
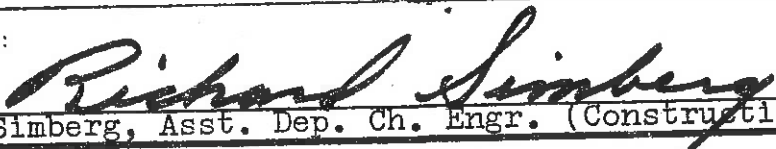


GW file

TO: Director, Preliminary		 <b>ENGINEERING INSTRUCTION</b> NEW YORK STATE DEPARTMENT OF TRANSPORTATION	
PREP Review Bureau PHOTOGRAPHY DIVISION RECEIVED FACILITIES DIVISION <b>JAN 22 1973</b> METROPOL D. GRAHAM		SUBJECT: WARNING SIGNS, BARRICADES AND CHANNELIZING DEVICES FOR HIGHWAY CONSTRUCTION CONTRACTS Subject Code: 7.30	
Distribution:		<input checked="" type="checkbox"/> Main OFFICE <input checked="" type="checkbox"/> Regions <input type="checkbox"/> Special	Code: <u>EI-73-3</u> Date: <u>1/17/73</u> Supersedes: EB-2-36
APPROVED:			
 R. N. Simberg, Asst. Dep. Ch. Engr. (Construction)			

This instruction summarizes the requirements for Warning Signs, Barricades and Channelizing Devices for Highway Construction Contracts to be awarded on or after April 12, 1973; those contracts let between June 22, 1972 and April 12, 1973, which first required the new orange sign color; and those contracts let prior to June 22, 1972, utilizing the old standards. In addition, it describes the inspection procedure necessary to determine the acceptability of color and reflectance for such materials as furnished by the contractor.

I - Contracts let on or after April 12, 1973

A. Materials (To be prescribed by Specification Addendum)

1. Warning Signs shall be constructed as per the applicable contract standard structure sheets.
2. Barricades shall be constructed to conform with the New York State Manual of Uniform Traffic Control Devices except that markings shall consist of alternate reflectorized orange and reflectorized "white" stripes. Orange stripes shall be made from orange reflectorized sheeting or white reflectorized sheeting covered with a clear orange dye. White stripes shall be made from white or silver white reflective sheeting.
3. Channelizing Devices
  - a) drums shall be as described in the New York State Manual of Uniform Traffic Control Devices except that the predominant color of the drum shall be non-reflectorized orange marked with at least two circumferential reflectorized white stripes, 4 to 6 inches wide. White stripes will be made from white or silver white reflective sheeting,
  - b) cones shall be predominantly orange, red-orange or florescent orange in color and be a minimum height of eighteen (18) inches,
  - c) guide markers shall utilize reflective sheeting, or reflective buttons only and shall be as described in the Specifications (page 485).

Subject: WARNING SIGNS, BARRICADES AND CHANNELIZING DEVICES FOR HIGHWAY CONSTRUCTION CONTRACTS

The intent of the above requirements is that all areas requiring reflective characteristics shall be produced by the use of reflective sheeting rather than reflective paint.

#### B. Method of Acceptance

Warning signs, barricades and channelizing devices should be accepted or rejected in the field by visual examination of color properties and night visibility (reflectivity) characteristics.

The samples of reflective sheeting which have been distributed to the Regional Materials Engineer represent normal production output. They do not represent the minimum reflectivity values shown in M71A. Therefore, it is possible to have a sign reflect slightly less light than the standard and still meet the requirements of M71A. If a contractor elects to provide the orange and white reflective striping by overcoating white reflective sheeting with a clear orange dye the reflectivity characteristics shall be judged only on the basis of the white sheeting standard only.

In cases of disagreement by the Contractor, regarding acceptability of materials, samples of material should be sent to the Materials Bureau in Albany.

The color of orange paint or reflective sheeting will be accepted by visual comparison with Highway Orange Color Tolerance Chart, PR Color #6. There are no formal material requirements for the orange paint. Any exterior orange paint is acceptable for this use provided it meets the requirements of PR Color #6 and maintains this color and adheres to the applied surface.

The night visibility or reflectivity characteristics of orange and/or white (or silver-white) reflective sheeting will be accepted by visual night-time comparison with the "standards" for these materials. Sheeting should also be compared in a wet condition to verify acceptable characteristics in rainy weather.

Highway Orange Color Tolerance Charts and "standards" to determine minimum reflectance for orange and white (silver-white) reflective sheetings may be obtained from the Regional Materials Engineer.

Throughout the time of construction, any visual deterioration of either color properties and/or reflectivity characteristics shall be immediately corrected.

## II - Contracts let between June 22, 1972 and April 12, 1973

- A. Materials - the material requirements as described by the contract specifications and standard structure sheets shall apply.

Subject: WARNING SIGNS, BARRICADES AND CHANNELIZING DEVICES FOR HIGHWAY CONSTRUCTION CONTRACTS

- B. Method of Acceptance - acceptance procedure shall be as described in Part I, B. of this instruction. No certification will be required for the orange paint or for the reflective sheeting, however, visual comparison with Color Tolerance Chart and reflective sheeting "standards" must be in conformance.

III- Contracts let prior to June 22, 1972

It is not intended that this instruction be adopted on going contracts which do not include the use of the orange background. Those contracts utilizing the black characters on reflective yellow background should continue to follow their specified materials and acceptance procedure.

RNS:DAD:LG