MULTI-LANE PLOWING, WING PLOWING, TOW PLOWING, TANDEM OPERATIONS

Andy Moran, MDOT, Lead Worker, Williamston

Matt Schluckebier, MDOT, Lead Worker, Saginaw East

Steve Wessels, Managing Director, Mason County







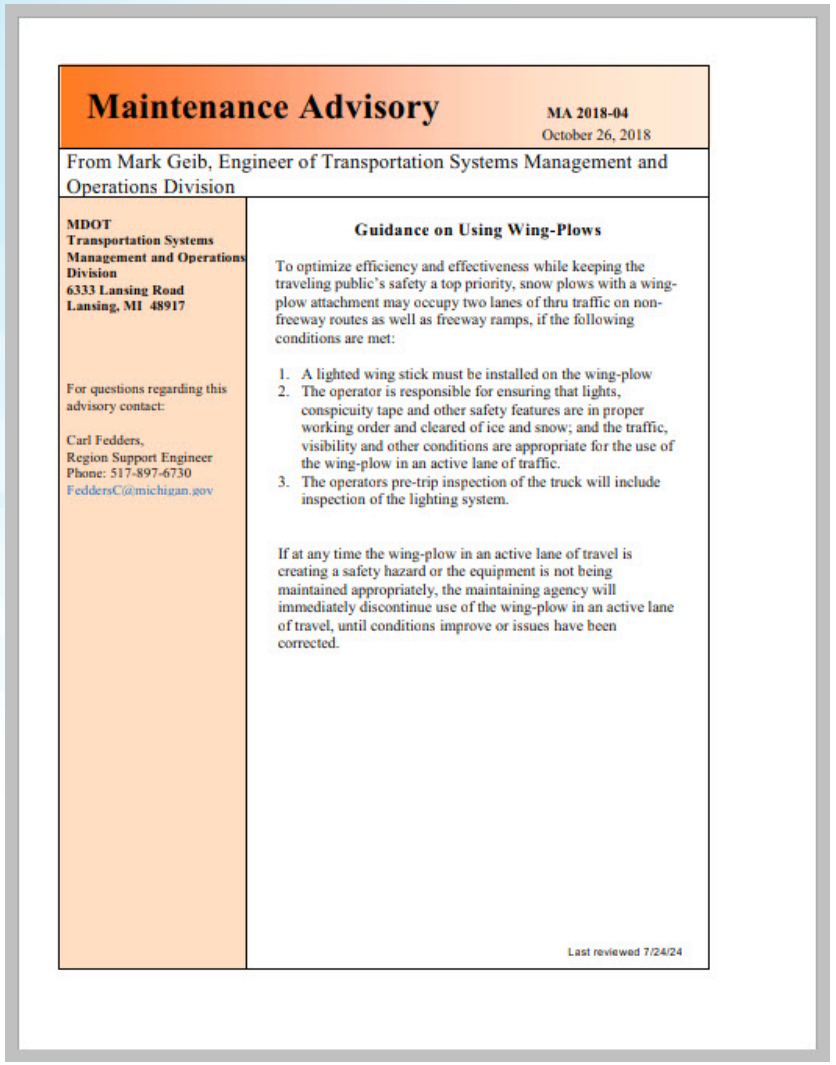
Wing Plowing

Best Practices, Agency Policies, Operator Experiences

Andy Moran, MDOT

MDOT
Michigan Department of Transportation

Wing Plowing



Maintenance Advisory

MA 2018-04
October 26, 2018

From Mark Geib, Engineer of Transportation Systems Management and Operations Division

MDOT
Transportation Systems Management and Operations Division
6333 Lansing Road
Lansing, MI 48917

For questions regarding this advisory contact:

Carl Fedders,
Region Support Engineer
Phone: 517-897-6730
FeddersC@michigan.gov

Guidance on Using Wing-Plows

To optimize efficiency and effectiveness while keeping the traveling public's safety a top priority, snow plows with a wing-plow attachment may occupy two lanes of thru traffic on non-freeway routes as well as freeway ramps, if the following conditions are met:

1. A lighted wing stick must be installed on the wing-plow
2. The operator is responsible for ensuring that lights, conspicuity tape and other safety features are in proper working order and cleared of ice and snow; and the traffic, visibility and other conditions are appropriate for the use of the wing-plow in an active lane of traffic.
3. The operators pre-trip inspection of the truck will include inspection of the lighting system.

If at any time the wing-plow in an active lane of travel is creating a safety hazard or the equipment is not being maintained appropriately, the maintaining agency will immediately discontinue use of the wing-plow in an active lane of travel, until conditions improve or issues have been corrected.

Last reviewed 7/24/24

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Wing Plowing

Maintenance Advisory

MA 2009-01

January 7, 2009

From Jon W. Reincke, Engineer of Operations

MDOT
TSMO Division
6333 Old Lansing Road
Lansing, MI 48917

For questions regarding this advisory, contact:

Justin Droste
Engineer Manager
Region Support
Phone/517-636-0518
Drostej@michigan.gov

Carl Fedders Roadway
Operations Engineer
Phone/517-897-6730
feddersc@michigan.gov



Updated 10/2024

White Shoulder Policy

The White Shoulder policy provides direction for good snow removal operations on shoulders during winter storms. Leaving shoulders with two inches of snow or less (i.e. leaving the shoulder "white") after a storm is prescribed. This practice is based on the function of a shoulder, which is to allow a recovery area for errant vehicles and emergency parking. In addition, the shoulder is designed to allow surface water from the road to flow evenly into the ditch.

During winter operations, shoulders on all routes with more than two inches of snow should be cleared even if overtime is required. To avoid damaging the shoulders while clearing snow, the following procedures shall be used:

During any winter event apply only enough blade or plow pressure so that the plowed shoulder behind the blade or plow will remain lightly snow-covered (two inches or less) or "white" rather than exposing a bare shoulder surface. Wing plows shall not be used on gravel shoulders.

Blading or plowing a shoulder with a fully loaded truck can cause damage to the shoulder, especially during snowfalls in the early fall and late spring when shoulders may be soft. When clearing gravel shoulders, underbody blades, front plows and wing plows with excess pressure, as well as high-speed plowing, can throw shoulder material into ditch areas from which it cannot be removed. Shoulder blading or plowing can destroy and displace material creating a secondary ditch. Water may then flow along this secondary ditch to a weak spot and cause erosion and possibly washouts in the spring of the year.

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Wing Plowing

Wing Configurations

- Right Wing (most useful in all situations)
  - 2-5 lane Roadways, Freeways, Ramp Lanes, Divided Arterial Roads
- Dual Wing (higher utility in specific situations)
  - Freeways, Ramp Lanes, Divided Arterial Roads,
- Left Wing (more situationally limited)
  - Inside lanes and shoulders of Freeways and Divided Arterial Roads, Tandem Operations, or Tow Plow Equipped Trucks



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Wing Plowing

Wing Configurations

- 7 Foot : 13' Clearing path
- 9 Foot: Single Wing 15' clearing path, Dual= 20' clearing path
- 12 Foot: 16' clearing path, Dual= 23' clearing path
- Magna Wing 22: 25' clearing path



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Wing Plowing

Hazards of Wing Plowing

Obstructions

- Non-paved surfaces
- Curbs
- Spillways
- Uneven Pavement
- Guardrail
- Bridge Piers
- Raised Manholes
- Utility Poles/ Signs/ Mailboxes
- Railroad Crossings
- Erratic Motorists/ Stranded Vehicles/ Pedestrians
- ***Almost Anything***



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Tow Plowing

Best Practice, Agency Policies, Operator Experiences

Matt Schluckebier, MDOT

MDOT
Michigan Department of Transportation



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Michigan Department of Transportation

Tandem Plowing Operations

Best Practices, Agency Policies, Operator Experiences

Steve Wessels, Mason County

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