

Guide and / or I.M. Revision Notice

To: Cities, Counties, and Consultants

Date: May 12, 2014

From: Office of Local Systems

Revision Notice Number: 2014-02

The Federal-aid Project Development Guide (Guide) and / or Instructional Memorandums to Local Public Agencies (I.M.s) have been revised as indicated below. This revision notice identifies all new or revised documents and includes a summary of the significant changes. Where appropriate, it also references the existing Project Development Information Packet (Packet) or County Engineers I.M. documents that have been replaced or superseded.

The Iowa DOT does not provide paper copies of the Guide or I.M.s. Since these documents are updated frequently, we recommend using the on-line version of the [Guide and I.M.s](#) for reference. However, if you prefer using paper copies, all new or revised documents have been included in this file for convenient printing. If you maintain a paper copy of these documents, please remove the old documents and replace them with the new documents. **Note:** This file is designed for double-sided printing; therefore, all documents with an odd number of pages will be followed by a blank page.

For more information and additional download options, refer to the [Guide and I.M.s](#) web page. If you have any questions concerning these revisions, please contact Donna Buchwald Donna.Buchwald@dot.iowa.gov or 515-239-1051.

***** PLEASE NOTIFY ALL AFFECTED PERSONNEL OF THIS CHANGE *****

Document Title or I.M Number	Summary of Significant Revision(s)
Federal-aid Project Development Guide May 12, 2014	The Guide has been updated. Substantive changes from the previous version include the following: <ul style="list-style-type: none"> • Section 5.3.1, Design Criteria for Roadways and Bridges – Replace reference to I.M. 3.205, Urban Design Guidelines, with a reference to the Statewide Urban Design and Specifications (SUDAS) Design Manual. Also clarified that projects on the Primary, Interstate and National Highway System (NHS) must use the Iowa DOT Design Manual regardless of funding source. • Section 5.4, Design Exceptions – This section was re-written to provide more clarification on situations that require a design exception vs. a justification.
I.M. Table of Contents May 12, 2014	The I.M. Table of Contents has been revised to reflect new or revised I.M.s, as indicated below.
I.M. 2.110 Maintenance of County Roads at Intersections, Interchanges, and Grade Separations with the Primary Highway System May 12, 2014	This I.M. has been updated. Substantive changes from the previous version include the following: <ul style="list-style-type: none"> • Attachments A and B have been added for Iowa DOT PPM 630.01 and 630.03 • Clarification has been added to a few definitions • Clarification has been added to county and Department responsibility for at-grade paved and granular intersections. Figures have been added to provide additional guidance. • Information on drainage structures has been added to the sections Secondary Road over a Primary Road (with or without ramps)
I.M. 2.220 Establishing and Signing Area Service B and Area Service C Roads May 12, 2014	This I.M. has been updated. Substantive changes from the previous version include the following: <ul style="list-style-type: none"> • Added historic information about an ISAC memo from 1981 where a legal opinion showed that an ordinance was a better way of establishing Level B roads. • Attachments A, B, C, and D have been converted to the new format and are available in pdf and Word formats.

<p>I.M. 3.010 Project Development Outline -- Federal-Aid Funding (BRS, BHS, BROS, BHOS, STS-S, STP-A, STP-E, STP-ES)</p>	<p>This I.M. is obsolete. Current Federal-aid processes are shown in the Federal-aid Development Guide and associated I.M.s.</p>
<p>I.M. 3.020 Project Development Outline - - Farm-to-Market Funding (FM)</p>	<p>This I.M. is obsolete. Current Farm-to-Market processes are described in I.M. 2.005, Farm-to-Market Program.</p>
<p>I.M. 3.205 Urban Design Guidelines</p>	<p>This I.M. is obsolete. This I.M. is no longer needed since the SUDAS Design Manual will be used for urban design guidelines.</p>
<p>I.M. 3.760 Public Interest Findings</p>	<p>This I.M. has been updated. Substantive changes from the previous version include the following:</p> <ul style="list-style-type: none"> • For condition no. 3, the Federal regulation citations were corrected. • Condition no. 4 was revised to indicate it applies to all Federal-aid contracts, even if Federal funds are not used for the publicly owned equipment.



Federal-aid Project Development Guide

For Local Public Agencies

May 12, 2014

Iowa Department of Transportation
Office of Local Systems
800 Lincoln Way Ames, IA 50010
http://www.iowadot.gov/local_systems/publications/im/guide.pdf

Table of Contents

1	Introduction	2
1.1.	About the Guide.....	2
1.2.	Working with the Iowa DOT.....	2
2	Federal-aid Basics	3
2.1.	Project Programming.....	3
2.2.	Funding Agreement.....	3
2.3.	FHWA Authorization.....	4
2.4.	Reimbursement.....	5
2.5.	Match Requirements.....	5
3	Getting Started	6
3.1.	Project Development Overview.....	6
3.2.	Concept Statement.....	6
3.3.	Project Schedule.....	6
3.4.	Project Submittal Dates.....	6
3.5.	Project Tracking.....	6
3.6.	Financial Plan.....	6
4	Permits and Environmental Review	7
4.1.	The NEPA Process.....	7
4.2.	Section 404 Permits.....	7
4.3.	Iowa DNR Floodplain Development Permits.....	7
4.4.	Storm Water Permits.....	8
4.5.	Farmland Protection Policy Act.....	8
4.6.	Projects in the Vicinity of an Airport or Heliport.....	8
4.7.	Hazardous Materials.....	8
4.8.	Work on Primary or Interstate Highways.....	8
5	Project Design	9
5.1.	Final Design and FHWA Environmental Concurrence.....	9
5.2.	Federal-aid Participation in Design Activities.....	9
5.3.	Design Guidelines.....	9
5.4.	Design Exceptions.....	10
5.5.	Plans and Specifications.....	11
6	Right-of-Way, Utilities, and Railroads	11
6.1.	Right-of-Way.....	11
6.2.	Utilities.....	12
6.3.	Railroads.....	12
7	Letting and Contract Award	13
7.1.	Iowa DOT Letting Procedures.....	13
7.2.	Local Letting Procedures.....	14
7.3.	Participation by Disadvantaged Business Enterprises.....	14
8	Construction	14
8.1.	Contract Administration and Inspection.....	14
8.2.	Iowa DOT and FHWA Reviews.....	15
8.3.	Federal-aid Participation in Construction by LPA Forces.....	15
9	Project Close-out and Audits	15
9.1.	Completion of the Construction Contract.....	15
9.2.	Final Audits.....	15
9.3.	Closing the Project and Records Retention.....	15
10	Other Federal-aid Requirements	16
10.1.	Nondiscrimination.....	16
10.2.	Single Audit Requirements.....	16
10.3.	Bridges.....	16
	Appendix A – Project Development Flow Chart	18
	Appendix B – Glossary of Terms	20

1 Introduction

1.1. About the Guide

1.1.1. What is the Guide for?

The Federal-aid Project Development Guide for Local Public Agencies (the Guide) exists to provide information and instructions to Local Public Agency (LPA) staff in order to help them successfully develop their Federal-aid transportation projects.

1.1.2. How should the Guide be used?

For LPAs that are unfamiliar with Federal-aid procedures, the Guide serves as an overview and introduction to the Federal-aid process. For those LPAs that frequently use [Federal-aid funds](#) for their transportation projects, the Guide also serves as a reference tool to quickly locate more detailed information on a specific topic.

The Guide is not intended to include all the details of the Federal-aid process. Instead, where appropriate, the Guide references other documents that provide additional detailed instructions concerning specific parts of the process. In other words, the Guide provides a central location from which all of the information relevant to development of LPA Federal-aid transportation projects may be located.

Most of the detailed information referenced by the Guide is contained in the Instructional Memorandums to Local Public Agencies (I.M.s). To view or print a referenced I.M., simply click on the hyperlink provided, shown with [blue, underlined text](#). The Iowa DOT does not provide printed copies of the I.M.s; however, all I.M.s are available on-line in Adobe Acrobat's Portable Document Format (PDF). For convenient printing, all of the I.M.s that are referenced by the Guide can be downloaded as a single PDF file. Refer to the [Guide and I.M.s web page](#) for additional download options.

Although the Guide is written using an informal style, in some places, it is necessary to use technical terms or phrases. When such terms or phrases are used, they are defined in [Appendix B - Glossary of Terms](#). To jump to the glossary entry for a defined term or phrase, simply click on the [green, dotted-underline text](#).

1.1.3. What does the Guide cover?

The focus of the Guide is project development. However, it also provides some guidance for a wider range of project activities – beginning immediately after funding approval and continuing up through construction and final reimbursement.

The Guide is applicable to any transportation project that is funded in whole or in part with Federal Highway Administration (FHWA) program funds that are passed through the Iowa Department of Transportation (Iowa DOT) to a local government or other government agency. Examples of such programs include traditional highway and bridge programs such as the Surface Transportation Program and Highway Bridge Program; and other transportation-related programs such as Transportation Enhancement, Federal Recreational Trails, Safe Routes to School, and National Scenic Byways programs. The Guide is also applicable to projects funded with Federal-aid [earmark or demonstration](#) funds that are subject to FHWA requirements, as specified in Title 23, United States Code and its associated regulations.

1.2. Working with the Iowa DOT

1.2.1. Roles and Responsibilities

With respect to an LPA Federal-aid transportation project, the Iowa DOT serves as both an advisor and a monitor. With each role, the Iowa DOT has different responsibilities. As an advisor, the Iowa DOT is responsible for providing guidance and assistance to LPAs to help them successfully implement their Federal-aid transportation projects. As a monitor, the Iowa DOT is

responsible to the FHWA for administering and overseeing the various Federal-aid transportation programs that are available to LPAs.

1.2.2. Who do I Contact?

The administration and oversight of these Federal-aid programs is a combined effort of many different divisions and offices within the Iowa DOT. However, the LPA's primary point of contact with the Iowa DOT will be the [Administering Office](#). Unless specified otherwise, all project submittals, correspondence, and questions should be directed to the Administering Office.

For projects funded by any or a combination of the Transportation Alternative Program (TAP), such as Transportation Enhancement, Federal Recreational Trails, Safe Routes to School, and National Scenic Byways programs, the Iowa DOT [Office of Systems Planning](#) is the Administering Office. The Office of Systems Planning is also the Administering Office for [earmark](#) projects involving activities that are eligible under one of the aforementioned programs, and certain projects funded by the Iowa Clean Air Attainment Program. For all other projects, the Administering Office is one of the 6 District Offices, depending on which [Iowa DOT District](#) the LPA is located in.

The Iowa DOT [Office of Local Systems](#) is responsible for providing written guidance, including the Guide, I.M.s, and other information, to both the Administering Office and LPAs. The Office of Local Systems also provides assistance with the interpretation and implementation of that guidance. When policy or procedure questions require the assistance of the FHWA, the Office of Local Systems serves as a liaison between the FHWA and the Administering Office or LPAs.

2 Federal-aid Basics

Before beginning any project activities for which Federal-aid reimbursement will be requested, read this section carefully! This section of the Guide explains several critical activities and their sequence in the Federal-aid process. To have a successful Federal-aid project, it is crucial that the LPA officials working on the project understand and comply with these basic requirements of the Federal-aid process.

2.1. Project Programming

All Federal-aid projects must be included, or "programmed," in the appropriate Regional Planning Affiliation (RPA) or Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP). All of the RPA and MPO TIPs are then combined, along with Iowa DOT Federal-aid projects, to form the Statewide Transportation Improvement Program (STIP).

As discussed in [Section 2.3](#) below, project activities for which Federal-aid reimbursement will be requested must receive [FHWA Authorization](#) before those activities begin. However, before any project activities can receive FHWA Authorization, the project must be included in the STIP. Therefore, project programming is a critical first step in the Federal-aid process.

The LPA is responsible for working with the applicable RPA or MPO to ensure that their project is included in the TIP / STIP and is programmed with an adequate amount of funds for the correct [Federal Fiscal Year \(FFY\)](#). Funds should be programmed in the FFY(s) in which FHWA Authorization will need to occur; not on the basis of when actual expenditures will occur.

Project programming information for the TIPs is submitted, reviewed, and transmitted to the Iowa DOT for inclusion in the STIP using the [Transportation Project Management System](#) (TPMS). TPMS is web-based tool developed by the [Iowa County Engineers Association Service Bureau](#) (ICEASB) to assist local agencies with project programming and development tracking. While this tool was initially developed for the counties, it is also available for use by cities and consultants. For more information about TPMS or to request access to this system, call the ICEASB at 515-244-0779.

2.2. Funding Agreement

Another important initial step in the Federal-aid process is execution of a funding agreement between the Iowa DOT and the LPA. As soon as funding has been approved, the LPA should submit a copy of the approved funding application, Concept Statement, or other documentation to the [Administering Office](#) as

soon as possible. Other documentation shall include, as a minimum, the name and title of the LPA's contact person, a project description that identifies the limits and basic character of the proposed work, and a current cost estimate. (Note: If the funding application was approved by the Administering Office, as may be the case with the Office of Systems Planning, additional documentation is usually not required.)

Upon receipt of this information, the Administering Office will prepare a funding agreement and send an unsigned copy to the LPA for signature. By signing the funding agreement, the LPA agrees to follow all of the applicable Federal and State laws, regulations and policies pertaining to the specific type(s) of [Federal funds](#) that are involved. Therefore, project development activities should not proceed until a funding agreement has been executed.

In general, the funding agreement spells out the responsibilities of both the LPA and the Iowa DOT. The details of the funding agreement will vary, depending on the type of Federal funds that are involved. The LPA officials responsible for the project should thoroughly review the funding agreement prior to bringing it to the board of supervisors or city council for action. Any questions or concerns should be directed to the Administering Office.

2.3. FHWA Authorization

[FHWA Authorization](#) is the single most important aspect of the entire Federal-aid process. If not done correctly or in a timely manner, it can jeopardize Federal-aid reimbursement for part or all of a project.

2.3.1. When is FHWA Authorization Needed?

[FHWA Authorization](#) must be obtained before beginning any project activity for which Federal-aid reimbursement will be requested. *If the LPA does not have written confirmation from the Iowa DOT that FHWA Authorization has been secured for a specific project activity, work should not begin.* The cost of work occurring prior to FHWA Authorization will not be reimbursed with [Federal funds](#). If there is any doubt about whether FHWA Authorization has been obtained, contact the [Administering Office](#) for assistance.

Depending on the type of [Federal funds](#) and the provisions of the funding agreement, there are several different types of project activities that may be eligible for Federal-aid reimbursement. Some of these may include environmental studies, design, right-of-way acquisition, utility relocations, railroad work, construction, and construction inspection. Refer to the project funding agreement for the specific types of project activities that may be reimbursed with [Federal funds](#).

2.3.2. How is FHWA Authorization Obtained?

The following is a summary of the [FHWA Authorization](#) process. This process has been generalized for the sake of clarity. The actual authorization process will vary depending on the specific type of project activity that is being authorized. Additional details are provided in the sections of the Guide and / or I.M.s that address each type of project activity.

1. The LPA sends a written request for FHWA Authorization to begin a specific type of project work to the [Administering Office](#), including the appropriate documentation for the type of work being requested.
2. The Administering Office reviews the LPA's request and verifies the required clearances and reviews have been completed.
3. If acceptable, the Iowa DOT verifies the availability of [Federal funds](#) and prepares the electronic [Authorization/Agreement](#) or [Amendment/Modification](#) document, using the [Fiscal Management Information System](#) (FMIS).
4. The Iowa DOT sends the electronic document to FHWA for review and approval.
5. FHWA reviews the electronic document, and if acceptable, electronically signs the document. If the request is not acceptable, FHWA contacts the Iowa DOT to resolve any questions or issues.
6. After FHWA has signed the electronic document, the Administering Office notifies the LPA that FHWA Authorization has been obtained and the requested work may begin.

2.4. Reimbursement

All of the Federal-aid transportation programs administered by the Iowa DOT operate on a reimbursement basis. That is, the LPA, after completing the necessary steps and receiving the appropriate approvals, pays project expenses up front. In turn, the LPA submits a request for reimbursement to the Iowa DOT. The request should be made using the form or format provided by the [Administering Office](#). To ensure proper accounting of costs, reimbursement requests for costs incurred prior to June 30 shall be submitted to the Administering Office by August 1 if possible, but no later than August 15.

Requests for reimbursement shall be made on a periodic basis after costs have been incurred. To prevent the project obligation from becoming inactive as per 23 CFR 630.106(a)(5), reimbursement shall be requested at least annually but not more than bi-weekly. *If the project becomes inactive, the Iowa DOT will notify the LPA that the unexpended balance of [Federal funds](#) will be de-obligated if the LPA cannot provide documentation within 30 days to support the remaining balance.* Such documentation shall include a revised cost estimate and a date by which a reimbursement request for the remaining Federal funds will be submitted. If a reimbursement request cannot be submitted within 30 days, written justification will be required for retaining the unexpended balance of Federal funds. The justification shall explain why the delay in requesting Federal-aid reimbursement is beyond the control of the LPA. Examples include delays resulting from environmental reviews or permits, right-of-way acquisition, utility relocations, unresolved litigation or contract claims, or compliance with other Federal-aid requirements. Failure to adequately plan for these requirements will not be considered adequate justification. If adequate justification is not provided, the unexpended balance of Federal funds will be de-obligated, and as a result, may no longer be available for reimbursement. For more information about the inactive obligation review requirements and process, refer to [I.M. 2.080](#), Inactive Obligations.

After Iowa DOT review and approval, the LPA will be reimbursed by the Iowa DOT at the agreed upon [Federal share](#) for properly documented, eligible, and authorized project costs. Reimbursements to the LPA are typically made by issuing a State warrant. However, a slightly different process is used for county Federal-aid projects on the Farm-to-Market System. For those projects, payments are typically made by Iowa DOT from the county's Farm-to-Market account. After such payments have been made, the Iowa DOT will request Federal-aid reimbursement, and the Federal share of such costs will be credited to the county's Farm-to-Market account.

2.5. Match Requirements

2.5.1. General Match Requirements

Most Federal-aid transportation programs require some type of cost sharing or match to the [Federal funds](#). In most cases, the match must come from non-Federal-aid sources. Usually, this match is provided in the form of cash; that is, eligible project costs that have been paid for by entities other than the Federal government. Sources of cash may include donations of funds made by a third party, special assessments made for the project, and other non-Federal-aid sources of funds. However, if the total cash received up-front for the project exceeds the required non-Federal share, the [Federal share](#) shall be reduced or the excess cash must be returned. In other words, an LPA may not make money on a Federal-aid project.

2.5.2. In-Kind Contributions

Under certain circumstances, certain non-cash contributions by a third party may be counted towards the required non-Federal-aid match. These non-cash contributions are referred to as an in-kind contribution. A third party is any entity other than the Federal government, the Iowa DOT, or the LPA who is the recipient of the [Federal funds](#). The type of in-kind contribution that may be counted toward the non-Federal-aid match varies, depending on the timing of the contribution and the type of Federal funds that are being matched. Projects funded by the Transportation Alternatives Program (TAP) as one or more of the Small Federal Programs (Transportation Enhancement, Federal Recreational Trails, and National Scenic Byways) may utilize right-of-way, services, materials, or equipment as an in-kind contribution. For all other Federal-aid projects, only right-of-way may be used as an in-kind contribution. For additional guidance, eligibility limitations, and instructions on how to obtain Iowa DOT and FHWA approval of in-kind contributions, refer to [I.M. 3.050](#), In-Kind Contributions.

3 Getting Started

3.1. Project Development Overview

The Federal-aid project development process is shown graphically in [Appendix A - Project Development Flowchart](#). This flow chart includes references to some of the applicable I.M.s for additional details concerning specific parts of the development process. The remaining sections of the Guide provide a written overview of the project development process.

3.2. Concept Statement

Submittal of the Concept Statement for Local Public Agency Federal-aid Projects ([Form 517001](#)) is a critical first step that typically initiates the project development process. This form provides information about the proposed location and types of work, possible environmental impacts, and proposed design.

Since this information is used by the Iowa DOT to initiate a number of different project reviews and processes, this form should be submitted by the LPA as soon as possible. Otherwise, the required reviews and processes will be delayed, and this may delay the project as a whole.

For additional information and detailed instructions for completing this form, refer to [I.M. 3.105](#), Concept Statement Instructions.

3.3. Project Schedule

The time required to develop a Federal-aid project from funding approval to project letting varies greatly, depending on a number of factors. Some of these factors include: whether or not right-of-way must be acquired, the type and magnitude of environmental or social impacts, and whether or not utility relocations or work on railroad property or facilities is required. Therefore, it is not possible to specify a project schedule that is applicable to all situations. Nevertheless, some typical project schedules are provided in [I.M. 3.002](#), Federal-aid Project Scheduling. These schedules show the relationship between the typical project tasks and the time it usually takes to complete each one, based on certain assumptions.

3.4. Project Submittal Dates

[I.M. 3.005](#), Project Development Submittal Dates and Information, provides specific dates for some of the key project submittals, based on a targeted Iowa DOT letting date. It also provides a summary of what should be included in those submittals.

Please note that [I.M. 3.005](#) is only intended to show the minimum amount of time required for the Iowa DOT to review the project submittals listed. Depending on the circumstances of each project, other submittals or activities may be the controlling factor in determining when a project may be let. These dates do not account for the review times of other Federal or State agencies that may or may not be necessary for a given project. In addition, the dates shown in [I.M. 3.005](#) assume that the project will complete the NEPA process as a Categorical Exclusion (CE); they are not applicable for projects that will require an Environmental Assessment (EA) or Environmental Impact Statement (EIS). For more information about the different levels of environmental classification, refer to [I.M. 3.112](#), FHWA Environmental Concurrence Process.

3.5. Project Tracking

The Iowa DOT requires the LPA(or the consultant acting on its behalf) to use TPMS (as described in [Section 2.1](#)) to record and monitor the programming and development status of their projects that involve construction. Use of TPMS for non-construction projects is optional. Much of the information in TPMS is transferred electronically to the Iowa DOT for use in project programming, development, and letting. Therefore, it is important for LPAs to keep their project information current in TPMS.

3.6. Financial Plan

For major projects (those with an estimated cost of \$100 million or greater) the LPA will be required to prepare a financial plan. For purposes of this requirement, a “project” is defined by the limits used for the

environmental review process described in Section 4 below, unless specifically stated otherwise in the environmental document.

The LPA's project financial plan must be reviewed and approved by the Iowa DOT and FHWA. The estimated cost shall include all elements of work for all segments of the overall project. Elements of work refer to the different categories of work, such as engineering, right-of-way, construction, etc. Segments refer to the portions of the total project which can be defined by physical limits. For example, the design, right-of-way, and construction activities for several projects in the same highway corridor, even though they are separated for purposes of bidding and construction, may be considered one overall project.

If a project may fall into the major project category, the LPA should contact the Iowa DOT [Administering Office](#) for assistance. Additional information is available on FHWA's [Innovative Program Delivery](#) web site.

4 Permits and Environmental Review

This section of the Guide gives a brief summary of the typical permits or environmental reviews that may be required by the applicable Federal or State laws and regulations.

4.1. The NEPA Process

The National Environmental Policy Act (NEPA) and its associated Federal regulations require that certain procedures be followed in developing a Federal-aid project. The purpose of these procedures is to provide consideration of a wide variety of social or environmental impacts that may result from the project.

The amount of time and effort required to comply with the NEPA process varies greatly, depending on the anticipated level of impacts. The effort required by an LPA may be as minimal as completing a few forms; or it may be as involved as preparing extensive environmental documentation and facilitating a significant amount of public involvement, which can be a very costly and time-consuming process.

The Iowa DOT is responsible to review the environmental impacts of all LPA Federal-aid transportation projects and assist the LPA in complying with the NEPA requirements. This review is coordinated and ultimately approved by the FHWA, based on the established policies and procedures.

There are several distinct parts of the NEPA process. Completion of the NEPA process is referred to in the Guide and I.M.s as [FHWA Environmental Concurrence](#). For an overview of the NEPA process as a whole, refer to [I.M. 3.112](#), FHWA Environmental Concurrence Process. For additional guidance concerning the different parts of the NEPA process, refer to the following I.M.s:

- [I.M. 3.105](#), Concept Statement Instructions, provides detailed instructions for completing the Concept Statement for Local Public Agency Federal-aid Projects ([Form 517001](#)). This form is used to begin the FHWA Environmental Concurrence Process.
- [I.M. 3.110](#), Environmental Data Sheet Instructions, provides detailed instructions for completing the Environmental Data Sheet ([Form 517006](#)). In some cases, more detailed information about potential environmental impacts will be required than what is provided on the Concept Statement. The Environmental Data Sheet provides some of this information.
- [I.M. 3.111](#), Threatened and Endangered Species, provides guidance concerning the requirements and procedures for potential impacts to listed species and critical habitats.
- [I.M. 3.114](#), Cultural Resource Regulations, provides guidance concerning the requirements and procedures for potential impacts to cultural resources, such as archeological sites and historic properties.

4.2. Section 404 Permits

Section 404 of the Clean Water Act and its associated Federal regulations place restrictions on the use of wetlands, streams, rivers, or other aquatic resources. If any project construction will occur in any of these areas, the LPA may be required to notify the U.S. Army Corps of Engineers and obtain the appropriate Section 404 permit. For more information, refer to [I.M. 3.130](#), 404 Permit Process.

4.3. Iowa DNR Floodplain Development Permits

Projects that will involve construction in the flood plain of any river or stream in Iowa may require a Floodplain Development Permit from the Iowa Department of Natural Resources (Iowa DNR). The threshold for when a permit is required depends on the location, type of construction, and drainage area of the river or stream. For more information, refer to [I.M. 3.410](#), Preliminary Bridge or Culvert Plans.

4.4. Storm Water Permits

The Clean Water Act and its associated Federal and State regulations may also require a National Pollutant Discharge Elimination System (NPDES) permit. If project construction activities will disturb more than 1 acre of ground, the LPA is required to submit a notification and obtain an NPDES permit from the Iowa DNR. Ground is considered disturbed if the soil is exposed to erosive forces, such as wind or water, for any period of time. For more information, refer to [I.M. 3.140](#), Storm Water Permits.

4.5. Farmland Protection Policy Act

The Farmland Protection Policy Act and its associated Federal regulations are designed to minimize the conversion of farmland to non-agricultural purposes by Federal-aid programs. If the project will require less than 5 acres of farmland per mile or per site, no action needs to be taken. However, if the anticipated impacts will exceed these thresholds, the LPA is required to complete a form and submit it to the Natural Resources Conservation Service. For more information, refer to [I.M. 3.120](#), Farmland Protection Policy Act Guidelines.

4.6. Projects in the Vicinity of an Airport or Heliport

If project construction will take place in the vicinity of a public airport or heliport, the LPA may be required to provide notice to the Federal Aviation Administration (FAA) and local airport officials. For more information, refer to [I.M. 3.150](#), Highway Improvements in the Vicinity of Airports or Heliports.

4.7. Hazardous Materials

In order to construct a transportation project, it is possible that hazardous materials may be encountered during the demolition or construction of buildings, bridges, or other structures. In those cases, certain Federal and State laws and regulations may govern how the demolition or construction may proceed.

The Clean Air Act and its associated Federal regulations require certain inspection, testing, notification, and removal procedures to be followed if the project involves removal of any structures or material that may contain asbestos. This includes buildings and bridges. For more information on the required procedures, refer to [I.M. 3.160](#), Asbestos Inspection, Removal, and Notification Requirements.

If contaminated soil or other hazardous wastes are encountered during project construction or on property acquired for the project, the LPA may be responsible for removal or treatment of such materials. If hazardous wastes may be present, the LPA may contact the Iowa DOT [Office of Location and Environment](#), Regulated Materials Section, for assistance.

4.8. Work on Primary or Interstate Highways

If a locally sponsored project involves a Primary or Interstate highway, additional coordination and approvals by the Iowa DOT and / or FHWA are required, as described below.

4.8.1. Permits

If the project will require any work within or abutting the right-of-way of an Interstate or Primary Highway, the LPA must acquire the appropriate permit(s) from the Iowa DOT. Execution of the project funding agreement does not grant any of the Iowa DOT permits that may be required. The type of permits required depends on the type of work being done. For more information, contact the Engineering Operations Technician in the Iowa DOT [District Office](#) in which the project is located.

4.8.2. Interchange Justification Reports

If the project will involve studies, design, or construction associated with a new or revised interchange on an Interstate highway, an Interchange Justification Report (IJR) must be prepared. The purpose of an IJR is to evaluate the need and engineering feasibility of the

proposed interchange. The IJR must be reviewed and approved by the Iowa DOT and the FHWA. For more information, refer to the Iowa DOT's [User Guide – Process for New or Revised Interchange Access](#).

5 Project Design

Unless specified otherwise in the project funding agreement, the LPA is responsible for all project design activities. The project design may be completed by the LPA's own staff, by a consultant, or if provided for by an intergovernmental agreement with another governmental agency, the staff or consultants hired by that agency. In any case, all plans and specifications must be prepared by a professional engineer or architect licensed to practice in the State of Iowa, unless specified otherwise in the project funding agreement.

5.1. Final Design and FHWA Environmental Concurrence

As discussed in [Section 4.1](#) above, the NEPA process requires that certain procedures be followed in the process of selecting the location of a Federal-aid project. The NEPA process also places limits on when certain project activities may begin. One of the activities limited by the NEPA process is final design. Until [FHWA Environmental Concurrence](#) has been obtained, final design activities may not begin.

Environmental and related engineering studies, agency coordination, public involvement activities, and preparation of Preliminary Plans are not considered final design. Therefore, these activities may proceed prior to completing the NEPA process. However, work directly associated with preparation, review, or submittal of Check Plans or Final Plans is considered final design.

5.2. Federal-aid Participation in Design Activities

For most Federal-aid projects, project design activities may be eligible for Federal-aid reimbursement. For purposes of [FHWA Authorization](#), these costs are categorized as one of the following:

- Preliminary Engineering (PE) includes work that is part of the development of the plans, specifications, and estimate (PS&E) for a construction project. This includes environmental studies and documents, preliminary design, and final design up through and including the preparation of bidding documents. PE does not include planning or other activities that are not intended to lead to a construction project. Examples include planning, conceptual, or feasibility studies.
- Construction Engineering (CE) includes materials testing, construction inspection, and other work directly related to the administration of the construction contract (e.g., processing contractor payment requests, or preparing change orders, a final punch list, or project close-out paperwork).

5.2.1. Consultant Services

If the LPA desires Federal-aid reimbursement for the costs of consultant services, certain procedures must be followed in acquiring, preparing, reviewing, approving, and administering the consultant contract. For more information, refer to [I.M. 3.305](#), Federal-aid Participation in Consultant Costs.

5.2.2. In-House Services

If the LPA chooses to perform PE, CE, right-of-way acquisition, or other work directly related to the development of the project with its own staff, these costs may also be reimbursed with [Federal funds](#), if the appropriate procedures are followed. To be approved, the LPA must be able to segregate and provide an accounting of the cost of its in-house services. For more information, refer to [I.M. 3.310](#), Federal-aid Participation In-House Services.

5.3. Design Guidelines

Federal-aid projects should be designed to meet the guidelines provided by the Iowa DOT. Generally speaking, these guidelines correspond to nationally recognized design guidelines, such as those published by the American Association of State Highway Transportation Officials (AASHTO).

5.3.1. Roadways and Bridges

Any road or bridge projects that are located on the [Primary System](#), [Interstate System](#) or [National Highway System](#) (NHS), regardless of funding source, shall use the design guidelines in the [Iowa DOT Design Manual](#). For all other road and bridge projects, refer to the guidelines listed below:

- For projects involving new construction or complete reconstruction within urban areas, refer to Iowa Statewide Urban Design and Specifications (SUDAS) [Design Manual](#), Chapter 5.
- For projects involving new construction or complete reconstruction on rural collectors and rural local roads, refer to [I.M. 3.210](#), Rural Design Guidelines.
- For projects with a rural cross section (e.g. shoulders with open ditches, no curbs) in urban areas or projects in transition areas between rural and urban areas, refer either to the SUDAS [Design Manual](#) or [I.M. 3.210](#).
- For rehabilitation, restoration, or resurfacing (3R) projects, refer to [I.M. 3.214](#), 3R Guidelines.
- For guidance concerning the use and placement of guard rails and bridge rails, refer to [I.M. 3.213](#), Traffic Barriers (Guardrail and Bridge Rail).
- For guidance in providing a safe recovery area, refer to [I.M. 3.215](#), Clear Zone Guidelines.

5.3.2. Bicycle and Pedestrian Facilities

For bicycle facility projects, designs should meet or exceed the minimum recommended values provided in Chapter 12A and 12B of the [Iowa DOT Design Manual](#).

New construction or alterations to pedestrian facilities shall be designed to meet the requirements of the Americans with Disabilities Act (ADA). Refer to [I.M. 1.080](#), ADA Requirements for the applicable design guidelines.

5.4. Design Exceptions

Designs that do not meet the guidelines specified by the applicable I.M.s or documents referenced in Section 5.3 will require a written design exception or justification. Design exceptions and justifications should be based on sound engineering judgment, describe the proposed mitigation measures, and include supporting documentation that is appropriate. Design exceptions also require preparation of a cost-benefit analysis; whereas justifications do not.

The LPA must prepare and submit the design exception or justification and its accompanying documentation to the [Administering Office](#) for review and approval. Design exceptions or justifications should be submitted with the Concept Statement submittal, or as soon as it becomes apparent that an exception or justification will be necessary, but in no case later than the Check Plan Submittal.

5.4.1. Roadways and Bridges

A design exception is required in the following situations:

1. For the controlling design elements listed in [I.M. 3.218](#), Design Exception Process, the proposed design does not meet:
 - the values in the “AASHTO Guidelines” tables of [I.M. 3.210](#); or
 - the “acceptable” values in the [Iowa DOT Design Manual](#) or [SUDAS Design Manual](#), as applicable.

A justification is required in the following situations:

1. For the controlling design elements listed in [I.M. 3.218](#), Design Exception Process, the proposed design meets:
 - the values in the “AASHTO Guidelines” tables, but does not meet the values in the “Design Aids” tables of [I.M. 3.210](#); or
 - the “acceptable” values, but does not meet the “preferred values” in the [Iowa DOT Design Manual](#) or [SUDAS Design Manual](#), as applicable.

2. For other design elements besides the controlling design elements in [I.M. 3.218](#), Design Exception Process, the propose design does not meet:
 - the values in the “AASHTO Guidelines” tables of I.M. 3.210; or
 - the “acceptable” values in the Iowa DOT Design Manual or SUDAS Design Manual, as applicable.

Federal regulations also require approval of design exceptions for any new construction, reconstruction or 3R project on the NHS, regardless of funding source. LPAs should review the design of all such projects and submit design exception requests to the Iowa DOT Administering Office. Routine maintenance activities on NHS routes do not require review or approval by the Iowa DOT.

For more information on the design exception process for road or bridge projects, refer to [I.M. 3.216](#), Economic Analysis (Benefit-to-Cost Ratio) and [I.M. 3.218](#), Design Exception Process.

5.4.2. Bicycle and Pedestrian Facilities

Project designs that do not meet the guidelines listed in Section 5.3.2 require a written justification.

5.5. Plans and Specifications

There are several points during project development at which plans must be submitted to the Iowa DOT. These submittals are a key part of the project review and provide much of the information required by the Iowa DOT. Each submittal shall be accompanied by a transmittal letter / e-mail and other documents as required. The content of each submittal is summarized in [I.M. 3.005](#), Project Development Submittal Dates and Information.

5.5.1. Preliminary Plans

The Preliminary Plans are used by the Iowa DOT to evaluate the proposed project design, right-of-way needs, and possible environmental impacts. For more information, refer to [I.M. 3.405](#), Preliminary Plans. If the project involves a bridge or culvert, refer also to [I.M. 3.410](#), Preliminary Bridge or Culvert Plans.

5.5.2. Check and Final Plans

Most Federal-aid transportation projects must be let by the Iowa DOT. To be successfully let by the Iowa DOT, the plans and specifications must conform to the Iowa DOT letting process. For example, the Iowa DOT [Standard Specifications](#) and the accompanying list of [standard bid items](#) shall be used when appropriate. In addition, use of Iowa DOT [Standard Road Plans](#) and [Road Design Details](#) (includes standard tabulations, notes, details, and typical sections) are also strongly encouraged. Use of these standards promotes consistency and uniformity among all projects let by the Iowa DOT. In turn, plan consistency helps reduce the project cost, because bidder uncertainties associated with different specifications or plan formats are reduced.

The Check Plan submittal serves as a precursor to the Final Plans. Even so, Check Plans should be 100% complete. This allows the [Administering Office](#) to review all the required elements of the plans and provide enough time to make any changes that may be needed. If the Check Plans are not complete, the project letting may be delayed.

For detailed information about the plan requirements for letting at the Iowa DOT, refer to [I.M. 3.505](#), Check and Final Plans, and [I.M. 3.520](#), Electronic Bid Item Information. If the project involves a bridge or culvert, refer also to [I.M. 3.510](#), Check and Final Bridge or Culvert Plans.

6 Right-of-Way, Utilities, and Railroads

6.1. Right-of-Way

For some transportation projects, it is necessary to acquire some type of property rights in order to construct the project. As used in the Guide and the I.M.s, the term, “right-of-way” includes the acquisition

of any type of property rights. These property rights may be temporary, such as a temporary construction easement; or they may be permanent, such as a drainage easement or title to a property.

Regardless of what type of property rights are acquired, there are a number of Federal and State laws and regulations that govern how and when this may be accomplished on a Federal-aid project. These laws and regulations are lengthy and complex, and in many cases, will require the use of specially trained staff or consultants to ensure they are followed properly. Nevertheless, there are a few points that everyone should understand:

- The Federal and State right-of-way laws and regulations always apply, even if right-of-way costs will not be reimbursed with [Federal funds](#).
- If Federal-aid is used in the cost of acquiring right-of-way, the acquisition may not begin until after [FHWA Environmental Concurrence](#) has been obtained. One exception to this requirement is when property is acquired because of a hardship on the property owner, or when purchase is necessary to protect a corridor for future transportation use. However, individual parcels to be acquired under the hardship or protective buying provisions still must have prior approval by the Iowa DOT and the FHWA.
- If Federal-aid is not used in the cost of acquiring right-of-way, the acquisition may begin before [FHWA Environmental Concurrence](#) has been obtained.

For more information about right-of-way acquisition resources, procedures, and requesting [FHWA Authorization](#) of right-of-way costs, refer to [I.M. 3.605](#), Right-of-Way Acquisition.

6.2. Utilities

6.2.1. Accommodation and Coordination

Early coordination with utilities that may be impacted by a transportation project is critical. Even though, in many cases, the utility company is obligated to move its facilities if required by a transportation project, failure to communicate by either the LPA or the utility can cause project delays and added expense.

All utility relocations required by a Federal-aid project shall comply with the applicable utility accommodation policy. For projects located on non-primary, [Federal-aid highways](#), refer to the [Policy for Accommodating Utilities on the County and City Non-Primary Federal-aid Road System](#). For projects located on primary highways, refer to [761 Iowa Administrative Code, Chapter 115 Utility Accommodation](#). For more information, refer to [I.M. 3.640](#), Utility Accommodation and Coordination.

6.2.2. Federal-aid Participation in Utility Relocations

[Federal funds](#) may or may not participate in the costs, depending on their location, ownership, and which entities have either the obligation or authority to pay for the costs of relocating the utilities. In most cases, utilities located in the public right-of-way must move at their own expense and are not eligible for Federal-aid reimbursement. Utility relocation costs include the costs to relocate utilities that must be moved in order to construct the project. Besides construction, these costs may also include design, and in some cases, the acquisition of a replacement easement.

For more information, refer to [I.M. 3.650](#), Federal-aid Participation in Utility Relocations.

6.3. Railroads

6.3.1. Coordination

When a transportation project requires the use of railroad property, even for minor maintenance-type work of limited duration, advance notification and approval by the railroad will be required. Projects that require access to the railroad right-of-way or modifications to railroad facilities will require an agreement with the railroad.

Therefore, as is the case with utilities, early coordination with the affected railroad(s) is critical. The LPA should contact all railroad companies that have tracks inside or adjacent to the project work area to determine what type of approvals or agreements will be required. The Iowa DOT has developed a process for coordinating with railroads, including specific procedures and specifications that shall be used for all projects let by the Iowa DOT. For more information, refer to [I.M. 3.670](#), Work on Railroad Right-of-Way.

6.3.2. Federal-aid Projects Involving Railroads

All Federal-aid projects that will require access to the railroad right-of-way or modifications to railroad facilities must comply with a number of other specific requirements, including project design, notifications and / or agreements, insurance, and provisions for railroad flaggers.

If required by the transportation project, the costs of work performed by a railroad or the railroad's contractor may be eligible for Federal-aid reimbursement. In other cases, if the proposed improvements have a benefit to the railroad, the railroad may also be required by the Federal regulations to share in the cost of the work. However, the cost of improvements that are for the sole benefit of the railroad are not eligible for Federal-aid participation.

For purposes of [FHWA Authorization](#), railroad work includes the costs of modifications to railroad facilities that are required in order to construct the project. This may include construction, flaggers, right-of-way, and engineering costs. These costs shall be identified as part of the agreement between the LPA and the railroad, and the agreement must be reviewed and approved by the Iowa DOT prior to being executed by the LPA and the railroad. For more information, refer to [I.M. 3.680](#), Federal-aid Projects Involving Railroads.

7 Letting and Contract Award

7.1. Iowa DOT Letting Procedures

Competitive bidding has been a long-standing requirement for the Federal-aid transportation programs, with a few exceptions. As a result, there are many Federal laws and regulations that pertain to the construction contracting process. Because of the complexity of these requirements, the Iowa DOT requires that most Federal-aid projects be let at the Iowa DOT. This enables the Iowa DOT to better ensure compliance with these laws and regulations by conducting and directly monitoring the letting process. The Iowa DOT letting process is described in detail by [I.M. 3.730](#), Iowa DOT Letting Process. However, some important aspects of this process are highlighted in the subsections below:

7.1.1. FHWA Authorization of Construction Costs

As part of the letting process, the Iowa DOT obtains [FHWA Authorization](#) for the costs of the proposed construction contract. FHWA Authorization will be requested based on the plans, specifications, and estimate (PS&E) submitted by the LPA. If the bids come in significantly higher or lower than the estimate, the FHWA Authorization may be adjusted accordingly, provided that sufficient [Federal funds](#) are available for the project. The Iowa DOT requires that the LPA budget sufficient funds and be prepared to award a contract for bids that are up to 110% of the LPA's estimate.

7.1.2. Project Clearances

Before letting may proceed, the project should have all of the necessary clearances. These clearances are documented by the LPA and reviewed by the Iowa DOT using the Project Development Certification ([Form 730002](#)). This form should be submitted with the Final Plans. For more information, refer to [I.M. 3.750](#), Project Development Certification Instructions.

Without the required clearances, projects are normally not allowed to enter the Iowa DOT letting process. However, under special circumstances, a project may begin the letting process without all of the necessary clearances provided the LPA requests and the [Administering Office](#) approves a Public Interest Finding.

The LPA's request must document the reasons why it is in the public's best interest to deviate from the standard procedures. For additional guidance on this process, as well as other conditions that require a Public Interest Finding, refer to [I.M. 3.760](#), Public Interest Findings.

7.1.3. Iowa DOT Concurrence in Award

After bids are opened, the Iowa DOT determines the lowest responsive and responsible bidder and provides the LPA with tabulation of bids received and the unexecuted contract documents. Within 30 days of the letting, the LPA must either accept the low bid or reject all bidders. If the low bid is accepted, the LPA forwards the contract documents to the contractor for signature. After executing the contract, the LPA forwards the executed contract documents to the Iowa DOT [Office of Contracts](#) for review and concurrence in the award. If acceptable, the Iowa DOT indicates its concurrence on the contract documents and returns the contract documents to the LPA and the contractor. *Work shall not begin and the preconstruction meeting shall not be held prior to Iowa DOT concurrence in the award.* If the LPA elects to reject all bids, it shall notify the Iowa DOT Office of Contracts of its decision.

7.2. Local Letting Procedures

While most Federal-aid projects must be let at the Iowa DOT, there are a few non-highway transportation programs for which lettings may be held locally. These include the Transportation Enhancement, Federal Recreational Trails, National Scenic Byways, and Safe Routes to School programs funded under the Transportation Alternatives Program (TAP).

Even though projects funded by these programs may be let locally, the applicable Federal and State competitive bidding requirements must still be satisfied, as well as several other Federal-aid requirements. To assist in meeting these requirements, the Iowa DOT has developed procedures and standardized bidding documents for use with locally let Federal-aid projects. Before advertising for bids, the LPA must submit the proposed bidding documents for review and approval by the Iowa DOT.

For more information on the types of Federal-aid programs and projects that may be let locally, and the required procedures for conducting a local letting, refer [I.M. 3.720](#), Local Letting Process – Federal-aid.

7.3. Participation by Disadvantaged Business Enterprises

The requirements of the Disadvantaged Business Enterprise (DBE) program apply to all contracts awarded under all of the Federal-aid transportation programs, regardless of how the contract is acquired. These requirements apply to construction contracts let locally or by the Iowa DOT. They also apply to consultant contracts which will be reimbursed with [Federal funds](#).

In summary, a DBE goal is not always required, but DBE firms must always be given consideration for participation in Federal-aid funded contracts. For specific guidance on applying the DBE requirements to construction contracts or consultant contracts, refer to [I.M. 3.710](#), DBE Guidelines.

8 Construction

8.1. Contract Administration and Inspection

Unless specified otherwise in the funding agreement, the LPA will be responsible for all aspects of administration and inspection of the construction contract. This includes providing daily, on-site inspection of the contractor's work activities and processing all of the paper work associated with the construction contract, including any change orders. All change orders shall have approval of the appropriate governing authority, such as the city council or county board of supervisors. Change Orders must also have Iowa DOT concurrence.

If the LPA does not have adequate staff to perform this work, it may hire a consultant or enter into an agreement with another governmental agency to provide these services. If the LPA elects to hire a consultant, the consultant staff shall be competent in construction inspection and perform this work under the direct supervision of a registered professional engineer or architect licensed in the State of Iowa.

However, use of a consultant does not relieve the LPA of ultimate responsibility for the proper administration and inspection of the construction contract. If a consultant is used to provide the inspection services, an LPA employee shall oversee the consultant's work.

For additional information about the construction inspection procedures, including the required forms and paper work, refer to [I.M. 3.805](#), Construction Inspection.

8.2. Iowa DOT and FHWA Reviews

The Iowa DOT and / or the FHWA may also conduct a field review of selected LPA projects during construction. Selected projects will be reviewed by [Administering Office](#), [Office of Local Systems](#), or FHWA staff. If selected, the LPA may be notified when the field review will be conducted, or the review may be conducted unannounced. The purpose of the field review is to spot check the LPA's construction inspection documentation and provide assistance to the LPA if any deficiencies are identified.

8.3. Federal-aid Participation in Construction by LPA Forces

In some cases, construction of part or all of a Federal-aid project may be accomplished by LPA forces. Under very limited circumstances, the costs of such work may be eligible for Federal-aid participation. Federal-aid participation in such work requires prior approval by the Iowa DOT, as outlined in [I.M. 3.760](#), Public Interest Findings. The Public Interest Finding must be based on both the cost effectiveness of such work and on special circumstances that are unlikely to be repeated. For more information on how to request [FHWA Authorization](#) for work done by LPA forces, refer to [I.M. 3.810](#), Federal-aid Construction by Local Agency Forces.

Regardless of whether Federal-aid participation is requested for this work, it must also comply with State bidding laws that limit the amount of work that can be performed by LPA forces. In general, work associated with construction, reconstruction, or improvements must be obtained either by bids or competitive quotes if the estimated cost of such work exceeds the thresholds specified by the Code of Iowa. These thresholds are summarized on the [Office of Local Systems](#) web page titled, [Bid Thresholds for Iowa Cities and Counties](#).

9 Project Close-out and Audits

9.1. Completion of the Construction Contract

The LPA is responsible for ensuring that all project construction has been completed and providing all of the necessary paperwork as required by the construction contract. This involves conducting a pre-audit of all contract items and associated paperwork. When both the LPA and the Administering Office accept the field work as complete, the LPA's project engineer shall certify that the project was constructed in accordance with the plans and specifications and request a final audit of the construction contract.

9.2. Final Audits

After receipt of the request for a final audit, the [Administering Office](#) may elect to conduct a final audit of the construction contract documentation. This will include a review of the final pay quantities for the construction contract, including material certifications, test results, and other documentation. If Federal-aid participation was requested for the costs of a consultant contract, work by LPA forces, utility relocations, or railroad work, a final audit or review of these costs may also be conducted.

If the final audits or reviews find that the LPA has been over-reimbursed, the LPA shall reimburse the Iowa DOT for the amount identified by the final audit or review. In turn, the Iowa DOT will credit these funds to the FHWA. Otherwise, the Iowa DOT will make the final reimbursement to the LPA, taking into account any adjustments required by the final audit or review.

9.3. Closing the Project and Records Retention

After the final reimbursement to the LPA has been processed, the Iowa DOT will prepare a final [Amendment/Modification](#) to the [FHWA authorization](#) for the project in [FMIS](#), including the final total costs and final amount of Federal-aid reimbursement. After FHWA has approved this request, a copy of this document will be distributed to various Iowa DOT offices, the LPA, and the appropriate RPA or MPO.

The LPA shall maintain all project records for a period of 3 years after FHWA approval of the final Amendment / Modification document. Afterwards, the LPA may discard its project files if desired.

For more detailed information concerning the entire project close-out process, refer to [I.M. 3.910](#), Final Review, Audit, and Close-out Procedures for Federal-aid Projects, and [I.M. 3.930](#), Interest Payment Procedures.

10 Other Federal-aid Requirements

This section of the Guide addresses those Federal-aid requirements that do not correspond to a particular part of the project development process but are nonetheless very important considerations for any LPA using [Federal funds](#).

10.1. Nondiscrimination

10.1.1. Title VI

Title VI of the Civil Rights Act of 1964 (Title VI) is a foundational piece of legislation that forms the basis for a wide array of other laws and regulations that prohibit discrimination on the basis of race, color, national origin, disability, gender, and age. Title VI has a very broad application. It prohibits discrimination in all programs or activities of any LPA that is a recipient of any Federal-aid financial assistance; even those programs or activities that do not directly benefit from such assistance. For additional guidance, refer to [I.M. 1.070](#), Title VI and Nondiscrimination Requirements.

10.1.2. Americans with Disabilities Act

The Americans with Disabilities Act of 1990 (ADA) is another piece of legislation aimed at prohibiting discrimination. Title II of the ADA applies to State and local governments, and its requirements affect the design, construction, and maintenance of all transportation projects, regardless of the funding sources.

The ADA requires that all new construction, reconstruction, and alterations to existing pedestrian facilities be made accessible to persons with disabilities. In addition, for those existing facilities that are not accessible, a transition plan must be prepared and implemented to bring those facilities into compliance.

For more information on ADA requirements related to transportation projects and facilities, refer to [I.M. 1.080](#), ADA Requirements.

10.2. Single Audit Requirements

LPAs that expend more than \$500,000 in [Federal funds](#) of any kind during a [Federal Fiscal Year \(FFY\)](#) are required to prepare and file a Single Audit Report in accordance with the requirements of the Office of Management and Budget (OMB) [Circular A-133](#), Audits of States, Local Governments, and Non-Profit Organizations. If the LPA's Single Audit Report contains findings that relate to [Federal funds](#) passed through the Iowa DOT, the Iowa DOT will investigate those findings and issue a management decision regarding the LPA's response to those findings, as stated in the Single Audit Report. The Iowa DOT's management decision may require additional documentation or changes to the LPA's procedures to prevent similar future audit findings.

10.3. Bridges

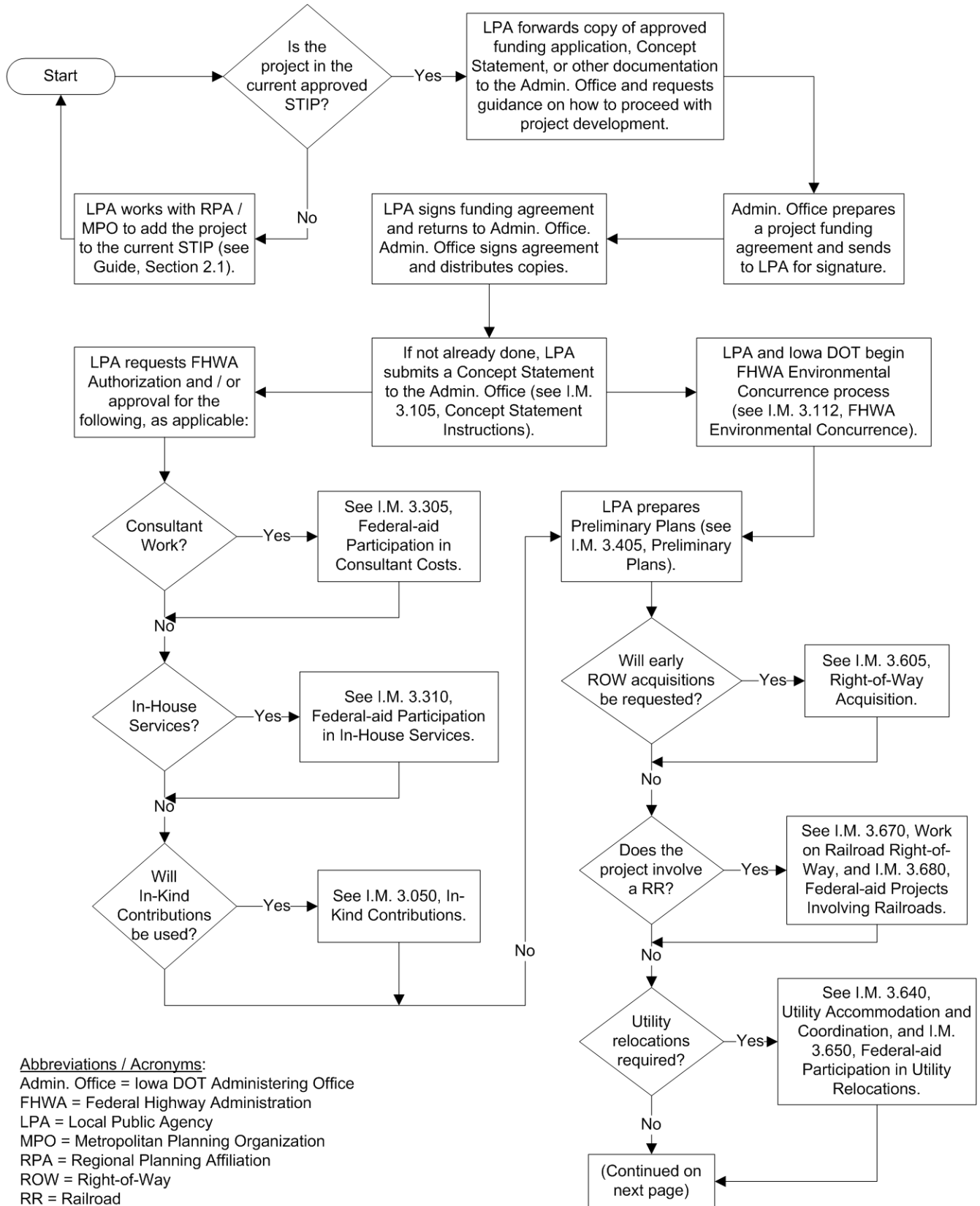
10.3.1. Bridge Inspections

As a condition of receiving any [Federal funds](#), LPAs with highway bridges under their jurisdiction must comply with the National Bridge Inspection Standards (NBIS). The NBIS requires regular inspections, bridge ratings, posting where appropriate, and qualified personnel to perform and supervise inspections. For more information, refer to [I.M. 2.120](#), Bridge Inspections.

10.3.2. Bridge Funding Programs

The Highway Bridge Program (HBP) provides Federal-aid funding for replacement or rehabilitation of highway bridges that meet the eligibility criteria, such as structural condition, roadway and bridge geometrics, and traffic volumes. HBP funds may also be used for bridge inspections. The HBP funds available for the State of Iowa are divided between the Iowa DOT, cities, and counties on a formula basis. Each county receives an annual allocation of funds which may be used on any eligible bridge, subject to certain restrictions. Cities compete for HBP funding based on a priority point system. In addition to the HBP funds, there is a small amount of State funds available annually for city and county bridges under the City and County Bridge Construction funds, respectively. For complete information regarding the bridge programs for both cities and counties, refer to [I.M. 2.020](#), Federal and State Bridge Programs.

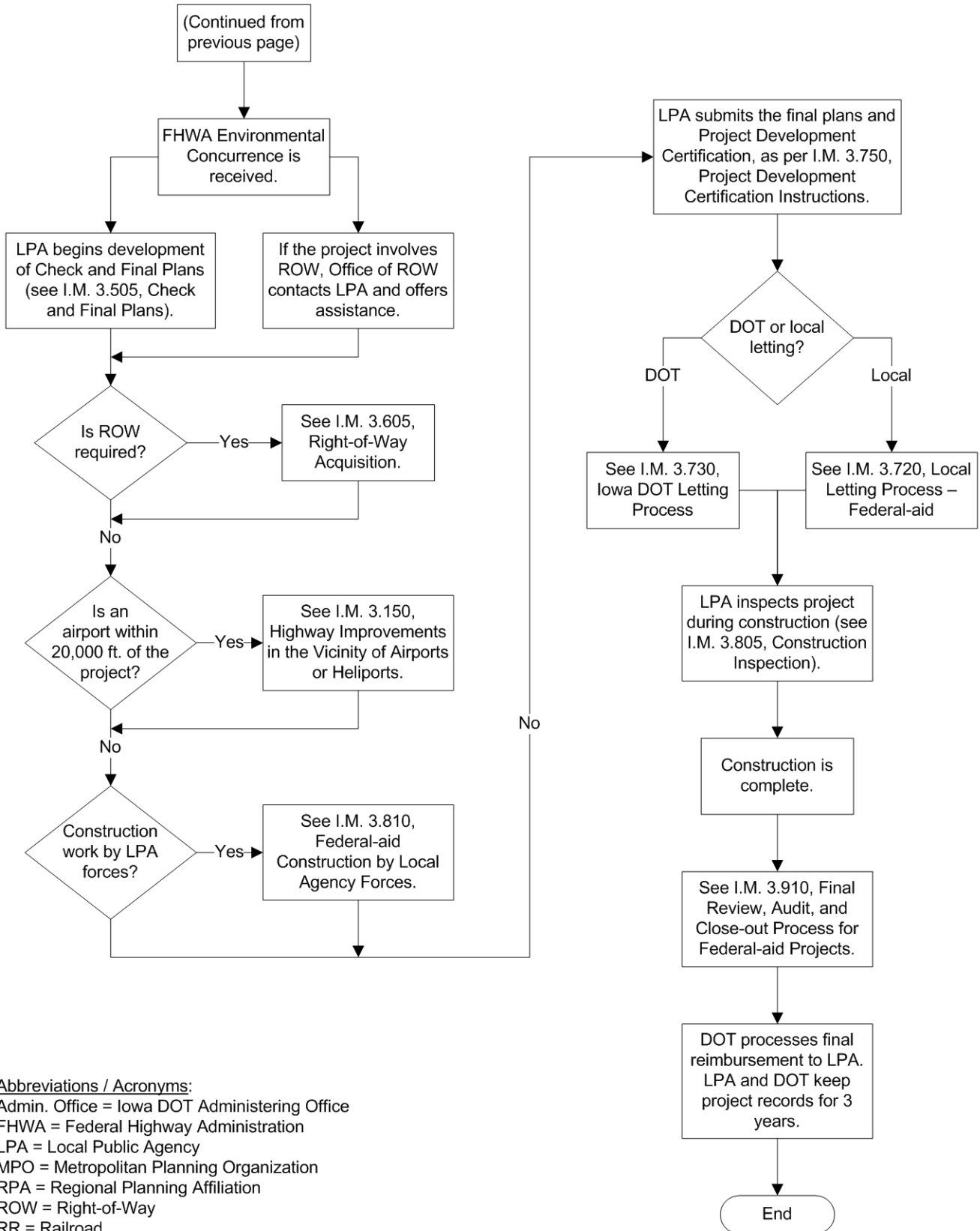
Appendix A – Project Development Flow Chart



Abbreviations / Acronyms:

- Admin. Office = Iowa DOT Administering Office
- FHWA = Federal Highway Administration
- LPA = Local Public Agency
- MPO = Metropolitan Planning Organization
- RPA = Regional Planning Affiliation
- ROW = Right-of-Way
- RR = Railroad
- STIP = Statewide Transportation Improvement Program
- Note: Project submittals shall be as per I.M. 3.005, Project Development Submittal Dates and Information.

Appendix A – Project Development Flow Chart (continued)



Abbreviations / Acronyms:

- Admin. Office = Iowa DOT Administering Office
- FHWA = Federal Highway Administration
- LPA = Local Public Agency
- MPO = Metropolitan Planning Organization
- RPA = Regional Planning Affiliation
- ROW = Right-of-Way
- RR = Railroad
- STIP = Statewide Transportation Improvement Program
- Note: Project submittals shall be as per I.M. 3.005, Project Development Submittal Dates and Information.

Appendix B – Glossary of Terms

Below is an alphabetical listing of terms and phrases used in the Guide. Following each term or phrase is a brief definition.

Administering Office: For projects funded by any or a combination of the Transportation Alternatives Program (TAP), such as Transportation Enhancement, Federal Recreational Trails, Safe Routes to School, National Scenic Byways, and certain Iowa Clean Air Attainment Program projects, and certain [earmark](#) projects, the [Office of Systems Planning](#) is the Administering Office. For all other projects, the Administering Office is one of the 6 District Offices, depending on which [Iowa DOT District](#) the LPA is located in.

Authorization/Agreement: A document that the Iowa DOT and FHWA electronically sign in [FMIS](#) that obligates [Federal funds](#) for the project. This document also establishes the [Effective Authorization Date](#).

Amendment/Modification: A document that amends a previously executed Authorization/Agreement or a prior Amendment/Modification. In instances when a Federal-aid funded project needs to be amended for any reason (cost overrun, additional phase of work, supplemental agreement, etc.), an Amendment/Modification is signed by the Iowa DOT and FHWA to electronically approve the modification. This process is also completed through [FMIS](#).

Earmark or demonstration funds: Federal-aid funding that is directed to specific projects in legislation enacted by the United States Congress. Earmark funding may be included either in a multi-year transportation bill such as the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), or as part of an annual appropriations bill. *Even though these projects receive their funding in a different way, earmark projects must still follow the same project development procedures as all other Federal-aid projects.*

Effective Authorization Date: This is the date after which work that is to be reimbursed with [Federal funds](#) may begin. Any costs [incurred](#) prior to this date are not eligible for Federal-aid reimbursement. This date is shown on the [Authorization/Agreement](#) and [Amendment/Modification](#) documents.

Federal-aid highways: All roads except those with a [Federal Functional Classification](#) of Rural Minor Collector or Local.

Federal Fiscal Year (FFY): Begins on October 1 and ends September 30 of each calendar year. For example, October 1, 2008 is the beginning of the Federal Fiscal Year 2009.

Federal funds: Federal funds reflect the amount of Federal funding available for a project. The total amount of Federal funds received is subject to either the Federal-aid limit shown in the Statewide Transportation Improvement Program (STIP) or the limit established by the project funding agreement.

Federal share: The percentage of eligible and authorized project costs paid by the Federal government. With a few exceptions, the Federal government does not pay for the entire cost of the project. In most cases, [Federal funds](#) must be matched with funds from non-Federal-aid sources. For most FHWA transportation programs, the Federal share of project costs is 80%. Refer to the funding agreement for the applicable pro-rata Federal share and matching requirements of the specific type of [Federal funds](#) involved.

FHWA Authorization: The action taken by FHWA when signing the [Authorization/Agreement](#) document or the [Amendment/Modification](#) document in [FMIS](#). Except in the case of Advance Construction, this action results in an [obligation](#) of [Federal funds](#) at the specified [Federal share](#) for the specific type of project costs identified on the Authorization/Agreement or Amendment/Modification.

FHWA Environmental Concurrence: This milestone in project development is marked by different events for different types of projects, depending on the anticipated level of environmental impacts. The event that marks the completion of the NEPA process depends on the type of NEPA document that is required for the project:

- For projects that are classified as a Categorical Exclusion (CE), the NEPA process is complete as of the effective date of FHWA Environmental Concurrence. This date is specified in the written notice the LPA will receive from the Iowa DOT Office of Location and Environment.
- For projects that require an Environmental Assessment (EA) or Environmental Impact Statement (EIS) document, the NEPA process is considered complete as of the date that the FHWA signs the Finding of No Significant Impact (FONSI) or Record of Decision (ROD) document, respectively.

Appendix B – Glossary of Terms (continued)

For more information about the different types of environmental documentation, refer to [I.M. 3.112](#), FHWA Environmental Concurrence Process.

Fiscal Management Information System (FMIS): FMIS is the FHWA’s electronic financial tracking system for Federal-aid transportation projects. Iowa DOT personnel use this system to request [FHWA Authorization](#) or obtain project information and funding reports.

Incurred Costs: Costs are considered to be incurred when the work associated with those costs begins. Example: Costs have been incurred once a consultant, whose services are to be reimbursed with [Federal funds](#), begins work, even if the LPA has not received a bill or made any payments to the consultant.

Interstate System: Those highways that are part of the Dwight D. Eisenhower National System of Interstate and Defense Highways.

National Highway System (NHS): Those highways that are important to the nation’s economy, defense, and mobility. The NHS is made up of several subsystems, including the Interstate System, other principal arterials (as shown on the [Federal Functional Classification](#) maps), the Strategic Highway Network (roads of importance to strategic defense and emergency response), Major Strategic Highway Connectors (access roads to major military installations) and Intermodal Connectors (roads that provide access between major intermodal facilities and the other four subsystems previously listed). For current maps of the NHS, see FHWA’s [NHS in Iowa web page](#).

Obligation: An obligation is a commitment – the Federal government’s promise to pay the [Federal share](#) of a project’s eligible cost. This commitment occurs when the project is authorized by FHWA and the [Authorization/Agreement](#) or the [Amendment/Modification](#) is executed through [FMIS](#). Obligation is a key step in financing. Obligated funds are considered “used,” or set aside for that particular project, even before any cash is transferred.

Primary System: Those highways that are under the jurisdiction of the Iowa DOT.

Instructional Memorandums to Local Public Agencies

Table of Contents



Some I.M.s are written either to counties or cities; others are written to both counties and cities. The intended audience is indicated in the "To:" field of the I.M. as well as the Table of Contents below. Many of the I.M.s are referenced by the Federal-aid Project Development Guide (Guide). These I.M.s are marked with an asterisk (*). For more information about the relationship between the Guide and I.M.s, refer to the [Guide and I.M.s web page](#).

Note: The I.M.s are currently in the process of being transitioned into a new format and numbering system. New or updated I.M.s will use the new format. Existing I.M.s will remain in the old format until they are revised or updated. Some of the I.M.s are not yet complete, as shown in light grey text. Some incomplete I.M.s will be based on an existing Project Development Information Packet document, some will be based on an existing County Engineers I.M. that will be renumbered, and some will include entirely new content. Where applicable, a reference and link to the existing Packet document or County Engineers I.M. is provided.

No.	Subject	Revision Date	Written To
Chapter 1 – General Information			
Section 1.0 -- General			
1.020	Pavement Friction Evaluation Program	August 10, 2011	Both
1.030	Ordering Forms and Supplies From the Iowa Department of Transportation	November 2001	Both
1.050	Manuals, Guides and Instructional Information Available to Counties	December 2002	Both
1.070*	Title VI and Nondiscrimination Requirements	July 20, 2012	Both
1.080*	ADA Requirements	October 1, 2013	Both
	Attachment A – Sample Curb Ramp Transition Plan (Word)	August 24, 2012	Both
Section 1.1 -- References			
1.120	References to the Iowa Code	August 2003	Counties
Chapter 2 – Administration			
Section 2.0 -- Finance			
2.005	Farm-to-Market Program	July 18, 2013	Counties
2.010	Transfer of Local Secondary Road Use Tax Funds to the Farm-to-Market Fund	November 2001	Counties
	Attachment A - Local to FM Fund Transfer Resolution (Word)	November 2001	Counties
2.020*	Federal and State Bridge Programs	July 18, 2013	Both
	Attachment A – City Bridge Priority Point Rating Worksheet (Word)	July 18, 2011	Both
	Attachment B – County Bridge Priority Point Rating Worksheet (Word)	July 18, 2011	Both
	Attachment C – Touchdown Points and Limits of Participation	July 18, 2011	Both
	Attachment D – County HBP Fiscal Constraint Requirements	July 18, 2011	Both
2.030	Transfer of Farm-to-Market Funds to the Local Secondary Road Fund	July 20, 2012	Counties
2.040	Temporary Allocation of Farm-to-Market Funds	November 2001	Counties
2.050	Procedure to Amend a County Secondary Road Construction Program and Budget	November 26, 2013	Counties
	Attachment A – Add FM or Local Project Resolution (Word)	November 26, 2013	Counties
2.071	Secondary Road Budget Accounting Code Series	July 2005	Counties

Section 2.1 -- Maintenance

2.110	Maintenance of County Roads at Intersections, Interchanges, and Grade Separations with the Primary Highway System	May 12, 2014	Counties
	Attachment A – Iowa DOT PPM 630.01, Rural Intersection and Destination Lighting	March 16, 2004	Counties
	Attachment B – Iowa DOT PPM 630.03, Interchange and Freeway Lighting	March 16, 2004	Counties
2.120*	Bridge Inspections	July 18, 2013	Both
	Attachment A - Bridge Scour Stability Worksheet - Level A Evaluation (Word)	May 11, 2011	Both
	Attachment B - Intermediate Scour Assessment - Level B Evaluations	October 1, 2013	Both
	Attachment C - Scour Plan of Action (POA) (Word)	May 11, 2011	Both
	Attachment D - Scope of Services for NBI Bridge Inspection Services (Word)	July 18, 2013	Both
	Attachment E - Iowa Legal Trucks Diagrams	July 18, 2013	Both
	Attachment F - Routine Permit Trucks Diagrams	July 18, 2013	Both
	Attachment G - USGS Hydrologic Region Map with Region Descriptions	July 18, 2013	Both
	Attachment H - Unknown Foundations Guidance, Flowchart, Risk Assessment, Worksheet, and Plan of Action (POA) - Level A Evaluation (Word)	July 18, 2013	Both
	Attachment I - Unknown Foundations Flowchart - Level B Evaluation	July 18, 2013	Both
	Attachment J - Quality Assurance Field Review Worksheet (Word)	July 18, 2013	Both
	Attachment K - Fracture Critical Member Locations and Conditions for Trusses form (Word)	July 18, 2013	Both
	Attachment L - Fracture Critical Member Locations and Conditions for Thru/Two Girders form (Word)	July 18, 2013	Both
	Attachment M - Sample Fracture Critical Member Locations and Conditions for Trusses form	July 18, 2013	Both

Section 2.2 -- Traffic Service and Control

2.210	Engineering and Traffic Investigations – Speed Limit Study	March 2002	Counties
	Attachment A - Speed Restriction Ordinance (Word)	March 2002	Counties
	Attachment B - Amendment to Speed Restriction Ordinance (Word)	March 2002	Counties
	Attachment C - Resolution for Establishing Speed Limits (Word)	March 2002	Counties
2.220	Establishing and Signing Area Service B and Area Service C Roads	May 12, 2014	Counties
	Attachment A - Area Service “B” Sample Ordinance (Word)	May 12, 2014	Counties
	Attachment B - Area Service “B” Sample Resolution (Word)	May 12, 2014	Counties
	Attachment C - Area Service “C” Sample Ordinance (Word)	May 12, 2014	Counties
	Attachment D - Area Service “C” Sample Resolution (Word)	May 12, 2014	Counties
2.230	Signing for Low Cost Stream Crossings	June 2002	Counties
	Attachment A - Resolution for Low-Water Stream Crossing (Word)	June 2002	Counties
2.240	Iowa DOT Traffic Counts	(future)	Both

Section 2.3 -- Agreements

2.310	Construction Agreements Between City and County on Secondary Road Extensions	April 2002	Both
	Attachment A - Resolution for Construction Agreement between City and County on Secondary Road Extensions (Word)	April 2002	Both

Chapter 3 – Project Development

Section 3.0 -- General

3.002*	Federal-aid Project Scheduling	February 16, 2007	Both
3.005*	Project Development Submittal Dates and Information	February 11, 2014	Both
3.030	Project Development Outline -- Local Funding (L)	February 2002	Both
3.050*	In-Kind Contributions	August 10, 2011	Both
3.060	Project Numbers (see I.M. 3.14 , dated December 2002)	(future)	Both

Section 3.1 -- Environmental Reviews and Permits

3.105*	Concept Statement Instructions (see Packet, Index No. 6, Concept Statement Instructions)	(future)	Both
	Attachment A – Example Concept Statement	(future)	Both
3.110*	Environmental Data Sheet Instructions (see Packet, Index No. 6, Environmental Datasheet Instructions)	(future)	Both
	Attachment A – Example Environmental Data Sheet	(future)	Both
3.112*	FHWA Environmental Concurrence Process (see Packet, Index No. 6, NEPA Project Classification Process)	(future)	Both
	Attachment A - Environmental Concurrence Process Overview (see Packet, Flowcharts, Chart No. 6 – Environmental Process Overview)	(future)	Both
	Attachment B - Environmental Assessment / FONSI Process (see Packet, Flowcharts, Chart No. 6A – Environmental Assessment / FONSI Process)	(future)	Both
	Attachment C - Environmental Impact Statement / ROD Process (see Packet, Flowcharts, Chart No. 6B – Environmental Impact Statement / ROD Process)	(future)	Both
	Attachment D - Section 106 Process (see Packet, Flowcharts, Chart No. 6C – Section 106 Process)	(future)	Both
	Attachment E - Section 4(f) Process (see Packet, Flowcharts, Chart No. 6D – Section 4(f) Process)	(future)	Both
3.114*	Cultural Resource Regulations (see Packet, Index No. 6, Cultural Resource Regulations)	(future)	Both
3.120*	Farmland Protection Policy Act Guidelines (see Packet, Index No. 6, Farmland Protection Policy Act Guidelines)	(future)	Both
	Attachment A - Farmland Protection Policy Act Process Flowchart (see Packet, Flowcharts, Chart No. 6E – Farmland Protection Policy Act Process)	(future)	Both
3.130*	404 Permit Process	March 26, 2008	Both
	Appendix A – 404 Permit Checklist	March 26, 2008	Both
3.140*	Storm Water Permits	July 18, 2011	Both
3.150*	Highway Improvements in the Vicinity of Airports or Heliports	December 3, 2007	Both
3.160*	Asbestos Inspection, Removal, and Notification Requirements	April 12, 2007	Both
	Attachment A – Notification of Demolition form (Word)	April 12, 2007	Both

Section 3.2 -- Design Guidelines and Exceptions

3.210*	Rural Design Guidelines	October 1, 2013	Counties
3.213*	Traffic Barriers (Guardrail and Bridge Rail)	July 18, 2013	Both
	Attachment A - Bridge Barrier Rail Rating Systems (Word)	July 18, 2013	Both
3.214*	3R Guidelines	October 1, 2013	Both
3.215*	Clear Zone Guidelines	March 26, 2008	Both
3.216*	Economic Analysis (Benefit-to-Cost Ratio)	October 1, 2013	Both
3.218*	Design Exception Process	October 1, 2013	Both
	Attachment A – Design Exception Process Flowchart	October 1, 2013	Both

Section 3.3 -- Consultant and In-House Design

3.305*	Federal-aid Participation in Consultant Costs	August 29, 2006	Both
	Attachment A – Federal-Aid Consultant Checklist	August 29, 2006	Both
	Attachment B – Guidelines for Federal-Aid Consultant Contracts	August 29, 2006	Both
	Attachment C – Payment Methods	August 29, 2006	Both
	Attachment D – Sample Consultant Contract (Word)	August 29, 2006	Both
3.310*	Federal-aid Participation in In-House Services	February 18, 2013	Both
	Attachment A - Scope of Work and Budget Worksheet	February 18, 2013	Both

Section 3.4 -- Preliminary Design

3.405*	Preliminary Plans	February 18, 2013	Both
	Attachment A – Preliminary Plan Guidelines	February 18, 2013	Both
	Attachment B – Preliminary Plan Checklist (Word)	February 18, 2013	Both
	Attachment C – Preliminary Plan Process Flowchart	February 18, 2013	Both
3.410*	Preliminary Bridge or Culvert Plans	June 18, 2010	Both
	Attachment A – Flood Insurance Studies	June 18, 2010	Both
	Attachment B – Iowa DNR Floodplain Regulations	June 18, 2010	Both
	Attachment C – Instructions for Completing the Form 1-E	June 18, 2010	Both
	Attachment D – Instructions for Completing the Risk Assessment Form	June 18, 2010	Both

Section 3.5 -- Final Design

3.505*	Check and Final Plans	February 18, 2013	Both
	Attachment A – Check and Final Plan Guidelines	February 18, 2013	Both
	Attachment B – Check and Final Plan Checklist (Word)	February 18, 2013	Both
	Attachment C – Check and Final Plan Process Flowchart	February 18, 2013	Both
3.510*	Check and Final Bridge or Culvert Plans	June 18, 2010	Both
	Attachment A – Bridge or Culvert Plan Supplementary Checklist	June 18, 2010	Both
3.520*	Electronic Bid Item Information	February 18, 2013	Both

Section 3.6 -- Right-of-Way, Utilities, and Railroads

3.605*	Right-of-Way Acquisition	June 18, 2007	Both
	Attachment A – Compensation Estimate Procedures	June 18, 2007	Both
	Attachment B – FHWA Authorization of Right-of-Way Costs Flowchart	June 18, 2007	Both
	Attachment C – Early Right-of-Way Acquisition Process Flowchart	June 18, 2007	Both
3.640*	Utility Accommodation and Coordination	February 11, 2014	Both
	Attachment A – Utility Coordination Flowchart	December 11, 2008	Both

	Attachment B – Utility Coordination Checklist (Word)	February 11, 2014	Both
3.650*	Federal-aid Participation in Utility Relocations	February 11, 2014	Both
	Attachment A – Utility Relocation Federal-Aid Eligibility Flowchart	February 11, 2014	Both
	Attachment B – FHWA Authorization of Utility Relocation Costs Flowchart	February 11, 2014	Both
3.670*	Work on Railroad Right-of-Way	May 1, 2007	Both
	Attachment A – Notification and Agreement of Maintenance Work in Railroad Right-of-Way (Word)	May 1, 2007	Both
	Attachment B – Notification of Construction Work in Railroad Right-of-Way (Word)	May 1, 2007	Both
	Attachment C – Work on Railroad Right-of-Way Flowchart	May 1, 2007	Both
3.680*	Federal-aid Projects Involving Railroads	May 1, 2007	Both
	Attachment A – FHWA Authorization of Railroad Costs Flowchart	May 1, 2007	Both

Section 3.7 -- Lettings and Contracts

3.705	Local Letting Process – State or Local Funded (see I.M. 3.41 , dated September 2005; I.M. 3.42 , dated March 2002; and I.M. 3.43 , dated September 2002)	(future)	Both
3.710*	DBE Guidelines	June 18, 2007	Both
3.715	TSB Guidelines	(future)	Both
3.720*	Local Letting Process – Federal-aid	April 12, 2007	Both
	Attachment A – Pre-Award Checklist and Certification	April 12, 2007	Both
	Attachment B – Post-Award Checklist and Certification	April 12, 2007	Both
	Attachment C – Supplemental Agreement	April 12, 2007	Both
3.730*	Iowa DOT Letting Process	October 1, 2013	Both
	Attachment A - Iowa DOT Pre-Letting Process Flowchart	October 1, 2013	Both
	Attachment B – Iowa DOT Post-Letting Process Flowchart	October 1, 2013	Both
3.750*	Project Development Certification Instructions	December 3, 2007	Both
	Attachment A – Project Development Certification Process Flowchart	December 3, 2007	Both
	Attachment B - Sample Project Development Certification Form	December 3, 2007	Both
3.760*	Public Interest Findings	May 12, 2014	Both
3.770	Paving Point Requirements	August 24, 2012	Counties
	Attachment A – Paving Point Determination	August 24, 2012	Counties
	Attachment B – Sample Notice of Public Hearing (Word)	August 24, 2012	Counties
	Attachment C – Sample Resolution (Word)	August 24, 2012	Counties

Section 3.8 -- Construction

3.805*	Construction Inspection (see I.M. 3.51 , dated September 2002)	(future)	Both
3.810*	Federal-aid Construction by Local Agency Forces	December 11, 2008	Both

Section 3.9 -- Project Close-out and Audits

3.910*	Final Review, Audit, and Close-out Procedures for Federal-aid Projects	December 3, 2007	Both
	Attachment A – Project Close-out Process Overview Flowchart	December 3, 2007	Both
	Attachment B – Final Review and Audit Process Flowchart – Highway or Bridge Construction	December 3, 2007	Both
	Attachment C – Final Review and Audit Process Flowchart – Non-highway Construction, DOT Specifications	December 3, 2007	Both
	Attachment D – Final Review and Audit Process Flowchart – Non-highway Construction, Non-DOT Specifications	December 3, 2007	Both

	Attachment E – Pre-audit Checklist (Word)	December 3, 2007	Both
	Attachment F – Final Forms Packet Checklist (Word)	December 3, 2007	Both
3.920	Final Review, Audit, and Close-out Procedures for State-aid Projects	(future)	Both
3.930*	Interest Payment Procedures	December 3, 2007	Both
	Attachment A – Sample Interest Payment Information Form	December 3, 2007	Both
3.940	County Engineer Resolution	December 3, 2007	Counties
	Attachment A – Sample County Engineer Resolution (Word)	December 3, 2007	Counties

Chapter 4 – Systems Classification And Identification

Section 4.0 -- General

4.010	Procedures to Modify the Secondary Road Route Numbering System	September 2002	Counties
4.030	County Road Vacations	September 2002	Counties
	Attachment A - Resolution for Road Vacation Public Hearing (Word)	September 2002	Counties
	Attachment B - Notice of Public Hearing (Word)	September 2002	Counties
	Attachment C - Resolution to Vacate a County Road (Word)	September 2002	Counties

Section 4.1 -- (Reserved)

Section 4.2 -- Farm-to-Market System

4.210	Modification of the Farm-to Market (FM) System	August 10, 2011	Counties
4.220	Farm-to-Market Review Board Advisory Opinions on Proposed Jurisdictional Transfers	April 2002	Counties

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.

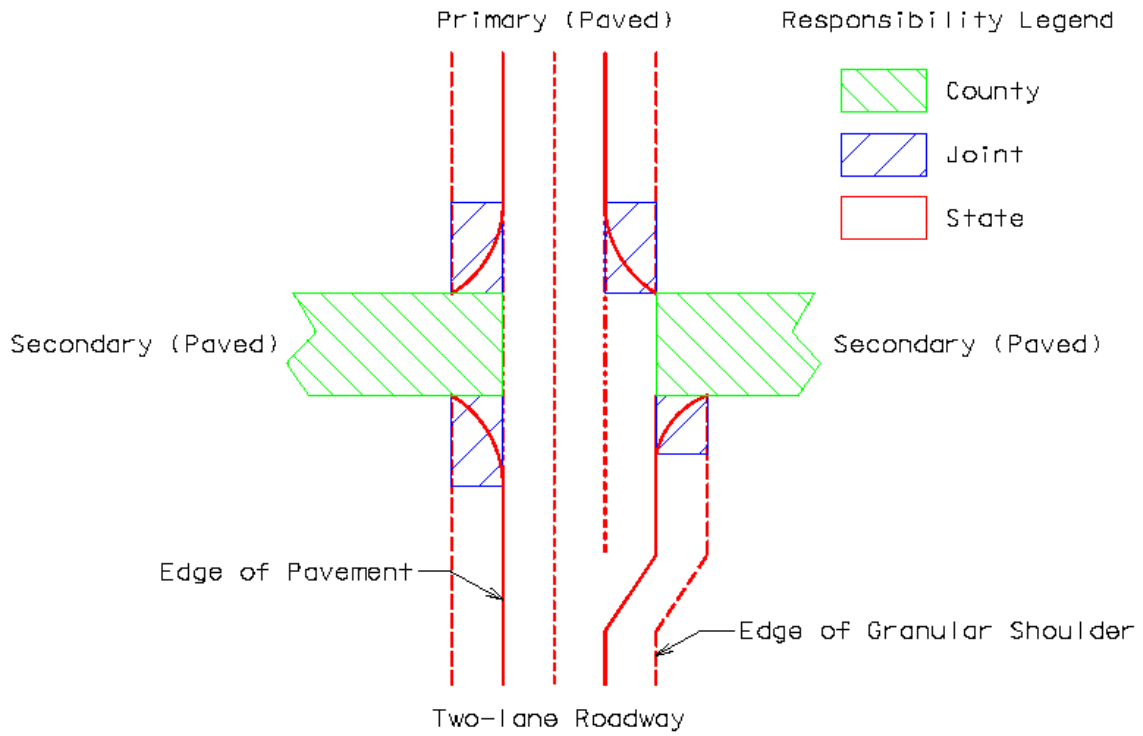


Figure 1

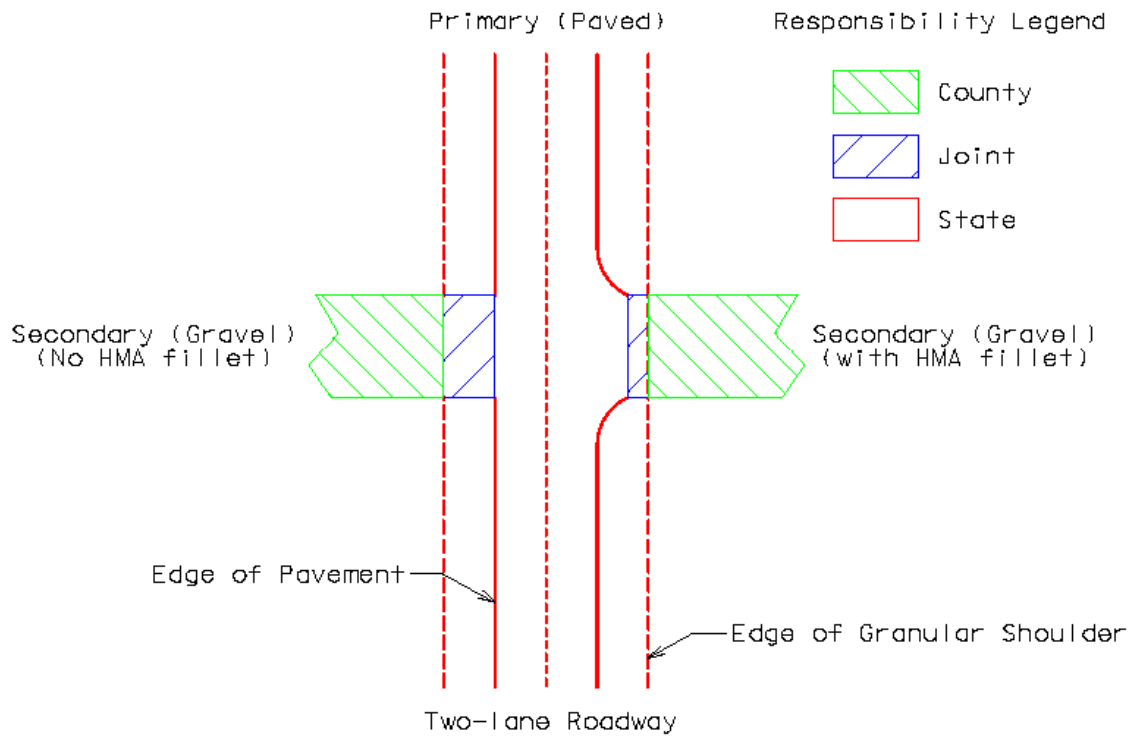


Figure 2

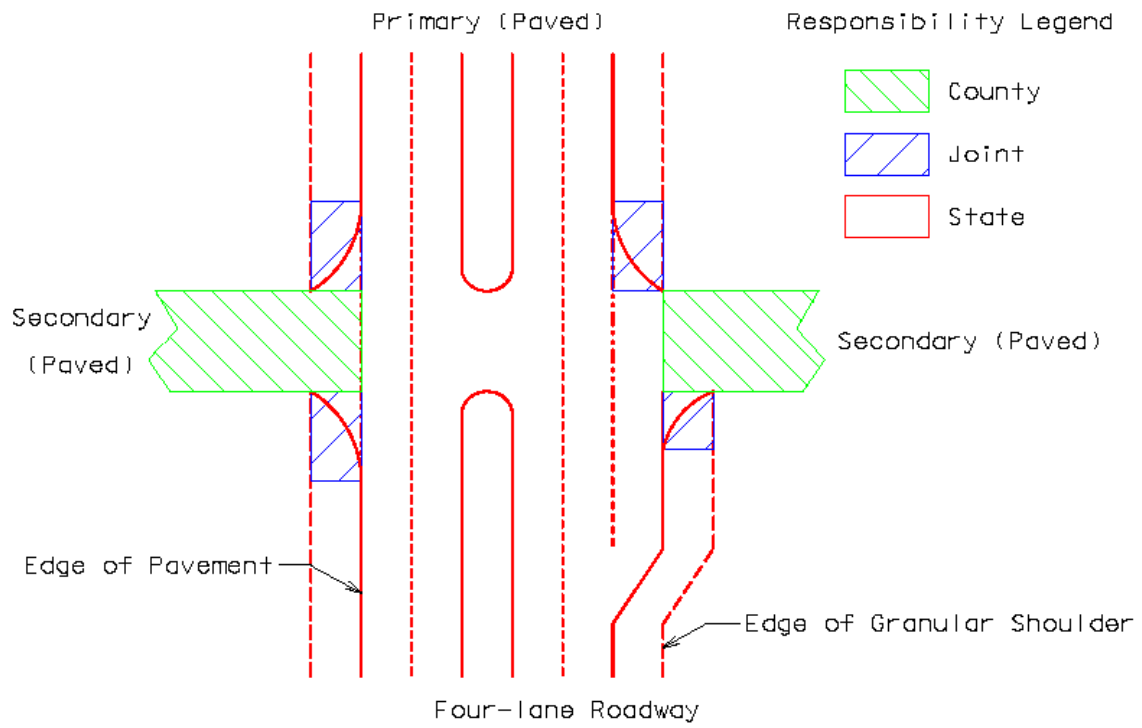


Figure 3

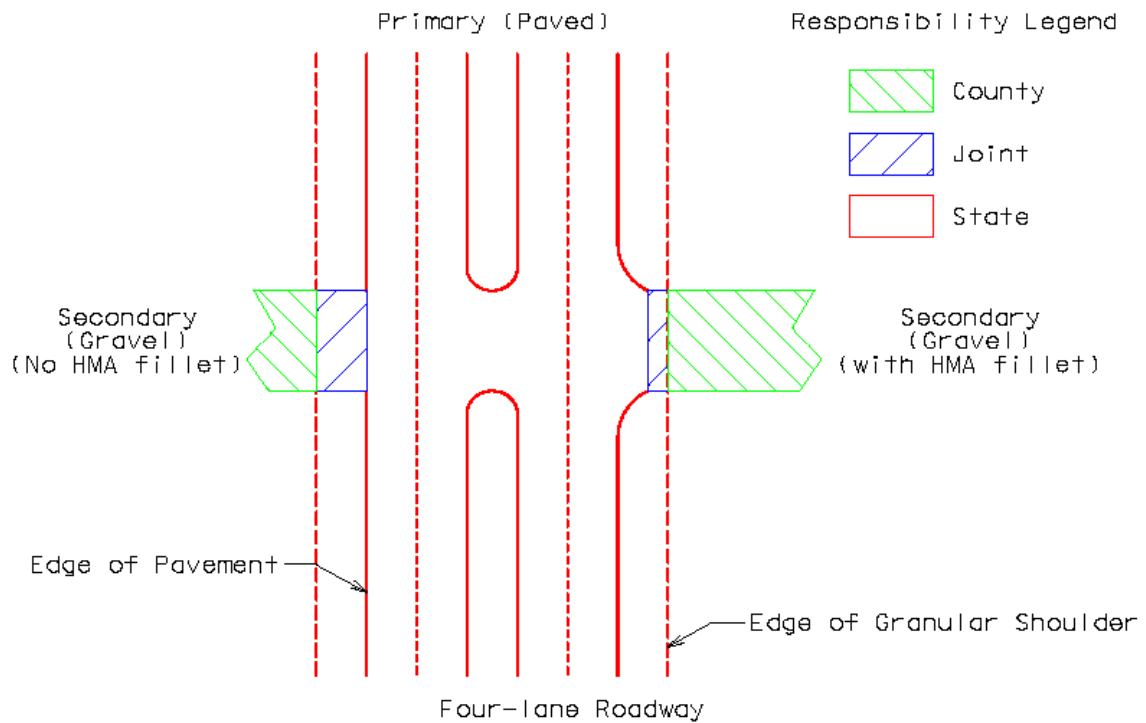


Figure 4

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.

Title Rural Intersection and Destination Lighting		Policy No. 630.01
Responsible Office Office of Traffic and Safety		Related Policies and Procedures
Effective/Revision Dates 10-15-90/ 3-16-04	Approval(s) Kevin M. Mahoney	

Authority: Director of the Highway Division in accordance with administrative rules 761 IAC Chapter 136, *Lighting* (reproduced in **Appendix**).

Contents: This policy establishes or references warrants, design requirements, responsibilities, and procedures for the installation of intersection or destination lighting within the limits of primary road right-of-way at rural primary/primary, rural primary/secondary, and other rural primary/minor road intersections.

Affected Offices: District Offices; Offices of Local Systems, Maintenance, Program Management, and Traffic and Safety.

Who to Contact for Policy Questions: Office of Traffic and Safety.

Definitions:

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

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 luminaires in this type of lighting installation will vary depending on the intersection configuration and the required lighting level.

Minor road - For the purpose of this policy, a minor road is an entrance to a primary road from a frontage road, a rural commercial establishment, a governmental agency facility, a generator of substantial traffic volume, or a secondary road.

Right-of-way - Land for any public road, street, or highway, including the entire area between the property lines.

Rural intersection - An intersection occurring on or outside a corporate line.

Forms:

810025 - *Application for Use of Highway Right-of-Way for Utilities Accommodation*

Policy and Procedure:

I. Lighting Warrants

The following criteria (warrants) shall be used to determine if a rural primary/primary, rural primary/secondary, or other rural primary/minor road intersection is a candidate for lighting. However, meeting the criteria does not obligate the Department to provide lighting or to

participate in lighting costs. Funding for lighting projects is measured in relation to the needs of the entire highway system and not by the criteria established by this policy.

If a rural primary/primary or a rural primary/secondary intersection does not qualify for intersection lighting under the established warrants, it will be evaluated under destination lighting warrants.

A. Intersection Lighting for Rural Primary/Primary Intersections

1. Proposed new or redesigned/reconstructed intersection: The intersection is a candidate for intersection lighting if the current average daily traffic (ADT) is 3500 entering vehicles for the intersection AND:
 - The intersection is channelized, OR
 - The intersection is a "T", OR
 - A change in the direction of the major route occurs.
2. Existing intersection: The intersection is a candidate for intersection lighting if:
 - It meets the criteria listed in administrative rule 761 IAC 136.1 (see **Appendix**) for the lighting of rural primary/secondary intersections, OR
 - It meets the criteria listed in paragraph A.1. above for the lighting of new or redesigned/reconstructed rural primary/primary intersections.

B. Intersection Lighting for Rural Primary/Secondary Intersections

See administrative rule 761 IAC 136.1 (reproduced in **Appendix**).

C. Destination Lighting for Rural Primary/Primary, Rural Primary/Secondary, and other Rural Primary/Minor Road Intersections

1. Proposed new or redesigned/reconstructed intersection: The intersection is a candidate for destination lighting if the current average daily traffic (ADT) is 1750 entering vehicles for the intersection AND:
 - The intersection is channelized, OR
 - The intersection is a "T", OR
 - A change in the direction of the major route occurs.

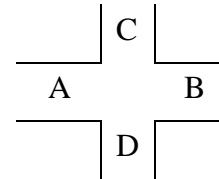
Regardless of volume, the intersection is also a candidate for destination lighting if the district has documentation of motorists experiencing operational problems which might be expected to be reduced by a destination light.

2. Existing intersection: The intersection is a candidate for destination lighting if one of the following is met:
 - The night-to-day crash ratio is 1.0 or greater with a minimum of 2 reportable nighttime crashes in a 5-year period (night-to-day ratio = 3 x nighttime crashes/daytime crashes).

- The warrants for destination lighting of new or redesigned/reconstructed intersections are met.
- After making the following calculations, the value of "c" exceeds 1000 points:

Calculation of "c":

Major traffic flow: A to B & B to A
 Minor traffic flow: C to D & D to C
 Possible left turns: A to C, B to D, C to B, & D to A



	Sight Distance	Speed Limit	Approaching Traffic
Actual A:	_____	_____	_____
Actual B:	_____	_____	_____
Standard:	2000 ft.	55 mph	
	1800 ft.	50 mph	
	1700 ft.	45 mph	
	1500 ft.	40 mph	

SAF = Safety Adjustment Factor

$$\text{SAF} = \frac{\text{Standard sight distance}}{\text{Actual sight distance}} \times \frac{\text{Actual approaching traffic}}{1000}$$

"A" SAF = _____ x _____ = _____
1000

"B" SAF = _____ x _____ = _____
1000

GSAF = Greater Safety Adjustment Factor
 = Greater "A" SAF or "B" SAF

GSAF x Traffic from C to D	=	
GSAF x Traffic from D to C	=	
GSAF x Traffic from C to B x 1.5	=	
GSAF x Traffic from D to A x 1.5	=	
"A" SAF x Traffic from B to D x 1.5	=	
"B" SAF x Traffic from A to C x 1.5	=	_____
"c"	=	

II. Design Requirements

The design of a lighting installation for a rural primary/primary, rural primary/secondary, or other rural primary/minor road intersection shall comply with Departmental specifications and Standard Road Plans for highway lighting, with the following general requirements:

- A. The electrical distribution system shall be adequate for the intended loads. Where breakaway poles are to be installed, the electrical distribution system shall be underground from the point of delivery. Where wood poles are allowed, the electrical distribution system may be underground or overhead. All underground circuits shall be in conduit. Conduit risers on wood lighting poles shall be placed away from traffic.
- B. The luminaire shall normally be placed to the left of traffic approaching the primary road from the secondary or minor road. For rural primary/primary intersections, the minor road shall be the primary road with the stop control. "All way" stop intersections shall be evaluated on a case-by-case basis.
- C. The typical distance from the near edge of the primary road traveled way to a light pole on the shoulder of the secondary or minor road shall be 48 feet for both a two-lane primary road and a four-lane divided primary road.
- D. All light poles adjacent to paved roadways shall be mounted on breakaway bases. The pole footings shall be constructed with the top surfaces flush with the ground surface.
- E. A breakaway light pole shall be placed with optimum lateral clearance. Lateral clearance is the distance between the edge of shoulder and the face of the pole. The breakaway pole must be placed within a zone that will optimize the height of impact due to the bumper trajectory of a vehicle leaving the shoulder at high speed, yet provide a minimum clearance for snow removal. The optimum lateral clearance is typically achieved when the breakaway pole is placed 2 feet beyond the shoulder-foreslope break point.

For unpaved roads, where breakaway design is not required, the maximum normal horizontal mastarm span of 15 feet should be used. Location of the pole in relation to the centerline of the minor road should be determined such that an acceptable compromise between illumination, clear zone, drainage, and right-of-way considerations is achieved.

- F. Typically, placement of the mastarm and luminaire in relation to the secondary or minor road shall be as follows:
 - 1. The mastarm shall be placed at a horizontal 90 degree angle to the centerline of the secondary or minor road, with an allowable tolerance of minus 2 to plus 2 degrees. The mastarm requirements are as follows:

Type of Roadway	Shoulder Width	Mastarm Length	Lateral Clearance
paved	2 feet	4 feet	2-3 feet
paved	4 feet	6 feet	2-3 feet
paved	6 feet	8 feet	2-3 feet
paved	8 feet	10 feet	2-3 feet
paved	10 feet	12 feet	2-3 feet
unpaved	none	15 feet	as app'l

Mastarm length may vary from the chart only if the requirements for overhang and lateral clearance are met.

- 2. The luminaire should be mounted so that the center of the light source, approximately 1.5 feet from the edge of the luminaire, overhangs the near edge of the pavement (or if unpaved, the edge of the roadbed) from minus 1 to plus 3 feet.

- G. The luminaire shall be specifically designed for highway lighting. The luminaire shall have a totally prismatic, enclosed refractor designed for horizontal lamp operation. The luminaire shall be rigidly mounted and shall have ANSI/IES "CUTOFF" glare control. Recommended light distribution is ANSI/IES Type II-M or Type III-M. The use of high pressure sodium luminaires is recommended.
- H. The vertical distance between the center of the light source and the surface of the roadbed is the mounting height.
 - 1. For intersection lighting, the recommended mounting height is 50 feet. Lower mounting heights will be considered with adequate justification; however, the minimum mounting height is 40 feet.
 - 2. For destination lighting, the minimum mounting height is 30 feet. A mounting height of 35 or more feet is desirable.
 - 3. Maximum lumen outputs for corresponding mounting heights are as follows:

Mounting Height	Maximum Lamp Lumen Output	Mercury Vapor	High Pressure Sodium
30-34 feet	11,000	H37KB-250	S54SB-100
35-49 feet	20,000	H33-1CD	S55SC-150
50 feet	30,000	H33-1CD	S50VA-250

III. Financial Responsibilities

A. Rural Primary/Primary Intersections

If warranted, the Department may install intersection or destination lighting at a rural primary/primary intersection. The Department shall be responsible for the installation and future energy and maintenance costs of this lighting. However, if the intersection falls on the corporate line, the future energy and maintenance costs shall be distributed in accordance with administrative rule 761--150.3(3)"b".

B. Rural Primary/Secondary and other Rural Primary/Minor Road Intersections

See administrative rules 761 IAC Chapter 136 (reproduced in **Appendix**).

IV. Procedures

A. Rural Primary/Primary Intersections

- 1. Proposed new or redesigned/reconstructed intersections: The Office of Traffic and Safety shall evaluate, during design, proposed new intersections and those proposed for redesign/reconstruction to determine if intersection lighting is warranted. If the intersection does not qualify for intersection lighting, it will be evaluated under destination lighting warrants.

The Office of Traffic and Safety is responsible for preparing the lighting plans for letting.

2. Existing intersections:

- a. A request for lighting an existing intersection shall be submitted to the district office. The district office shall submit the request to the Office of Traffic and Safety for evaluation.
- b. The Office of Traffic and Safety shall evaluate the request against intersection and destination lighting warrants and notify the district office as to whether intersection or destination lighting is recommended.
- c. The district office shall notify the requester of the results of the review. If lighting is recommended, the district office is responsible for initiating action to obtain program approval and funding.
- d. The Office of Traffic and Safety is responsible for preparing the lighting plans for letting.

B. Rural Primary/Secondary and other Rural Primary/Minor Road Intersections

1. Proposed new or redesigned/reconstructed intersections: The Office of Traffic and Safety shall evaluate, during design, proposed new intersections and those proposed for redesign/reconstruction to determine if intersection lighting is warranted. If the intersection does not qualify for intersection lighting, it will be evaluated under destination lighting warrants.

2. Existing intersections:

- a. A request for lighting an existing intersection shall be submitted to the district office. The district office shall be responsible for approval of any requests in accordance with administrative rules 761 IAC 136.1 and 761 IAC 136.2 (see **Appendix**).
- b. For rural primary/secondary intersection lighting requested by a county or other applicant (see rule 761 IAC 136.1), the district office shall ask the Office of Traffic and Safety to review the request.

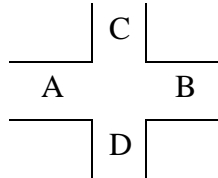
The Office of Traffic and Safety shall evaluate the request against intersection lighting warrants, notify the district office as to whether funding for intersection lighting is recommended, and advise the district office of possible funding sources and responsibilities.

- c. For destination lighting requested by a county or other applicant (see rule 761 IAC 136.2), the district office may ask the Office of Maintenance to review the request.
- d. The Office of Traffic and Safety shall review rural primary/secondary intersection lighting plans submitted by the county for approval prior to contract letting or the installation of lighting. The appropriate district and the Office of Local Systems shall be notified of the results of the review.

Appendix
Administrative Rules 761 IAC Chapter 136
Lighting

761—136.1(319) Lighting of primary-secondary intersections. The purpose of this rule is to establish the qualification criteria, application procedure and financial responsibilities for the placement of roadway luminaires within the limits of the primary road right-of-way at a rural intersection of a primary road and a paved secondary road.

136.1(1) Lighting criteria. A primary-secondary intersection is a candidate for lighting if one of the following is met:



Major traffic flow (primary): A to B & B to A
Minor traffic flow (secondary): C to D & D to C
Possible left turns: A to C, B to D, C to B, and D to A

- a. The night-to-day accident rate ratio is 2.0 or greater with a minimum of three reportable nighttime accidents in a 12-month period.
- b. Substantial lighted commercial or business development that is affecting operations exists adjacent to the intersection.
- c. Motorists are experiencing operational problems which might be expected to be reduced by lighting.
- d. The current average daily traffic (ADT) is 3500 entering vehicles for the intersection and:
 - (1) The intersection is channelized or "T," or
 - (2) A change in the direction of the major route occurs.
- e. After making the following calculations, the total in subparagraph (3) below exceeds 3000 points.
 - (1) Determine the "Roadway/Traffic Factors" for traffic at A and for traffic at B, using the following formula and "Standard Sight Distances for Speed":

$$\begin{array}{l} \text{Roadway/} \\ \text{Traffic} \\ \text{Factor} \end{array} = \frac{\text{Standard Passing Sight} \\ \text{Distance for Speed}}{\text{Actual Sight Distance}} \times \frac{\text{Actual Approaching} \\ \text{Traffic Volume}}{1000}$$

Standard Passing Sight Distances For Posted Speeds

Speed	Distance
55 mph	2000 ft.
50 mph	1800 ft.
45 mph	1700 ft.
40 mph	1500 ft

- (2) Compare the two answers; the larger number is the "Greater Roadway/Traffic Factor."
- (3) Calculate points based on the following formula, using current average daily traffic (ADT):

Greater Roadway/Traffic Factor x Traffic Volume from C to D	=	_____
Greater Roadway/Traffic Factor x Traffic Volume from D to C	=	_____
Greater Roadway/Traffic Factor x Traffic Volume from C to B x (1.5)	=	_____
Greater Roadway/Traffic Factor x Traffic Volume from D to A x (1.5)	=	_____
Roadway/Traffic Factor for A x Traffic Volume from B to D x (1.5)	=	_____
Roadway/Traffic Factor for B x Traffic Volume from A to C x (1.5)	=	_____
TOTAL	=	_____

136.1(2) Reserved.

136.1(3) Procedures.

a. A request for lighting shall be made by the county to the appropriate district engineer. The request shall indicate the type and size of luminaires proposed, sight distance measurements and posted speed. If the county is requesting that the department participate in the installation costs as a C-STEP (County-State Traffic Engineering Program) project, this should be indicated in the request. A lighting plan shall accompany the request showing:

- (1) The complete dimensions of the intersection including pavement and shoulders.
- (2) The locations of proposed luminaires and poles.
- (3) The mounting heights, mast arm lengths, lateral and vertical light distributions of proposed luminaires and the approximate location for electrical service.

b. The district engineer shall forward the request to the department's office of traffic and safety for review.

c. If design requirements are satisfied, the department shall approve the lighting installation.

(1) The county shall be responsible for designing and installing the lighting and for all future energy and maintenance costs.

(2) If the location qualifies for lighting installation and if funds are available, the department shall share the installation costs on the basis of the current C-STEP participation ratio.

(3) If the department does not share the installation costs but the county wishes to install the lighting, the county shall be responsible for the installation costs.

d. If the department will share the installation costs, the department shall prepare an agreement for departmental and county approval.

This rule is intended to implement Iowa Code sections 319.1, 319.12 and 319.14.

761—136.2(319) Destination lighting. The purpose of this rule is to establish the application procedure and financial responsibilities for the placement of a roadway luminaire within the limits of primary road right-of-way at a rural intersection of a primary road and a minor road.

136.2(1) Definition.

"Minor road," for the purposes of this rule, is an entrance to a primary road from a frontage road, a rural commercial establishment, a governmental agency facility, a generator of a substantial traffic volume, or a secondary road.

136.2(2) Reserved.

136.2(3) Procedures.

a. Application shall be made to the appropriate district engineer on Form 810025, "Application for Use of Highway Right-of-Way for Utilities Accommodation." The application shall indicate the type of luminaire and intensity of illumination proposed. A sketch shall accompany the application showing the location of the proposed luminaire and pole and the mounting height of the luminaire.

b. The district engineer shall be responsible for departmental approval of the application. A copy of the application indicating the district engineer's determination shall be returned to the applicant. Approved applications are termed "permits."

c. The applicant shall be responsible for installing the lighting and for all installation, energy and maintenance costs.

This rule is intended to implement Iowa Code sections 319.1, 319.12 and 319.14.

761—136.3 to 136.5 Reserved.

761—136.6(306) Warrants and design requirements for lighting.

136.6(1) Warrants. Meeting departmental warrants or criteria for lighting simply establishes the location as a candidate for lighting. It does not obligate the department to provide lighting or to participate in lighting costs.

136.6(2) Design requirements. The design of lighting installations shall comply with departmental specifications and standard road plans for highway lighting as they exist at the time of installation of the lighting.

This rule is intended to implement Iowa Code subsections 306.4(1) and 669.14(8).

[Filed 8/7/02, Notice 6/26/02—published 9/4/02, effective 10/9/02]

Title Interchange and Freeway Lighting		Policy No. 630.03
Responsible Office Office of Traffic and Safety		Related Policies and Procedures
Effective/Revision Dates 5-1-77/ 3-16-04	Approval(s) Kevin M. Mahoney	

Authority: Director of the Highway Division.

Contents: This policy establishes the warrants and the programming procedure for lighting freeways and interchanges.

Affected Offices: District Offices; Offices of Traffic and Safety and Program Management.

Who to Contact for Policy Questions: Office of Traffic and Safety.

Definitions:

Freeway - A primary highway constructed with Priority I access control. For the purpose of highway lighting, "freeway" means a primary highway constructed with Priority I access control for a length of five miles or greater.

Freeway lighting, continuous - Lighting along the entire length of the freeway traffic lanes and complete lighting at all interchanges.

Freeway lighting, conflict-point - Lighting only in areas of potential traffic movement conflicts; i.e., at sideroad terminals or locations of merging, diverging or weaving traffic.

Interchange - A system that provides for the movement of traffic between intersecting roadways via one or more grade separations.

Complete interchange lighting - Lighting of the freeway through the interchange, the traffic lanes of all ramps, the acceleration and deceleration lanes, all ramp terminals, and the crossroad between the outermost ramp terminals.

Partial interchange lighting, terminal - Lighting with luminaire(s) near some or all ramp terminals.

Partial interchange lighting, conflict-point - Lighting the general areas where the exit and entrance ramps connect with the through traffic lanes of the freeway and where the ramps intersect the crossroad.

Warrants - The criteria for roadway lighting established by the American Association of State Highway and Transportation Officials (AASHTO).

Forms: None.

Policy and Procedure:

I. General

- A. Administrative rules 761 IAC 150.2(3) and 150.3(3) apply to lighting primary road extensions.
- B. Priority points for all existing unlighted interchanges shall be calculated as shown in the **Appendix** of this policy.
- C. New interchanges shall be evaluated according to the **Appendix** using the projected traffic and night-to-day crash ratios of the statewide average for similar types of interchanges.
- D. Recommendations for the programming of lighting projects is a responsibility of the Highway Division and is determined in relation to the needs of the entire highway system and not on the warrants established by this policy. Meeting the criteria, therefore, does not obligate the Department to provide lighting.

II. Responsibilities

- A. The Office of Traffic and Safety shall:
 - 1. Evaluate the possibility of including lighting in projects for construction or reconstruction of freeways and interchanges.
 - 2. Update annually a list of all existing unlighted interchanges on freeways and other primary roads.
 - 3. Review the list of unlighted interchanges and evaluate them according to warrants. Submit the list of interchanges to the Director of the Highway Division with recommendations. The Director of the Highway Division will then in consultation with the Office of Program Management determine if they should be considered for programming.
 - 4. As directed, prepare plans for interchange and freeway lighting projects.
- B. Upon recommendation by the Director of the Highway Division and when funding is available, the Office of Program Management shall recommend the inclusion of projects for lighting specific interchanges in the Five-Year Transportation Improvement Program for approval by the Transportation Commission.

III. Warrants

- A. The following criteria must be met for a lighting project:
 - 1. Partial interchange lighting. Partial interchange lighting shall meet one or more AASHTO warrants, plus one of the following conditions:
 - a. The night-to-day crash ratio is 2.0 or greater with a minimum of 3 nighttime reportable crashes in a 12-month period at the interchange (night-to-day ratio = 3 x nighttime crashes/daytime crashes). If this criterion is met, a review should be made of the crash data to determine if lighting would be beneficial.
 - b. Substantial lighted commercial or industrial development that is affecting operations exists within one-half mile of the interchange.

- c. Motorists are experiencing operational problems which might be alleviated by lighting.
 - d. The interchange qualifies for complete interchange lighting under AASHTO warrants.
2. Complete interchange lighting. Complete interchange lighting is warranted if the interchange is located within a length of continuously lighted freeway.
3. Freeway lighting.
- a. Conflict-point freeway lighting is warranted when, after considering AASHTO warrants and specifics of the location, the Department determines that lighting is prudent.
 - b. Continuous freeway lighting is warranted when AASHTO warrants for continuous freeway lighting are met and the Department, after considering the specifics of the location, determines that this level of lighting is justified.
 - c. Either complete or conflict-point interchange lighting may be used for interchanges within a conflict-point lighted freeway.

Appendix**Interchange Lighting Priority Ranking Factors**

	Factor	Rating Value	Weight
1.	Ramp Type		
	Direct	1	
	Diamond	2	
	Cloverleaf and Button Hooks	3	1
	Trumpet	4	
	Scissors and left entrance and exit	5	
2.	Crossroad		
	2 lane	1	
	3 or 4 lane	3	1
	4 lane divided	5	
3.	Horizontal Curvature Of Mainline		
	0° to 1°00'	1	
	1°01' to 2°00'	2	
	2°01' to 3°00'	3	8
	3°01' to 4°00'	4	
	>4°00'	5	
4.	Commercial Development		
	None	1	
	1 quadrant	2	
	2 quadrant	3	2
	3 quadrant	4	
	4 quadrant	5	
5.	Crashes (Night/Day Rate Ratio)		
	< 1.5	1	
	1.5 - 2.0	2	
	2.1 - 3.0	3	8
	3.1 - 4.0	4	
	> 4.0	5	
6.	Operational (Traffic), VPD		
	= 1,000	1	
	1,001 - 5,000	2	
	5,001 - 10,000	3	5
	10,001 - 15,000	4	
	> 15,000	5	
7.	Sight Distance (Feet)		
	> 1,000	1	
	700 - 1,000	2	
	500 - 699	3	1
	400 - 499	4	
	< 400	5	

See next page for sample calculations

Sample Calculations For Interchange Lighting Priority Ranking Factors

	Factor	Rating Value		Weight		Points
1.	Ramp Type = Diamond	2	x	1	=	2
						+
2.	Crossroad = 2 Lane	1	x	1	=	1
						+
3.	Horizontal Curvature = 0°40'	1	x	8	=	8
						+
4.	Commercial Development = 2 Quadrant	3	x	2	=	6
						+
5.	Crashes (N/D Rate Ratio) = 12	5	x	8	=	40
						+
6.	Operational (Traffic), VPD = 1823	2	x	5	=	10
						+
7.	Sight Distance (Feet) = 270	5	x	1	=	<u>5</u>
					=	72

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To: Counties	Date: May 12, 2014
From: Office of Local Systems	I.M. No. 2.220
Subject: Establishing and Signing Area Service B and Area Service C Roads	

Contents: This Instructional Memorandum (I.M.) includes guidelines and procedures for a Local Public Agency (LPA) to establish different levels of maintenance for Area Service Roads and to instruct counties of the options available and requirements for the establishment of lower maintenance roads. This I.M. also includes the following attachments:

[Attachment A](#) - Area Service “B” Sample Ordinance ([Word](#))

[Attachment B](#) - Area Service “B” Sample Resolution ([Word](#))

[Attachment C](#) - Area Service “C” Sample Ordinance ([Word](#))

[Attachment D](#) - Area Service “C” Sample Resolution ([Word](#))

Introduction

Iowa Code Section [309.57](#) allows a county board of supervisors, after consultation with the county engineer, to classify their area service roads into three classifications termed Area Service A, Area Service B, and Area Service C. Area Service A roads are to be maintained in conformance with applicable statutes. Area Service B roads may have a lesser level of maintenance, as specified by the county board of supervisors, after consultation with the county engineer. Area Service C roads have restricted access and a minimal level of maintenance, as specified by the county board of supervisors, after consultation with the county engineer.

House File (HF) 768 enacted during the 1981 legislative session allowed counties to designate a lower level of maintenance for certain Area Service Roads which would be known as Level B roads. The legislation did not designate a procedure to establish Level B roads.

The Iowa State Association of Counties (ISAC) asked their legal counsel to review the legislation and recommend a procedure. ISAC subsequently issued a memo, dated [November 18, 1981](#), and on file in the Office of Local Systems, to Boards of Supervisors recommending that an ordinance be used to establish a Level B system. The basis for the recommendation was that an ordinance is actually a county law and a resolution is simply a setting of county policy, usually an administrative type act. A quote from the ISAC memo: “A county supervisor acting in a legislative capacity is immune from personal liability. A supervisor would not be immune from personal liability as a result of an administrative act unless it could be established that you acted in good faith.” Ordinances also require hearings and publication, resolutions do not. ISAC also developed a model ordinance that they distributed later. See [Attachment A](#) ([Word](#)) to this I.M.

The Level C classification was added in 1991 by HF 419. This third classification was developed to provide a means to limit access to roads that primarily serve adjacent farming operations and there has been resistance to vacating them. This legislation included language stating that stated Level C roads may only be established by ordinance or resolution. The original legislation required a petition from adjacent landowners before the Board could act on a reclassification. This requirement was removed as part of the SF 451 legislation that was passed in 2003.

The decision whether to classify roads as Level B or Level C by ordinance or resolution, rests with the Board of Supervisors. According to ISAC, the ordinance process provides more opportunity for public notification and reduces personal liability for board members. Several counties have established a Level B or Level C system by ordinance and then use resolutions to add or remove roads from the system.

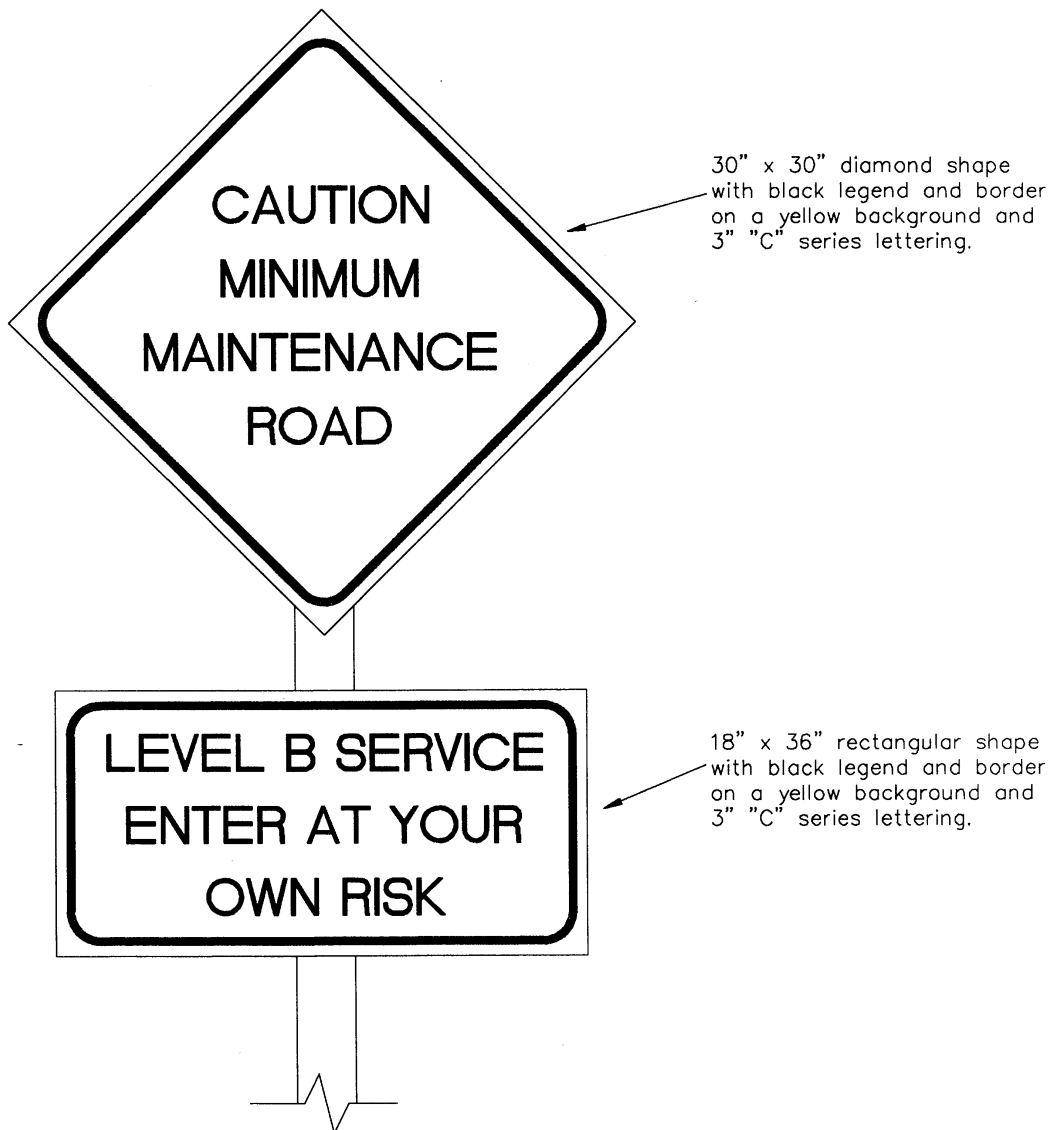
AREA SERVICE B ROADS

Roads may only be classified as Area Service B by ordinance or resolution. Roads designated as Area Service B are required to have appropriate warning signs, erected and maintained by the county, at all access points from other public roads. The warning sign size, type, and message are illustrated on page two of this I.M.

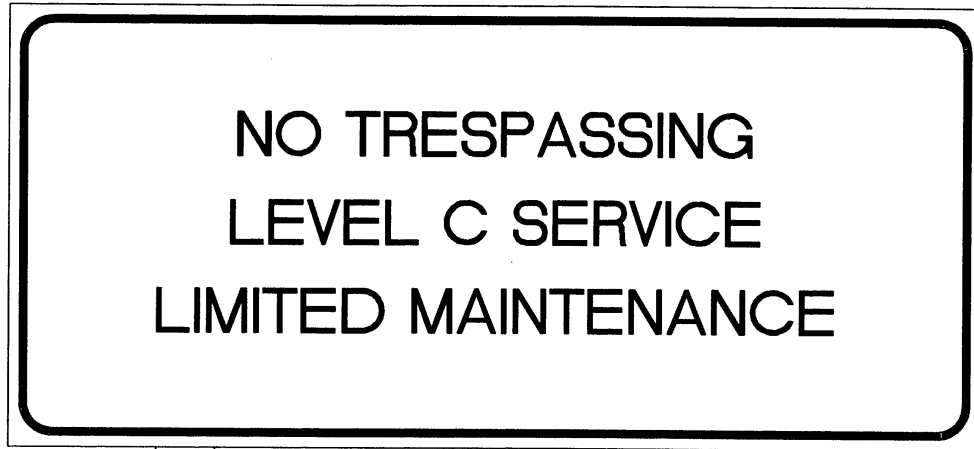
AREA SERVICE C ROADS

Roads may only be classified as Area Service C by ordinance or resolution. The ordinance or resolution shall specify the level of maintenance and the persons who will have access rights to the road. Roads designated as Area Service C are required to have appropriate regulatory signs, erected and maintained by the county, at all access points from other public roads. In addition, Area Service C classification roads shall adequately warn the public that access is limited. Access to the road shall be restricted by means of a gate or other barrier. The regulatory sign size, type and message are illustrated on page three of this I.M.

Installation of the signs shall be in accordance with the current Iowa Signing Manual as per 761 Iowa Administrative Code (IAC) [Section 130](#).



SIGNS REQUIRED AT ALL ACCESS POINTS OF LEVEL B ROADS



30" x 66" rectangular shape
with black legend and border
on a white background and
4" "C" series lettering.

SIGNS REQUIRED AT ALL ACCESS POINTS OF LEVEL C ROADS

AREA SERVICE "B" ROAD MAINTENANCE ORDINANCE

(County Name) County Ordinance No. _____

TITLE. An ordinance establishing the Area Service System B Road Classification in (county name) County, Iowa.

Be It Enacted by the Board of Supervisors, (county name) County, Iowa:

Section 1. **PURPOSE**

The purpose of this ordinance is to classify certain roads on the area service system in (county name) County to provide for a reduced level of maintenance.

Section 2. **DEFINITIONS**

For use in this ordinance, certain terms or words used herein shall be interpreted or defined as follows:

1. "Area Service System" include those public roads outside of municipalities not otherwise classified.
 - a. "Area Service System "A" roads shall be maintained in conformance with applicable state statutes.
 - b. "Area Service System "B" roads shall not require standards maintenance equal to farm to market, or area service system A roads. Area Service System B roads shall not mean what is construed in the normal sense as a driveway or private lane to a farm building or dwelling.
2. "Board" shall mean the Board of Supervisors of (county name) County.
3. "Engineer" shall mean the County Engineer of (county name) County.
4. "County" shall mean (county name) County.

Section 3. **POWERS OF THE BOARD**

All jurisdiction and control over Area Service System B roads as provided by this ordinance shall rest with the Board of Supervisors of (county name) County.

Section 4. **AUTHORITY TO ESTABLISH**

The Board of Supervisors of (county name) County is empowered under authority of Iowa Code Section 309.57, to classify secondary roads on the area system to provide for a reduced level of maintenance on roads so designated. The Board shall, by

resolution, declare its intention to establish an Area Service System B Road in (county name) County after consultation with the County Engineer.

Section 5. **NOTICE AND HEARING**

The Board shall fix a time and place for a hearing and cause notice to be published as provided by law. The notice shall set forth the termini of the Area Service System B Road as set out in the Resolution of the Board, and shall state that all persons interested may appear and be heard at such hearing.

Section 6. **HEARING-AREA SERVICE SYSTEM B ROAD ESTABLISHED BY RESOLUTION**

On the day fixed for the hearing or any day to which the hearing has been adjourned, upon proof to its satisfaction made by affidavit of due publication and posting of the notice of hearing, the Board shall consider any and all relevant evidence, and if the Board finds that the proposed Area Service System B Road is practicable, it may establish it by proper Resolution.

Section 7. **MAINTENANCE POLICY**

Only the minimum effort, expense and attention will be provided to keep Area Service System B roads open to traffic. Bridges may not be maintained to carry legal loads, but will be posted as appropriate to advise of any load limitations. For the various maintenance activities, the minimum maintenance on Area Service Level B Roads will be as follows:

1. **Blading.** Blading or dragging will not be performed on a regular basis.
2. **Snow and Ice Removal.** Snow and ice will not be removed, nor will the road surface be sanded or salted on a regular basis.
3. **Signing.** Except for load limit posting for bridges, signing shall not be continued or provided. **ALL AREA SERVICE LEVEL B ROADS SHALL BE IDENTIFIED WITH A SIGN AT ALL POINTS OF ACCESS TO WARN THE PUBLIC OF THE LOWER LEVEL OF MAINTENANCE.**
4. **Weeds, Brush and Trees.** Mowing or spraying weeds, cutting brush and tree removal will not be performed on a regular basis. Adequate sight distances will not be maintained.
5. **Structures.** Bridges and culverts may not be maintained to carry legal loads. Upon failure or loss, the replacement structure will be appropriate for the traffic thereon.

6. Road Surfacing. There will be no surfacing materials applied to Area Service System B Roads on a regular basis.
7. Shoulders. Shoulders will not be maintained on a regular basis.
8. Crown. A crown will not be maintained on a regular basis.
9. Repairs. There will be no road repair on a regular basis.
10. Uniform Width. Uniform width for the traveled portion of the road will not be maintained.
11. Inspections. Regular inspections will not be conducted.

Section 8. **EXEMPTION FROM LIABILITY**

As provided in said Iowa Code Section 309.57, the County and Officers, Agents, and Employees of the County are not liable for injury to any person or for damage to any vehicle or equipment, which occurs approximately as a result of the maintenance of a road which is classified as Area Service System B, if the road has been maintained as provided in Section 7 of this ordinance.

Section 9. **REPEALER**

All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 10. **SEVERABILITY CLAUSE**

If any section, provision, or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section 11. **WHEN EFFECTIVE**

This ordinance shall be in effect after its final passage, approval and publication, as provided by law.

RESOLUTION FOR ESTABLISHMENT OF AREA SERVICE "B" ROADS

(County Name) County Resolution No. _____

WHEREAS, (county name) County desires to classify certain roads on the area service system in the County to provide for a minimal level of maintenance; and

WHEREAS, (county name) County, after consultation with the County Engineer, has the authority to specify certain roads within the County as Area Service "B" roads pursuant to Iowa Code Section 309.57; and

WHEREAS, the (county name) County Board of Supervisors, after consulting with the (county name) County Engineer, desire to designate various roads in (county name) County on the Area Service "B" System to provide for a reduced level of maintenance in order to best utilize maintenance funds, and

WHEREAS, pursuant to Notice of Public Hearing duly published according to the Iowa Code, Public Hearing as held on the _____ day of (month), 20____ at _____ a.m. in the Board of Supervisors room at the (county name) County Courthouse, (city name of county seat), Iowa, to hear support and/or objections from the public on roads so designated.

THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF (COUNTY NAME) COUNTY that this County does hereby establish the road described as an Area Service "B" road, with restricted access and a minimal level of maintenance.

(enter a description of roads to be designated as Area Service B Roads here)

Resolution adopted this _____ day of (month), 20_____.

(county name) County Board of Supervisors

Board of Supervisors Chairperson

ATTEST:

(county name) County Auditor

AREA SERVICE “C” ROAD MAINTENANCE ORDINANCE

(County Name) County Ordinance No. _____

Title: An Ordinance Establishing the Area Service “C” Road Classification in (county name) County, Iowa.

Be It Enacted by the Board of Supervisors, (county name) County, Iowa:

Section 1. **PURPOSE**

The purpose of this ordinance is to classify certain roads on the area service system in the county as Area Service “C” roads so as to provide for a reduced level of maintenance effort and restricted access, pursuant to Iowa Code Section 309.57.

Section 2. **DEFINITIONS**

For use in this ordinance, certain terms or words used herein shall be interpreted or defined as follows:

1. “Area Service System” include those public roads outside of municipalities not otherwise classified.
 - a. “Area Service System “A” roads shall be maintained in conformance with applicable state statutes.
 - b. “Area Service System “C” roads shall not require standards maintenance equal to farm to market, or area service system A roads. Area Service System C roads shall not mean what is construed in the normal sense as a driveway or private lane to a farm building or dwelling.
2. “Board” shall mean the Board of Supervisors of (county name) County.
3. “Engineer” shall mean the County Engineer of (county name) County.
4. “County” shall mean (county name) County.

Section 3. **HOW ESTABLISHED**

- A. RESOLUTION: Roads may only be classified as Area Service “C” by resolution of the Board. The resolution shall specify the level of maintenance effort and the persons who will have access rights to the road.
- B. NOTICE OF ACTION: Before the Board may take action to establish an Area Service “C” road, a notice of the proposed action, including the location of the

Area Service "C" road and the time and place of the meeting at which the Board proposes to take action on the petition, shall be published as provided by law.

- C. BOARD ACTION: At the meeting, the Board shall receive oral or written comments from any resident or property owner of the county.

After all comments have been received and considered, the Board, at that meeting or date to which it is adjourned, may take action after consultation with the County Engineer.

Section 4. **ACCESS**

Access to any Area Service "C" road shall be restricted by means of a gate or other barrier, as determined by the County Engineer. The gate shall be purchased and installed by the County, and maintained by the adjoining landowners. If not so maintained, the County may remove the gate.

Section 5. **SIGNS**

Area Service "C" roads shall have signs conforming to the Iowa Signing Manual Per 761 Iowa Administrative Code (IAC) Chapter 130. The signs shall be installed and maintained by the County at all access points to the Area Service "C" roads from other public roads to warn the public that access is limited.

Section 6. **TRESPASS**

Entering an Area Service "C" road without justification after being notified or requested to abstain from entering or to remove or vacate the road by any person lawfully allowed access shall be a trespass as defined in Iowa Code Section 716.7.

Section 7. **RECLASSIFICATION**

A road with an Area Service "C" classification shall retain the classification until such time as a petition for reclassification is submitted to the Board. The petition shall be signed by one or more adjoining landowners. The Board shall approve or deny the request for reclassification within 60 days of receipt of the petition.

Section 8. **POWERS OF THE BOARD**

All jurisdiction and control over Area Service "C" roads shall rest with the Board, pursuant to the Iowa Code Section 309.57

Section 9. **EXEMPTION FROM LIABILITY**

As provided in Iowa Code Section 309.57, the County and officers, agents and employees of the County are not liable for injury to any person or for damage to any vehicle or equipment which occurs approximately as a result of the maintenance of a road which is classified as Area Service "C", if the road has been maintained to the level of maintenance effort described in the establishing resolution.

Section 10. **REPEALER**

All ordinances of parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

Section 11. **SEVERABILITY CLAUSE**

If any section, provision, or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section 12. **WHEN EFFECTIVE**

This ordinance shall be in effect after its final passage, approval and publication, as provided by law.

RESOLUTION FOR ESTABLISHMENT OF AREA SERVICE "C" ROADS

(County Name) County Resolution No. _____

WHEREAS, (county name) County desires to classify certain roads on the area service system in the County to provide for a minimal level of maintenance and access by means of a gate or barrier; and

WHEREAS, the County, after consultation with the County Engineer, has the authority to specify certain roads within the County as Area Service "C" roads pursuant to Iowa Code Section 309.57; and

WHEREAS, the only persons who will have access rights to the roads shall be:

- (1) the owner, lessee, or person in lawful possession of any adjoining land,
- (2) The agent or employee of the owner, lessee or person in lawful possession of any adjoining land,
- (3) any peace officer,
- (4) any magistrate,
- (5) any public employee whose duty it is to supervise the use or perform maintenance of the road,
- (6) any agent or employee of any utility located upon the road.

WHEREAS, the minimal level of maintenance will be as follows:

1. Blading. Blading or dragging will not be performed on a regular basis.
2. Snow and Ice Removal. Snow and ice will not be removed, nor will the road surface be sanded or salted on a regular basis.
3. Signing. Except for load limit posting for bridges, signing shall not be continued or provided. ALL AREA SERVICE LEVEL C ROADS SHALL BE IDENTIFIED WITH A SIGN AT ALL POINTS OF ACCESS TO WARN THE PUBLIC OF THE LOWER LEVEL OF MAINTENANCE.
4. Weeds, Brush and Trees. Mowing or spraying weeds, cutting brush and tree removal will not be performed on a regular basis. Adequate sight distances will not be maintained.
5. Structures. Bridges and culverts may not be maintained to carry legal loads. Upon failure or loss, the replacement structure will be appropriate for the traffic thereon.
6. Road Surfacing. There will be no surfacing materials applied to Area Service System C Roads on a regular basis.
7. Shoulders. Shoulders will not be maintained on a regular basis.

8. Crown. A crown will not be maintained on a regular basis.
9. Repairs. There will be no road repair on a regular basis.
10. Uniform Width. Uniform width for the traveled portion of the road will not be maintained.
11. Inspections. Regular inspections will not be conducted.

THEREFORE, BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF (COUNTY NAME) COUNTY that this County does hereby establish the road described as an Area Service "C" road, with restricted access and a minimal level of maintenance.

(enter a description of roads to be designated as Area Service C Roads here)

Resolution adopted this ____ day of (month), 20____.

(county name) County Board of Supervisors

Board of Supervisors Chairperson

ATTEST:

(county name) County Auditor

INSTRUCTIONAL MEMORANDUMS

To Local Public Agencies



To: Counties and Cities	Date: May 12, 2014
From: Office of Local Systems	I.M. No. 3.760
Subject: Public Interest Findings	

Contents: This Instructional Memorandum (I.M.) provides guidance and information about Public Interest Findings. It includes a description of what they are, conditions that require them, and procedures for their submittal, review, and approval. Except where noted otherwise, the guidance contained in this I.M. applies to any Local Public Agency (LPA) project let by the Iowa Department of Transportation (Iowa DOT), regardless of its funding source(s) or road system classification.

Introduction

There are many State and Federal rules, policies, and procedures that apply to construction contract lettings conducted by the Iowa DOT. For LPA Federal-aid projects, the Iowa DOT is responsible for monitoring the LPA's compliance with these rules, policies, and procedures. However, a limited number of these rules, policies, and procedures contain provisions that permit them to be waived under certain circumstances. A Public Interest Finding (PIF) is an approval by the Iowa DOT to allow such an exception.

As its name suggests, these exceptions are approved if it is in the public's best interest to do so. Usually, an exception is deemed to be in the public's best interest if it is more cost effective than following the established rule, policy, or procedure. Cost effectiveness means that the proposed action results in the lowest overall cost. However, in some situations, other factors may also be considered. A PIF, by its very nature, is an unusual situation. Therefore, the Iowa DOT will approve a PIF only after careful consideration of the specific situation and the precedent that may be set.

Conditions that Require a Public Interest Finding

For each condition listed below, the explanation describes why a PIF is required. In addition, guidance for justification of each type of PIF request is provided. The type and amount of justification required will vary, depending on the nature of the request. Whenever possible, the justification should be objective or quantifiable, such as a cost comparison or product research. The typical conditions that require a PIF include, but may not be limited to, the following:

Note: Conditions 2-6 are applicable both before and after the letting. Therefore, a PIF should be approved before issuing a change order for any of these conditions.

- 1. All of the applicable project clearances will not be obtained by the 1st Tuesday, 2 months prior to letting.***

Explanation: Projects let without the necessary clearances have an increased risk of delays and increased construction costs. To help minimize the potential for delays and increased costs, the Iowa DOT's policy is to ensure that all projects have the necessary clearances prior to this date. This date is when the Administering Office submits the project plans and specifications to the Office of Contracts. It marks the beginning of the letting process.

Project clearances, for the purposes of this document, shall include:

- Project Agreement (applicable to Federal-aid and State-aid projects only): This item is considered clear when the appropriate officials of both the Iowa DOT and the LPA have signed the project agreement.
- An approved Project Development Certification (PDC): This certification addresses several project clearances, including: railroads, utilities, permits for work on Primary Highways, and right-of-way acquisitions and relocations. These items are considered clear when the PDC has been approved (signed) by the appropriate Iowa DOT office(s). For more detailed guidance on each of the clearances addressed by the PDC, refer to [I.M. 3.750](#), Project Development Certification Instructions.
- U.S. Army Corps of Engineers 404 Permit (if applicable): This item is considered clear when the Corps has approved the applicable 404 permit application.

- d) Iowa DNR Floodplain Permit (if applicable): This item is considered clear when the Iowa DNR has approved the permit application.

Note: For Federal-aid projects, FHWA Environmental Concurrence is also an essential project clearance. However, since final design may not proceed until after Environmental Concurrence is received, this clearance must already have been obtained prior to submittal of final plans for letting. Therefore, a PIF will not be accepted for lack of this clearance.

The LPA should contact the Iowa DOT Administering Office for assistance in determining which clearances apply to a specific project.

Guidance: If a PIF is requested for this condition, the LPA's request shall address several things:

- a) Identify the project clearance that is not yet obtained.
- b) Explain the special circumstances that have prevented the LPA from obtaining the needed clearance in accordance with the established processes and typical timeframes. The LPA must be able to demonstrate that the circumstances were not reasonably foreseeable or are beyond their control. Lack of planning is not acceptable justification for approving a PIF for this condition.
- c) List the steps being taken to obtain the needed clearance. The LPA must be able to show that aggressive efforts are being made to obtain the needed clearance and their chances of success are high.
- d) Provide an estimate of when the needed clearance will be obtained. This estimate must be reasonable, given the typical timeframes for the clearance in question. A request that requires an accelerated process may not be approved.
- e) Explain the nature of and quantify, if possible, any anticipated negative impacts that are likely to result from delaying the project. The LPA should also explain why those potential impacts outweigh the additional risk of allowing the project to proceed in the letting without the clearance.

Except as noted below, all of the applicable clearances must be obtained by the 1st Tuesday, 1 month prior to letting. Otherwise, the project will be rescheduled for a later letting.

The 1st Tuesday, 1 month prior to letting is when the Iowa DOT begins requesting Federal Highway Administration (FHWA) authorization of projects for letting. As required by the Federal regulations ([23 CFR 635.309](#)), the Iowa DOT's request contains assurances that either all the necessary project clearances have been obtained or necessary arrangements have been made so that the project may progress without unnecessary delay or expense. The Iowa DOT is responsible to the FHWA for ensuring that all Federal-aid projects comply with these regulations. While non-Federal-aid projects don't require FHWA authorization, the same procedure will be used for all projects let by the Iowa DOT.

Under very limited circumstances, a project may proceed in the letting process without all the clearances up until the 1st Tuesday of the letting month, but only if the pending clearance is virtually assured. One example is if a right-of-way parcel has not been acquired but is scheduled for condemnation (i.e., a court date has been set) before the 1st Tuesday of the letting month. Another example is if formal permit approval is pending but the permitting agency has given written assurance that approval will be granted before the 1st Tuesday of the letting month.

2. *The contract documents direct the contractor to provide a single proprietary product.*

Explanation: Federal regulations ([23 CFR 635.411](#)), Iowa Code Section [73.2](#), and Iowa DOT policy requires procurement of construction contracts through a competitive bidding process. This condition is applicable whether the item in question will have Federal participation or not. Specifications that direct the contractor to provide a single proprietary product do not allow competition by other acceptable products. Use of such specifications may unnecessarily add to the project cost.

A product, specification, or process identified in the plans or specifications is considered proprietary if it includes a brand or trade name. If the designer is uncertain whether a particular name is considered a brand

or trade name, it may be helpful to consult the United States Patent Office [Trademark Electronic Search System](#).

Also, a specification is considered proprietary if it is so narrowly written that only one product can meet the requirements, even if a brand or trade name is not used.

Guidance: Generic, end-result specifications are always the preferred method because they promote competition. A less desirable but acceptable specification may include proprietary products if at least three acceptable products are listed along with the phrase, "or approved equal." However, if only one product is specified, one of the following justifications must be provided:

- a) The LPA certifies the product is necessary to ensure compatibility or synchronization with existing facilities or systems for one of the following reasons:
 - 1) Function – the product is necessary for the satisfactory operation of existing facilities.

For example, improvements to a traffic signal system may require a certain model of controller because other controllers would not be compatible with the existing traffic signal system.
 - 2) Aesthetics – the product is necessary to match the visual appearance of existing facilities.

For example, to avoid impacts to an historic district, it may be necessary to specify a certain style of street lights in order to match the appearance of the existing street lights that match those of a certain historical period.
 - 3) Logistics – the product must be interchangeable with other parts in the agency's existing inventory.

For example, an agency may specify a particular type of guard rail end terminal because it maintains a limited inventory of spare parts that are compatible with only this type of end terminal.
- b) The LPA certifies no alternative products exist that adequately meet the project requirements.
- c) The product is part of a research project approved by the Iowa DOT which is designed to test or evaluate new or experimental products. Please note:
 - Before initiating research or testing of an experimental product, LPAs should review the American Association of State Highway and Transportation Officials (AASHTO) [Product Evaluation List](#) to see if the product has already been evaluated.
 - If the experimental portion of the project is being funded by a Federal or State research program, and the purpose of the project is to test or evaluate the proprietary product, then no separate approval is required.
- d) The LPA believes it is in the public's best interest to specify a single proprietary product, even though other suitable products are available.

The LPA's request for the use of a single proprietary product shall identify the product and include additional information and / or supporting documentation. The type of information and / or supporting documentation required depends on the type of justification used, as indicated below.

For a justification based on a certification (justification a or b above), include the following:

- An estimate of the additional costs, if any, of providing the single proprietary product.
- The unique needs of the project and an explanation of why only one product can meet those needs.
- The pool of potential alternative products and an explanation of why none of these products can meet the needs of the project.
- If a higher than normal standard of performance is driving the need for the proprietary product, explain why the higher performance standard is needed.

For a justification based on research or experimental products (justification c above), include the following:

- A copy of the approved experimental product evaluation work plan. The work plan should conform to FHWA's guidance for [Construction Projects Incorporating Experimental Features](#).

For a justification based on a public interest finding (justification d above), in addition to the information listed for justifications a and b, include the following:

- An explanation of how the public benefit gained by using a single proprietary product outweighs the increased competition that would be obtained if other acceptable products were allowed.
- Since other acceptable products exist, the above point may be difficult to demonstrate; therefore, additional engineering or economic analysis may be necessary.

Regardless of whether a PIF is approved or what funds are used to pay for the item, any contract let using the Iowa DOT Standard Specifications must also comply with Buy America because these provisions are included in these specifications. The same is true of contracts let under other specifications that are within the scope of the National Environmental Policy Act (NEPA) document, if at least one of those contracts uses Federal-aid.

For additional guidance on the use of proprietary items, refer to [FHWA's Questions and Answers Regarding Title 23 CFR 635.411](#).

3. *The LPA will directly perform some or all of the construction work using its own labor, materials, or equipment; and the LPA will request Federal-aid participation in this work.*

Explanation: Federal regulations ([23 CFR 635.104](#)) require the construction work on Federal-aid projects to be accomplished by contract and awarded by competitive bidding. By completing the construction work with its own labor, materials, or equipment, the LPA is in essence competing with private contractors for this work.

Guidance: There may be situations where it is in the public's best interest for the LPA to complete the work using its own labor, materials, or equipment. This determination is made either on the basis of cost effectiveness or that an emergency situation exists.

To justify this condition on the basis of cost effectiveness, refer to the instructions and procedures contained in [I.M. 3.810](#), Federal-aid Construction by Local Agency Forces.

To justify this condition on the basis of an emergency, the LPA must be able to show that a major element or segment of the highway system has failed and immediate action is needed to:

- a) minimize the extent of damage,
- b) protect the remaining facilities, or
- c) restore essential travel.

Work that meets the emergency criteria may proceed prior to FHWA authorization. However, before such work may be reimbursed with Federal-aid, the Iowa DOT and FHWA must concur in the emergency determination and FHWA authorization must be received.

4. *The contract documents for a Federal-aid contract make publicly owned equipment available for use by the contractor.*

Explanation: Federal regulations ([23 CFR 635.106](#)) do not allow competition of publicly owned equipment with privately owned equipment in the completion of a highway construction contract.

Guidance: In some cases, it may be in the public's best interest to approve such a use of publicly owned equipment. This determination is made exclusively on the basis of cost effectiveness.

Therefore, the LPA must be able to substantiate the costs associated with use of its equipment and compare those to the costs that would be incurred by a contractor for similar use. In calculating its own equipment costs, the LPA must take into consideration the initial purchase price, as well as maintenance and operational costs. As an alternative to calculating its own equipment costs, the LPA may use the current [Iowa DOT Schedule of Equipment Rates](#) provided by the Iowa DOT Office of Local Systems.

If a PIF is approved for this condition, the contract documents must also contain the following information:

- a) a statement clearly indicating that publicly owned equipment will be made available for use by the contractor;
- b) a clear identification of the specific pieces of equipment that will be made available, the rates to be charged by the LPA (if any), and the locations where the equipment will be made available or delivered; and
- c) a statement giving the contractor the option of either using the publicly owned equipment or providing the necessary equipment to complete the work.

If the LPA charges a rental rate for such equipment, it shall not make a profit. If, due to unforeseeable circumstances, the use of publicly owned equipment is not approved until after the work has started, such use shall not be a basis for an increase in project costs, or Federal or State reimbursement.

5. *The contract documents for a Federal-aid contract specify that the contractor shall incorporate materials or products provided by the LPA into the project.*

Explanation: Federal regulations ([23 CFR 635.407](#)) require that all materials to be incorporated into the project be acquired through a competitive bidding process. This condition is applicable whether the item in question will have Federal-aid participation or not. Competitive bidding usually delivers the project at the lowest possible cost to the public. Requiring the contractor to use materials provided by the LPA does not allow contractors to select their own sources for materials or products, and may result in higher overall project costs.

Guidance: When considering the justification for this condition, materials or products furnished by the LPA will be evaluated on the basis of two general categories, as described below:

- a) **Manufactured materials (products):** Examples include items such as street lights, utility accesses or covers, water mains, fire hydrants, etc.

Justification of a PIF for this condition should be based on cost effectiveness or existing facilities / systems compatibility. The cost effectiveness determination shall consider all the costs of obtaining and providing the manufactured materials, even if they are provided to the contractor free of charge.

If a PIF is approved for the LPA to furnish manufactured materials or products to the contractor, their use must be made mandatory. Optional use is not permitted because this in effect allows the LPA to compete with private suppliers. Also, to be eligible for Federal-aid participation, the LPA must be able to demonstrate that the product was previously acquired through a competitive bidding process, unless another method has been approved by a separate PIF for a non-competitive contract award (see no. 2 above). Documentation describing the bidding process used, including the specifications, must be included in the PIF request.

- b) **Local natural materials:** Examples include earth material (borrow), HMA millings, crushed PCC pavement, sand, or gravel.

Justification of a PIF for this condition should be based on cost effectiveness. When calculating its cost for local natural materials, the LPA must account for all costs incurred in obtaining and providing the materials, such as their cost to acquire a borrow or quarry source, and their labor and equipment costs in transporting or stockpiling the material.

If a PIF is approved for the LPA to furnish local natural materials, the contract documents must clearly specify how and where they will be provided. If the LPA elects to deliver the materials to the project site, the method, frequency, and location of the delivery must be specified. Or, if the LPA chooses to make its stockpile, borrow, or quarry areas available for the contractor's use, their locations must be identified. Also, the unit price (if any) that will be charged for the materials must be stated in the contract documents. If Federal-aid participation is requested in the cost of local natural materials, the Federal-aid share will be limited to the LPA's actual costs, or the fair market value, whichever is less.

6. *The contract documents for a Federal-aid contract specify a mandatory disposal area for excavated materials.*

Explanation: Federal regulations ([23 CFR 635.407](#)) prohibit the contract documents from specifying a mandatory disposal site for excess excavated materials. This condition is applicable whether the item in question will have Federal-aid participation or not. The excess excavated materials may have some value. Therefore, if the contractor was allowed to dispose of the excavated materials elsewhere, perhaps by selling the excavated materials to another interested party, the contractor may be able to submit a lower bid as a result.

Excavated materials include earth, rock, sand, or gravel and crushed, broken, or milled pavement materials. Excavated materials do not include other items that may be salvaged, such as traffic signals, controller cabinets, light poles, guard rail, fire hydrants, manhole castings, street furniture, or retaining wall blocks.

Guidance: This requirement may be waived if the LPA can demonstrate that use of a mandatory disposal area is cost effective. Use of a mandatory disposal area may also be justified on the basis of environmental considerations, provided that it would not result in excessive extra costs. The findings of the environmental document may be used to substantiate a PIF based on environmental considerations.

If a PIF is approved for this condition, the location of the mandatory disposal area shall be clearly identified in the contract documents.

Note: Regardless of which type of materials are salvaged or whether a PIF is required, the cost of transporting and stockpiling any salvaged materials shall not have any Federal-aid or State-aid participation. For additional guidance, refer to Attachment A to [I.M. 3.505](#), Check and Final Plans.

Procedures for Requesting and Approving a Public Interest Finding

1. If the LPA proposes to do something that requires a PIF, the Iowa DOT Administering Office contacts the LPA and explains the reasons why the rule, policy, or procedure is in place. The Administering Office should encourage compliance with the rule, policy, or procedure by suggesting alternatives that do not require a PIF.
2. If, after consultation with the Administering Office, the LPA still feels that a PIF can be justified, the LPA shall submit a Public Interest Finding Request ([Form 517030](#)) to the Administering Office. This request shall include sufficient information and supporting documentation (e.g., cost comparisons, a description of specific project requirements, etc.) to support the PIF. The request form may be prepared by a consultant, but must be signed by the LPA staff person who is in responsible charge of the project.
3. The Administering Office reviews the LPA's request and either approves or disapproves the request in writing to the LPA. The Administering Office keeps a copy of the request and approval or disapproval in its project file. If the PIF was for a project clearance (see condition no. 1), the Administering Office's approval will also indicate how far the project may progress in the letting without the needed clearance. For most LPA projects, only the Administering Office approval is required. For projects with full oversight by FHWA, if the Administering Office recommends approval, it will forward the form to FHWA for review and approval.
4. When the project plans and specifications are turned-in to the Iowa DOT Office of Contracts, the Administering Office includes a copy of the LPA's approved PIF request. If the need for a PIF is discovered after the plans are turned-in, the approved PIF documentation shall be submitted to the Office of Contracts as soon as possible, but no later than the 1st Tuesday, 1 month prior to letting. Otherwise, the project will be rescheduled for a later letting.