



MEMORANDUM

STATE OF ALASKA

Department of Transportation and Public Facilities
Central Region-Division of Design and Engineering Services
Traffic, Safety, & Utilities Section

To: Design Chiefs and Project Managers

Thru: Jim Amundsen, P.E., Chief
Highway Design Section

Thru: Bob Anderson, P.E., Chief
Maintenance & Operations

From: Scott E. Thomas, P.E.
Central Region Traffic & Safety Engineer

Date: March 22, 2018

Subject: Revised Design Striping
Guide, Central Region Roads

Attached is an updated Central Region Design Striping Guide. Use this table to select minimum marking materials for projects. See the footnotes for exceptions. This will provide durable stripes with presence year-around.

- 250 mils inlaid methymethacrylate (MMA) stripes have lasted as long as the asphalt in several cases. The key is a quality installation on dry pavement. 125 mils minimum.
- Draft federal visibility goals are met through striping reflectivity on continuously illuminated roads. On those roads we can defer annual restriping up to 10 years. On roads that are not illuminated, annual restriping with beads begins after about 2 years.
- Preformed Marking Tapes (PMT) have had several warranty failures in Central Region. There has been rapid wear on curves and in transverse lines and symbols on high volume roads. PMT markings are not accepted as a standard marking on state roads.
- Inlaid preformed symbols are an option in short term and low wear situations, however, inlaid MMA is preferred.

Request alternative striping through your Group Chief. Other materials types can be considered on a demonstration basis. Provide a cost-based analysis when possible. Contact the Regional Traffic and Safety Engineer at 269-0639 with questions.

Attachment: Table 1: Minimum Striping Guide for New Projects,

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Design Striping Guide for New Projects

TABLE 1: Minimum Striping Materials and Application

Pavement	Striping Type	DOT/PPF Paint Spec 16-20 mils			ANY VOLUME; ANY NHS INTERSTATE
		<=1500 AADT per lane	1500 to 3750 AADT per lane	>=6000 AADT per lane	
POOR - END OF LIFE: Existing BST, High Float, Alligatoring or potholing pavements, Leveling Course RUT REPAIR: Overlays, Milling lanes < 7 yr life	ALL	ONE OR TWO THRU LANES, EACH DIRECTION	ONE THRU LANE, EACH DIRECTION	TWO THRU LANES, EACH DIRECTION	THREE THRU LANES, EACH DIRECTION
	Longitudinal Lines between Lanes (Skips, Solids); & Unsignalized Sidestreet Stop Bars Transverse Lines for All Way Stops, Signalized Crosswalks, Symbols, Letters Transverse lines and Symbols - Unsignalized School Zones, Railroad Crossbucks Roundabouts (functional areas)	DOT/PPF Paint Spec 16-20 mils (except NHS, Divided Hwy, center turn lanes...see Note 6) DOT/PPF Paint Spec 16-20 mils Grooved-In MMA 125 mils Grooved-In MMA 125 mils Grooved-In MMA 125 mils Grooved-In MMA 500 mils	DOT/PPF Paint Spec 16-20 mils Grooved-In MMA 125 mils Grooved-In MMA 125 mils Grooved-In MMA 250 mils Grooved-In MMA 500 mils	DOT/PPF Paint Spec 16-20 mils Surface MMA 60 mils Grooved-In MMA 125 mils Grooved-In MMA 125 mils Grooved-In MMA 250 mils Grooved-In MMA 500 mils	Surface MMA 60 mils Grooved in MMA 250 mils Grooved-In MMA 250 mils Grooved-In MMA 250 mils Grooved-In MMA 500 mils

NOTES:

- Having no markings is unacceptable. Visible, durable markings are the primary goal of this matrix. Skid resistance, reflectivity are the next goal after durability.
- Group Chief approval is required for any NHS route not receiving milled in MMA and exceptions to other installations.
- AADT per lane is existing traffic levels. Annual traffic growth and seasonal traffic rates may be considered.
- 5 year Design Life assumed for all New Projects. For < 5 years, paint may be used in all cases.
- For existing pavement life < 2 yrs, use DOT/PPF Spec for Paint markings only.
- Use Inlaid MMA marking material for permanent pavements on all Divided Highways (Expressway, Freeway), all NHS Routes, and all roads with center two-way-left-turn-only (TWLTO) lanes.
- All failing surfaces with a pavement surface rating (PSR) < 2.5; or < 2 yrs of expected life should be treated with Paint only.
- Through lanes does not count center two-way-left-turn-only TWLTO lanes
- Permanent striping beyond paint quality is required to be applied no later than August 30th each season.
- MMA = Methylmethacrylate in spray or extruded applications.
- Transverse markings in gores do not require grooving in low wear areas. Demonstrated high wear areas should be considered for grooved in.
- Transverse diagonal markings are not required on freeway gores. They may be used when additional guidance is needed in complex geometric areas.
- For Low Volume Rural Arterials and Rural Collectors < 1,500 vpdpi, longitudinal markings are optional with the approval of the Chief of Maintenance and Operations