

 <p style="text-align: center;"><b>STATE OF ALASKA</b> DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p style="text-align: center;"><b>Policy and Procedure</b></p>	POLICY AND PROCEDURE NUMBER <b>05.05.050</b>	PAGE 1 of 3
	EFFECTIVE DATE May 30, 2013	
SUBJECT <b>Divided Highway Corridor</b>		SUPERSEDES <b>New</b>
CHAPTER <b>Design and Construction</b>	SECTION <b>Highways</b>	APPROVED BY <b>Signature on file</b>

## PURPOSE

This formalizes the policy and procedure (P&P) of the department to provide safer transportation, preserve mobility, and develop additional roadway capacity by planning, designing, constructing, and maintaining multilane median separated highways.

## POLICY

It is the policy of the department to manage access for the Alaska State Highway and National Highway Systems (highways) in Alaska for the purpose of improving roadway efficiency and providing safer transportation of Alaska's people, goods, and delivery of state services. Highways with design speeds of 45 mph or higher and with forecast average daily traffic of 20,000 vehicles per day or greater will be planned, designed, and constructed with non-traversable medians to provide positive separation between opposite direction traffic.

## PROCEDURE

### Definitions

*Full Median Openings:* Median breaks with intersections that allow all movements. Full median openings are typically at locations that are signalized, or that may become signalized when warranted.

*Directional Median Openings:* Median breaks that allow specific movements only, such as left turns to exit the main highway and public use U-turns.

*Non-Traversable Medians:* A physical barrier in a roadway or driveway that separates vehicular traffic traveling in opposite directions. Non-traversable medians include physical barriers (such as a concrete barrier, raised concrete curb and/or island, and grass or swale median) that prohibit normal movement of traffic across the median.

## **Purpose and Need, and Alternatives in Support of Environmental Document**

For highway projects that meet or exceed the Design Designation Criteria listed below, develop the project's purpose and need to meet the objectives of Alaska's Strategic Traffic (Highway) Safety Plan by preserving main roads and building multilane divided highways with non-traversable medians. Alternatives developed and forwarded for support of the Environmental Document (excluding the 'no-build' alternative) shall meet the purpose and need, and include raised medians, depressed medians, or median barrier with median opening spacing as provided herein. These alternatives shall be designed to achieve the safety results cited above. Design, construct, and maintain applicable highway projects to provide median separation with non-traversable medians and median openings located and designed as described below.

### **Design Designation Criteria**

- Functional Classification – Arterial (Principal or Minor),
- Design Life of 10 Years or Greater,
- New Construction – Reconstruction, or Rehabilitation (3R),
- Design Year ADT  $\geq$  20,000 Vehicles Per Day, and
- Design Year Design Speed  $\geq$  45 mph

### **Median Openings**

Provide full median openings no closer than one-half mile intervals in rural arterial locations, and no closer than one-quarter mile in urban arterial locations. Provide directional median openings at locations consistent with guidance provided in the Alaska Highway Preconstruction Manual, its AASHTO manuals incorporated by reference, and with the Transportation Research Board Access Management Manual from the Committee on Access Management.

Additional emergency vehicle median openings may be provided where necessary if they are located where they will discourage normal traffic use, posted with regulatory signs prohibiting use, and include plaques exempting emergency vehicles.

### **Unusual Project Conditions**

If unusual project conditions are present (extraordinary Right-of-Way acquisition costs, environmental impacts, or utility relocation costs), a design waiver for median breaks may be developed according to the procedures in Chapter 11 of the Alaska Highway

Preconstruction Manual. The waiver must be approved by both the Regional Preconstruction Engineer and the Chief Engineer, and must be fully documented in the Design Study Report (DSR). The DSR must fully describe the extraordinary costs or impacts and provide sufficient analysis, including a cost benefit analysis, to identify the comparison to loss of traffic/pedestrian safety and loss of highway corridor mobility.

**ADDITIONAL INFORMATION:**

[http://ops.fhwa.dot.gov/access\\_mgmt/docs/benefits\\_am\\_trifold.htm](http://ops.fhwa.dot.gov/access_mgmt/docs/benefits_am_trifold.htm)

Highway research has concluded that non-traversable medians reduce crashes by over 40 percent in urban areas and over 60 percent in rural areas. Non-traversable medians also provide protection for pedestrians. A study of median treatments found that raised medians reduce pedestrian-involved crashes by 45 percent and fatalities by 78 percent, in comparison to two-way left-turn lanes.

Alaska's urban arterials with speeds at or above 45 mph and traffic at or above 20,000 vehicles per day have demonstrated high concentrations of angle crashes. Alaska's rural arterials with similar volumes have high head-on collisions crash rates. These urban and rural crashes can both be reduced with non-traversable medians.

**AUTHORITY**

AS 19.05.010  
AS 19.05.040(5)

**IMPLEMENTATION RESPONSIBILITY**

Regional directors

**DISTRIBUTION**

All department employees via the DOT&PF website