

Title Sheet

Design Manual
Chapter 1
General Information

Originally Issued: 09-22-00
Revised: 05-23-07

This section contains information regarding title sheets. Section 1E-2 lists the various plan sheets associated with a project. This section goes into further detail concerning title sheets.

The Title Sheet should contain the following Design and Tabulation forms: Mileage or Project Length Summary (Tab 105-1), Index of Sheets (Tab 105-3), Standard Road Plans (Tab 105-4), and Design Data (Tab 101-4, 101-5, 101-6, or 101-7 depending on the type of highway). The Title Sheet should also include Type of Work, Project Location, Project Number, Project Identification Number (PIN), R.O.W. Project Number, County, Design Team, Revision Block, Primary Signature Block, Index of Seals, total number of pages or sheets, Letting Date, References to Specifications and Value Engineering remarks. These items will vary depending on the type of project. If there is room on the Title Sheet itself, a Project Location Map and Scale should also be provided; otherwise, they may be placed on the next sheet. Figure 10 at the end of this section demonstrates a Title Sheet.

Mileage or Project Length Summary (Tab 105-1)

A mileage summary is used with English units and provides a table in linear feet and miles of the lengths of project divisions (when applicable), equation corrections, bridges, and large box culverts. A project length summary is used with metric units and provides a table in meters and kilometers of the lengths of project divisions (when applicable), equation corrections, bridges, and large box culverts. The mileage or project length summary will remain basically the same for a grading, paving, and resurfacing project.

Divisions shall terminate where a change in funding occurs across (i.e. perpendicular to) the centerline or when a project identification is changed, for example county lines or city corporate lines. A county or corporate line that borders a roadway (see Figure 4) is not considered a termination point for a division. All project lengths should be given in feet (meters) with an accuracy of one hundredth of a foot (one thousandths of a meter). The total and net length of each division shall also be given in to the nearest one thousandths of a mile (one hundred thousandths of a kilometer).

Equation corrections should be determined and added or subtracted to obtain the proper project length of the project. Two types of equations may be encountered in a mileage or project length summary: minor equations of less than 100 feet (30 meters), or major equations of 100 feet (30 meters) and over. Figure 1 illustrates the two methods of correcting the mileage or project length summary with a minor and major correction—Division 1 demonstrates a minor equation and Division 2 demonstrates a major equation. The example is in English units, but the same procedure applies to metric units.

Bridges

Bridge lengths (either out to out distance or paving notch) should be accounted for in the mileage or project length summary by including, omitting, or deducting their respective lengths. Bridge lengths should be included in the roadway length only when resurfacing of the bridge floor is part of the work being done on the project. Bridge length should be omitted in projects where no work is being done on the bridge.

On projects where a bridge is being built or improved, the length should be deducted from the roadway project length. A total bridge length should be shown for the division and/or project and should be included in the total project length.

Culverts

Box culverts which have a span of more than 20 feet (6 meters) measured along centerline between inner faces of outside walls, and including inner walls of any multiple structure (see Figure 2) are treated in the same manner as a bridge.

MILEAGE SUMMARY			
			105-1
			09-27-94
DIV.	LOCATION	LIN. FT.	MILES
1	Rural: Sta. 10+00.00 to Sta. 25+32.26	1532.26	
	Equation: Sta. 18+75.00 (Back) = Sta. 18+94.50 (Ahead) (Shortens Line)	19.50	
	Deduct Bridge at Sta. 21+32.00	125.00	
	Total Length of Roadway in Division 1	1387.76	0.263
	Total Length of Bridge in Division 1	125.00	0.024
Total Length of Division 1		1512.76	0.287
2	Urban: Sta. 25+32.26 to Sta. 35+32.26	1000.00	
	Equation: Sta. 35+32.26 (Back) = Sta. 36+50.00 (Ahead)		
	Sta. 36+50.00 to Sta. 62+50.00	2600.00	
	Omit Bridge at Sta. 53+20.00	498.00	
	Total Net Length of Division 2	3102.00	0.587
Total Net Length of Roadway in Project		4489.76	0.850
Total Net Length of Bridge in Project		125.00	0.024
Total Net Length of Project		4614.76	0.874

Figure 1: Sample Mileage Summary with equations.

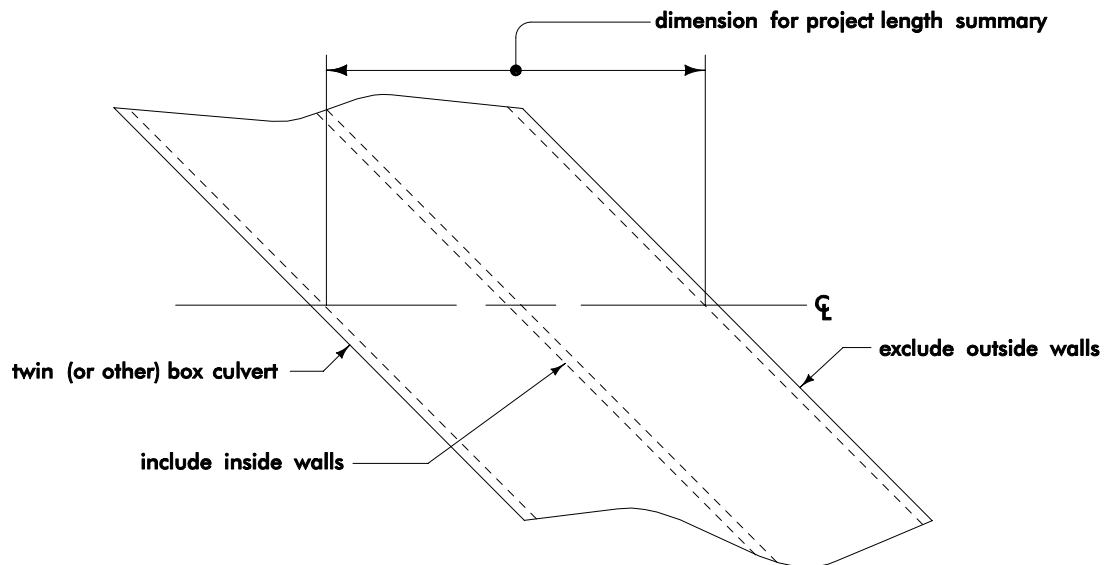


Figure 2: Box culvert dimension for Project Length Summary.

Projects with no Mileage or Project Length Summary

Some projects, for example resurfacing a small intersection, will not have a mileage or project length summary. If a project does not have a mileage or project length summary, then a notation (see Figure 3) will be used in place of Design Typical 105-1. Projects with no mileage or project length summary will be located on the location map by a small circle and a PROJECT LOCATION label.

NO MILEAGE SUMMARY

NO PROJECT LENGTH SUMMARY

Figure 3: Notation for projects with no mileage or project length summary.

Mile Post

The Iowa Pavement Management System uses the milepost system for project location, data collection, and analysis. This also applies to metric projects. In order to insure the integrity of the project history files, it has been determined that the Office of Design will locate all design projects by milepost limits which have a structural impact on the roadway, for example overlays, widening units, subdrain installation, inlays, reconstruction, etc.

Obtain route milepost number for one or more key locations within project limits and determine appropriate mileposting of beginning and ending points of project. Show these milepost numbers as part of the Project Location Map on the title sheet. For metric projects on roadways originally surveyed in English, station equations shall be provided at the beginning and end of the project on the plan and profile sheets. They may also be provided on the Project Location Map. Care must be given to ensure correct mileposting where dual numbered routes exist or where route relocations require equations in mileposting. Figure 4 provides examples for English and metric units.

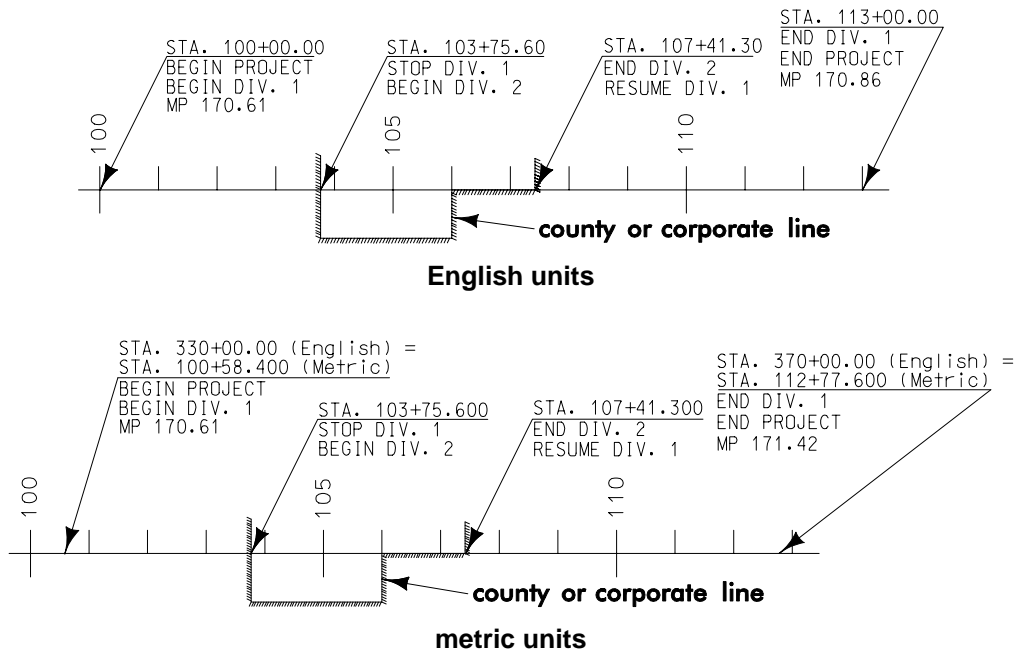


Figure 4: Mileposting example.

Index of Sheets (Tab 105-3)

The Index of Sheets provides a listing of all of the pages or sheets included in a project. Section 1E-2 of this manual explains the numbering system to be used.

Standard Road Plans (Tab 105-4)

This provides a table of Standard Road Plans which apply to the project. The dates used in this table are the revision dates provided on the Standard Road Plans used. If room doesn't exist on the title sheet, this tab may be placed in the "C" sheets. A note similar to Figure 5 should appear on the title page.

Refer to Sheet C.03 for
Standard Road Plans

Figure 5: Standard Road Plans location box.

Design Data (Tab 101-4, 101-5, 101-6, or 101-7)

The Design Data consists of major controls or services for which a highway is designed. Design Details 101-4, 101-5, 101-6, or 101-7 should be used to show the data depending on the location (Rural or Urban) and the type (Primary or Interstate) of highway being constructed.

Other Information

As mentioned, the following information should also be included.

Type of Work

This provides the statement of the work to be performed, for example HMA RESURFACING WITH MILLING, or PCC PAVEMENT - NEW. This statement is tied to the work type code. Refer to a table of work type codes for proper code descriptions. Contact the Office of Contracts for work types not listed in the table of work type codes.

Project Location

This provides a brief statement of the project location, for example ON IA. 18 FROM NORA SPRINGS TO EAST OF RUDD 0.89 MILES.

Project Location Map and Scale

The Title Sheet should also provide a map of the project location along with a scale. A small Iowa state map with the county or counties involved marked, see Figure 6, should be a part of the project location map.

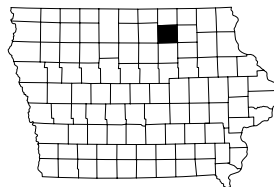


Figure 6: Sample state map to be used as part of the project location map.

If the project is such that a large map is required, or if the tab sheets fill a large enough area that placing a map on the Title Sheet isn't possible, the map and scale may instead be placed on the next sheet. If the map and scale are placed on the next sheet, a note should be placed on the Title Sheet referring to the project location map, see Figure 7.

For Project Location Map
Refer to Sheet No. A.02

Figure 7: Project map location box.

Project Number and Project Identification Numbers (PINs)

The Office of Contracts provides these numbers. The Project Number should be listed in the upper left, upper right and lower right of the Title Sheet. The segment and section PINs should be listed in the upper right of the Title Sheet.

R.O.W. Project Number

The Office of Right of Way provides this number. It should be located in the upper right of the Title Sheet.

County

The county in which the project takes place should be listed in the center and at the bottom of the Title Sheet. If the project is located in more than one county, the county in which the project begins should be listed first.

Design Team

The project engineer and other individuals or consultants involved with the design of the project should be listed at the bottom of the Title Page.

Revision Block

A Revision Block should be included. Revisions included in this box are generally those made during the construction of the project and are included in the "As-Built" plans.

Primary Signature Block

The Primary Signature Block should include the name and seal of the engineer who is overall in charge of the project's design. See Section 1E-1 of this manual for more information regarding signature blocks.

Index of Seals

Since project plans often will require several engineers' signatures, an index of seals should be provided that will list the names of those engineers, the types of signature blocks, and the pages on which their signature blocks appear. A space should be left after the name of the engineer who is in overall charge of the project's design to provide for revisions. See Section 1E-1 of this manual for more information regarding signature blocks.

Total

This should appear in the upper right hand corner of the Title Sheet and provide a count of the total number of pages or sheets in the project plan.

Letting Date

A box for the letting date should be provided in the upper left hand corner of the Title Sheet. The designer inserts the letting date.

References to Specifications

A box shall be provided stating which specifications apply to the construction work on a project. This box should be similar to Figure 8.

The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction, series of 2001, plus current Supplemental Specifications and Special Provisions shall apply to construction work on this project.

Figure 8: Sample reference to specifications box.

Value Engineering Remarks

A box should be provided referring to Article 1105.15 of the Specifications, similar to Figure 9.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.

Figure 9: Sample value engineering box.

Iowa One Call

The Title Sheet shall provide the Iowa One Call number.



Figure 10: Iowa One Call.

