

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To: Counties	Date: May 12, 2014
From: Office of Local Systems	I.M. No. 2.110
Subject: Maintenance of Secondary Roads at Intersections, Interchanges, and Grade Separations with the Primary Highway System	

Contents: The purpose of this I.M. is to establish the guidelines for performing maintenance of secondary road intersections, interchanges and grade separations with the primary road system. This I.M. also includes the following attachments:

[Attachment A](#) – Iowa DOT PPM 630.01, Rural Intersection and Destination Lighting

[Attachment B](#) – Iowa DOT PPM 630.03, Interchange and Freeway Lighting

NOTE: Any changes to this I.M. must be a joint effort among the Iowa DOT’s Office of Maintenance, Office of Local Systems and the Iowa County Engineers Association (ICEA). If there is a unique situation that this I.M. doesn’t address, counties should work with the appropriate Iowa DOT District Maintenance Manager to address the situation. Also, any individual maintenance agreement or project agreement between the Iowa DOT and respective county shall supersede this I.M.

Definitions:

Bridge approach guardrail - When used in this text shall include approach guardrail end, the approach guardrail, and the transition between the guardrail and the bridge rail including the connection.

Bridge approach section - A pavement slab adjacent to the bridge, which may or may not be supported on a notch in the abutment back wall.

Department - When used in this document shall refer to the Iowa Department of Transportation.

Destination lighting - Lighting of an intersection for the purpose of providing a means for the driver of a vehicle to visually locate the intersection with minimum distraction to through traffic. A destination lighting installation consists of a single luminaire per intersection.

Freeway - A divided primary highway for through traffic with full access control and grade separations at minor crossroads and interchanges with major crossroads.

Intersection - A physical connection or separation between a primary road and a secondary road.

Intersection lighting - Lighting of an intersection for the purpose of facilitating traffic movements and enhancing safety by improving the visibility of roadway features and objects on or near the roadway. The number of luminaries in this type of lighting will vary depending on the intersection configuration and the required lighting level.

Interchange - A system of interconnecting roadways with one or more grade separations allowing traffic movement between two or more roadways on different levels.

Non-freeway - A primary highway having at-grade intersections.

Primary road - As used in this I.M. shall be as defined by Iowa Code [Chapter 306](#). As per Iowa Code section [306.3\(4\)](#), Interstate highways are part of the primary road system.

Primary road shoulder - Unless otherwise identified by project plans, the shoulder width of the primary road shall be assumed to be normally 10 feet in width through a secondary road intersection.

Secondary road - As used in this I.M. shall be as defined by Iowa Code [Chapter 306](#).

Introduction

The distribution of maintenance responsibilities between the Department and the counties at intersections and interchanges between the primary and secondary road systems has a long history. These responsibilities were first documented around the time the Interstate System was originally constructed. Many of these responsibilities were a product of discussions between counties, cities and the Department as to which roads would have interchanges or overpasses constructed, and which roads would become a dead end at the Interstate. At that time, it was agreed that counties would have on-going maintenance responsibilities for secondary roads that went over or under the Interstate, except for the grade separation structures. Over time, the Department and the counties have negotiated additional provisions which clarified and expanded upon this original principle. This I.M. reflects the current status of the Department and counties' agreement concerning their respective maintenance responsibilities.

I. Secondary/primary road at-grade intersections:

A. *The county shall be responsible for:*

- 1) Placement and maintenance along the secondary road of:
 - a. Advance warning signs, when required by the MUTCD.
 - b. Rumble strips for stop conditions, defined by county policy.
 - c. Road address and 911 signing.
- 2) Pavement markings on the secondary road except stop lines, stop sign island painting and median island painting (raised, non-raised, small and large medians are all included).
- 3) At paved secondary road intersections, the surface maintenance of the paved secondary road from the edge of the primary road pavement. (See Section I.B.2 in this I.M.) The shoulder area through the intersection shall be a joint responsibility. If the county is performing maintenance in the area, they should clear the road of any rock and pull the shoulder up to the edge of pavement, and the Department shall do the same.

Where there is a right turn lane on the primary roadway, the turn lane shall be the responsibility of the Department. (See Figures 1 and 3 in this I.M.).

- 4) At granular secondary road intersections, shoulder maintenance through the intersection is a joint responsibility. If the county is blading the secondary road, they should blade up to the point of the primary road fillet. If the Department is performing shoulder maintenance, they should blade the shoulder through the secondary road intersection. (See section I.B.3 in this I.M.) (See Figures 2 and 4 in this I.M.). The Department, when performing construction or resurfacing on the primary system, shall discuss with the county the potential for an additional 50 feet (or as agreed upon by the county and DOT) of paving along the secondary road at each granular secondary road intersection with the primary highway. The county shall be responsible for the initial cost and ongoing maintenance of the additional paving beyond the standard fillet. For the purposes of this I.M., the standard fillet is considered to be the paved shoulder width, or 6 feet from the edge of the through lane if the shoulder is not paved. See Road Design Detail [7149](#).
- 5) Snow removal on the secondary road up to the edge of the primary road pavement, including any windrow created by secondary road maintenance.

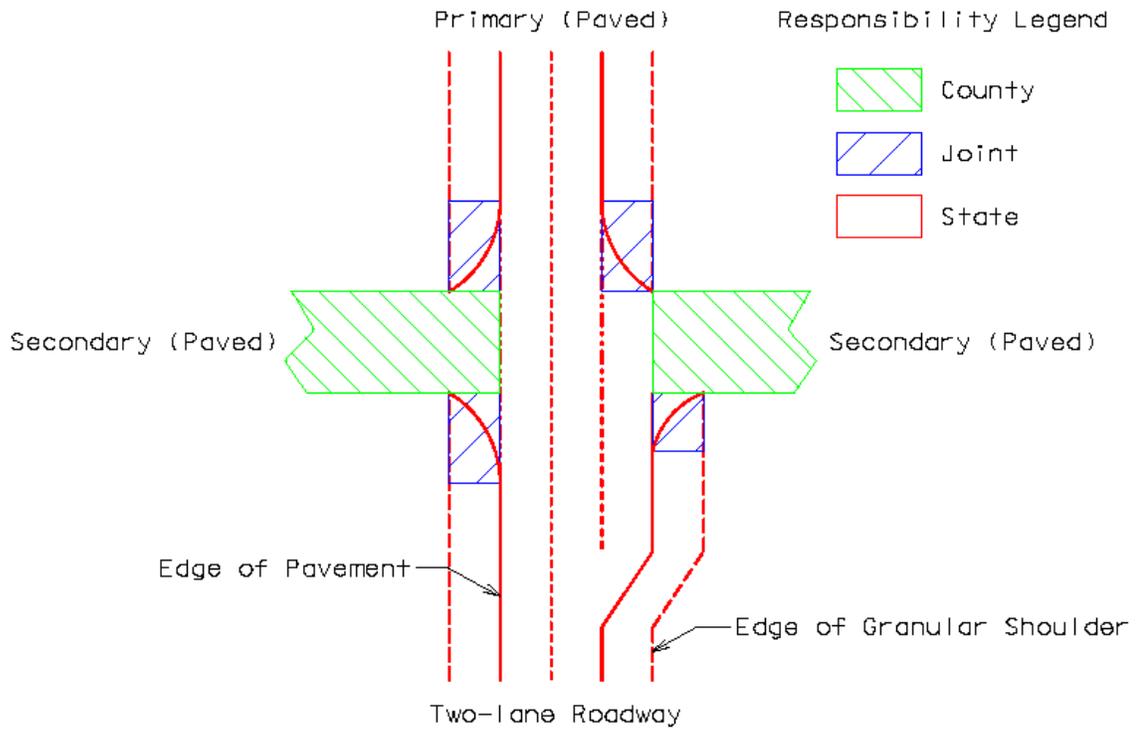


Figure 1

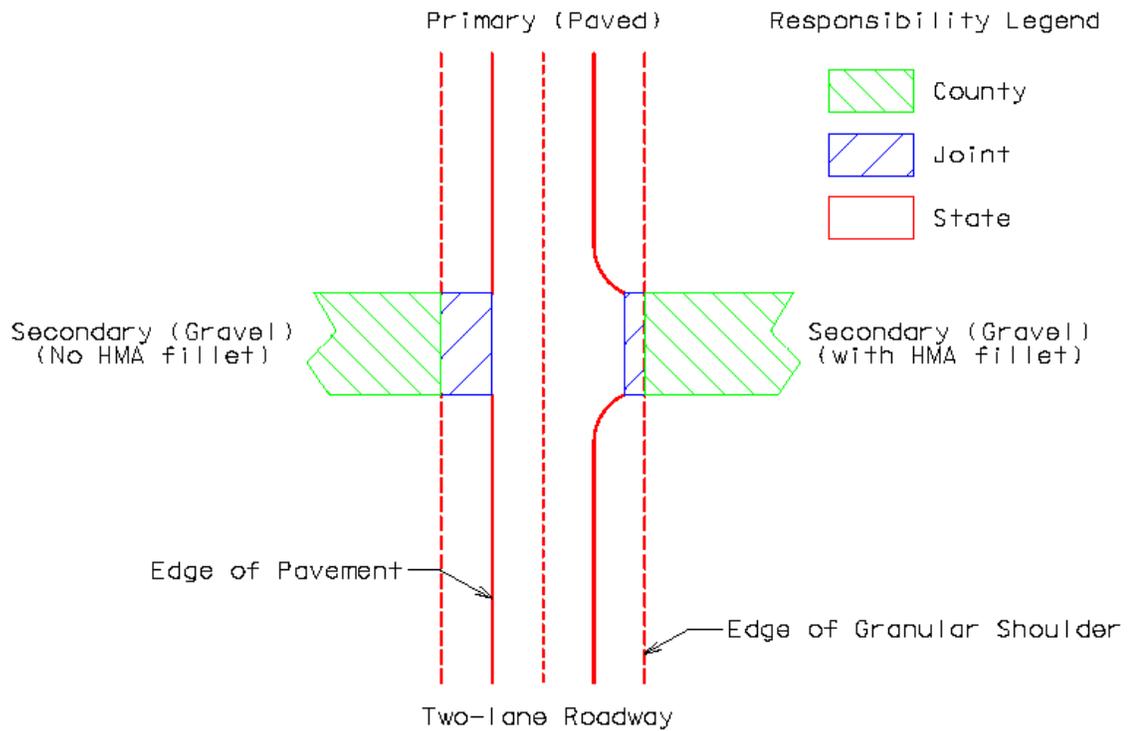


Figure 2

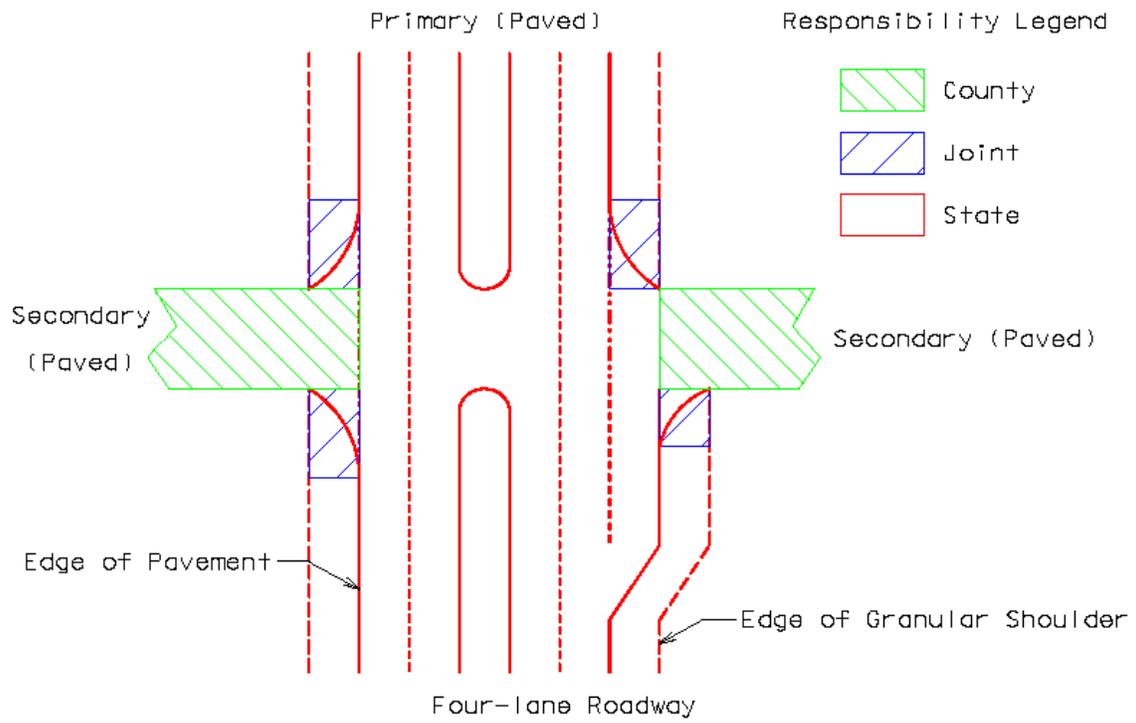


Figure 3

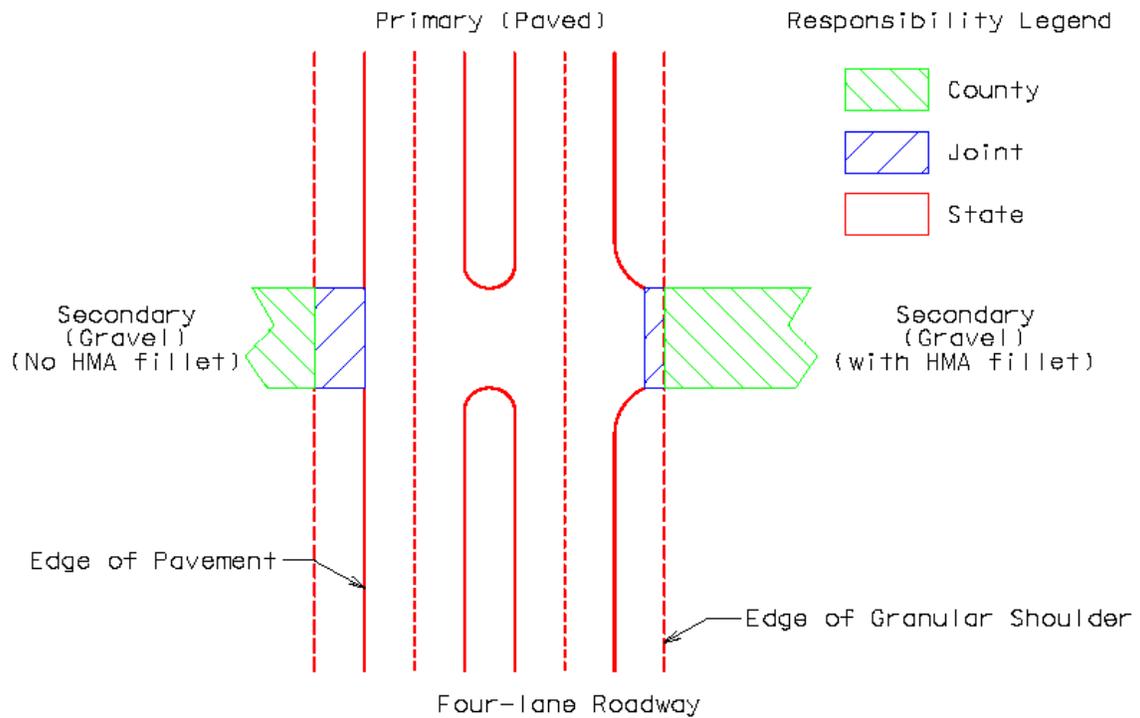


Figure 4

B. *The Department shall be responsible for:*

- 1) Placement and maintenance along the secondary road of: stop signs, including any barrel or island; stop lines; and the painting of stop sign islands and median islands, whether any of the islands are raised, non-raised, small or large.
- 2) At paved secondary road intersections, surface maintenance of the primary road through the intersection, including the right turn lane. The shoulder area through the intersection shall be a joint responsibility. (See Section I.A.3 in this I.M.) If the county is performing maintenance in the area, they should clear the road of any rock and pull the shoulder up to the edge of pavement, and the Department shall do the same. (See Figures 1 and 3 in this I.M.).
- 3) At granular secondary road intersections, shoulder maintenance through the intersection is a joint responsibility. If the county is blading the secondary road, they should blade up to the point of the primary road fillet. If the DOT is performing shoulder maintenance, they should blade the shoulder through the secondary road intersection. (See section I.A.4 in this I.M.). (See Figures 2 and 4 in this I.M.). The Department, when performing construction or resurfacing on the primary system, shall discuss with the county the potential for an additional 50 feet (or as agreed upon by the county and DOT) of paving along the secondary road at each granular secondary road intersection with the primary highway. The county shall be responsible for the initial cost and ongoing maintenance of the additional paving beyond the standard fillet. For the purposes of this I.M., the standard fillet is considered to be the paved shoulder width, or 6 feet from the edge of the through lane if the shoulder is not paved. See Road Design Detail [7149](#).
- 4) Drainage maintenance within the state right of way limits including drainage structures under the secondary road if located within the primary road right of way limits as extended from one side of secondary road to the opposite side, parallel with the primary road mainline. (Right of way as herein defined shall exclude any area purchased for "daylighting purposes".)
- 5) Mowing and weed control within the primary road rights of way as defined in I.B.4 in this I.M.
- 6) Snow removal upon the primary road, including removal of any windrow created on the secondary road intersection caused by the snow plow operation.
- 7) If required, placement and maintenance of arrow or double arrow signs located within primary road rights of way at secondary road "T" intersections.
- 8) The median area of the primary highway, where a secondary road crosses a primary multi-lane expressway.

C. *Intersection and Destination Lighting:*

- 1) Intersection and destination lighting at secondary road and primary road intersections shall comply with the Department's Policies and Procedures Manual, Policy Number 630.01, Rural Intersection and Destination Lighting (see [Attachment A](#) to this I.M.) and 761 Iowa Administrative Code Chapter [136](#).
- 2) Installation cost of intersection lighting, if warranted and requested by the county, may be shared on the basis of the current C-STEP program.
- 3) Intersection lighting once installed shall become the ownership of the county who shall be responsible for all future energy and maintenance costs. If the lighting system is required

to be relocated because of future improvements to the primary road, the county shall be responsible for relocation costs.

II. Secondary Road over a Primary Road (No Ramps)

A. *The county shall be responsible for:*

- 1) Secondary road surfacing and shoulders up to the bridge approach section and secondary road embankment up to the bridge abutment.
- 2) Keeping the driving surface of the bridge clear of debris and gravel.
- 3) Placement and maintenance of pavement markings and traffic control devices on the secondary road and bridge driving surface.
- 4) Snow removal on secondary road and bridge including bridge approach.
- 5) Weed control along the secondary road outside the area defined as primary road rights of way. (See I.B.4 in this I.M. for clarification).
- 6) Inspection and maintenance of bridge approach guardrail.
- 7) Drainage structures under the secondary roads whose purpose is to convey the natural surface drainage under the roadway.

B. *The Department shall be responsible for:*

- 1) The structural maintenance and repair of the bridge including required painting.
- 2) Inspection of the bridge structure.
- 3) Cutting of pressure relief joints in the approach pavement, as required.
- 4) Installation and maintenance of bridge clearance signing.
- 5) Maintenance of reinforced concrete bridge approach sections, if installed as part of the original bridge construction or a bridge modification project by the Department
- 6) Maintenance of bridge slope protection and the entire approach embankment between the primary highway and the back of the abutment back wall.
- 7) Drainage structures under the secondary roads whose purpose is to convey the primary roadway ditch under the secondary roadway.

III. Secondary Road Under a Primary Road Structure (No Ramps)

A. *The county shall be responsible for:*

- 1) Secondary road surfacing and shoulders.
- 2) Installation and maintenance of signs for bridge clearance. (Note: If sign is required, county to furnish and maintain sign. Department shall be responsible for installation on bridge).
- 3) Maintenance and replacement of guardrail along piers as required.

- 4) Pavement markings and traffic control devices on the secondary road.
- 5) Snow removal on the secondary road.
- 6) Weed control beyond the primary road foreslope limits.
- 7) Drainage along the secondary road including under the bridge structure and drainage structures located within the primary road right of way.
- 8) Maintenance of or improving existing vertical clearance.

B. *The Department shall be responsible for:*

- 1) The structural maintenance and repair of the bridge including required painting.
- 2) Inspection of the bridge structure.
- 3) Maintenance of bridge slope protection and the primary road embankment.

IV. Secondary Roads Over Primary Roads at Interchanges:

A. *The County shall be responsible for:*

- 1) Secondary road surfacing and shoulders up to the bridge approach section and secondary road embankment up to the bridge abutment.
- 2) Keeping the driving surface of the bridge clear of debris and gravel.
- 3) Surface and shoulder maintenance of secondary road through interchange area.
- 4) Placement and maintenance of pavement markings and traffic control devices on the secondary road, except for signs placed on the secondary road as needed for primary highway purposes such as destination, route, junction signs and etc.
- 5) Snow removal on the secondary road through the interchange area including any windrow created by secondary road maintenance.
- 6) Mowing of shoulder area along secondary road through interchange area.
- 7) Inspection and maintenance of bridge approach guardrail.
- 8) Drainage structures under the secondary roads whose purpose is to convey the natural surface drainage under the roadway.

B. *The Department shall be responsible for:*

- 1) Structural maintenance and repair of the bridge including painting as required.
- 2) Inspection of the bridge structure.
- 3) Stop sign placement and maintenance as required on ramps.
- 4) Painting and maintenance of stop lines and islands on ramps.
- 5) Placement and maintenance along the secondary road of signs needed for primary road purposes such as destination, routing and junction signs.

- 6) Mowing and weed control along ramps and along secondary road foreslopes.
- 7) Cutting of pressure relief joints in the approach pavement of the bridge structure, if required.
- 8) Maintenance of reinforced concrete bridge approach sections, if installed as part of the original bridge construction or a bridge modification project by the Department.
- 9) Maintenance of bridge slope protection and the entire approach embankment between the primary highway and the back of the abutment back wall.
- 10) Drainage structures under the secondary roads whose purpose is to convey the primary roadway ditch under the secondary roadway.

V. Secondary Roads Under Primary Roads at Interchanges:

A. *The County shall be responsible for:*

- 1) Installation and maintenance of signs for bridge clearance. (Note: If sign is required, county to furnish and maintain sign. Department shall be responsible for installation on bridge).
- 2) Maintenance of or improving existing vertical clearance.
- 3) Surface and shoulder maintenance of secondary road through interchange area.
- 4) Placement and maintenance of pavement markings and traffic control devices on the secondary road, except for signs placed on the secondary road as needed for primary highway purposes such as destination, route, junction signs and etc.
- 5) Maintenance and replacement of pier protection guardrail along the secondary road.
- 6) Responsibility for all drainage along and under the secondary road within common right of way limits.
- 7) Snow removal on the secondary road through the interchange area including any windrow created by secondary road maintenance.
- 8) Mowing of shoulder area along secondary road through interchange area.

B. *The Department shall be responsible for:*

- 1) Structural maintenance and repair of the bridge including painting as required.
- 2) Maintenance of bridge slope protection and the primary road embankment.
- 3) Inspection of the bridge structure.
- 4) Stop sign placement and maintenance as required on ramps.
- 5) Painting and maintenance of stop lines and islands on ramps.
- 6) Placement and maintenance along the secondary road of signs needed for primary road purposes such as destination, routing and junction signs.
- 7) Mowing and weed control along ramps.

- 8) Cutting of pressure relief joints in the approach pavement of the bridge structure, if required.
- 9) Inspection and maintenance of bridge approach guardrail.

VI. Miscellaneous items:

A. Interchange Lighting:

- 1) Interchange lighting shall comply with criteria as established by the Department's Policies and Procedures Manual, Policy Number 630.03, Interchange and Freeway Lighting (see [Attachment B](#) to this I.M.).
- 2) At secondary road interchanges with freeways, the Department may be responsible for the installation, maintenance and future energy costs for roadway lighting.
- 3) At secondary road interchanges with non-freeways, the county may be responsible for the installation, maintenance and future energy costs for roadway lighting.

B. Traffic Signals:

The county shall be responsible for maintenance, repair and energy costs when signals are installed at primary/secondary intersections.

C. Access Rights:

When the State of Iowa has previously acquired access rights along secondary road including interchange locations and at-grade intersections, the county shall not alter these rights without the prior written authorization of the Department and on forms provided by the Department.

D. Utility Installations:

- 1) The county shall comply with current Utility Accommodation Policy of the Department when authorizing utility installations in the common right of way of a primary roadway.
- 2) The Department shall make every effort to inform applicants of the need to contact the local county engineer when longitudinal installations cross secondary roadways within the common right of way limits of a primary road.

E. Encroachments:

The county is responsible for preventing all encroachments or obstructions within the common right of way of a primary highway, including the erection of any private signs on private property which may overhang the primary highway right of way and which could obstruct the view of any portion of the primary road system or the traffic signs or traffic control devices contrary to the Iowa Code [Chapter 318](#).

F. Route Markers:

If the County desires to have County Route Marker signs, the county shall provide the signs for the DOT to install within DOT right of way,

VII. ADDITIONAL GUIDELINES:

Permits

Even though this I.M. designates certain maintenance responsibilities to the county, this does not alleviate the need for the county to obtain a permit to work on primary right of way, except in the case of routine maintenance, such as, but not limited to: blading of granular roads and shoulders, mowing, or snow and ice removal. For all other maintenance activities, a permit is still needed to ensure adequate communication and coordination of the work.

Maintenance Agreements

The County Engineer should check for any existing project agreements previously negotiated between the Department and the County for specific requirements or conditions as generally described in this I.M. Those agreements may vary slightly with the intent of this I.M. regarding maintenance responsibilities. An Agreement shall supersede requirements outlined in this I.M.

If there is uncertainty whether an agreement exists, it is recommended the County Engineer check with the Iowa DOT Area or Staff Maintenance Engineer. If further clarification is necessary or if an interpretation is required, contact with the Department's Office of Maintenance Director in Ames, IA is encouraged.