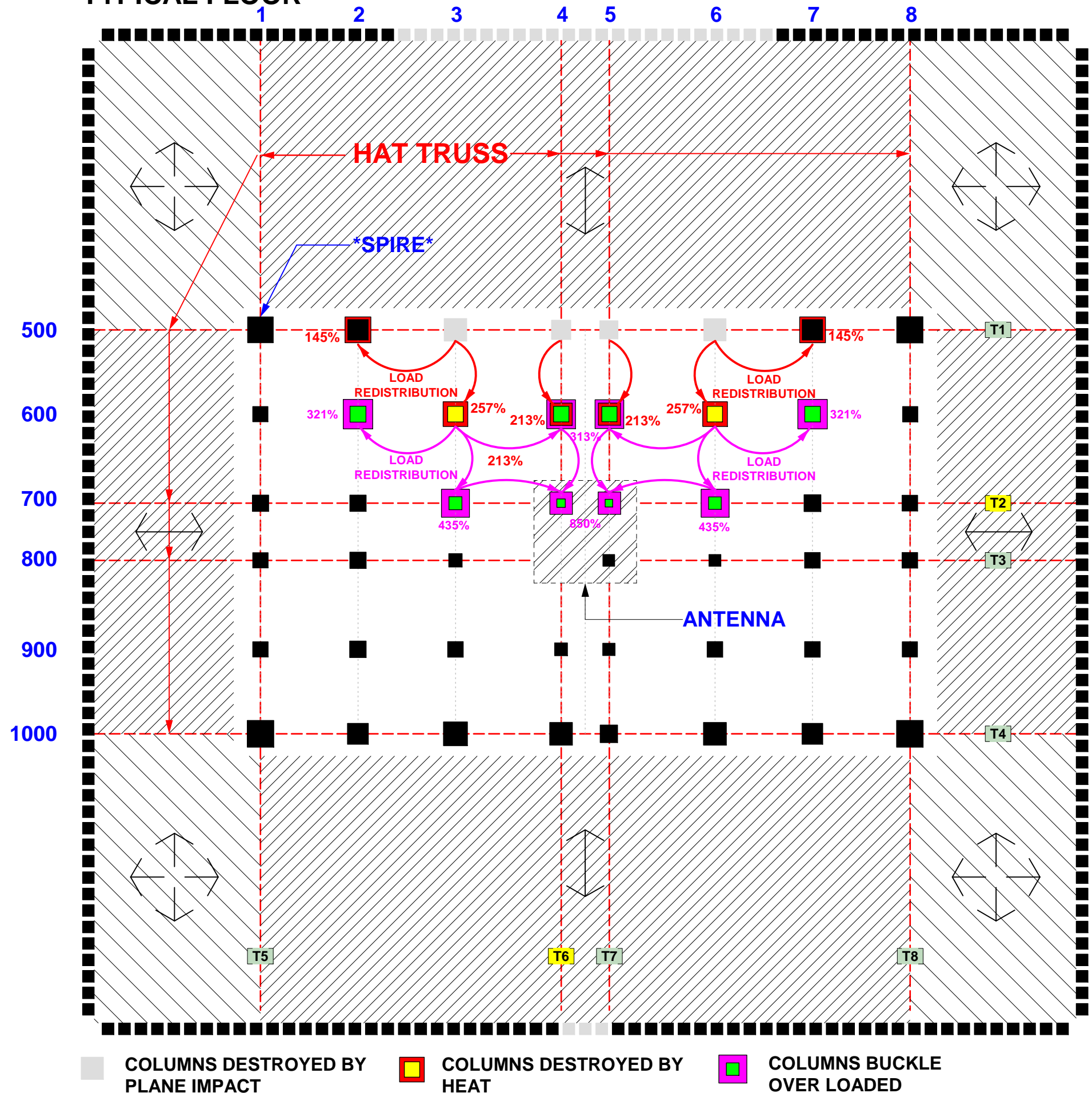


# LOAD REDISTRIBUTION & CORE FAILURE SCENARIO

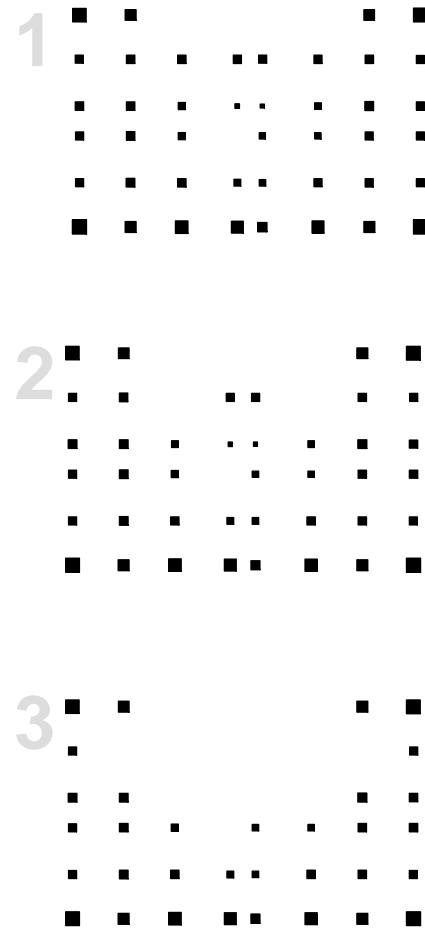
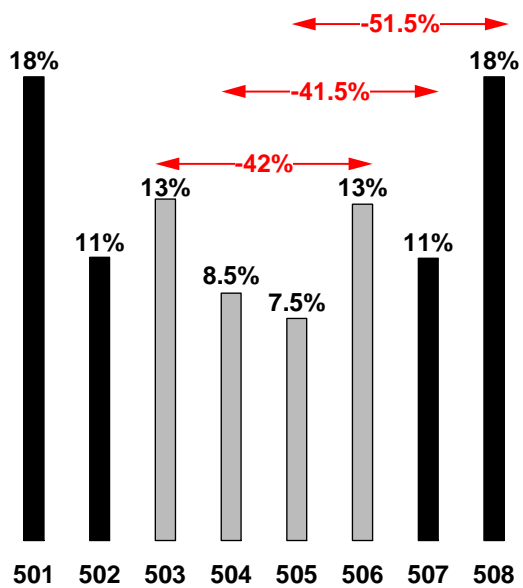
- Plane impact destroys columns 503, 504, 504, & 506.
- Loads from columns 503, 504, 504, & 506 redistributed to Columns 502, 507, 603, & 604, 605, & 606
- Columns 603 & 606 support over 250% yield strength
- Heat weakens and then fails columns 603 & 606
- After columns 603 & 606 buckle loads redistributed to columns 602, 607, 703, 704, 705, & 706
- OOS floors on north side supported by 501, 502, 507 & 508 w/ hat truss T1 supporting columns 503, 504, 504, & 506 on floors above impact zone
- Columns 703, 704, 705, & 706 over loaded and buckle
- Hat trusses T2 & T6 buckles in center under antenna
- Antenna loses support becomes unstable w/ less support west side and falls westward
- Column failures rapidly propagate southward to rows 700, 800 900
- Hat trusses T3 and T7 buckle at center and fail
- All core loads are transferred to remaining hat trusses T1, T4, T5, & T8
- Columns which remain in rows 500 and 1000 are overwhelmed and buckle carrying all floor loads above from hat trusses T1, T4, T5, & T8
- Hat trusses T1, T4, T5, & T8 cause buckling at the impact zone
- Entire upper section descends downward.

# PROPORTIONAL AXIAL STRENGTH OF COLUMNS TYPICAL FLOOR

NOT TO SCALE



PROPORTIONAL AXIAL STRENGTH OF CORE COLUMNS IN ROW 500



PRELIMINARY

Jeffrey Sandor Orling  
architect