



Innovation Showcase

2024 "Outstanding Innovation" Winner

Vertical Work Zone Sign Stand Rack

Submitted By:

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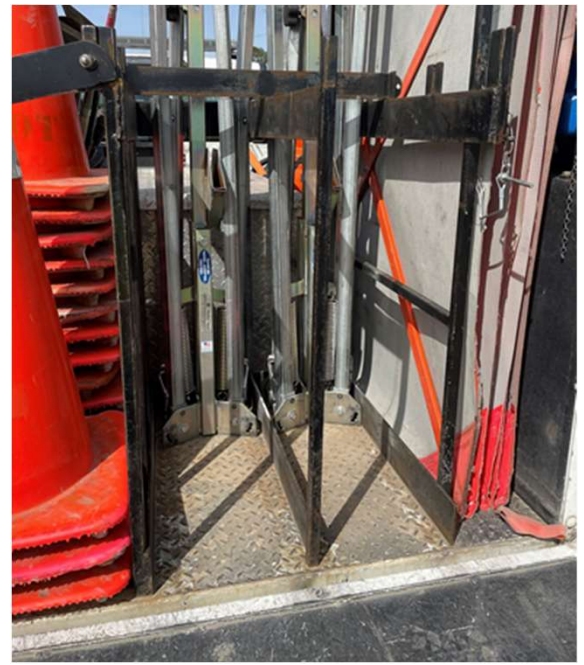
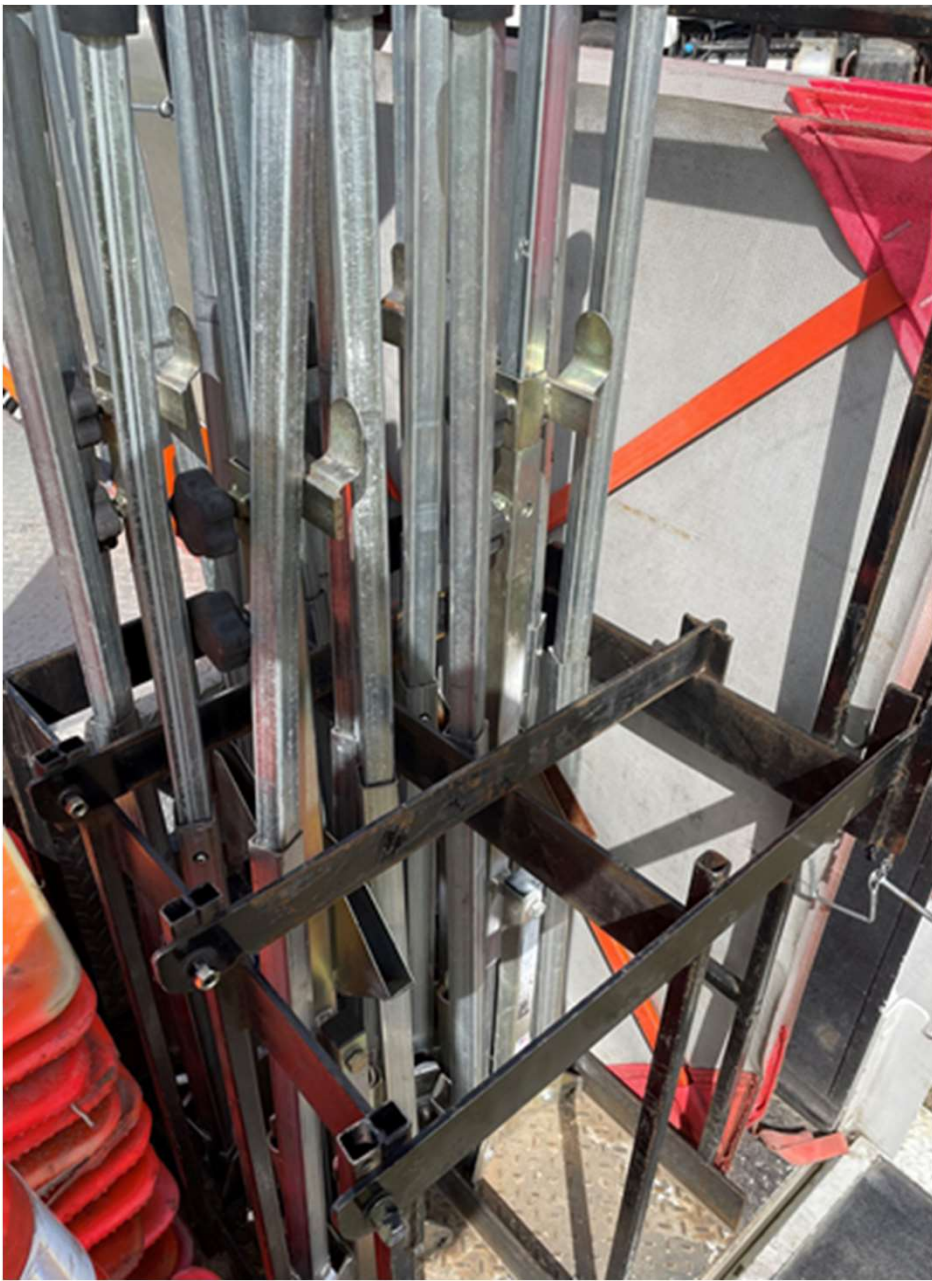
Kennedy Alston

Description:

The Williamsburg crew has designed a sign stand rack that neatly secures work zone sign stands in a vertical position. By using 3/4" tubing and 2" flat bar, the design is simple and effective with a material cost of less than \$40. Sign stands slide into the rack, and there is a drop arm that is hinged at the proper height to secure the stands in place. The compartments are sized to conform to the base of the sign stands which keeps them isolated and free from damage. This rack also eliminates the chance of injury compared to just stacking them horizontally.

**How does this Innovation benefit SCDOT?:**

With the new standard sign stands heavier than the previous stands, back injuries could be more prevalent. With the new vertical sign holder mounted flush with the rear edge of the work truck's bed, loading these stands vertically greatly reduces back strain. When sign stands are stored horizontal, they hang one each other and are forced apart causing damage. This new stand rack greatly reduces damage to the sign stands by storing them upright. Since the installment of the sign rack on our crews work truck, there has been less set up time for the placement of advanced warning sign on the roadways, and more importantly, less hand injuries. Since this innovation has been so successful we have equipped several other trucks with a vertical sign stand rack. We installed the sign stand rack over a year ago on our heavily used labor truck and there hasn't been any damage to a sign post yet. With little modification if any it can be customized to fit any truck.



Drawing(s) and bill of materials will be added when available.