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Pavement Markings
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Last Update: [September 8, 2020](#)

A. General

1. Summary:
 - a. Apply new painted pavement markings.
2. Performance/Design Criteria:
 - a. Glass Beads: Conforming with requirements of ASHTO M247.
 - b. Colors:
 - 1) White: General pavement marking, pedestrian crossings, accessible aisles hatching, parking exclusion areas, parking lot lines, and direction symbols.
 - 2) Traffic Yellow: No-passing lines.
 - c. Stencils: Utilize stencils for standard legends: turn arrows, lettering,

B. Quality Assurance

1. Applicator Qualifications: Applicator with a minimum of 3 years documented experience performing work of a similar scope and quantity.
2. Minimum Conditions: Do not apply paint if temperatures are expected to fall below 50 deg. F within 24 hours after application.
3. Thermoplastic Compound: Do not apply unless pavement surface temperature is minimum 40 deg. F and rising.
4. Maximum VOCs: Do not exceed limit required by State or Environmental Protection Agency.

C. Products:

1. Performance and Design Criteria:
 - a. Paint Adhesion: Adhere to road surface, forming smooth continuous film one minute after application.
 - b. Paint Drying: Tack free by touch as not to transfer by vehicle tires within two minutes after application.
2. Paint:
 - a. Description: Ready mixed, conventional, fast-dry, waterborne traffic paints.
 - b. Lead-free and nontoxic.
 - c. Minimum Retro-reflectance: 100 mcd.



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- d. Durability Rating: 6 or more, after in place for nine months.
 - e. Properties:
 - 1) Pigment Percent by Weight: 60, plus or minus 2.
 - 2) Vehicle Percent by Weight: 40, plus or minus 2.
 - 3) Nonvolatile Percent by Weight of Paint: 76.0.
 - 4) Minimum Density: 13.0 lb./gal.
 - 5) Viscosity: 80-95 Krebs Units at 77 deg. F.
 - f. Maximum Dry-Through Time:
 - 1) 125 minutes.
 - 2) Wet Film Thickness: 15 mils at 90 percent relative humidity and 72 deg. F.
 - 3) Comply with ASTM D1640/D1640M.
 - 4) Maximum VOC Content: (120 g/L).
3. Glass Beads:
- a. Comply with AASHTO M247, Type 1.
 - b. Coating: Enhance embedment and adherence with paint.
- D. Preparation:
- 1. Maintenance and Protection of Traffic:
 - a. Provide short-term traffic control.
 - b. Prevent interference with marking operations and prevent traffic on newly applied markings before dry.
 - c. Maintain weekday travel lanes between 7:00 AM and 5:00 PM, unless otherwise directed by the Owner.
 - d. Maintain access to existing buildings and other properties requiring access, except as permitted by the Owner.
 - 2. Surface Preparation.
 - a. Clean and dry paved surfaces prior to painting.
 - b. Blow or sweep surface free of dirt, debris, oil, grease, or gasoline.
 - c. For new markings, spot location of final pavement markings by applying pavement spots 25 feet o.c.
 - d. Request inspection by Architect/Engineer after placing pavement spots and minimum three days prior to applying traffic lines.



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E. Demolition:

- a. Where required, remove existing markings in an acceptable manner, using methods that will cause least damage to pavement structure or surface.
- b. Where permitted by the Owner, remove existing pavement markings by painting over with black paint.
- c. Repair pavement or surface damage caused by removal methods.
- d. Clean and repair existing, remaining, or reinstalled lines and legends.

2. Painting:

- a. Apply paint pneumatically, using guidelines and templates as necessary to control application.
- b. Manually paint numbers, letters, and symbols.
- c. Prevent splattering and overspray when applying markings.
- d. Paint Guns: Simultaneously apply paint binder and glass beads at uniform specified rates.
- e. Dispense at ambient temperature.

3. Reflective Media:

- a. Immediately follow paint application.
- b. Bead Guns:
 - 1) Dispense glass beads simultaneously at specified rate.
 - 2) Check guns by dispensing glass beads into gallon container for predetermined fixed period of time.
 - 3) Verify weight of glass beads.

4. Crosswalks, Intersections, Stop Lines, Legends:

- a. Use walk-behind stripers, hand spray, or stencil trucks.
- b. Do not use hand brushes or rollers.
- c. Apply glass beads at a uniform rate to create a slip-resistant surface texture.

F. Schedule:

1. Pavement Markings:

- a. Edge: 4-inch; white; fast-dry.
- b. Stop Line: 24-inch; white; fast-dry, glass beads.
- c. Cross walks: 12-inch, fast-dry, glass beads.



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- d. Center: 4-inch; yellow; fast-dry.
- e. Legends: Width indicated, white, fast dry, glass beads.

END OF SECTION

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