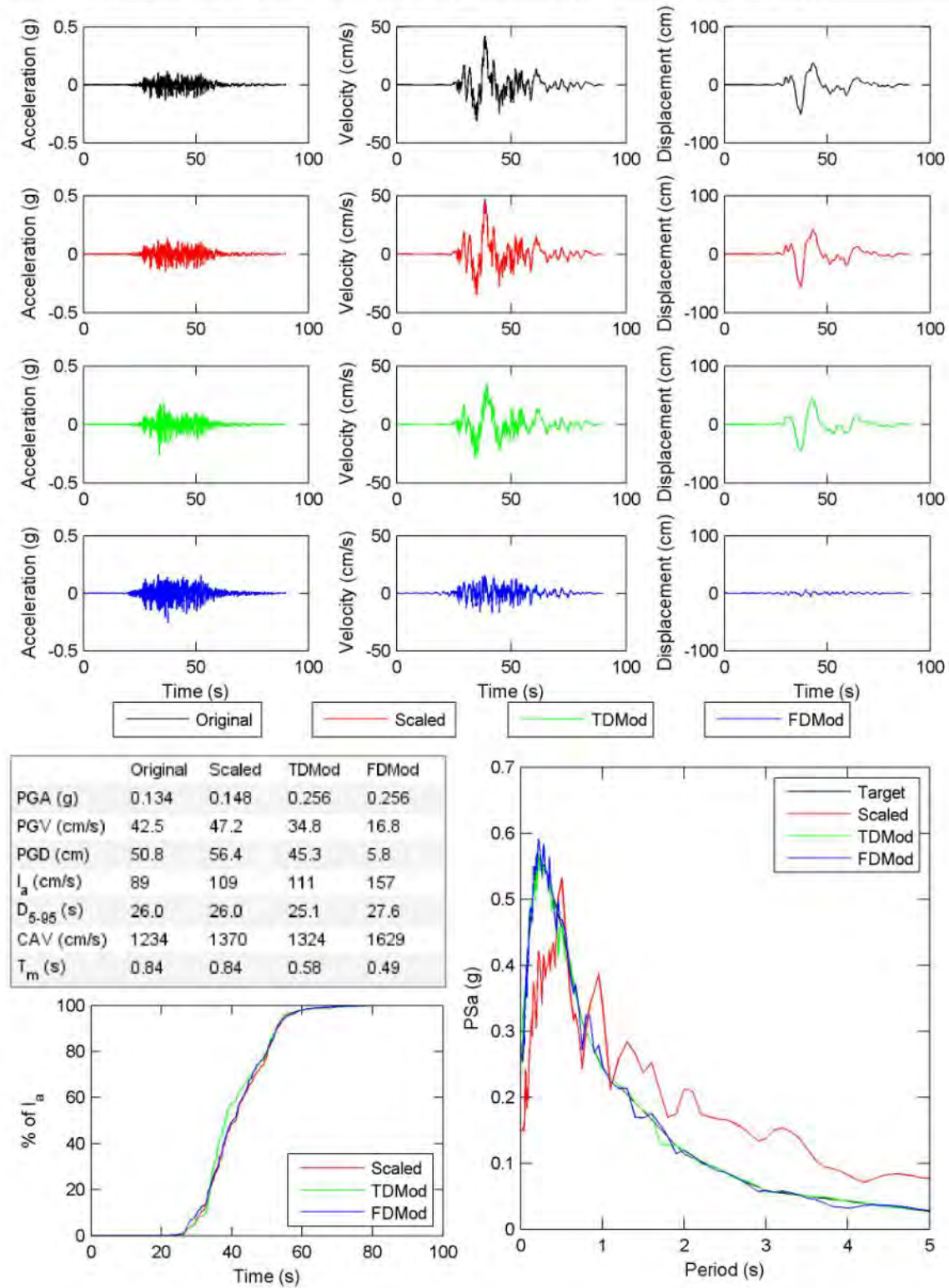

	Original	Scaled	TDMod	FDMod
PGA (g)	0.068	0.248	0.257	0.256
PGV (cm/s)	8.8	32.3	30.9	16.3
PGD (cm)	10.1	36.9	24.8	4.8
I_a (cm/s)	4	48	67	76
D_{5-95} (s)	14.6	14.6	13.0	13.3
CAV (cm/s)	170	619	708	771
T_m (s)	0.52	0.52	0.51	0.46

Figure E.6. continued.

972

Figure E.6. continued.

973

	Original	Scaled	TDMod	FDMod
PGA (g)	0.110	0.222	0.256	0.256
PGV (cm/s)	15.2	30.6	25.2	18.4
PGD (cm)	18.2	36.6	34.6	7.5
I_a (cm/s)	34	137	120	140
D_{5-95} (s)	38.9	38.9	40.0	42.3
CAV (cm/s)	854	1716	1665	1852
T_m (s)	0.62	0.62	0.63	0.52

Figure E.6. continued.

974

File Name: 11 HON-MYGH06-E   Start and End Taper Percentage: 1.0% and 5.0%
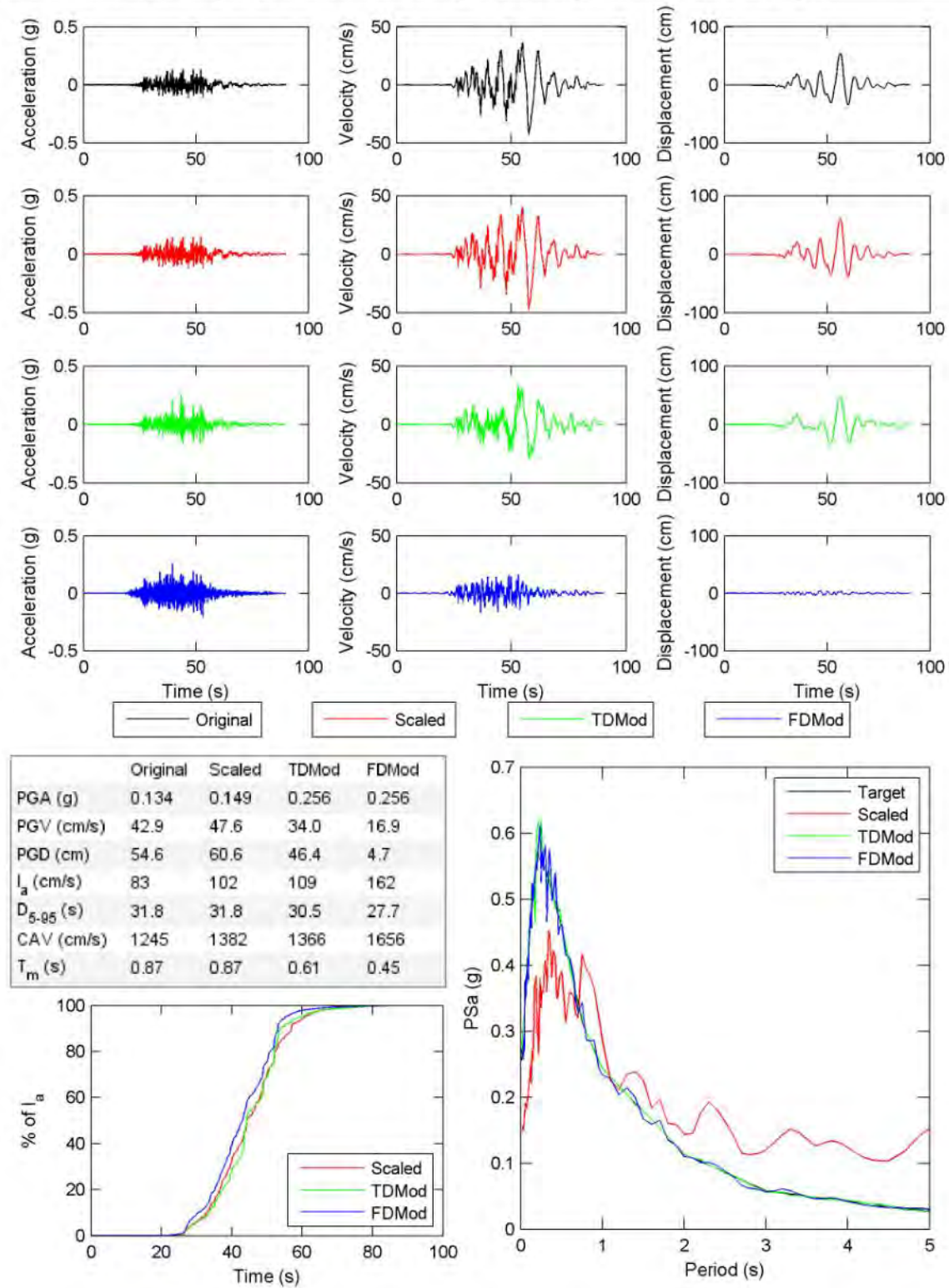Scale Factor: 0.69 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 6

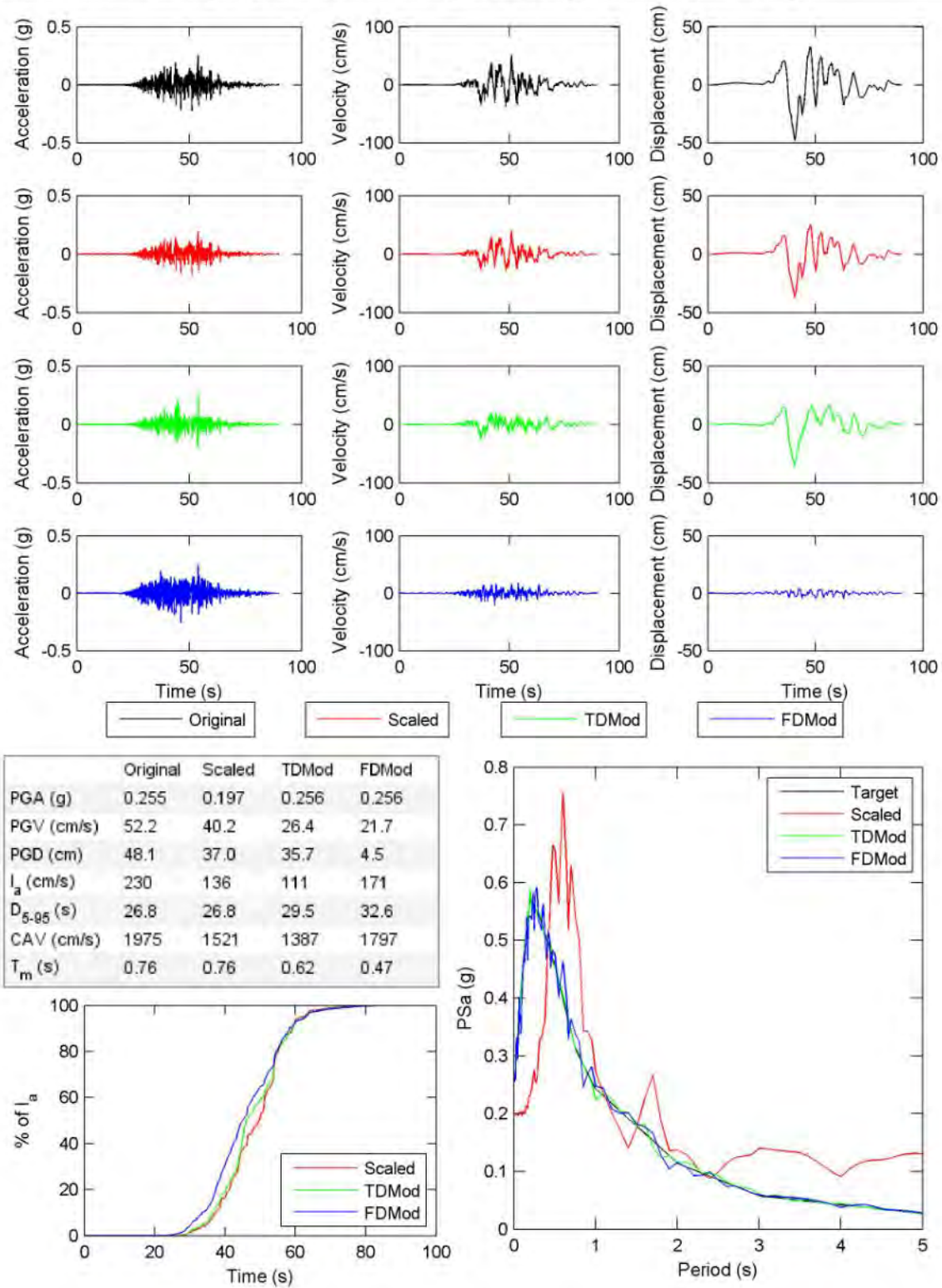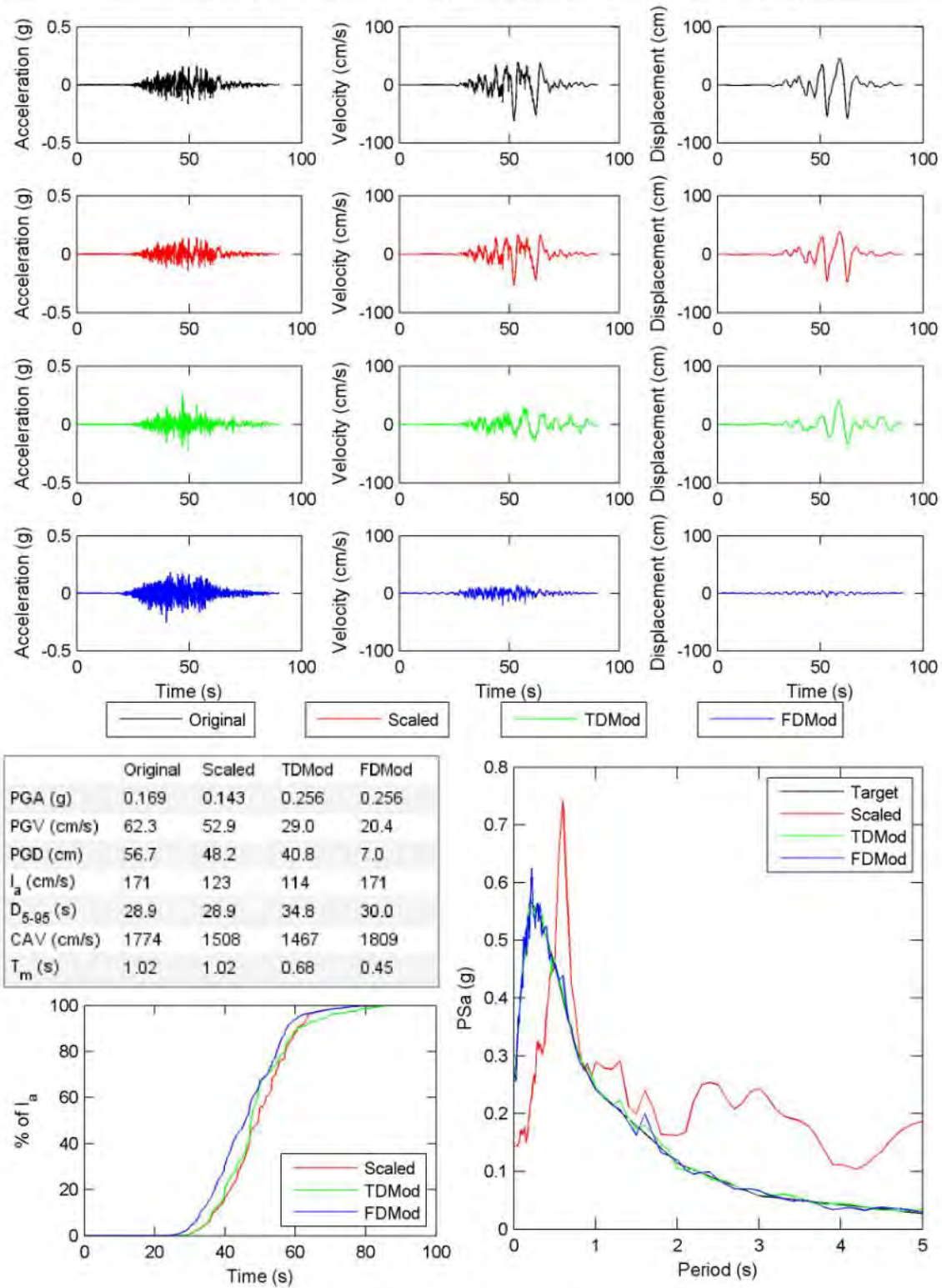|	Original	Scaled	TDMod	FDMod
PGA (g)	0.288	0.199	0.256	0.256
PGV (cm/s)	32.7	22.6	21.6	18.7
PGD (cm)	16.4	11.3	12.2	6.9
I_a (cm/s)	300	143	139	207
D_{5-95} (s)	85.6	85.6	86.4	94.4
CAV (cm/s)	3518	2427	2383	3144
T_m (s)	0.62	0.62	0.51	0.43

Figure E.6. continued.

975

	Original	Scaled	TDMod	FDMod
PGA (g)	0.262	0.257	0.256	0.256
PGV (cm/s)	24.7	24.2	18.3	18.8
PGD (cm)	11.5	11.3	9.8	8.1
I_a (cm/s)	230	221	203	199
D_{5-95} (s)	84.5	84.5	87.8	91.8
CAV (cm/s)	3181	3118	3058	3087
T_m (s)	0.47	0.47	0.46	0.49

Figure E.6. continued.

976

File Name: 1201 CHY034-N   Start and End Taper Percentage: 1.0% and 5.0%
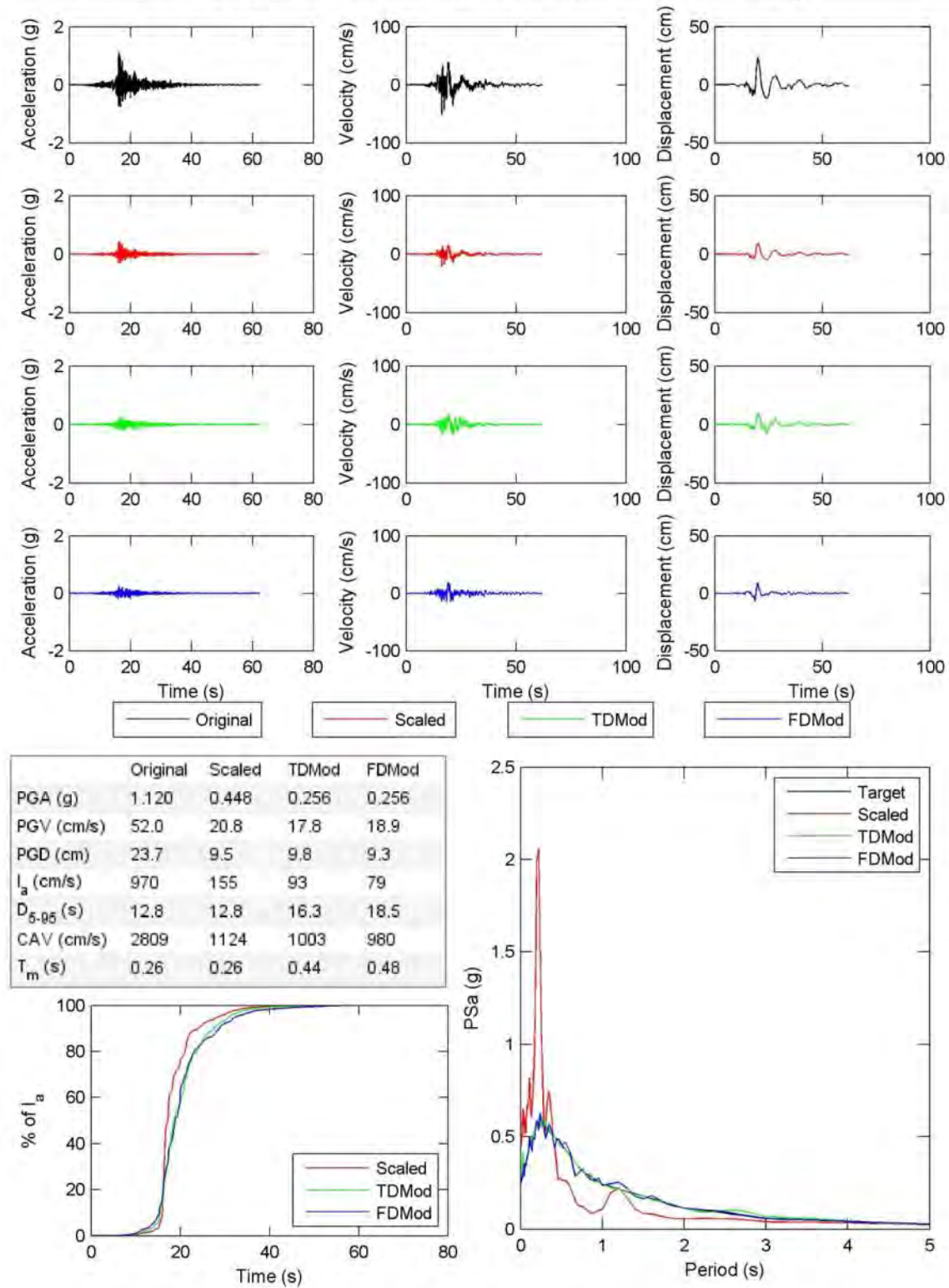Scale Factor: 0.79 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.310	0.245	0.256	0.256
PGV (cm/s)	48.5	38.3	20.1	19.3
PGD (cm)	16.5	13.1	13.2	5.2
I_a (cm/s)	182	113	76	110
D_{5-95} (s)	24.4	24.4	31.6	39.8
CAV (cm/s)	1682	1329	1217	1703
T_m (s)	0.93	0.93	0.68	0.50

Figure E.6. continued.

977

Figure E.6. continued.

978

File Name: 1203 CHY036-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.67 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 5

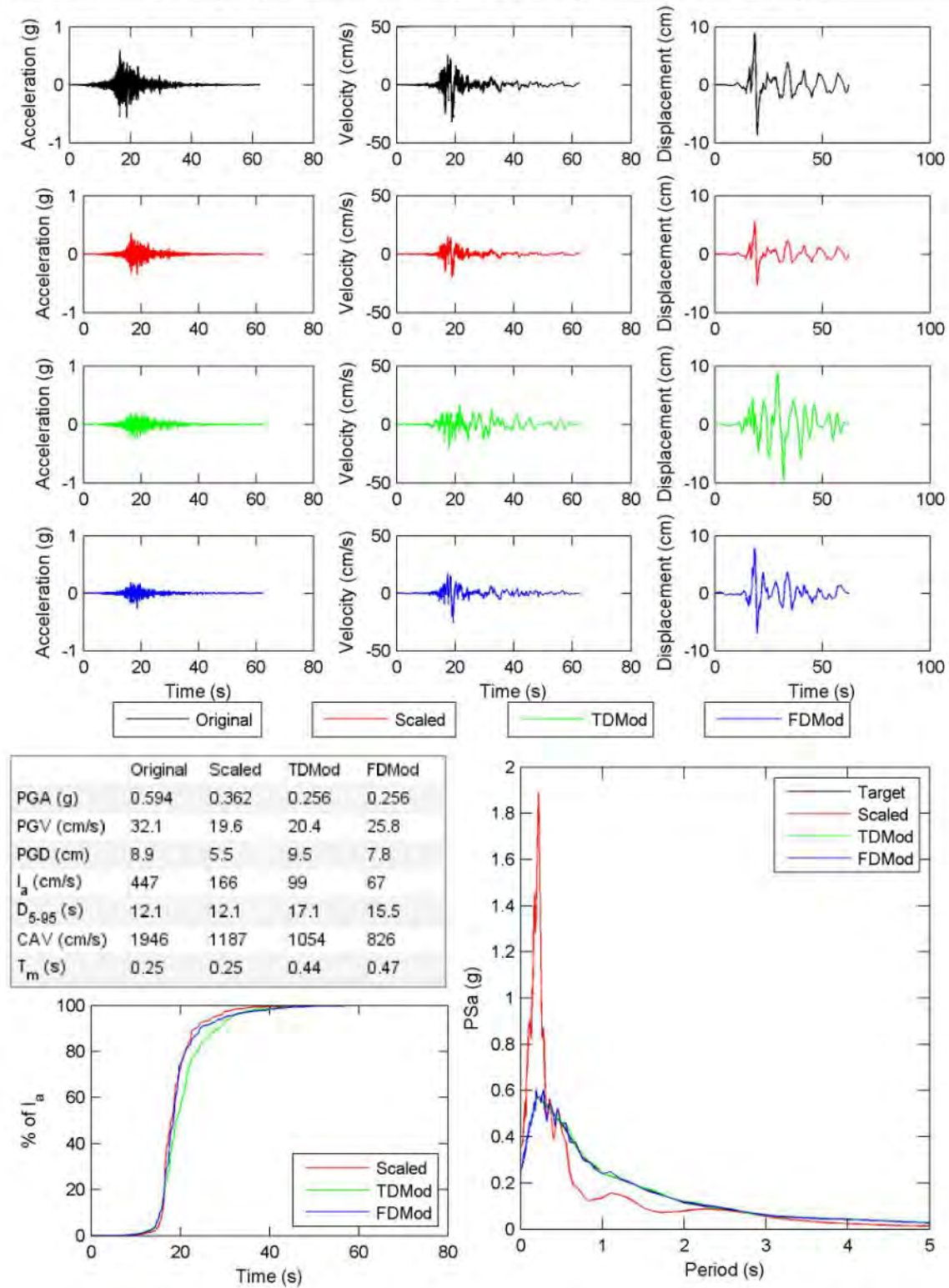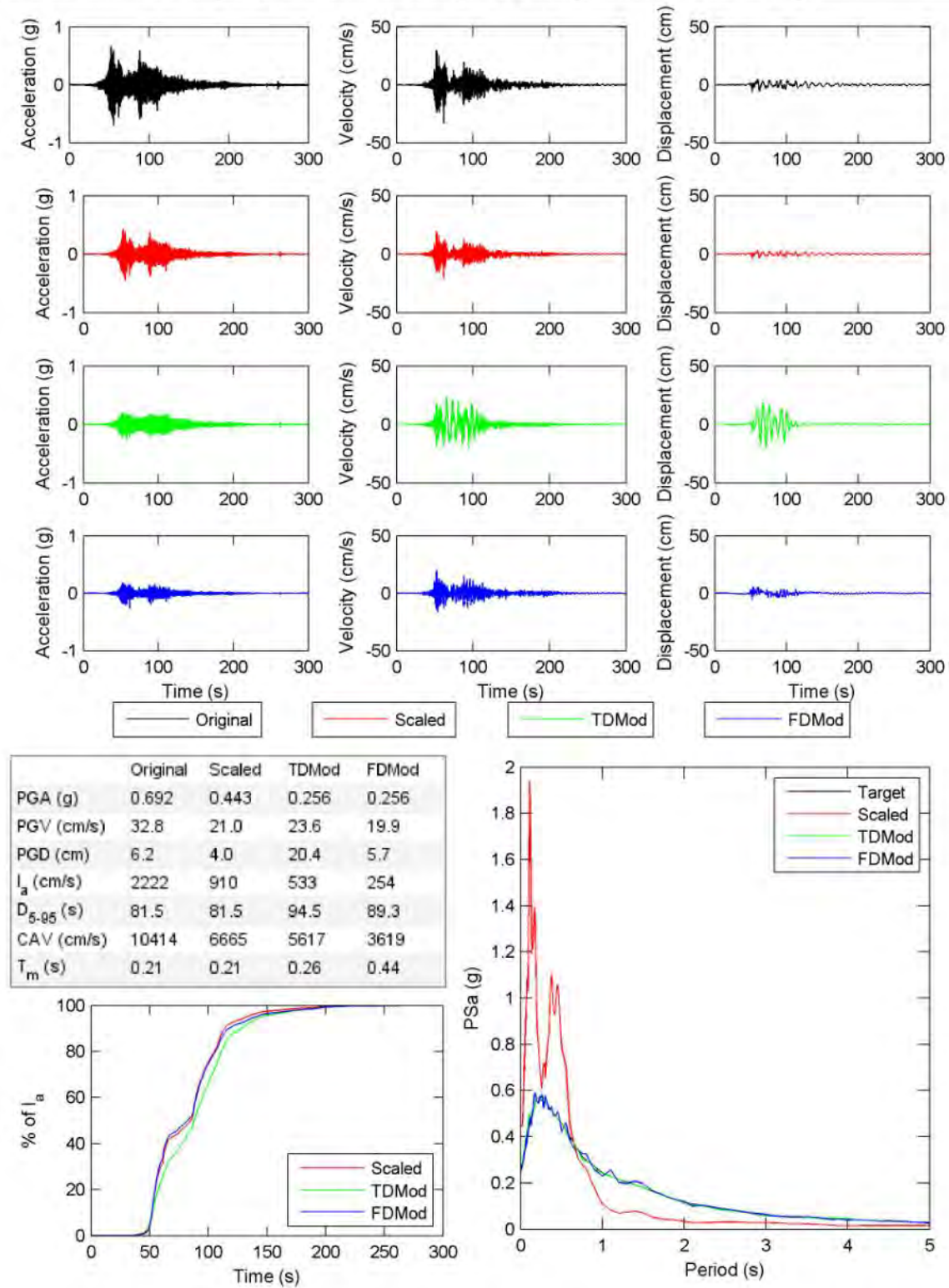|	Original	Scaled	TDMod	FDMod
PGA (g)	0.294	0.197	0.256	0.256
PGV (cm/s)	38.9	26.1	19.1	19.2
PGD (cm)	21.2	14.2	11.7	9.4
I_a (cm/s)	186	84	83	112
D_{5-95} (s)	26.4	26.4	27.0	32.9
CAV (cm/s)	1704	1141	1122	1445
T_m (s)	0.92	0.92	0.66	0.50

Figure E.6. continued.

979

File Name: 1203 CHY036-N   Start and End Taper Percentage: 1.0% and 5.0%
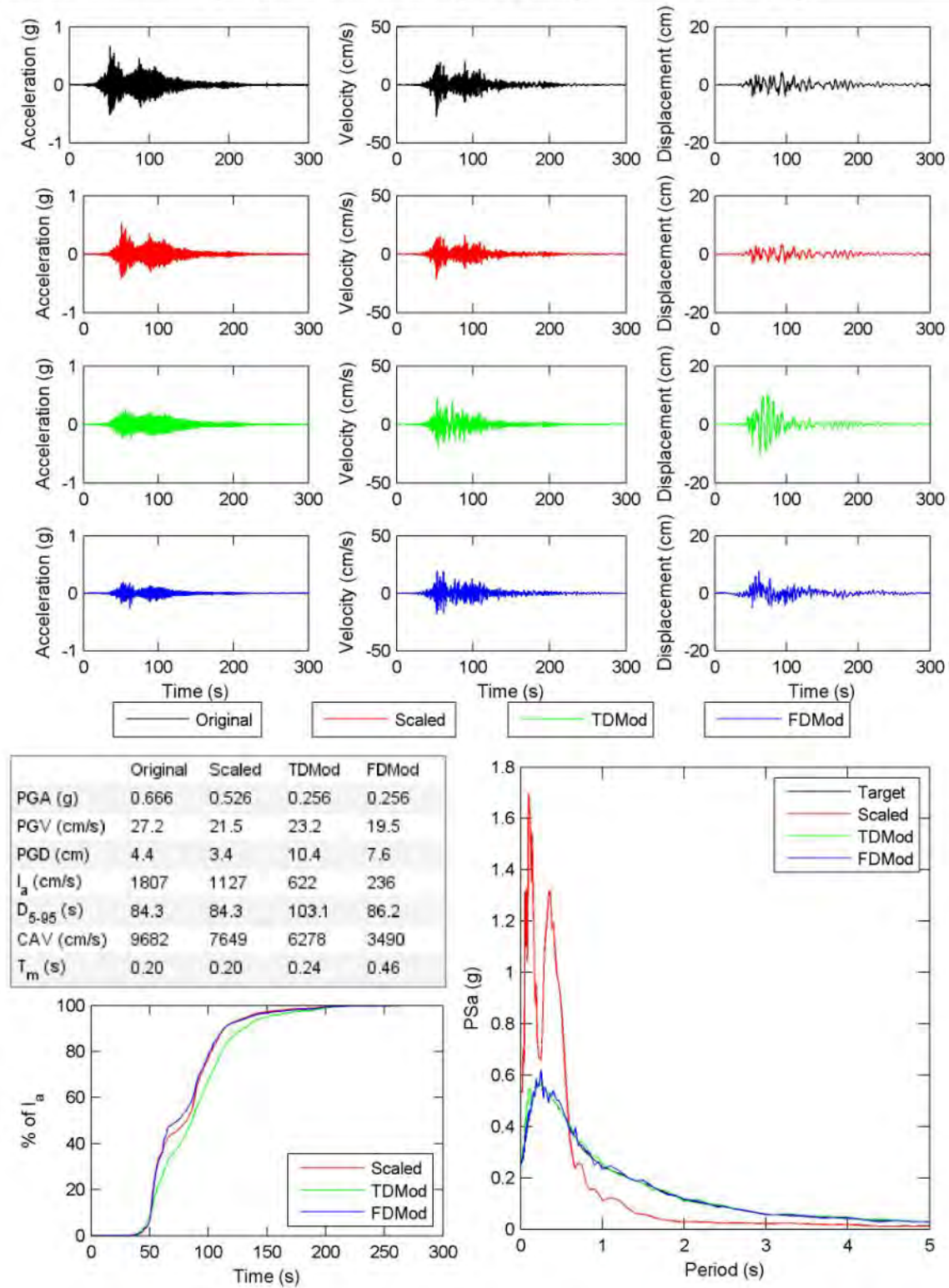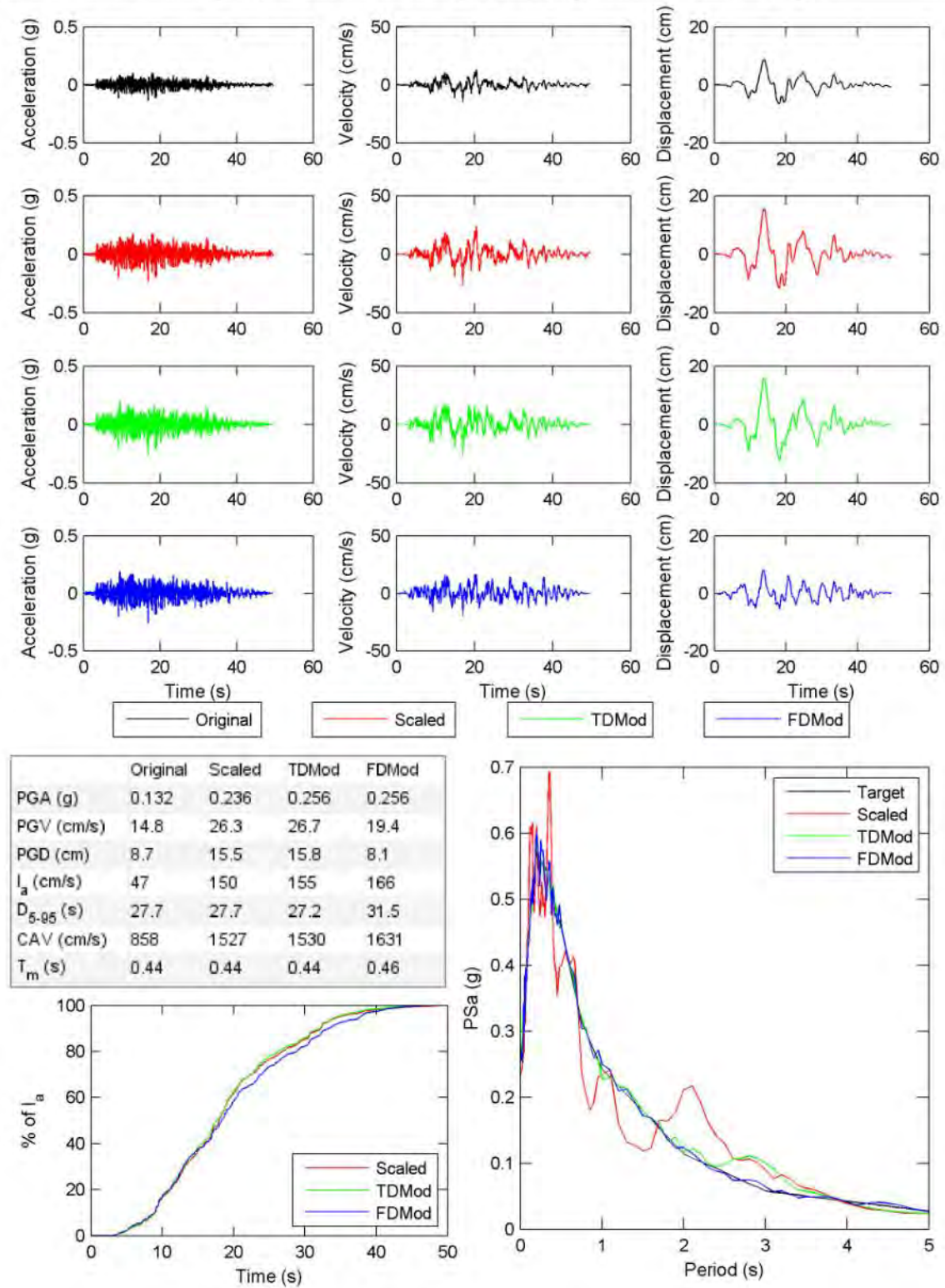Scale Factor: 0.79 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.207	0.163	0.256	0.256
PGV (cm/s)	41.5	32.8	24.3	19.9
PGD (cm)	34.2	27.0	17.8	5.8
I_a (cm/s)	156	97	87	126
D_{5-95} (s)	32.8	32.8	32.6	36.9
CAV (cm/s)	1667	1317	1232	1607
T_m (s)	0.84	0.84	0.67	0.57

Figure E.6. continued.

980

	Original	Scaled	TDMod	FDMod
PGA (g)	0.302	0.308	0.256	0.256
PGV (cm/s)	20.4	20.8	26.3	19.1
PGD (cm)	8.6	8.8	26.1	7.2
I_a (cm/s)	154	160	127	116
D_{5-95} (s)	30.2	30.2	35.6	35.6
CAV (cm/s)	1556	1587	1544	1461
T_m (s)	0.46	0.46	0.53	0.55

Figure E.6. continued.

981

	Original	Scaled	TDMod	FDMod
PGA (g)	0.639	0.460	0.256	0.256
PGV (cm/s)	39.6	28.5	24.8	20.7
PGD (cm)	11.3	8.1	11.1	6.9
I_a (cm/s)	364	189	98	101
D_{5-95} (s)	22.1	22.1	28.0	36.0
CAV (cm/s)	2011	1448	1250	1376
T_m (s)	0.45	0.45	0.50	0.58

Figure E.6. continued.

982

File Name: 1221 CHY065-E   Start and End Taper Percentage: 1.0% and 5.0%
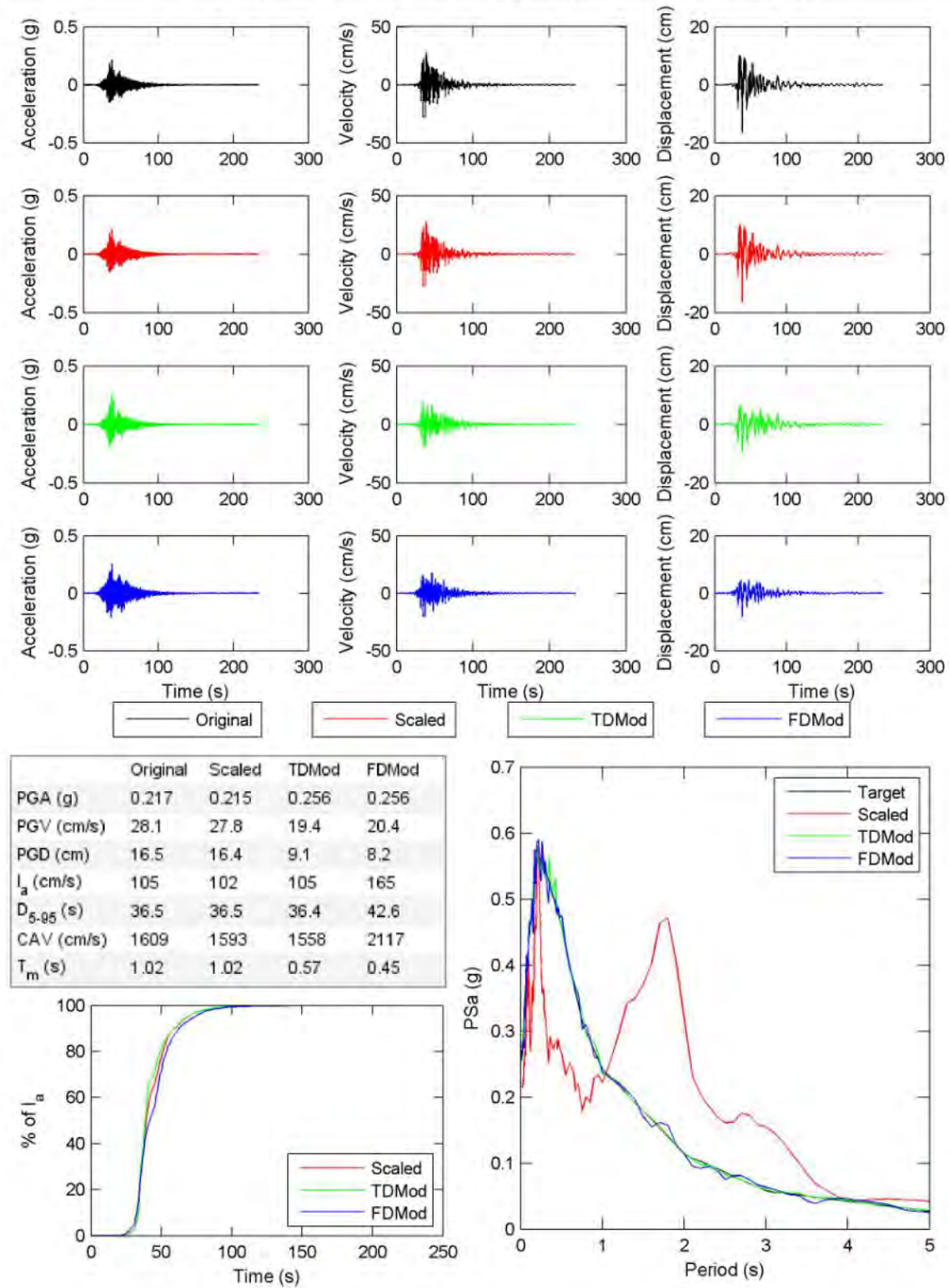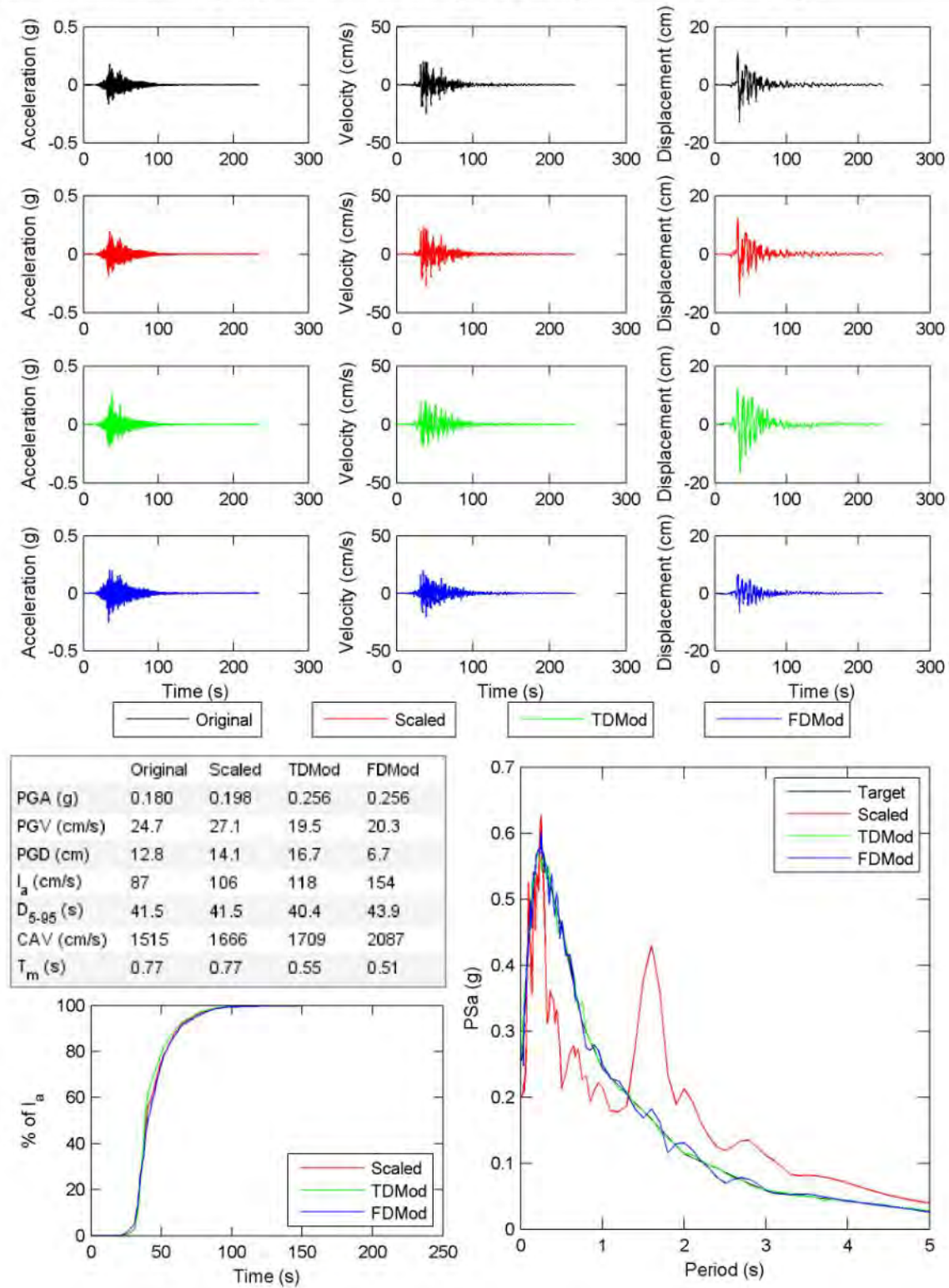Scale Factor: 1.90 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.118	0.224	0.256	0.256
PGV (cm/s)	15.8	30.0	19.7	19.9
PGD (cm)	8.4	16.0	11.7	7.0
I_a (cm/s)	50	181	124	158
D_{5-95} (s)	37.9	37.9	40.0	41.2
CAV (cm/s)	988	1878	1620	1890
T_m (s)	0.79	0.79	0.71	0.49

Figure E.6. continued.

983

	Original	Scaled	TDMod	FDMod
PGA (g)	0.097	0.208	0.256	0.256
PGV (cm/s)	12.5	26.6	19.3	17.6
PGD (cm)	8.3	17.6	18.9	8.0
I_a (cm/s)	34	156	117	148
D_{5-95} (s)	37.9	37.9	39.5	41.6
CAV (cm/s)	833	1773	1552	1841
T_m (s)	0.91	0.91	0.72	0.53

Figure E.6. continued.

984

Figure E.6. continued.

985

File Name: 1265 HWA014-N   Start and End Taper Percentage: 1.0% and 5.0%
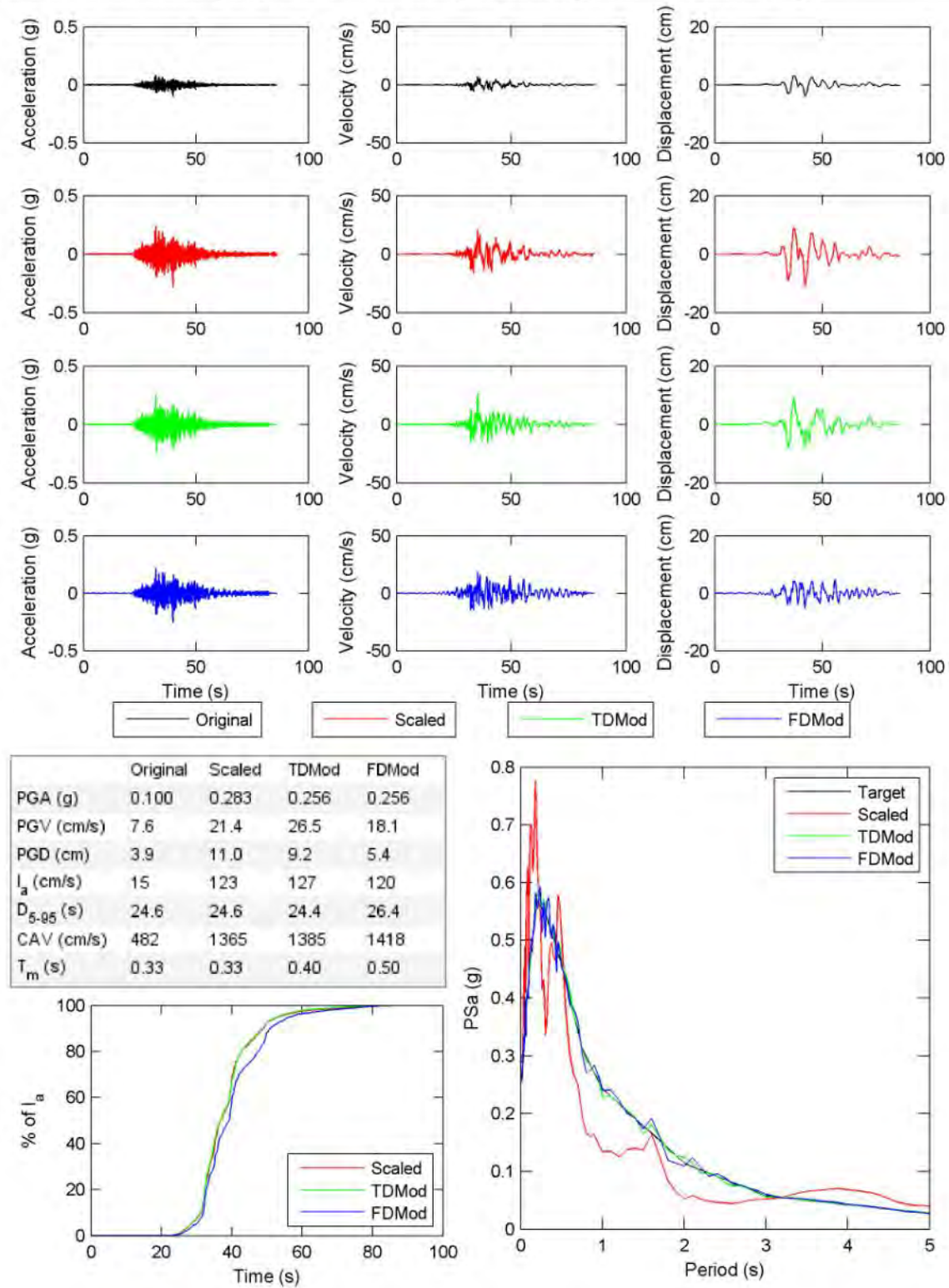Scale Factor: 1.57 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 9

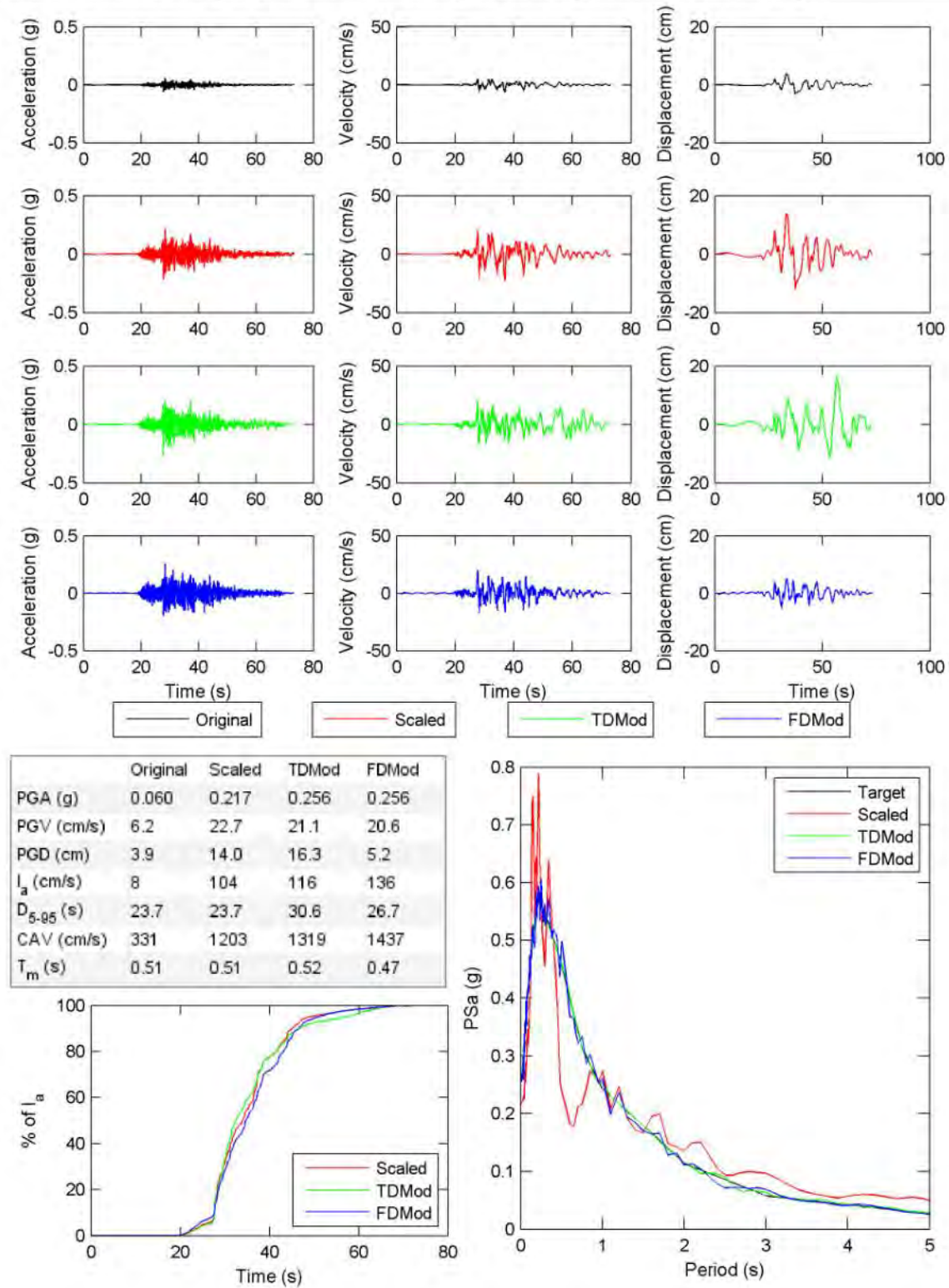|	Original	Scaled	TDMod	FDMod
PGA (g)	0.093	0.146	0.256	0.256
PGV (cm/s)	26.0	40.9	18.2	18.5
PGD (cm)	13.7	21.5	12.9	5.9
I_a (cm/s)	31	77	81	121
D_{5-95} (s)	25.2	25.2	23.5	28.1
CAV (cm/s)	708	1112	1064	1449
T_m (s)	1.41	1.41	0.65	0.46

Figure E.6. continued.

986

File Name: 12 HON-MYGH12-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.70 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 4

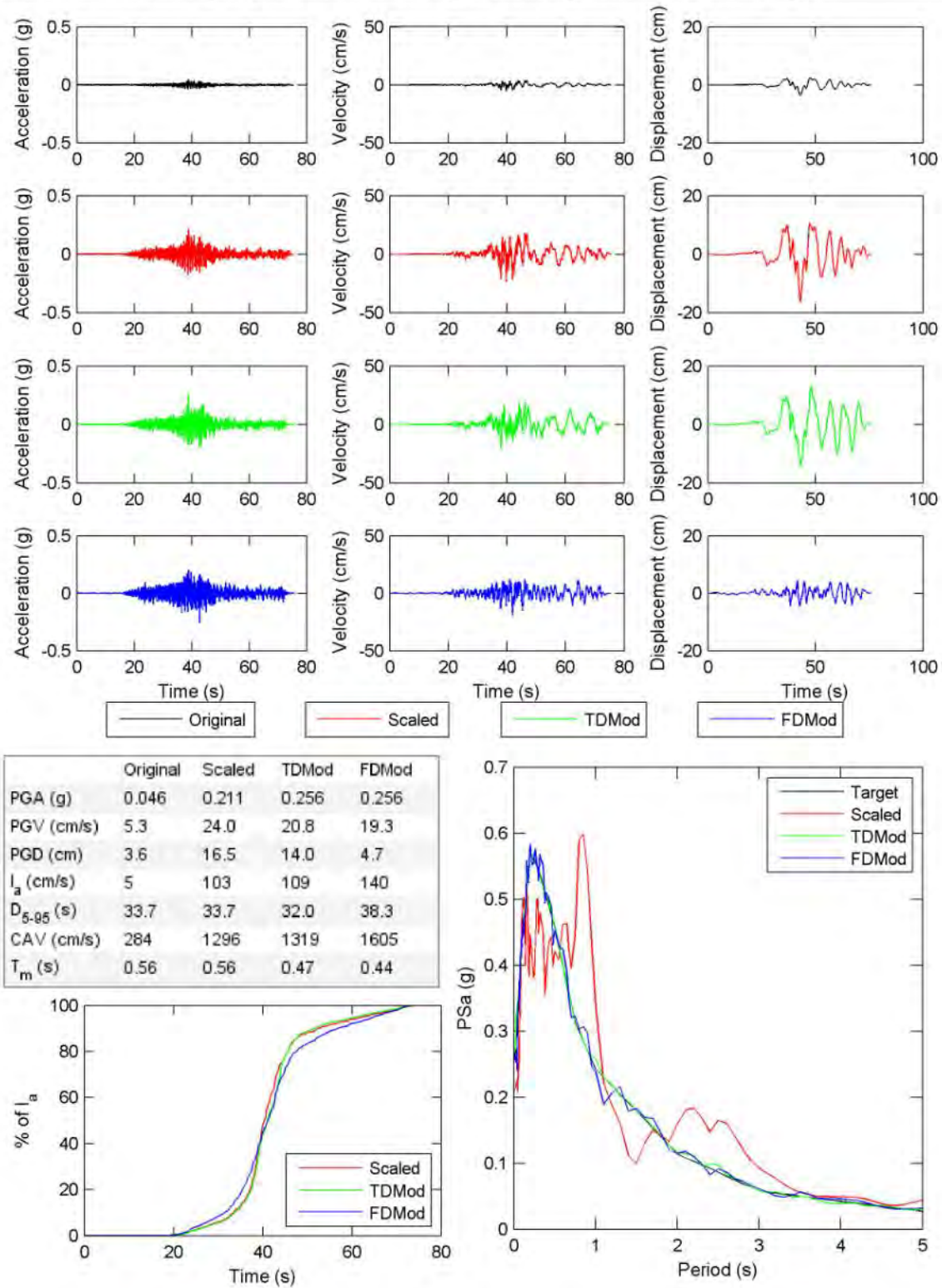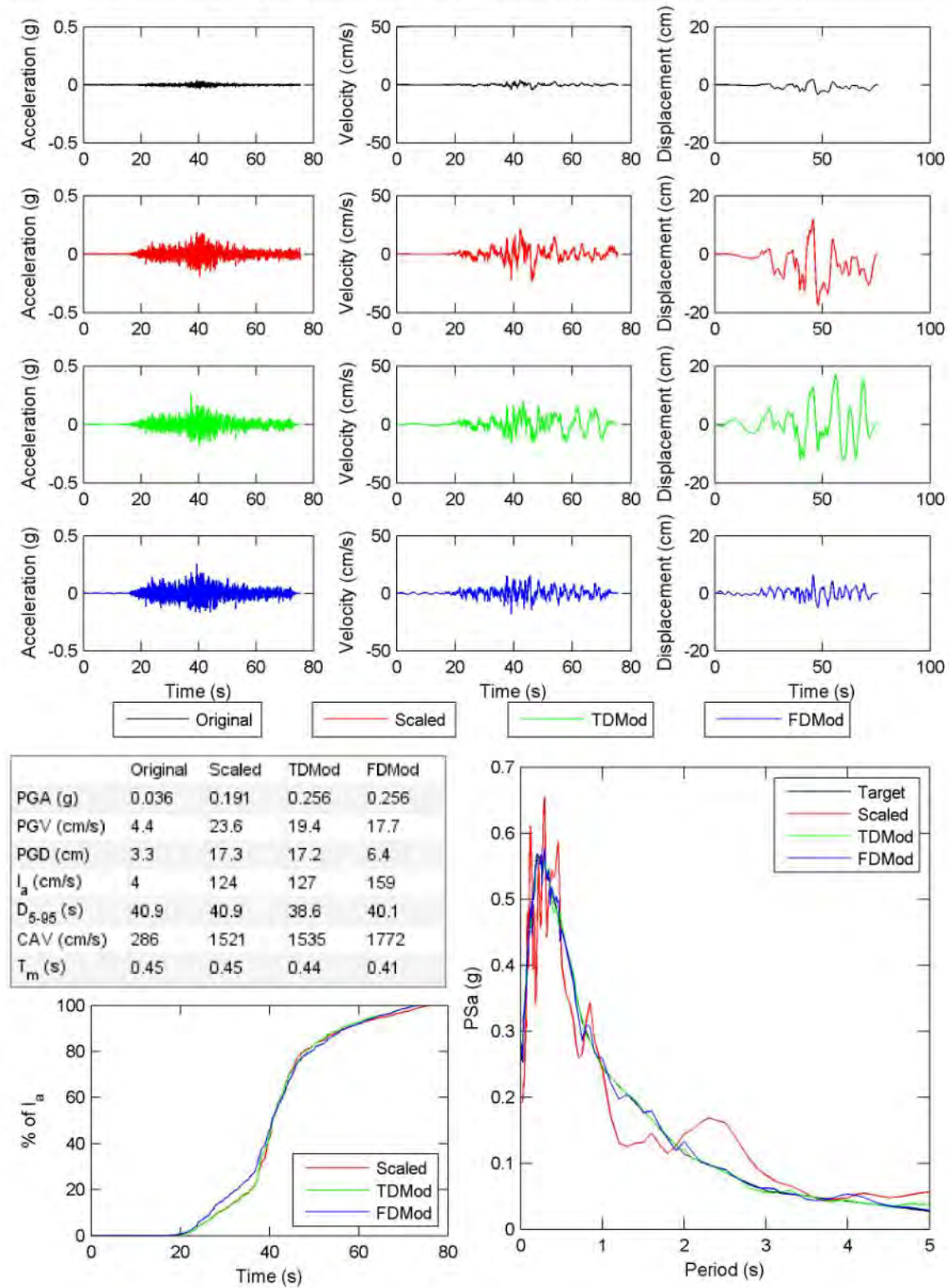|	Original	Scaled	TDMod	FDMod
PGA (g)	0.453	0.317	0.256	0.256
PGV (cm/s)	24.0	16.8	28.7	18.6
PGD (cm)	9.9	6.9	17.1	7.8
I_a (cm/s)	827	405	305	175
D_{5-95} (s)	87.4	87.4	96.8	85.1
CAV (cm/s)	6207	4345	3983	2717
T_m (s)	0.16	0.16	0.24	0.41

Figure E.6. continued.

987

	Original	Scaled	TDMod	FDMod
PGA (g)	0.542	0.433	0.256	0.256
PGV (cm/s)	24.2	19.4	30.6	27.5
PGD (cm)	7.2	5.8	10.4	6.7
I_a (cm/s)	1112	712	413	221
D_{5-95} (s)	82.2	82.2	93.7	88.0
CAV (cm/s)	6637	5309	4527	3144
T_m (s)	0.15	0.15	0.23	0.44

Figure E.6. continued.

988

File Name: 1380 KAU054-E   Start and End Taper Percentage: 1.0% and 5.0%
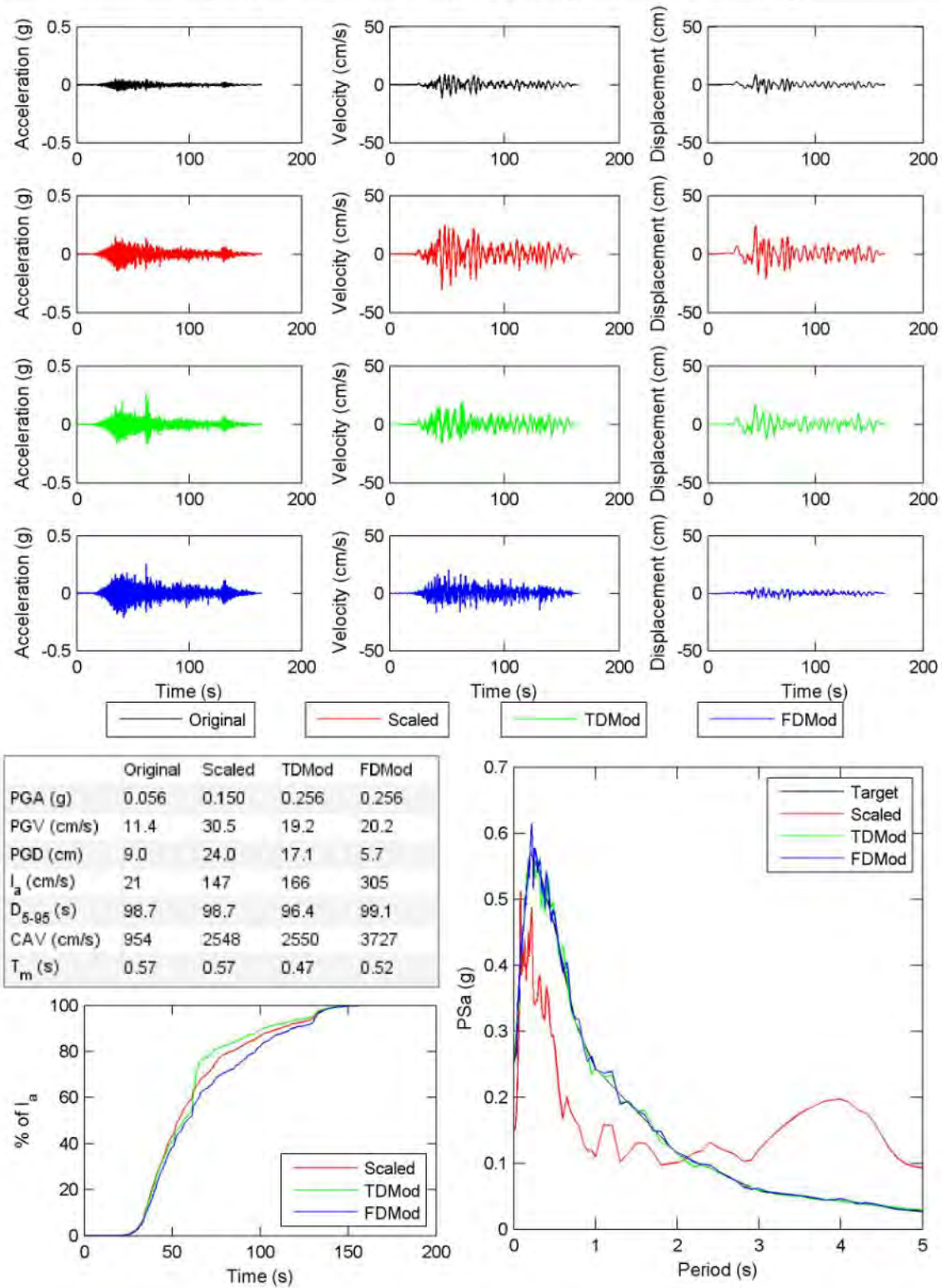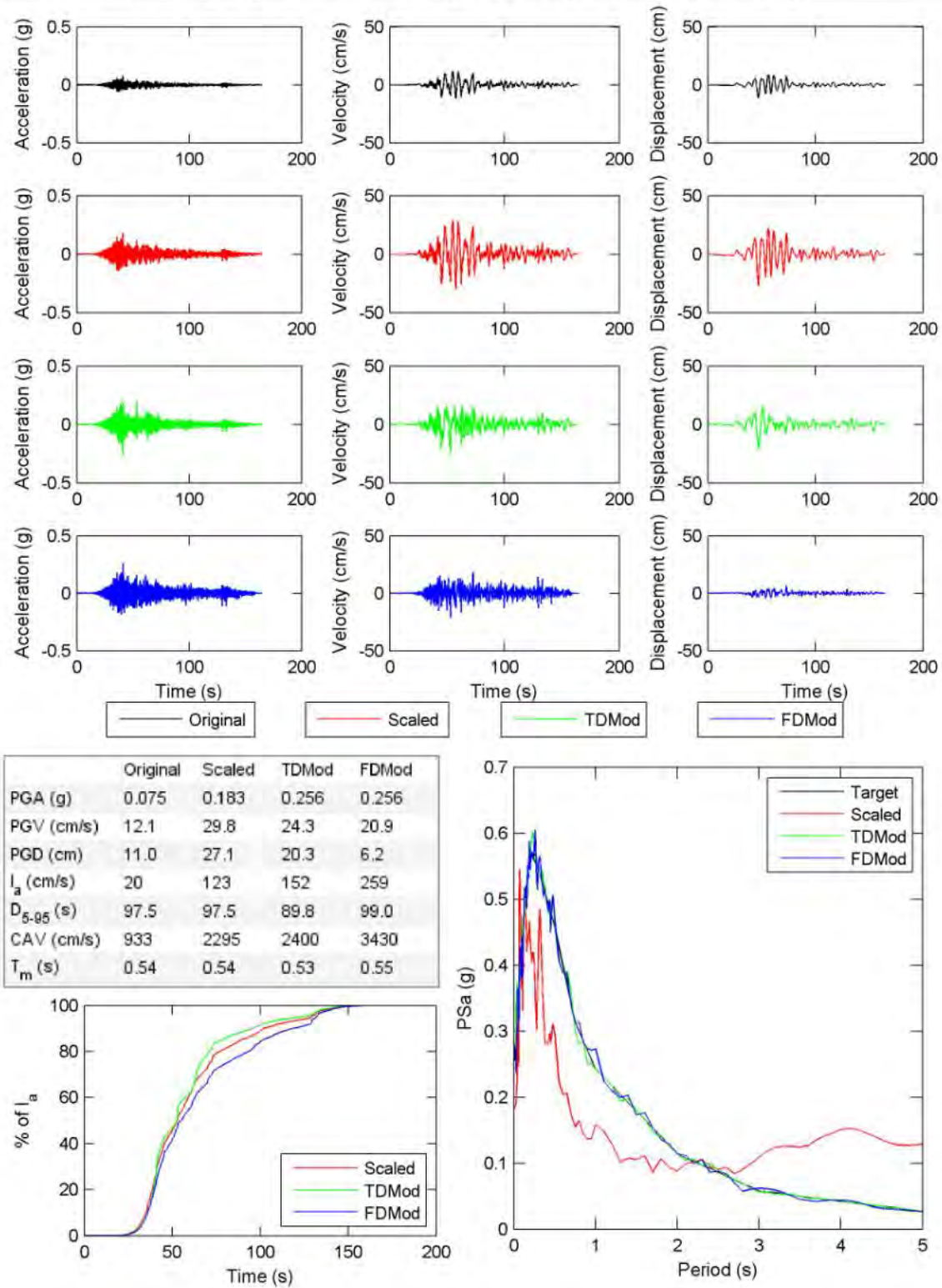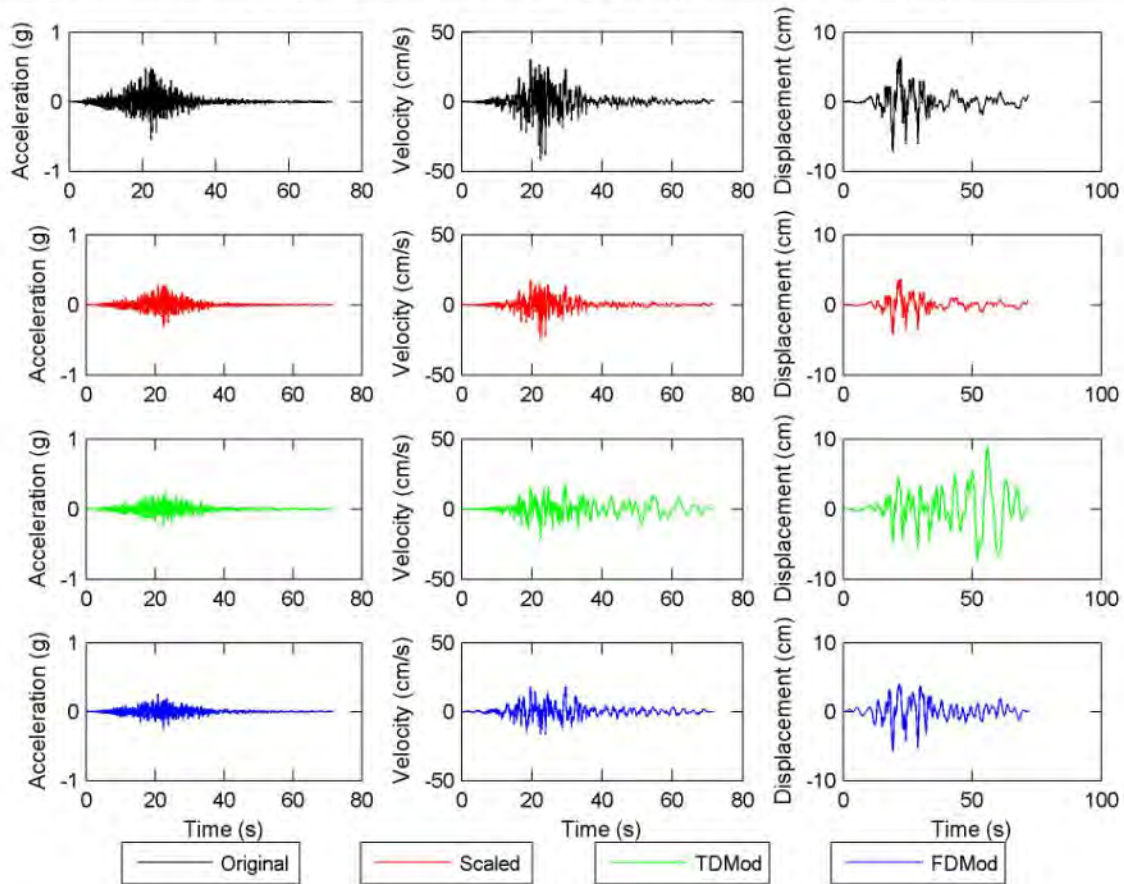Scale Factor: 2.97 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.085	0.252	0.256	0.256
PGV (cm/s)	8.5	25.2	20.5	17.3
PGD (cm)	6.0	17.8	12.2	5.6
I_a (cm/s)	15	130	127	121
D_{5-95} (s)	32.5	32.5	33.3	32.1
CAV (cm/s)	508	1510	1511	1485
T_m (s)	0.49	0.49	0.52	0.52

Figure E.6. continued.

989

	Original	Scaled	TDMod	FDMod
PGA (g)	0.080	0.251	0.256	0.256
PGV (cm/s)	5.2	16.2	16.5	14.7
PGD (cm)	3.6	11.2	12.6	5.5
I_a (cm/s)	15	143	137	136
D_{5-95} (s)	31.9	31.9	34.7	36.0
CAV (cm/s)	505	1582	1614	1645
T_m (s)	0.45	0.45	0.51	0.51

Figure E.6. continued.

990

	Original	Scaled	TDMod	FDMod
PGA (g)	0.119	0.154	0.256	0.256
PGV (cm/s)	49.8	64.7	44.6	17.9
PGD (cm)	49.8	64.8	58.2	5.0
I_a (cm/s)	43	72	84	111
D_{5-95} (s)	26.5	26.5	25.8	24.9
CAV (cm/s)	849	1104	1126	1349
T_m (s)	0.96	0.96	0.61	0.52

Figure E.6. continued.

991

	Original	Scaled	TDMod	FDMod
PGA (g)	0.114	0.168	0.256	0.256
PGV (cm/s)	29.5	43.4	25.9	22.9
PGD (cm)	24.2	35.5	28.9	4.4
I_a (cm/s)	35	77	95	120
D_{5-95} (s)	23.3	23.3	20.8	22.6
CAV (cm/s)	749	1101	1165	1358
T_m (s)	0.96	0.96	0.59	0.48
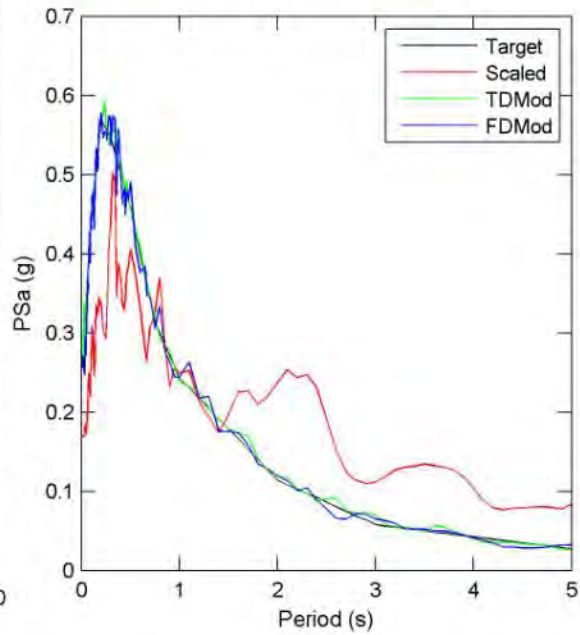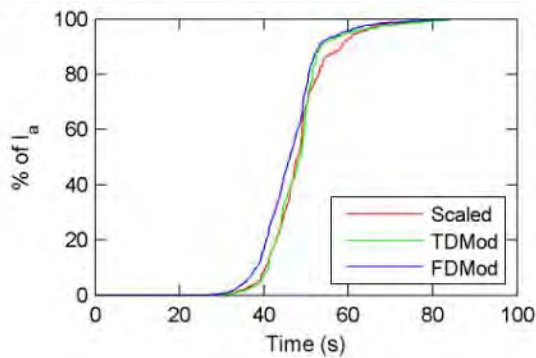
Figure E.6. continued.

992

File Name: 1481 TCU038-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.07 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 5

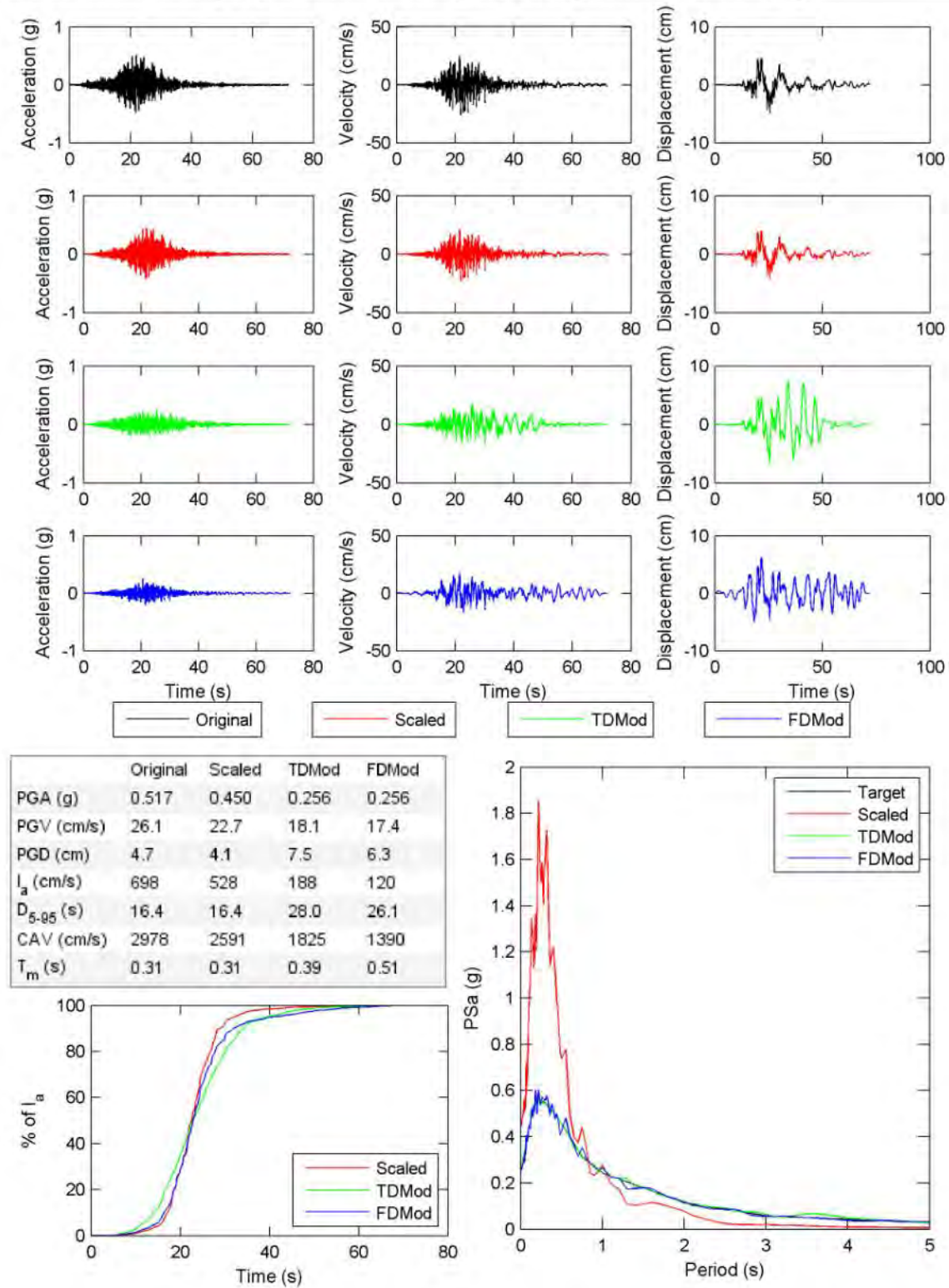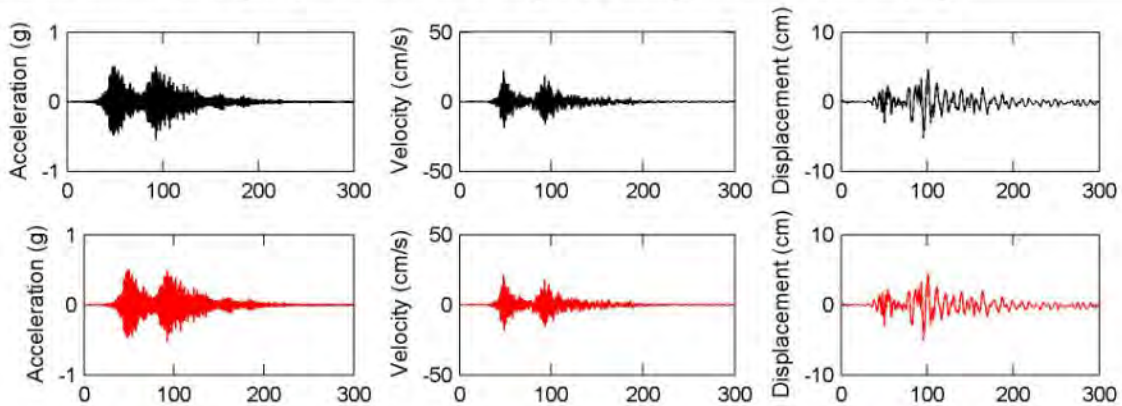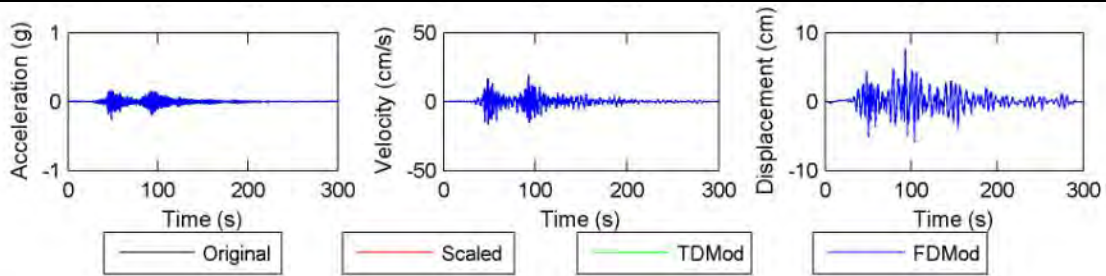|	Original	Scaled	TDMod	FDMod
PGA (g)	0.141	0.151	0.256	0.256
PGV (cm/s)	48.9	52.3	39.2	20.0
PGD (cm)	64.2	68.7	50.0	5.7
I_a (cm/s)	76	87	89	136
D_{5-95} (s)	28.2	28.2	27.0	26.1
CAV (cm/s)	1121	1200	1166	1497
T_m (s)	0.93	0.93	0.63	0.51

Figure E.6. continued.

993

Figure E.6. continued.

994

File Name: 1496 TCU056-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.11 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 4

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.148	0.256	0.256
PGV (cm/s)	42.5	47.2	34.8	16.8
PGD (cm)	50.8	56.4	45.3	5.8
I_a (cm/s)	89	109	111	157
D_{5-95} (s)	26.0	26.0	25.1	27.6
CAV (cm/s)	1234	1370	1324	1629
T_m (s)	0.84	0.84	0.58	0.49

Figure E.6. continued.

995

File Name: 1496 TCU056-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.11 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 4

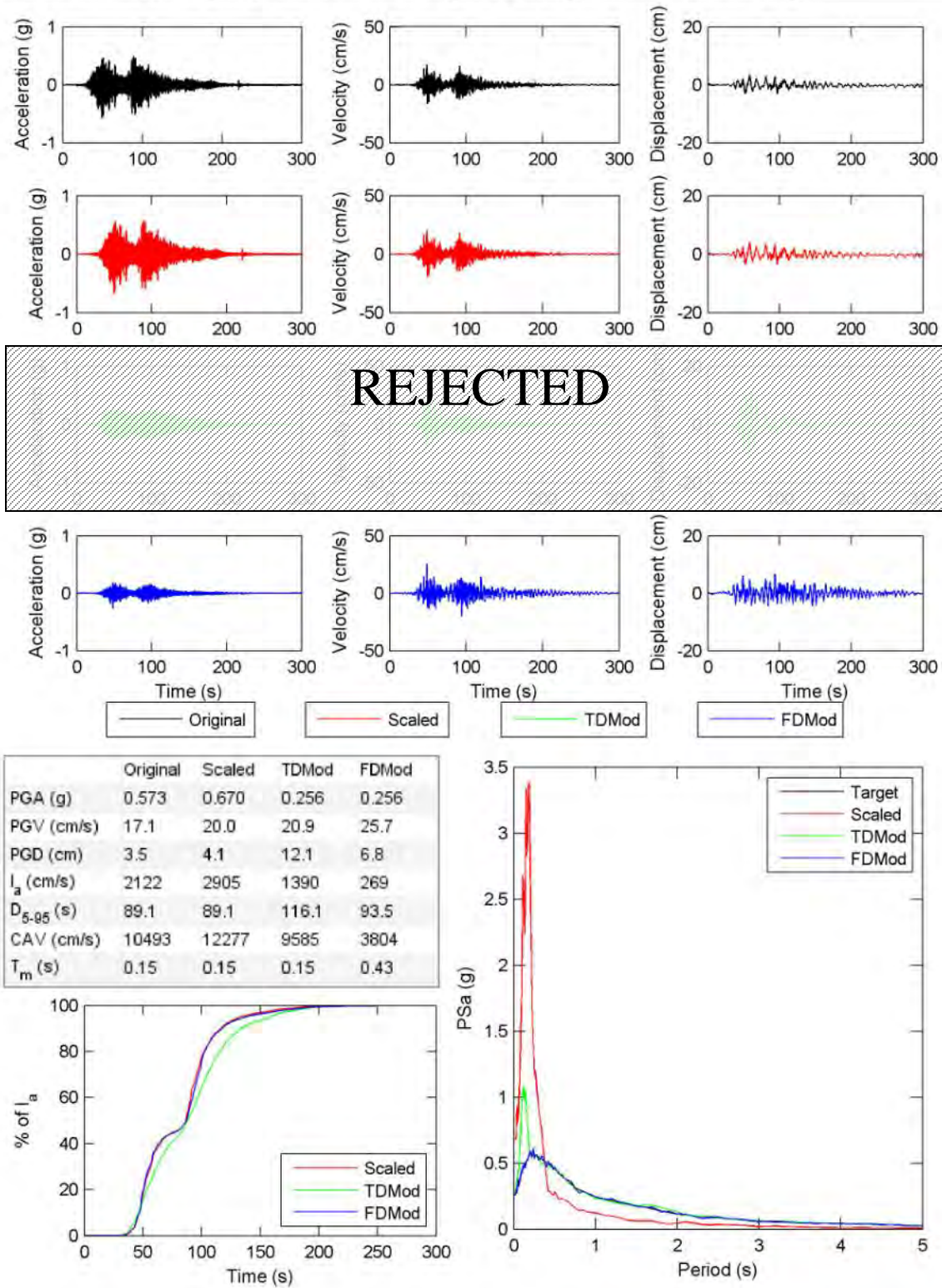|	Original	Scaled	TDMod	FDMod
PGA (g)	0.134	0.149	0.256	0.256
PGV (cm/s)	42.9	47.6	34.0	16.9
PGD (cm)	54.6	60.6	46.4	4.7
I_a (cm/s)	83	102	109	162
D_{5-95} (s)	31.8	31.8	30.5	27.7
CAV (cm/s)	1245	1382	1366	1656
T_m (s)	0.87	0.87	0.61	0.45

Figure E.6. continued.

996

File Name: 1506 TCU070-E   Start and End Taper Percentage: 1.0% and 5.0%
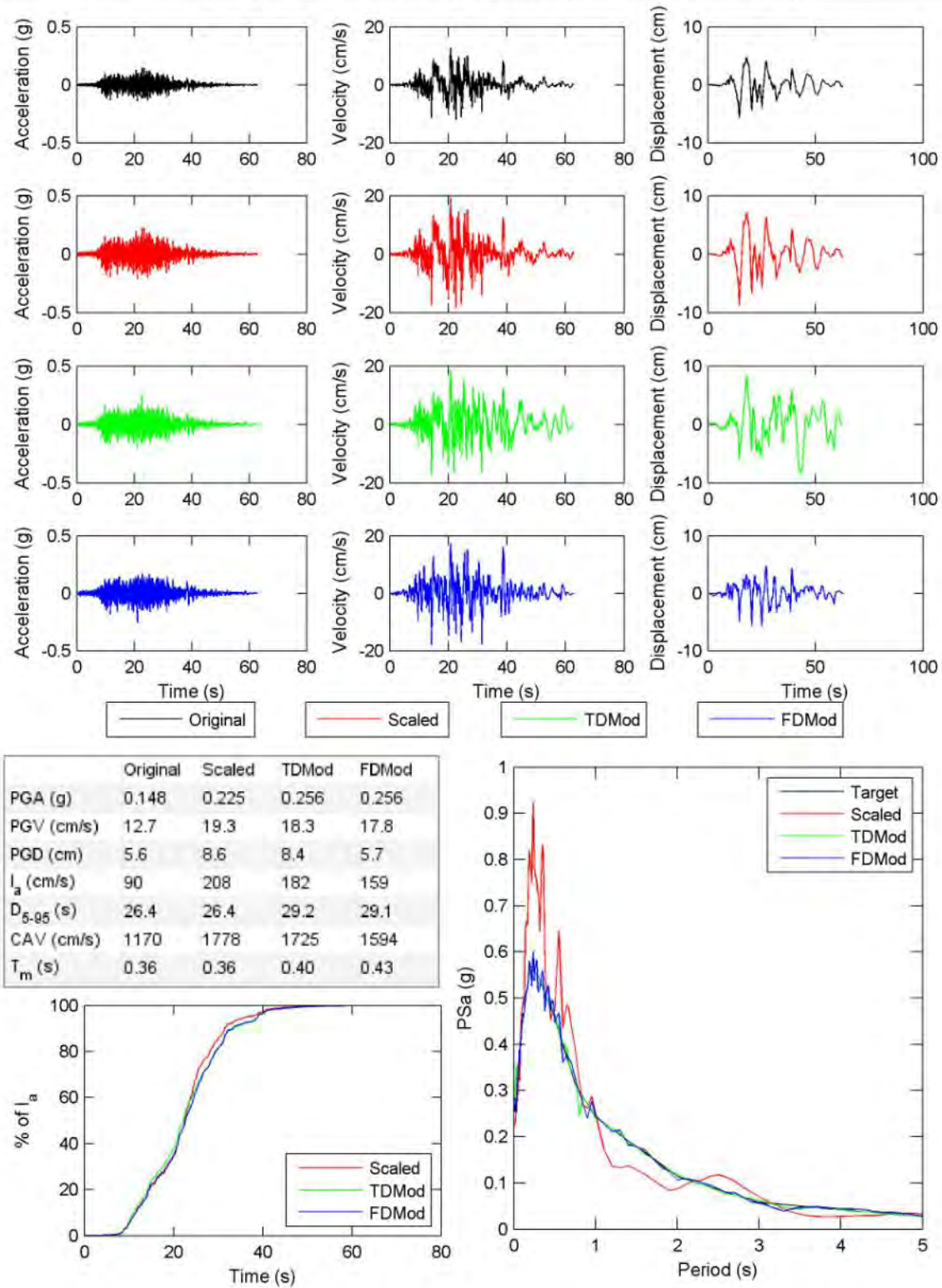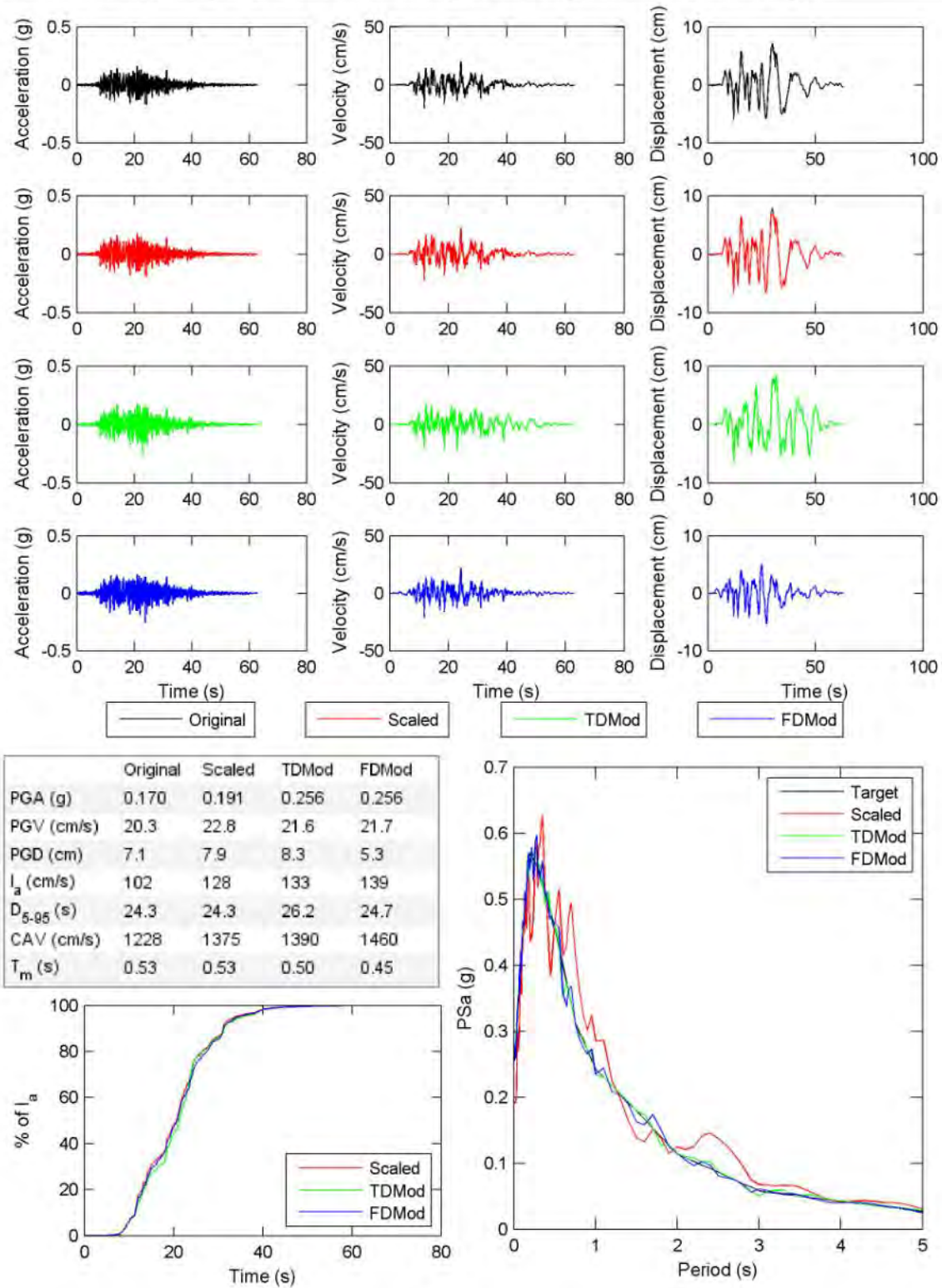Scale Factor: 0.77 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 3

	Original	Scaled	TDMod	FDMod
PGA (g)	0.255	0.197	0.256	0.256
PGV (cm/s)	52.2	40.2	26.4	21.7
PGD (cm)	48.1	37.0	35.7	4.5
I_a (cm/s)	230	136	111	171
D_{5-95} (s)	26.8	26.8	29.5	32.6
CAV (cm/s)	1975	1521	1387	1797
T_m (s)	0.76	0.76	0.62	0.47

Figure E.6. continued.

997

	Original	Scaled	TDMod	FDMod
PGA (g)	0.169	0.143	0.256	0.256
PGV (cm/s)	62.3	52.9	29.0	20.4
PGD (cm)	56.7	48.2	40.8	7.0
I_a (cm/s)	171	123	114	171
D_{5-95} (s)	28.9	28.9	34.8	30.0
CAV (cm/s)	1774	1508	1467	1809
T_m (s)	1.02	1.02	0.68	0.45

Figure E.6. continued.

998

	Original	Scaled	TDMod	FDMod
PGA (g)	1.120	0.448	0.256	0.256
PGV (cm/s)	52.0	20.8	17.8	18.9
PGD (cm)	23.7	9.5	9.8	9.3
I_a (cm/s)	970	155	93	79
D_{5-95} (s)	12.8	12.8	16.3	18.5
CAV (cm/s)	2809	1124	1003	980
T_m (s)	0.26	0.26	0.44	0.48

Figure E.6. continued.

999

	Original	Scaled	TDMod	FDMod
PGA (g)	0.594	0.362	0.256	0.256
PGV (cm/s)	32.1	19.6	20.4	25.8
PGD (cm)	8.9	5.5	9.5	7.8
I_a (cm/s)	447	166	99	67
D_{5-95} (s)	12.1	12.1	17.1	15.5
CAV (cm/s)	1946	1187	1054	826
T_m (s)	0.25	0.25	0.44	0.47

Figure E.6. continued.

1000

File Name: 1 HON-IWT007-E   Start and End Taper Percentage: 1.0% and 5.0%
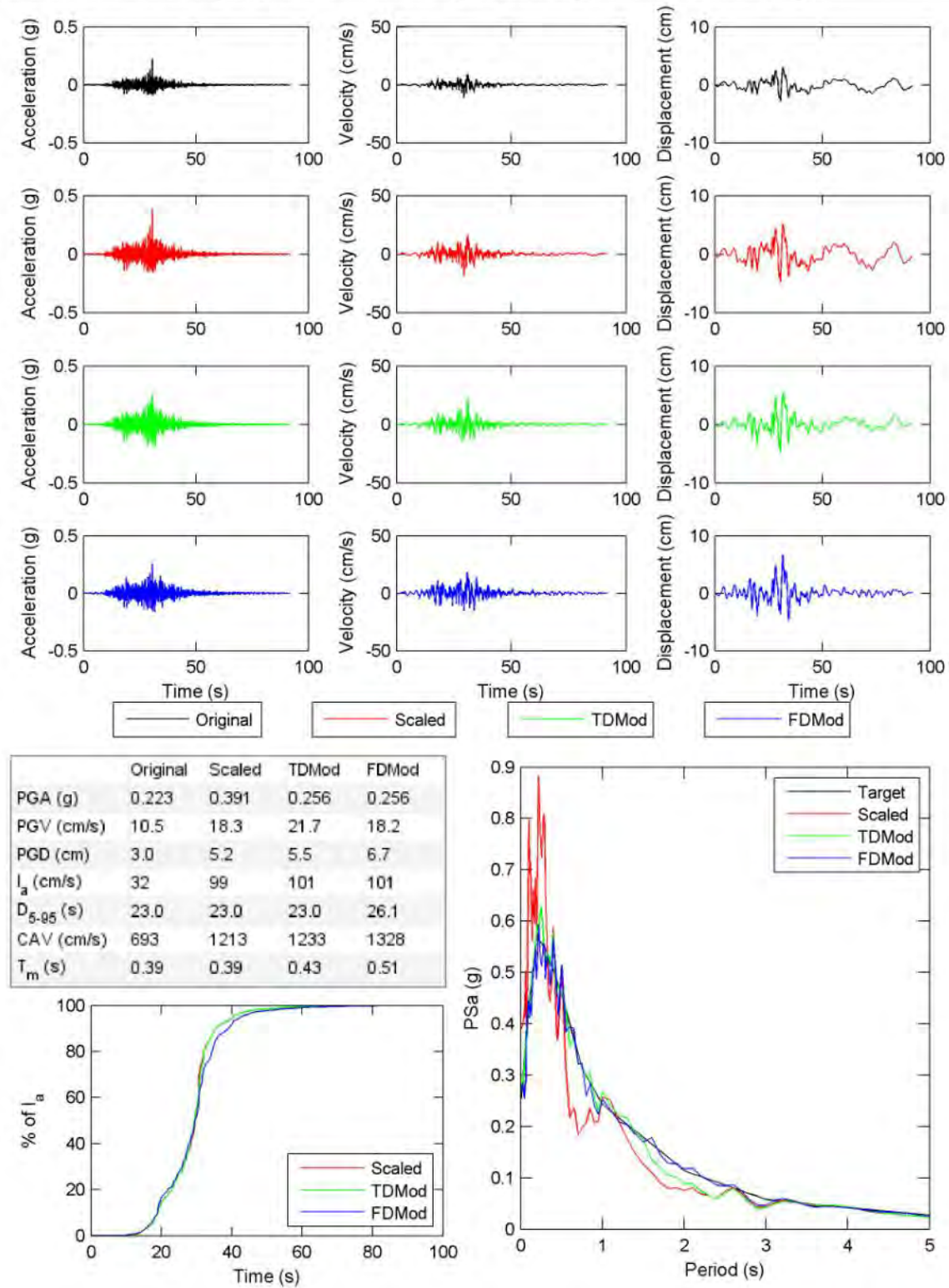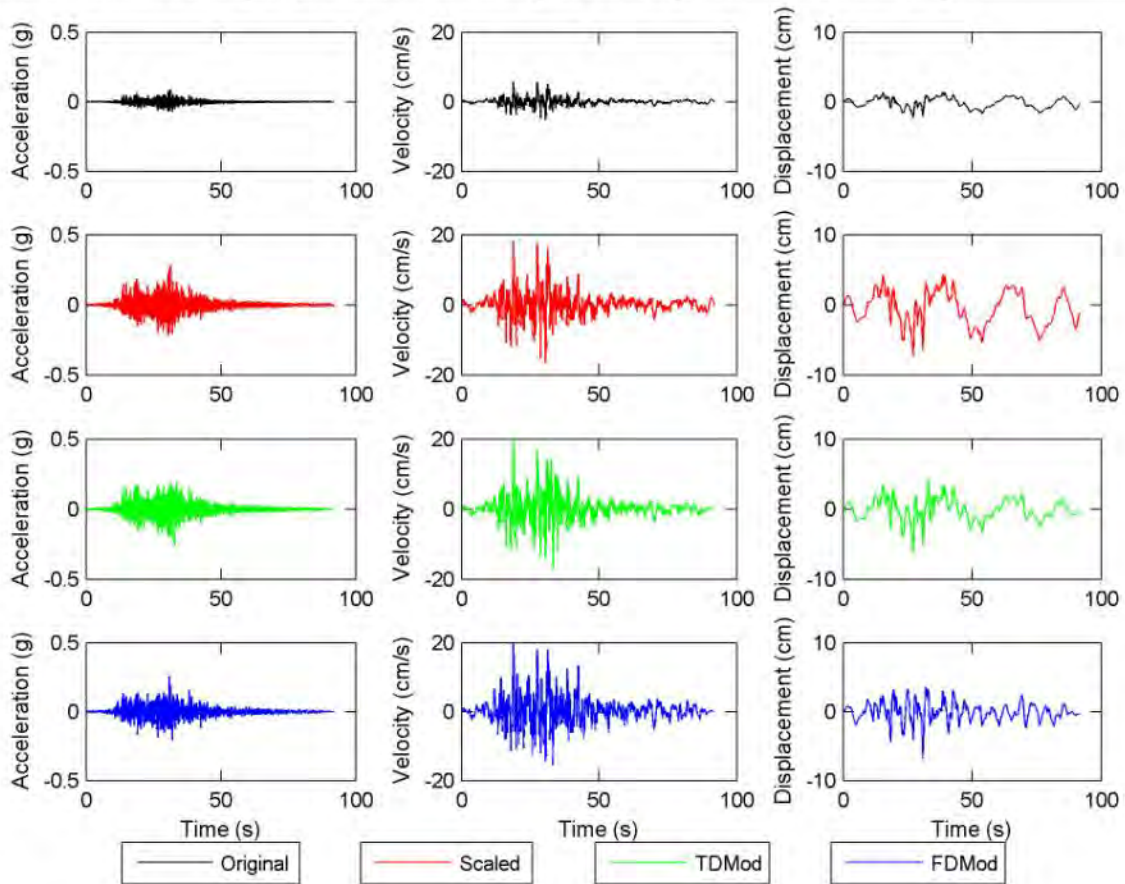Scale Factor: 0.64 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 5

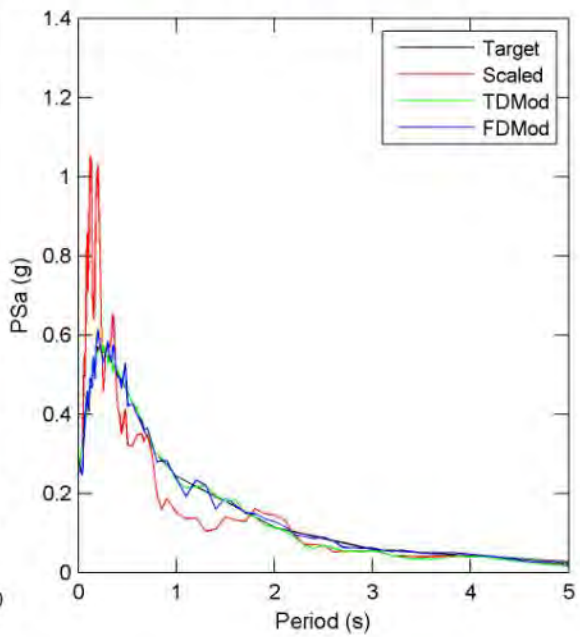|	Original	Scaled	TDMod	FDMod
PGA (g)	0.692	0.443	0.256	0.256
PGV (cm/s)	32.8	21.0	23.6	19.9
PGD (cm)	6.2	4.0	20.4	5.7
I_a (cm/s)	2222	910	533	254
D_{5-95} (s)	81.5	81.5	94.5	89.3
CAV (cm/s)	10414	6665	5617	3619
T_m (s)	0.21	0.21	0.26	0.44

Figure E.6. continued.

1001

File Name: 1 HON-IWT007-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.79 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 8

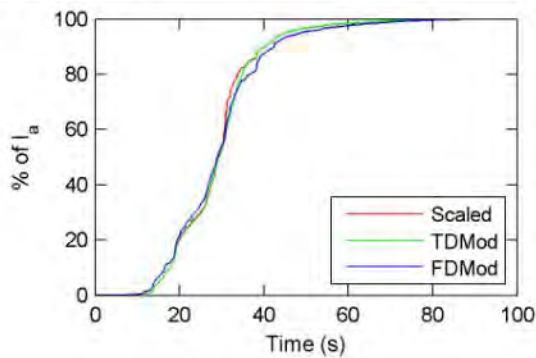|	Original	Scaled	TDMod	FDMod
PGA (g)	0.666	0.526	0.256	0.256
PGV (cm/s)	27.2	21.5	23.2	19.5
PGD (cm)	4.4	3.4	10.4	7.6
I_a (cm/s)	1807	1127	622	236
D_{5-95} (s)	84.3	84.3	103.1	86.2
CAV (cm/s)	9682	7649	6278	3490
T_m (s)	0.20	0.20	0.24	0.46

Figure E.6. continued.

1002

File Name: 1 MIC-CALE090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.78 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 4

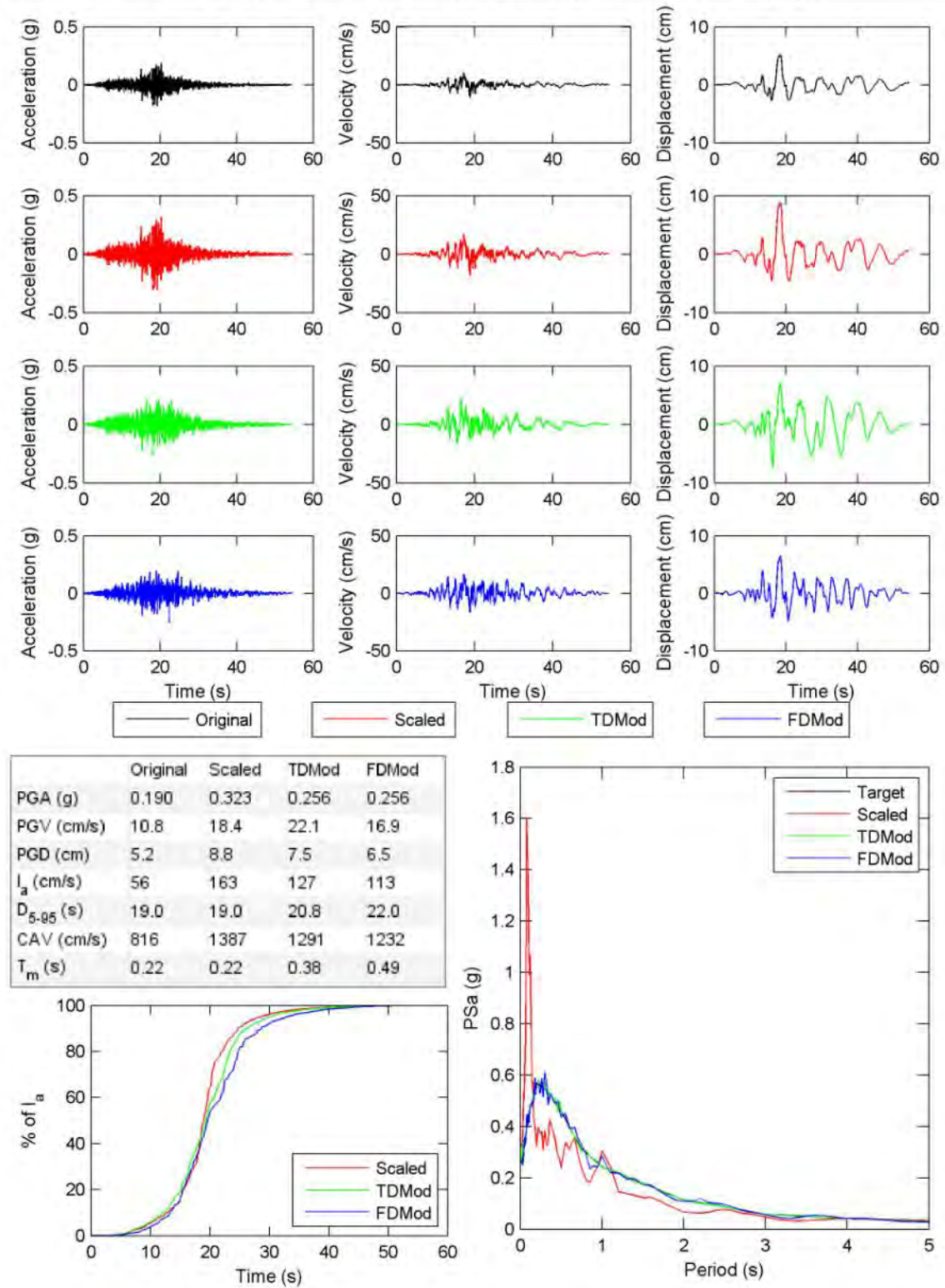|	Original	Scaled	TDMod	FDMod
PGA (g)	0.132	0.236	0.256	0.256
PGV (cm/s)	14.8	26.3	26.7	19.4
PGD (cm)	8.7	15.5	15.8	8.1
I_a (cm/s)	47	150	155	166
D_{5-95} (s)	27.7	27.7	27.2	31.5
CAV (cm/s)	858	1527	1530	1631
T_m (s)	0.44	0.44	0.44	0.46

Figure E.6. continued.

1003

	Original	Scaled	TDMod	FDMod
PGA (g)	0.154	0.186	0.256	0.256
PGV (cm/s)	18.5	22.4	28.6	18.1
PGD (cm)	8.4	10.1	39.5	6.1
I_a (cm/s)	66	97	117	132
D_{5-95} (s)	24.3	24.3	32.4	24.7
CAV (cm/s)	961	1163	1343	1394
T_m (s)	0.59	0.59	0.51	0.42

Figure E.6. continued.

1004

	Original	Scaled	TDMod	FDMod
PGA (g)	0.217	0.215	0.256	0.256
PGV (cm/s)	28.1	27.8	19.4	20.4
PGD (cm)	16.5	16.4	9.1	8.2
I_a (cm/s)	105	102	105	165
D_{5-95} (s)	36.5	36.5	36.4	42.6
CAV (cm/s)	1609	1593	1558	2117
T_m (s)	1.02	1.02	0.57	0.45

Figure E.6. continued.

1005

File Name: 1 TOK-HKD096-N   Start and End Taper Percentage: 1.0% and 5.0%
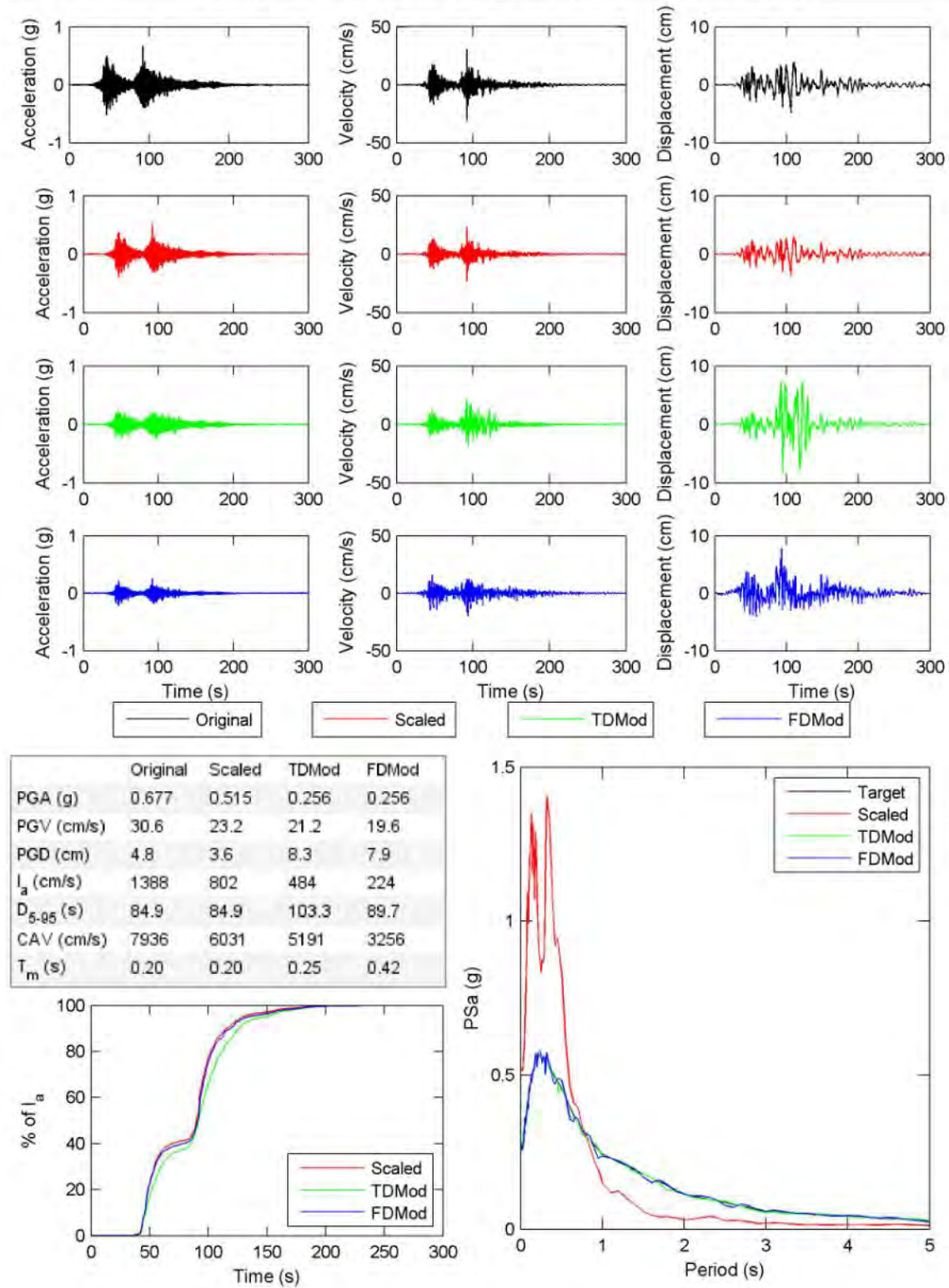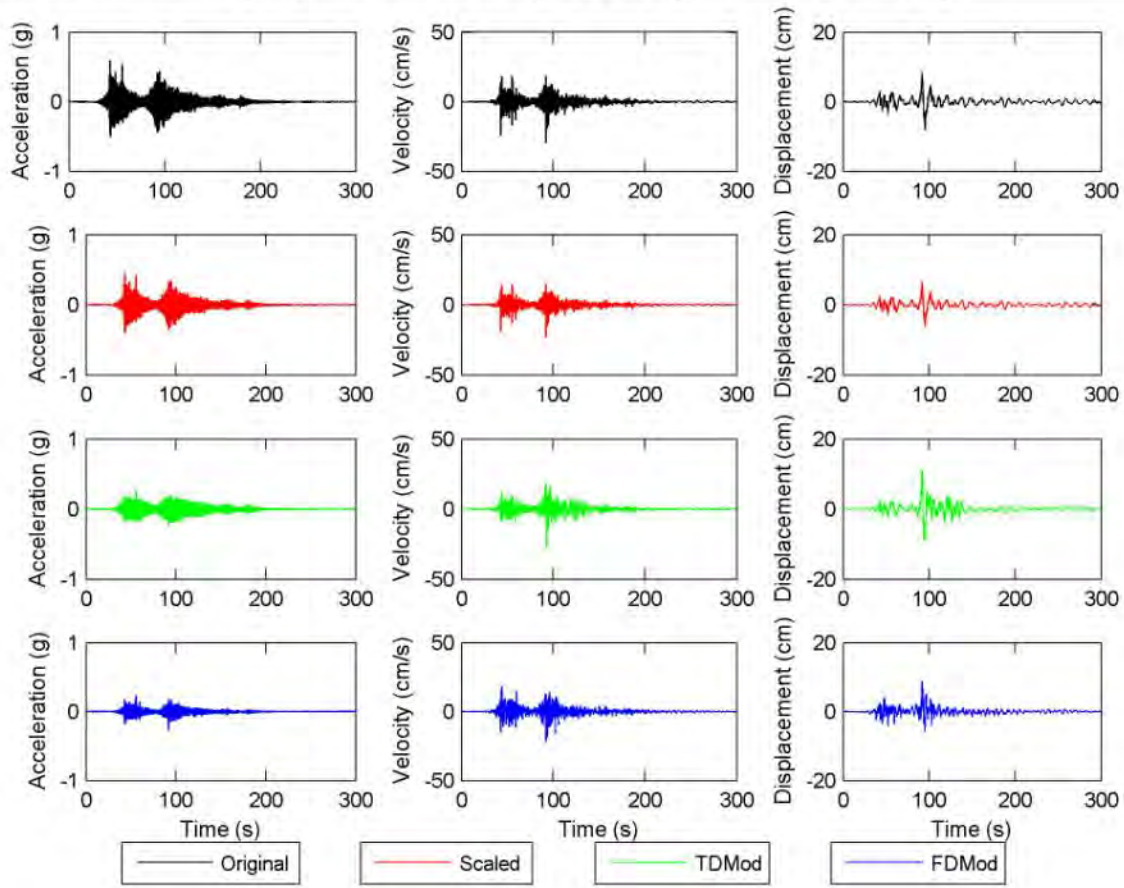Scale Factor: 1.10 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 6

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.180	0.198	0.256	0.256
PGV (cm/s)	24.7	27.1	19.5	20.3
PGD (cm)	12.8	14.1	16.7	6.7
I_a (cm/s)	87	106	118	154
D_{5-95} (s)	41.5	41.5	40.4	43.9
CAV (cm/s)	1515	1666	1709	2087
T_m (s)	0.77	0.77	0.55	0.51

Figure E.6. continued.

1006

File Name: 2107 5595-090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.83 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 3

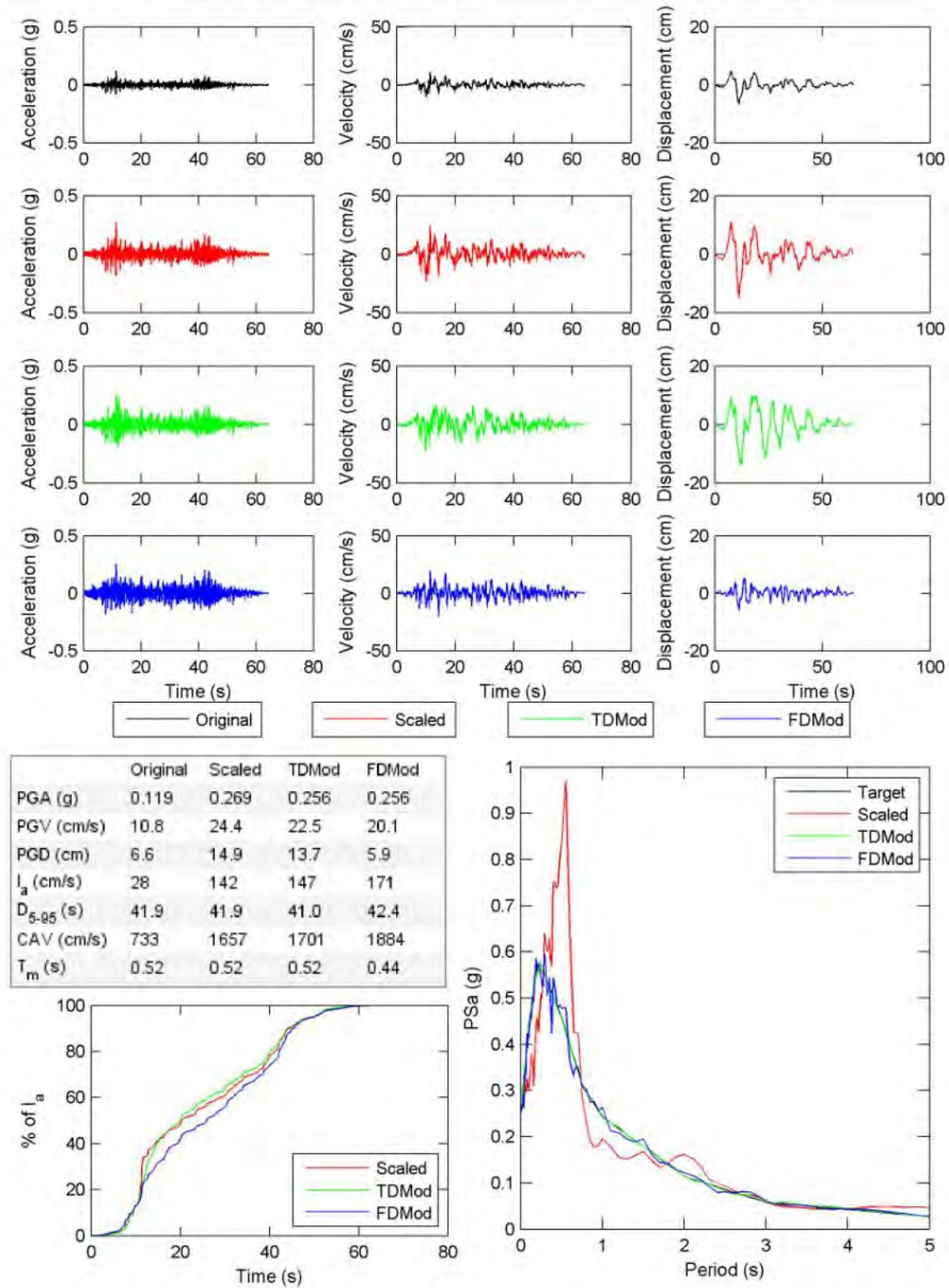|	Original	Scaled	TDMod	FDMod
PGA (g)	0.100	0.283	0.256	0.256
PGV (cm/s)	7.6	21.4	26.5	18.1
PGD (cm)	3.9	11.0	9.2	5.4
I_a (cm/s)	15	123	127	120
D_{5-95} (s)	24.6	24.6	24.4	26.4
CAV (cm/s)	482	1365	1385	1418
T_m (s)	0.33	0.33	0.40	0.50

Figure E.6. continued.

1007

	Original	Scaled	TDMod	FDMod
PGA (g)	0.060	0.217	0.256	0.256
PGV (cm/s)	6.2	22.7	21.1	20.6
PGD (cm)	3.9	14.0	16.3	5.2
I_a (cm/s)	8	104	116	136
D_{5-95} (s)	23.7	23.7	30.6	26.7
CAV (cm/s)	331	1203	1319	1437
T_m (s)	0.51	0.51	0.52	0.47

Figure E.6. continued.

1008

File Name: 2112 PS08049   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 4.57 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 4

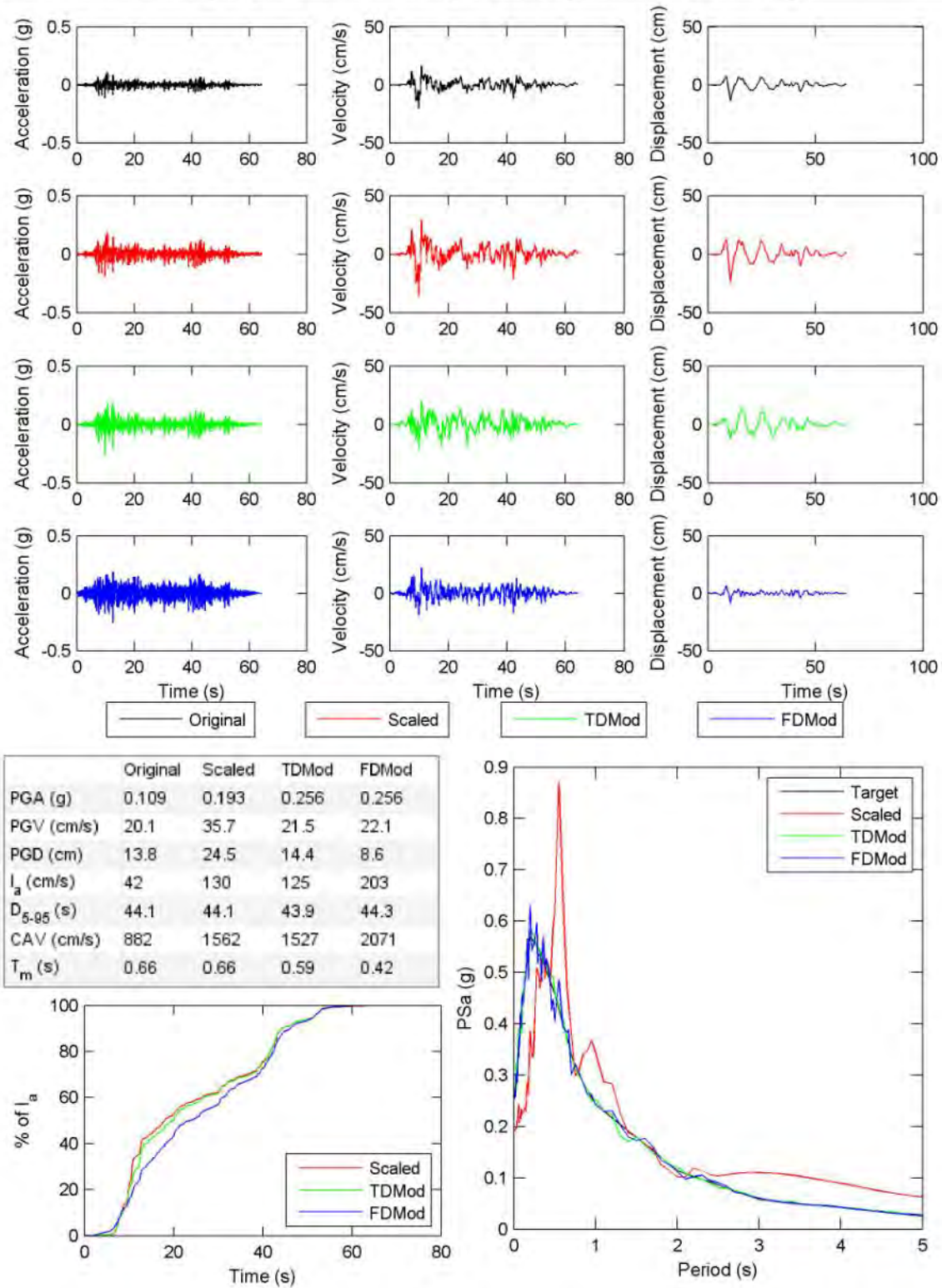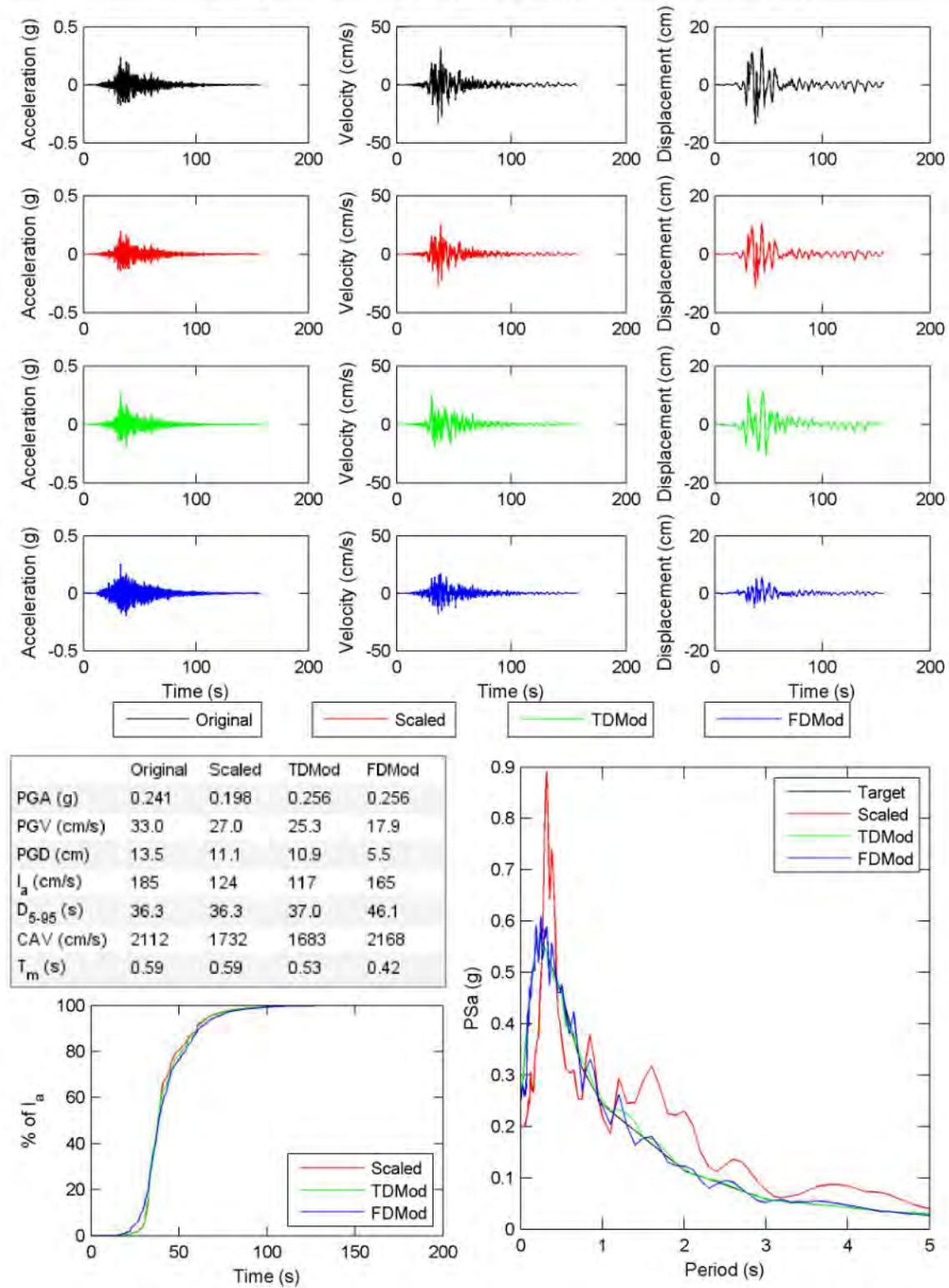|	Original	Scaled	TDMod	FDMod
PGA (g)	0.046	0.211	0.256	0.256
PGV (cm/s)	5.3	24.0	20.8	19.3
PGD (cm)	3.6	16.5	14.0	4.7
I_a (cm/s)	5	103	109	140
D_{5-95} (s)	33.7	33.7	32.0	38.3
CAV (cm/s)	284	1296	1319	1605
T_m (s)	0.56	0.56	0.47	0.44

Figure E.6. continued.

1009

	Original	Scaled	TDMod	FDMod
PGA (g)	0.036	0.191	0.256	0.256
PGV (cm/s)	4.4	23.6	19.4	17.7
PGD (cm)	3.3	17.3	17.2	6.4
I_a (cm/s)	4	124	127	159
D_{5-95} (s)	40.9	40.9	38.6	40.1
CAV (cm/s)	286	1521	1535	1772
T_m (s)	0.45	0.45	0.44	0.41

Figure E.6. continued.

1010

File Name: 2113 PS09013   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.67 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 5

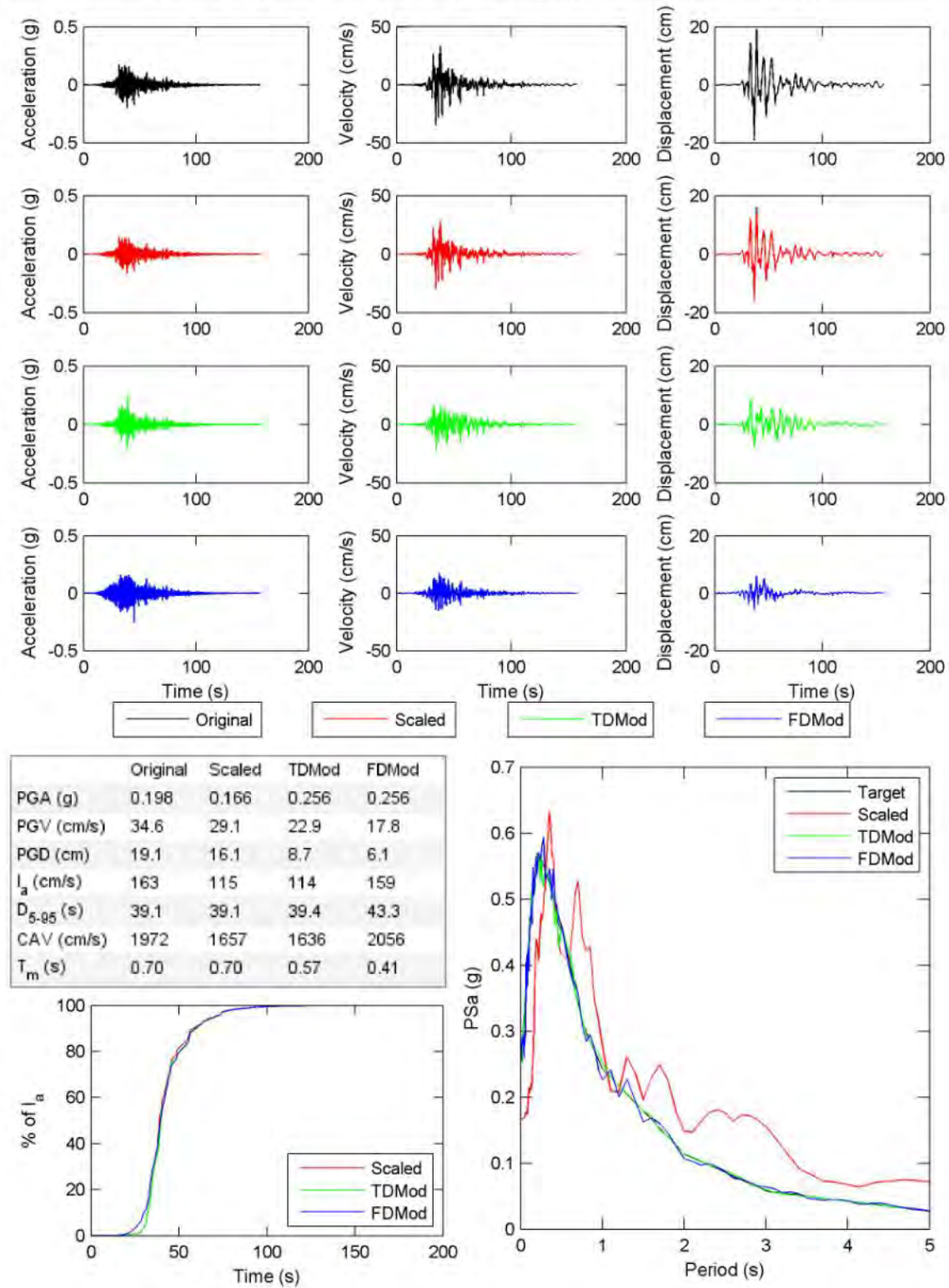|	Original	Scaled	TDMod	FDMod
PGA (g)	0.056	0.150	0.256	0.256
PGV (cm/s)	11.4	30.5	19.2	20.2
PGD (cm)	9.0	24.0	17.1	5.7
I_a (cm/s)	21	147	166	305
D_{5-95} (s)	98.7	98.7	96.4	99.1
CAV (cm/s)	954	2548	2550	3727
T_m (s)	0.57	0.57	0.47	0.52

Figure E.6. continued.

1011

File Name: 2113 PS09103   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.46 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 6
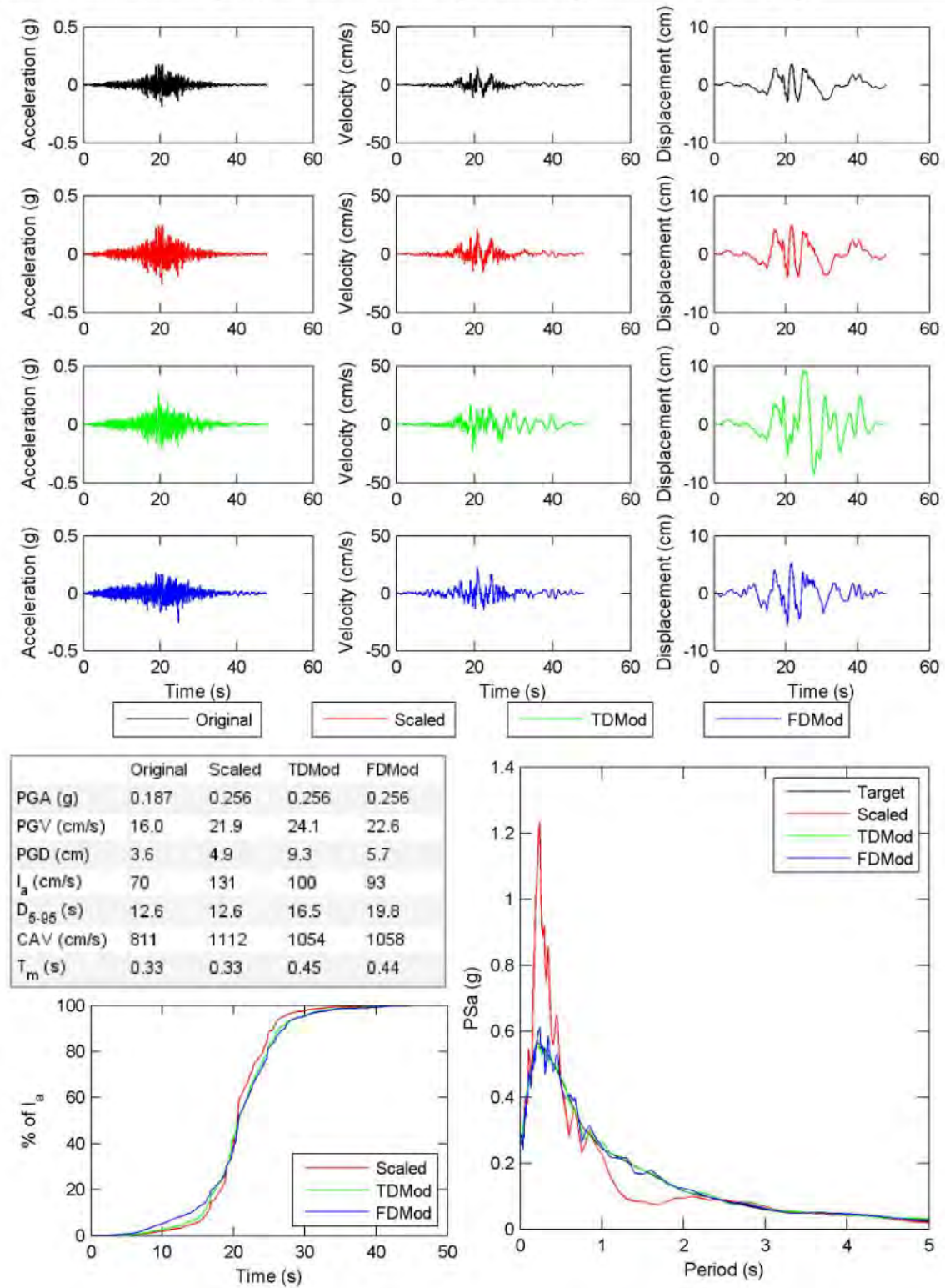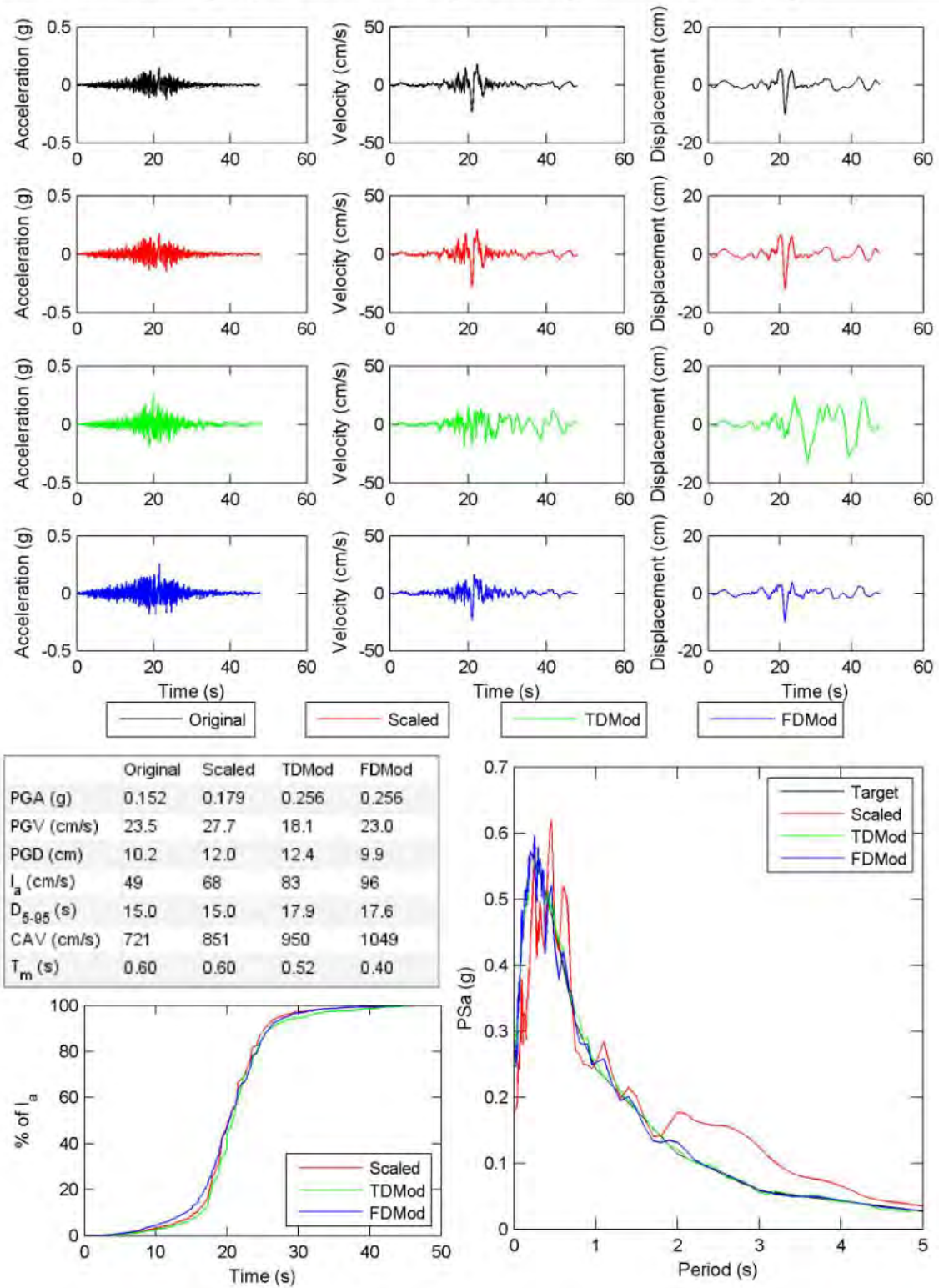

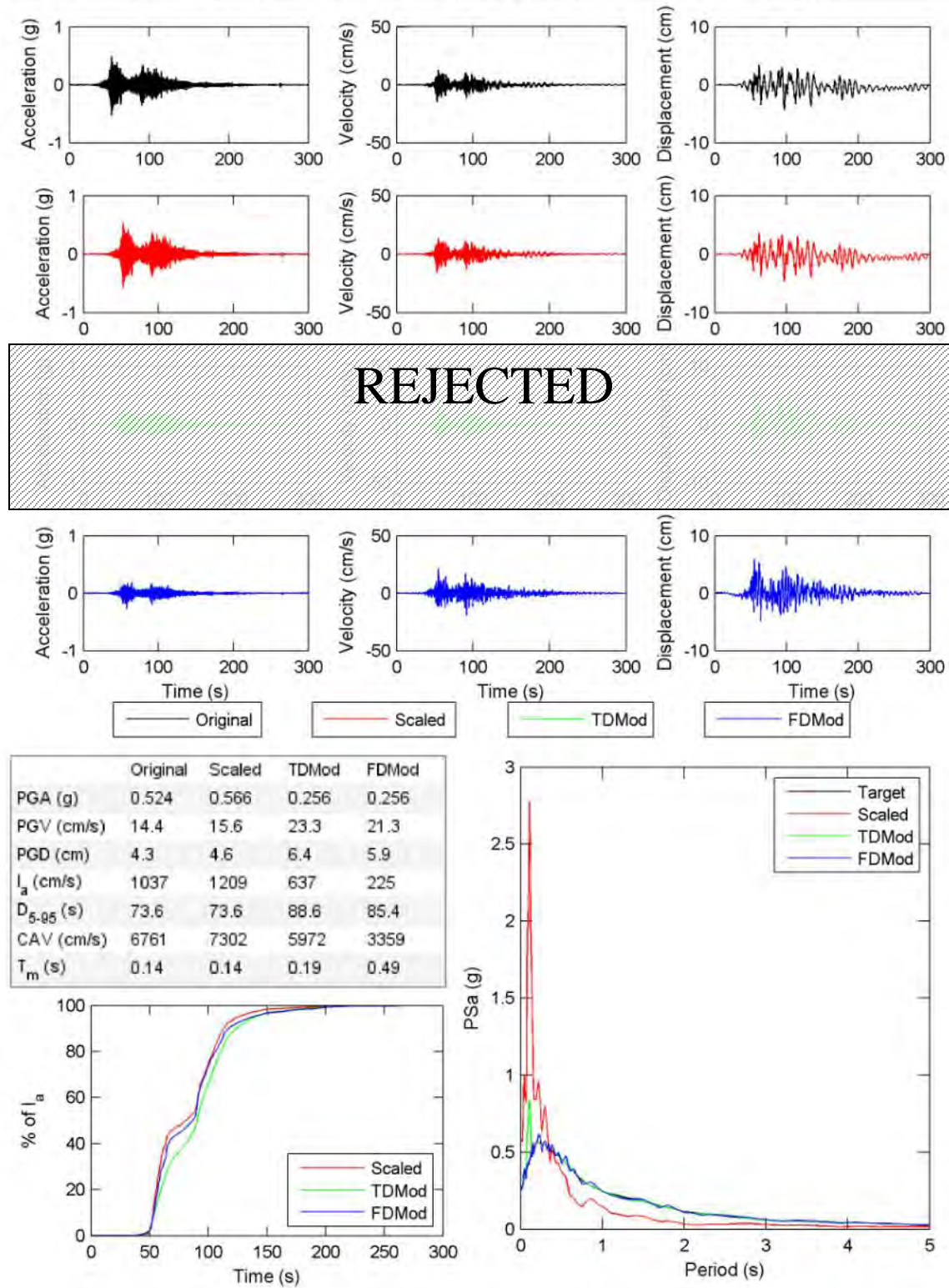|	Original	Scaled	TDMod	FDMod
PGA (g)	0.075	0.183	0.256	0.256
PGV (cm/s)	12.1	29.8	24.3	20.9
PGD (cm)	11.0	27.1	20.3	6.2
I_a (cm/s)	20	123	152	259
D_{5-95} (s)	97.5	97.5	89.8	99.0
CAV (cm/s)	933	2295	2400	3430
T_m (s)	0.54	0.54	0.53	0.55

Figure E.6. continued.

1012

	Original	Scaled	TDMod	FDMod
PGA (g)	0.542	0.314	0.256	0.256
PGV (cm/s)	41.7	24.2	21.8	18.1
PGD (cm)	7.2	4.2	8.9	5.8
I_a (cm/s)	589	198	133	120
D_{5-95} (s)	16.5	16.5	24.6	23.6
CAV (cm/s)	2709	1571	1469	1379
T_m (s)	0.42	0.42	0.50	0.48
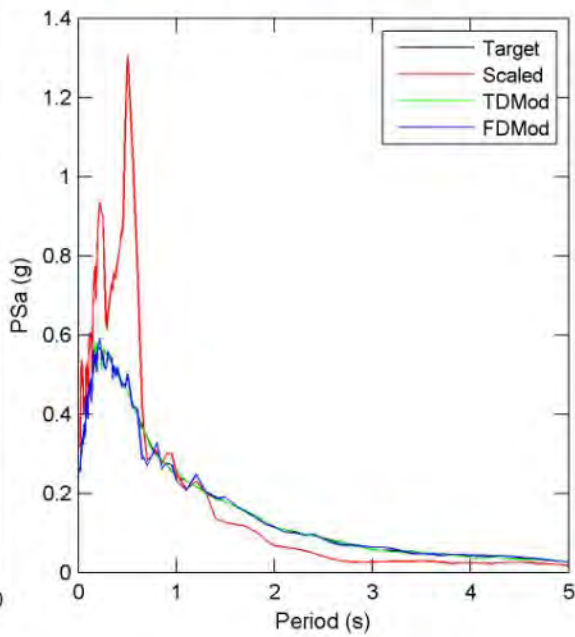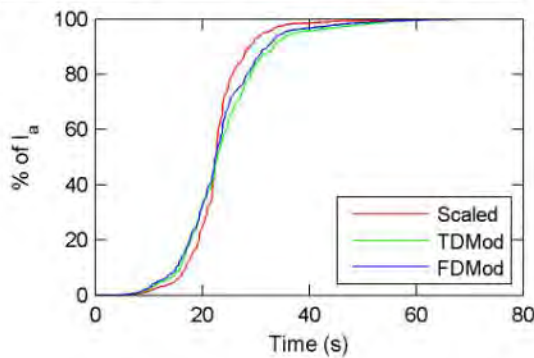
Figure E.6. continued.

1013

	Original	Scaled	TDMod	FDMod
PGA (g)	0.517	0.450	0.256	0.256
PGV (cm/s)	26.1	22.7	18.1	17.4
PGD (cm)	4.7	4.1	7.5	6.3
I_a (cm/s)	698	528	188	120
D_{5-95} (s)	16.4	16.4	28.0	26.1
CAV (cm/s)	2978	2591	1825	1390
T_m (s)	0.31	0.31	0.39	0.51

Figure E.6. continued.

1014

File Name: 2 HON-IWT009-E   Start and End Taper Percentage: 1.0% and 5.0%
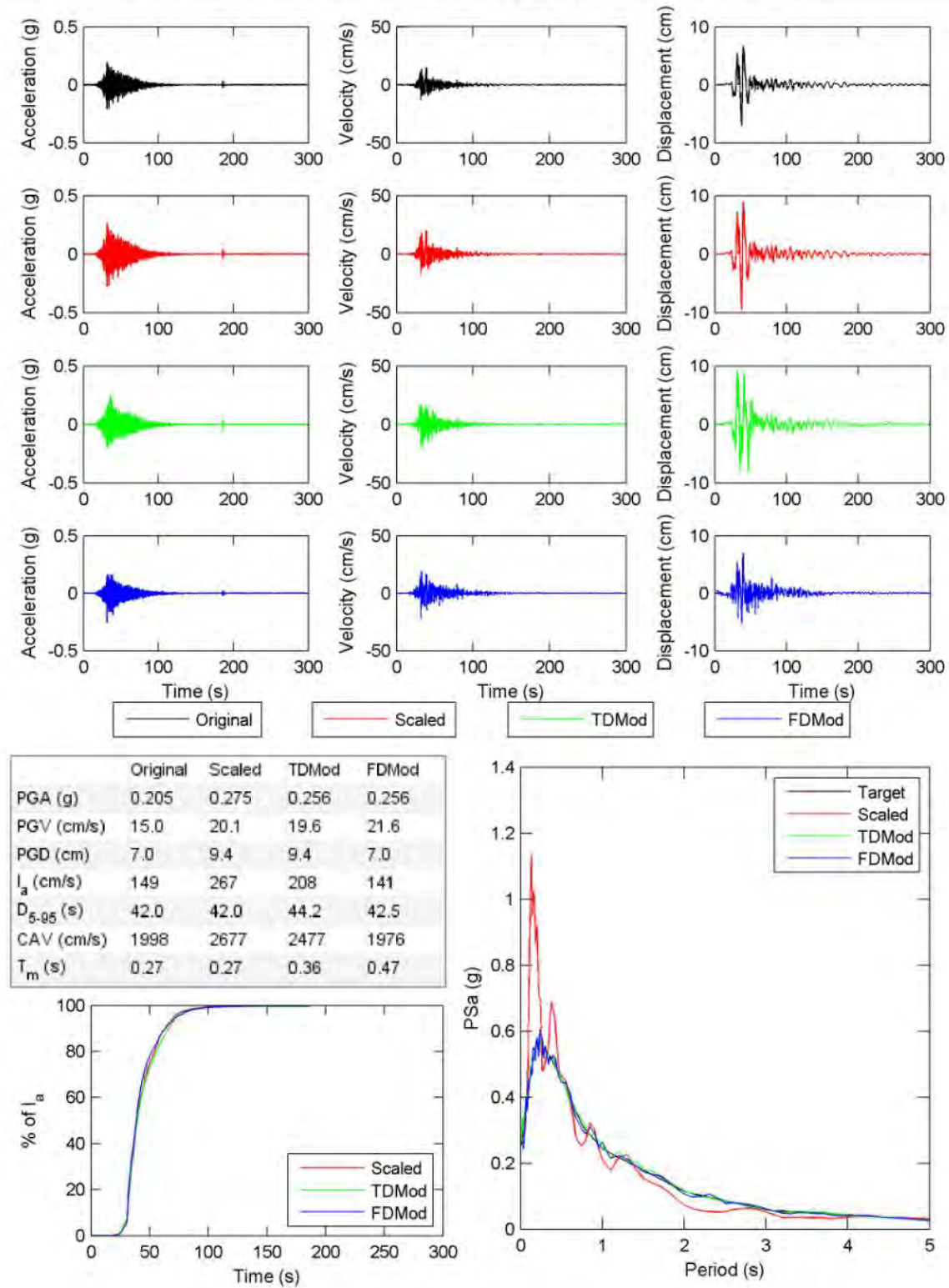Scale Factor: 0.97 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 5

Figure E.6. continued.

1015
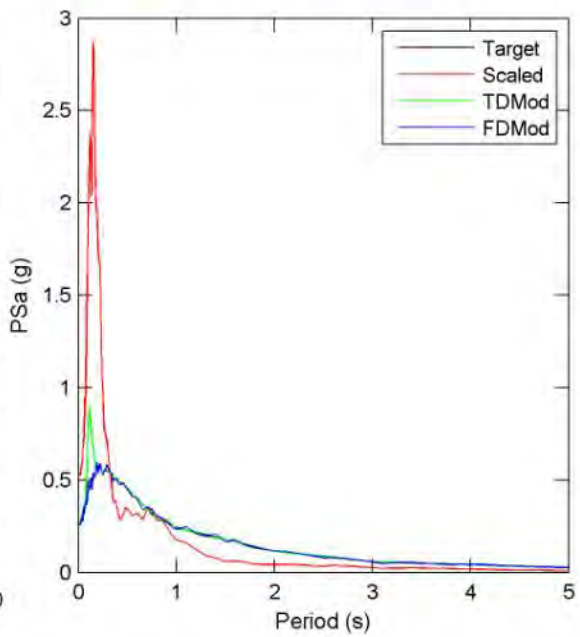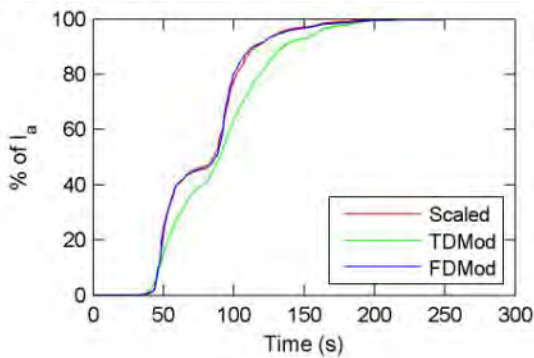
File Name: 2 HON-IWT009-N   Start and End Taper Percentage: 1.0% and 5.0%
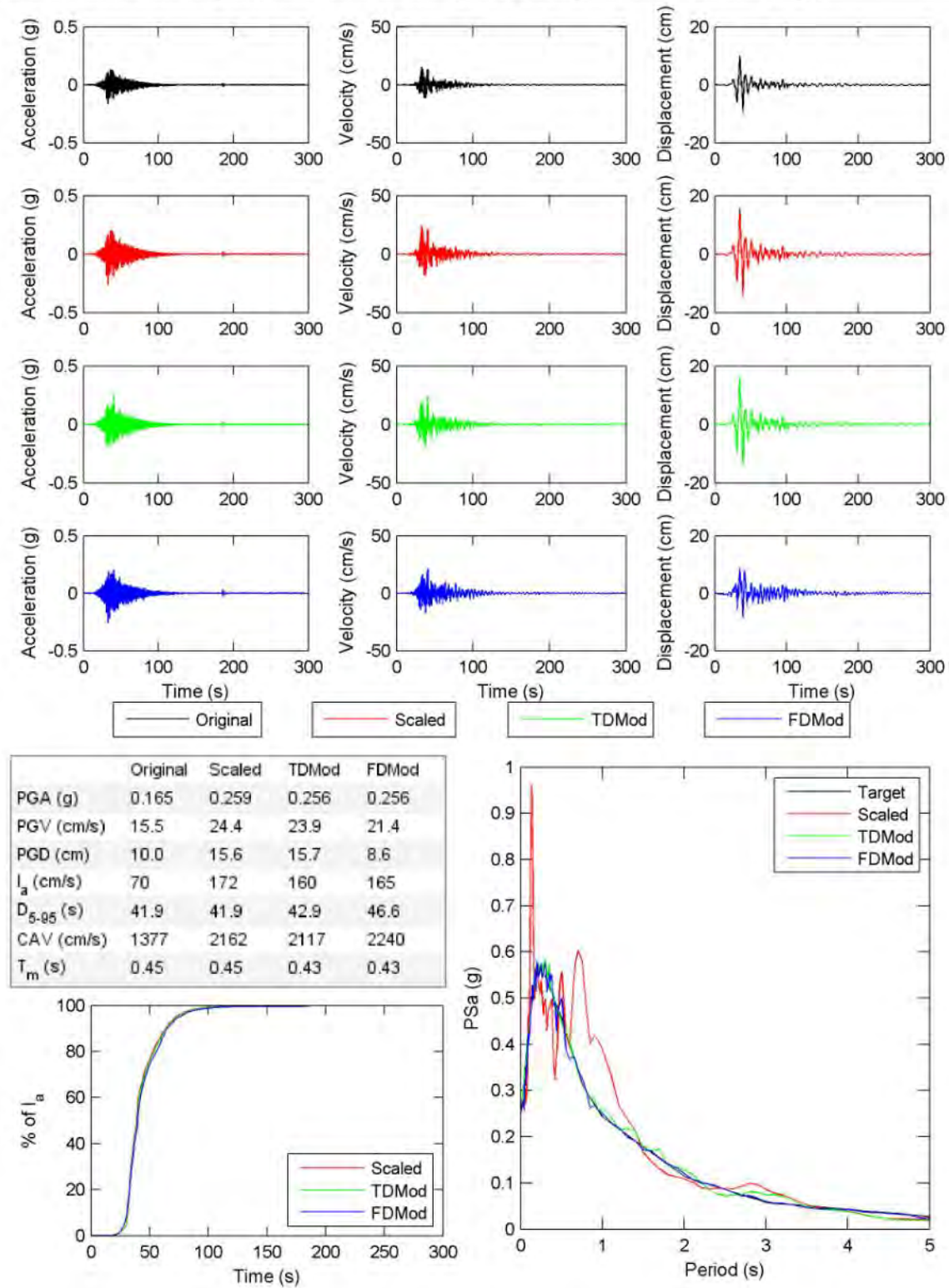Scale Factor: 1.17 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 9

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.573	0.670	0.256	0.256
PGV (cm/s)	17.1	20.0	20.9	25.7
PGD (cm)	3.5	4.1	12.1	6.8
I_a (cm/s)	2122	2905	1390	269
D_{5-95} (s)	89.1	89.1	116.1	93.5
CAV (cm/s)	10493	12277	9585	3804
T_m (s)	0.15	0.15	0.15	0.43

Figure E.6. continued.

1016

File Name: 2 MIC-UNIO090   Start and End Taper Percentage: 1.0% and 5.0%
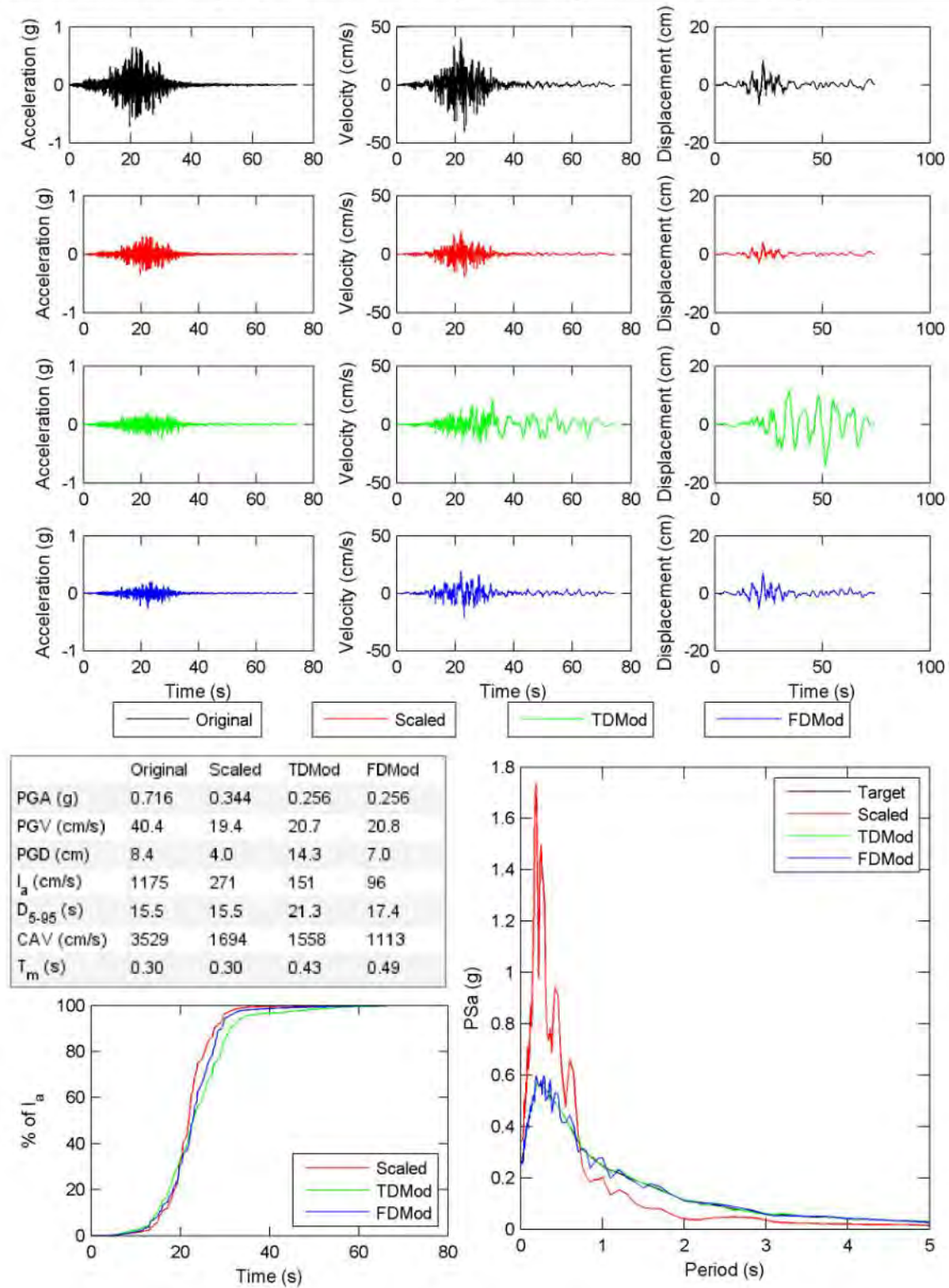Scale Factor: 1.52 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.148	0.225	0.256	0.256
PGV (cm/s)	12.7	19.3	18.3	17.8
PGD (cm)	5.6	8.6	8.4	5.7
I_a (cm/s)	90	208	182	159
D_{5-95} (s)	26.4	26.4	29.2	29.1
CAV (cm/s)	1170	1778	1725	1594
T_m (s)	0.36	0.36	0.40	0.43

Figure E.6. continued.

1017

File Name: 2 MIC-UNIO180   Start and End Taper Percentage: 1.0% and 5.0%
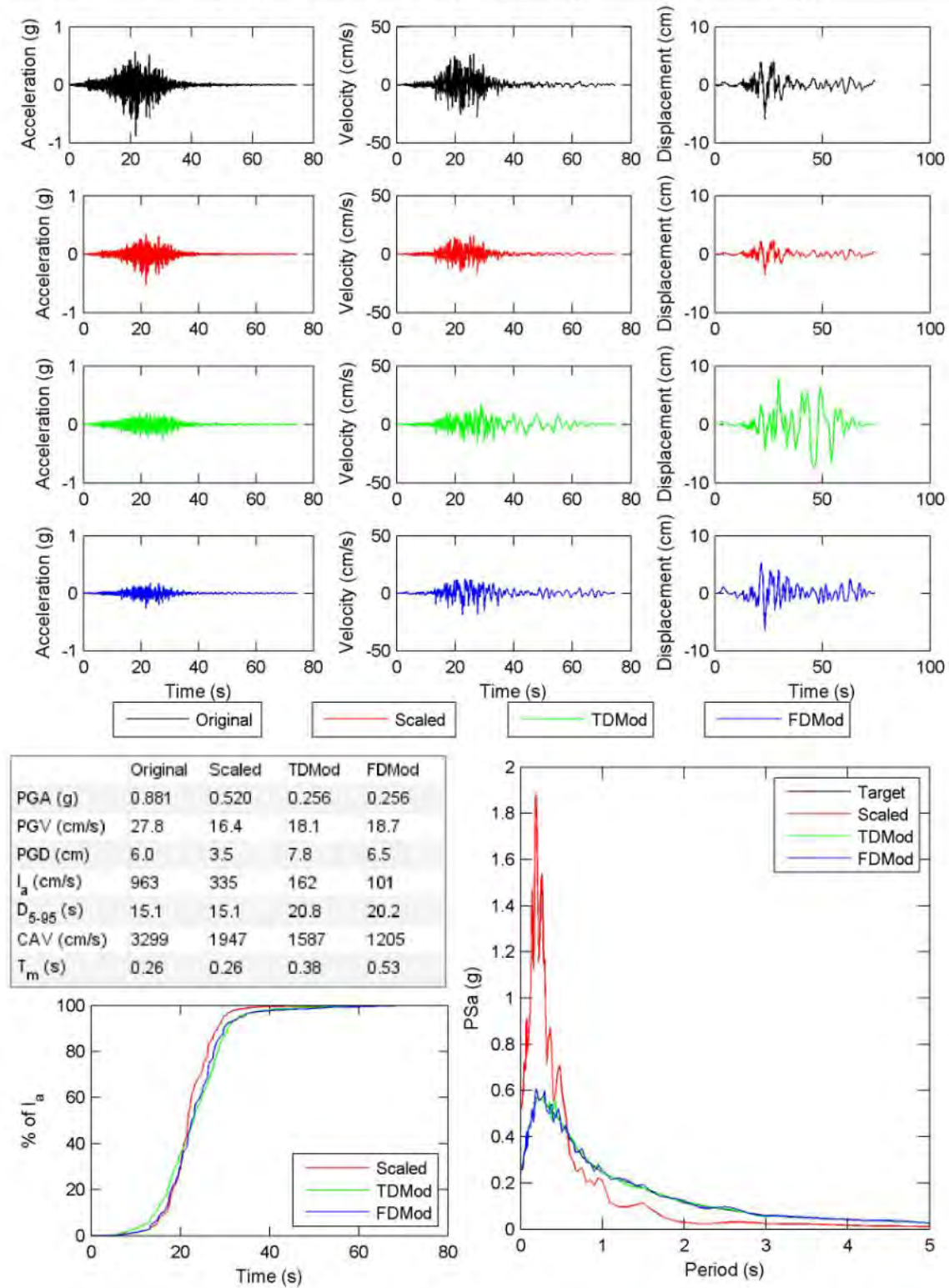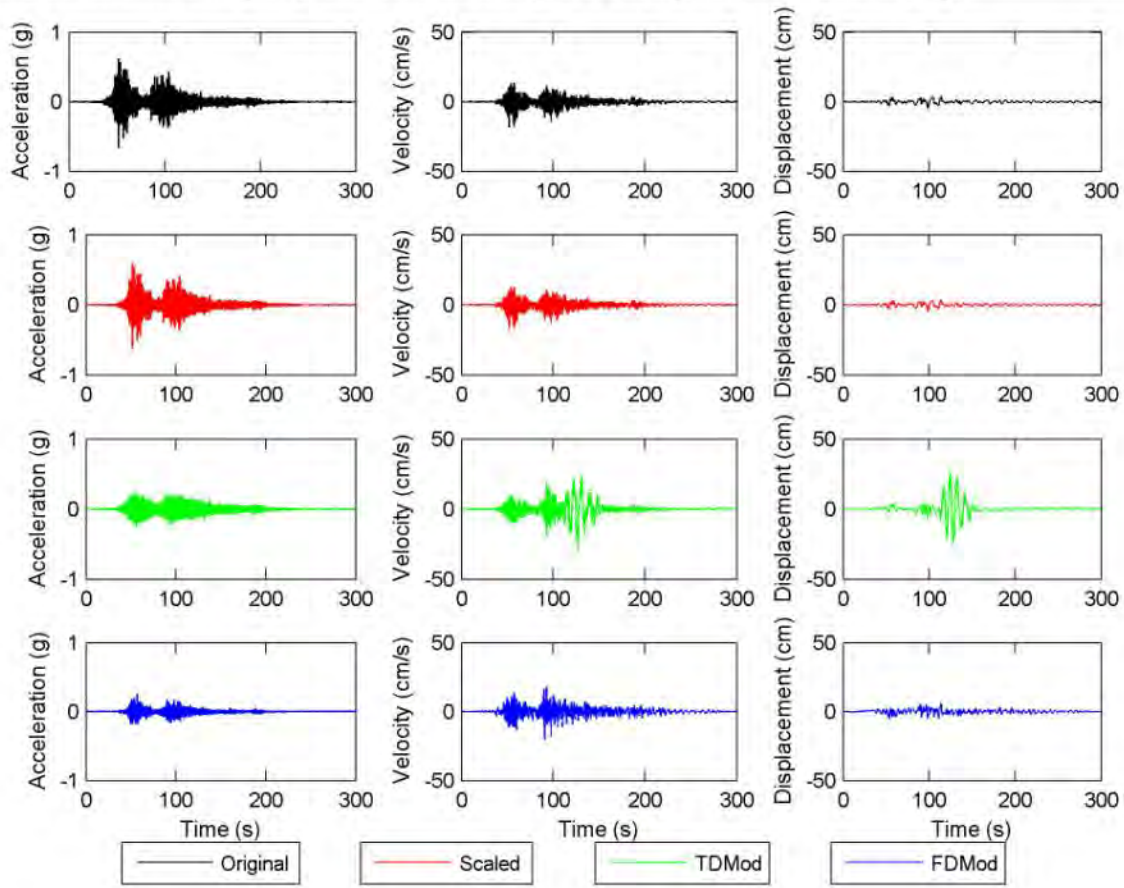Scale Factor: 1.12 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 3 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.170	0.191	0.256	0.256
PGV (cm/s)	20.3	22.8	21.6	21.7
PGD (cm)	7.1	7.9	8.3	5.3
I_a (cm/s)	102	128	133	139
D_{5-95} (s)	24.3	24.3	26.2	24.7
CAV (cm/s)	1228	1375	1390	1460
T_m (s)	0.53	0.53	0.50	0.45

Figure E.6. continued.

1018

	Original	Scaled	TDMod	FDMod
PGA (g)	0.340	0.160	0.256	0.256
PGV (cm/s)	81.8	38.5	20.5	19.4
PGD (cm)	28.6	13.4	7.9	6.5
I_a (cm/s)	409	90	96	178
D_{5-95} (s)	33.4	33.4	31.8	40.3
CAV (cm/s)	3078	1447	1432	2173
T_m (s)	1.12	1.12	0.58	0.41

Figure E.6. continued.

1019

	Original	Scaled	TDMod	FDMod
PGA (g)	0.378	0.155	0.256	0.256
PGV (cm/s)	74.6	30.6	18.6	19.4
PGD (cm)	43.7	17.9	10.3	6.3
I_a (cm/s)	436	73	107	147
D_{5-95} (s)	32.8	32.8	25.4	37.6
CAV (cm/s)	3225	1322	1443	1908
T_m (s)	1.21	1.21	0.55	0.45

Figure E.6. continued.

1020

	Original	Scaled	TDMod	FDMod
PGA (g)	0.223	0.391	0.256	0.256
PGV (cm/s)	10.5	18.3	21.7	18.2
PGD (cm)	3.0	5.2	5.5	6.7
I_a (cm/s)	32	99	101	101
D_{5-95} (s)	23.0	23.0	23.0	26.1
CAV (cm/s)	693	1213	1233	1328
T_m (s)	0.39	0.39	0.43	0.51

Figure E.6. continued.

1021

	Original	Scaled	TDMod	FDMod
PGA (g)	0.089	0.282	0.256	0.256
PGV (cm/s)	5.8	18.4	19.2	20.0
PGD (cm)	2.3	7.2	6.2	6.8
I_a (cm/s)	17	168	166	142
D_{5-95} (s)	29.9	29.9	29.9	34.4
CAV (cm/s)	561	1773	1779	1723
T_m (s)	0.33	0.33	0.39	0.51

Figure E.6. continued.

1022

File Name: 3 ELS-PA000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.70 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 4
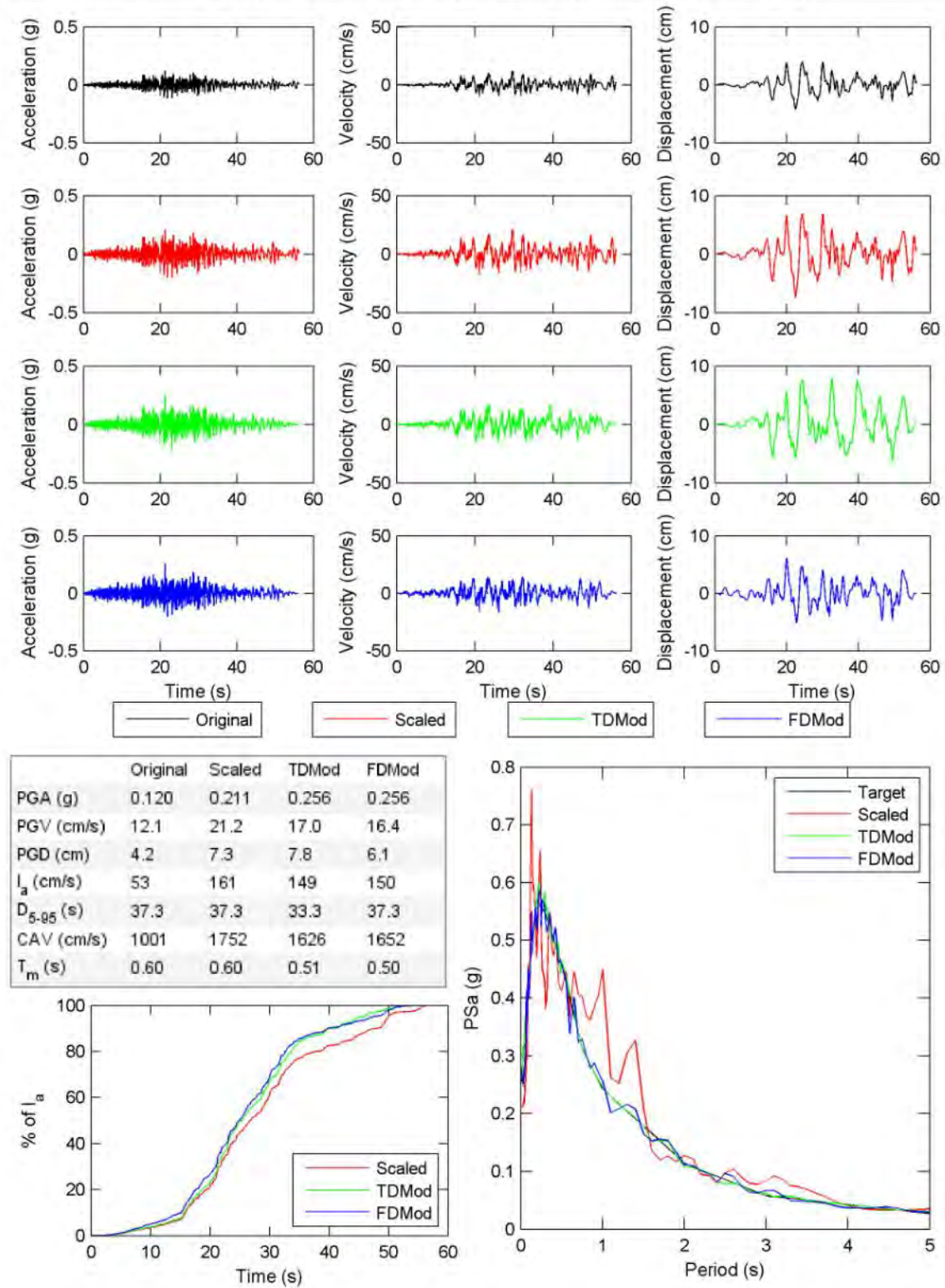

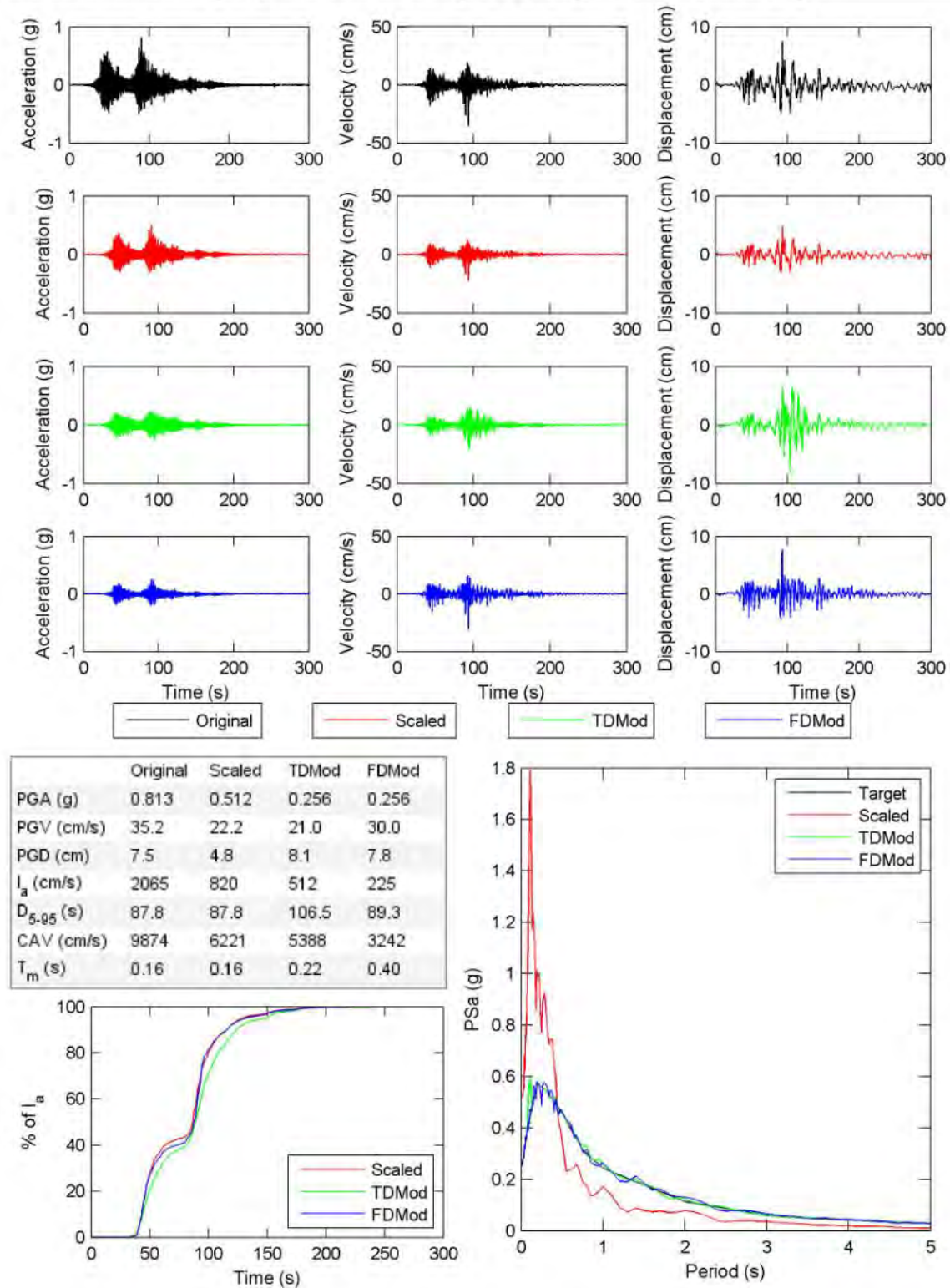**Figure E.6.** continued.

1023

File Name: 3 ELS-PA090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 2.17 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 5

	Original	Scaled	TDMod	FDMod
PGA (g)	0.162	0.351	0.256	0.256
PGV (cm/s)	8.9	19.4	23.4	20.0
PGD (cm)	5.0	10.8	10.3	8.0
I_a (cm/s)	26	125	111	112
D_{5-95} (s)	19.7	19.7	21.2	23.0
CAV (cm/s)	568	1233	1193	1249
T_m (s)	0.29	0.29	0.40	0.50

Figure E.6. continued.

1024

File Name: 3 HON-IWTH05-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.76 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 6
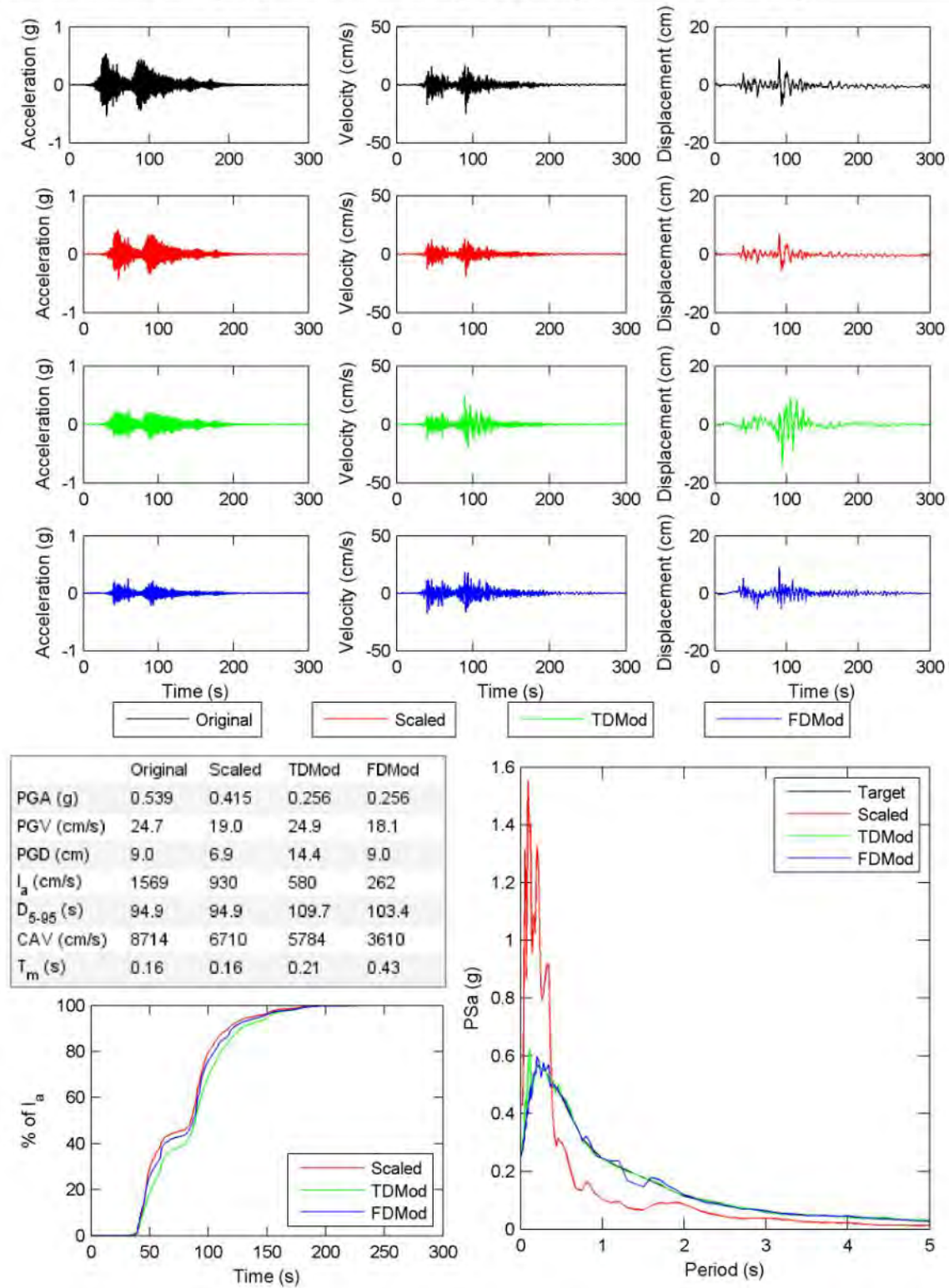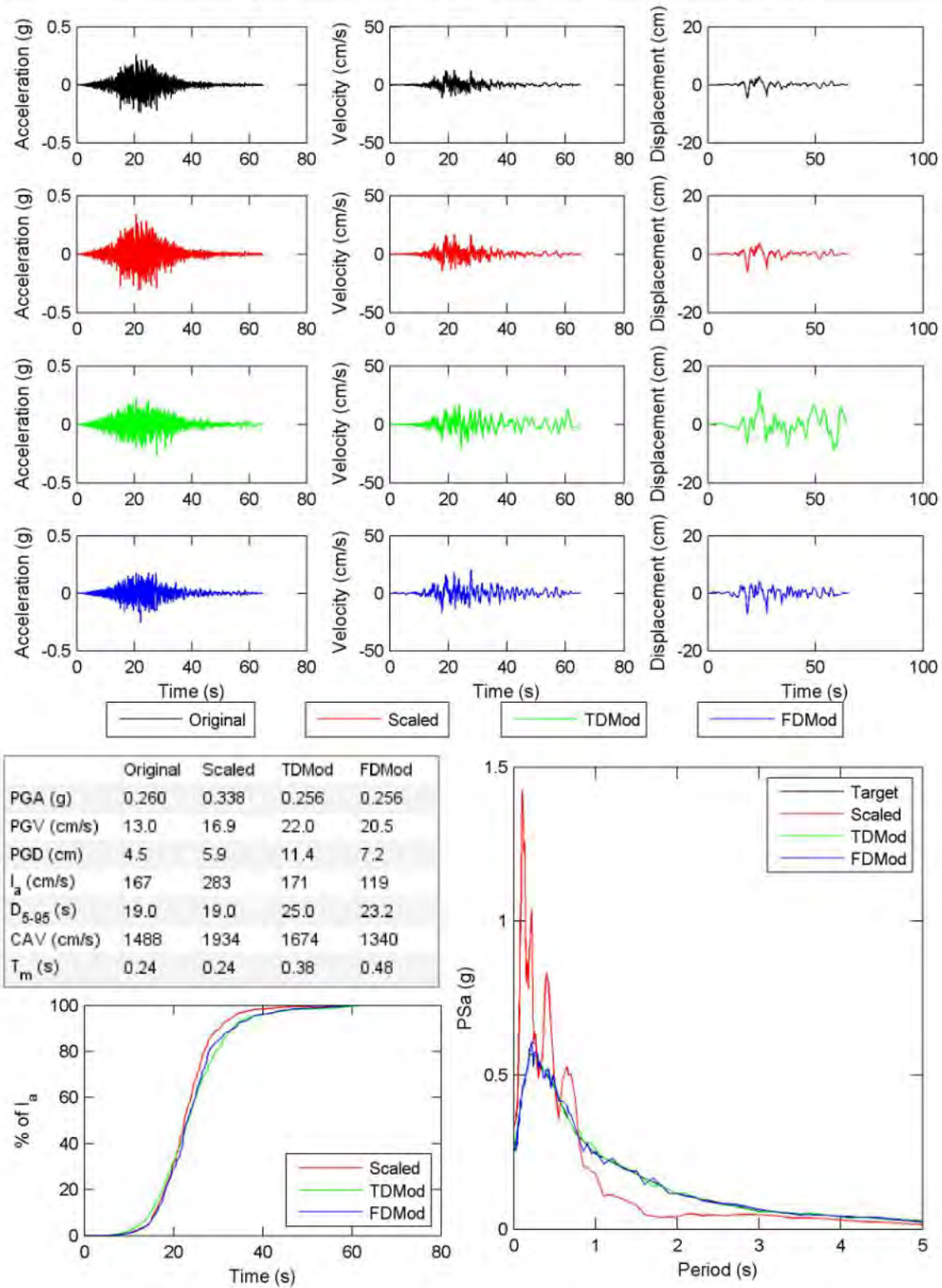

	Original	Scaled	TDMod	FDMod
PGA (g)	0.677	0.515	0.256	0.256
PGV (cm/s)	30.6	23.2	21.2	19.6
PGD (cm)	4.8	3.6	8.3	7.9
I_a (cm/s)	1388	802	484	224
D_{5-95} (s)	84.9	84.9	103.3	89.7
CAV (cm/s)	7936	6031	5191	3256
T_m (s)	0.20	0.20	0.25	0.42

Figure E.6. continued.

1025

	Original	Scaled	TDMod	FDMod
PGA (g)	0.587	0.464	0.256	0.256
PGV (cm/s)	29.2	23.0	27.2	21.5
PGD (cm)	8.3	6.5	11.0	8.8
I_a (cm/s)	1447	903	495	214
D_{5-95} (s)	88.1	88.1	108.7	89.7
CAV (cm/s)	8087	6389	5320	3134
T_m (s)	0.18	0.18	0.23	0.45

Figure E.6. continued.

1026

File Name: 3 MIC-VILE090   Start and End Taper Percentage: 1.0% and 5.0%
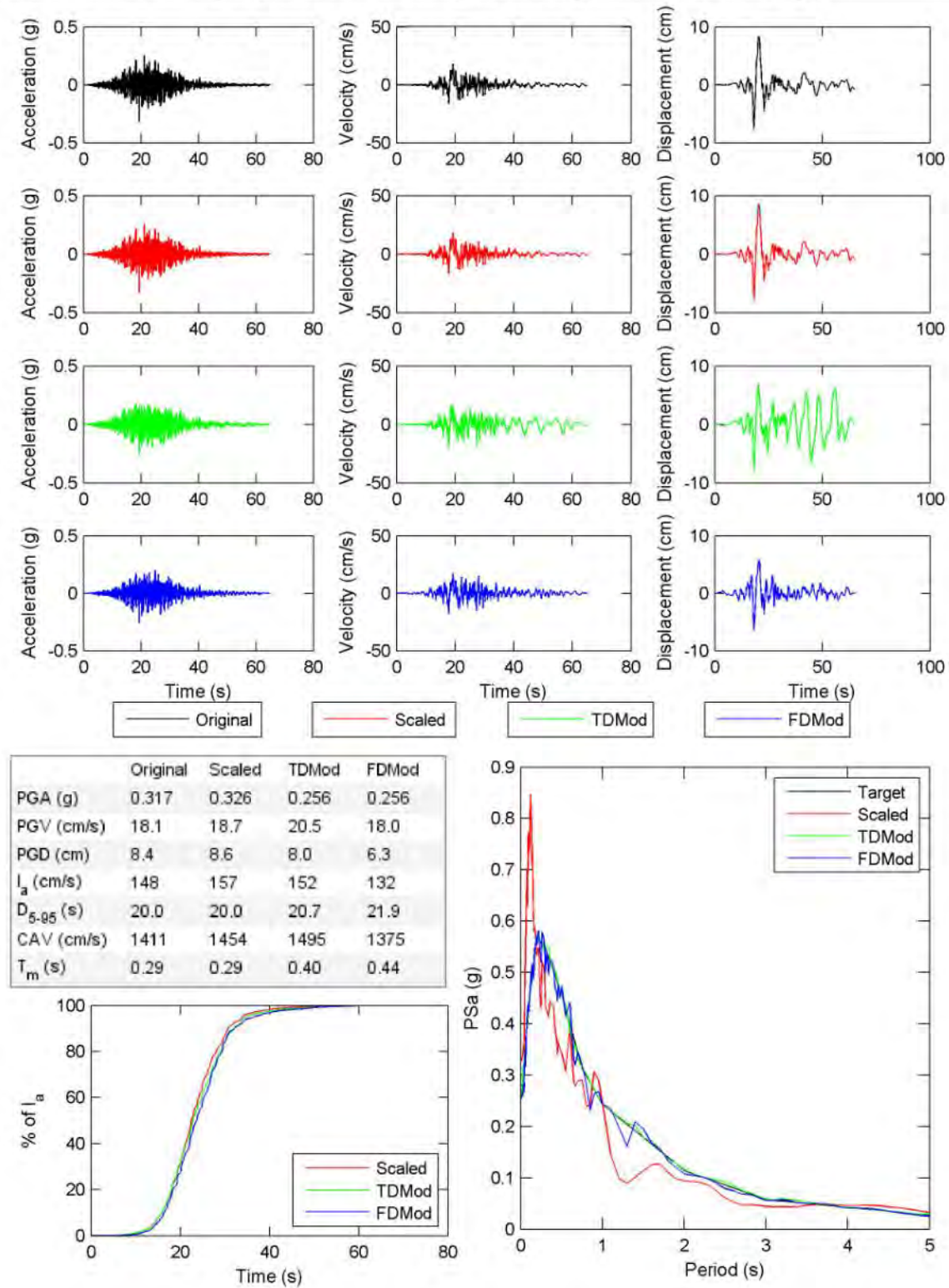Scale Factor: 2.26 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 7
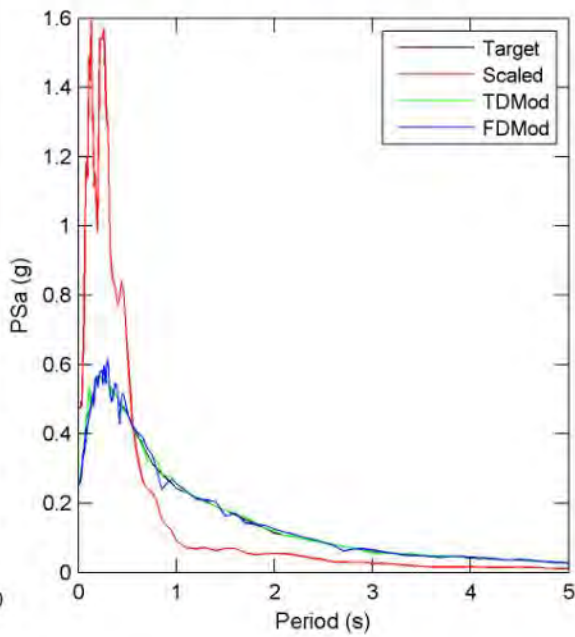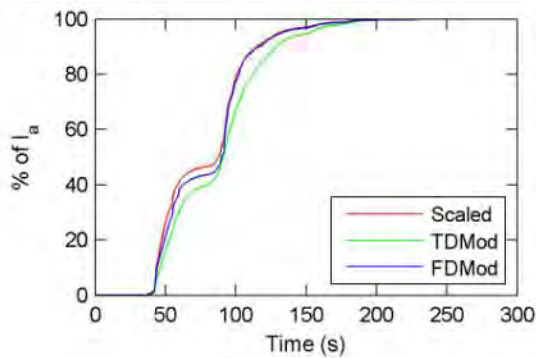
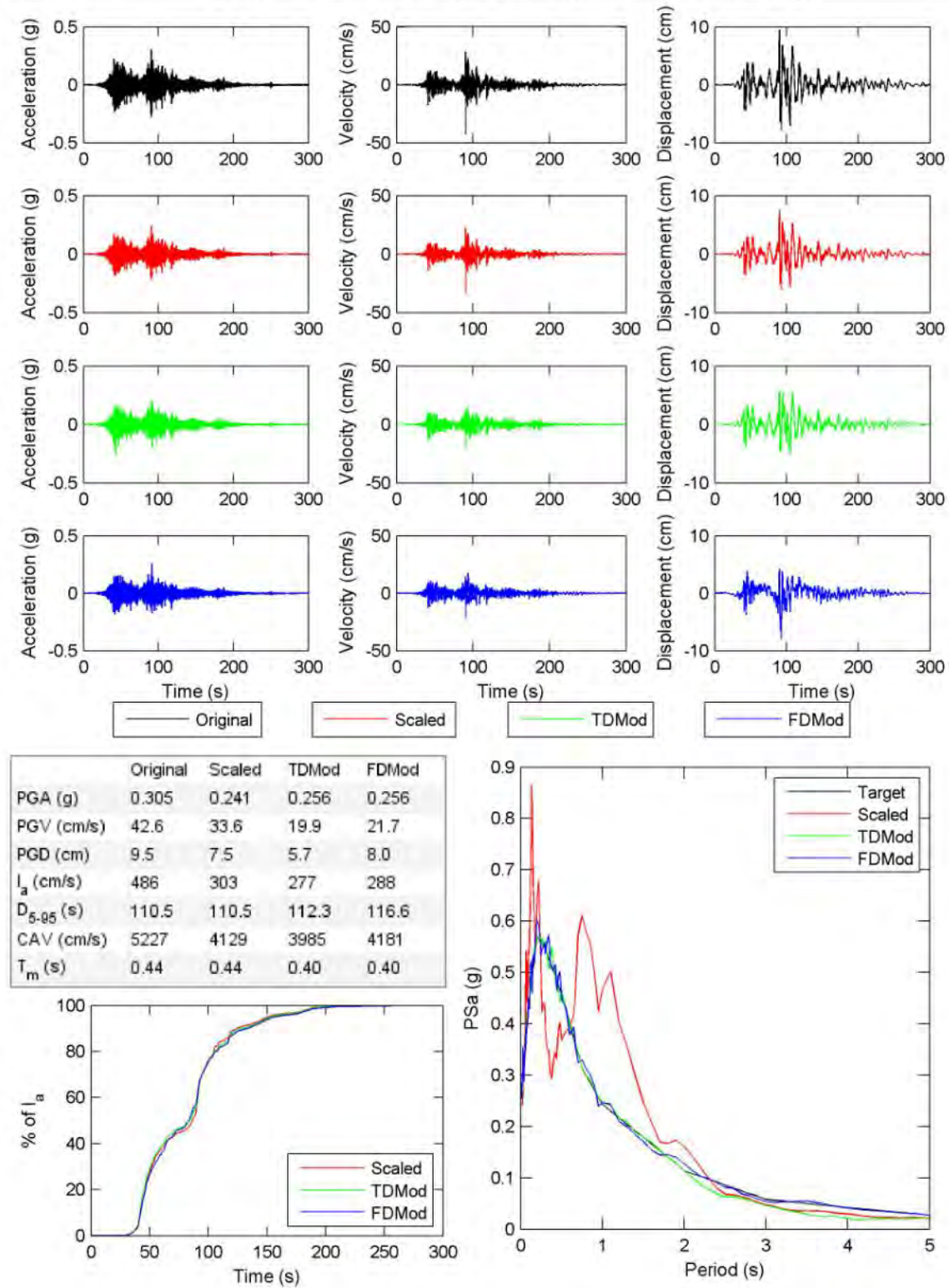**Figure E.6.** continued.

File Name: 3 MIC-VILE180   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.77 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 7 TD poly: 6

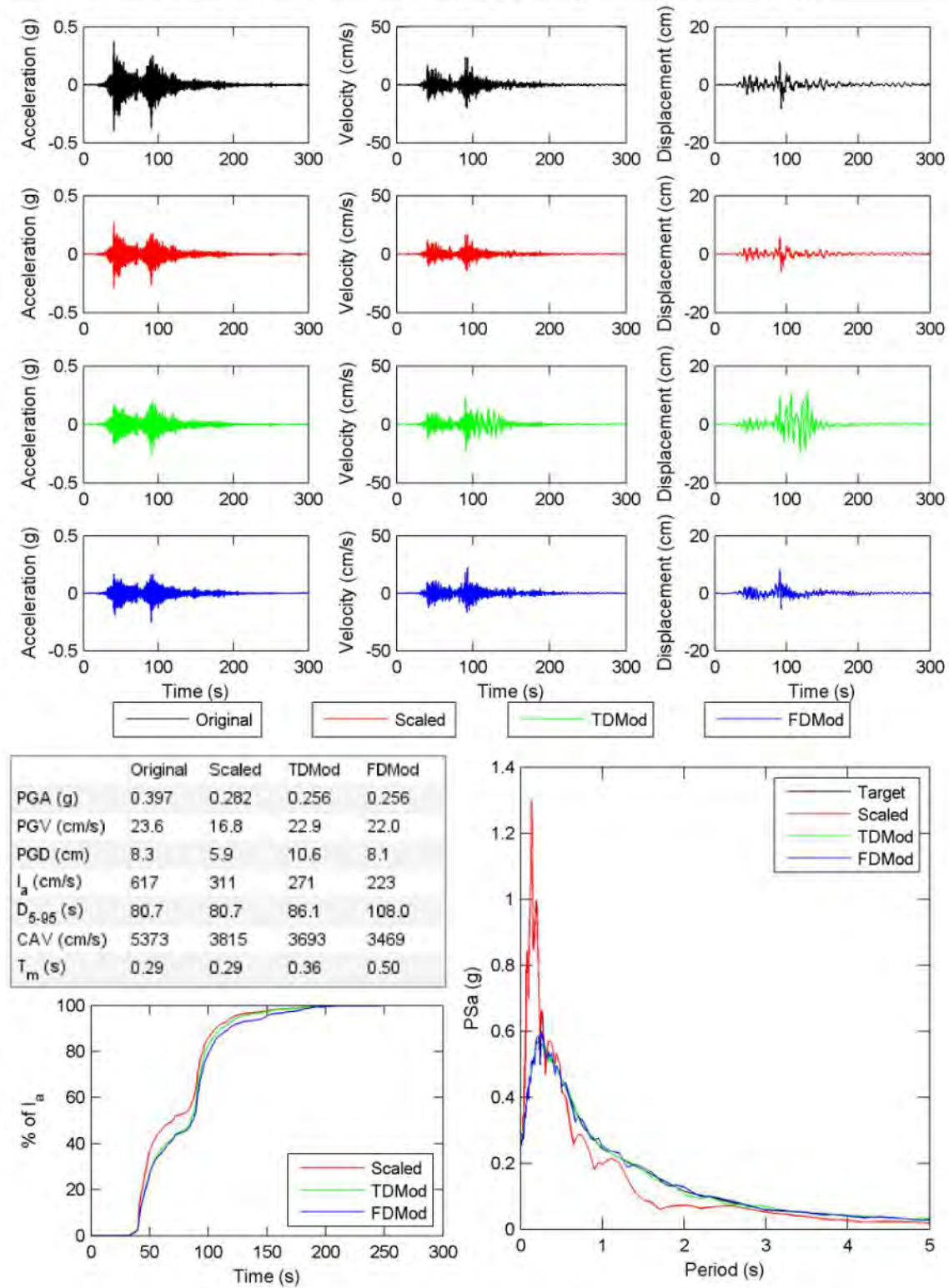|	Original	Scaled	TDMod	FDMod
PGA (g)	0.109	0.193	0.256	0.256
PGV (cm/s)	20.1	35.7	21.5	22.1
PGD (cm)	13.8	24.5	14.4	8.6
I_a (cm/s)	42	130	125	203
D_{5-95} (s)	44.1	44.1	43.9	44.3
CAV (cm/s)	882	1562	1527	2071
T_m (s)	0.66	0.66	0.59	0.42

Figure E.6. continued.

1028

File Name: 3 TOK-HKD109-E   Start and End Taper Percentage: 1.0% and 5.0%
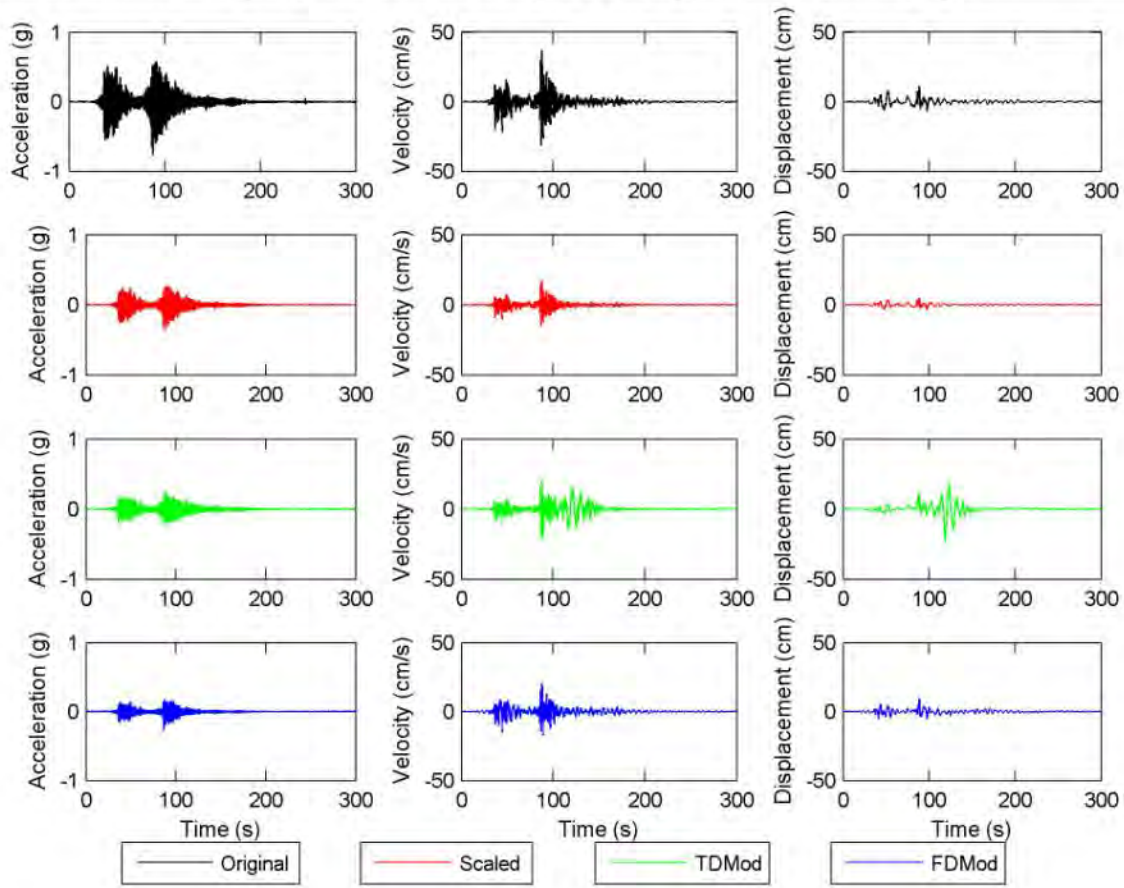Scale Factor: 0.82 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 3

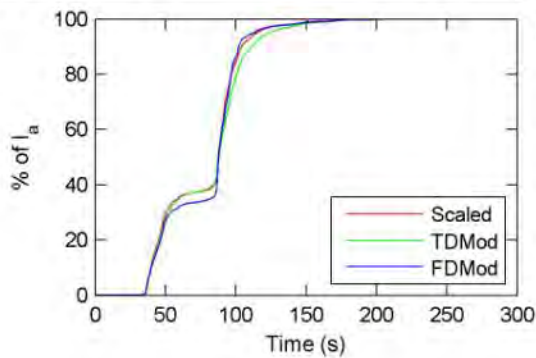|	Original	Scaled	TDMod	FDMod
PGA (g)	0.241	0.198	0.256	0.256
PGV (cm/s)	33.0	27.0	25.3	17.9
PGD (cm)	13.5	11.1	10.9	5.5
I_a (cm/s)	185	124	117	165
D_{5-95} (s)	36.3	36.3	37.0	46.1
CAV (cm/s)	2112	1732	1683	2168
T_m (s)	0.59	0.59	0.53	0.42

Figure E.6. continued.

1029

File Name: 3 TOK-HKD109-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.84 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 7

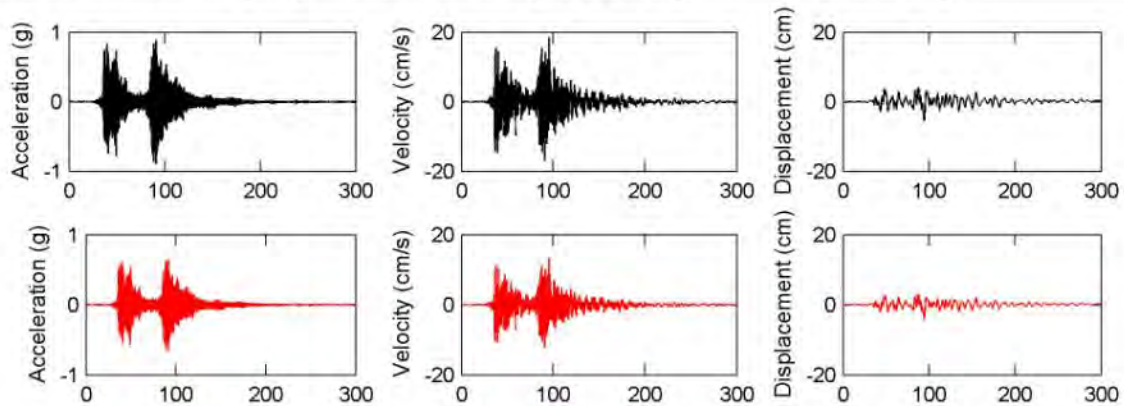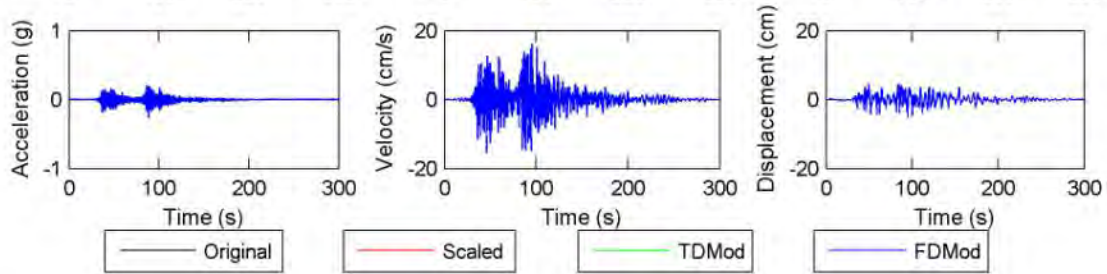|	Original	Scaled	TDMod	FDMod
PGA (g)	0.198	0.166	0.256	0.256
PGV (cm/s)	34.6	29.1	22.9	17.8
PGD (cm)	19.1	16.1	8.7	6.1
I_a (cm/s)	163	115	114	159
D_{5-95} (s)	39.1	39.1	39.4	43.3
CAV (cm/s)	1972	1657	1636	2056
T_m (s)	0.70	0.70	0.57	0.41

Figure E.6. continued.

1030

File Name: 4 ELS-QC090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.37 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 5 TD poly: 5

|	Original	Scaled	TDMod	FDMod
PGA (g)	0.187	0.256	0.256	0.256
PGV (cm/s)	16.0	21.9	24.1	22.6
PGD (cm)	3.6	4.9	9.3	5.7
I_a (cm/s)	70	131	100	93
D_{5-95} (s)	12.6	12.6	16.5	19.8
CAV (cm/s)	811	1112	1054	1058
T_m (s)	0.33	0.33	0.45	0.44

Figure E.6. continued.

1031

File Name: 4 ELS-QC360   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.18 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 8 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.152	0.179	0.256	0.256
PGV (cm/s)	23.5	27.7	18.1	23.0
PGD (cm)	10.2	12.0	12.4	9.9
I_a (cm/s)	49	68	83	96
D_{5-95} (s)	15.0	15.0	17.9	17.6
CAV (cm/s)	721	851	950	1049
T_m (s)	0.60	0.60	0.52	0.40

Figure E.6. continued.

1032

REJECTED

	Original	Scaled	TDMod	FDMod
PGA (g)	0.524	0.566	0.256	0.256
PGV (cm/s)	14.4	15.6	23.3	21.3
PGD (cm)	4.3	4.6	6.4	5.9
I_a (cm/s)	1037	1209	637	225
D_{5-95} (s)	73.6	73.6	88.6	85.4
CAV (cm/s)	6761	7302	5972	3359
T_m (s)	0.14	0.14	0.19	0.49

Figure E.6. continued.

1033

File Name: 4 HON-IWTH23-N   Start and End Taper Percentage: 1.0% and 5.0%
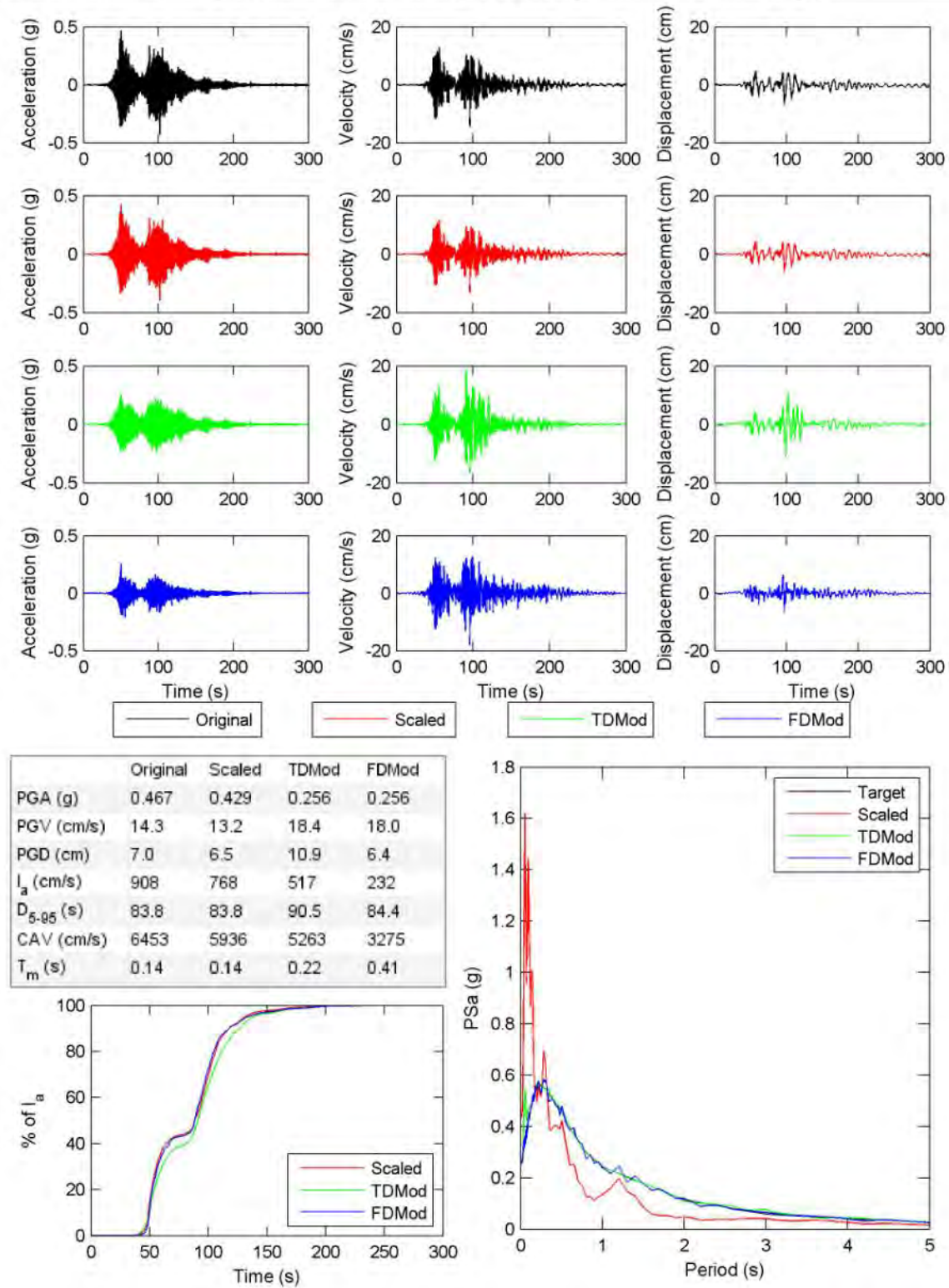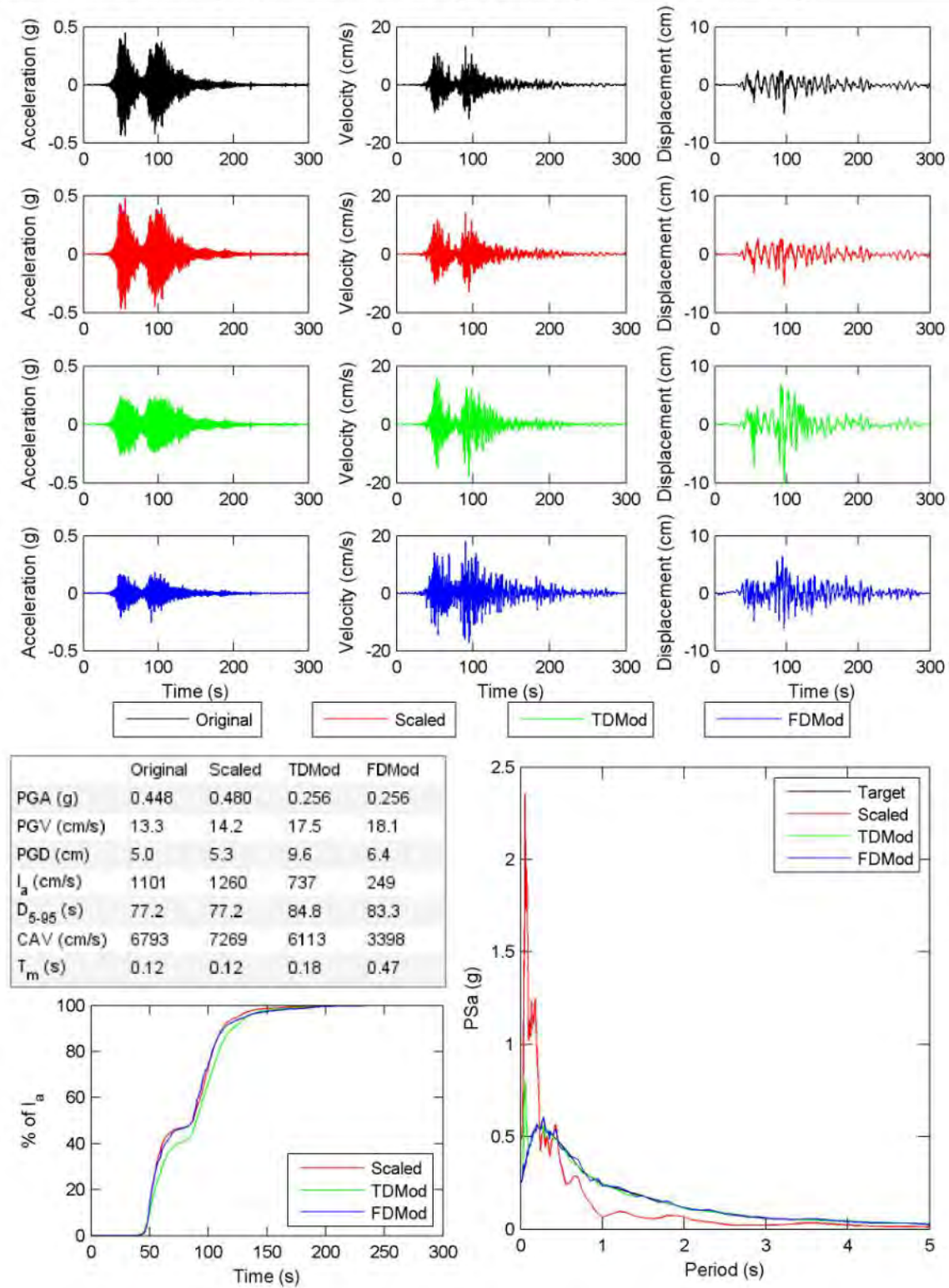Scale Factor: 1.14 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 8 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.352	0.401	0.256	0.256
PGV (cm/s)	12.7	14.5	18.7	17.4
PGD (cm)	5.2	6.0	18.5	6.2
I_a (cm/s)	799	1039	589	232
D_{5-95} (s)	77.0	77.0	90.5	77.5
CAV (cm/s)	6104	6958	5801	3276
T_m (s)	0.14	0.14	0.20	0.48

Figure E.6. continued.

1034

File Name: 4 TOK-HKD113-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.34 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 8 TD poly: 8

	Original	Scaled	TDMod	FDMod
PGA (g)	0.205	0.275	0.256	0.256
PGV (cm/s)	15.0	20.1	19.6	21.6
PGD (cm)	7.0	9.4	9.4	7.0
I_a (cm/s)	149	267	208	141
D_{5-95} (s)	42.0	42.0	44.2	42.5
CAV (cm/s)	1998	2677	2477	1976
T_m (s)	0.27	0.27	0.36	0.47

Figure E.6. continued.

1035

File Name: 4 TOK-HKD113-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.57 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 7 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.165	0.259	0.256	0.256
PGV (cm/s)	15.5	24.4	23.9	21.4
PGD (cm)	10.0	15.6	15.7	8.6
I_a (cm/s)	70	172	160	165
D_{5-95} (s)	41.9	41.9	42.9	46.6
CAV (cm/s)	1377	2162	2117	2240
T_m (s)	0.45	0.45	0.43	0.43

Figure E.6. continued.

1036

Figure E.6. continued.

1037

	Original	Scaled	TDMod	FDMod
PGA (g)	0.881	0.520	0.256	0.256
PGV (cm/s)	27.8	16.4	18.1	18.7
PGD (cm)	6.0	3.5	7.8	6.5
I_a (cm/s)	963	335	162	101
D_{5-95} (s)	15.1	15.1	20.8	20.2
CAV (cm/s)	3299	1947	1587	1205
T_m (s)	0.26	0.26	0.38	0.53

Figure E.6. continued.

1038

	Original	Scaled	TDMod	FDMod
PGA (g)	0.655	0.622	0.256	0.256
PGV (cm/s)	17.9	17.0	28.4	19.8
PGD (cm)	4.6	4.4	26.0	5.8
I_a (cm/s)	1357	1225	617	233
D_{5-95} (s)	85.4	85.4	111.9	98.4
CAV (cm/s)	7975	7576	6138	3432
T_m (s)	0.17	0.17	0.23	0.46
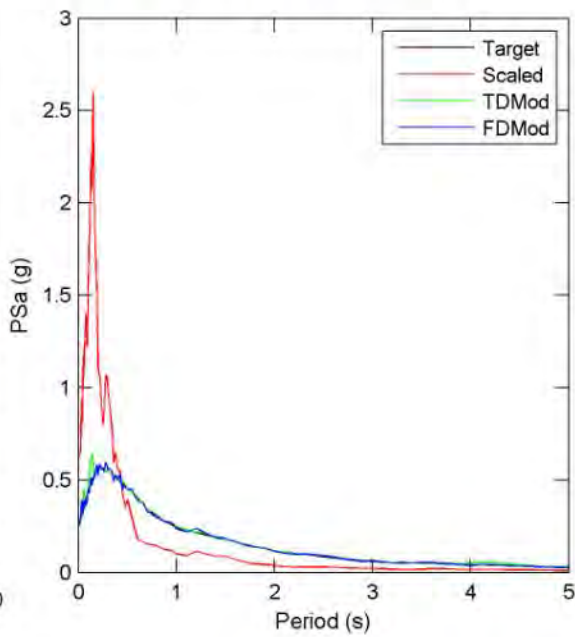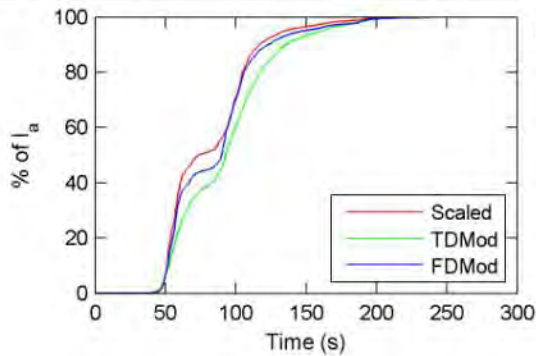
Figure E.6. continued.

1039

File Name: 5 HON-IWTH27-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.01 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.755	0.763	0.256	0.256
PGV (cm/s)	16.6	16.8	21.4	18.2
PGD (cm)	3.6	3.7	8.3	6.8
I_a (cm/s)	2062	2103	892	267
D_{5-95} (s)	79.8	79.8	100.9	99.2
CAV (cm/s)	9483	9578	7284	3739
T_m (s)	0.14	0.14	0.17	0.49

Figure E.6. continued.

1040

File Name: 6 ELS-SG270   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.83 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 7 TD poly: 9

	Original	Scaled	TDMod	FDMod
PGA (g)	0.136	0.248	0.256	0.256
PGV (cm/s)	12.8	23.4	18.2	19.5
PGD (cm)	4.4	8.0	6.4	6.8
I_a (cm/s)	55	186	152	153
D_{5-95} (s)	35.7	35.7	37.2	34.5
CAV (cm/s)	1040	1904	1644	1653
T_m (s)	0.60	0.60	0.50	0.50

Figure E.6. continued.

1041

Figure E.6. continued.

1042

File Name: 6 HON-MYG003-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.63 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 6

	Original	Scaled	TDMod	FDMod
PGA (g)	0.813	0.512	0.256	0.256
PGV (cm/s)	35.2	22.2	21.0	30.0
PGD (cm)	7.5	4.8	8.1	7.8
I_a (cm/s)	2065	820	512	225
D_{5-95} (s)	87.8	87.8	106.5	89.3
CAV (cm/s)	9874	6221	5388	3242
T_m (s)	0.16	0.16	0.22	0.40

Figure E.6. continued.

1043

File Name: 6 HON-MYG003-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.77 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 6 TD poly: 9

Figure E.6. continued.

1044

File Name: 7 ELS-ZA000   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.30 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 4 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.260	0.338	0.256	0.256
PGV (cm/s)	13.0	16.9	22.0	20.5
PGD (cm)	4.5	5.9	11.4	7.2
I_a (cm/s)	167	283	171	119
D_{5-95} (s)	19.0	19.0	25.0	23.2
CAV (cm/s)	1488	1934	1674	1340
T_m (s)	0.24	0.24	0.38	0.48

Figure E.6. continued.

1045

File Name: 7 ELS-ZA090   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 1.03 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 7 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.317	0.326	0.256	0.256
PGV (cm/s)	18.1	18.7	20.5	18.0
PGD (cm)	8.4	8.6	8.0	6.3
I_a (cm/s)	148	157	152	132
D_{5-95} (s)	20.0	20.0	20.7	21.9
CAV (cm/s)	1411	1454	1495	1375
T_m (s)	0.29	0.29	0.40	0.44

Figure E.6. continued.

1046

Figure E.6. continued.

1047

	Original	Scaled	TDMod	FDMod
PGA (g)	0.397	0.282	0.256	0.256
PGV (cm/s)	23.6	16.8	22.9	22.0
PGD (cm)	8.3	5.9	10.6	8.1
I_a (cm/s)	617	311	271	223
D_{5-95} (s)	80.7	80.7	86.1	108.0
CAV (cm/s)	5373	3815	3693	3469
T_m (s)	0.29	0.29	0.36	0.50

Figure E.6. continued.

1048

File Name: 8 HON-MYG011-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.47 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 8 TD poly: 4

	Original	Scaled	TDMod	FDMod
PGA (g)	0.763	0.358	0.256	0.256
PGV (cm/s)	37.0	17.4	21.4	20.6
PGD (cm)	11.0	5.2	22.9	9.4
I_a (cm/s)	2016	445	331	187
D_{5-95} (s)	77.2	77.2	86.2	74.8
CAV (cm/s)	8758	4116	3833	2616
T_m (s)	0.19	0.19	0.28	0.38
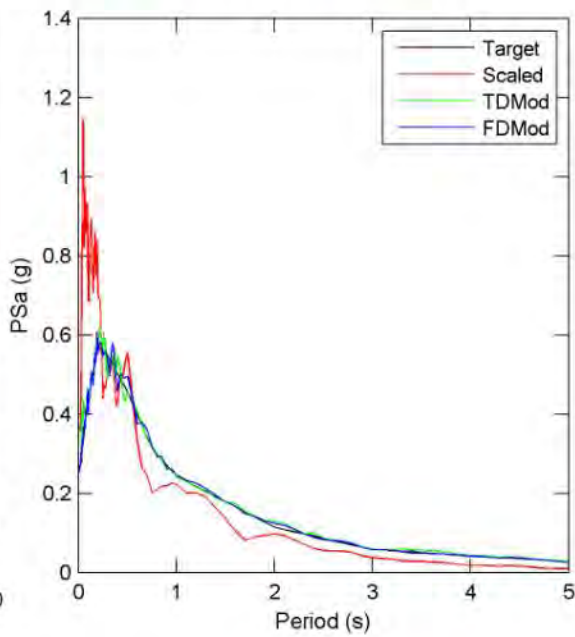
Figure E.6. continued.

1049

File Name: 8 HON-MYG011-N   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.72 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 9 TD poly: 9

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	Original	Scaled	TDMod	FDMod
PGA (g)	0.895	0.644	0.256	0.256
PGV (cm/s)	18.6	13.4	17.9	16.2
PGD (cm)	5.4	3.9	11.7	5.2
I_a (cm/s)	3327	1725	889	241
D_{5-95} (s)	75.2	75.2	82.2	85.4
CAV (cm/s)	10767	7752	6334	3315
T_m (s)	0.11	0.11	0.18	0.51
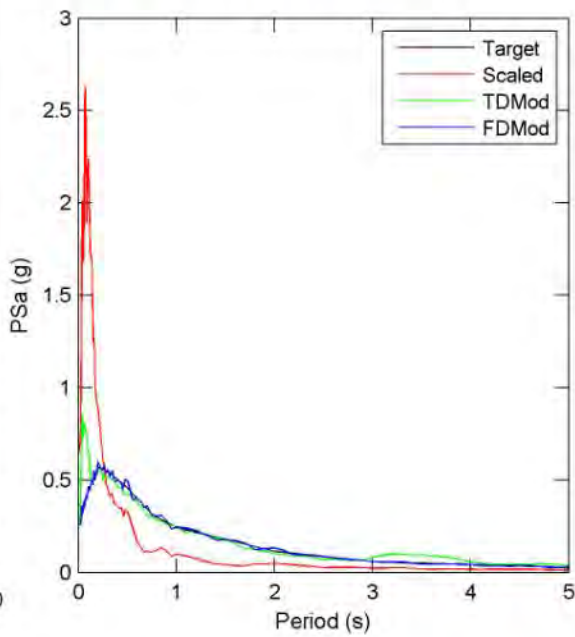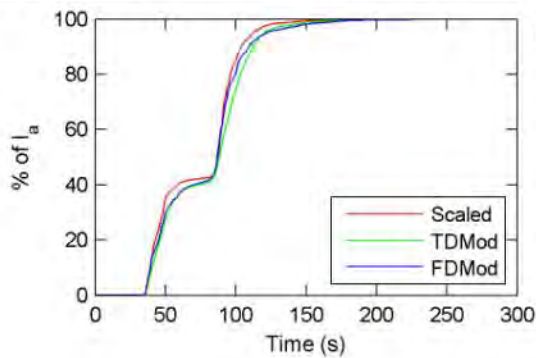
Figure E.6. continued.

1050

File Name: 9 HON-MYGH03-E   Start and End Taper Percentage: 1.0% and 5.0%
Scale Factor: 0.92 Target Spectrum Matched: target10UHS50yr2.txt FD poly: 8 TD poly: 7

	Original	Scaled	TDMod	FDMod
PGA (g)	0.467	0.429	0.256	0.256
PGV (cm/s)	14.3	13.2	18.4	18.0
PGD (cm)	7.0	6.5	10.9	6.4
I_a (cm/s)	908	768	517	232
D_{5-95} (s)	83.8	83.8	90.5	84.4
CAV (cm/s)	6453	5936	5263	3275
T_m (s)	0.14	0.14	0.22	0.41

Figure E.6. continued.

1051

	Original	Scaled	TDMod	FDMod
PGA (g)	0.448	0.480	0.256	0.256
PGV (cm/s)	13.3	14.2	17.5	18.1
PGD (cm)	5.0	5.3	9.6	6.4
I_a (cm/s)	1101	1260	737	249
D_{5-95} (s)	77.2	77.2	84.8	83.3
CAV (cm/s)	6793	7269	6113	3398
T_m (s)	0.12	0.12	0.18	0.47

Figure E.6. continued.

1052

APPENDIX F

Modified-to-Scaled Response Ratios for Geotechnical Dynamic Analyses versus Normalized Error for Different Period Ranges
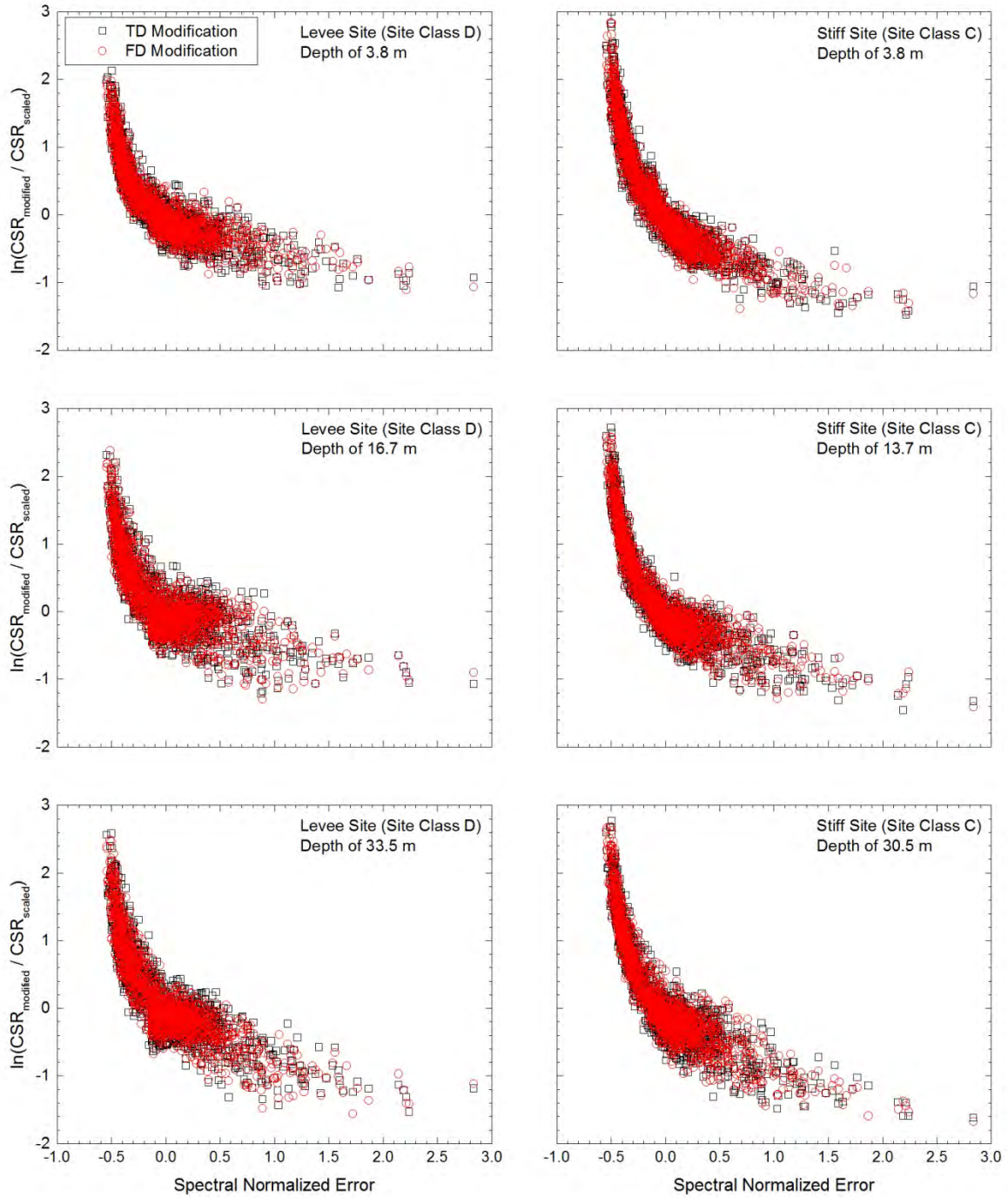
Figure F.1. Logarithmic ratios of the modified-to-scaled cyclic stress ratios (*CSR*) caused by the motions in scenario I for different sites and depths plotted against normalized error.

1054
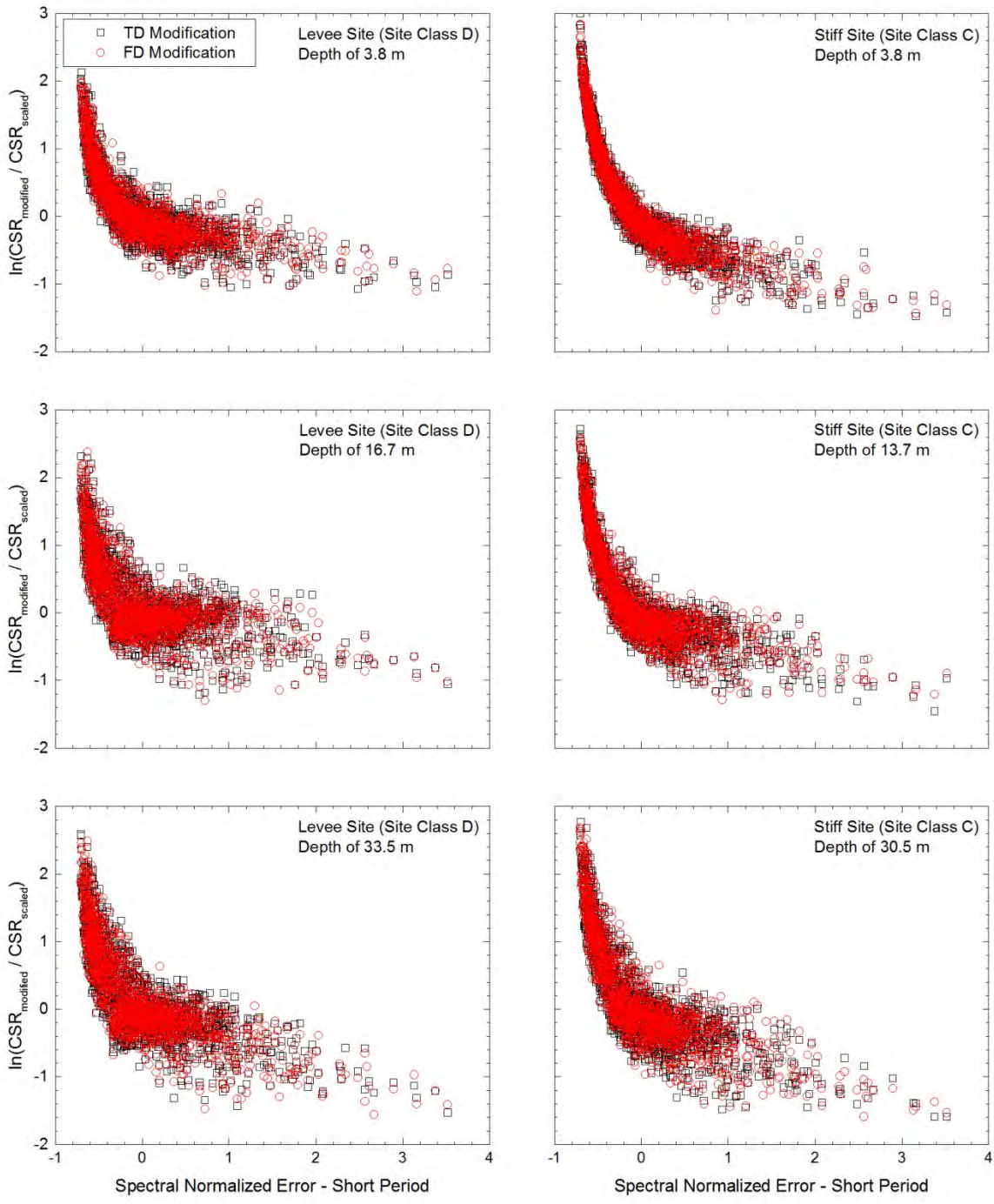
Figure F.2. Logarithmic ratios of the modified-to-scaled cyclic stress ratios (*CSR*) caused by the motions in scenario I for different sites and depths plotted against normalized error in the short period range.
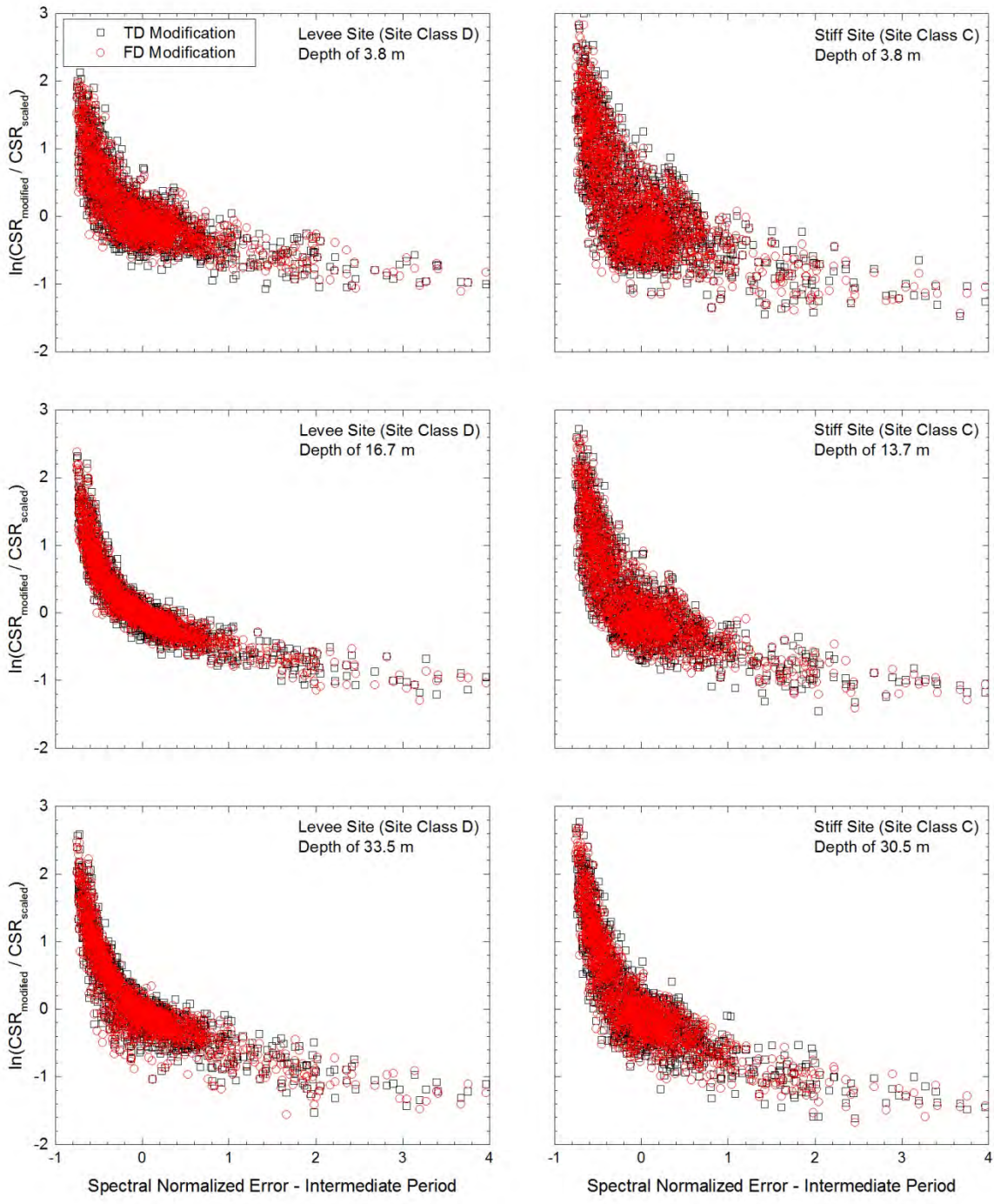
Figure F.3. Logarithmic ratios of the modified-to-scaled cyclic stress ratios (*CSR*) caused by the motions in scenario I for different sites and depths plotted against normalized error in the intermediate period range.
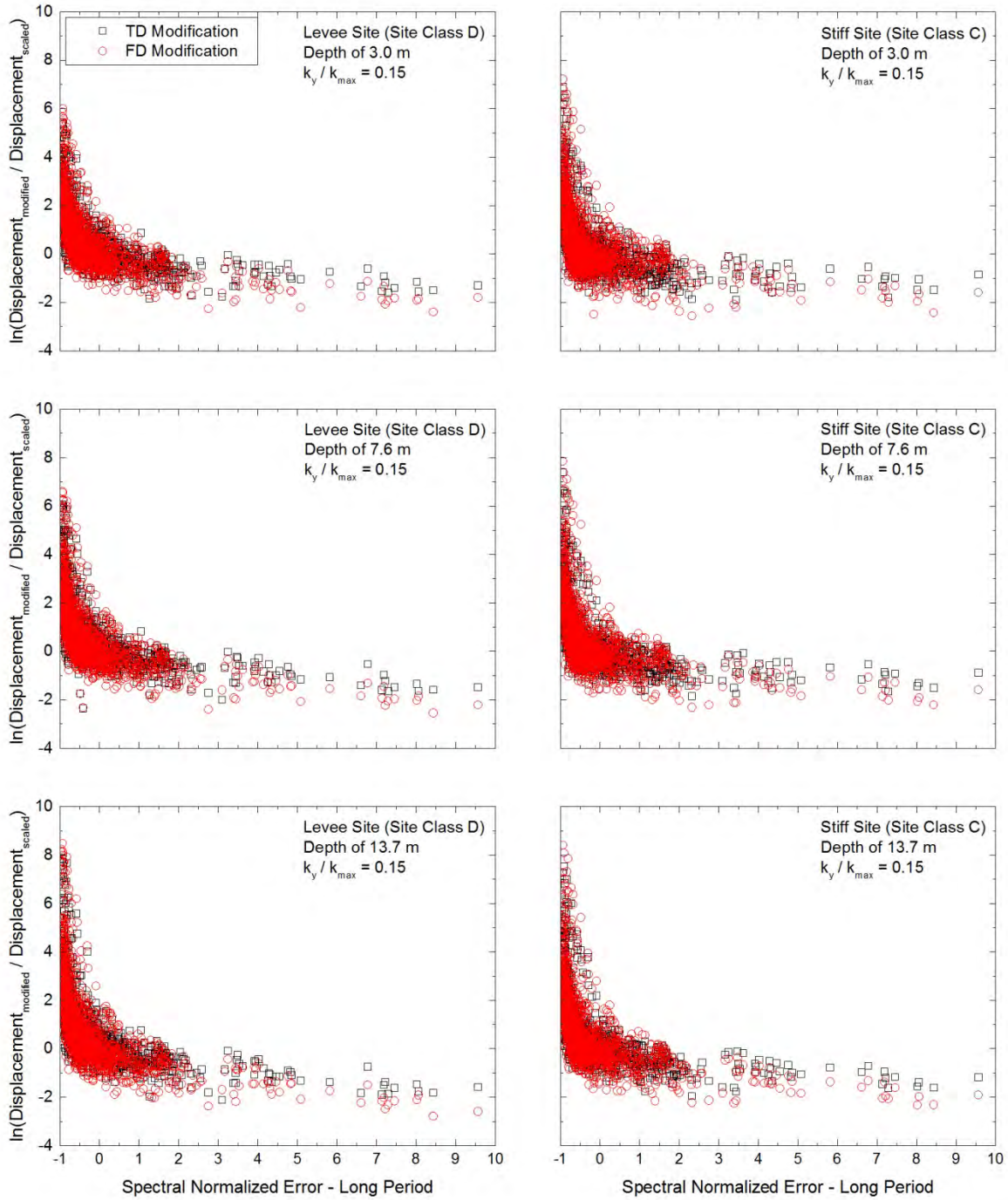
1056
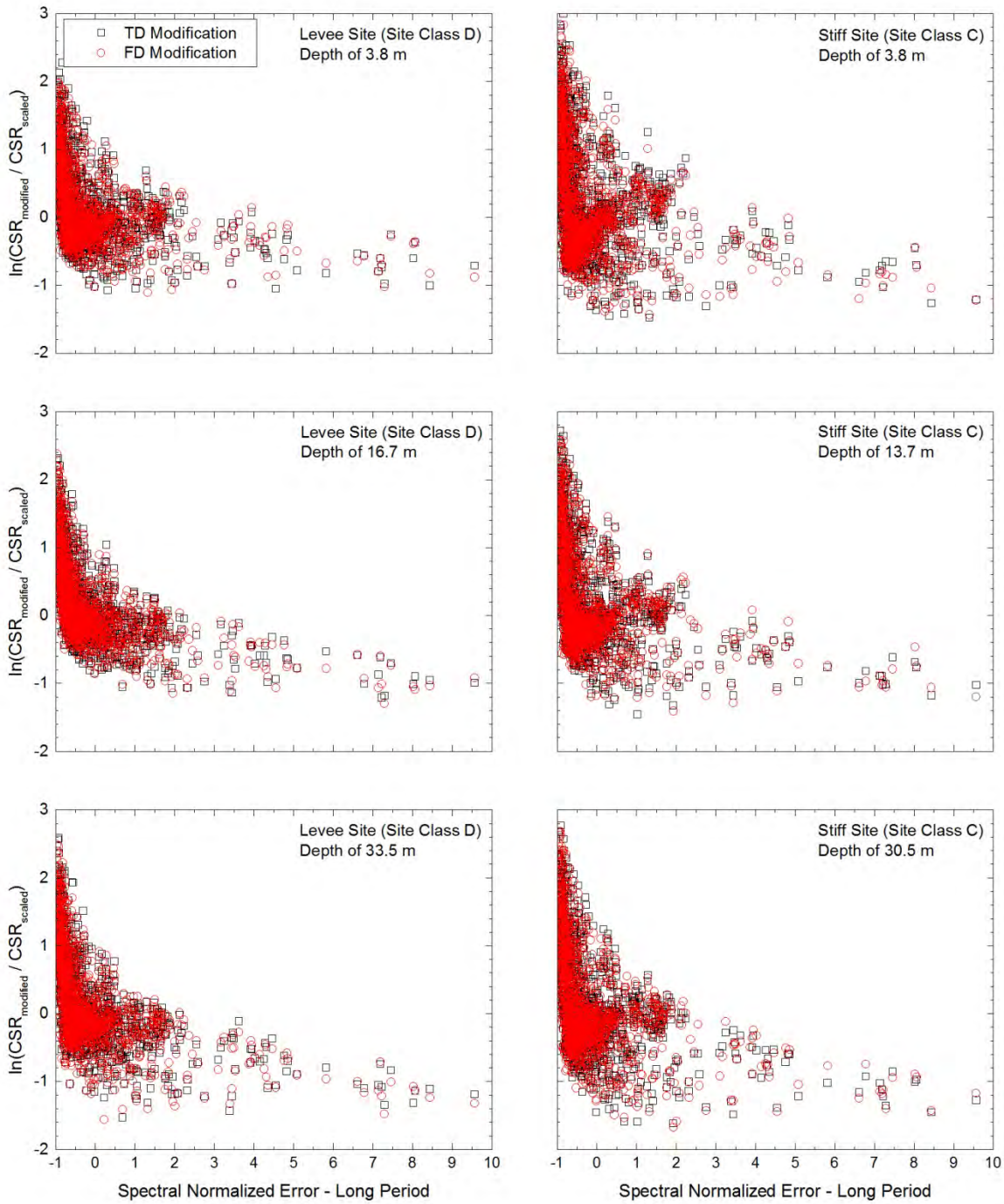
Figure F.4. Logarithmic ratios of the modified-to-scaled cyclic stress ratios (*CSR*) caused by the motions in scenario I for different sites and depths plotted against normalized error in the long period range.

1057
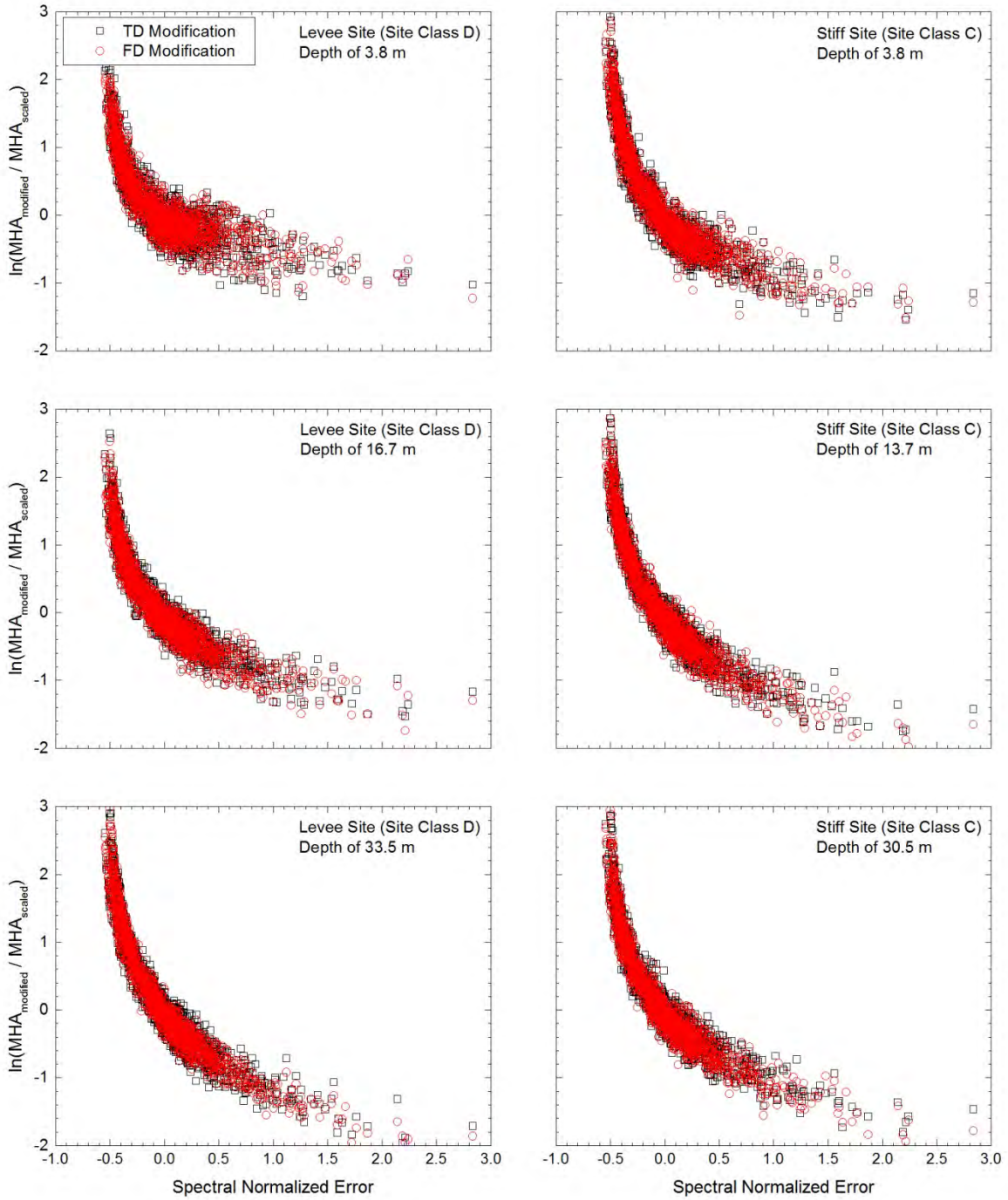
Figure F.5. Logarithmic ratios of the modified-to-scaled maximum horizontal acceleration (*MHA*) caused by the motions in scenario I for different sites and depths plotted against normalized error.
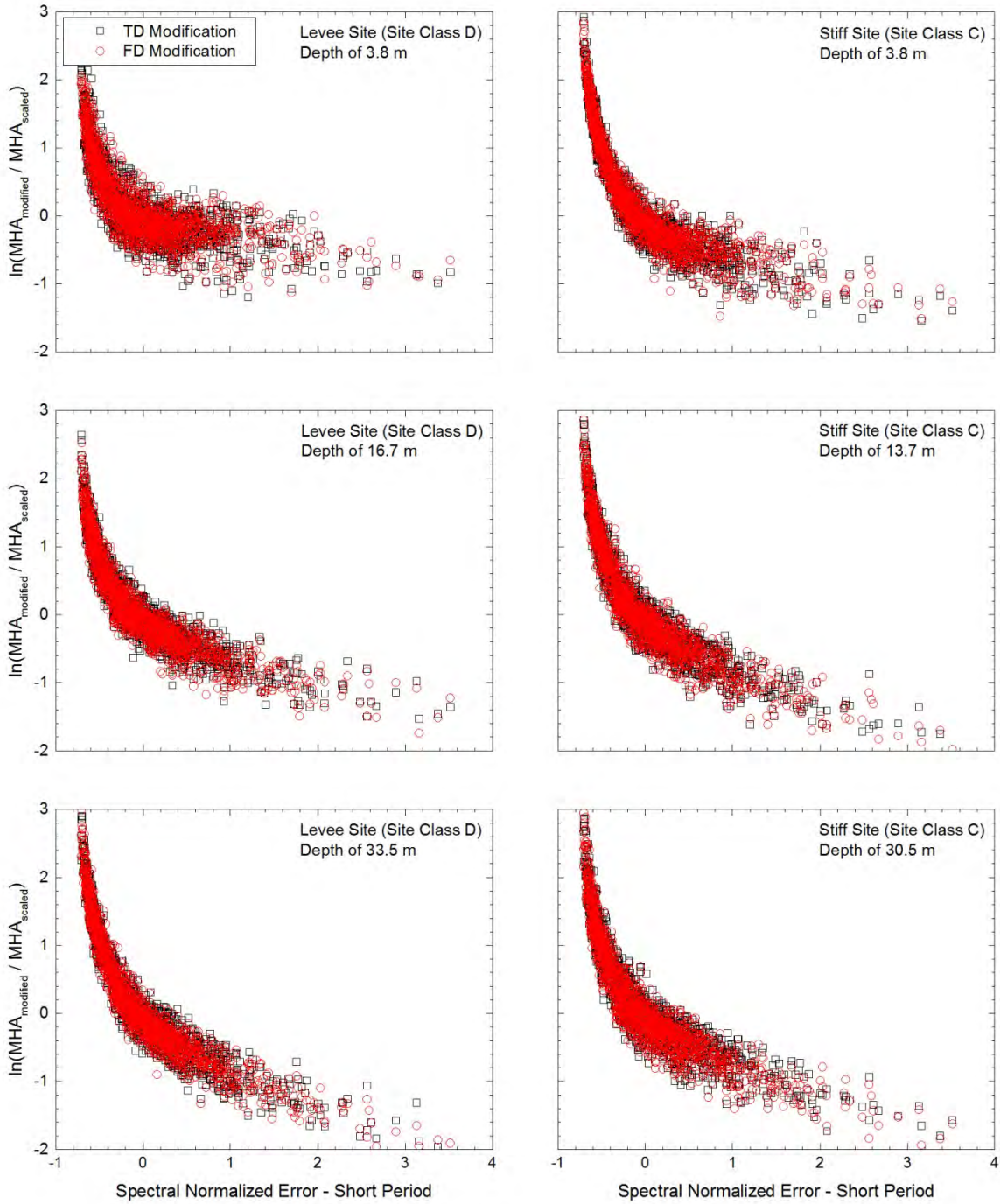
Figure F.6. Logarithmic ratios of the modified-to-scaled maximum horizontal acceleration (*MHA*) caused by the motions in scenario I for different sites and depths plotted against normalized error in the short period range.

1059
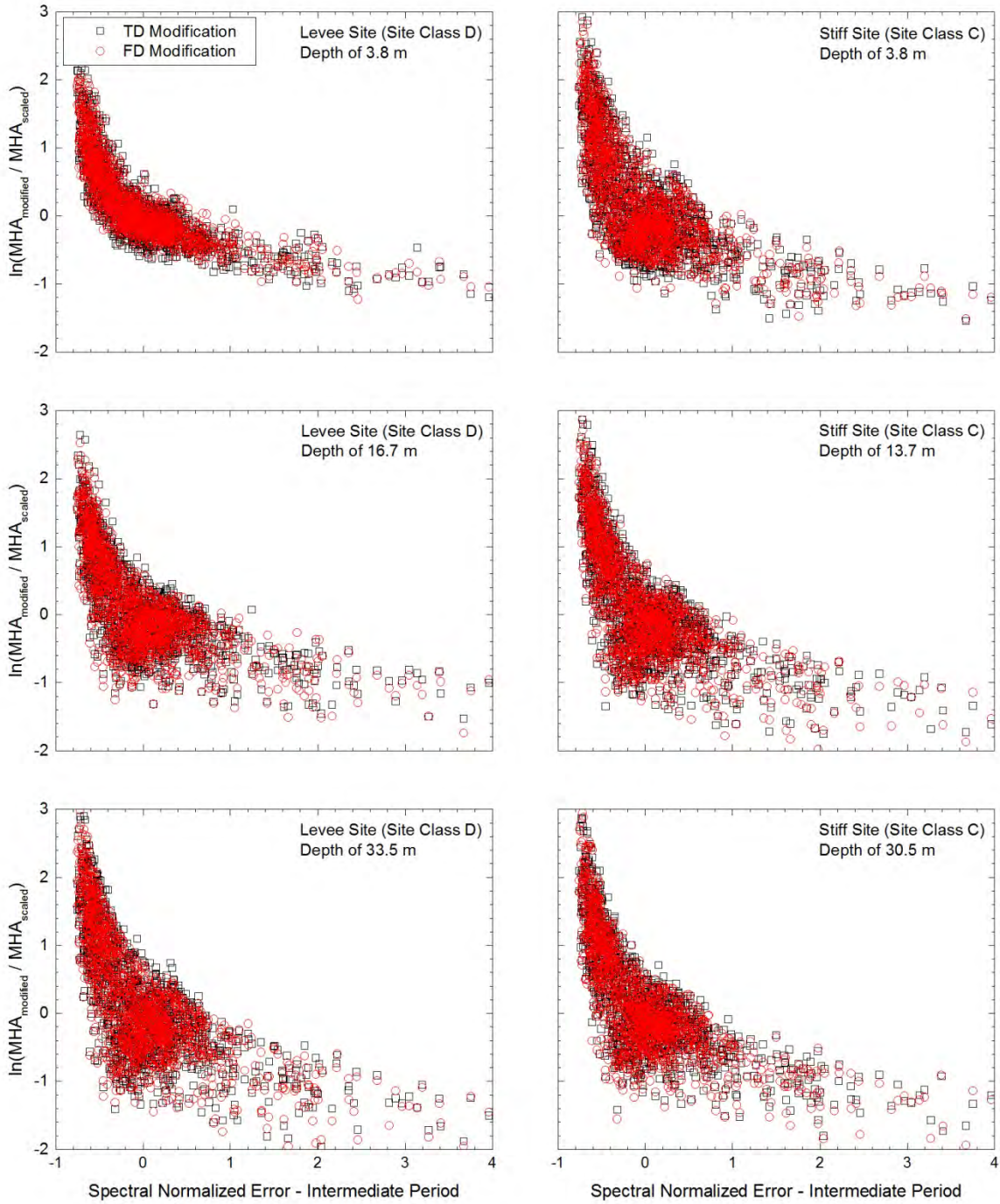
Figure F.7. Logarithmic ratios of the modified-to-scaled maximum horizontal acceleration (*MHA*) caused by the motions in scenario I for different sites and depths plotted against normalized error in the intermediate period range.

1060
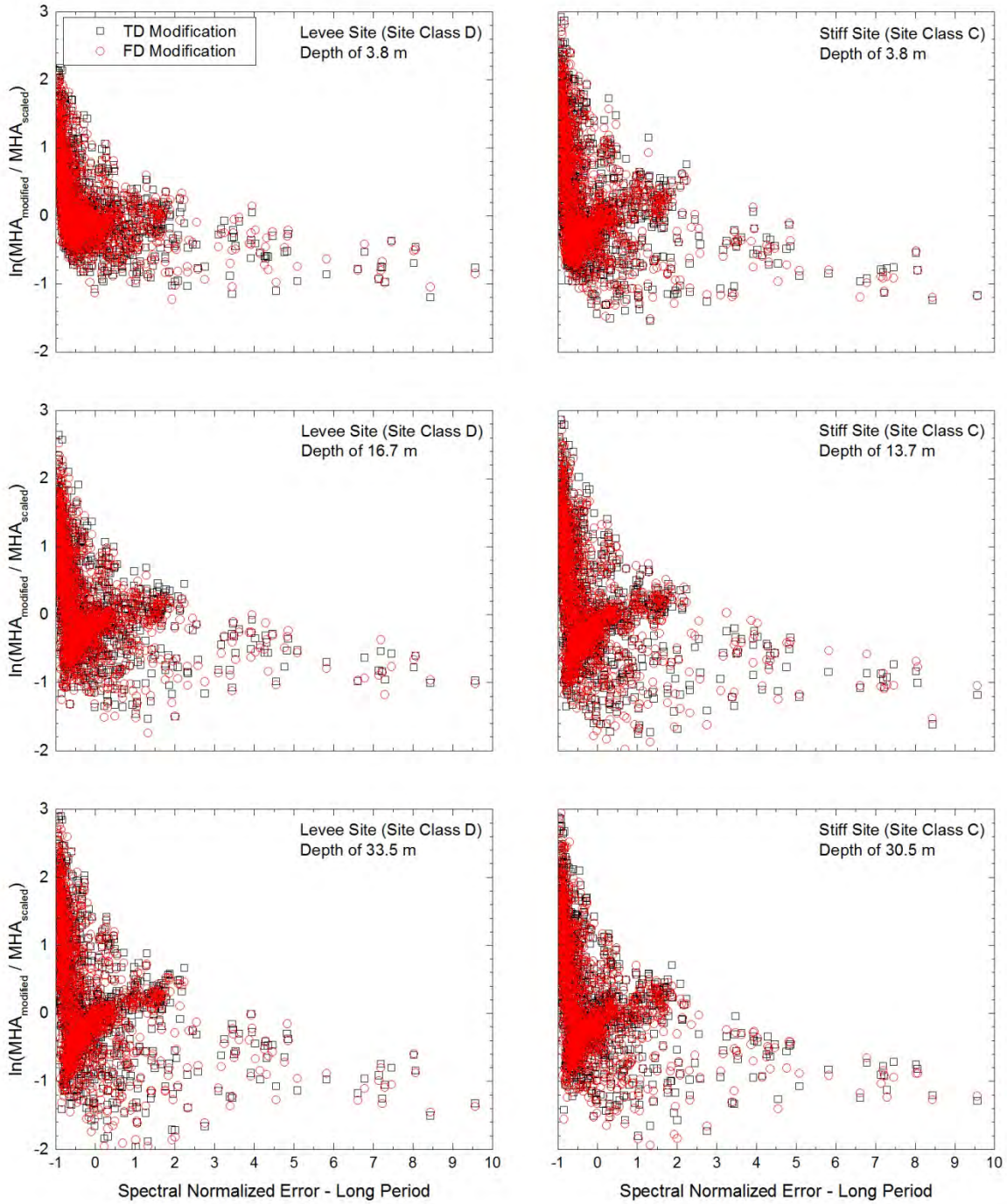
Figure F.8. Logarithmic ratios of the modified-to-scaled maximum horizontal acceleration (*MHA*) caused by the motions in scenario I for different sites and depths plotted against normalized error in the long period range.
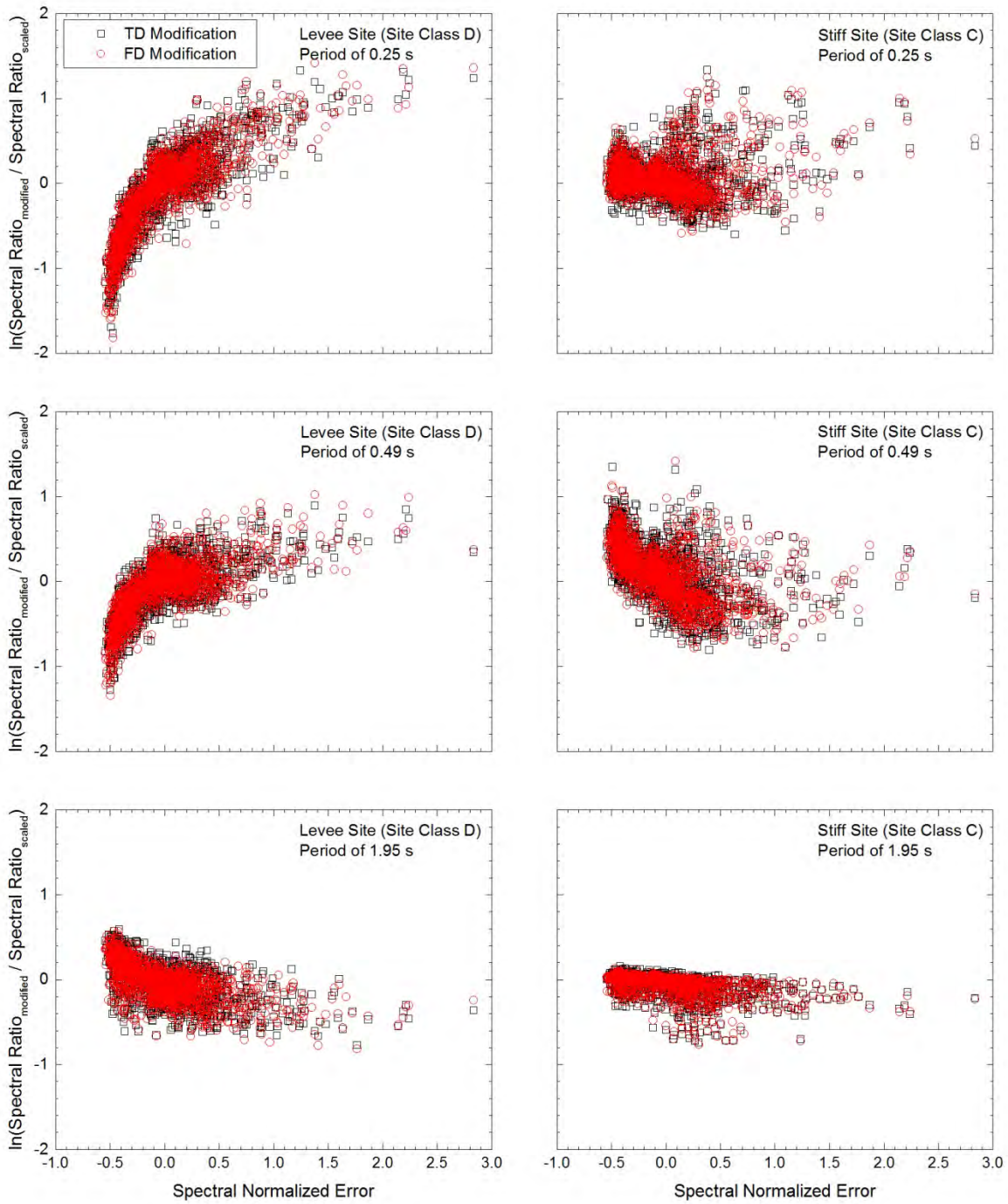
Figure F.9. Logarithmic ratios of the modified-to-scaled spectral ratios for the motions in scenario I for different sites and depths plotted against normalized error.
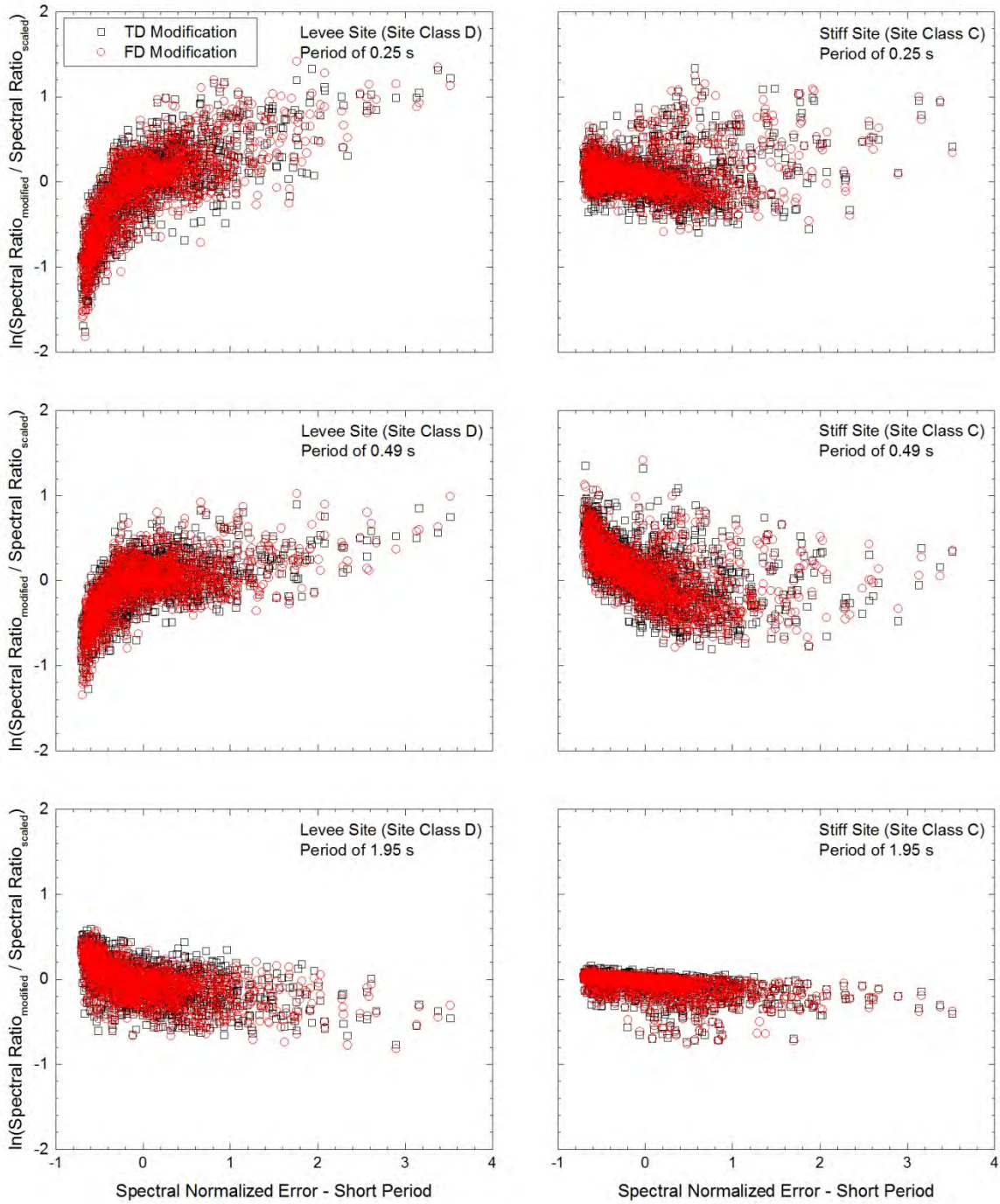
Figure F.10. Logarithmic ratios of the modified-to-scaled spectral ratios for the motions in scenario I for different sites and depths plotted against normalized error in the short period range.
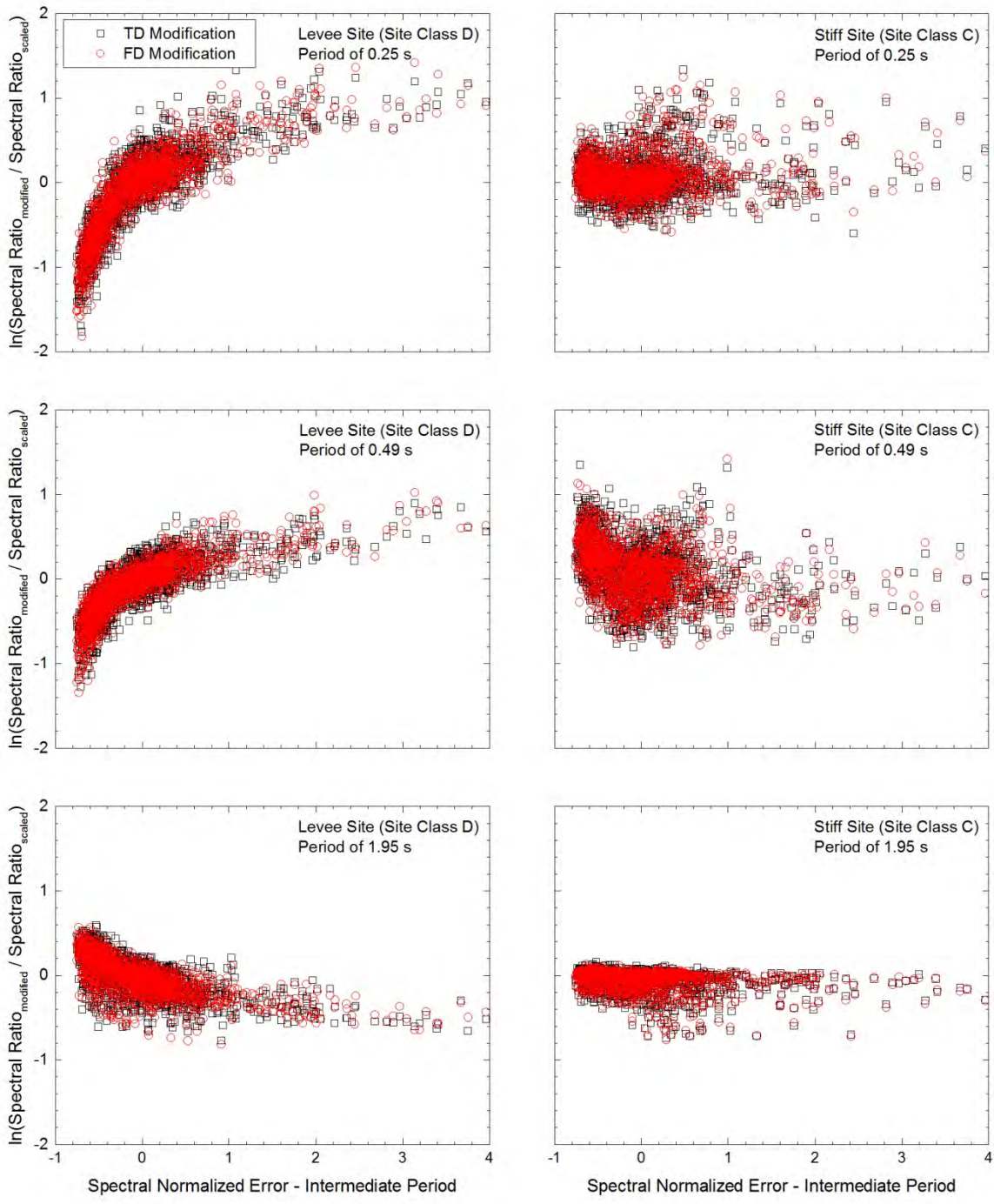
Figure F.11. Logarithmic ratios of the modified-to-scaled spectral ratios for the motions in scenario I for different sites and depths plotted against normalized error in the intermediate period range.

1064
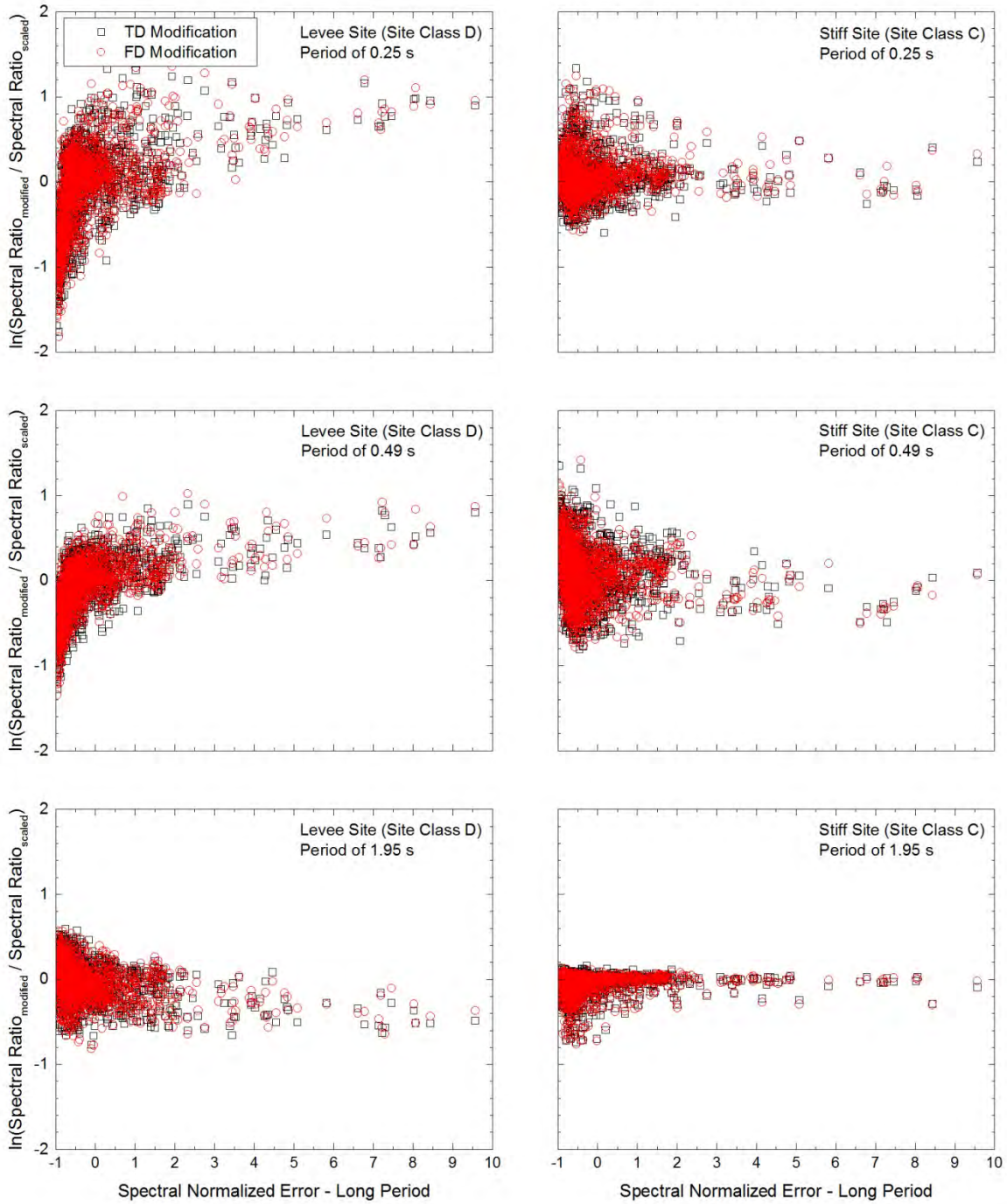
Figure F.12. Logarithmic ratios of the modified-to-scaled spectral ratios for the motions in scenario I for different sites and depths plotted against normalized error in the long period range.
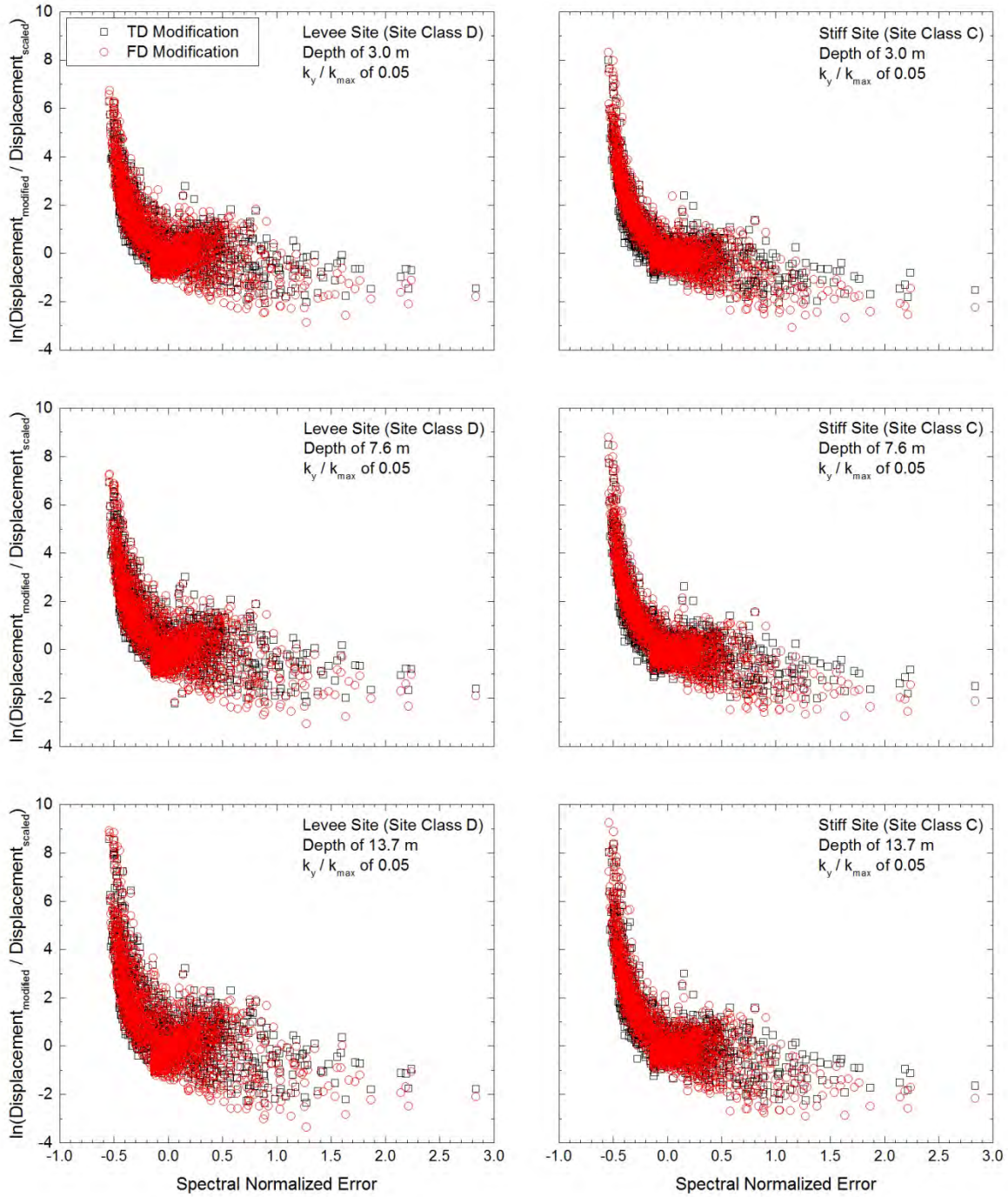
Figure F.13. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.05 plotted against normalized error.

1066
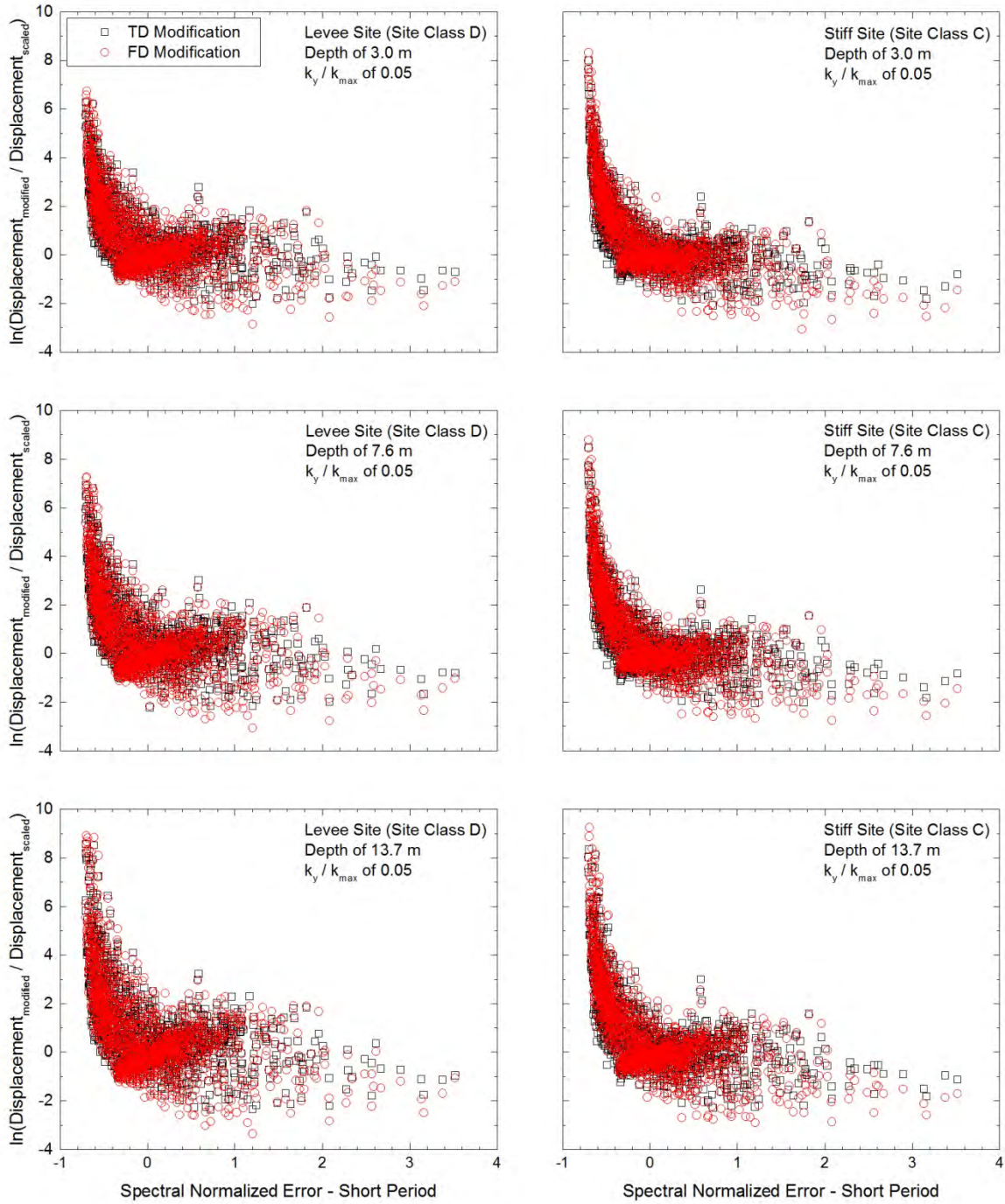
Figure F.14. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.05 plotted against normalized error in the short period range.
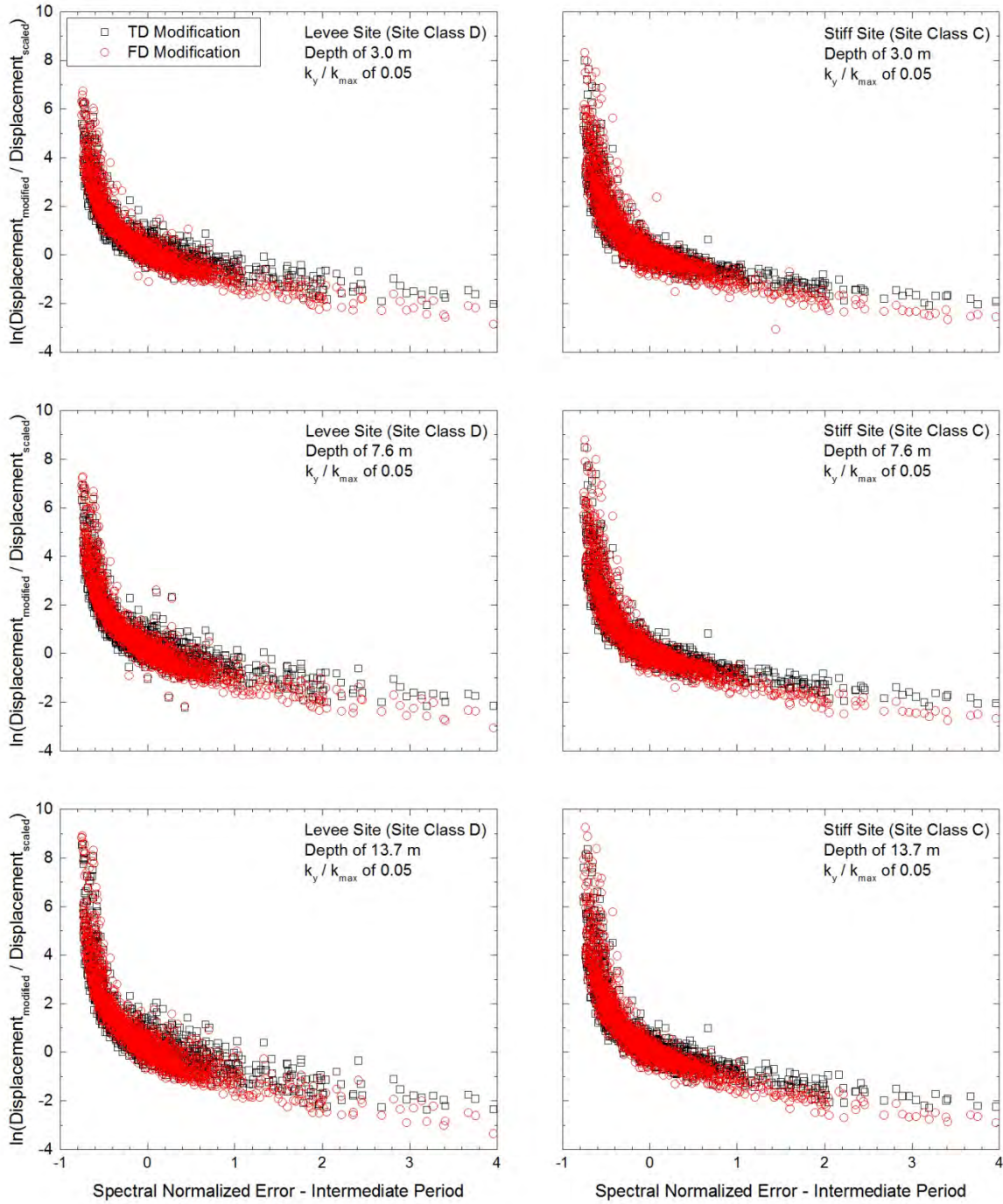
Figure F.15. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.05 plotted against normalized error in the intermediate period range.
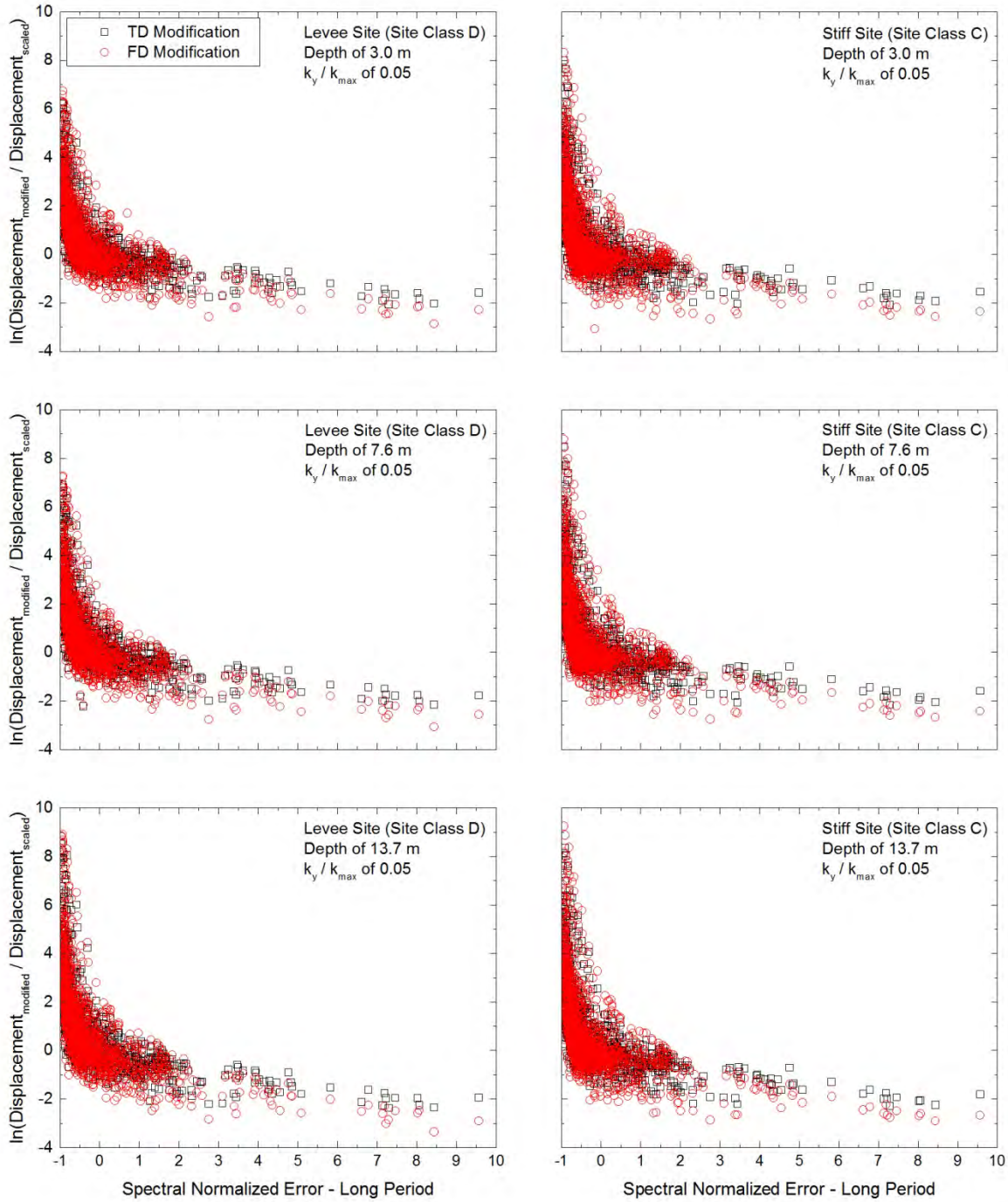
Figure F.16. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.05 plotted against normalized error in the long period range.
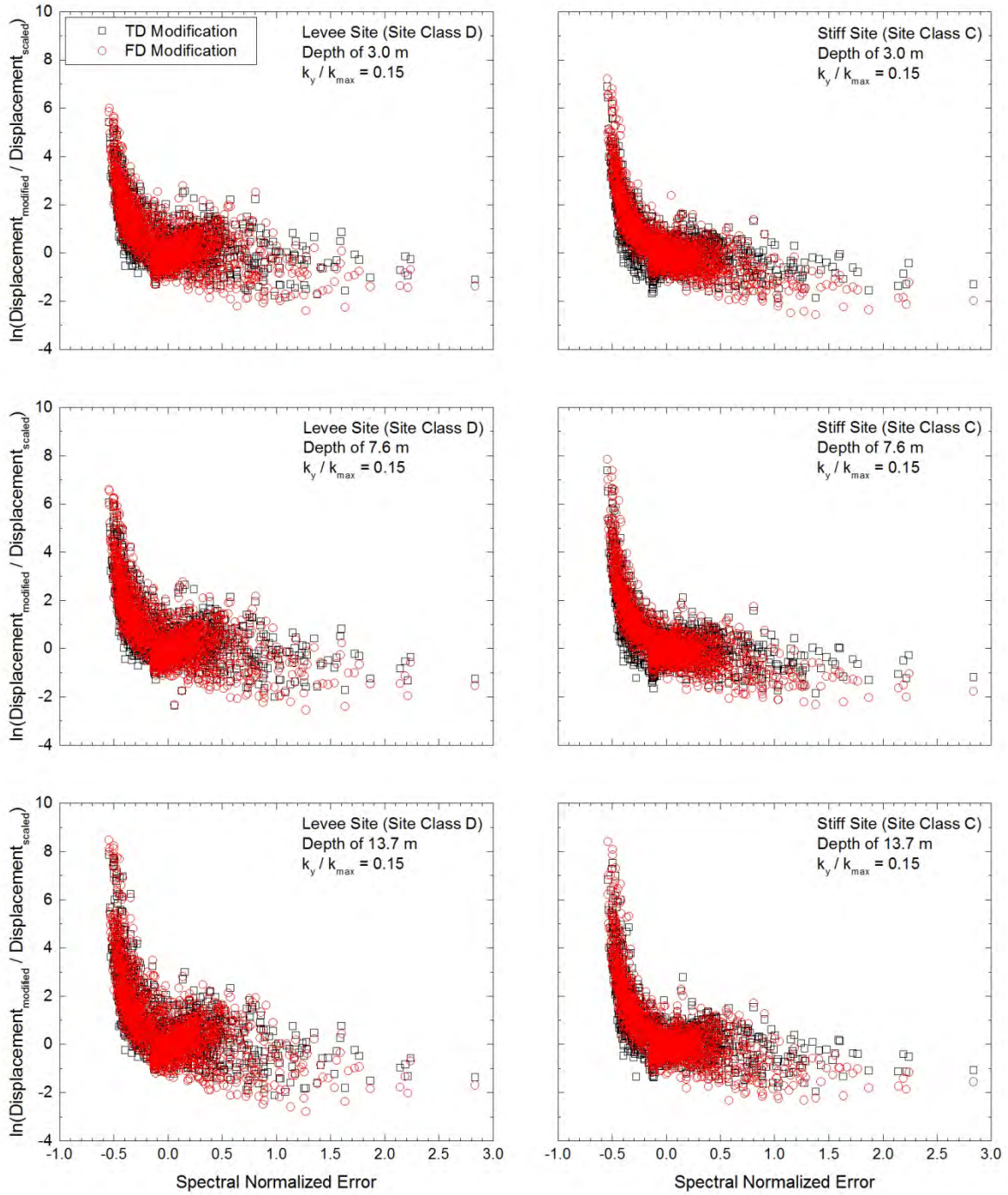
Figure F.17. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.15 plotted against normalized error.
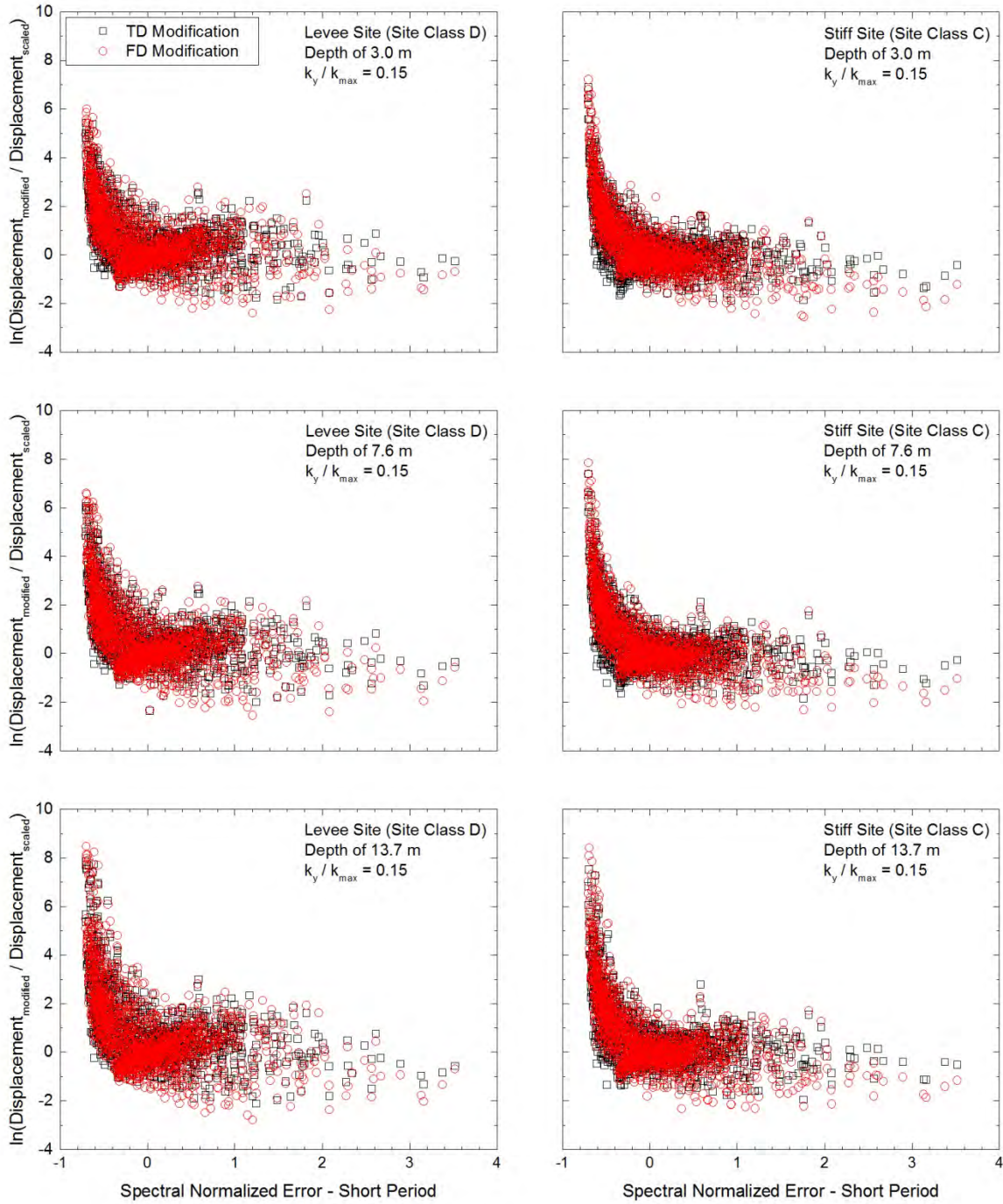
Figure F.18. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.15 plotted against normalized error in the short period range.
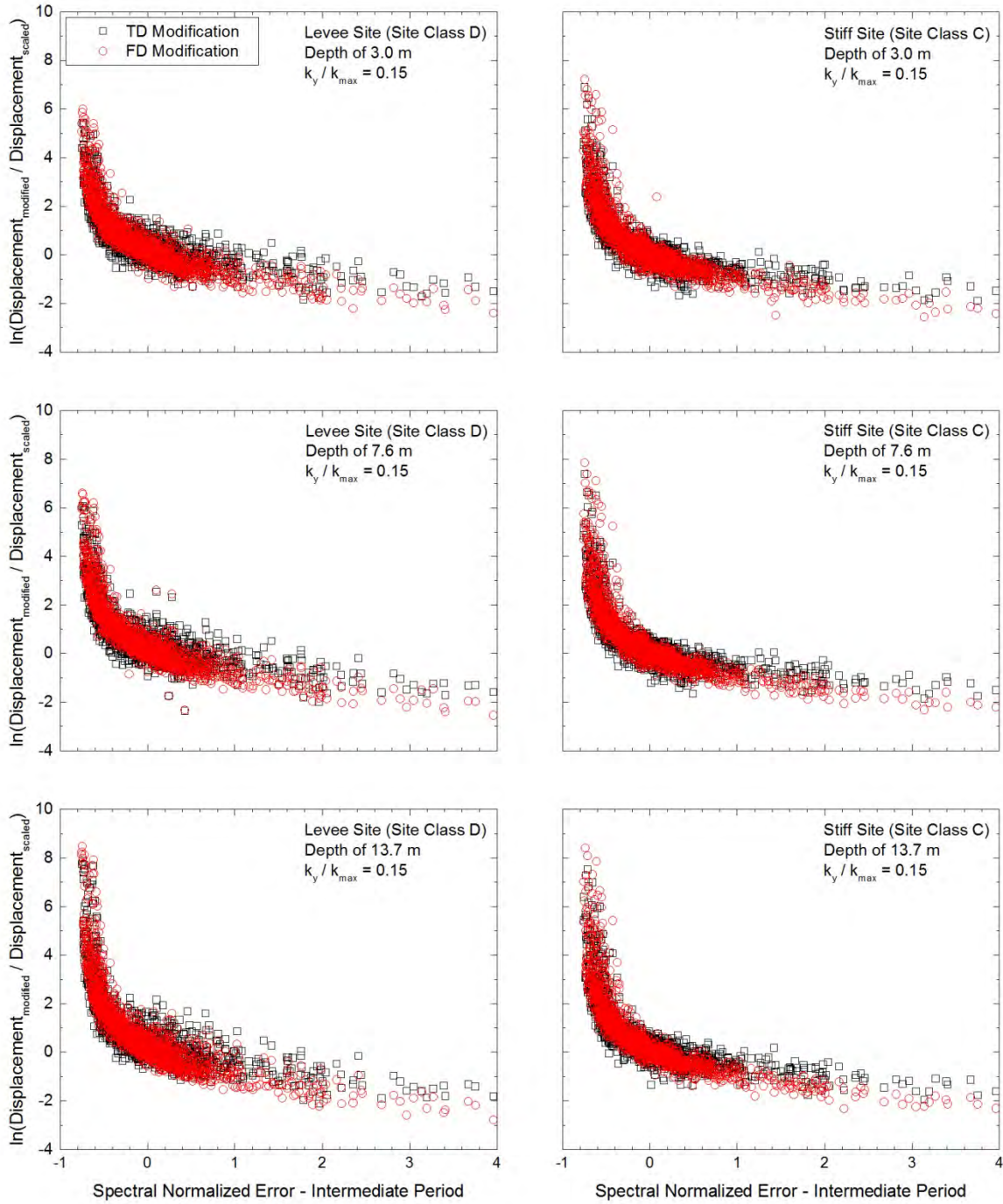
Figure F.19. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.15 plotted against normalized error in the intermediate period range.

Figure F.20. Logarithmic ratios of the modified-to-scaled Newmark-type slope displacements caused by the motions in scenario I for different sites and depths and a k_y / k_{max} of 0.15 plotted against normalized error in the long period range.

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