



PORTABLE SIGN STANDS (MGS-04-02C)

1.0 DESCRIPTION. This specification covers Portable Sign Stands.

2.0 GENERAL. Portable sign stands shall consist of a sign support system capable of displaying a 48-inch by 48-inch, diamond-shaped, roll-up sign at a minimum mounting height of twelve inches, five feet, or seven feet above the ground, as required.

3.0 DESIGN. Portable sign stands shall consist of the following major components: a base assembly, legs, and a vertical mast. Stands shall conform to the weights and dimensions specified below and shall be capable of remaining upright and entirely free standing, exclusive of any ballast, with a sign attached in wind and traffic speeds of 50 and 70 mph, respectively.

SIGN MOUNT. HEIGHT	MAX WT.	MAX. DIMEN. LENGTH (STORED) (Inches)	MAX. DIMEN. BASE (STORED) (Sq. Inches)
12"	25 lbs.	30	64
5'	40 lbs.	72	100
7'	45 lbs.	84	144

3.1 BASE ASSEMBLY. The base assembly shall consist of a fatigue-resistant, wind-relieving mechanism in the form of a steel spring coil or coils mounted to a flanged hub. The wind-relieving mechanism shall be designed to accommodate vertical mast deflections caused by the wind and traffic speeds noted previously while maintaining sign performance. The hub shall accommodate attachment of the legs and shall be designed to provide a minimum of three locking positions for each leg. One of these positions shall be used to facilitate storage of the stand. The other positions shall be located to accommodate deployment of the stand on moderately uneven terrain.

3.2 LEGS. The portable sign stand shall be equipped with four two-piece, telescoping legs attached to the flanges of the base assembly hub. The inner and outer telescopic sections shall be of sufficient cross-section and thickness to withstand conditions normally experienced in the field. The inner telescopic section should fit loosely enough inside the outer telescopic section to extend or retract easily; but, tightly enough to prevent expansion or distortion of the ends of telescopic sections. Each leg shall positively lock into the retracted and extended positions by means of a spring-loaded, push-button mechanism. Each leg shall incorporate a leg-locking pin with a lever-actuated, spring-loaded release device easily operated by foot or gloved hand to deploy and knockdown the stand. As an option on twelve-inch, five-foot and seven-foot mounting height stands, the legs may be constructed as one non-telescoping piece. Each leg shall be equipped with an anti-skid device securely affixed to the end of the inner telescopic section to prevent the stand from "walking" or skidding along the pavement when deployed.

3.3 VERTICAL MAST. The vertical mast shall be securely fastened to the top of the base assembly. The vertical mast shall be fabricated as a single piece with a universal sign holder attached and shall extend no higher than necessary to secure the sign at the desired mounting height. As an option on twelve-inch, five-foot and seven-foot mounting height stands, the vertical mast may be constructed of telescoping sections, similar in design to that specified in Sec 3.2, with a universal sign holder attached and may extend as high as the top of the sign



when deployed at the desired mounting height. In either case, the holder shall provide positive capture of the sign bracing while not damaging it.

4.0 MATERIALS. All portable sign stand components and hardware shall be constructed of aluminum, stainless steel, or steel. All corrosive steel parts shall be coated with a corrosion-resistant coating such as corrosion-resistant paint, powder coating or zinc plating. The portable sign stand shall be assembled using nut and bolt construction so that worn or damaged parts may be replaced using simple hand tools.

5.0 CERTIFICATION. The manufacturer shall provide written certification the portable sign stand model complies with the requirements of NCHRP 350 or MASH, Test Level 3.

6.0 ACCEPTANCE. Acceptance of portable sign stands will be by certification and any tests deemed necessary by the department for compliance with this specification.