

# GENERAL NOTES

LAKE COUNTY  
LAK-90-13.00



## PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS. GENERAL

OVERHEAD SIGN SUPPORTS CAN BE SEPARATED INTO MAJOR SECTIONS SUCH AS END FRAMES, TRUSSES, VERTICAL POLES, AND CANTILEVER ARMS. FOR THE IMPLEMENTATION OF THIS WORK ITEM IT WILL BE BENEFICIAL TO REFER TO THE MAJOR SECTIONS OF THE OVERHEAD SIGN SUPPORTS RATHER THAN THE WHOLE SUPPORT. MORE SPECIFIC INSTRUCTIONS AND FLEXIBILITY CAN BE GIVEN BASED UPON THE UNIT OF MEASURE AND PAYMENT PER MAJOR SUPPORT SECTION.

THE PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS SHALL BE A FOUR PART PROCESS TO INCLUDE SURFACE PREPARATION FOLLOWED BY A THREE STEP COATING SYSTEM. THIS THREE STEP COATING SYSTEM SHALL CONSIST OF AN EPOXY-PRIME COAT, AN EPOXY INTERMEDIATE COAT, AND AN URETHANE TOP COAT, WITH EACH COAT A DIFFERENT COLOR. FOR AN EXPLANATION OF THE MATERIALS TO BE USED SEE NOTE ENTITLED "COATING SYSTEM." THE PURPOSE OF THIS COATING IS TO PROVIDE PROTECTION FOR NEW, UNWEATHERED, GALVANIZED STEEL SUPPORT SECTIONS OR EXISTING, WEATHERED, GALVANIZED SUPPORT SECTIONS FROM CORROSIVE ELEMENTS IN THE ATMOSPHERE. THIS PROCESS WILL BE CONSIDERED REFURBISHING FOR EXISTING GALVANIZED SUPPORT SECTIONS TO RENEW THEIR STRUCTURAL STEEL PROTECTION. THE DIFFERENCE BETWEEN THE COATING OF NEW SUPPORT SECTIONS VERSUS EXISTING SUPPORT SECTIONS IS DETAILED IN THE SURFACE PREPARATION. COATING AND SURFACE PREPARATION OF NEW GALVANIZED SUPPORT SECTIONS SHOULD BE DONE BY THE MANUFACTURER.

ANY OVERHEAD SIGN SUPPORT SECTION THAT IS ALUMINUM DOES NOT REQUIRE A PROTECTIVE COATING PROCESS TO BE IMPLEMENTED. THEREFORE, ON THIS PROJECT ALL OVERHEAD TRUSSES ARE ALUMINUM AND DO NOT REQUIRE A PROTECTIVE COATING PROCESS. THE END FRAMES FOR THE TRUSSES ARE STEEL AND DO REQUIRE THE PROTECTIVE COATING PROCESS. SOME SUPPORT SECTIONS ARE EXISTING AND WILL BE REUSED WHILE OTHERS WILL BE PROVIDED NEW. A SUMMARY LIST IS PROVIDED ON SHEET NO. 91.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO COMPLY WITH POLLUTION LAWS, RULES OR REGULATIONS OF FEDERAL, STATE, OR LOCAL AGENCIES. THE COATING MATERIALS SPECIFIED FOR THE WORK CAN BE HAZARDOUS TO THE HEALTH OF THE APPLICATOR IF NOT APPLIED AS PER THE MANUFACTURERS INSTRUCTIONS. THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS CONTAINED ON THE MATERIAL SAFETY DATA SHEET, PRODUCT DATA SHEET AND THE LABEL ON THE PAINT CONTAINERS. THESE PRECAUTIONS SHALL INCLUDE THE USE OF RESPIRATORS AND EYE AND SKIN PROTECTION AS SPECIFIED. THE CONTRACTOR SHALL ALSO INSURE THAT HIS PAINTING OPERATIONS AND LOCATION WILL NOT ENDANGER OR AFFECT THE PUBLIC IN GENERAL. THE ENGINEER SHALL HAVE THE CONTRACTOR CEASE PAINTING OPERATIONS IF THE WIND OR OTHER CONDITIONS ARE SUCH THAT THE SURROUNDING ENVIRONMENT IS BEING DETRIMENTALLY AFFECTED DUE TO THE WORK.

THE PROPOSED CLEANING AND COATING OPERATIONS SHALL BE PERFORMED ONLY WHEN THE AMBIENT TEMPERATURE IS 50 DEGREES F OR ABOVE. ALL STEEL SURFACES OF TRUSS AND END FRAMES INCLUDING THE WELDED AREAS, BALLAST ENCLOSURE MOUNTING BRACKET AND THE BASE PLATES ARE TO BE CLEANED AND COATED. BEFORE EACH COATING IS APPLIED, IT SHALL BE MIXED WITH AN APPROVED POWER, MECHANICAL MIXER TO A UNIFORM CONSISTENCY WHICH SHALL BE MAINTAINED DURING ITS APPLICATION. EACH COAT SHALL BE APPLIED IN A WORKMANLIKE MANNER AS A CONTINUOUS FILM OF UNIFORM THICKNESS WHICH IS FREE OF HOLIDAYS, PORES, RUNS OR SAGS. ALL COATS SHALL BE APPLIED BY BRUSH. THINNING OF PAINT IS STRICTLY PROHIBITED. PAINT NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COATING SHALL PENETRATE ALL JOINTS AND CONNECTIONS. THE ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO ANY CLEANING OR COATING OPERATIONS SO THAT INSPECTION SERVICES CAN BE PROVIDED.

THE WORK OF COATING THE EXISTING GALVANIZED SUPPORT SECTIONS IS INTENDED TO BE DONE IN THE FIELD AT THE SUPPORT LOCATION WITH THE SUPPORT SECTION IN PLACE. THE NEW GALVANIZED SECTIONS ARE INTENDED TO BE DONE BY THE MANUFACTURER. IN SOME INSTANCES, IF APPROVED BY THE ENGINEER, THE WORK OF COATING EITHER THE EXISTING GALVANIZED SUPPORT SECTIONS OR THE NEW GALVANIZED SECTIONS COULD BE DONE AT THE CONTRACTOR'S MAINTENANCE YARD OR STORAGE AREA. IF THE WORK OF COATING IS PERMITTED AT THE CONTRACTOR'S MAINTENANCE YARD OR STORAGE AREA THE CONTRACTOR SHALL BE RESPONSIBLE FOR HANDLING, LOADING, AND TRANSPORTATION COSTS. ONCE SUPPORT SECTIONS ARE COATED THEY SHALL BE HANDLED AND TRANSPORTED WITH EXTREME CARE SO AS NOT TO SCRAPE, MAR, OR DAMAGE THE COATING IN ANY MANNER. NYLON SLINGS AND PADDED BLOCKS SHALL BE REQUIRED IN HANDLING AND TRANSPORTATION.

SURFACE PREPARATION AND COATING OF THE EXISTING GALVANIZED SUPPORT SECTIONS, ESPECIALLY CANTILEVER ARMS, AT THE FIELD LOCATION WILL REQUIRE PROTECTIVE SHIELDS AND/OR TARPS WHERE INTERFERENCE OR POSSIBLE DAMAGE TO VEHICLES USING THE HIGHWAY MAY OCCUR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THESE PROTECTIVE SHIELDS AND/OR TARPS AND IF NEEDED SHALL IMMEDIATELY INSTALL THEM OR CEASE OPERATIONS.

THE SURFACE PREPARATION AND COATING SHALL BE SCHEDULED TO COINCIDE WITH LANE CLOSURES THAT WILL BE NEEDED FOR OTHER WORK ITEMS ON THIS PROJECT. THIS SHALL BE NECESSARY TO MINIMIZE THE AMOUNT OF TIME THAT LANES NEED TO BE CLOSED DURING THE DURATION OF THE PROJECT. IF OTHER TIMES ARE REQUIRED FOR LANE CLOSURES PRIOR APPROVAL BY THE ENGINEER MUST BE GIVEN. ALL TRAFFIC MAINTENANCE REQUIREMENTS PER THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

THE FOLLOWING SUMMARY OF MAJOR SUPPORT SECTIONS TO HAVE A PROTECTIVE COATING APPLIED IS NOTED BELOW:

SIGN REF. NO.	GALVANIZED SECTIONS	
	VERTICAL POLE	CANTILEVER ARM
129		
140		
145		
146		
152		

## COATING SYSTEM

THE COATING SYSTEM SHALL CONSIST OF AN EPOXY PRIME COAT, AN EPOXY INTERMEDIATE COAT, AND A URETHANE TOP COAT.

THE COATING MATERIALS USED SHALL BE THOSE AS LISTED FROM ONE OF THE FOLLOWING MANUFACTURERS:

- AMERON  
210 NORTH BERRY STREET  
BREA, CALIFORNIA 92621  
LOCAL TELEPHONE CONTACT: (216) 896-3602  
PRIME COAT: AMERCOAT 71 (ALUMINUM COLOR)  
INTERMEDIATE COAT: AMERLOCK 400 (LIGHT GREY)  
TOP COAT: AMERCOAT 450 GL (MEDIUM GREY)
- GLIDDEN COATINGS AND RESINS  
14979 BAGLEY ROAD  
MIDDLEBURG HTS., OHIO 44130  
LOCAL TELEPHONE CONTACT: (216) 845-4646  
PRIME COAT: GLID-GUARD EPOXY CHROMATE METAL PRIMER NO. 5251/5252 (ALUMINUM COLOR)  
INTERMEDIATE COAT: GLID-GUARD EPOXY CHEMICAL (LIGHT GREY) RESISTANT FINISH NO. 5240 SERIES  
TOP COAT: GLID-THANE ONE POLYURETHANE (MEDIUM GREY) COATINGS NO. 8100 SERIES
- INTERNATIONAL PAINT COMPANY  
MORRIS & ELMWOOD AVENUES  
P.O. BOX 386  
UNION, NEW JERSEY 07083  
LOCAL TELEPHONE CONTACT: (216) 562-6709  
PRIME COAT: INTERGUARD EPA 130/131 EPOXY (ALUMINUM COLOR)  
INTERMEDIATE COAT: INTERGUARD TAA SERIES/TAA 42J HS EPOXY (LIGHT GREY)  
TOP COAT: INTERTHANE PC SERIES FINISH (MEDIUM GREY)
- VALSPAR CORPORATION  
901 GREENWOOD AVENUE  
KANKAKEE, ILLINOIS 60901  
LOCAL TELEPHONE CONTACT: (216) 241-0849  
PRIME COAT: ZINC CHROMATE EPOXY PRIMER 13-R-56 (ALUMINUM COLOR)  
INTERMEDIATE COAT: HIGH SOLIDS EPOXY 76 SERIES (LIGHT GREY F-44)  
TOP COAT: VAL-CHEM URETHANE ENAMEL 40 SERIES (MED. GREY)
- POLY-CARB  
33095 BAINBRIDGE ROAD  
P.O. BOX 39278  
SOLON, OHIO 44139  
LOCAL TELEPHONE CONTACT: (216) 248-1223  
PRIME COAT: MARK-60 (ULTRAPOX) (ALUMINUM COLOR)  
INTERMEDIATE COAT: MARK-60 (ULTRAPOX) (LIGHT GREY)  
TOP COAT: MARK-73 (ULTRA-KOTE) (MEDIUM GREY)

ALL THREE COATS OF THE SYSTEM SHALL BE MANUFACTURED BY THE SAME COMPANY TO INSURE COMPATIBILITY AMONG COATS.

## SURFACE PREPARATION, EXISTING SUPPORT SECTIONS

THE EXISTING, WEATHERED GALVANIZED SUPPORT SECTIONS SHALL BE CLEANED AND FREE OF MOISTURE OR FROST. TEMPERATURE AND HUMIDITY SHALL BE AT LEVELS TO CAUSE A CLEARLY DEFINED THIN FILM OF WATER PLACED WITH A DAMP CLOTH UPON THE SURFACE TO BE COATED TO EVAPORATE WITHIN 15 MINUTES, OR THE RELATIVE HUMIDITY SHALL BE LESS THAN 85 PERCENT.

AREAS OF RUST, SCALE OR FLAKING MATERIAL ON THE EXISTING SUPPORT SECTIONS SHALL BE CLEANED BY SAND BLASTING. AS NOTED PREVIOUSLY, PROTECTIVE SHIELDS AND/OR TARPS WILL BE REQUIRED WHERE INTERFERENCE OR POSSIBLE DAMAGE TO VEHICLES USING THE HIGHWAY MAY OCCUR. AREAS WHERE THE EXISTING GALVANIZATION IS IN RELATIVELY GOOD SHAPE, SANDBLASTING SHALL NOT BE DONE. THE INTENT IS TO SALVAGE AS MUCH OF THE EXISTING GALVANIZING PROTECTION ON THE SUPPORT SECTIONS AS POSSIBLE. THE DEGREE OF RUSTING ON THE EXISTING SUPPORT SECTIONS VARIES WITH THE MAJORITY HAVING 30-50% OF ITS SURFACE AREA RUSTED. MUCH OF THE RUST IS CONCENTRATED ON THE SIDE FACING THE WIND DIRECTION OR FLOW OF TRAFFIC.