Appendix E: Response Plots of Model 1d*

The most refined model—Model 1d*—was evaluated at two hazard levels. This appendix includes information for the following, with all ground motions included:

- Beam end plastic rotation envelope status under BSE-1E and BSE-2E hazard-level ground motions
- Number of column splice failure in each floor level under BSE-1E and BSE-2E hazard-level ground motions
Figure E.1  Beam end plastic rotation envelope status of Model 1d* under ground motion number 1 of BSE-1E hazard-level ground motions.

Figure E.2  Beam end plastic rotation envelope status of Model 1d* under ground motion number 2 of BSE-1E hazard-level ground motions.
Figure E.3  Beam end plastic rotation envelope status of Model 1d* under ground motion number 3 of BSE-1E hazard-level ground motions.

Figure E.4  Beam end plastic rotation envelope status of Model 1d* under ground motion number 4 of BSE-1E hazard-level ground motions.
Figure E.5  Beam end plastic rotation envelope status of Model 1d* under ground motion number 5 of BSE-1E hazard-level ground motions.

Figure E.6  Beam end plastic rotation envelope status of Model 1d* under ground motion number 6 of BSE-1E hazard-level ground motions.
Figure E.7 Beam end plastic rotation envelope status of Model 1d* under ground motion number 7 of BSE-1E hazard-level ground motions.

Figure E.8 Beam end plastic rotation envelope status of Model 1d* under ground motion number 8 of BSE-1E hazard-level ground motions.
Figure E.9  Beam end plastic rotation envelope status of Model 1d* under ground motion number 9 of BSE-1E hazard-level ground motions.

Figure E.10  Beam end plastic rotation envelope status of Model 1d* under ground motion number 10 of BSE-1E hazard-level ground motions.
Figure E.11 Beam end plastic rotation envelope status of Model 1d* under ground motion number 11 of BSE-1E hazard-level ground motions.

Figure E.12 Beam end plastic rotation envelope status of Model 1d* under ground motion number 12 of BSE-1E hazard-level ground motions.
Figure E.13  Beam end plastic rotation envelope status of Model 1d* under ground motion number 13 of BSE-1E hazard-level ground motions.

Figure E.14  Beam end plastic rotation envelope status of Model 1d* under ground motion number 14 of BSE-1E hazard-level ground motions.
Figure E.15  Beam end plastic rotation envelope status of Model 1d* under ground motion number 15 of BSE-1E hazard-level ground motions.

Figure E.16  Beam end plastic rotation envelope status of Model 1d* under ground motion number 16 of BSE-1E hazard-level ground motions.
Figure E.17  Beam end plastic rotation envelope status of Model 1d* under ground motion number 18 of BSE-1E hazard-level ground motions.

Figure E.18  Beam end plastic rotation envelope status of Model 1d* under ground motion number 19 of BSE-1E hazard-level ground motions.
Figure E.19  Beam end plastic rotation envelope status of Model 1d* under ground motion number 20 of BSE-1E hazard level ground motion.

Figure E.20  Beam end plastic rotation envelope status of Model 1d* under ground motion number 1 of BSE-2E hazard-level ground motions.
Figure E.21  Beam end plastic rotation envelope status of Model 1d* under ground motion number 2 of BSE-2E hazard-level ground motions.

Figure E.22  Beam end plastic rotation envelope status of Model 1d* under ground motion number 3 of BSE-2E hazard-level ground motions.
Figure E.23  Beam end plastic rotation envelope status of Model 1d* under ground motion number 4 of BSE-2E hazard-level ground motions.

Figure E.24  Beam end plastic rotation envelope status of Model 1d* under ground motion number 4 of BSE-2E hazard-level ground motions.
Figure E.25  Beam end plastic rotation envelope status of Model 1d* under ground motion number 5 of BSE-2E hazard-level ground motions.

Figure E.26  Beam end plastic rotation envelope status of Model 1d* under ground motion number 6 of BSE-2E hazard-level ground motions.
Figure E.27  Beam end plastic rotation envelope status of Model 1d* under ground motion number 7 of BSE-2E hazard-level ground motions.

Figure E.28  Beam end plastic rotation envelope status of Model 1d* under ground motion number 8 of BSE-2E hazard-level ground motions.
Figure E.29  Beam end plastic rotation envelope status of Model 1d* under ground motion number 9 of BSE-2E hazard level ground motion.

Figure E.30  Beam end plastic rotation envelope status of Model 1d* under ground motion number 10 of BSE-2E hazard-level ground motions.
Figure E.31  Beam end plastic rotation envelope status of Model 1d* under ground motion number 11 of BSE-2E hazard-level ground motions.

Figure E.32  Beam end plastic rotation envelope status of Model 1d* under ground motion number 12 of BSE-2E hazard-level ground motions.
Figure E.33  Beam end plastic rotation envelope status of Model 1d* under ground motion number 13 of BSE-2E hazard-level ground motions.

Figure E.34  Beam end plastic rotation envelope status of Model 1d* under ground motion number 14 of BSE-2E hazard-level ground motions.
Figure E.35  Beam end plastic rotation envelope status of Model 1d* under ground motion number 15 of BSE-2E hazard-level ground motions.

Figure E.36  Beam end plastic rotation envelope status of Model 1d* under ground motion number 16 of BSE-2E hazard-level ground motions.
Figure E.37  Beam end plastic rotation envelope status of Model 1d* under ground motion number 17 of BSE-2E hazard-level ground motions.

Figure E.38  Beam end plastic rotation envelope status of Model 1d* under ground motion number 18 of BSE-2E hazard-level ground motions.
Figure E.39  Beam end plastic rotation envelope status of Model 1d* under ground motion number 19 of BSE-2E hazard-level ground motions.

Figure E.40  Beam end plastic rotation envelope status of Model 1d* under ground motion number 20 of BSE-2E hazard-level ground motions.
Figure E.41  Number of column splice failure in each floor level of Model 1d* under ground motion number 1 of BSE-1E hazard-level ground motions.

Figure E.42  Number of column splice failure in each floor level of Model 1d* under ground motion number 2 of BSE-1E hazard-level ground motions.
Figure E.43  Number of column splice failure in each floor level of Model 1d* under ground motion number 3 of BSE-1E hazard-level ground motions.

Figure E.44  Number of column splice failure in each floor level of Model 1d* under ground motion number 4 of BSE-1E hazard-level ground motions.
Figure E.45 Number of column splice failure in each floor level of Model 1d* under ground motion number 5 of BSE-1E hazard-level ground motions.

Figure E.46 Number of column splice failure in each floor level of Model 1d* under ground motion number 6 of BSE-1E hazard-level ground motions.
Figure E.47  Number of column splice failure in each floor level of Model 1d* under ground motion number 7 of BSE-1E hazard-level ground motions.

Figure E.48  Number of column splice failure in each floor level of Model 1d* under ground motion number 8 of BSE-1E hazard-level ground motions.
Figure E.49  Number of column splice failure in each floor level of Model 1d* under ground motion number 9 of BSE-1E hazard-level ground motions.

Figure E.50  Number of column splice failure in each floor level of Model 1d* under ground motion number 10 of BSE-1E hazard-level ground motions.
Figure E.51  Number of column splice failure in each floor level of Model 1d* under ground motion number 11 of BSE-1E hazard-level ground motions.

Figure E.52  Number of column splice failure in each floor level of Model 1d* under ground motion number 12 of BSE-1E hazard-level ground motions.
Figure E.53  Number of column splice failure in each floor level of Model 1d* under ground motion number 13 of BSE-1E hazard-level ground motions.

Figure E.54  Number of column splice failure in each floor level of Model 1d* under ground motion number 14 of BSE-1E hazard-level ground motions.
Figure E.55 Number of column splice failure in each floor level of Model 1d* under ground motion number 15 of BSE-1E hazard-level ground motions.

Figure E.56 Number of column splice failure in each floor level of Model 1d* under ground motion number 16 of BSE-1E hazard-level ground motions.
Figure E.57  Number of column splice failure in each floor level of Model 1d* under ground motion number 17 of BSE-1E hazard-level ground motions.

Figure E.58  Number of column splice failure in each floor level of Model 1d* under ground motion number 18 of BSE-1E hazard-level ground motions.
Figure E.59  Number of column splice failure in each floor level of Model 1d* under ground motion number 19 of BSE-1E hazard-level ground motions.

Figure E.60  Number of column splice failure in each floor level of Model 1d* under ground motion number 20 of BSE-1E hazard-level ground motions.
Figure E.61  Number of column splice failure in each floor level of Model 1d* under ground motion number 1 of BSE-2E hazard-level ground motions.

Figure E.62  Number of column splice failure in each floor level of Model 1d* under ground motion number 2 of BSE-2E hazard-level ground motions.
Figure E.63  Number of column splice failure in each floor level of Model 1d* under ground motion number 3 of BSE-2E hazard-level ground motions.

Figure E.64  Number of column splice failure in each floor level of Model 1d* under ground motion number 4 of BSE-2E hazard-level ground motions.
Figure E.65  Number of column splice failure in each floor level of Model 1d* under ground motion number 5 of BSE-2E hazard-level ground motions.

Figure E.66  Number of column splice failure in each floor level of Model 1d* under ground motion number 6 of BSE-2E hazard-level ground motions.
Figure E.67  Number of column splice failure in each floor level of Model 1d* under ground motion number 7 of BSE-2E hazard-level ground motions.

Figure E.68  Number of column splice failure in each floor level of Model 1d* under ground motion number 8 of BSE-2E hazard-level ground motions.
Figure E.69  Number of column splice failure in each floor level of Model 1d* under ground motion number 9 of BSE-2E hazard-level ground motions.

Figure E.70  Number of column splice failure in each floor level of Model 1d* under ground motion number 10 of BSE-2E hazard-level ground motions.
Figure E.71  Number of column splice failure in each floor level of Model 1d* under ground motion number 11 of BSE-2E hazard-level ground motions.

Figure E.72  Number of column splice failure in each floor level of Model 1d* under ground motion number 12 of BSE-2E hazard-level ground motions.
Figure E.73  Number of column splice failure in each floor level of Model 1d* under ground motion number 13 of BSE-2E hazard-level ground motions.

Figure E.74  Number of column splice failure in each floor level of Model 1d* under ground motion number 14 of BSE-2E hazard-level ground motions.
Figure E.75  Number of column splice failure in each floor level of Model 1d* under ground motion number 15 of BSE-2E hazard-level ground motions.

Figure E.76  Number of column splice failure in each floor level of Model 1d* under ground motion number 16 of BSE-2E hazard-level ground motions.
Figure E.77  Number of column splice failure in each floor level of Model 1d* under ground motion number 17 of BSE-2E hazard-level ground motions.

Figure E.78  Number of column splice failure in each floor level of Model 1d* under ground motion number 18 of BSE-2E hazard-level ground motions.
Figure E.79  Number of column splice failure in each floor level of Model 1d* under ground motion number 19 of BSE-2E hazard-level ground motions.

Figure E.80  Number of column splice failure in each floor level of Model 1d* under ground motion number 20 of BSE-2E hazard-level ground motions.