

Crashworthy Sign Supports – Acceptable and Unacceptable Designs

Acceptable sign supports:

1. Perforated steel tubes and wood posts as detailed on Standard Drawing S-30.02 (attached).
2. Breakaway coupler-mounted supports as detailed on Central Region's drawing titled "Sign Post Base & Foundation Details" (attached).
3. Slip base-mount supports as detailed on Standard Drawing S-34.00 (attached). Although slip bases are acceptable, they are less desirable than breakaway couplers – they require accurate bolt torquing, periodic torque checks, and are more likely to fail (either by failing to release on impact or by not standing up to wind loading cycles).
4. Any other sign support system that has been tested and approved under NCHRP 230 or NCHRP 350 crashworthiness criteria and is strong enough to stand up to wind and snow loads.

Unacceptable sign supports:

1. Perforated steel tubes (P.S.T.s) located too close to each other (the table on Standard Drawing S-30.02 shows how many P.S.T.s can be located within a 7' path).
2. Supports with knee braces to provide additional resistance to snow impacts from snow plows.
3. Signs suspended from horizontal members by chains.
4. Slip bases that have been retro-fitted with non-standard parts (such as aluminum keeper plates on slip bases that are designed for teflon keeper plates).
5. Any other sign support system that has not been tested and approved under NCHRP 230 or NCHRP 350 crashworthiness criteria.