

SURFACE FINISH

New traffic signal poles, mast arms, transformer bases, and luminaire extensions are galvanized and, if required in the Contract documents, pre-painted, over the galvanization, at the manufacturer.



When delivered to the job site, any protective wrap provided by the manufacturer during shipping must be removed immediately (protective wrap tends to soften paint on painted poles). The collar used to erect the pole must be of such material as to ensure protection of the finish.



Any damage to the finish (galvanized or paint) must be repaired as specified in the Contract documents, to the satisfaction of the Engineer, and in accordance with the Manufacturer's recommendations.

REPAINTING EXISTING SIGNAL SYSTEMS

If it is required to repaint an existing signal system refer to the Contract Documents for painting requirements. Almost all existing traffic signal systems constructed in 1995 and earlier were painted with lead base paint which is now hazardous waste and must be removed and contained using the appropriate methods in accordance with the Contract documents. There are very strict guidelines regarding hazardous material removal, disposal, and transportation in the contract documents that must be followed.

Painting metallic structures and components of a traffic signal system must conform to all the requirements in the Contract documents.

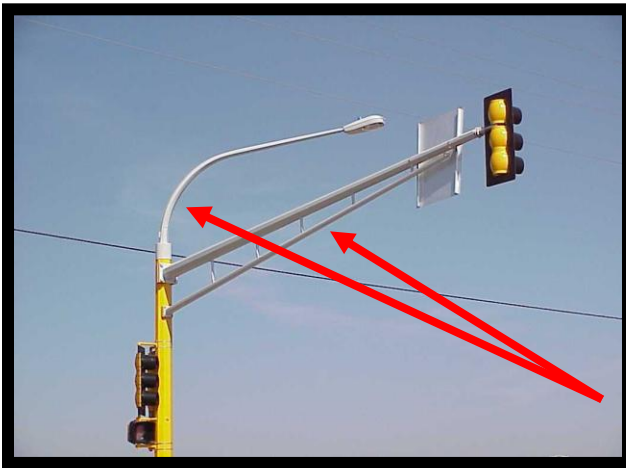
Painting metallic structures must consist of:

- Preparing the surface
- Furnishing and applying the paint
- Protecting and Drying the paint coatings

Pedestrians, vehicles, and property must be protected against damages resulting from the painting operation and all work incidental to the painting operation.

Materials- The paint and other ingredients must conform to the specifications for the type and kind specified in the contract documents. The paint must be pre-mixed, ready to use, and must be delivered to the place of use in the original containers not to exceed 5 gallons in capacity. Inspection, sampling, and testing of paint must be as specified in the Contract documents. Contents of the paint containers must not be altered unless permitted by the Engineer. Surface preparation and painting must not be started until all the materials have been inspected and approved by the inspector.

The finish paint must consist of two field coats. The paint must conform to the following requirements:



Aluminum paint - moisture-cured polyurethane finish coat paint, as specified in the Contract documents, must be applied on traffic signal mast arms, luminaire vertical pole shaft extensions, and luminaire mast arms, and other materials as specified in the Contract.

Yellow - Yellow polyurethane finish coat paint, as specified in the Contract documents, must be applied on vehicle and pedestrian signal indication housings (except polycarbonate), mast arm pole standard vertical pole shafts, traffic signal pedestal shafts, pedestal slipfitter collars, pedestal reinforcing collars (wind collars), all signal bracketing and pipe fittings (except cast aluminum one way mounts), and pedestrian push button stations.



Green - Dark Green polyurethane finish coat paint, as specified in the Contract documents, must be applied on traffic signal pedestal bases and mast arm pole standard transformer bases.





Dull Non-Reflective Black paint must be used on visors, directional louvers, background shields, and vehicle and pedestrian signal indication housing doors (inside and outside).

Polycarbonate signal components do not require painting.

Construction Requirements

Paint application must not start until the Engineer has given permission and weather conditions are favorable.



Paint must not be applied when the ambient air temperature is below 4 degrees Celsius (40 degrees Fahrenheit), when the air is misty or the metal surfaces are damp or frosted and...



...when wind or traffic causes dust, dirt or sand to be carried onto surfaces being painted.

Prior to the application of paint, the surface must be inspected for damage and unsatisfactory areas must be made smooth, and after that, repainted.



Paint must be thoroughly mixed before being removed from the container and kept mixed during the application.

Any paint samples taken must be withdrawn from the contractor's bucket while the paint is being applied, without mixing.



Application of paint must be done in a neat, workman like manner, by brushing, spraying or rolling. Regardless of the method, the resulting painted surface must be smooth and uniform, without skips, drips, or areas of excessive paint.

The previous coat must be dried through. This will usually require at least three days for aluminum paints in good drying weather. Longer drying periods will be required between coats when unfavorable weather conditions prevail.

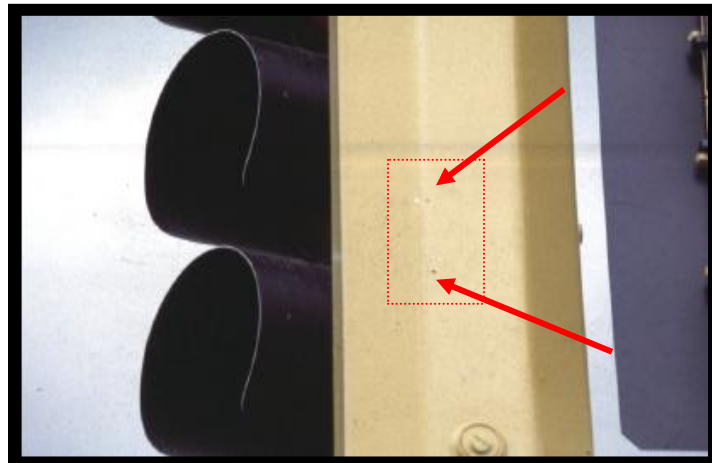


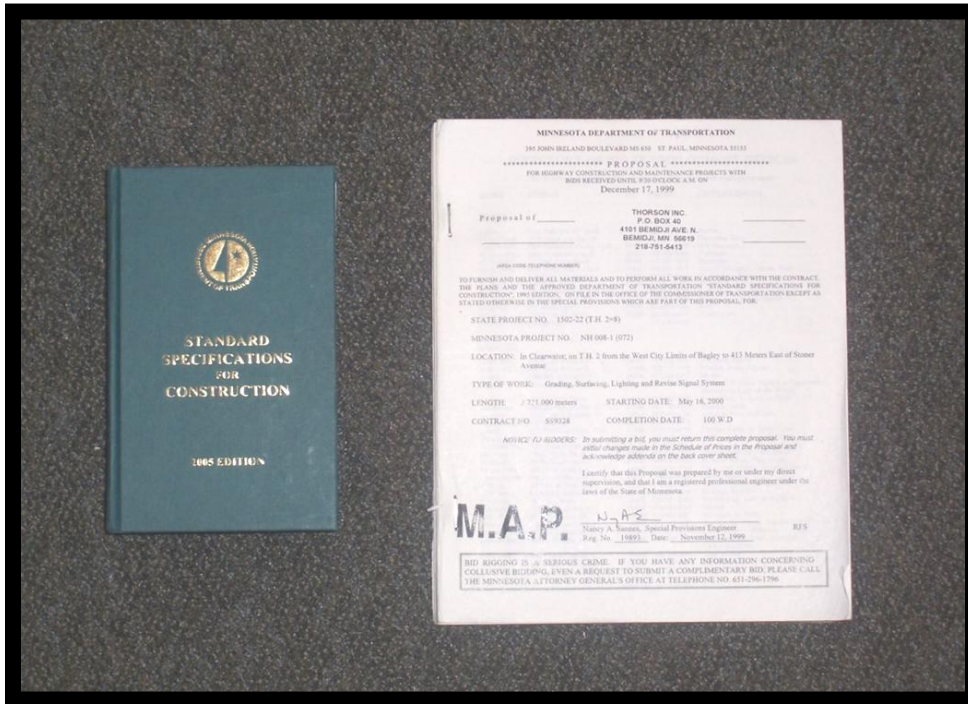
A “dry through” condition check can be easily made by pressing the thumb against the paint film, exerting maximum pressure and simultaneously turning the thumb through an angle of 90 degrees. Examine the painted surface for loosening, detachment, wrinkling or other evidence of distortion, which indicate insufficient drying.



The total dry paint thickness of four coats of paint must be as specified in the Contract. An instrument for measuring paint thickness is available from the Mn/DOT Materials Lab. If a deficiency in the total paint thickness is discovered in any part of the surface and if the deficiency is not severe enough to require the application of additional paint, an equitable reduction in payment will be made. A determination of the reduction percentage must include consideration of the reduced life, as well as, that of paint.

Cleanup - Painting will not be considered complete until the paint coats are in satisfactory condition and all foreign matter has been cleaned from the painted members. If paint spills, drips, or debris blows onto the surface to create an undesirable appearance, it must be removed by an approved method to the satisfaction of the Engineer.





For specific details about painting, finish touchups, finish repair, etc. on your project, refer to the Contract Documents.