Iowa Department of Transportation

Office of Transportation Data

Division of Planning and Programming

Base Record Road and Structure Data

May 2001

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Introduction

The Office of Transportation Data, Division of Planning and Programming, is responsible for developing and maintaining the Base Record Road, Structure Data and Public Railroad information. This manual indicates the instructions for updating the Oracle database through GIMS and microstation. It includes the information about the data items so that information can be retrieved and distributed to our customers.

Road systems Information:

PRIMARY ROAD DATA
JURISDIC = 1
DIRECTION='N'
DELDATE IS NULL

SECONDARY ROAD DATA
JURISDIC = 6
STATEROUTEPREFIX = "0" or "1"
STATCODE<>1 OR <> 4 <> 2
DELDATE is null
DIRECTION is "N"

To calculate VMT
(Laneleng* # of days in the year*AADT)/1000 = Current VMT

MUNICIPAL ROAD DATA
JURISDIC=6
STATEROUTEPREFIX <>"0" OR <> "1"
DELDATE is Null

To calculate VMT:
Laneleng* # of days in the year*(AADT*(1+Expfactor)^(PresentYear-CountYear)) = Current VMT
(^ means raised to the power of)

NOTE: There is an application in ACCESS named INVENTORY that is used by Traffic counting. The application makes full use of all the above. To calculate AADT on the Inventory database this formula is used__>(CurrentVMT/365/Currentlength)*1000

MAINLINE vs. nonMAINLINE ROADS

Mainline roads – To get miles for mainline roads, sum all Primary roads (see above) Laneleng for function< 50

NonMainline roads- To get miles for non-mainline roads, sum all Primary roads (see above) Laneleng for function>49

Institutional Roads- Indicated by jurisdiction of 4.

ORACLE DATABASE TABLES

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STRUCTURE OR BRIDGE TABLES
STRUC_BASE
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STRUC_PASS
STRUC_PONTIS

The following is the format that is used in Base Record Road, Rail Road and Structure Data.

1.	2.	3.
DESCRIPTION	FIELD NAME	DATA TYPE

1. DESCRIPTION: Is a description of the data in the field name.

2. FIELD NAME: Is the name of the field in the Base Record.

3. **DATATYPE**:. It indicates Numeric, Varchar or Char/Alpha characters, and the number of characters or digits.

MSLINK DESCRIPTION

All data in the road tables are linked by the field mslink.
All data in the structure tables are linked by the field mslink.
All data in the railroad tables are linked by the field mslink.

The mslinks in each of the above three table types are not linked to each other.

To link the structure tables to the road tables you link by connecting the STRUC_PASS table and the BRROAD_CONTROL_XY table using:

Countyno, jurisdic, syscode, statcode, Stateroutеprefix, stateroute, and statesegseq

To link the Rail tables to the Road tables you link by connecting the RR_CONTROL_XY table and the ROAD_INV table using:

Iowacross linked to iaxing1 or iaxing2 or iaxing3. After linking these two tables make sure you link the Road_Inv table to the BRROAD_CONTROL_XY table.

The data on the Base Record is in English units. The field descriptions in this document are in English.

ROAD TABLES

BRROAD_CONTROL_XY

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

COUNTY NUMBER FIELD NAME:COUNTYNO NUMBER (2)

The two digit county number is stored in this field. (See Appendix 1).

JURISDICTIONAL CODE FIELD NAME:JURISDIC NUMBER (1)

Indicates the jurisdictional responsibility for the segment of road.

Code	Description
1	Iowa Department of Transportation
2	Department of Natural Resources
3	Department of Social Services
4	Board of Regents
5	Federal Domain
6	Local
7	Iowa National Guard
8	Other State Lands

SYSTEM CODE FIELD NAME:SYSCODE NUMBER (1)

Indicates the state assigned system for the road segment.

Code	Description
1	Interstate
2	US Route
3	Iowa Route
4	Farm to Market Route
5	Local Road
9	Construction

STATUS CODE FIELD NAME:STATCODE NUMBER (1)

Identifies the road segment as open, legal not open, or proposed.

Code	Description
0	Open
1	Legal not open
2	Proposed

3 Existing Road with no data

PREFIX FOR INDEXING FIELD NAME:STATEROUTEPREFIX VARCHAR2 (1)

This field indicates the index. On primary and institutional roads this field will always be the number '0'. Secondary road will be the first digit of the township. Municipal roads will be a letter that has been assigned to each city within a county. (See Appendix 3)

Code	
0 =	Institutions
0 =	Primary
First digit of township =	Secondary
Alphanumeric =	Municipal

STATE ROUTE NUMBER FIELD NAME:STATEROUTE VARCHAR2 (4)
STREET NAME NUMBER

On primary roads, this four digit field will always be the state route number with leading zeros.

Primary Road Only	Example
0030	US 30

On secondary roads, this four digit field will be the township number in the first two spaces and the range in the next two spaces with the letters in the first space and the number in the next space.

Secondary Road Only		Example	
Township	2 spaces	88	
Range	2 spaces	E2	Code - 88E2

*The first digit of the state route number or township number is coded in the STATEROUTEPREFIX field.

On municipal roads, this will be street number assigned as shown on the city map

Municipal Road Only	Example
Ames	1000

On institutional roads, this will be the road number assigned as shown on the map for the institution with leading zeros.

Institutional Road Only	Example
Iowa State University	0001

STATE SEGMENT SEQUENCE FIELD NAME:STATESEGSEQ NUMBER (4)

On secondary roads, this field will be the section number & the road number as shown on the plat maps with leading zeros if applicable.

Section Number 01
Road Number 02 Code - 0102

On primary, municipal and institutional roads, sequence numbers are used to progressively order road segments by route within a county. The sequence numbers begin at the west or south county line or at the beginning of the route.

Breaks in road sections are made on a route at the following points:

1. intersection with other roads;
2. an intersection with corporation lines;
3. a change in the function code;
4. a change in type section;
5. a change in interstate traveled way;
6. interchange ramps and the point of intersection of the interchange;
7. a section line;
8. a change in rural-urban area lines;
9. a change in surface type, surface width or shoulder width;
10. a traffic volume change;
11. a change in the FHWA Route Number;
12. a change in the maintenance contract area on the primary roads.
13. a parking change;
14. a rating change of two or more points.
15. a change in state functional class
16. a change in federal functional class

On institutional roads, the sequence numbers begin at the entrance to the institution or at the junction of another road in the institution and does not follow the west and south guidelines.

Code
0001

911 STREETNAME	FIELD NAME: NINEONEONE	NUMBER (4)

The name used by the 911 system to identify that road.
On municipal roads, this is the name of the street as shown on street signs or on the city map as inventoried by municipal crews.
On institutional roads, the name of the institution is used in this field.
On secondary roads, E911 road names.

TOWNSHIP	FIELD NAME:TOWNSHIP	NUMBER (3)

This field identifies the township location.

Code	Township Number
094	94N
100	100

RANGE	FIELD NAME:RANGENO	VARCHAR (2)

This field identifies the range location.

Code	Range Number
01	R-1W
23	R-23W
E1	R-1E
E3	R-3E

SECTION	FIELD NAME:SECTIONNO	NUMBER (2)

This field identifies the section number of the township and range location.

Code	Section Number
01	1
03	3
15	15
23	23

ROAD NUMBER	FIELD NAME:ROADNO	NUMBER (2)

This two-digit road number identifies the road segment which is located in each section of land. West-east roads are assigned odd numbers and south-north roads are assigned even numbers starting at the northwest corner of each section of land working east and south.

Code	Road Number
01	1
03	3
15	15

H AND T MAPS	FIELD NAME: HANDT	NUMBER (3)

This field is used in creating the H and T maps. It is a computer generated field.

ADD DATE	FIELD NAME: ADDDATE	DATE

This is the date and timestamp for when the record was added to the base record.

DELETE DATE	FIELD NAME: DELDATE	DATE

This is the date and timestamp for when the record was deleted from the base record.

MODIFY DATE	FIELD NAME: MODDATE	DATE

This is the date and timestamp for when the record was last modified in the base record.

NUMBER OF VERTICES	FIELD NAME:NUMVERTICES	NUMBER (3)

This is the number of vertices that exist on that section of road.

X COORDINATES	FIELD NAME: XCOORDS	VARCHAR2 (4000)

These are the X coordinates for placing the data on a map. Generated by microstation when the road is digitized.

Y COORDINATES	FIELD NAME:YCOORDS	VARCHAR2 (4000)

These are the Y coordinates for placing the data on a map. Generated by microstation when the road is digitized.

NUMBER OF STRUCTURES	FIELD NAME: NUMSTRUC	NUMBER (2)

This is the number of structures on that section of road. Enter the number of bridges on the road segment. A bridge or culvert is when this section of road passes over another road, waterway, railroad, or other such feature. A bridge or culvert must have a total length of 6.1 meters or more.

FHWA STRUCTURE NUMBER	FIELD NAME: FHWASTRUCUPASS	VARCHAR2 (70)

This field will list all the FHWA structures that are on or over that section of road. FHWA numbers are 6 digits followed by the lscode. A lscode of 0 indicates that the structure is an overpass or possible and underpass. A lscode of 1 indicates that the bridge is an overpass. Maximum of (insert amount) bridges on a section. The corresponding FHWA structure number will be found in the STRUC_CONTROL_XY TABLE. Tables can be linked via the COUNTYNO, JURISDIC, SYSCODE, STATCODE, STATEROUTEPREFIX, STATEROUTE, STATESEFSEQ fields on the STRUC_PASS table. The order in which the FHWA#'s are listed in this field should reflect the order of the bridges on the segment. Order starts in the southern or eastern end of the segment.

BRROAD_COUNTY_DATA

COUNTY NUMBER	FIELD NAME:COUNTYNO	NUMBER (2)

The two digit county number is stored in this field. (See Appendix 1). This field can be linked to any table that contains the Countyno field.

Code
10
85

COUNTY NAME	FIELD NAME:COUNTYNAME	VARCHAR2(15)

The name of the county. Will correspond to the County number field.

MODIFY	FIELD NAME: MODDATE	DATE

DATE		

The date this table was modified.

ROTATION ANGLE	FIELD NAME: ROTATIONANGLE	NUMBER (16

Microstation field.

XLOW	FIELD NAME: XLOW	NUMBER (16)

Microstation field.

YLOW	FIELD NAME: YLOW	NUMBER (16)

Microstation field.

XHIGH	FIELD NAME: XHIGH	NUMBER(16)

Microstation field.

YHIGH	FIELD NAME:YHIGH	NUMBER (16)

Microstation field.

BR_CURVE		
DIRECTION	FIELD NAME: DIRECTION	CHAR (1)

This field indicates the direction of travel. S for southbound and N for northbound.

CURVES	FIELD NAME: CURVENUMX	NUMBER (20
	FIELD NAME: CURVELENGX	NUMBER(2,2)

These fields are used by primary and secondary roads and was computer generated from the photolog Interface. .

0-1.4 Degree Curve	
Number of Curves	Field Name CURVENUM1
Length of Curves	Field Name:CURVELENG1
1.5-2.4 Degree Curve	
Number of Curves	Field Name: CURVENUM2
Length of Curves	Field Name: CURVELENG2
2.5-3.4 Degree Curve	
Number of Curves	Field Name: CURVENUM3
Length of Curves	Field Name: CURVELENG3
3.5-4.4 Degree Curve	
Number of Curves	Field Name: CURVENUM4
Length of Curves	Field Name: CURVELENG4

4.5-5.4 Degree Curve
Number of Curves Field Name: CURVENUM5
Length of Curves Field Name: CURVELENG5
5.5-6.9 Degree Curve
Number of Curves Field Name: CURVENUM6
Length of Curves Field Name: CURVELENG6
7.0-8.4 Degree Curve
Number of Curves Field Name: CURVENUM7
Length of Curves Field Name: CURVELENG7
8.5-10.9 Degree Curve
Number of Curves Field Name: CURVENUM8
Length of Curves Field Name: CURVELENG8
11.0-13.9 Degree Curve
Number of Curves Field Name: CURVENUM9
Length of Curves Field Name: CURVELENG9
14.0-19.4 Degree Curve
Number of Curves Field Name: CURVENUM10
Length of Curves Field Name: CURVELENG10
19.5-27.9 Degree Curve
Number of Curves Field Name: CURVENUM11
Length of Curves Field Name: CURVELENG11
28 & Over Degree Curve
Number of Curves Field Name: CURVENUM12
Length of Curves Field Name: CURVELENG12

BR_DUPROUTE

COUNTY NUMBER FIELD NAME:COUNTYNO NUMBER (2)

The two digit county number is stored in this field. (See Appendix 1).

Code
10
85

JURISDICTIONAL CODE OF DUPLICATE RTE FIELD NAME:JURISDIC NUMBER (1)

Indicates the jurisdictional responsibility for the segment of road.

Code	Description
1	Iowa Department of Transportation
2	Department of Natural Resources
3	Department of Social Services
4	Board of Regents
5	Federal Domain
6	Local
7	Iowa National Guard
8	Other State Lands

SYSTEM OF DUPLICATE RTE	FIELD NAME:SYSCODE	NUMBER (1)

This field is used when a road segment carries more than one designated route. The order of precedence for the major and duplicate routes is as coded. If the routes are of the same system, the lower numbered route takes precedence over the higher numbered route. It is used on primary roads only.

Code	Description
1	Interstate
2	US Route
3	Iowa Route

STATUS CODE OF DUPLICATE RTE	FIELD NAME:STATCODE	NUMBER (1)

Identifies the road segment as open, legal not open, or proposed.

Code	Description
0	Open
1	Legal not open
2	Proposed
3	Existing Road with no data

PREFIX FOR INDEXING DUPLICATE ROUTE	FIELD NAME:STATEROUTEPREFIX	VARCHAR2 (1)

This field indicates the index. On primary and institutional roads this field will always be the number '0'. Secondary road will be the first digit of the township. Municipal roads will be a letter that has been assigned to each city within a county. (See Appendix 3)

Code	
0 =	Institutions
0 =	Primary
First digit of township =	Secondary
Alphanumeric =	Municipal

DUPLICATE ROUTE NUMBER	FIELD NAME:STATEROUTE	VARCHAR(4)

This field is used to indicate the route number of the duplicate route. It is used on primary roads only.

Code	Description
0030	US 30
0146	IA 146

DUPLICATE ROUTE SEGMENT SEQUENCE FIELD NAME:STATESEGSEQ NUMBER (4)

The sequence numbers are used to progressively order sections of a route within a county. This field indicates the sequence of the duplicate route in the direction of travel of the duplicate route. The breaks are the same as on the major route only in the direction of travel of the duplicate route. It is used on primary roads only.

CODE
0010
0020

COUNTY SEQUENCE FIELD NAME:RTECOSEQ NUMBER (2)

Counties are numbered in order along the route from west to east or south to north across the state. A route can have more than one county sequence number in a given county if the route leaves the county and then re-enters the county. It is used on primary roads only.

Code
00
99

SUFFICIENCY SECTION FIELD NAME:SUFFSEC NUMBER (3)

The sufficiency section uses the same breaks as the major route, it is used on primary roads only.

Code
000
999

CONTINUITY CONTROL FIELD NAME:SUFFCONTINUITY NUMBER (2)

The Office of Systems Planning assigns this number. It is applicable to primary roads only.

Code
01
09

GMI FIELD NAME:SUFFGMI NUMBER (2)

The Office of Systems Planning is responsible for this item. It is applicable to primary roads only.

Code
0
9

OPPOSITE DIRECTION OF MAJOR ROUTE	FIELD NAME:OPDIRECTION	CHAR (1)

This field indicates if the duplicate route is running in the opposite direction of the major route. It is used only on records which contain structures.

Code	Description
Y	Yes, duplicate route is running in the opposite direction of the major route.
N	No, duplicate route is running in the same direction as the major route.

DUPLICATE ROUTE DESCRIPTION TEXT	FIELD NAME:DUPDESCRIPTION	VARCHAR(50)

A narrative description of that sections location, using features such as highway junctions, street intersections, surface width changes, etc. to describe beginning and ending locations of that section of road or bridge location.

Code
Alphanumeric field up to fifty characters.

MSLINK	FIELD NAME:MSLINK	NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

BR_GRADE

DIRECTION	FIELD NAME: DIRECTION	CHAR (1)

This field indicates the direction of travel. S for southbound and N for northbound.

GRADES	FIELD NAME: GRADENUMx	NUMBER(2)

The grades on municipal roads are obtained by interfacing the photolog tape. The grades on primary, secondary and institutional roads will be entered in two ways. On those road segments that are photologged for HPMS, the grade will be obtained by interfacing the photolog tape. The remainder of the road segments will be supplied by inventory crews. Enter these as follows:

Enter the number of grades in each grade group.

1.0-1.9 Percent	Field Name: GRADENUM1
2.0-2.9 Percent	Field Name: GRADENUM2
3.0-3.9 Percent	Field Name: GRADENUM3
4.0-4.9 Percent	Field Name: GRADENUM4
5.0-5.9 Percent	Field Name: GRADENUM5
6.0-6.9 Percent	Field Name: GRADENUM6
7.0-7.9 Percent	Field Name: GRADENUM7
8.0-8.9 Percent	Field Name: GRADENUM8
9.0-9.9 Percent	Field Name: GRADENUM9

10.0-11.9 Percent Field Name: GRADENUM10
12.0-14.9 Percent Field Name: GRADENUM11
15.0 & Over Percent Field Name: GRADENUM12

GRADE LENGTH 1.0-4.9 % FIELD NAME:GRADELENG1 NUMBER (3,2)

On segments photologged, no entry will be necessary. No entry is necessary on the remainder of the road segments.

GRADE LENGTH 5.0-9.9 % FIELD NAME:GRADELENG2 NUMBER (3,2)

On segments photologged - no entry is necessary. The remainder of the segments will be entered as follows:

The total length of grades 5.0 - 9.9% is recorded to the nearest foot.(???MILE??) This length cannot be greater than the road segment length. If the number of grades is greater than zero, then the length of grades must be greater than zero.

Code	Length
0.16	.16 FOOT

GRADE LENGTH 10% & OVER FIELD NAME:GRADELENG3 NUMBER (3,2)

On segments photologged - no entry is necessary. The remainder of the segments will be entered as follows:

The total length of grades 10% or more are entered to the nearest meter. This length cannot be greater than the road segment length. If the number of grades is greater than zero, then the length of grades must be greater than zero.

Code	Length
0.26	.26 FOOT

BR_INSTITUTION

INSTITUTION NUMBER FIELD NAME: INSTNO NUMBER (3)

The number assigned to the institution. This table can be linked to the ROAD_INFO table by linking this field with the INSTITUTION field.

INSTITUTION DESCRIPTION FIELD NAME: INSTDESCRIPTION VARCHAR2(35)

The name of the institution.

BR_SHOULDER

DIRECTION FIELD NAME: DIRECTION CHAR (1)

This field indicates the direction of travel. S for southbound and N for northbound.

LEFT OR RIGHT SHOULDER	FIELD NAME:SHDINOUT	CHAR (1)

This field indicates whether shoulder is on the left or right side according to the direction of travel. Outside is right and Inside is left according to your direction of travel.
CODE= I OR O

SHOULDER YEAR	FIELD NAME:SNDYEAR	NUMBER (4)

This field indicates the year of construction work on the shoulders.

SHOULDER MATERIAL	FIELD NAME:SHDMATERIAL	NUMBER (1)

This field indicates the type of shoulder material.

Code	Description
0	None
1	Earth or Granular Type B < .249 feet
2	Granular Type A and Type B > .249 feet
3	Bituminous
4	Seal Coating
5	Slurry Sealing
6	Asphalt (ACC)
7	Concrete (PCC)

SHOULDER THICKNESS	FIELD NAME:SHDTHICK	NUMBER (3,1)

This field indicates the thickness of the shoulder material in tenths of a foot

Code	Description
38.5	38.5 feet
4.5	4.5 feet

MSLINK	FIELD NAME: MSLINK	NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

BR_SURFACE

DIRECTION	FIELD NAME: DIRECTION	CHAR (1)

This field indicates the direction of travel. S for southbound and N for northbound.

SURFACE YEAR	FIELD NAME: SURFYEAR	NUMBER (4)

This is the year the surface was put in place.

Code
1989

SURFACE YEAR SEQUENCE	FIELD NAME: SURFYEARSEQ	NUMBER (1)

This is the sequence in which the layers of surface were put in place in the same year, such as the sub-base would be '3', the base would be '2', and the top surface would be '1'.

SURFACE WORK TYPE	FIELD NAME: WORKTYPE	NUMBER (2)

This field indicates the type of work on the road segment.

Code	Description
02	Widen, Resurface and Shouldering
03	Widen and Resurface
04	Widen and Shouldering
05	Resurface and Shouldering
06	Widen
07	Resurface
08	Granular Surface
90	Original Construction

SURFACE THICKNESS	FIELD NAME:SURFTHICK	NUMBER (3,1)

This is the surface thickness in thousandths of a inch.

Code	Description
.076	.076 meter
.165	.165 meter

SURFACE JOINTED (Y OR N)	FIELD NAME:JOINTED	NUMBER (3,1)

This field indicates if the road segment is jointed.

Code	Description
Y	Yes
N	No

SURFACE MATERIAL TYPE	FIELD NAME:SURFMATERIAL	NUMBER (2)

This field indicates the type of surface material.

Code	Description
00	Unknown

01	Dirt
02	Type A, Asphalt treated Class 1 and Class 2
03	Class B asphalt
04	Bituminous treated aggregate
06	Cement treated
08	Cement treated granular
10	Cold-laid bituminous (recycled ACC, not heated at plant)
12	Econcrete (PCC slip-formed)
14	Graded stone (choke stone) (gravel surface)
16	Granular backfill/recycled PCC
18	Granular
20	Macadam
22	Porous backfill
24	Portland cement concrete
26	Recycled asphalt (ACC heated at plant)
28	Rolled stone
30	Soil aggregate
32	Soil cement
34	Soil lime
36	Special backfill (stone base without admixture)
38	Sub base (Earth)
40	Type B Class 1 and Class 2
42	Brick
44	Block
46	Bituminous asphalt
48	Asphalt rubber cement - Type A
50	Asphalt rubber cement - Type B
51	Permeable ACC
52	Rubblized PCC

MSLINK FIELD NAME: MSLINK NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

BR_TRANSACTION

This table documents when a road segment has been added, modified or deleted from the base record via Microstation 1208069. This table will record the old road data, the new road data, the date and username of the employee. The table is periodically emptied.

BR_URBAN_AREA

URBAN AREA FIELD NAME: URBANAREA NUMBER (3)

This gives the three-digit code for this urban area. Can be linked to the Urbanarea field in the ROAD_INFO table.

URBAN AREA FIELD NAME: URBANDESCRIPTION VARCHAR2(15)

This field gives the descriptive name of the Urban Area.

CITY

CITY NUMBER	FIELD NAME: CITY_NUMBER	NUMBER(10)

The number associated with the city in the city_name field. Can be linked to any table containing the city number field.

CITY_NAME	FIELD NAME: CITY_NAME	VARCHAR2(35)

The name of the city. Appendix 3 has a complete list of the cities.

COUNTY

COUNTY NUMBER	FIELD NAME: COUNTY_NUMBER	NUMBER (4)

The number assigned to the county name in the county_name field. Can be linked to any table containing the county number field.

COUNTY NAME	FIELD NAME: COUNTY_NAME	VARCHAR2(25)

The name of the county. Appendix 1 has a complete listing of the County names and numbers.

DIRECTION_LANE

DIRECTION	FIELD NAME: DIRECTION	CHAR (1)

This field indicates the direction of travel. S for southbound and N for northbound.

ROAD LENGTH	FIELD NAME:LANELENG	NUMBER (5,3)

This field indicates the length of a road segment to the nearest thousandth of a mile on all road systems.

Code	Length
.447	0.447 miles

ROAD LENGTH	FIELD NAME: LANELENGM	NUMBER (5)

This field indicates the length of a road segment to the nearest meter on all the road systems.

Code	Length
00020	20 meters
01610	1610 meters

SURFACE WIDTH FIELD NAME:SURFWIDTH NUMBER (2)

This field indicates the width of a road to the nearest foot for all road systems.

Code	Width
24	24 feet

SURFACE TYPE FIELD NAME:SURFTYPE NUMBER 2

The following table is used to show the surface of the road for all road systems.

Code	Description
00	Unknown
01	Primitive (No Shoulder)
02	Unimproved (No Shoulder)
03	Grade and drained earth without borrow topping (No Shoulder)
04	Grade and drained earth with borrow topping
05	Soil-surface without admixture
06	Soil-surface with admixture
20	Gravel or stone without admixture
21	Gravel or stone (admixture unknown)
22	Gravel or stone with admixture
30	Generic bituminous
31	Bituminous on gravel or stone without admixture (Macadam-with choke stone overlay with seal coat.) Use code 63 after ACC resurfacing.
32	Bituminous on gravel or stone with admixture
41	Mixed bituminous
51	Bituminous penetration
60	Generic asphalt
61	Asphalt on soil-surface without admixture (ACC over ACC changed 1994 to #69)
62	Asphalt on soil-surface with admixture
63	Asphalt on gravel or stone base without admixture
64	Asphalt on gravel or stone base with admixture
65	Asphalt on old portland cement concrete
66	Asphalt on new portland cement concrete (not reinforced)
67	Asphalt on new portland cement concrete (reinforced)
68	Asphalt on brick or block
69	Asphalt on asphalt
70	Generic concrete
72	Old type portland cement concrete (partially reinforced) (Before 1960) Use code 65 after ACC resurfacing.
73	Old type portland cement concrete (fully reinforced)
74	New type portland cement concrete (not reinforced) (After 1960) Use code 66 after ACC resurfacing.
75	New type portland cement concrete (partially reinforced)
76	New type portland cement concrete (fully reinforced) Use code 67 after ACC resurfacing.
77	Special portland cement concrete resurfacing (PCC over PCC)

78	Continuous portland cement concrete with no joints
79	Portland cement concrete on asphalt
81	Brick
82	Block
91	Combination surface - bituminous and asphalt
92	Combination surface - asphalt and asphalt
93	Combination surface - concrete and asphalt
94	Combination surface - brick or block and asphalt
95	Combination surface - concrete and concrete
96	Combination surface - concrete and brick or block

NUMBER OF RESURFACINGS FIELD NAME: NUMRESURF NUMBER (1)

This field shows the number of times a resurfacing has occurred on a road segment for all road systems.

Code	Description
0	No resurfacing
1	First resurfacing has occurred
2	Second resurfacing has occurred
3	Third resurfacing has occurred

RIGHT SHOULDER TYPE FIELD NAME:SHDTYPER NUMBER (1)

This field indicates the right side or outside shoulder type for all road systems using the following criteria.

Code	Description
0	No shoulder
1	Earth
2	Gravel
6	Paved
7	Combination shoulder – paved and earth
8	Combination shoulder – paved and gravel
9	Combination shoulder – paved and paved

RIGHT SHOULDER WIDTH FIELD NAME:SHDWIDTHR NUMBER (2)

This field indicates the width of the right side or outside shoulder to the nearest foot. It is used on all road systems.

RIGHT RUMBLE STRIP FIELD NAME: RUMBLER CHAR (1)

This field indicates whether a rumble strip exists on the right side or outside shoulder.

Code	Description
Y	Yes

N	No

RIGHT CURBED	FIELD NAME:CURBEDR	CHAR (1)

This field indicates whether the right side or outside shoulder has a curb.

Code	Description
Y	Yes
N	No

RIGHT SHOULDER TIED TO CONCRETE	FIELD NAME: SHDTIEDR	CHAR 1

This field indicates if the right side or outside shoulder is tied to the roadway surface.

Code	Description
Y	Yes
N	No

LEFT SHOULDER TYPE	FIELD NAME:SHDTYPEL	NUMBER (1)

This field indicates the left side or inside shoulder type for all road systems using the following criteria.

Code	Description
0	No shoulder
1	Earth
2	Gravel
6	Paved
7	Combination shoulder – paved and earth
8	Combination shoulder – paved and gravel
9	Combination shoulder – paved and paved

LEFT SHOULDER WIDTH	FIELD NAME:SHDWIDTHL	NUMBER (2)

This field indicates the width of the left side or inside shoulder to the nearest foot. It is used on all road systems.

LEFT RUMBLE STRIP	FIELD NAME: RUMBLEL	CHAR (1)

This field indicates whether a rumble strip exists on the left side or inside shoulder.

Code	Description
Y	Yes
N	No

LEFT CURBED	FIELD NAME:CURBEDL	CHAR (1)

This field indicates whether the left side or inside shoulder has a curb.

Code	Description
Y	Yes
N	No

LEFT SHOULDER TIED TO CONCRETE | FIELD NAME:SHDTIEDL | CHAR (1)

This field indicates if the left side or inside shoulder is tied to the roadway surface.

Code	Description
Y	Yes
N	No

MPH SPEED LIMIT | FIELD NAME:LIMITMPH | NUMBER (3)

This code indicates the lowest posted MPH excluding MPH for curves for a road segment. This is applicable for all road systems.

Code	Description
035	35 MPH
055	55 MPH

PASSING RESTRICTION LENGTH | FIELD NAME: PASSRESTLENG | NUMBER (5,3)

This field indicates the total length in feet of passing restrictions that occur on a non-divided rural road segment. A passing sight restriction is a length that a vehicle operator cannot see a 4 foot high object 1500 feet ahead of the vehicle. It must be equal to or greater than the stopping restriction length. It is used on primary, institutional and secondary roads. The data is obtained from inventory crews.

Code	Length
1.989	1.989 feet

STOPPING RESTRICTION NUMBER | FIELD NAME:STOPREST | NUMBER (2)

A stopping restriction is when the operator of a vehicle cannot see a .5 foot high object on the road the prescribed distance ahead. On paved surfaces this field indicates the number of stopping restrictions (yellow lines) that originate on your lane (direction of travel) only on each rural road segment. On unpaved surfaces the distance is 300 feet ahead of you.

Code	Description
01	1 Restriction
12	12 Restrictions

STOPPING RESTRICTION FIELD NAME:STOPLENG

This field indicates the total length in meters of the stopping restrictions (yellow lines) in your lane (direction of travel) on the rural road segment. It is used on primary and institutional roads.

Code	Length
0.193	.193 FEET
0.472	.472 FEET

COMMERCIAL, INDUSTRIAL, & RECREATIONAL ACCESS FIELDNAME: COMINDRECACC NUMBER(2)

This code indicates the number of these types of accesses on a road segment. This applies to all road systems. These accesses usually have 500 or greater turning movements per day.

Code	Description
01	1 access
10	12 accesses

TYPE PARKING FIELD NAME:TYPEPARK NUMBER (1)

This field indicates the type of parking in municipal and/or urban areas on primary, municipal and institutional roads.

Code	Description
0	Parking Data (Not posted/Rural only)
1	No Parking is Posted
2	Parallel One Side - No Parking Other Side
3	Parallel One Side - Diagonal Other Side
4	Parallel Both Sides
5	Diagonal One Side - No Parking Other Side
6	Diagonal Both Sides
7	Parallel or Diagonal on One Shoulder
8	Parallel or Diagonal on Both Shoulders
9	Diagonal Center - Parallel on Sides

SUFFICIENCY ADEQUACY FIELD NAME: SUFFSURF NUMBER (1)
SURFACE

This field is provided by the Office of Systems Planning. It is applicable to primary road only. It is placed on the road segment with a '1' in the typical section.
The wearing surface is analyzed by considering all physical defects such as faulting at joints and cracks, transverse cracks, longitudinal cracks, corner breaks, multiple cracking, non-uniform slab displacement, spalling and disintegration of the concrete, irregular profile and cross section, alligator cracking, raveling, bleeding, cracking and rutting. For gravel surfaces, the following defects are considered: adequate type of binding, quality of loose

aggregate crown, secondary ditches, oversized aggregate erosion from steep grades, corrugated surface, warped cross section and settlement. The numerical rating is entered as follows:

Code	Description
6-7	Excellent
4-5	Good
2-3	Fair
0-1	Poor

SUFFICIENCY ADEQUACY FIELD NAME: SUFFROADBED NUMBER (1)
ROADBED

This field is provided by the Office of Systems Planning. It is applicable to primary roads only. It is placed on the road segment with a '1' in the typical section.

The road bed is evaluated by considering (1) Height of Grade, (2) Stability of Subgrade and (3) Drainage Properties of the Subgrade. It is entered as follows:

Code	Description
7	Excellent
5-6	Good
3-4	Fair
1.2	Poor

SUFFICIENCY ADEQUACY FIELD NAME:SUFFDRAIN NUMBER (1)
DRAINAGE

This field is provided by the Office of Systems Planning. It is applicable to primary roads only. It is placed on the road segment with a '1' in the typical section.

The drainage is analyzed by considering all factors that affect the removal of surface water such as side ditches, culverts, etc.

Code	Description
3	Excellent
2	Good
1	Fair
0	Poor

SUFFICIENCY ADEQUACY FIELD NAME:SUFFMAINTECON NUMBER (1)

MAINTENANCE ECONOMY

This field is provided by the Office of Systems Planning. It is applicable to primary roads only. It is placed on the road segment with a '1' in the typical section.

The Transportation Center Planner determines which paved sections of road have above average, average, or below average maintenance costs for paved roads, and which gravel roads have above average, average, or below average costs for gravel roads.

Code	Description
0-2	Above average maintenance cost
3-5	Average maintenance cost
6-8	Below average maintenance cost

NEEDS STUDY CURB FIELD NAME: NEEDCURBSHD NUMBER (2) SHOULDER

This field indicates the physical condition of the curb shoulder. This is applicable for all road systems. The primary road data is obtained from the Structure Adequacy Listing from the Transportation Center Planners and is entered on every record. The secondary, municipal and institutional road data is taken from field inventory crews using the following criteria:

Code	Curbed Section	Hard Surfaced Shoulder	Gravel Shoulder
09-10 Excellent	New condition, or like new condition	New condition or near new condition	New condition or near new condition. Gravel shoulders are rated on their regularity. A shoulder varying in width sloping more than 1 inch per foot or at a higher elevation than the road surfaces must be rated down as follows:
07-08 Good	Minor cracking or spalling. Normal maintenance will correct condition.	Light cracking or spalling.	Slight
05-06 Fair	Moderate cracking or failure requiring special repairs.	Moderate cracking or failure. Patching required.	Moderate
02-04 Poor	Very heavy cracking. Extensive repairs or rebuilding required.	Heavy cracking. Deep failures. Obvious instability.	Extensive
00-01 Very Poor	Completely broken up. Rebuilding required.	Completely broken up.	Completely broken up.

Shoulder types do not apply to surface type codes less than gravel. Dirt roads do not have shoulders. Dirt roads will be rated 0.

NEEDS FOUNDATION RATING FIELD NAME: NEEDFOUND NUMBER (2)

This field is applicable to secondary roads by using the following code.

Foundation Condition

For this evaluation, the foundation is defined as the roadbed under the surface and base. Its condition is evaluated on the basis of evidence that indicates poor support for the roadway surface structure such as the following:

1. Insufficient grade elevation to prevent groundwater from destroying surface stability or provide for adequate snow removal.
2. Subsidence of a section of road below adjacent sections.
3. Sideslopes that are too steep or seriously gullied.
4. Surface and base failure with poor subgrade material evident in shoulders and sideslopes.

The foundation condition rating should reflect the frequency and extent of poor foundation as to:

(1) Generally poor foundation for the entire road section requiring complete reconstruction or the roadbed - low rating; or

(2) A localized condition which can be corrected with relatively low cost outlay

Code	Description
09-10	Excellent
07-08	Good
05-06	Fair
01-04	Poor
00	Very Poor

NEEDS SURFACE RATING FIELD NAME:NEEDSURF NUMBER (2)

This field indicates the wearing surface for municipal primary, secondary, and municipal road sections. The municipal primary road data is obtained from the Transportation Center Planners. Non-mainline road sections (Function Code greater than 49) are not entered.

Primary Roads

Code	Description
10	Excellent
07-09	Good
05-06	Fair
02-04	Poor
00-01	Very Poor

Secondary, Municipal & Institutional Roads

Wearing Surface Condition: 10 points maximum paved surfaces:

Wearing surface is evaluated on the condition of the pavement and base courses. Criteria is strength, durability and ride ability. Consideration is to be given to surface deterioration, failures and excessive maintenance requirements. The surface condition should not be rated

down for conditions correctable by routine maintenance.

Unpaved Surfaces (gravel):

Wearing surface condition is evaluated on the basis of the amount of granular surface materials present. Current maintenance condition should be considered only as it reflects the presence or absence of granular material. In general, there should be sufficient granular material on the road to provide strength and ride ability during all seasons of the year; that is, no "bald" places should be apparent where clays or other non-granular materials are exposed. There should be a minimum of .102 meters of granular material. Ruts are indicative of granular deficiency.

Code	Description
09-10	Excellent, new.
07-08	Good, generally, one or two bad places.
05-06	Fair, several bad places.
01-04	Poor, entire section needs reconstruction.
00	Very Poor, completely broken up.

NEEDS DRAINAGE RATING — FIELD NAME: NEEDDRAIN — NUMBER (2)

This field is applicable to all non-primary roads. This item indicates the drainage condition of each road segment.

Code	Description	Open Ditches	Curbed Section
09-10	Excellent	Ditches and structures clean and in new or like new condition.	Inlets and pipes observed to be in new or like new condition.
07-08	Good	Ditches and structures generally in good condition. Some minor repair, cleaning or regarding needed.	Inlets and pipes observed to be in good condition. Possibly some cleaning or minor repair required.
05-06	Fair	Ditches and structures generally in fair condition. Some moderate repair and cleaning required.	Inlets and pipes observed to be in fair condition. Some moderate repair and cleaning required.
01-04	Poor	Ditches and structures in generally poor condition. Very extensive repair required.	Inlets and pipes observed to be in poor condition. Very extensive repair required.
00	Very Poor	Cannot be repaired replacement required.	Cannot be repaired, replacement required.

SN NUMBER SLAB THICKNESS — FIELD NAME: SNSLABTHICK — NUMBER (3,1)

This data is required by FHWA for the HPMS. Structural number is provided to FHWA. This number can be defined in rigid material to be the depth of the material; in flexible material it is a number value defining the structural value of the pavement. This field is recorded 10^{TH} of a foot. This is applicable for all road systems and is computer assigned.

PSI RATING	FIELD NAME: PSIRATING	NUMBER (3,2)

This field is obtained from the Office of Materials, run bi-yearly. It is the actual pavement service index (PSI) rating - crack and patch. This is applicable only to primary roads. This is not used on non-mainline road segments. This field is no longer updated.

Code	PSI Rating
2.54	2.54

TRANSVERSE SLOPE	FIELD NAME: SLOPE	NUMBER (3,1)

This field indicates the transverse slope of a road segment. The information is gathered from the photolog. It is applicable to primary roads only.

Code	Slope
-2.5	-2.5

CRACK PATCH	FIELD NAME: CRACKPATCH	NUMBER (3,2)

This field is obtained from the Office of Materials. It represents the deduction from the pavement serviceability rating (PSR) to create the pavement serviceability index (PSI). This is applicable only to primary roads. This is not used on non-mainline road segments.

Code	Crack-patch
.32	0.32

IRI TESTED (Y OR N)	FIELD NAME:IRITESTED	CHAR (1)

This field is obtained from the Office of Materials. It indicates if the IRI Pavement Management Section has been tested. This is applicable to primary roads only. This is not used on non-mainline road segments.

Code	Description
Y	Yes
N	No

INTERNATIONAL ROUGHNESS INDEX	FIELD NAME:IRI	NUMBER (4,1)

The roughness tests are conducted by the Office of Materials by Pavement Management Sections. The results are transferred to the Base Records by computer. The field is recorded to the tenth of a foot. This field is applicable only to primary roads. This is not used on non-mainline road segments.

KIPS INCOMPLETE DATA FLAG	FIELD NAME: KIPSFLAG	CHAR (1)

This field indicates the status of the Kips data on the road segment. It is applicable only to

primary roads. This is not used on non-mainline road segments.

Code	Status
E	Estimated
1	If Kips or SN&D are missing
3	If Kips and SN&D are missing
4	Unsurfaced road

ACCUM. CONSTR-RECONST KIPS FIELD NAME: KIPSCONRECON NUMBER (9)

The accumulative Annual ESALs that the road has been exposed to since the road was constructed or reconstructed.

ACCUMULATIVE RESURF KIPS FIELD NAME: KIPSRESURF NUMBER (9)

The accumulative Annual ESALs that the road has been exposed to since the road was last resurfaced.

ANNUAL 18 KIPS FIELD NAME: KIPSANNUAL NUMBER (9)

The calculated Annual ESALs that the road has been exposed to for the traffic year.

HPMS

A NODE FIELD NAME: NODEA NUMBER (5)

This field indicates the node number at the beginning of the segment of FHWA Route between Federal Functional Classification breaks.

Code	Node Number
02430	02430

B NODE FIELD NAME: NODEB NUMBER (5)

This field indicates the node number at the end of the segment of FHWA Route between Federal Functional Classification breaks.

Code	Node Number
02436	02436

NODE SEGMENT FIELD NAME: NODESEG NUMBER (2)

This field indicates the consecutive segments of road records between A Node and B Node.

STRAHNET FIELD NAME: STRAHNET NUMBER (1)

This field indicates the Strategic Highway Network. The Office of Systems Planning provides the route locations.

Code	Description
0	Not on the Strategic Highway Network
1	On the Strategic Highway Network
2	On the Strategic Highway Network (Connector)

COUNTY ROAD JUNCTIONS FIELD NAME: COROAD NUMBER (1)

This field indicates whether the road segment has a county road junction.

Code	Description
0	There are no county road junctions
1	There is (are) county road junction(s)

FHWA ROUTE NUMBER FIELD NAME: FHWARTE NUMBER (4)

This field is assigned automatically by a program that runs after history is completed.

This field indicates the route number assigned to the federal functionally classified route. It is not used on non-mainline road segments.

Code	Description
0218	FHWA Route Number 218

FHWA ROUTE SEQUENCE FIELD NAME: FHWASEQ NUMBER (4)

Sequence numbers are used to progressively order segments of the FHWA Route within a county. This field is not used on non-mainline road segments.

Code
0010

FHWA COUNTY SEQUENCE FIELD NAME: FHWACOSEQ NUMBER (2)

Counties are numbered in progressive order along the FHWA route from west to east or south to north across the state. Each time the route crosses from one county to another county, the number increases. This means that a route can have more than one county sequence number in a given county if the route leaves that county and re-enters the county. The sequences are in progressive order to the end of the route. These numbers are usually assigned in breaks of five beginning with 05. It is not used on non-mainline road segments.

Code	Description
05	First county route goes through
10	Second county route goes through

FHWA LINEAR REFERENCE DISTANCE PT.	FIELD NAME: FHWALRD	NUMBER (6,3)

This is the beginning linear reference distance point of the FHWA Route segment. This field is indicated in miles. This will be computer adjusted.

FORMAT
0.447
3.123

HPMS LINEAR REF. SYSTEM SEQUENCE	FIELD NAME: SEQLRS	NUMBER (2)

This field functions as a sub-section number of a FHWA Route Number. This is used when there is a proposed road.

Code	Sequence Number
10	10

RAMP LINEAR REF. DISTANCE POINT	FIELD NAME: RAMPLRD	NUMBER (6,3)

This is the beginning linear reference distance point on the ramp segments. The distance begins with 000000 at the beginning of the county and the remainder of the RAMP LRDPT=s are assigned by hand. The field is applicable to the primary road system. It is used on one- way off direction of travel and non-mainline road segments only. Recorded down to 1/1000th of a mile. Ex. 1.001

ROUTE SIGNING	FIELD NAME: SIGNING	NUMBER (1)

These codes specify the manner in which the highway segment actually is signed with route markers. This field is applicable to all road systems.

Code	Descriptions
0	Not signed
1	Interstate
2	U.S.
3	Iowa
4	Off-Interstate Business Marker
5	County
7	Municipal
9	Signed, but none of the above are appropriate

When a route is signed with two or more identifiers (i.e., Interstate Route 80 and US 6), the code for the highest class of route shall be used (Interstate in this example).

SIGNING QUALIFY	FIELD NAME:SIGNQUALIFY	NUMBER (1)

These codes specify the additional information on the route sign. This field is applicable to all road systems. Where more than one code is applicable, use the lower code.

Code	Description
0	No Qualifier or unsigned
1	Alternate
2	Business Route
3	Bypass
4	Spur
5	Loop
6	Proposed
7	Temporary
8	Truck Route
9	None of the above

URBAN LOCATION FIELD NAME: URBANLOC NUMBER (1)

Code only for Des Moines, Council Bluffs, and Davenport urban areas with a population of 200,000 or more people. The purpose of this data item is to identify the general character of the land surrounding each road segment. The process of doing so, however, must fully recognize that Apure≅ delineations are the exceptions rather than the rule. This field is applicable to all road systems.

Code	Description
0	Not applicable for this road segment

1 Central Business District - An area having very high land value because of an intense concentration of retail trade, office space, cultural, and service activities.

2 High Density Business/Commercial Center (excluding CBD) - One or more centers of business and/or commercial activities within the area.
Typical density and size characteristics are as follows:

a) Number of employees in the area over 10,000
OR
b) All development over 5,000,000 square feet

With a

c) Retail portion of over 600,000 square feet
AND
Over 7,500 acres.

3 Low Density Commercial- Contain lower density of business, industry, warehouses, services, and strip development or a wide mixture of such uses.

4 High Density Residential- Residential density of over 5,000 persons per square mile.

5 Low Density Residential- Residential density of less than 5,000 persons per square mile.

6 Other- Includes undeveloped land and residential areas having a density of less than one dwelling unit per acre.

WIDEN FEASIBLE FIELD NAME:WIDENFEAS NUMBER (1)

Is widening feasible? Considering the physical features along the roadway is it possible to widen the existing road? Single-family residences, barns, private garages, small businesses, etc., are considered expendable for purposes of this item. Numerous large commercial buildings, cemeteries, park lands, and churches can restrict widening. If the road contains a median, this can be used for widening. This field is applicable to all roadsystems.

Code	Description
1	No widening is feasible
2	Yes, partial lane
3	Yes, one lane
4	Yes, two lanes
5	Yes, three lanes or more

DRAINAGE FHWA FIELD NAME:FHWADRAIN NUMBER (1)

Use the following codes to describe the drainage adequacy of each road segment. This field is applicable to all road systems.

Code	Description
1	Good- A fully adequate drainage and cross section design exists. There is no evidence of flooding, erosion, ponding, or other water damage.
2	Fair- The height of grade line, cross section, or culvert capacity are somewhat below the standard for the type of roadway that would comply with standards if rebuilt. Drainage structures are structurally sound. Some added maintenance effort is required due to drainage and sedimentation problems.
3	Poor- Evidence of severe flooding, ponding, erosion, or other drainage problem exists. Drainage structures may be in poor condition. Considerable excess maintenance effort is required due to drainage and sedimentation problems.

Note: Flooding that results from flash floods is not a drainage problem of the road.

TYPE DEVELOPMENT FIELD NAME:TYPEDEVELOP NUMBER (1)

This field indicates the predominant type of development. It is used for non-urban areas. This field is applicable to all road systems.

Code	Description
0	Not applicable; this is an urban section.
1	Rural- Includes all areas outside of the adjusted urban boundaries (places of 5,000 or more population), excluding those described as Adense≅.
2	Dense- Includes those areas that have urban characteristics but are outside of the adjusted urban boundaries (i.e., small towns), or those areas in which major recreational facilities, such as parks, ski resorts, scenic overlooks, rest areas, etc., have significant impact on traffic operation of the adjacent facility.

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

ROAD_INFO

BEGINNING LINEAR REF. DIST. PT. FIELD NAME:BEGINLRD NUMBER (6,3)

This is the beginning linear reference distance point of the road segment on primary and institutional roads. The LRDPT is the distance from the county line or the beginning of the route within a county to the beginning of the next road segment. This field is recorded to the nearest thousandth of a mile. This will be adjusted each time a LRDPT correction is entered into the system. Also, LRDPT are accumulated if running duplicate with another system.

Off directions on one-way pairs are completed separately. Non-mainline is completed by hand.

Code	Length
112.245	.245 mile
016.250	16.25 mile

STATE COUNTY SEQUENCE FIELD NAME:RTECOSEQ NUMBER (2)

Counties are numbered in progressive order along the route from west to east or south to across the state. Each time the route crosses from one county to another county, the number increases. This means that a route can have more than one county sequence number in a given county if the route leaves that county and re-enters the county. The sequences are in order to the end of route. This field is applicable to primary and institutional roads.

Code
01
02

DATA YEAR	FIELD NAME: DATAYEAR	NUMBER (4)

The year the data was updated in this table.

IOWA CITY NUMBER	FIELD NAME:CITYNUM	NUMBER(4)

Indicates whether the road segment lies within the city by containing the four digit city number. (City numbering system located in Appendix 3)

Code
0015 - Ackley
5095 – Minburn

CORP LINE CITY NUMBER	FIELD NAME:CORPCITY	NUMBER (4)

This field identifies if the road segment is on the corporation line, code the four digit city number.

Code
0015 - Ackley
5095 - Minburn

URBAN AREA CODE	FIELD NAME:URBANAREA	NUMBER (3)

This field identifies if the road segment is within an urban area, code the three digit code assigned by FHWA for urban areas. (See Appendix 4)

Code
074 - Davenport
816 - Fairfield

SECONDARY SIGNED ROUTE NUMBER	FIELD NAME:SIGNEDRTE	VARCHAR2 (4)

This field identifies numbers assigned to a secondary road. Code in the direct assignment of letter/number. This field is applicable only to secondary roads.

Code	Description
N051	Co Rd N51
Q023	Co Rd Q23

ADJACENT COUNTY NUMBER	FIELD NAME:ADJACENTCO	NUMBER(2)

On primary, secondary, and municipal roads, this field indicates roads that are on county lines.

Code	Description

01	Adair County
03	Allamakee County

INSTITUTION NUMBER FIELD NAME:INSTITUTION NUMBER (3)

This is the number assigned to the institution. Numbers are assigned by the Office of Transportation Data. See the Appendix 2 for the institutions and their institution numbers.

Code	Description
850	Camp Dodge, Johnston
878	Marshalltown Comm. College

INTERSTATE TRAVELED WAY FIELD NAME:INTERSTATE CHAR (1)

This field indicates whether or not a road system is classified as an interstate traveled way.

Code	Description
Y	Yes
N	No

FUNCTION CODE FIELD NAME:FUNCTION NUMBER (2)

This field designates the difference between mainline and non-mainline road sections, and designates other normal roadway uses. (This field is applicable only to primary roads.)

Mainline roadway provides for the continuation of major traffic flow.

Code Mainline	Non-mainline	Description
00	--	NORMAL SECTION
--	50	SPECIAL CASE
01	51	NE RAMP CURVE
02	52	SE RAMP CURVE
03	53	SW RAMP CURVE
04	54	NW RAMP CURVE
05	55	NE LOOP
06	56	SE LOOP
07	57	SW LOOP
08	58	NW LOOP
09	59	1ST INNERLEG
10	60	2ND INNERLEG
11	61	3RD INNERLEG
12	62	4TH INNERLEG
13	63	5TH INNERLEG
14	64	6TH INNERLEG
15	65	TEMPORARY CONNECTION
16	66	NORTH TANGENT

17	67	SOUTH TANGENT
18	68	EAST TANGENT
19	69	WEST TANGENT
20	70	EAST-WEST TANGENT
21	71	NORTH-SOUTH TANGENT
22	72	7TH INNERLEG
23	73	8TH INNERLEG
24	74	9TH INNERLEG
25	75	10TH INNERLEG

DOMAIN CODE FIELD NAME:DOMAINCODE NUMBER 2

This field identifies the federal, state or local agency having control over the land thru which the road segment passes.

Code
- 11-29 Local Agencies
- 30-59 State Agencies
- 60-99 Federal Agencies

When a road segment falls between two domains or is along a boundary of one domain, the most appropriate domain is entered. For example, if a road segment is boundary to a national forest, then it would not be considered to be within the national forest. If a road segment forms the boundary, it would be considered to be within the national forest.

Code
- 00 Not on Federal, State, or Local Land
- 10 Local Agency
- 11 County Conservation Board
- 12 City Parks Board
- 13 Board of Supervisors
- 14 City Councils
- 30 State Agency
- 31 Board of Regents Institutions
- 32 Social Services Institutions
- 33 Department of Natural Resources
- 34 State Fair Board
- 35 Department of Public Instruction
- 60 Federal Agency
- 62 Bureau of Indian Affairs
- 63 Indian Reservation Access Road
- 64 U.S. Forest Service
- 66 National Park Service
- 68 Bureau of Land Management
- 70 Military Reservation
- 72 Corps of Engineers
- 74 Energy Research & Development Administration (Formerly Atomic Energy Commission)
- 76 Tennessee Valley Authority
- 78 National Aeronautics & Space Administration

80 Fish and Wildlife Service
81.99 Federal Agencies Specified by FHWA

TOLL STATUS	FIELD NAME:TOLLSTATUS	CHAR (1)

This field indicates if the road segment traveled can be traveled with or without the payment of a toll.

Code	Description
Y	Toll Segment
N	Not a Toll Segment

SPECIAL SYSTEM DESIGNATION	FIELD NAME:SPECSYSTEM	NUMBER (2)

This field indicates if a road segment falls under a special funding category. Special systems may overlap other previously defined systems.

Example:
1) National forest road segment may include mileage under state or local government jurisdiction. However, if mileage is part of the national forest road system, it is entered in this field.

2) If two or more special systems overlap and no code exists for the combination, code is assigned by FHWA.

Code	Description
01	Not on a Special System
02	National Forest Highway System 1/
03	National Forest Development Roads & Trails
04	National Park Service Parkway 1/
05	National Park Roads and Trails
06	Indian Reservation Roads and Bridges 1/
10	Appalachian Development Highway 2/
15	Appalachian Highway Access Road
25	Great River Road (23 U.S.C. 148)
26	Loess Hills Scenic Byway (23 U.S.C)
30	Defense Access Road (23 U.S.C. 210) 3/
40	Addition to the Interstate System (23 U.S.C. 139 (A)) 4/
41	Addition to the Interstate System (23 U.S.C. 139 (C))
42	Addition to the Interstate System (23 U.S.C. 135 (B)) 5/
50	Congressional Highway System (Avenue of the Saints)
1/	These definitions are intended to be consistent with 23 U.S.C. 101 (A), definitions and declaration of policy.
2/	This definition is intended to be consistent with 23 U.S.C. 143 (F) (2) and 23 U.S.C. 101 (A).
3/	Mileage constructed via defense access road funds. These special systems may overlap previously defined systems. For example, the national forest highway system may include mileage under jurisdiction of a state or local government. However, if the mileage is part of the national forest highway system, it should be entered as such in this field.
4/	Highway mileage designated as part of the interstate system under the provisions of 23

U.S.C. 139 (A) should be entered as "40" for this data element and should be functionally classified as interstate. (Item 8 should be entered as "01" or "11". Item 9 should be entered "1".)

5/ Highway mileage designated as a future part of the interstate system under the provisions of 23 U.S.C. 139 (B) should be coded "42" for this data element. This mileage is part of the Federal Aid Primary System (Item 9 should be coded "2") and should not be functionally classified as interstate until such time as the highway has been officially designated as part of the interstate system.

NATIONAL HIGHWAY SYSTEM FIELD NAME:NATHWYSYS NUMBER (2)

This field identifies a road segment as part of the National Highway System.

Code	Description
0	This section is not on NHS
1	This section is on NHS and is not an NHS intermodal connector

This section is an NHS intermodal connector (types of major connectors follow):

2	Airport
3	Port Facility
4	Amtrak Station
5	Rail/Truck Terminal
6	Intercity Bus Terminal
7	Public Transit or Multi-modal Passenger Terminal
8	Pipeline Terminal
9	Ferry Terminal

TRANSPORTATION CENTER FIELD NAME:TRANSCENTER NUMBER (1)

This field indicates the Transportation Center number. The program automatically adds this number to the record.

ACCESS CONTROL FIELD NAME:ACCESSCNTL NUMBER (1)

This field indicates the type and number of points at which traffic is allowed to enter or exit a roadway. Access control is on primary roads only and is obtained from the color-coded map provided by the Office of Maintenance.

Code	Description
0	No Access Control (not presently used)
1	Interstate and Freeway
2	Expressway
3	Planned Access with through traffic given primary consideration
4	Planned Access with through traffic and land services traffic given equal consideration

FEDERAL FUNCTIONAL FIELD NAME:FEDFUNC NUMBER (1)

CLASS

This field indicates the federal functional classification of the road segment.

Code	Functional Classification
1	Interstate
3	Other Principal Arterial
4	Minor Arterial
5	Major Collector
6	Minor Collector (rural only)
7	Local

TYPE SECTION FIELD NAME:TYPESECTION NUMBER (1)

Type of section refers to the direction of travel for the road segment.

Code	Description
0	Normal Section – two way
1	One-way main direction of travel is northbound or eastbound
2	One-way off direction of travel is southbound or westbound

ATR NUMBER FIELD NAME: ATR LOCATION NUMBER (3)

This position is used to identify an automatic traffic recorder location. Code direct assignment of value of ATR numbers. The first digit of the ATR number indicates the road system. The last two digits are arbitrarily assigned.

1 - Interstate Rural
2 - Primary Rural
3 - Secondary Rural-Paved
4 - Secondary Rural-Gravel
5 - Primary Recreational
6 - Secondary Rural Recreational
7 - Interstate Municipal
8 - Primary Municipal
9 - Municipal Streets

COST AREA FIELD NAME:COSTAREA NUMBER (1)

Used on rural areas on primary and institutional roads. This field is used for the needs study.

Code
1
2
3
4

RIGHT-OF-WAY COST GROUP FIELD NAME:COSTGROUP NUMBER (1)

This field is used on municipal or urban road segments and indicates the ROW cost group code in the following manner for all road systems.

Code	Description
0	Rural, area not built up; agricultural on both sides of road.
1	Low cost
2	Average cost
3	High cost

HIGHWAY RESPONSIBILITY FIELD NAME:HWYRESP CHAR (1)

This field provides the level of service provided by the highway. The Office of Systems Planning provides a map indicating the levels. It is used on primary roads.

Code	
A	Interstate Routes
B	Major Arterial Service Routes
C	Other Arterial Service Routes
D	Non-Arterial Service Routes

COMMERICALFIELD NAME: COMNETWORK CHAR (1)
NETWORK

Is this road segment part of the commercial network? Y or N

TRUCK ROUTE FIELD NAME: TRUCKRTE NUMBER (1)

This field indicates whether or not the road is on a truck route on the primary road system only.

Code	Description
0	Not on a Truck Route
1	Federal Truck Route
2	State Truck Route

PLANNING CLASSIFICATION FIELD NAME:PLANCLASS NUMBER (1)

This field is a five-level classification for use in planning and programming for the primary road system. The Office of Systems Planning is responsible for providing the data for this field.

Code	Description
1	Interstate
2	Commercial & Industrial Network
3	Area Development
4	Access Routes
5	Local Service

NEEDS STUDY ROUTE NUMBER FIELD NAME:NEEDRTE NUMBER (4)

This code is used to identify individual road numbers as part of a needs route. The Office of Transportation Data assigns the needs route number. The Office of Systems Planning updates the maps. This field is applicable only to secondary roads.

Code
0004

NEEDS STUDY ROUTE SEQUENCE FIELD NAME:NEEDSEQ NUMBER (3)

This number is used to sequence individual road sections along a needs route. Numbers are originally assigned consecutively. This field is applicable only to secondary roads.

Code
070

NEEDS/SUFFICIENCY SECTION NUMBER FIELD NAME:NEEDSUFFSEC NUMBER (3)

This field is applicable to both primary and secondary roads. A sufficiency section is a group of consecutive similar road sections, between breaks points, which are considered as one section for sufficiency analysis purposes. Break points are made at the following:

1. county line;
2. corporation line;
3. urban area line;
4. junction with primary route;
5. a change in type section from divided roadway to non-divided roadway, or vice versa;
6. a significant change in outside shoulder width (0.6 meters or more);
7. a significant change in median width (0.6 meters or more);
8. a change in surface type;
9. a change in surface width;
10. a change from two-way to one-way street, or vice versa;
11. a section with "Y" in SPECIAL STUDY;
12. a change in surface condition rating (two points or more);
13. a change in state functional classification;
14. a significant change in AADT

The numbering of the sufficiency sections within a county is done from west to east and south to north along the route in a sequential manner that allows for expansion of the records. For example, sufficiency sections sequenced in the following manner allow for additional records to be added: 010, 020, 030, and 040.

The following applies to primary roads only. Non-mainline road sections (FUNCTION CODE greater than 49) are not assigned sufficiency sections. A rural sufficiency section should be about 1600 meters in length; a municipal sufficiency section should be at least 80 meters in length.

Mainline bridge structures are entered "Y" in SPECIAL STUDY if the entire road section is a structure. Such a road section constitutes a sufficiency section in itself, and sufficiency analysis is done from the Structures Data Base Record rather than from the Road Base Record.

Code
070

NEEDS/SUFFICIENCY TYPICAL FIELD NAME:NEEDSUFFTYP NUMBER (1)

After selecting similar sections that make up a Needs Section, a zero is entered in typical section for all sections within this group except one. This section is identified by entering 1 in the typical section. This is usually the longest section of the needs section. On sections of the system that are presently under construction, 2 is entered in typical section. This field is applicable to both primary and secondary roads.

Code
1

MEDIAN TYPE	FIELD NAME:MEDTYPE	NUMBER (1)

The characteristics of the median on all road sections are entered using the following criteria. If median has a curb, the curb is placed on the inside shoulder. A barrier is .152 meters or more. A painted median is not considered a median.

Code	Description
0	No barrier (< .152 meter curb)
1	Hard surface without barrier (Raised Median) (PV)
2	Grass surface without barrier (SL)
3	Hard surface with barrier (PV-BR)
4	Grass surface with barrier (SL-BR)
5	Barrier (> .152 meters) (Jersey barrier, center of road parking, etc.)

MEDIAN WIDTH	FIELD NAME:MEDWIDTH	NUMBER (4)

This code indicates the width of the median between the edges of traffic lanes recorded to the nearest foot. This field is applicable for all road systems.

NUMBER OF LANES	FIELD NAME:NUMLANES	NUMBER (1)

This field indicates the number of lanes for all road systems. This is the total number of lanes on both sides of the highway including those with a median.

Code	Description
1	1 Lane
4	4 Lanes

LANE SITUATION/TYPE	FIELD NAME:LANETYPEX	NUMBER (1)

This field identifies the type of each lane from the left side of the road segment to the right side. There are nine fields named LANETYPE1, LANETYPE2…..LANETYPE9.

Code	Description
1	Through lane (lane used for traffic continuing in main direction)
2	Climbing lane (lane signed for such use)
3	Right turn lane (lane constructed for right turn only)
4	Left turn lane (lane constructed for left turns only)
5	Center turn lane (painted lane used by both directions for left turns)
6	Exit lane

7	Entrance lane
8	Reversible lanes (electronically controlled lane direction)
9	Other

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

ROAD_INV

INVENTORY YEAR FIELD NAME: INVYEAR NUMBER (4)

The year the inventory was conducted. Ex 2001

MILE PER HOUR CURVE DATA FIELD NAME MPH29 MPH39 MPH49 MPH55 NUMBER (1)

These fields indicate the number of curves that have a posted advisory mph sign in each road segment. This is applicable for primary and secondary roads.

Code	Number
1	1

SIGNALS AT GRADE FIELD NAME:GRADESIGNAL NUMBER (2)

Enter the number of automatic traffic signals at grade intersections in the road segment of road that is being traveled.

Code	Number of Signals
01	1
12	12

STOP SIGNS AT GRADE FIELD NAME:GRADESTOP NUMBER (2)

Enter the number of stop signs at intersections in the road segment of road that is being traveled.

Code	Number of Stop Signs
01	1
12	12

OTHER AT GRADE INTERSECTIONS FIELD NAME:GRADEOTHER NUMBER (2)

Enter the number of intersections in the road segment of road that is being traveled with no signals or stop signs.

Number of

Code#	Other At-Grade Intersections
01	1
12	12

NUMBER OF INTERCHANGES | FIELD NAME:INTERCHANGE | NUMBER (1)

Enter the number of interchanges in the road segment. Enter this data in the first sequence within the interchange. It is used on the primary road system.

Code	Interchanges
1	1
2	2

NUMBER OF SEPARATIONS | FIELD NAME:SEPARATION | NUMBER (1)

Enter the number of separations on the road segment. A separation is the condition caused by another road, railroad, or pedestrian walkway passing over this section of road.

Code	Separations
1	1
3	3

NUMBER OF OTHER BRIDGES | FIELD NAME:OTHERBRIDGE | NUMBER (2)

Enter the number of bridges on the road segment. A bridge or culvert is when this section of road passes over another road, waterway, railroad, or other such feature. A bridge or culvert must have a total length of 20 feet or more.

MAJOR INTERSECTION | FIELD NAME: INTMAJOR | NUMBER (2)

This field is used on municipal or urban road segments and indicates the number of major intersections. This field is updated by the Office of Systems Planning. This is when traffic signals or stop signs are present. It is used on the primary road system. Do not use on the interstate system.

Code	Number
01	1
12	12

MINOR INTERSECTION | FIELD NAME:INTMINOR | NUMBER (2)

This field is used on municipal or urban and indicates the number of minor intersections. This field is updated by the Office of Systems Planning. It is used on the primary road system. Do not use on the interstate system.

Code	Number
01	1
12	12

BUSINESS ENTRANCES FIELD NAME:ENTBUSINESS NUMBER (2)

This field indicates the number of business entrances on a road segment.

Code	Number
01	1
05	5

PRIVATE ENTRANCES FIELD NAME:ENTPRIVATE NUMBER (2)

This field indicates the number of private entrances on a road segment.

Code	Number
01	1
05	5

TERRAIN CODE FIELD NAME:TERRAIN NUMBER (1)

This field indicates the type of terrain located on both sides of the road segments on the primary, secondary and institutional roads.

Code	Description
0	Not applicable
1	Flat
2	Rolling
3	Hilly

TYPE AREA FIELD NAME:TYPEAREA NUMBER (1)

This field indicates the type of area in which the municipal or urban road segments are located. This is applicable for all road systems.

Code	Description
0	Not Applicable
1	Central business district
2	Fringe business district
3	Outlying business district
4	Residential area
5	Rural area, the area which has agricultural or conservation usage

IOWA CROSSING NO. FIRST FIELD NAME:IAXING1 NUMBER (5)

This field indicates the first RR crossing number on a segment of road by direct assignment for all road systems.

Code
00000

IOWA CROSSING NO. SECOND | FIELD NAME:IAXING2 | NUMBER (5)

This field indicates the second RR crossing number on a segment of road by direct assignment for all road systems.

Code
00000

IOWA CROSSING NO. THIRD | FIELD NAME:IAXING3 | NUMBER (5)

This field indicates the third RR crossing number on a segment of road by direct assignment for all road systems.

Code
00000

INVENTORY DESCRIPTION | FIELD NAME: INVDESCRIPTION | VARCHAR2(50)

Literal description of the road segment being inventoried.

MSLINK | FIELD NAME:MSLINK | NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

ROAD_PRIMARY

MR CONTINUITY CONTROL | FIELD NAME:SUFFCONTINUITY | NUMBER (2)

The major route continuity control number is assigned by the Office of Systems Planning. This field is applicable to primary roads.

Code
99

MAJOR ROUTE GMI | FIELD NAME:SUFFGMI | NUMBER (1)

The major route group municipal indicator (GMI) field is assigned by the Office of Systems Planning. This item is applicable to primary roads.

Code
9

CRITICAL INTERSECTION TURN LANE | FIELD NAME:SUFFTURNLANE | NUMBER (1)

This information is supplied by the Office of Systems Planning and is not to be updated by our

office. This is used on primary roads.

Code
9

CRITICAL INTERSECTION PERCENT TURN	FIELD NAME:SUFFPCTTURN	NUMBER (1)

This information is supplied by the Office of Systems Planning and is not to be updated by our office. This is used on primary roads.

Code
9

CRITICAL INTERSECTION THRU WIDTH	FIELD NAME:SUFFTHRUWIDTH	NUMBER (2)

This information is supplied by the Office of Systems Planning and is not to be updated by our office. This field is indicated to the nearest foot. This is used on the primary roads.

SUFFICIENCY DESCRIPTION	FIELD NAME: SUFFDESCRIPTION	VARCHAR(50)

A narrative description of that sections location, using features such as highway junctions, street intersections, surface width changes, etc. to describe beginning and ending locations of that section of road or bridge location.

Code
Alphanumeric field up to fifty characters.

MAINTENANCE DISTRICT	FIELD NAME:MAINTDISTRICT	NUMBER (1)

This field is used to identify the Maintenance District number. The District is assigned by the Office of Maintenance-Programs. This is used on primary and institutional roads. Districts 1-6

MAINTENANCE RESIDENCY	FIELD NAMEMAINTRESIDENCY	NUMBER (1)

This field identifies the maintenance residency number. The residency is assigned by the Office of Maintenance-Programs. This is used on primary and institutional roads.

Code
1-9

NON-DIVIDED NE	FIELD NAME:MAINTNONDIV	NUMBER (2)

This is computer generated. This is used on primary and institutional roads.

DIVIDED SW	FIELD NAME:MAINTDIVIDED	NUMBER (2)

This is computer generated. This is used on primary and institutional roads.

CONTRACT FIELD NAME:MAINTCONTRACT CHAR (1)

This field indicates a maintenance contract with a city or county. The Office of Maintenance-Programs is responsible for keeping this information current. This is used for primary and institutional roads.

Code	Description
Y	Yes
N	No

SERVICE LEVEL FIELD NAME:MAINTSERVICE CHAR (1)

This field is entered by the Office of Maintenance-Programs. It is used for primary and institutional roads.

Level of Service	Code
A (Interstate	A
B (Other Major Routes)	B
C	C
D Lowest Level	D
E	E

RAMPS FIELD NAME: MAINTRAMPS NUMBER (1)

On primary roads this field is used by the Office of Maintenance to indicate when the road segment is mainline or non-mainline. The non-mainline is further broken down (grade-separation ramp, connector/special case, at-grade ramp, etc.

Code	Description
0	Mainline
1	grade-separation ramp
2	connector/special case
3	extra 7's
4	extra 1's
5	extra 2's
7	at-grade ramp

SPECIAL STUDY FIELD NAME:SPECSTUDY CHAR (1)

This field indicates when the entire road segment is a bridge that is mainline mileage. It is used on primary roads.

Code	Description
Y	YES
N	NO

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

TRAFFIC

YEAR TRAFFIC COUNTED FIELD NAME:COUNTYEAR NUMBER (4)

The year in which the inventory was compiled on the road segment. This is applicable for all road systems.

Code
1987
1989
ESTI (Used by municipal only for estimated traffic)

TRUCK TRAFFIC KEYLEG FIELD NAME:TRAFFICKEY CHAR (1)

This field indicates whether the truck traffic count is actual or estimated.

Code	Description
Y	Actual
N	Estimated

AVERAGE ANNUAL DAILY TRAFFIC FIELD NAME:AADT NUMBER (6)

This field indicates the average annual daily traffic on this road segment. This is applicable for primary, secondary, and municipal roads.

Code
006500
000120

MOTORCYCLES FIELD NAME:MOTORCYCLE NUMBER (5)

This field indicates the number of motorcycles on this road segment. This is applicable for only primary roads.

Code
00000
00010

AUTOMOBILES FIELD NAME:AUTOMOBILE NUMBER (6)

This field indicates the number of automobiles on this road segment. This is applicable for only primary roads.

Code
005728

065000

PICKUPS AND VANS FIELD NAME:PICKUP NUMBER (5)

This field indicates the number of pickups and vans on this road segment. This is applicable For only primary roads.

Code
00000
00200

BUSES FIELD NAME:BUS NUMBER (5)

This field indicates the number of buses on this road segment. This is applicable for only primary roads.

Code
00000
00200

2 AXLE SINGLE UNIT FIELD NAME:SU2AXLE NUMBER (5)

This field indicates the number of two axle single units on this road segment. This is applicable for only primary roads.

3 AXLE SINGLE UNIT FIELD NAME:SU3AXLE NUMBER (5)

This field indicates the number of three axle single units on this road segment. This is applicable for only primary roads.

4 AXLE SINGLE UNIT FIELD NAME:SU4AXLE NUMBER (5)

This field indicates the number of four axle single units on this road segment. This is applicable for only primary roads.

4 AXLE SINGLE TRAILER FIELD NAME:ST4AXLE NUMBER (5)

This field indicates the number of units with a single trailer with a total of four axles. This is applicable for only primary roads.

5 AXLE SINGLE TRAILER FIELD NAME:ST5AXLE NUMBER (5)

This field indicates the number of units with a single trailer with a total of five axles. This is applicable for only primary roads.

6 AXLE SINGLE TRAILER FIELD NAME:ST6AXLE NUMBER 5

This field indicates the number of units with a single trailer with a total of six axles. This is applicable for only primary roads.

5 AXLE MULTIPLE TRAILER	FIELD NAME:MT5AXLE	NUMBER 5

This field indicates the number of units with a multiple trailer with a total of five axles. This is applicable for only primary roads.

6 AXLE MULTIPLE TRAILER	FIELD NAME:MT6AXLE	NUMBER 5

This field indicates the number of units with a multiple trailer with a total of six axles. This is applicable for only primary roads.

7 AXLE MULTIPLE TRAILER	FIELD NAME:MT7AXLE	NUMBER (5)

This field indicates the number of units with a multiple trailer with a total of seven axles. This is applicable for only primary roads.

SINGLE UNIT TOTALS	FIELD NAME:SINGLEUNIT	NUMBER (5)

This field indicates the number of single units on the road segment. This is applicable for secondary roads only.

SINGLE & MULTIPLE TRAILER TOTALS	FIELD NAME:SINGMULTTRAILER	NUMBER (5)

This field indicates the number of units with either single or multiple trailers on the road segment. This is applicable for secondary roads only.

AADT EXPANSION FACTOR	FIELD NAME:EXPFACTOR	NUMBER (5,4)

This field is applicable to primary, secondary and municipal road systems and the value will be assigned.

Code
0.0099
.01
.015

IS ESTIMATE USED?	FIELD NAME: ESTIMATE	CHAR (1)

Indicates whether an actual count was recorded or whether the AADT was estimated.

MSLINK	FIELD NAME:MSLINK	NUMBER (10)

This field serves as the link between the data in all the road tables. Does not link to the MSLINK of the structure or rail tables.

STRUCTURE TABLES

Data that is included on the SI&A Form will be noted as such.

STRUC_BASE

CITY NUMBER FIELD NAME:CITYNUM NUMBER (4)
This item appears in the identification box of the SI&A Form. It does not have an item number

The city number is entered on all structures within the city limits. (See Appendix 3).

Code
0155
1645

DESIGN NUMBER(NUM) FIELD NAME:DESIGNNUM NUMBER (5)

Number assigned to each structure by designing organization (state, co., etc.) when plans were drawn.

Code
00867
01539

DESIGN NUMBER (ALPHA) FIELD NAME:DESIGNALPHA CHAR(1)

Suffix to design number to indicate modification of original design.

YEAR CONSTRUCTED FIELD NAME:CONSTYEAR NUMBER (4)
This field is item 27 in the AGE AND SERVICE box of the SI&A field.

Date structure was constructed under present design.

Code
1945
1980

YEAR MAJOR RECONSTRUCTED FIELD NAME:RECONYEAR NUMBER (4)
This field is item 106 in the AGE AND SERVICE box of the SI&A field.

Date structure was remodeled, widened, or otherwise reconstructed extensively.

Code
0000
1995

YEAR LAST INVENTORIED FIELD NAME:LASTINVYEAR NUMBER (4)

This item is at the bottom of the SI&A Form.

This indicates the last year the road segment was inventoried.

Code
0000
1982

MAIN STRUCTURE TYPE FIELD NAME:MAINSTRUCTYPE NUMBER(3)

This field is item 43 Main Structure Type in the Structure Type and Material box of the SI&A form

First digit indicates type of material in construction. Second and third digits indicate design configuration of bridge.

Code	Material	Code	Design Configuration
1	Concrete	01	Slab
2	Conc. Continuous	02	String/multi-beam or girder
3	Steel	03	Girder and floor beam sys.
4	Steel cont.	04	Tee beam
5	Prestress conc.	05	Box beam or girders-multi
6	Prest.conc.cont.	06	Box beam or girders-single
7	Timber	07	Frame
8	Masonry	08	Orthotropic
9	Alum.W.I.C.I.	09	Truss-deck
0	Other	10	Truss-thru
		11	Arch-deck (with fill over top)
		12	Arch-thru
		13	Suspension
		14	Stayed girder
		15	Movable-lift
		16	Movable-bascule
		17	Movable-swing
		18	Tunnel
		19	Culvert (with fill over top)
		20	Mixed types (approach only)
		21	Segmental box girder
		22	Channel beam
		23	Welded I-Girder W/Dia. (more than 2 girders)
		24	Welded I-Girder W/Dia. (2 girders)
		32	Welded I-Girder W/floor beams (2 girders)
		33	Welded I-Girder W/floor beams (more than 2 girders)
		80	Pony truss

81	Arch-deck (w/no fill over top)
82	Culvert (w/no fill over top)
00	Other

TYPE SERVICE FIELD NAME:TYPESERVICE VARCHAR2 (2)
This field is item 42 in the AGE AND SERVICE box of the SI&A form.

The type of service on the bridge and under the bridge indicated by a two digit code.
First digit indicates service on the bridge, second digit indicates service under the bridge.

Code	Description (Over)	Code	Description (Under)
1	Highway	1	Highway w/or w/out pedestrian
2	Railroad	2	Railroad
3	Pedestrian only	3	Pedestrian only
4	Highway-RR	4	Highway-RR
5	Highway-pedestrian	5	Waterway
6	Overpass at interch.	6	Highway-waterway
7	Third level (interch.)	7	RR-waterway
8	Fourth level (interch.)	8	Highway-waterway-RR
9	Building or plaza	9	Relief for waterway
0	Other	0	Other

LANES ON STRUCTURE FIELD NAME:LANESONSTRUC NUMBER (2)
This field is item 28 in the AGE AND SERVICE box of the SI&A form.

The number of traffic lanes on the structure.

Code	Description
02	2 lanes

LANES UNDER STRUCTURE FIELD NAME:LANESUNDSTRUC NUMBER (2)
This field is item 28 in the AGE AND SERVICE box of the SI&A form.

The number of traffic lanes under the structure.

Code	Description
04	4 lanes

CUSTODIAN MAINTAINER FIELD NAME:CUSTODIANCODE NUMBER (2)
This field is item 21 in the CLASSIFICATION box of the SI&A form.

Name of agency responsible for maintenance of structure.

Code	Description
01	State Highway Agency

02	County Highway Agency
03	Town or Township Highway Agency
04	City or Municipal Highway Agency
11	State Park, Forest, or Reservation Agency
12	Local Park, Forest, or Reservation Agency
21	Other State Agency
25	Other Local Agency
26	Private (other than RR)
27	Railroad
31	State Toll Authority
32	Local Toll Authority
60	Other Federal Agency (not listed)
62	Bureau of Indian Affairs
64	U.S. Forest Service
66	National Park Service
68	Bureau of Land Management
69	Bureau of Reclamation
70	Corps of Engineers (Civil)
71	Corps of Engineers (Military)
80	Unknown

OWNER FIELD NAME:OWNERCODE NUMBER (2)
This field is item 22 in the CLASSIFICATION box of the SI&A form.

Name of the primary owner agency of structure.

Code	Description
01	State Highway Agency
02	County Highway Agency
03	Town or Township Highway Agency
04	City or Municipal Highway Agency
11	State Park, Forest, or Reservation Agency
12	Local Park, Forest, or Reservation Agency
21	Other State Agency
25	Other Local Agency
26	Private (other than RR)
27	Railroad
31	State Toll Authority
32	Local Toll Authority
60	Other Federal Agency (not listed)
62	Bureau of Indian Affairs
64	U.S. Forest Service
66	National Park Service
68	Bureau of Land Management
69	Bureau of Reclamation
70	Corps of Engineers (Civil)
71	Corps of Engineers (Military)
80	Unknown

LATITUDE FIELD NAME:LATITUDE NUMBER (5,1)

Latitude of structure located on designated defense route.

Code	Description
3527.3	35 degrees 27.3 minutes

LONGITUDE FIELD NAME:LONGITUDE NUMBER (5,1)

Longitude of structure located on designated defense route.

Code	Description
8105.8	81 degrees 5.8 minutes

HISTORICAL SIGNIFICANCE FIELD NAME:HISTORICALSIG NUMBER (1)

This field indicates the historical significance of the bridge.

Code	Description
1	Bridge is on National Register of Historical Places.
2	Bridge is eligible for National Register of Historical Places.
3	Bridge is possibly eligible for National Register of Historical Places (requires further investigation). Or bridge is on State or Local Historical Register.
4	Historical significance not determined at this time.
5	Bridge is not eligible for National Register.

IMPROVEMENT TYPE OF WORK FIELD NAME:IMPTYPEWORK NUMBER (3)

This field is item 75 in the PROPOSED IMPROVEMENTS box of the SI&A form.

This field indicates the type of work proposed to be done on the structure to improve it to the point that it will provide the type of service needed and if the work is done by contract or forced account. The first 2 digits indicate the type of work.

Code	Description
31	Replacement of bridge because of substandard load carrying capacity or substandard bridge roadway geometry.
32	Replacement of bridge because of relocation of road.
33	Widening of existing bridge without deck rehabilitation or replacement.
34	Widening of existing bridge with deck rehabilitation or replacement.
35	Bridge rehabilitation because of general structure deterioration or inadequate strength.
36	Bridge deck rehabilitation with only incidental widening.
37	Bridge deck replacement with only incidental widening.
38	Other structural work.

Third digit shall be coded to indicate whether the proposed work is done by contract or local

forces.

Code	Description
1	Work done by contract
2	Work done by owner forces.

S.I.& A. PRINT CODE FIELD NAME:PRINTCODE NUMBER (1)

This field indicates which S.I. & A. forms are printed.

Code	Description
1	I.D.O.T. Maint. (Bridge Inspection) Responsibility
2	County Engineers Responsibility
3	City Responsibility
4	Federal or Other Responsibility

S.I.& A. DESIGN LOAD FIELD NAME:DESIGNLOAD NUMBER (1)
This field is item 31 of the LOAD RATING AND POSTING box of the SI&A form.

This field indicates the live load for which the structure was designed.

Code	Description
1	M 9
2	M 13.5
3	MS 13.5
4	M 18
5	MS 18
6	MS 18 + MOD
7	Pedestrian
8	Railroad
9	MS 22.5
0	Other or Unknown

TRANSPORTATION CENTER FIELD NAME:MAINTCENTER NUMBER (1)
This field is digit one of item 2 in box IDENTIFICATION box of the SI&A form.

Transportation center in which the structure is located.

Code	Description
1	Central Transportation Center
2	Northeast Transportation Center
3	Northwest Transportation Center
4	Southwest Transportation Center
5	Southeast Transportation Center
6	East Central Transportation Center

TRANSPORTATION AREA FIELD NAME:MAINTAREA NUMBER (1)

This field is digit two of item 2 in box IDENTIFICATION box of the SI&A form.

Area number, within a Transportation Center, in which the structure is located.

Code
1
7

JURISDICTION FIELD NAME:JURISDREMARK VARCHAR2(16)
REMARKS
This field is the County ID in the IDENTIFICATION box of the SI&A form. No item #.

Used for various identification remarks on different systems, i.e., county #, county bridge #, civil township name. This is an alphanumeric field sixteen characters long.

Code
Iowa Township
Grant 246D

FA PROJECT NUMBER FIELD NAME:FEDAIDPROJECT VARCHAR2(19)

The Federal Aid Project Number assigned to this structure. NOTE: Also may contain special information concerning the location or status of bridge. This is an alphanumeric field of nineteen characters long.

CODE
Note - F-30-5(2)

PAINT CONDITION FIELD NAME:CONDPAINT NUMBER (2)

First digit indicates type of paint on structure, 1-9. Second digit indicates paint condition, 1-9.

PAINT CONDITION YEAR FIELD NAME:CONDPAINTYEAR NUMBER (4)

This field indicates the year the structure was painted.

Code
0000
1987

PAINT CONTRACTOR FIELD NAME:PAINTCONT VARCHAR2 (2)

Indicates name of contractor. (Contact-bridge Insp. Maint.)

COORDINATES EAST FIELD NAME:COORDEAST NUMBER (4,3)

Distance traveled east from northwest corner of land section in which the structure is located. This measured in miles.

Code	Description
.719	.719 miles

COORDINATES SOUTH FIELD NAME:COORDSOUTH NUMBER (4,3)

Distance traveled south from northwest corner of land section in which structure is located. This measured in miles.

Code	Description
1.615	1.615 miles

LONGEST MAIN SPAN FIELD NAME:LONGMAINSPAN NUMBER (5)
This field is item 48 in box GEOMETRIC DATA on the SI&A form.

This field indicates the length of the main span. Entered to the nearest foot.

Code	Description
31	31 feet

DECK STRUCTURE TYPE FIELD NAME:DECKSTRUCTYPE CHAR (1)
This field is item 107 in the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

Indicates type of deck material/design of structure.

Code	Description
1	Concrete Cast-In-Place
2	Concrete Precast Panels
3	Open Grating
4	Closed Grating
5	Steel Plate (includes Orthotropic)
6	Corrugated Steel
7	Aluminum
8	Timber
9	Other
N	Not Applicable

DECK WEARING SURFACE FIELD NAME:DECKWEARSURF CHAR (1)
This field is digit 1 of item 108 in the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

Type of wearing surface material on deck.

Code	Description

1	Concrete
2	Integral Concrete
3	Latex Concrete
4	Low Slump Concrete
5	Epoxy Overlay
6	Bituminous
7	Timber
8	Gravel
9	Other
0	None
N	Not Applicable

DECK MEMBRANE FIELD NAME:DECKMEMBRANE CHAR (1)
This field is digit 2 of item 108 in the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

Type of membrane used in deck.

Code	Description
1	Built-up
2	Preformed Fabric
3	Epoxy
8	Unknown
9	Other
0	None
N	Not Applicable

DECK PROTECTION FIELD NAME:DECKPROT CHAR (1)
This field is digit 3 of item 108 in the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

This field indicates the type of deck protection.

Code	Description
1	Epoxy Coated Reinforcing
2	Galvanized Reinforcing
3	Other Coated Reinforcing
4	Cathodic Protection
6	Polymer Impregnated
7	Internally Sealed
8	Unknown
9	Other
0	None
N	Not Applicable

NEAR NUMBER OF SPANS FIELD NAME:NEARSPAN NUMBER (2)
This field is item 46 of the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

Number of spans in near (south or west) approach to main structure. (To qualify for approach bridge, material/design must be different than main structure material/design).

Code
00

FAR NUMBER OF SPANS FIELD NAME:FARSPAN NUMBER (2)
This field is item 46 of the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

Number of spans in far (north or east) approach to main structure. (To qualify for approach bridge, material/design must be different than main structure material/design).

Code
00
01

NEAR STRUCTURE TYPE FIELD NAME:NEARSTRUCTYPE NUMBER (3)
This field is item 44 of the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

This field indicates the type of structure in the near (west or south) approach spans to a major bridge. First digit indicates type of material in construction. Second and third digits indicate design configuration of bridge.

Code	Material
1	Concrete
2	Conc. continuous
3	Steel
4	Steel cont.
5	Prestress conc.
6	Prest.conc.cont.
7	Timber
8	Masonry
9	Alum.W.I.C.I
0	Other

Code	Design Configuration
01	Slab
02	String/multi-beam or girder
03	Girder and floorbeam sys.
04	Tee beam
05	Box beam or girders-multi
06	Box beam or girders-single
07	Frame
08	Orthotropic
09	Truss-deck
10	Truss-thru
11	Arch-deck (with fill over top)
12	Arch-thru
13	Suspension
14	Stayed girder
15	Movable-lift
16	Movable-bascule
17	Movable-swing
18	Tunnel
19	Culvert (with fill over top)
20	Mixed types (approach only)
21	Segmental box girder
22	Channel beam
23	Welded I-Girder W/Dia. (more than 2 girders)
24	Welded I-Girder W/Dia. (2 girders)
32	Welded I-Girder W/floor beams (2 girders)
33	Welded I-Girder W/floor beams (more than 2 girders)
80	Pony truss

81	Arch-deck (w/no fill over top)
82	Culvert (w/no fill over top)
00	Other

FAR STRUCTURE TYPE FIELD NAME:FARSTRUCTYPE NUMBER (3)
This field is item 44 of the STRUCTURE TYPE AND MATERIAL box of the SI&A form.

This field indicates the type of structure in the far (north or east) approach spans to a major bridge. First digit indicates type of material in construction. Second and third digits indicate design configuration of bridge.

Code	Material
1	Concrete
2	Conc. Continuous
3	Steel
4	Steel cont.
5	Prestress concrete
6	Prest.conc.cont.
7	Timber
8	Masonary
9	Alum.W.I.C.I.
0	Other

Code	Design Configuration
01	Slab
02	String/multi-beam or girder
03	Girder and floorbeam sys.
04	Tee beam
05	Box beam or girders-multi
06	Box beam or girders-single
07	Frame
08	Orthotropic
09	Truss-deck
10	Truss-thru
11	Arch-deck (with fill over top)
12	Arch-thru
13	Suspension
14	Stayed girder
15	Movable-lift
16	Movable-bascule
17	Movable-swing
18	Tunnel
19	Culvert (with fill over top)
20	Mixed types (approach only)
21	Segmental box girder
22	Channel beam
23	Welded I-Girder W/Dia. (more than 2 girders)
24	Welded I-Girder W/Dia. (2 girders)
32	Welded I-Girder W/floor beams (2 girders)
33	Welded I-Girder W/floor beams (more than 2 girders)
80	Pony truss
81	Arch-deck (w/no fill over top)
82	Culvert (w/no fill over top)
00	Other

BRIDGE MEDIAN TYPE FIELD NAME:BRIMEDTYPE NUMER (1)
This field is item 33 in the GEOMETRIC DATA box of the SI&A form.

This field indicates if the median is non-existent, open or closed.

Code	Description
0	No Median
1	Open Median
2	Closed Median (no barrier)
3	Closed Median with Non-Mountable Barriers

SKEW ANGLE FIELD NAME:SKEWANGLE NUMBER (2)
This field is item 34 in the GEOMETRIC DATA box of the SI&A form.

The angle between the centerline of piers and the roadway centerline. Record 99 to indicate major variation of skews of substructure units.

Code	Description
00	0 Degrees
22	22 Degrees

STRUCTURE FLARED FIELD NAME:STRUCFLARED NUMBER (1)
This field is item 35 in the GEOMETRIC DATA box of the SI&A form.

Indicates variation in structure width.

Code	Description
1	Yes, Flared
0	No Flare

NAVIGATIONAL CONTROL FIELD NAME:NAVCNTL CHAR (1)
This field is item 38 in the NAVIGATION DATA box of the SI&A form.

Indicates whether navigation permit is required on waterway under bridge.

Code	Description
N	Not Applicable, Not Waterway
0	No Navigation Control on Waterway (Bridge Permit Not Required)
1	Navigation Control on Waterway (Bridge Permit Required)

NAVIGATIONAL VERTICAL CLEARANCE FIELD NAME:NAVVERTCLEAR NUMBER (5)
This field is item 39 in the NAVIGATION DATA box of the SI&A form.

Minimum vertical clearance measured above a datum specified on a navigational permit issued by a control agency. The vertical clearance is measured with the bridge in a closed position (open to vehicular traffic.) The measurement is entered in feet and inches.

Code	Description
9900	unlimited
6800	68 feet 0 inches
5300	53 feet 0 inchex

NAVIGATIONAL HORIZONTAL CLEARANCE FIELD NAME:NAVHORIZCLEAR NUMBER (5)
This field is item 40 in the NAVIGATION DATA box of the SI&A form.

Minimum horizontal clearance shown on navigation permit. If permit is not available use minimum horizontal distance between fenders or piers. The measurement is entered in feet and inches

Code	Description
11000	110 feet and 0 inches
70900	709 feet and 0 inches

BRIDGE ROADWAY WIDTH FIELD NAME:BRIROADWIDTH NUMBER (4,1)
This field is item 51 in the GEOMETRIC DATA box of the SI&A form.

The most restrictive minimum distance between curbs or rails on the structure roadway. The measurement is entered in feet.

Code	Description
30.2	30.2 feet
19.7	19.7 feet

REFERENCE FEATURE FIELD NAME:VERTRFFEA CHAR (1)

This field refers to the reference feature from which the minimum vertical underclearance measurement is taken.

Code	Description
H	Highway Beneath Structure
R	Railroad Beneath Structure
N	Feature not a Highway or Railroad

VERTICAL UNDERCLEARANCE FIELD NAME:VERTUNDERCLEAR NUMBER (4)
The field is item 54 in the GEOMETRIC DATA box of the SI&A form.

The minimum vertical clearance from the roadway or railroad track beneath the structure to the underside of the structure. The first two digits are feet and the second two digits are inches.

Code	Description
1706	17 feet 06 inches
1215	12 feet 15 inches

REFERENCE FEATURE FIELD NAME:OUTLATREFFEA CHAR (1)

This field refers to the reference feature from which the minimum outside lateral clearance measurement is taken.

Code	Description
H	Highway Beneath Structure
R	Railroad Beneath Structure
N	Feature not a Highway or Railroad

OUTSIDE LATERAL CLEARANCE FIELD NAME:OUTLATCLEAR NUMBER (4)
This field is item 55 in box GEOMETRIC DATA of the SI&A form.

If the feature beneath the structure is either a railroad or highway, the measurement is in feet and inches to represent the minimum lateral clearance on the right (outside).

Code	Description
3807	38 feet 7 inches
0000	Not Applicable

INSIDE LATERAL CLEARANCE FIELD NAME:INLATCLEAR NUMBER (4)
This field is item 56 in box GEOMETRIC DATA of the SI&A form.

This position is entered only if the feature beneath the structure is a divided highway. The minimum clearance on the inside (median side) of the roadway beneath the structure is to be recorded and entered in feet and inches. The inside clearance is measured from both directions of travel and the lesser dimension is entered.

Code	Description
1011	10 feet 11 inches
0000	Not Applicable

LEFT SIDEWALK FIELD NAME:SIDEWALKL NUMBER (2)
This field is item 50 in box GEOMETRIC DATA of the SI&A form.

"Left" or "Right" are determined by the general direction of inventory from south to north and west to east. This field indicates the width of the left sidewalk to the nearest foot.

Code	Sidewalk Width
1	1 FOOT

RIGHT SIDEWALK FIELD NAME:SIDEWALKR NUMBER (2)
This field is item 50 in box GEOMETRIC DATA of the SI&A form.

"Left" or "Right" are determined by general direction of inventory from south to north and west to east. This field indicates the width of the right sidewalk to the nearest foot.

Code	Sidewalk Width
1	1 FOOT

DETOUR LENGTH FIELD NAME:DETOURLENG NUMBER (6,3)
This field is item 19 in box AGE AND SERVICE of the SI&A form.

This field indicates the detour length if the structure is not passable. Detour route will be established following allowable criteria determined by governing authority.

Code	Description
002.000	2 MILES
99.999	Dead end

BRIDGE APPROACH CODE FIELD NAME:APPRCODE NUMBER (1)

For divided roadway with non-divided structure and divided structure with non-divided roadway.

Code	Description
1	Non-divided bridge which has a divided approach.
2	Divided bridge which has a non-divided approach.

SAFETY STUDY FIELD NAME:SAFESTUDY NUMBER (1)

A condition exists that poses a threat to safe driving.

Code	Description
0	No safety study exists
1	Location, geometrics, or condition of bridge pose a threat to safe driving.

DECK FIELD NAME:CONDDECK CHAR (1)
This field is item 58 in the CONDITION box of the SI&A Form.

This indicates the overall condition rating of the deck. Code N for all culverts.

Code	Description
N	Not Applicable
9	Excellent Condition
8	Very Good Condition
7	Good Condition
6	Satisfactory Condition
5	Fair Condition
4	Poor Condition
3	Serious Condition
2	Critical Condition
1	AImminent≅ Failure Condition
0	Failed Condition

SUPERSTRUCTURE FIELD NAME:CONDSUPER CHAR (1)
This field is item 59 in the CONDITION box of the SI&A form.

This field indicates the physical condition of all structural members. Code N for all culverts.

Code	Description
N	Not Applicable
9	Excellent Condition
8	Very Good Condition
7	Good Condition
6	Satisfactory Condition
5	Fair Condition
4	Poor Condition
3	Serious Condition
2	Critical Condition
1	"Imminent" Failure Condition
0	Failed Condition

SUBSTRUCTURE FIELD NAME:CONDSUB CHAR (1)
This field is item 60 in the CONDITION box of the SI&A form.

This field describes the physical condition of piers, abutments, piles, fenders, footings, or other components. Code N for all culverts.

Code	Description
N	Not Applicable
9	Excellent Condition
8	Very Good Condition
7	Good Condition
6	Satisfactory Condition
5	Fair Condition
4	Poor Condition
3	Serious Condition
2	Critical Condition
1	"Imminent" Failure Condition
0	Failed Condition

CHANNEL FIELD NAME:CONDCHANNEL CHAR (1)
This field is item 61 in the CONDITION box of the SI&A form.

This field describes the physical conditions associated with the flow of water through the bridge such as stream stability and the condition of the channel, riprap, slope protection, or stream control devices including spur dikes.

Code	Description
N	Not applicable. Use when bridge is not over a waterway.
9	No noticeable or noteworthy deficiencies which affect the condition of the channel.
8	Banks are protected or well vegetated. River control devices such as spur dikes and

embankment protection are not required or are in a stable condition.

7	Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.
6	Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the waterway slightly.
5	Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and brush restrict the channel.
4	Bank and embankment protection is severely undermined. River control devices have severe damage. Large deposits of debris are in the waterway.
3	Bank protection has failed. River control devices have been destroyed. Stream bed aggradations, degradation or lateral movement has changed the waterway to now threaten the bridge and/or approach roadway.
2	The waterway has changed to the extent the bridge is near a state of collapse.
1	Bridge closed because of channel failure. Corrective action may put back in light service.
0	Bridge closed because of channel failure. Replacement necessary.

CULVERT FIELD NAME:CONDCULVERT CHAR (1)
This field is item 62 of the CONDITION box of the SI&A form.

This field indicates the evaluation of the alignment, settlement, joints, structural condition, scour, and other items associated with culverts. The rating code is intended to be an overall condition evaluation of the culvert. Integral wingwalls to the first construction or expansion joint shall be included in the evaluation.

Code	Description
N	Not applicable. Use if structure is not a culvert.
9	No deficiencies.
8	No noticeable or noteworthy deficiencies which affect the condition of the culvert. Insignificant spalling which does not expose reinforcing steel. Insignificant damage caused by drift with no misalignment and not requiring corrective action. Some minor scouring has occurred near curtain walls, wingwalls, or pipes. Metal culverts have a smooth symmetrical curvature with superficial corrosion and no pitting.
7	Shrinkage cracks, light scaling, and insignificant spalling which does not expose reinforcing steel. Insignificant damage caused by drift with no misalignment and not requiring corrective action. Some minor scouring has occurred near curtain walls, wingwalls or pipes. Metal culverts have a smooth symmetric curvature with superficial corrosion and no pitting.
6	Deterioration or initial disintegration, minor chloride contamination, cracking with some leaching, or spalls on concrete or masonry walls and slabs. Local minor scouring at curtain walls, wingwalls, or pipes. Metal culverts have a smooth curvature, non-symmetrical shape, significant corrosion or moderate pitting.
5	Moderate to major deterioration or disintegration, extensive cracking and leaching, or spalls on concrete or masonry walls and slabs. Minor settlement or misalignment. Noticeable scouring or erosion at curtain walls, wingwalls, or pipes. Metal culverts have significant distortion and deflection in one section, significant corrosion or deep pitting.
4	Large spalls, heavy scaling, wide cracks, considerable efflorescence, or opened

construction joint permitting loss of backfill. Considerable settlement or misalignment. Considerable scouring or erosion at curtain walls, wingwalls or pipes. Metal culverts have significant distortion and deflection throughout, extensive corrosion or deep pitting.

3 Any condition described in Code 4, but which is excessive in scope. Severe movement or differential settlement of the segments, or loss of fill. Holes may exist in walls or slabs. Integral wingwalls nearly severed from culvert. Severe scour or erosion at curtain walls, wingwalls or pipes. Metal culverts have extreme distortion and deflection in one section, extensive corrosion,or deep pitting with scattered perforations.

2 Integral wingwalls collapsed, severe settlement of roadway due to loss of fill. Section of culvert may have failed and can no longer support embankment. Complete undermining at curtain walls and pipes. Corrective action required to maintain traffic. Metal culverts have extreme distortion and deflection throughout with extensive perforations due to corrosion.

1 Bridge closed. Corrective action may put back in light service.

0 Bridge closed. Replacement necessary.

OPERATING RATING FIELD NAME:CONDOPERRAT NUMBER (3,1)
This field is item 64 in the LOAD RATING AND POSTING box of the SI&A form.

This is the absolute maximum permissible load level to which the structure may be subjected for the vehicle type used in the rating. Code the rating as a 3-digit number to represent the total mass in gross tonnage of the entire vehicle measured to the nearest tenth of a ton.

Code	Description
22.5	22.5 gross tonnage

INVENTORY RATING FIELD NAME:CONDINVRAT NUMBER (3,1)
This field is item 66 in the LOAD RATING AND POSTING box of the SI&A form.

The capacity rating, for the vehicle type being rated, which can safely be utilized for an indefinite period. (The S.I.& A. Suff. Rating will not be computed with this rating missing.)

POSTED LOAD LIMIT FIELD NAME:LOADLIMITX NUMBER (3)
These fields are in the LOAD RATING AND POSTING box directly below items 70 & 41
The actual posted limit on the structure.

The first digit implies the type of truck

4 indicates a straight truck
5 indicates a typical semi
6 indicates a double bottom truck

The second two digits are the actual gross tonnage on the posting.

First Field Name:LOADLIMIT1

Second	Field Name:LOADLIMIT2
Third	Field Name:LOADLIMIT3

CALCULATED OPERATING LIMIT FIELD NAME:CALCOPERX NUMBER (3)
These fields are in the LOAD RATING AND POSTING box labeled as Calc Oper.

The first digit implies the type of truck

4	indicates a straight truck
5	indicates a typical semi
6	indicates a double bottom truck

The last two digits indicate the calculated upper gross tonnage limit at which repeated traffic could pass over without causing stress on bridge members. This calculation includes a factor involving repeated traffic.

First	Field Name:CALCOPER1
Second	Field Name:CALCOPER2
Third	Field Name:CALCOPER3

CALCULATED INVENTORY LIMIT FIELD NAME:CALCINVX NUMBER (3)
These fields are in the LOAD RATING AND POSTING box labeled as Calc Inv.

The first digit implies the type of truck

4	indicates a straight truck
5	indicates a typical semi
6	indicates a double bottom truck

The last two digits indicate the gross tonnage limit for each truck type.

First	Field Name:CALCINV1
Second	Field Name:CALCINV2
Third	Field Name:CALCINV3

STRUCTURE CONDITION FIELD NAME:APPSTRUCCOND CHAR (1)
This field is item 67 in the APPRAISAL box on the SI&A form.

This one-digit field indicates the over-all condition rating of the structure.

Code	Description
N	Not applicable.
9	Conditions superior to present desirable criteria.
8	Conditions equal to present desirable criteria.
7	Conditions better than present minimum criteria.
6	Conditions equal to present minimum criteria.
5	Condition somewhat better than minimum adequacy to tolerate being left in place as is.

4	Condition meeting minimum tolerable limits to be left in place as is.
3	Basically intolerable condition requiring high priority of repair.
2	Basically intolerable condition requiring high priority of replacement.
0	Immediate replacement necessary to put back in service.

DECK GEOMETRY FIELD NAME:APPDECKGEO CHAR (1)
This field is item 68 in the APPRAISAL box on the SI&A form.

This one-digit field indicates the condition rating of the deck geometry, which refers to adequacy of roadway width, clearances above deck and other.

Code	Description
N	Not applicable.
9	Conditions superior to present desirable criteria.
8	Conditions equal to present desirable criteria.
7	Conditions better than present minimum criteria.
6	Conditions equal to present minimum criteria.
5	Condition somewhat better than minimum adequacy to tolerate being left in place as is.
4	Condition meeting minimum tolerable limits to be left in place as is.
3	Basically intolerable condition requiring high priority for widening.
2	Basically intolerable condition requiring high priority of replacement.
0	Immediate replacement necessary to put back in service.

UNDERCLEARANCE FIELD NAME:APPUNDERCLEAR CHAR (1)
This field is item 69 in the APPRAISAL box of the SI&A form.

This one digit field indicates the condition rating of the vertical and horizontal underclearances from the through roadway to the superstructure or substructure units, respectively.

Code	Description
N	Not applicable.
9	Conditions superior to present desirable criteria.
8	Conditions equal to present desirable criteria.
7	Conditions better than present minimum criteria.
6	Conditions equal to present minimum criteria.
5	Condition somewhat better than minimum adequacy to tolerate being left in place as is.
4	Condition meeting minimum tolerable limits to be left in place as is.
3	Basically intolerable condition requiring high priority of repair.
2	Basically intolerable condition requiring high priority of replacement.
0	Immediate replacement necessary to put back in service.

SAFE LOAD CAPACITY (BRIDGE POSTING) FIELD NAME:APPSAFELOAD CHAR (1)
This field is item 70 in the LOAD RATING AND POSTING box of the SI&A form.

This one digit field indicates the rating. It should be noted that the National Bridge Inspection

Standards require the posting of load limits only if the maximum legal loads in the state produce stresses in excess of the operating rating stress level.

However, a lesser stress level, as low as the inventory rating level, may be used to determine safe load capacity for any or all bridges. If the safe load capacity posting is required enter a “4” or less. If no posting is required enter a "5".

Code	Description
5	Equal to or above legal loads
4	0.1-9.9% Below
3	10.0-19.9% Below
2	20.0-29.9% Below
1	30.0-39.9% Below
0	> 39.9% Below

WATERWAY ADEQUACY FIELD NAME:APPWATERWAY CHAR (1)
This field is item 71 in the APPRAISAL box of the SI&A form.

This field indicates the waterway adequacies, and all scour erosion, condition of slope protection, stream capacity, etc.

Code	Description
N	Not applicable.
9	Conditions superior to present desirable criteria.
8	Conditions equal to present desirable criteria.
7	Conditions better than present minimum criteria.
6	Conditions equal to present minimum criteria.
5	Condition somewhat better than minimum adequacy to tolerate being left in place as is.
4	Condition meeting minimum tolerable limits to be left in place as is.
3	Basically intolerable condition requiring high priority of repair.
2	Basically intolerable condition requiring high priority of replacement.
0	Immediate replacement necessary to put back in service.

ROADWAY ALIGNMENT FIELD NAME:APPROADALIGN CHAR (1)
This field is item 72 in the APPRAISAL box of the SI&A form.

This field indicates the condition rating of the approach roadway alignment. The rating is given in relation to the effect on the use of the bridge.

Code	Description
N	Not applicable.
9	Conditions superior to present desirable criteria.
8	Conditions equal to present desirable criteria.
7	Conditions better than present minimum criteria.
6	Conditions equal to present minimum criteria.
5	Condition somewhat better than minimum adequacy to tolerate being left in place as is.
4	Condition meeting minimum tolerable limits to be left in place as is.

3	Basically intolerable condition requiring high priority of repair.
2	Basically intolerable condition requiring high priority of replacement.
0	Immediate replacement necessary to put back in service.

IMPROVEMENT LENGTH FIELD NAME:IMPROVELENG NUMBER (4)
This field is item 76 in box PROPOSED IMPROVEMENTS of the SI&A form.

This field represents the length of the proposed improvement to the nearest foot. This length is not necessarily the full length of the structure.

Code	Description
175	175 feet

BRIDGE IMPROVEMENT COST FIELD NAME:COSTBRIDGEIMP NUMBER (6)
This field is item 94 in box PROPOSED IMPROVEMENT of the SI&A form.

This field indicates the bridge improvement costs to the nearest thousands of dollars.

Code	Description
000056	55,850
000250	250,000
007451	7,451,233

ROAD IMPROVEMENT COST FIELD NAME:COSTROADIMP NUMER (6)
This field is item 95 in the PROPOSED IMPROVEMENT box of the SI&A form.

This field indicates the road improvement costs to the nearest thousands of dollars.

Code	Description
000056	55,850
000250	250,000
007451	7,451,233

TOTAL PROJECT COST FIELD NAME:COSTPROJTOTAL NUMBER (6)
This field is item 96 in the PROPOSED IMPROVEMENTS box of the SI&A form.

This field indicates the total project costs to the nearest thousands of dollars.

Code	Description
000056	55,850
000250	250,000
007451	7,451,233

COST ESTIMATE YEAR FIELD NAME:COSTESTYEAR NUMBER (4)
This field is item 97 in the PROPOSED IMPROVEMENTS box of the SI&A form.

This field indicates the year that the estimated cost was figured for the bridge, road or total project cost.

Code
1995
1997

MONTH FIELD NAME:INSPMONTH NUMBER (2)
This field is item 90 in the INSPECTIONS box of the SI&A form.

This field indicates the month in which the inspection took place.

Code	Description
05	May
12	December

YEAR FIELD NAME:INSPYEAR NUMBER (4)
This field is item 90 in the INSPECTIONS box of the SI&A form.

This field indicates the year in which the inspection took place.

Code
1994
1997

INSPECTION TYPE FIELD NAME:INSPTYPE NUMBER (1)

This field is for the Iowa Dept. of Transportation Maintenance Office. The inspection type will print out in the remark section of the S.I.& A. form. Refer to Policy 610.04 of the Office of Maintenance's Policy and Procedures Manual for the general directions of each code.

Code	Description
0	Not Recorded
1	Special
2	Initial
3	Regular
4	Limited
5	Routine
6	Consultant
7	Recycle
8	Fatigue
9	Railroad

INSPECTION NEXT TYPE FIELD NAME:INSPNEXTTYPE NUMBER (1)

This field is for the Iowa Dept. of Transportation Maintenance Office. The inspection next type will print out in the remark section of the S.I.& A. form. Refer to Policy 610.04 of the office of Maintenance's Policy and Procedures Manual for the general directions of each code.

Code	Description
0	Not Recorded
1	Special
2	Initial

3	Regular
4	Limited
5	Routine
6	Consultant
7	Recycle
8	Fatigue
9	Railroad

INSPECTION QUARTER FIELD NAME:INSPQTR NUMBER (1)

This field is for the Iowa Dept. of Transportation Maintenance Office. The next inspection date will print out in the remark section of the S.I.& A. forms. Refer to Policy 610.04 of the Office of Maintenance's Policy and Procedures Manual for the general directions of each code.

Code	Description
0	Not Recorded
1	Special
2	Initial
3	Regular
4	Limited
5	Routine
6	Consultant
7	Recycle
8	Fatigue
9	Railroad

S.I.& A. PRINCIPAL/ OTHER FIELD NAME:PRINOTHER NUMBER (1)

Code	Description
1	Principal
2	Other

S.I.& A. TRAFFIC SAFETY FIELD NAME:TRAFSAFETY VARCHAR2(4)
This field is item 36 in the APPRAISAL box of the SI&A form.

Each position of this field is a different section of the structure which indicates the safety of it.

(1st Digit-Bridge Railings)
(2nd Digit-Transitions)
(3rd Digit-Approach Guardrail)
(4th Digit-Approach Guardrail Ends)

Code	Description
0	Inspected feature does not meet currently acceptable standards or a safety feature is required and none is provided.
1	Inspected feature meets currently acceptable standards.
N	Not applicable or safety feature not required.

S.I.& A. OPEN/CLOSED FIELD NAME:OPENCLOSED CHAR (1)
This field is item 41 in the LOAD RATING AND POSTING box of the SI&A form.

This field indicates if the structure is opened or closed and if there are any type of restrictions when it is opened.

Code	Description
A	Open, no restriction
B	Open, posting recommended but not legally implemented. (ALL SIGNS NOT IN PLACE)
D	Open, would be posted or closed except for temporary shoring, etc., to allow for unrestricted traffic.
E	Open, temporary structure in place to carry legal loads while original structure is closed and awaiting replacement or rehabilition
G	New structure not yet open to traffic.
K	Bridge closed to all traffic
P	Posted for load (MAY INCLUDE OTHER RESTRICTIONS)
R	Posted for other load-capacity restriction. (SPEED NUMBER OF VEHICLES ON BRIDGE, ETC.)

S.I.& A. SUFFICIENCY RATING FIELD NAME:SUFFRATING NUMBER (3)
This is posted at the top right corner of the SI&A form.

Computer generated rating updated monthly.

S.I.& A. SUFFICIENCY MONTH FIELD NAME:SUFFMONTH NUMBER (2)

The last month the sufficiency rating was updated. (Computer Generated)

S.I.& A. SUFFICIENCY YEAR FIELD NAME:SUFFYEAR NUMBER (4)

The year the last sufficiency rating was updated. (Computer Generated)

IOWA RR CROSSING NUMBER FIELD NAME:IOWACROSSING NUMBER (5)

A unique number assigned to a railroad crossing within a road segment.

OVERLAY CONDITION FIELD NAME:CONDOVER NUMBER (2)

A 2 digit code describing the deck overlay condition. A code will be present only if an overlay has been constructed. Overlays are 1 ¾ inches and these conditions apply to that surface.

First	Cracks		Second	Hollow	Spalls &
Digit	Transverse	Other	digit	Areas	scaling
1	NONE	NONE	1	NONE	NONE
2	NONE	MINOR	2	NONE	MINOR
3	NONE	MAJOR	3	NONE	MAJOR
4	MINOR	NONE	4	MINOR	NONE
5	MINOR	MINOR	5	MINOR	MINOR
6	MINOR	MAJOR	6	MINOR	MAJOR
7	MAJOR	NONE	7	MAJOR	NONE
8	MAJOR	MINOR	8	MAJOR	MINOR
9	MAJOR	MAJOR	9	MAJOR	MAJOR

Transverse cracking would be latitudinal cracks, other would be longitudinal or other. Hollow areas would be areas that have started to separate but not completely loose. Tapping with a hammer would produce a hollow sound. Spalls are chips or potholes in the concrete. Scaling includes a deteriorating surface.

OVERLAY CONDITION YEAR FIELD NAME:CONDOVERYEAR NUMBER (4)

The year of the overlay construction. Will be blank if no overlay was constructed.

INSPECTION FREQUENCY FIELD NAME:INSPFREQ NUMBER (2)
This field is item 91 in box INSPECTIONS box on the SI&A form.

The number of months between normal inspections.

Code	Description
12	12 months
24	24 months

FRACTURE INSPECTION FIELD NAME:FRACTURE CHAR (1)
This field is the first item after A .Fracture crit. detail in the box INSPECTIONS on the SI&A form.

Code	Description
Y	Yes-Fracture critical, inspection needed
N	No-Not needed

FRACTURE INSPECTION INTERVAL FIELD NAME:FRACTUREINT NUMBER (2)
This field is the 3rd item after A .Fracture crit. detail in the box INSPECTIONS on the SI&A form.

If the structure is fracture critical, this indicates the number of months interval between inspections.

Code	Description
06	6 months
24	24 months

MONTH FIELD NAME:FRACTUREMONTH NUMBER(2)
This field is the 2nd item after A .Fracture crit. detail in the box INSPECTIONS on the SI&A form.

This field indicates the month of the fracture inspection.

Code	Description
05	May
12	December

YEAR FIELD NAME:FRACTUREYEAR NUMBER (4)
This field is the 4th item after A .Fracture crit. detail in the box INSPECTIONS on the SI&A form.

This field indicates the year of the fracture inspection.

UNDERWATER INSPECTION (Y/N) FIELD NAME:UNDWATER CHAR (1)
This field is the 1st item after Item B. Underwater insp in the box INSPECTIONS on the SI&A form.

This field indicates if the structure needs underwater inspection.

Code	Description
Y	Yes, inspection needed
N	No, inspection needed

UNDERWATER INSPECTION INTERVAL FIELD NAME:UNDWATERINT NUMBER (2)
This field is the 3rd item after Item B. Underwater insp in the box INSPECTIONS on the SI&A form.

If the structure needs underwater inspection, this indicates the number of months interval between inspections.

Code	Description
06	6 months
12	12 months

MONTH FIELD NAME:UNDWATERMONTH NUMBER (2)
This field is the 2nd item after Item B. Underwater insp in the box INSPECTIONS on the SI&A form.

This field indicates the month of the underwater inspection.

Code	Description
05	May

YEAR FIELD NAMEUNDWATERYEAR NUMBER (4)
This field is the 4th item after Item B. Underwater insp in the box INSPECTIONS on the SI&A form.

This field indicates the year of the underwater inspection.

Code
1988
1990

OTHER SPECIAL INSPECTION (Y/N) FIELD NAME:OTHERSPEC CHAR (1)

This field is the 1st item after Item C. Other Special INSP in the box INSPECTIONS on the SI&A form.

This field indicates is any other special inspection is needed.

Code	Description
Y	Yes, other special inspection needed
N	No, other special inspection needed

OTHER SPECIAL INSPECTION INTERVAL FIELD NAME:OTHERSPECINT NUMBER (2)

This field is the 3rd item after Item C. Other Special INSP in the box INSPECTIONS on the SI&A form.

If the structure needs other special inspections, this indicates the number of months interval between inspections.

Code	Description
06	6 months
12	12 months

MONTH FIELD NAME:OTHERSPECMONTH NUMBER (2)

This field is the 2nd item after Item C. Other Special INSP in the box INSPECTIONS on the SI&A form.

This field indicates the month of the other special inspection.

Code	Description
05	May
12	December

YEAR FIELD NAME:OTHERSPECYEAR NUMBER(4)

This field is the 4th item after Item C. Other Special INSP in the box INSPECTIONS on the SI&A form.

This field indicates the year of the other special inspection.

Code
1988
1990

NEIGHBORING STATE FIELD NAME:NEIGHBORSTATE NUMBER (3)

This field is item 98 under box IDENTIFICATION on the SI&A form.

This field indicates the code of the neighboring state when a bridge crosses over to another state.

Code	Description
175	Illinois

275	Minnesota
297	Missouri
317	Nebraska
468	South Dakota
555	Wisconsin

PERCENT RESPONSIBILITY — FIELD NAME:PCTRESPONSIBLE — NUMBER (2)

This field is item 98 SHARE in box IDENTIFICATION on the SI&A form.

This field indicates the percentage of total deck area of the existing bridge that the neighboring state is responsible for funding for future improvements.

Code	Description
45	45% of future improvement costs.
00	Not responsible for any future improvement costs.

BORDER BRIDGE STRUCTURE NUMBER — FIELD NAME:BORDERSTRUCTURE — VARCHAR2(15)

This field is item 99 in the IDENTIFICATION box of the SI&A form.

This alphanumeric field indicates the neighboring state's 15-digit National Bridge Inventory Structure Number. This number must match exactly the neighboring state's submitted NBI structure number.

PARALLEL STRUCTURE DESIGNATION — FIELD NAME:PARALLELSTRUCC — CHAR (1)

This field is item 101 in the CLASSIFICATION box of the SI&A form.

This field indicates situations where separate structures carry the inventory route in opposite directions of travel over the same feature.

Code	Description
R	The right structure of parallel bridges carrying the roadway in the direction of inventory. (For a defense highway, this is west to east and south to north).
L	The left structure of parallel bridges. This structure carries traffic in the opposite direction.
N	No parallel structure exists.

DIRECTION OF TRAVEL — FIELD NAME:TRAFDIRECTION — NUMBER (1)

This field is item 102 in the CLASSIFICATION box of the SI&A form.

This field indicates the direction of travel.

Code	Description
0	Highway traffic not carried
1	1-Way traffic

2	2-Way traffic
3	One lane bridge for 2-way traffic

TEMPORARY STRUCTURE DESIGNATION FIELD NAME:TEMPSTRUCDESIG CHAR (1)
This field is item 103 in the CLASSIFICATION box of the SI&A form.

Code	Description
T	Temporary structure or condition exists.

PIER/ABUTMENT PROTECTION (FOR NAVIGATION) FIELD NAME:PIERPROTECT CHAR (1)
This field is item 111 in the NAVIGATION DATA box of the SI&A form.

This field indicates the presence and adequacy of pier or abutment protection features such as fenders, dolphins, etc.

Code	Description
1	Navigation protection not required
2	In place and functioning
3	In place but in a deteriorated condition
4	In place but re-evaluation of design suggested
5	None present but re-evaluation suggested

SCOUR CRITICAL BRIDGES FIELD NAME:SCOURCRITBRI CHAR (1)
This field is item 113 in the APPRAISAL box of the SI&A form.

This field indicates the current status of the bridge regarding its vulnerability to scour.

Code	Description
N	Bridge not over waterway.
U	Bridge with unknown foundation. Flag for monitoring during flood event.
9	Bridge foundations (including piles) well above flood water elevations.
8	Bridge foundations determined to be stable for calculated scour conditions; calculated scour is above top of footing.
7	Countermeasures have been installed to correct a previously existing problem with scour. Bridge is no longer scour critical.
6	Scour calculation/evaluation has not been made. (Use only to describe case where bridge has not yet been evaluated for scour potential.)
5	Bridge foundations determined to be stable for calculated scour conditions; scour within limits of footing or pile.
4	Bridge foundations determined to be stable for calculated scour conditions; field review indicates action is required to protect exposed foundations from effects of additional erosion and corrosion.
3	Bridge is scour critical; bridge foundation determined to be unstable for calculated scour conditions: -Scour within limits of footing or piles -Scour below spread-footing base or pile tips

2	Bridge is scour critical; field review indicates that excessive scour has occurred at bridge foundations. Immediate action is required to provide scour countermeasures.
1	Bridge is scour critical; field review indicates that failure of piers/abutments is imminent. Bridge is closed to traffic.
0	Bridge is scour critical; bridge has failed and is closed to traffic.

LIFT BRIDGE VERTICAL CLEARANCE FIELD NAME:LIFTBRIVERTCLEAR NUMBER (4)
This field is item 116 in the NAVIGATION DATA box of the SI&A form.

This field indicates in feet and inches the minimum vertical clearance only for vertical lift bridges in the dropped or closed position.

Code	Description
1040	10 feet 40 inches
0000	Not applicable

MAINTENANCE GARAGE FIELD NAME:MAINTGARAGE NUMBER (2)
This field is the 5th & 6th digit for item 2 in the IDENTIFICATION box of the SI&A form.

Indicates the maintenance garage number. The garage is assigned by the Office of Maintenance-Programs. This is used on primary and institutional roads.

Code
01-04

METHOD USED TO DETERMINE OPERATING RATING FIELD NAME:OPERRATMETHOD NUMBER (1)
This field is item 63 in the LOAD RATING AND POSTING box of the SI&A form.

Use one of the codes below to indicate method used to determine operating rating.

Code	Description
1	Load Factor (LF)
2	Allowable Stress (AS)
3	Load and Resistance Factor (LDFR)
4	Load Testing
5	No Rating Analysis Performed

METHOD USED TO DETERMINE INVENTORY RATING FIELD NAME:INVRATMETHOD NUMBER(1)
This field is item 65 in the LOAD RATING AND POSTING box of the SI&A form.

Use one of the codes below to indicate method used to determine inventory rating.

Code	Description
1	Load Factor (LF)
2	Allowable Stress (AS)

3 Load and Resistance Factor (LDFR)
4 Load Testing
5 No Rating Analysis Performed

SMARTFLAGS SMARTCONDITION	SMARTFLAGS SMARTCOND9	NUMBER (1)

Smart Flags allow tracking of distress conditions such as pack rust and deck cracking which are not included in the standard condition state language for CoRe elements because they follow different patterns of deterioration and are measured in a different way. (P 104 Pontis Manual, Release 3.2)

This field indicates the number of smartflags at the last Pontis inspection. The corresponding fields for this are PONTISMONTH and PONTISYEAR. Smart flags are parts of the bridges structure that don't meet the requirements for an element.

Associated fields are:

SMARTFLAGS	# OF SMARTFLAGS
SMARTFLAG1	SMARTFLAG #
SMARTCOND1	CONDITION STATE OF SMARTFLAG1
SMARTFLAG2	SMARTFLAG#
SMARTCOND2	CONDITION STATE OF SMARTFLAG2
SMARTFLAG3	SMARTFLAG #
SMARTCOND3	CONDITION STATE OF SMARTFLAG3
SMARTFLAG4	SMARTFLAG #
SMARTCOND4	CONDITION STATE OF SMARTFLAG4
SMARTFLAG5	SMARTFLAG#
SMARTCOND5	CONDITION STATE OF SMARTFLAG5

CONDITION STATE DEFINITIONS
1 No damage
2 Distress <= 2%
3 2 to 10% distress
4 10 to 25% distress
5 Distress over 25%

PONTIS MONTH	PONTISMONTH	NUMBER (2)

Month inspected

PONTIS YEAR	PONTISYEAR	NUMBER (4)

Year Inspected

NATIONALY INVENTORY	BRIDGE ITEM	FIELD:NBIAITEM NUMBER (1)

This field is item 112 in the GEOMETRIC DATA box of the SI&A form.

Item 112 in the National Bridge Inventory Manual. Does this bridge meet or exceed the minimum length specified to be designated as a bridge for National Bridge Inspection Standards purposes?

Enter 0 for Yes , 1 For No

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the structure tables. Does not link to the MSLINK of the road or rail tables.

To link the structure tables to the road tables, use the Countyno, jurisdic, syscode, statcode, Stateroutepreffix, stateroute, statesegseq fields in the Struc_pass tables and link them with the same fields in the BRROAD_CONTROL_XY table.

STRUC_CONTROL_XY

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the structure tables. Does not link to the MSLINK of the road or rail tables.

To link the structure tables to the road tables, use the Countyno, jurisdic, syscode, statcode, Stateroutepreffix, stateroute, statesegseq fields in the Struc_pass tables and link them with the same fields in the BRROAD_CONTROL_XY table.

FHWA NUMBER FIELD NAME:FHWANUM NUMBER (6)
This field is item 8 in box IDENTIFICATION of the SI&A form.

Identifies each structure with a unique number.

Code
600250

FACILITY CARRIED FIELD NAME:FACCARRIED VARCHAR2 (15)
This field is item 7 in the IDENTIFICATION box of the SI&A form.

Name of facility carried on structure. This is an alphanumeric field up to fifteen characters long.

Code
US 30
Local Road

LINE STRING FIELD NAME:LSCODE NUMBER (1)
CODE

Indicates whether the structure is an overpass or possible and underpass.

Code 1 for overpass over a road. (The are digitized in Microstation) Not on the road but across the road.

Code 0 for underpass or possibly a lengthwise overpass.

ADD DATE	FIELDNAME:ADDDATE	DATE

Date that structure was added to data using microstation 1218069.

DELETE DATE	FIELD NAME: DELDATE	DATE

The date the structure was deleted from microstation.

MODIFY DATE	FIELD NAME:MODDATE	DATE

The date the structure was modified.

COUNTY NUMBER	FIELD NAME:COUNTYNUM	NUMBER 2)

The two-digit county number is entered. (See Appendix 1).

Code
05
85

NUMBER OF VERTICES	FIELD NAME: NUMVERTICES	NUMBER (3)

The number of vertices in the structure. (Microstation)

X COORDINATE	FIELD NAME: XCOORDS	VARCHAR(200)
Y COORDINATE	FIELD NAME: YCOORDS	VARCHAR(200)

The coordinates used by 1208069 to place the structure on the map. A bridge should have a least 2 vertices to be visible. If the numvertices field is 3, the xcoords and ycoords field should each have three coordinates listed.

STRUC_PASS

OVERPASS(O)/ UNDERPASS CODE	FIELD NAME:STRUCCODE	NUMBER (1)

This field follows field FHWANUM for item 8 in the IDENTIFICATION box of the SI&A form.

Used to indicate whether bridge record is over a feature or under a feature. Zero (0) indicating data for record over, greater than zero indicating data for record under a feature.

Code	Description
0	Roadway Over Structure
1	Major Roadway Under Structure
2	Minor Roadway Under Structure
3	Next Minor Roadway Under Structure

TYPE RECORD	FIELD NAME:TYPEREC	NUMBER (1)

Code	Description
0	All Other Mainline
2	Eastbound
3	Westbound
4	Northbound
5	Southbound
6	Ramp or Loop
7	Side Ditch Bridge

DEFENSE HIGHWAY DESIGNATION	FIELD NAME:DEFHWYDESIG	NUMBER (1)

This field is in the Struc_pass table. It indicates whether a bridge is a designated defense structure. This means that it is able to be used to transport heavy arms. Not the same as STRAHNET.

Code	Description
0	Inventory route not a defense highway
1	Inventory route is a defense highway
2	Inventory route is a defense highway that goes over or under a defense highway

MILEPOST/DISTANCE	FIELD NAME:MAINTMPOSTDIST	NUMBER (4,1)

Indicates miles, in tenths, from beginning of route within the state. The Bridges and Structures Section can provide this information at 233-7871.

Code
010.8

DESCRIPTION	FIELD NAME:MAINTDESC	CHAR (1)

Code	Description
L	Left bridge, SB/WB lane of twin bridges
R	Right bridge, NB/EB lane of twin bridges
S	Single bridge on normal roadway
O	Overhead bridge, traveling under bridge
A	Ramp, loop, other non-mainline bridge

MILEPOST ROUTE	FIELD NAME:MAINTMPOSTRTE	NUMBER(3)

Entered for all bridges with a Printcode of 1 (indicating Primary).
The majority of bridges use the route number of the traffic carried on the bridge. If there is a secondary or municipal street over a primary route, the underpass route(primary) number would be used. This is entered into the Underpass/Overpass screen on the bridge form. Used when adding a new bridge.
If there are 2 Interstates you would use the lower interstate route number. If its 2 primary routes you would use the following hierarchy- US- State-County. There is an SQL created to check to see if they are all filled in. checkMaintpostrte.sql

DESCRIPTION OF	FIELD NAME: DESCFEACROSS	VARCHAR2(25)

FEATURE CROSSED
This field is item 6 in the IDENTIFICATION box of the SI&A form.

This field describes the feature being crossed and is entered from bridge plans or maps. This is an alphanumeric field up to 25 characters long.

Code
Under US 169
Over IA 5
Small Natural Stream

KIND OF CROSSING FIELD NAME:KINDCROSS NUMBER (2)

This field indicates what kind of crossing the structure crosses.

Code	Description
01	Ford
02	Ferry
03	Railroad at grade
04	Over drainage
05	Over railroad
06	Over railroad and stream
07	Under railroad (simple)
08	Under railroad (combined)
09	Over park or institutional road
10	Under park or institutional road
11	Over private road
12	Under private road
15	Tunnel
17	Under pedestrian walkway
18	Side ditch
20	Over interstate
21	Under interstate
30	Over primary
31	Under primary
40	Over arterial
41	Under arterial
50	Over major collector
51	Under major collector
52	Under minor collector
53	Over minor collector
60	Over local
61	Under local

TOTAL NUMBER OF SPANS FIELD NAME:MAINSPAN NUMBER (2)
This field is item 45 in box STRUCTURE TYPE AND MATERIAL box of the SI&A form.

This field indicates the number of spans in the main or major unit. This includes all spans of

structure built with uniform design and unit of material.

CODE
00
02

TOTAL STRUCTURE LENGTH FIELD NAME:STRUCLENG NUMBER (5)

This field is item 49 in the GEOMETRIC DATA box of the SI&A form.

This field indicates the length of the structure to the nearest foot. This should be the overall length of the roadway supported on the structure. This is normally the length from paving notch to paving notch, or between back faces of backwalls measured along the center line.

Code	Length
451	451 feet
54	54 feet

N/E HORIZONTAL CLEARANCE FIELD NAME:HORIZCLEARNE NUMBER (4)

This field is item 47 RT in the GEOMETRIC DATA box of the SI&A form.

This field indicates in feet and inches the horizontal clearance of the structure roadway width.

Code	Width
2900	29 feet 00 inches
5705	57 feet 05 inches

N/E VERTICAL CLEARANCE FIELD NAME:VERTCLEARNE NUMBER (4)

This field is item 53 RT in the GEOMETRIC DATA box of the SI&A form.

This field indicates in feet and inches the vertical clearance of the structure roadway width.

Code	Height
2405	24 feet 05 inches
1610	16 feet 10 inches

N/E APPROACH WIDTH FIELD NAME:APPRWIDTHNE NUMBER (3)

This field indicates the approach pavement width as the normal width of pavement away from the end of the bridge prior to the beginning of the flare into the end of the bridge.

Code	Width
20	20 FEET
32	32 FEET

TWIN/DIVIDED CODE FIELD NAME:TWINDIVIDED CHAR (1)

This field indicates if the structure is a twin or divided bridge. Twin structures are any pair of structures that bridge the same obstacle and are separate and carrying traffic in opposite directions. A divided structure is any single structure that is divided by a median or barrier. Underpasses that are divided are considered divided structures although they may have unlimited horizontal clearance.

Code	Description
0	Not twin or divided
T	Twin
D	Divided

S/W HORIZONTAL CLEARANCE FIELD NAME:HORIZCLEARSW NUMBER (4)

This field is item 47 LT in the GEOMETRIC DATA box of the SI&A form.

This field indicates in feet and inches the horizontal clearance of the structure roadway width.

Code	Width
4510	45 feet 10 inches
1106	11 feet 06 inches

S/W VERTICAL CLEARANCE FIELD NAME:VERTCLEARSW NUMBER (4)

This field is item 53 LT in the GEOMETRIC DATA box of the SI&A form.

This field indicates in feet and inches the vertical clearance of the structure roadway width.

Code	Height
1406	14 feet 06 inches
1808	18 feet 08 inches

S/W APPROACH WIDTH FIELD NAME:APPRWIDTHSW NUMBER (3)

This field indicates the approach pavement width as the normal width of pavement away from the end of the bridge prior to the beginning of the flare into the end of the bridge.

Code	Width
36	36 FEET
24	24 FEET

APPROACH ROADWAY WIDTH FIELD NAME:APPRRDWYWIDTH NUMBER (3)

This field is item 32 in the GEOMETRIC DATA box of the SI&A form.

This field indicates the normal width of the roadway approaching the structure and is entered to the nearest foot. This includes both shoulders, roadways and median.

Code	Width
26	26 feet

DECK WIDTH (O-O) FIELD NAME:DECKWIDTH NUMBER (3,1)
This field is item 52 in the GEOMETRIC DATA box of the SI&A form.

This field indicates the width of the deck to the nearest tenth of a foot. This dimension should include the out-to-out width of deck or curbs, whichever is greater.

Code	Width
17.1	17.1 feet

VERTICAL CLEARANCE 10FT FIELD NAME:VERTCLEAR10FT NUMBER (4)
This field is item 10 in the GEOMETRIC DATA field of the SI&A form.

The minimum vertical clearance for a 10 foot width of pavement where the clearance is greatest.

Code	Description
1406	14 FEET 06 INCHES
9999	No restriction

STRUCTURE DESCRIPTION FIELD NAME: STRUCDESC VARCHAR2(50)

This is a text description of the structure location. Up to 50 characters.

COUNTY NUMBER FIELD NAME:COUNTYNO NUMBER (2)

The two digit county number is stored in this field. (See Appendix 1).

JURISDICTIONAL CODE FIELD NAME:JURISDIC NUMBER (1)

Indicates the jurisdictional responsibility for the segment of road.

Code	Description
1	Iowa Department of Transportation
2	Department of Natural Resources
3	Department of Social Services
4	Board of Regents
5	Federal Domain
6	Local
7	Iowa National Guard
8	Other State Lands

SYSTEM CODE FIELD NAME:SYSCODE NUMBER (1)

Indicates the state assigned system for the road segment.

Code	Description
1	Interstate
2	US Route
3	Iowa Route

4	Farm to Market Route
5	Local Road
9	Construction

STATUS CODE FIELD NAME:STATCODE NUMBER (1)

Identifies the road segment as open, legal not open, or proposed.

Code	Description
0	Open
1	Legal not open
2	Proposed
3	Existing Road with no data
4	Map feature only-indicates adjoining state road

PREFIX FOR INDEXING FIELD NAME:STATEROUTEPREFIX VARCHAR2 (1)
This field is the 5th digit of item 9 in the IDENTIFICATION box of the SI&A form.

This field indicates the index. On primary and institutional roads this field will always be the number '0'. Secondary road will be the first digit of the township. Municipal roads will be a letter that has been assigned to each city within a county. (See Appendix 3)

Code	
0 =	Institutions
0 =	Primary
First digit of township =	Secondary
Alphanumeric =	Municipal

STATE ROUTE NUMBER FIELD NAME:STATEROUTE VARCHAR2 (4)
STREET NAME NUMBER
This field is the first 4 digits of item 9 in the IDENTIFICATION box of the SI&A form.

On primary roads, this four* digit field will always be the state route number with leading zeros.

Primary Road Only	Example
0030	US 30

On secondary roads, this four* digit field will be the township number in the first two spaces and the range in the next two spaces with the letters in the first space and the number in the next space.

Secondary Road Only		Example	
Township	2 spaces	88	
Range	2 spaces	E2	Code - 88E2

*The first digit of the state route number or township number is coded in the STATEROUTEPREFIX field.

On municipal roads, this will be street number assigned as shown on the city map

Municipal Road Only	Example

Ames 1000

On institutional roads, this will be the road number assigned as shown on the map for the institution with leading zeros.

Institutional Road Only	Example
Iowa State University	0001

STATE SEGMENT SEQUENCE FIELD NAME:STATESEGSEQ NUMBER (4)

This field is 6th through 9th digit of item 9 in the IDENTIFICATION box of the SI&A form.

On secondary roads, this field will be the section number & the road number as shown on the plat maps with leading zeros if applicable.

Section Number 01
Road Number 02 Code - 0102

On primary, municipal and institutional roads, sequence numbers are used to progressively order road segments by route within a county. The sequence numbers begin at the west or south county line or at the beginning of the route.

Breaks in road sections are made on a route at the following points:

1. intersection with other roads;
2. an intersection with corporation lines;
3. a change in the function code;
4. a change in type section;
5. a change in interstate traveled way;
6. interchange ramps and the point of intersection of the interchange;
7. a section line;
8. a change in rural-urban area lines;
9. a change in surface type, surface width or shoulder width;
10. a traffic volume change;
11. a change in the FHWA Route Number;
12. a change in the maintenance contract area on the primary roads.
13. a parking change;
14. a rating change of two or more points.
15. a change in state functional class
16. a change in federal functional class

On institutional roads, the sequence numbers begin at the entrance to the institution or at the junction of another road in the institution and does not follow the west and south guidelines.

Code
0001

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the structure tables. Does not link to the MSLINK of the road or rail tables.

To link the structure tables to the road tables, use the Countyno, jurisdic, syscode, statcode, Stateroutepreffix, stateroute, statesegseq fields in the Struc_pass tables and link them with the same fields in the BRROAD_CONTROL_XY table.

STRUC_PONTIS

ELEMENT NUMBER	FIELD NAME:ELEMENT	NUMBER (3)

The is a PONTIS field. This field gives the Element ID Number.

Elements come in the following categories: Superstructure, Substructure, Joints, Bearings, Other Elements, Decks/slabs, Smart Flags, and Unspecified. This field gives the number of the element.

ENVIRONMENT CODE	FIELD NAME:ENVCODE	NUMBER(1)

This is a PONTIS field. This field gives the environmental code. The deterioration of a structure is partially determined by its environment and operating practices (e.g. use of road salt). To capture these effects, each element of a structure is identified by the following standard environmental classifications:

1 Benign- No environmental conditions affecting deterioration.
2 Low- Environmental conditions create no adverse impacts, or are mitigated by past non-maintenance actions or highly effective protective systems.

COST SCALE	FIELD NAME:SCALE	NUMBER (4,1)

This is a PONTIS field. Each element has an optional "scale field" to allow cost estimates to be adjusted at the project level to account for factors such as girder depths and column sizes. This item is the name of the database field used to scale the network calculations of average preservation costs to produce more accurate project-level cost estimates.

UNIT CODE	FIELD NAME:UNITCODE	NUMBER(1)

This is a PONTIS field. The units in which the scaling field is measured.
0
1
2
3

TOTAL QUANTITY & CONDITION STATES CONDQUANT1, CONDQUANT2, CONDQUANT3, CONDQUANT4, CONQUANT5	FIELD NAME:TOTQUANTITY	NUMBER(6,1)

These are PONTIS fields.
The CONDQUANT fields should add up to the amount in the TOTQUANTITY field.

A condition state categorizes the nature and extent of damage or deterioration on a bridge element. Each bridge element can have up to five condition states (some have less). Condition state one is always defined as no damage. The higher the condition state, the more damage there is on the element. Condition states of each element have been precisely defined in terms of the specific types of distresses that the elements can develop.

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the structure tables. Does not link to the MSLINK of the road or rail tables.

To link the structure tables to the road tables, use the Countyno, jurisdic, syscode, statcode, Stateroutеprefix, stateroute, statesegseq fields in the Struc_pass tables and link them with the same fields in the BRROAD_CONTROL_XY table.

RAILROAD TABLES

RR_AAR_CODE

AAR RAILROAD CODE FIELD NAME: AARCODENUMBER (3)
RAIL AAR FIELD NAME:RAILAAR VARCHAR2(4)

Association of American Railroads (AAR) A unique code for each railroad company assigned thru the FRA. Enter the number assigned by the chart below.

AARCODE	NAME	AARCODE	NAME
0	NONE	16	IATR
1	APNC	17	BLK2
2	CBEC	18	KJRY
3	BJRY	19	NS
4	BNSF	20	BLK3
5	BSV	21	IMRL
6	CBGR	22	TKEZ
7	CC	23	BLK4
8	CCRV	24	BLK5
9	CEDR		
10	CIC		
11	UP		
12	DAIR		
13	BLK1		
14	IAIS		
15	IANR		

RR_BRANCH

RAILROAD	FIELD NAME:BRANCHCODE	NUMBER(3)
BRANCHES	FIELD NAME:RAILBRANCH	VARCHAR2 (15)

This table contains the branch code number and the associated branch name.

CODE&NAME	CODE&NAME	CODE&NAME	CODE&NAME
0 UNKNOWN	48 UP INTERCHANGE	100 FARMERS ELEV #1	151 JD #16
1 DMU SWITCH TRK	50 UP TRANSFER	101 FARMLAND SPUR	152 BLANK # 10
2 M YARDS	51 COBLUFF SWITCH	102 FARNHAMVILLE LD	153 JHN DEERE LD
3 SPP CTY AIRBASE	52 COBLUFF-PCFCJCT	103 FEDA SPUR	154 JOINT TRACK
4 AIRPORT SPUR	53 COBLUFF-BAYARD	104 FERRY-WILLMAR	155 JRDN MILWRK
5 ALBIA-DESMOINES	54 NEVADA CONNECTION	105 FIRST MISS TRK	156 KAHAWHALD
6 ALDEN LEAD	55 COUNCIL BLF YARD	106 FIRST ST TRACK	157 KENT SPUR
7 ALTOONA-PELLA	56 CR-AMANA	107 FISHER SPUR	159 L&L DT TRACK
8 AMES-EAGLE GR	57 CR-HILLS	108 FLUGSTAD TRACK	160 LK MILLS LD
9BLANK NUMBER 01	58 CR-MAIN	109 FOREST CITY SPUR	161 LD TRACK #122
10 ARMOUR DIAL LD	59 CRAPIDS-CFALLS	110 FRT-HO-SPUR	162 LD TRACK #26
11 ARMSTRONG SPUR	60 CRESTON-GRNFLD	111 FTDODGE-CBLUFS	163 LEHIGH SPUR
12 ATLANTIC SPUR	61 CRESTON-LINCOLN	112 FTDODGE-SOMERS	164LEW&CLRKSPR
13 BELMND-FORESTCTY	62 DAVENPORT-IACITY	113 GALESBG-CRESTON	165 BLNK # 11
14 BELMOND SPUR	63 MARQUETTE S WYE	114 GATES RUBBER CO	166 LINKBELT LD
15 BLACKHAWK ST SPUR	64 MARQUETTE N WYE	115 GOLDFLD-ESHERVILLE	167LUVERNE LD
16 BLACKHAWK-LUME	65 DM&CI	116 GRANDJCT-TARA	168 M& ST I LINE
17 CITY SWITCH TRK	66 SPUR PERRY TRK	117 HAMBURG SPUR	169M'TOWNALBIA
18 LEMARS INDUSTRY	67 BLANK NUMBER 04	118 HANCOCK SPUR	170MTOWNHUDSO
19 BONDURANT LEAD	68 DOCK COMM A29	119 HEINZ SPUR	171FTMDSNKCMO
20 BOONE-MOVALLEY	69 DOCK COMM A34	120 HOENER WALDORF	172 UNKNOWN
21 BOONE-WOLF	70 BLANK NUMBER 05	122 HOUSE TRACK	173 MAIN-LEVEE-WYE
22 BRICK YARD TRK	71 DOWS LEAD	123 IA CITY YARD	174 BLANK # 12
23 BSV CONN TRK	72 DSM-CLIVE	124 IANR CONN TRACK	175 MANCHTR-CRPDS
24 BURLINGTON-STLOUSE	73 DSM-COBLUFFS	125 IBP TRACK #1 & 2	176 MANUF SPUR
25 C.F.C.A. SPUR	74 DSM-KANSAS CITY	126 IND LEAD SPUR	177 MARATHN-ALBERTCTY
26 BLANK NUMBER 02	75 DSM-MAIN	127 INDEPENDENCE SP	178 BLANK # 13
27 CAL JCT-SOOCITY	76 DSM-MASON CITY	128 IND SPUR TRAK 10	179 MARION SPUR
28 CALMAR SPUR	77 DSM-HERNDON	129 BLANK NUMBER 06	180 MARMIS&SOLOMON
29 CANFIELD LUMBER	78 DSM-SLATER	130 SHEFFIELD LEAD	181 MARQUET-MASON CITY
30 CARCARVN-IDAGR	79 DUBUQUE TANK SPUR	131 BLANK NUMBER 07	182 MASONCY--AUSTIN
31 CEDAR FALLSMAIN	80 CAMERON LEAD	132 IND TRK 3RD & 4TH	183 MASONCY-BRICELN
32 CEDARFALLS-LYLE	81 DUBUQUE-WATERLOO	133 INDIANOLA LEAD	184 MASONCY-FTDODGE
33 CEDARAPIDSLEAD	82 DUPONT SPUR	134 IANR BYPASS TRK	185 MTOWN-STMBTRCK
34 CENTRAL AVE LD	83 E. CARGILL TRACK	135 INDUSTRY LEAD	186 MASONCY-SHELDON
35 CEREAL LEAD TRK	84 E-W MAIN	136 INDUSTRY SPUR	187 MASONCY-STPAUL
36 CFALLS-MANLY	85 ESTHRVL-BRICELN	137 BLANK NUMBER 08	188 MATL TRK LADDER
37 CHAPMAN LUMBER	86 ESTHRVL-ALLNDRF	138 AMPI SPUR TRACK	189 MC LINE
38 BLANK NUMBER 03	87 EAGLEGR-BIGSIX	139 AGP SPUR TRACK	190 MC%CLRR CONN #8
39 CHEVRON CHEM	88 ROLFE-MARATHON	140 INDUSTRY TRACK	191 MONARCH TRACK
40 CIC TRANSFER	89 EAST INDUSTRY	142 INT MULT FOODS	192 MONSANTO
41 JACKSON ST SPUR	90 EAST WYE TRACK	143 BLANK NUMBER 09	193 KEOKUK INDUSTRY
42 WASHINGTON ST SPUR	91 ELDREIDGE SPUR	144 IOWA BEEF TRACK	194 MOVALLEY-FREMNT
43 CITY YARDS	94 ELEVATOR TRACK	145 IOWA CITY-NEWTON	196 MOVALLEY-CBLUFF
44 CLAY EQUIP TRK	96 ELLIOTT LEAD	146 IPS SPUR	197 MYSTIC MLNG CO
45 CLINTON-BOONE	97 ELLSWORTH LEAD	147 IPS-STORAGE#4	198 NAT BAT CO
46 CLINTON-CHICAGO	98 ELY SPUR	148 ISU SPUR	199 NATIONAL OATS
47 CLIVE-GRIMES	99 ENTERPRISE SPUR	150 JD # 14	200 NEWTON-DSM

CODE&NAME	CODE&NAME	CODE&NAME	
202 NORTH SPUR	228 SABULA-MUSCATINE	253 STANDWOOD IND LD	277 WERTZ FEED CO #1

203 NORTH SPUR
204 NEVADA WYE TRK
205 BLANK # 15
206 GRN ISLAND SPUR
207 COBLUFF INDSTRY
208 POWERPLANT LEAD
209OSKALOOSA SPUR
210 MUSCATINE-KCMO
211 PACKING HO SPUR
212 ROYAL LEAD
213 PAYNE-NEBR
214 PJCT-HAMBURG
215 POWERHOUSE SPUR
216 PROGRESS PARK
217 QUARRY SPUR
218 RATH LEAD
219 REA SPUR
220 REDOAK-ELLIOTT
221 REDOAK-FARRAFUT
222 RIVER LINE
223 RIVER TRACK
224 ROCKWELL CITY
227 SABULA-LACRESNT
229 SACTON LINE
230 SALINAS ST SPUR
231 SARA LEE SPUR
232 SCRAP RAIL SPUR
233 SECOND ST TRACK
234 CLRKSVL-COULTER
235 SHINE BROS SPUR
236 SIDE TRACK
238 SIOUX CITY-NEBR
239 SLVRTN JNK TRK
240 IMRL TRANSFER
241 SIOUX CITY-MINN
242 SIOUX CITY-SDAK
243 SOOCTY-SOOFALLS
244 LEMARS-ST PAUL
245 BELLE PLAINE YD
246 SPUR FOUNDRY
247 SPUR TRACK
248 STACY WYE-E LEG
249 STACY WYE-W LEG
250 STACYVILLE
251 STOCK YD TRACK
252 STUB TRACK
254 SWITCH TRACKS
255 SWITCHING LEAD
256 SIBLEY SPUR
257 TATA-MALARD
258 TARA-SOUIX CITY
259 TEMPLEX TRACK
260 TOWN LINE
261 TOWN TRACK
262 UNION TRACK
263 UP CONNECTING
264 IPSCO LEAD
265 US YARDS SPUR
266 VINTON SPUR
267 W CARGILL TRK
268 W'LOO ART ICETK
269 WALKER SPUR
270 WALNUT GROVE
271 WATERWORKLEAD
272 WATER WORKS
273 WTERLOO-FTDODG
274 WTRLOO-OELWEIN
275 WAVERLY SPUR
276 WEISSMAN STEEL
278 WEST IND LEAD
279 WEST WYE TRACK
280 WICKMAN SPUR
281 WILSON PLANT #1
282 WOODWARD SPUR
283 WYE TRACK
284 X-OVER
285 YALE SPUR
286 YARK TRACK
287 YARD LEAD
288 1ST AVE LINE
289 12TH STREET LINE
290 15TH AVE LEAD
291 SHEFFIELD-RCKWL
293 ACKLEY-HAMPTON
294 ACKLEY-STMBTRCK
295 CENTERVIL-ALBIA

RR_CONTROL_XY

MSLINK FIELD NAME:MSLINK NUMBER (10)

This field serves as the link between the data in all the railroad tables. Does not link to the MSLINK of the road or structure tables.

To link the Railroad tables to the road tables, link the IOWACROSS field with the IAXING1,IAXING2, OR IAXING3 fields in the ROAD_INV table. To link with structures you would then need to make the join between the road tables and the structure tables.

IOWA CROSSING # FIELD NAME:IOWACROSS NUMBER (5)

The crossing number assigned by the I.D.O.T. This number may incorporate multiple FRA crossing numbers if two or more rail companies have crossings at or near the same location.

Code	Description
00928	928
03469	3469
11927	1927

ADD DATE FIELD NAME: ADDDATE DATE/TIME
DELETE DATE FIELD NAME: DELDATE DATE/TIME
MODIFY DATE FIELD NAME: MODDATE DATE/TIME

These dates are the dates the crossing were added to data, deleted from the data or modified in the data. These changes occur when working with the Microstation 1208069. This field is formatted with

the date and the time.

STREET NAME	FIELD NAME:STREETNAME	VARCHAR2(20)

The name of the street crossing the railroad if urban, the township-range-section and distance from northwest corner of that section, if rural.

Code
Lincoln Highway
Burnett Avenue

X COORDINATES	FIELD NAME:XCOORDS	VARCHAR2(11)
Y COORDINATES	FIELD NAME:YCOORDS	VARCHAR2(11)

These are the coordinates used by the 1208069 program to place the crossings on the map.

COUNTY NUMBER	FIELD NAME:COUNTYNO	NUMBER (2)

The two digit county number is stored in this field. (See Appendix 1).

Code
10
85

RR_CROSSING

MSLINK	FIELD NAME:MSLINK	NUMBER (10)

This field serves as the link between the data in all the railroad tables. Does not link to the MSLINK of the road or structure tables.

To link the Railroad tables to the road tables, link the IOWACROSS field with the IAXING1,IAXING2, OR IAXING3 fields in the ROAD_INV table. To link with structures you would then need to make the join between the road tables and the structure tables.

FRA CROSSING NUMBER	FIELD NAME:FRACROSS	VARCHAR(7)

A unique number used to identify each railroad crossing. This is an alpha-numeric field of 7-digits.

AAR CODE	FIELD NAME: AARCODE	NUMBER (3)

Association of American Railroads (AAR) A unique code for each railroad company assigned thru the FRA. Enter the number assigned by the chart below.

AARCODE	NAME	AARCODE	NAME
0	NONE	16	IATR
1	APNC	17	BLK2
2	CBEC	18	KJRY
3	BJRY	19	NS
4	BNSF	20	BLK3
5	BSV	21	IMRL
6	CBGR	22	TKEZ
7	CC	23	BLK4
8	CCRV	24	BLK5
9	CEDR		
10	CIC		
11	UP		
12	DAIR		
13	BLK1		
14	IAIS		
15	IANR		

DIVISION CODE — FIELD NAME: DIVCODE — NUMBER (3)

This is the three digit code for the division where the crossing exists. See the listing under the RR_DIVISION table for a listing of the available codes. This code is supplied by the operating railroad company.

Code	Description
014	Iowa
003	Central

SUBDIVISION CODE — FIELD NAME:SUBDIVCODE — NUMBER (3)

This is a three digit code for the subdivision where the crossing exist. See the listing under RR_SUB_DIVISION table for a listing of the available codes. This code is supplied by the operating railroad company.

Code	Description
002	Fourth
016	South

BRANCH CODE — FIELD NAME:BRANCHCODE — NUMBER (3)

This is a three digit code for the branch where the crossing exist. See the listing under RR_BRANCH table for a listing of the available codes. This code is supplied by the railroad company.

Code	Description

006	Main
009	Branch
019	Des Moines
242	Kansas City

IOWA CITY NUMBER | FIELD NAME:CITYNUM | NUMBER (4)

City number from the master list of city/place file. (See Appendix 3)

Code
0015
1945

NEAREST CITY INDICATOR | FIELD NAME:NEARCITY | CHAR (1)

This field identifies the nearest city using the following codes.

Code	Description
0	Within corporate limits
1	Outside corporate limits

TOWNSHIP | FIELD NAME:TOWNSHIP | NUMBER(3)

This field identifies the township location.

Code	Township Number
094	94N
100	100

RANGE | FIELD NAME:RANGENO | VARCHAR2(2)

This field identifies the range location.

Code	Range Number
01	R-1W
23	R-23W
E1	R-1E
E3	R-3E

SECTION | FIELD NAME:SECTIONNO | NUMBER(2)

This field identifies the section number of the township and range location.

Code	Section Number
01	1
03	3
15	15

23	23
36	36

TIMETABLE STATION CODE	FIELD NAME:TIMESTATION	NUMBER(6)

This number is assigned by the railroad company. Enter the timetable station code.

RAILROAD MILEPOST	FIELD NAME:MILEPOST	VARCHAR2(8)

A milepost established by each railroad company for each segment of railway with various criteria for starting points. Code the milepost provided.

RAILROAD ID NUMBER	FIELD NAME:IDNUM	VARCHAR2(10)

A number assigned to a crossing by the railroad companies for which they are responsible. Code the railroad ID number provided.

HIGHWAY NUMBER	FIELD NAME:HWYNUM	VARCHAR2(7)

The number of the highway or signed route crossing the railroad.

Code
US 30
IA 146
S 14

DUPLICATE KEY	FIELD NAME:DUPKEY	CHAR (1)

Identifies those crossings which two or more railroad companies operate on the same track.

Code	Description
0	Operating Railroad (owner)
1	Other Railroads

PEDESTRIAN CROSSING TYPE	FIELD NAME:PEDCROSS	NUMBER (1)

Identifies the type of pedestrian crossing. (if any) The code is assigned by the following:

0 Value Not Assigned
1 At Grade
2 Railroad under
3 Railroad Over

PRIVATE VEHICLE CROSSING USAGE	FIELD NAME:PRIVUSE	NUMBER (1)

Identifies the predominate usage of the crossing. The code is assigned by the following:

0 None
1 Farm
2 Residential
3 Recreational
4 Industrial
5 Commercial

PRIVATE VEHICLE CROSSING TYPE	FIELD NAME:PRIVTYPE	NUMBER (1)

Identifies the type of crossing. The code is assigned by the following:

0 None
5 At Grade
6 Railroad Under
7 Railroad Over

PRIVATE VEHICLE PROTECTION	FIELD NAME:PRIVPROTECT	NUMBER(1)

Identifies the type of protection at the crossing. The code is assigned by the following:

0 None
8 Signs
9 Signals

PRIVATE VEHICLE CROSSING DESCRIPTION	FIELD NAME:PRIVDESC	VARCHAR2(15)

Not completed by I.D.O.T.

PUBLIC VEHICLE CROSSING TYPE	FIELD NAME:PUBLICTYPE	NUMBER (1)

Indicates the type of public crossing. The code is assigned by the following:
0 Value Not assigned
1 At Grade
2 Railroad Under
3 Railroad Over

DAY THRU TRAIN MOVEMENTS	FIELD NAME:DAYTHRU	NUMBER (2)

The number of thru train movements at this crossing in the 12 hour day period.

Code Description

04	4 movements
14	14 movements

DAY SWITCH MOVEMENTS	FIELD NAME:DAYSWITCH	NUMBER(2)

The number of switching train movements at this crossing in the 12 hour day period.

Code	Description
04	4 switchings
14	14 switchings

NIGHT THRU TRAIN MOVEMENTS	FIELD NAME:NIGHTTHRU	NUMBER(2)

The number of thru train movements at this crossing in the 12 hour night period.

Code	Description
04	4 movements
14	14 movements

NIGHT SWITCH MOVEMENTS	FIELD NAME:NIGHTSWITCH	NUMBER(2)

The number of switching train movements at this crossing in the 12 hour night period.

Code	Description
04	4 movements
14	14 movements

DAILY TRAIN MOVEMENTS	FIELD NAME:DAILYTRAIN	NUMBER(1)

Indicates less than 1 train movement thru a crossing per day.

Code	Description
0	No
1	Yes

MAXIMUM TIMETABLE SPEED	FIELD NAME:MAXTIMESPEED	NUMBER(3)

The maximum speed a train would be allowed to travel at this crossing according to company policy.

Code	Description
005	5 MPH

MINIMUM TYPICAL SPEED	FIELD NAME:MINTYPSPEED	NUMBER(3)

The minimum speed a train typically would travel at this crossing.

Code	Description
035	35 MPH

MAXIMUM TYPICAL SPEED	FIELD NAME:MAXTYPSPEED	NUMBER (3)

The maximum speed a train typically would travel at this crossing.

Code	Description
010	10 MPH

NUMBER OF MAIN TRACKS	FIELD NAME:MAINTRACK	NUMBER(1)

Indicates the number of main tracks.

Code	Description
1	1 main track
4	4 main tracks

NUMBER TRACKS OTHER THAN MAIN	FIELD NAME:OTHTRACK	NUMBER (1)

The number of sets of tracks separate from main line tracks, such as switching, side, or house.

CODE	DESCRIPTION
02	2 sets of tracks
15	15 sets of tracks

OTHER TRACKS DESCRIPTION	FIELD NAME:OTHTRACKDESC	VARCHAR2(10)

Describes use of 'other' track(s), such as switching, siding or other non-mainline.

Code
Switch
Siding

RR OPERATING SEPARATE TRACK	FIELD NAME:SEPTRACK	NUMBER (1)

Does another railroad operate a separate track at the same crossing? Enter Yes, No or N/A in GIMS. The data will be preserved as 1=Yes, 2 = No, and 3=n/a.

1st Separate Track	Field Name:SEPAAR1	NUMBER(3)
2nd Separate Track	Field Name:SEPAAR2	NUMBER(3)
3rd Separate Track	Field Name:SEPAAR3	NUMBER(3)
4th Separate Track	Field Name:SEPAAR4	NUMBER(3)

Assign the proper AAR railroad company code for each other track.

OTHER RR OVER SAME TRACK	FIELD NAME:SAMETRACK	NUMBER (1)

Does another railroad company operate over same track? Enter Yes, No or N/A in GIMS. The data will be preserved as 1=Yes, 2 = No, and 3=n/a.

1st Over Same Track	Field Name:SAMEAAR1	NUMBER(3)
2nd Over Same Track	Field Name:SAMEAAR2	NUMBER(3)
3rd Over Same Track	Field Name:SAMEAAR3	NUMBER(3)
4th Over Same Track	Field Name:SAMEAAR4	NUMBER(3)

REFLECTORIZED CROSSBUCKS	FIELD NAME:REFLECT	NUMBER(1)

The total number of reflectorized crossbucks in position at the crossing.

CODE	NUMBER
0	0
2	2

NON-REFLECT CROSSBUCKS	FIELD NAME:NONREFLECT	NUMBER (1)

The total number of non-reflectorized crossbucks in position at the crossing.

Code	Number
0	0
2	2

STANDARD HIGHWAY STOP SIGNS	FIELD NAME:STDSTOPSIGN	NUMBER(1)

The total number of standard red & white stop signs in position at the crossing.

Code	Number
0	0
2	2

OTHER HIGHWAY STOP	FIELD NAME:OTHSTOPSIGN	NUMBER(1)

SIGNS

The total number of 'other' stop signs in position at the crossing.

1ST TYPE OF OTHER SIGN FIELD NAME:OTHSIGN1 NUMBER(1)

The total number of signs other than stop signs, such as 'yield'.

Code	Number
0	0
2	2

1ST TYPE DESCRIPTION FIELD NAME:OTHSIGN1DESC VARCHAR2(10)

A description of the 1st type of 'other' sign. Use abbreviations where necessary.

Code	Description
Yield	Yield
Train Xing	Train Crossing

2ND TYPE OF OTHER SIGN FIELD NAME:OTHSIGN2 NUMBER(1)

The total number of signs other than stop signs, such as 'danger'.

Code	Number
0	0
2	2

2ND TYPE DESCRIPTION FIELD NAME:OTHSIGN2DESC VARCHAR2(10)

A description of the 2nd type of 'other' sign. Use abbreviations where necessary.

RED/WHITE REFLECTORIZED GATE FIELD NAME:REFLECTGATE NUMBER (1)

The total number of red and white reflectorized gates at the crossing.

Code	Number
0	0
2	2

OTHER COLORED GATES FIELD NAME:OTHGATE NUMBER (1)

The total number of 'other' colored gates at the crossing.

Code	Number
0	0

2	2

CANT FLASH OVER TRAFFIC LANE	FIELD NAME: CANTFLASHLANE	NUMBER(1)

The total number of 'sets' of flashing lights over traffic lanes. Do not count each light as 1, but each set as 1.

Code	Number
0	0
2	2

CANT FLASH NOT OVER LANE	FIELD NAME:CANTFLASHNOT	NUMBER(1)

The total number of 'sets' of flashing lights not over traffic lanes.

Code	Number
0	0
2	2

MAST MOUNTED FLASH LIGHT	FIELD NAME:MASTFLASH	NUMBER (1)

The total number of mast mounted lights at the crossing.

OTHER FLASHING LIGHTS	FIELD NAME:OTHFLASH	NUMBER (1)

Number of masts not in accord with latest AAR bulletin on grade crossing warning systems.

Code	Number
0	0
2	2

OTHER LIGHT DESCRIPTION	FIELD NAME:OTHFLASHDESC	NUMBER (1)

Description of other mast mounted lights. Use abbreviations in these positions.

HIGHWAY TRAFFIC SIGNALS	FIELD NAME:HWYSIGNAL	NUMBER(1)

Refers only to train activated highway traffic signals over the crossing. Does not include highway signals controlling a nearby intersection even if interconnected with the crossing protection.

NUMBER OF WIG WAGS	FIELD NAME:WIGWAG	NUMBER (1)

Number of wig wags at crossing.

NUMBER OF BELLS	FIELD NAME:BELL	NUMBER (1)

Number of bells at crossing.

SPECIAL PROTECTION DESCRIPTION	FIELD NAME:SPECPROTDESC	VARCHAR2 (20)

Description of special devices used at crossings that are not train activated.

Code
Manual
Gates
Flagmen
Watchmen

SIGNS/SIGNALS PRESENT	FIELD NAME:SIGNPRESENT	NUMBER (1)

This field indicates if there are signs originals present at the crossing.

Code	Description
0	No Answer
1	Yes
2	No
3	N/A

COMMERCIAL POWER AVAILABILITY	FIELD NAME:POWERAVAIL	NUMBER (1)

Is commercial electric power available within 500 feet of crossing? In GIMS enter Yes, No or N/A. In the data-→ 1=Yes, 2=No, and 3=N/A. No answer defaults to 0

SPEED SELECTION FOR TRAIN	FIELD NAME:SPEEDSELECT	NUMBER (1)

At crossings with automatic signals, does signal provide speed selection for train? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2= No, 3=N/A . 0 is the default for no data.

TRACK EQUIPPED W/SIGNALS	FIELD NAME:TRACKSIGNAL	NUMBER (1)

Is track equipped with some type of automatic signal or interlocking to control train operation? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

TYPE OF DEVELOPMENT	FIELD NAME:TYPEDEVELOP	NUMBER (1)

The predominant type of development near the crossing. The data is stored as a 1 digit number using the guide below:

0=Value Not Assigned
1= Open space
2= Residential
3= Commercial
4= Industrial
5=Institution

SMALLEST CROSSING ANGLE	FIELD NAME:CROSSANGLE	VARCHAR2 (2)

The smallest angle between the highway and the track. The data is stored as a two digit field using the guide below:

** None
00 Degrees 00-29
30 Degrees 30-59
60 Degrees 60-90
90 Not Valid
29 Not Valid
59 Not Valid

TRAFFIC LANES CROSSING TRACK	FIELD NAME:TRAFFICLANE	NUMBER (1)

Code the number of through traffic lanes crossing the track.

Code	Description
1	1 Through lane
3	3 Through lanes

TRUCK PULLOUT LANES	FIELD NAME:TRUCKLANE	NUMBER(1)

Are special lanes added to accommodate vehicles required to stop at crossings? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

PAVED HIGHWAY	FIELD NAME:PAVEDHWY	NUMBER (1)

A paved highway is assumed to be any surface upon which pavement markings at the crossing can be maintained. Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

PAVEMENT STOP LINES	FIELD NAME:PAVESTOP	NUMBER (1)

Are there stop lines marked on the pavement? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

PAVEMENT CROSSING SYMBOL	FIELD NAME:PAVESYMBOL	NUMBER (1)

Is there a railroad crossing symbol on the pavement at the crossing? 0 for No, 1 for Yes.

PAVEMENT MARKINGS	FIELD NAME: PAVEMARK	NUMBER (1)

Are there any pavement markings? 0 for No, 1 for Yes.

ADVANCE WARNING SIGNS	FIELD NAME:WARNSIGN	NUMBER (1)

Are there advance warning signs present? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

CROSSING SURFACE TYPE	FIELD NAME:SURFTYPE	VARCHAR2(2)

Code the type of surface at the crossing.

Code	Description
NULL	No answer
0	Other
1	Treated Lumber
2	Full Wood Plank
3	Asphalt
4	Concrete (precast)
4A	Semprit-Bodan
4B	Star Track
4C	Premier
4D	Century Precast
4E	Omni concrete

4F	American Concrete
5	Concrete pavement
6	Rubber Slabs
6A	Parkco
6B	Super-Cushion-Goodyear

6C	SAF&DRI-80" Panels
6D	SAF&DRI-MOD C 36"Panel
6E	GEN-TRAC
6F	GEN-TRAC II
6G	Track-Span
6H	Omni-Shimless-Full Depth
6I	Red Hawk
6J	Strail-Hi-Rail-Full Depth
6K	Parkco Lagdown
6L	Goodyear High Miller
6M	Pace
7	Metal Section Preformed
8	Other metal
9	Unconsolidated
0A	Cobra-X
0B	T-Core,Tru Temper, Oneida
0C	Cobra
0D	Fre-Flex
0E	Wear Guard

TRACK PARALLEL WITHIN STREET — FIELD NAME:TRACKPARALLEL — NUMBER (1)

Does crossing involve track running parallel to and within a street or highway Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

HIGHWAY CROSSED BY OTHER HIGHWAY — FIELD NAME:HWYCROSS — NUMBER (1)

Is the highway at this crossing intersected by another highway within 75 feet of this crossing? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

HIGHWAY SYSTEM CODE — FIELD NAME:HWYSYS — NUMBER (2)

The FRA highway system code.

Code	Description
00	VALUE NOT ASSIGNED
01	Interstate
02	Federal Aid Primary
03	Federal Aid Urban
04	FA Secondary
08	Non-Federal Aid
09	Invalid
11	Invalid

ON STATE PRIMARY — FIELD NAME:STATESYS — NUMBER (1)

SYSTEM

Is crossing on the state highway system? Enter Yes, No or N/A in GIMS. In the data 1=Yes, 2=No, 3=N/A. 0 is the default for no data.

FEDERAL FUNCTIONAL CLASS | FIELD NAME:FEDFUNC | NUMBER (2)

The federal functional class of the highway over the crossing.

Code	Description	
01	Interstate	]
02	Other Principal Arterials	]
06	Minor Arterial	] - Rural
07	Major Collector	]
08	Minor Collector	]
09	Local	]

Code	Description	
11	Interstate	]
12	Other Freeway & Expressway	]
14	Other Principal Arterial	] - Urban
16	Minor Arterial	]
17	Collector	]
19	Local	]

ANNUAL AVERAGE DAILY TRAFFIC | FIELD NAME:AADT | NUMBER (6)

The average annual daily traffic crossing this track. A reasonable estimate of the AADT will be acceptable if no traffic count is available.

PERCENT TRUCKS | FIELD NAME:PCTTRUCK | NUMBER (2)

The estimated percentage of trucks in the traffic stream.

RR_DIVISION

DIVISION CODE | FIELD NAME: DIVCODE | NUMBER (3)

This is the three digit code for the division where the crossing exists. See the listing under the

RR_DIVISION table for a listing of the available codes. This code is supplied by the operating railroad company.

Code	Description
014	Iowa
003	Central

RAIL DIVISION	FIELD NAME: RAILDIVISION	VARCHAR2 (14)

The literal name given for each rail division.

Code	Name	Code	Name	Code	Name
0	Unknown	8	IOWA	13	HEARTLAND
2	CEDAR RIVER	9	DAKOTA	14	GATEWAY
3	SYSTEM	10	EVERIST	17	WEST IOWA
5	EASTERN	11	DES MOINES	18	WESTERN
6	ILLINOIS	12	NEBRASKA	19	NORTHERN
				20	SOUTHERN
				21	BLANK NO. 1

RR_SUB_DIVISION

SUBDIVISION CODE	FIELD NAME:SUBDIVCODE	NUMBER (3)

This is a three digit code for the subdivision where the crossing exist. See the listing under RR_SUB_DIVISION table for a listing of the available codes. This code is supplied by the operating railroad company.

RAIL SUBDIVISION NAME	FIELD NAME: RAILSUBDIV	VARCHAR2(14)

The literal name for the Rail subdivision.

Code	Name	Code	Name	Code	Name
0	UNKNOWN	26	ESTHERVILLE	53	OSKALOOSA
1	DMU TERMINAL	27	FAIRMONT	54	CHARLES CITY
3	AMANA	28	MARSHALL	55	BLANK NO 6
4	ANKENY	29	HANNIBAL	56	ROYAL IND LEAD
5	APPANOOSE	30	FIRST	57	PERRY
6	FIFTH SUB	31	FORT DODGE	58	RAKE
7	SCENIC	32	FOURTH	59	THIRD
8	BRISTOW	35	GENEVA	60	UNKNOWN
9	BURLINGTON	36	MANLY	61	SIOUX CITY
10	CLINTON	37	ABERDEEN	62	UNKNOWN
11	CEDAR RAPIDS	38	IDA GROVE	63	THIRD SUB
12	CHEROKEE	39	IOWA CITY	64	TARA
13	COUNCIL BLUFFS	40	BLANK NO 5	66	CRESTON
14	SECOND SUB	41	JEWELL	67	FOUR-A
15	DES MOINES	42	FIRST SUB	68	FOUR-B

16	ALBERT LEA
18	BLAIR
19	BOONE
20	DUBUQUE
21	MILWAUKEE
22	NAPIER
23	BLANK NO. 4
24	BAYARD
25	ELLIOTT
43	KEOKUK
44	KLEMME
45	LAUREN
46	WORTHINGTON
48	MARSHALLTOWN LD
49	FOURTH SUB
50	BANKED TRACK
51	FORT DODGE SD
52	OSAGE
70	TRENTON
71	WATERLOO LEAD
73	MASON CITY
74	WEST IOWA
77	MARCELINE
78	OTTUMWA
79	STACYVILLE
80	OMAHA
81	ACKLEY
82	KAHAWHA IND LD
83	WAVERLY

APPENDIX 1

Iowa Counties and County Numbers

Number	County Names	Number	County Names	Number	County Names
01	Adair	34	Floyd	67	Monona
02	Adams	35	Franklin	68	Monroe
03	Allamakee	36	Fremont	69	Montgomery
04	Appanoose	37	Greene	70	Muscatine
05	Audubon	38	Grundy	71	OBrien
06	Benton	39	Guthrie	72	Osceola
07	Black Hawk	40	Hamilton	73	Page
08	Boone	41	Hancock	74	Palo Alto
09	Bremer	42	Hardin	75	Plymouth
10	Buchanan	43	Harrison	76	Pocahontas
11	Buena Vista	44	Henry	77	Polk
12	Butler	45	Howard	78	Pottawattamie
13	Calhoun	46	Humboldt	79	Poweshiek
14	Carroll	47	Ida	80	Ringgold
15	Cass	48	Iowa	81	Sac
16	Cedar	49	Jackson	82	Scott
17	Cerro Gordo	50	Jasper	83	Shelby
18	Cherokee	51	Jefferson	84	Sioux
19	Chickasaw	52	Johnson	85	Story
20	Clarke	53	Jones	86	Tama
21	Clay	54	Keokuk	87	Taylor
22	Clayton	55	Kossuth	88	Union
23	Clinton	56	Lee	89	Van Buren
24	Crawford	57	Linn	90	Wapello
25	Dallas	58	Louisa	91	Warren
26	Davis	59	Lucas	92	Washington
27	Decatur	60	Lyon	93	Wayne
28	Delaware	61	Madison	94	Webster
29	Des Moines	62	Mahaska	95	Winnebago
30	Dickinson	63	Marion	96	Winneshiek
31	Dubuque	64	Marshall	97	Woodbury
32	Emmet	65	Mills	98	Worth
33	Fayette	66	Mitchell	99	Wright

APPENDIX 2

Index of State Parks, Institutions, and Federal Domain Roads

Department of Natural Resources

Park Number	State Park	County(ies)
576	Three Mile Lake Wildlife Area	Union
577	Otter Creek Wildlife Area	Tama
578	Fogle Lake Wildlife Area	Ringgold
579	Banner Wildlife Area	Warren
580	Do not use (Possible Primary Route)	
581	Spirit Lake Hatchery	Dickinson
582	Triboji Beach Access	Dickinson
583	Kettleson Hogback Wildlife Area	Dickinson
584	Loess Hills Pioneer State Forest	Harrison/Monona
585	Hundell Pond	Monona
586	Kiowa Marsha	Sac
587	Rathburn Wildlife Area	Lucas
588	Blood Run Historic Site	Lyon
589	Big Marsh Wildlife Area	Butler
590	Ruthven Wildlife Area	Clay
591	Center Lake State Park	Dickinson
592	Do not use (Primary Route Assigned)	
593	Deer Creek Wildlife Area	Plymouth
594	State Forest Nursery	Story
595	Lake Odessa Wildlife Area	Louisa
596	Ashton Pits	Osceola
597	Sweet Marsh Wildlife Area	Bremer
598	Manchester Fish Hatchery	Delaware
599	Ingham Lake	Emmet
600	Big Spring Fish Hatchery	Clayton
601	Lake Ahquabi State Park	Warren
602	Ambrose A. Call State Park	Kossuth
603	Backbone State Park	Delaware
604	Beeds Lake State Park	Franklin
605	Bellevue State Park	Jackson
606	Bixby State Park	Clayton
607	Black Hawk Lake State Park	Sac
608	Bobwhite State Park	Wayne
609	North Twin Lake	Calhoun
610	Brush Creek Canyon State Park	Fayette
611	Clear Lake State Park	Cerrro Gordo
612	Lake Darling State Park	Washington
613	Dolliver Memorial State Park	Webster
614	Echo Valley State Park	Fayette
615	Fort Defiance State Park	Emmet
616	Geode State Park	Henry/Des Moines

Park Number	State Park	County(ies)
617	George Wyth Memorial State Park	Black Hawk
618	Gitchie Manitou State Park	Lyon
619	Green Valley State Park	Union
620	Gull Point State Park	Dickinson
621	Heery Woods State Park	Butler
622	Lake Keomah State Park	Mahaska
623	Lacey-Keosauqua State Park	Van Buren
624	Ledges State Park	Boone
625	Lewis & Clark State Park	Monona
626	Lake Macbride State Park	Johnson
627	Lake Manawa State Park	Pottawattamie
628	Maquoketa Caves State Park	Jackson
629	Margo Frankel Woods State Park	Polk
630	McGregor Heights (Pikes	Clayton
631	Peak)StatePark	Cerro Gordo
632	McIntosh Woods State Park	O=Brien
633	Mill Creek State Park	Dickinson
634	Mini-Wakan State Park	Decatur
635	Nine Eagles State Park	Henry
636	Oakland Mills State Park	Linn
637	Palisades-Kepler State Park	Madison
638	Pammel State Park	Clayton
639	Pikes Peak State Park	Dickinson
640	Pikes Point State Park	Hancock
641	Pilot Knob State Park	Hardin
642	Pine Lake State Park	Mitchell
643	Pioneer State Park	Shelby
644	Prairie Rose State Park	Monona
645	Preparation Canyon State Park	Lucas
646	Red Haw State Park	Winnebago
647	Rice Lake State Park	Jasper
648	Rock Creek State Park	Fremont
649	Forney Lake Wildlife Area	Appanoose
650	Sharon Bluffs State Park	Guthrie
651	Spring Brook State Park	Greene
652	Spring Lake State Park	Woodbury/Plymouth
653	Stone State Park	Taylor
654	Lake of Three Fires State Park	Dickinson
655	Trappers Bay State Park	Tama
656	Union Grove State Park	Montgomery
657	Viking Lake State Park	Polk
658	Walnut Woods State Park	Clay
659	Wanata State Park	Davis

Park Number	State Park	County(ies)
660	Lake Wapello State Park	Jones
661	Wapsipinicon State Park	Fremont
662	Waubonsie State Park	Muscatine
663	Wild Cat Den State Park	Hancock
664	Eagle Lake State Park	Humboldt
665	Frank A. Gotch State Park	Palo Alto
666	Kearney State Park	Calhoun
667	Rainbow Bend	Sioux
668	Oak Grove State Park	Carroll
669	Swan Lake State Park	Cass
670	Lake Anita State Park	Pottawattamie
671	Wilson Island State Park	Cass
672	Cold Springs State Park	Emmet
673	Okamanpedan State Park	Wright
674	Lake Cornelia State Park	Calhoun
675	Twin Lakes State Park	Appanoose
676	Honey Creek State Park	Marion
677	Elk Rock State Park	
678	Big Creek State Park	Polk
679	Volga River State Park	Fayette
680	Pleasant Creek State Park	Linn/Benton
	Do not use (Primary Route Assigned)	
681	Lake Icaria State Park	Adams
682	Lower Gar Lake	Dickinson
683	Badger Creek State Park	Madison
684	Brushy Creek State Park	Webster
685	Emerson Bay State Park	Dickinson
686	Marble Beach State Park	Dickinson
687	Fairport Station	Muscatine
688	Fort Atkinson State Park	Winneshiek
689	Mines of Spain State Park	Dubuque
690	Shimek State Forest	Lee/Van Buren
691	Yellow River State Forest	Allamakee
692	Templar Point Recreation Area	Dickinson
693	Stephens State Forest	Lucas/Clark/Monroe
694	Hawthorne Wildlife Management Area	/ Appanoose/Davis
695	Nobles Island State Park	Mahaska
696	Beaver Lake State Park	Allamakee
698	Princeton Wildlife Area	Dallas
699	Riverton Wildlife Management Area	Scott
		Fremont

Social Service Institutions

Inst. Number		
702	Mental Health Institute, Cherokee	Mills
703	Clarinda Treatment Center	Boone
704	Mental Health Institute, Independence	Tama
705	Mount Pleasant Correctional Facility	Marshall
706	Glenwood State Hospital & School	Jones
707	Woodward State Hospital & School	
709	Iowa Juvenile Home, Toledo	Lee
710	Iowa Veteran=s Home, Marshalltown	Calhoun
711	Iowa State Mens Reformatory & Farms, Anamosa	Hardin
712	Iowa State Penitentiary, Fort Madison	Polk
713	North Central Correctional Fac., Rockwell City	Jasper
714	State Training School, Eldora	Webster
715	Iowa Correctional Inst. For Women, Mitchellville	
716	Correctional Release Center, Newton	Lee
717	Fort Dodge Correctional Facility, Fort Dodge	Lee
722	State Penitentiary Farms #1 and #2, Fort Madison	Johnson
723	State Penitentiary Farm #3, Fort Madison	
724	Iowa Medical and Classification Center, Oakdale	

Iowa National Guard

Inst. Number	Location	County(ies)
775	Glenwood-110 Sivers Rd	Mills

Social Service Institutions

Inst. Number		County(ies)
702	Cherokee	Cherokee
703	Page	Page
704	Buchanan	Buchanan
705	Henry	Henry

Board of Regents Institutions

Inst. Number	Institutions	County(ies)
801	Board of Regents	Johnson
801	State University of Iowa, Iowa City	Johnson
802	State University of Iowa-Oakdale Campus	Dickinson
803	State University of Iowa-Lakeside Laboratory	Johnson
810	State University of Iowa-Macbride Nature Rec	Story
811	Iowa State University, Ames	Johnson
814	Brayton Memorial Forest, ISU	Delaware
815	Iowa State University Experimental Farm	Polk
816	McNay Research Farm, ISU	Lucas
820	Iowa State University-Fick Observ. & Farms	Boone
	University of Northern Iowa, Cedar Falls	Black Hawk
830		
840	Iowa Braille & Sight Saving School, Vinton	Benton
	Iowa School for the Deaf, Council Bluffs	Pottawattamie
850	National Guard	
	Camp Dodge, Johnston	Polk
851	State Fair Board	
	Iowa State Fairgrounds, Des Moines	Polk
852	Other State Agency	
	State Capitol Complex, Des Moines	Polk
860	Department of Public Instruction	
861	NE Iowa Area Tech. Inst. (Area 1), Calmar	Winneshiek
862	Clinton Comm. College (Area IX), Clinton	Clinton
862	Des Moines Area Comm College (Area XI), Ankeny	Polk
863	Des Moines Area Comm Coll.(Area XI), Des Moines	Polk
864	Des Moines Area Comm College (Area XI), Boone	Boone
865	NE Iowa Comm College (Area 1), Peosta	Dubuque
866	Scott Comm College (Area IX), Riverdale	Scott
867	Ellsworth Comm College (Area VI), Iowa Falls	Hardin
868	Hawkeye Inst. of Tech. (Area VII), Waterloo	Black Hawk
869	Indian Hills Comm College (Area XV), Centerville	Appanoose
870	Indian Hills Comm College (Area XV), Ottumwa	Wapello
871	Iowa Central Comm College (Area V), Eagle Grove	Wright
872	Iowa Central Comm College (Area V), Fort Dodge	Webster
873	Iowa Central Comm College (Area V), Webster City	Hamilton
874	Iowa Lakes Comm College (Area III), Emmetsburg	Palo Alto
875	Iowa Lakes Comm College (Area III), Estherville	Emmet
	Iowa Western Comm Coll. (Area XIII), Clarinda	Page

Inst. Number				
		o	r	thwestern Comm College (AreaXIV), Creston Southeastern Comm College (Area XVI), Keokuk Southeastern Comm College (Area XVI), West Burlington W. Iowa Tech. Comm College (Area XII), Sioux City
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Cerro Gordo	
Sioux	
Union	
Lee	
Des Moines	
Woodbury	

Federal Domain

Number		
	Bureau of Indian Affairs	Woodbury
901	Tama Indian Settlement	Kossuth
902	Winnebago Indian Land	Louisa
	Bureau of Sport Fisheries & Wildlife Refuges	Allamakee
911	Union Slough Refuge	Dubuque
912	Mark Twain Refuge (Lake Odessa)	Clayton
913	Upper Mississippi Land Acquisition	Jackson
914	Upper Mississippi Land Acquisition	Louisa
915	Upper Mississippi Land Acquisition	Harrison/
916	Upper Mississippi Land Acquisition	Pottawattamie
917	Upper Mississippi Land Acquisition	
918	DeSoto National Wildlife Refuge	Appanoose
	Corps of Engineers	Johnson
	Lake Rathbun	Marion
926	Coralville Reservoir	Scott
927	Red Rock Reservoir	Polk/Boone
928	Rock Island Arsenal	
930	Saylorville Reservoir	Polk
931	Federal Military Installation	Bremer
	Fort Des Moines	
941	Waverly Naval Housing	Cedar
942	National Park Service	Allamakee/Clayton
	Herbert Hoover National Historical Site	
956	Effigy Mounds National Monument	Story
957	U.S. Department of Agriculture	
970	National Animal Disease Laboratory	

Federal Domain	County(ies)
	Tama

APPENDIX 3

Iowa Cities

CITY #	CO #	CITY LETTER	CITY NAME
0015	42*	A	ACKLEY
0015	35*2	I	ACKLEY
0017	91	A	ACKWORTH
0022	01	A	ADAIR
0022	39*2	J	ADAIR
0035	25	A	ADEL
0045	88	A	AFTON
0050	90	A	AGENCY
0052	92	A	AINSWORTH
0055	75	A	AKRON
0062	11	A	ALBERT CITY
0065	68	A	ALBIA
0070	64	A	ALBION
0072	57	A	ALBURNETT
0077	42	B	ALDEN
0082	35	A	ALEXANDER
0085	55	A	ALGONA
0092	77	A	ALLEMAN
0110	93	A	ALLERTON
0112	12	A	ALLISON
0125	11	B	ALTA
0127	19	A	ALTA VISTA
0130	84	A	ALTON
0132	77	B	ALTOONA
0135	60	A	ALVORD
0140	48	P	AMANA (Un-incorporated.)
0155	85	A	AMES
0165	53	A	ANAMOSA
0170	23	A	ANDOVER
0172	49	A	ANDREW
0182	15	A	ANITA
0187	77	C	ANKENY
0192	97	A	ANTHON
0195	12	B	APLINGTON
0200	14	A	ARCADIA
0202	71	A	ARCHER
0207	12	C	AREDALE
0215	24	A	ARION
0217	88	B	ARISPE

CITY #	CO #	CITY LETTER	CITY NAME
0220	33	A	ARLINGTON
0227	32	A	ARMSTRONG
0232	30	A	ARNOLDS PARK
0247	47	A	ARTHUR
0252	31	A	ASBURY
0265	72	A	ASHTON
0272	24	B	ASPINWALL
0277	70	A	ATALISSA
0280	87	A	ATHELSTAN
0282	06	A	ATKINS
0285	15	B	ATLANTIC
0297	81	A	AUBURN
0300	05	A	AUDUBON
0310	18	A	AURELIA
0315	10	A	AURORA
0327	78	A	AVOCA
0335	74	A	AYRSHIRE
0345	94	A	BADGER
0352	39	A	BAGLEY
0367	49	B	BALDWIN
0375	31	B	BALLTOWN
0380	55	B	BANCROFT
0385	31	C	BANKSTON
0407	62*	A	BARNES CITY
0407	79*2	J	BARNES CITY
0412	94	B	BARNUM
0420	19	B	BASSETT
0422	51	A	BATAVIA
0425	47	B	BATTLE CREEK
0432	50	A	BAXTER
0437	39	B	BAYARD
0452	62	B	BEACON
0455	80	A	BEACONSFIELD
0460	38	A	BEAMAN
0470	08	A	BEAVER
0487	87	B	BEDFORD
0515	06	B	BELLE PLAINE
0520	49	C	BELLEVUE
0527	99	A	BELMOND
0535	16	A	BENNETT
0547	80	B	BENTON
0562	08	B	BERKLEY
0565	31	D	BERNARD

CITY #	CO #	CITY LETTER	CITY NAME
0575	57	B	BERTRAM
0587	82	A	BETTENDORF
0595	61*	A	BEVINGTON
0595	91*2	N	BEVINGTON
0652	89	A	BIRMINGHAM
0672	40	A	BLAIRSBURG
0675	06	C	BLAIRSTOWN
0677	90	B	BLAKESBURG
0682	73	A	BLANCHARD
0687	67	A	BLENCOE
0697	87	C	BLOCKTON
0702	26	A	BLOOMFIELD
0707	82	B	BLUE GRASS
0722	46	A	BODE
0740	89	B	BONAPARTE
0747	77	D	BONDURANT
0750	08	C	BOONE
0765	25	B	BOUTON
0775	08	D	BOXHOLM
0785	84	B	BOYDEN
0792	73	B	BRADDYVILLE
0800	46	B	BRADGATE
0807	10	B	BRANDON
0812	05	B	BRAYTON
0817	14	B	BREDA
0837	01	B	BRIDGEWATER
0842	92	B	BRIGHTON
0855	12	D	BRISTOW
0857	41	A	BRITT
0867	97	B	BRONSON
0870	79	A	BROOKLYN
0905	75	B	BRUNSVILLE
0935	24	C	BUCK GROVE
0937	42	C	BUCKEYE
0952	82	C	BUFFALO
0957	95	A	BUFFALO CENTER
0977	29	A	BURLINGTON
0990	55	C	BURT
0997	63	A	BUSSEY
1015	23	B	CALAMUS
1027	94	C	CALLENDER
1030	96	A	CALMAR
1037	71	B	CALUMET

CITY #	CO #	CITY LETTER	CITY NAME
1040	23	C	CAMANCHE
1045	85	B	CAMBRIDGE
1080	89	C	CANTRIL
1087	02	A	CARBON
1105	91*	B	CARLISLE
1105	77*2	R	CARLISLE
1122	66	A	CARPENTER
1125	14	C	CARROLL
1140	78	B	CARSON
1142	78	C	CARTER LAKE
1147	31*	E	CASCADE
1147	53*2	J	CASCADE
1152	39*	C	CASEY
1152	1*2	F	CASEY
1162	96	B	CASTALIA
1165	67	B	CASTANA
1185	07	A	CEDAR FALLS
1187	57	C	CEDAR RAPIDS
1197	53	B	CENTER JUNCTION
1205	57	D	CENTER POINT
1210	04	A	CENTERVILLE
1217	57	E	CENTRAL CITY
1225	31	F	CENTRALIA
1237	59	A	CHARITON
1242	34	A	CHARLES CITY
1250	23	D	CHARLOTTE
1252	24	D	CHARTER OAK
1255	84	C	CHATSWORTH
1265	86	A	CHELSEA
1272	18	B	CHEROKEE
1277	45	A	CHESTER
1300	90	C	CHILLICOTHE
1317	37	A	CHURDAN
1320	04	B	CINCINNATI
1327	94	D	CLARE
1330	16	B	CLARENCE
1332	73	C	CLARINDA
1337	99	B	CLARION
1347	12	E	CLARKSVILLE
1362	22	A	CLAYTON
1372	17	A	CLEAR LAKE
1385	87*	D	CLEARFIELD
1385	80*2	K	CLEARFIELD

CITY #	CO #	CITY LETTER	CITY NAME
1387	18	C	CLEGHORN
1390	64	B	CLEMONS
1395	33	B	CLERMONT
1415	23	E	CLINTON
1422	93	B	CLIO
1425	77*	E	CLIVE
1425	25*2	Q	CLIVE
1430	86	B	CLUTIER
1447	69	A	COBURG
1452	57	F	COGGON
1455	73	D	COIN
1465	28	A	COLESBURG
1467	50	B	COLFAX
1472	73	E	COLLEGE SPRINGS
1477	85	C	COLLINS
1480	85	D	COLO
1487	58	A	COLUMBUS CITY
1490	58	B	COLUMBUS JUNCTION
1492	34	B	COLWELL
1510	70	B	CONESVILLE
1525	38	B	CONRAD
1535	87	E	CONWAY
1542	14	D	COON RAPIDS
1550	44*	A	COPPOCK
1550	51*2	G	COPPOCK
1550	92*3	I	COPPOCK
1557	52	A	CORALVILLE
1590	02	B	CORNING
1595	97	C	CORRECTIONVILLE
1597	41	B	CORWITH
1602	93	C	CORYDON
1625	58	C	COTTER
1640	35	B	COULTER
1642	78	D	COUNCIL BLUFFS
1682	75	C	CRAIG
1695	92	C	CRAWFORDSVILLE
1700	78	E	CRESCENT

CITY #	CO #	CITY LETTER	CITY NAME
1705	45	B	CRESCO
1710	88	C	CRESTON
1725	88	D	CROMWELL
1747	41	C	CRYSTAL LAKE
1755	15	C	CUMBERLAND
1757	91	C	CUMMING
1762	74	B	CURLEW
1770	97	D	CUSHING
1775	74	C	CYLINDER
1787	46	C	DAKOTA CITY
1802	25	C	DALLAS CENTER
1815	37	B	DANA
1817	97	E	DANBURY
1822	29	B	DANVILLE
1827	82	D	DAVENPORT
1835	27	A	DAVIS CITY
1840	25	D	DAWSON
1845	94	E	DAYTON
1850	25	E	DE SOTO
1855	23	F	DE WITT
1862	27	B	DECATUR CITY
1867	96	C	DECORAH
1872	14	E	DEDHAM
1875	79	B	DEEP RIVER
1887	83	A	DEFIANCE
1900	28	B	DELAWARE
1902	28	C	DELHI
1905	23	G	DELMAR
1907	24	E	DELOIT
1910	80	C	DELPHOS
1912	54	A	DELTA
1920	24	F	DENISON
1935	09	A	DENVER
1942	59	B	DERBY
1945	77*	F	DES MOINES
1945	91*2	O	DES MOINES
1972	25	F	DEXTER

CITY #	CO #	CITY LETTER	CITY NAME
1975	80	D	DIAGONAL
1987	21	A	DICKENS
1997	38	C	DIKE
2005	82	E	DIXON
2025	32	B	DOLLIVER
2032	82	F	DONAHUE
2040	56	A	DONNELLSON
2042	60	B	DOON
2060	17	B	DOUGHERTY
2072	24	G	DOW CITY
2080	99*	C	DOWS
2080	35*2	J	DOWS
2085	26	B	DRAKESVILLE
2100	31	G	DUBUQUE
2120	12	F	DUMONT
2130	94	F	DUNCOMBE
2132	28	D	DUNDEE
2140	07	B	DUNKERTON
2142	43	A	DUNLAP
2150	31	H	DURANGO
2152	16*	C	DURANT
2152	82*2	Q	DURANT
2160	31*	I	DYERSVILLE
2160	28*2	M	DYERSVILLE
2162	86	C	DYSART
2170	99	D	EAGLE GROVE
2190	61	B	EARLHAM
2195	83	B	EARLING
2197	28	E	EARLVILLE
2200	81	B	EARLY
2205	48	Q	EAST AMANA (Unincorp)
2215	61	C	EAST PERU
2240	90*	D	EDDYVILLE
2240	62*2	K	EDDYVILLE
2240	68*3	D	EDDYVILLE
2247	22*	B	EDGEWOOD
2247	28*2	L	EDGEWOOD

CITY #	CO #	CITY LETTER	CITY NAME
2267	86	D	ELBERON
2275	90	E	ELDON
2280	42	D	ELDORA
2290	82	G	ELDRIDGE
2297	33	D	ELGIN
2305	83	C	ELK HORN
2312	07	C	ELK RUN HEIGHTS
2315	22	C	ELKADER
2320	77	G	ELKHART
2322	22	D	ELKPORT
2335	69	B	ELLIOT
2352	80	E	ELLSTON
2355	40	B	ELLSWORTH
2365	45	C	ELMA
2382	57	G	ELY
2387	65	A	EMERSON
2395	74	D	EMMETSBURG
2405	31	J	EPWORTH
2412	73	F	ESSEX
2417	32	C	ESTHERVILLE
2432	07	D	EVANSDALE
2442	21	B	EVERLY
2452	05	C	EXIRA
2455	04	C	EXLINE
2460	10*	C	FAIRBANK
2460	33*2	O	FAIRBANK
2462	57	H	FAIRFAX
2465	51	B	FAIRFIELD
2497	31	K	FARLEY
2505	22	E	FARMERSBURG
2507	89	D	FARMINGTON
2512	13*	A	FARNHAMVILLE
2512	94*2	O	FARNHAMVILLE
2515	36	A	FARRAGUT
2525	33	E	FAYETTE
2530	55	D	FENTON
2532	64	C	FERGUSON

CITY #	CO #	CITY LETTER	CITY NAME
2547	98	A	FERTILE
2620	26	C	FLORIS
2625	34	C	FLOYD
2642	76	A	FONDA
2647	01	C	FONTANELLE
2660	95*	B	FOREST CITY
2660	41*2	I	FOREST CITY
2680	96	D	FORT ATKINSON
2690	94	G	FORT DODGE
2697	56	B	FORT MADISON
2712	21	C	FOSTORIA
2737	56	C	FRANKLIN
2745	08	E	FRASER
2750	19	C	FREDERICKSBURG
2752	09	B	FREDERIKA
2755	58	D	FREDONIA
2762	62	C	FREMONT
2780	70	C	FRUITLAND
2802	99	E	GALT
2805	47	C	GALVA
2815	22	G	GARBER
2820	27	C	GARDEN GROVE
2835	22	H	GARNAVILLO
2837	41	D	GARNER
2845	06	D	GARRISON
2850	86	E	GARWIN
2865	35	C	GENEVA
2875	60	C	GEORGE
2895	54	B	GIBSON
2902	85	E	GILBERT
2905	07	E	GILBERTVILLE
2912	21	D	GILLETT GROVE
2920	64	D	GILMAN
2922	46*	D	GILMORE CITY
2922	76*2	I	GILMORE CITY
2932	86	F	GLADBROOK
2955	65	B	GLENWOOD

CITY #	CO #	CITY LETTER	CITY NAME
2962	14	F	GLIDDEN
2972	99	F	GOLDFIELD
2977	41	E	GOODELL
2980	23	H	GOOSE LAKE
3007	94	H	GOWRIE
3015	74	E	GRAETTINGER
3017	31	M	GRAF
3020	98	B	GRAFTON
3030	37	C	GRAND JUNCTION
3032	23	I	GRAND MOUND
3035	27	D	GRAND RIVER
3040	58	E	GRANDVIEW
3042	25	G	GRANGER
3052	69	C	GRANT
3062	84	D	GRANVILLE
3070	87	F	GRAVITY
3072	05	D	GRAY
3080	28	F	GREELEY
3102	12	G	GREENE
3107	01	D	GREENFIELD
3112	21	E	GREENVILLE
3125	77	H	GRIMES
3127	79	C	GRINNELL
3132	15	D	GRISWOLD
3142	38	D	GRUNDY CENTER
3147	32	D	GRUVER
3150	79	D	GUERNSEY
3162	39	D	GUTHRIE CENTER
3167	22	I	GUTTENBERG
3192	14	G	HALBUR
3212	36	B	HAMBURG
3217	63	B	HAMILTON
3222	35	D	HAMPTON
3230	78	F	HANCOCK
3240	98	C	HANLONTOWN
3252	35	E	HANSELL
3257	94	I	HARCOURT

CITY #	CO #	CITY LETTER	CITY NAME
3270	46	E	HARDY
3275	83	D	HARLAN
3285	54	C	HARPER
3287	03	A	HARPERS FERRY
3290	72	B	HARRIS
3300	91	D	HARTFORD
3305	71	C	HARTLEY
3310	79	E	HARTWICK
3315	63	C	HARVEY
3322	65	C	HASTINGS
3335	76	B	HAVELOCK
3340	64	E	HAVERHILL
3345	84	E	HAWARDEN
3350	33	F	HAWKEYE
3365	54	D	HAYESVILLE
3385	10	D	HAZLETON
3395	54	E	HEDRICK
3405	65	D	HENDERSON
3415	73	G	HEPBURN
3432	57	I	HIAWATHA
3445	48	R	HIGH AMANA (Unincorp)
3472	52	B	HILLS
3475	44	B	HILLSBORO
3485	75	D	HINTON
3505	38	E	HOLLAND
3515	47	D	HOLSTEIN
3520	31	N	HOLY CROSS
3525	48	S	HOMESTEAD (Unincorp)
3542	28	G	HOPKINTON
3547	97	F	HORNICK
3557	84	F	HOSPERS
3562	56	D	HOUGHTON
3575	42	E	HUBBARD
3577	07	F	HUDSON
3590	84	G	HULL
3595	46	F	HUMBOLDT
3602	93	D	HUMESTON

CITY #	CO #	CITY LETTER	CITY NAME
3630	85	F	HUXLEY
3650	47	E	IDA GROVE
3660	36	C	IMOGENE
3665	10	E	INDEPENDENCE
3680	91	E	INDIANOLA
3700	60	D	INWOOD
3710	19	D	IONIA
3715	52	C	IOWA CITY
3720	42	F	IOWA FALLS
3742	84	H	IRETON
3755	83	E	IRWIN
3772	96	E	JACKSON JUNCTION
3782	39	E	JAMAICA
3792	09*	C	JANESVILLE
3792	07*2	J	JANESVILLE
3800	37	D	JEFFERSON
3817	10*	F	JESUP
3817	07*2	K	JESUP
3820	40	C	JEWELL
3827	77	I	JOHNSTON
3830	98	D	JOICE
3835	13	B	JOLLEY
3870	92	D	KALONA
3875	40	D	KAMRAR
3877	41	F	KANAWHA
3892	80	F	KELLERTON
3895	85	G	KELLEY
3897	50	C	KELLOGG
3927	98	E	KENSETT
3932	88	E	KENT
3942	56	E	KEOKUK
3948	62	D	KEOMAH VILLAGE
3950	89	E	KEOSAUQUA
3952	54	F	KEOTA
3960	54	G	KESWICK
3972	06	E	KEYSTONE
3985	05	E	KIMBALLTON

CITY #	CO #	CITY LETTER	CITY NAME
3992	75	E	KINGSLEY
4000	54	H	KINROSS
4002	83	F	KIRKMAN
4005	90	F	KIRKVILLE
4010	24	H	KIRON
4012	41	G	KLEMME
4025	13	C	KNIERIM
4040	63	D	KNOXVILLE
4080	49	E	LA MOTTE
4082	07	G	LA PORTE CITY
4092	91	F	LACONA
4100	48	E	LADORA
4110	13	D	LAKE CITY
4135	95	C	LAKE MILLS
4150	30	B	LAKE PARK
4157	81	C	LAKE VIEW
4170	11	C	LAKESIDE
4182	55	E	LAKOTA
4185	50	D	LAMBS GROVE
4187	27	E	LAMONI
4190	10	G	LAMONT
4195	14	H	LANESBORO
4205	03	B	LANSING
4212	60	E	LARCHWOOD
4222	18	D	LARRABEE
4230	35	F	LATIMER
4237	64	F	LAUREL
4240	76	C	LAURENS
4245	19	E	LAWLER
4250	97	G	LAWTON
4252	82	H	LE CLAIRE
4255	64	G	LE GRAND
4257	75	F	LE MARS
4262	27	F	LE ROY
4280	55	F	LEDYARD
4290	94	J	LEHIGH
4292	62	E	LEIGHTON

CITY #	CO #	CITY LETTER	CITY NAME
4297	95	D	LELAND
4305	87	G	LENOX
4307	27	G	LEON
4315	60	F	LESTER
4317	58	F	LETTS
4325	15	E	LEWIS
4345	51	C	LIBERTYVILLE
4350	14	I	LIDDERDALE
4367	45	D	LIME SPRINGS
4377	86	G	LINCOLN
4382	25	H	LINDEN
4392	93	E	LINEVILLE
4395	11	D	LINN GROVE
4410	57	J	LISBON
4412	64	H	LISCOMB
4427	60	G	LITTLE ROCK
4430	43	B	LITTLE SIOUX
4452	22	J	LITTLEPORT
4457	46	G	LIVERMORE
4477	51	D	LOCKRIDGE
4482	43	C	LOGAN
4487	13	E	LOHRVILLE
4490	55	G	LONE ROCK
4492	52	D	LONE TREE
4497	82	I	LONG GROVE
4515	88	F	LORIMOR
4525	23	J	LOST NATION
4545	68	B	LOVILIA
4552	23	K	LOW MOOR
4555	16	D	LOWDEN
4565	22	K	LUANA
4570	59	C	LUCAS
4587	08	F	LUTHER
4595	55*	H	LUVERNE
4595	46*2	M	LUVERNE
4597	31	O	LUXEMBURG
4600	06	F	LUZERNE

CITY #	CO #	CITY LETTER	CITY NAME
4612	50	E	LYNNVILLE
4620	81*	D	LYTTON
4620	13*2	L	LYTTON
4625	78	G	MACEDONIA
4630	61	D	MACKSBURG
4640	08	G	MADRID
4647	43	D	MAGNOLIA
4655	79	F	MALCOM
4657	74	F	MALLARD
4667	80	G	MALOY
4672	65	E	MALVERN
4682	28	H	MANCHESTER
4695	24	I	MANILLA
4697	98	F	MANLY
4702	14	J	MANNING
4710	13	F	MANSON
4737	67	C	MAPLETON
4742	49	F	MAQUOKETA
4750	11	E	MARATHON
4757	34	D	MARBLE ROCK
4762	18	E	MARCUS
4765	48	F	MARENGO
4775	57	K	MARION
4780	15	F	MARNE
4782	22	L	MARQUETTE
4797	64	I	MARSHALLTOWN
4802	53	C	MARTELLE
4805	91	G	MARTENSDALE
4812	54	I	MARTINSBURG
4820	63	E	MARYSVILLE
4822	17	C	MASON CITY
4830	28	I	MASONVILLE
4832	15	G	MASSENA
4847	84	I	MATLOCK
4857	84	J	MAURICE
4865	85	H	MAXWELL
4870	33	G	MAYNARD

CITY #	CO #	CITY LETTER	CITY NAME
4872	82	J	MAYSVILLE
4880	85	I	MCCALLSBURG
4882	82	K	MCCAUSLAND
4885	78	H	MCCLELLAND
4892	22	M	MCGREGOR
4900	66	B	MCINTIRE
4922	16	E	MECHANICSVILLE
4930	29	C	MEDIAPOLIS
4935	64	J	MELBOURNE
4937	63	F	MELCHER-DALLAS
4945	68	C	MELROSE
4950	72	C	MELVIN
4952	39	F	MENLO
4962	18	F	MERIDEN
4975	75	G	MERRILL
4985	17	D	MESERVEY
5017	48	T	MIDDLE AMANA (Unincorp)
5035	29	D	MIDDLETOWN
5052	49	G	MILES
5057	30	C	MILFORD
5075	48	H	MILLERSBURG
5077	93	F	MILLERTON
5085	22	N	MILLVILLE
5087	91	H	MILO
5092	89	F	MILTON
5095	25	I	MINBURN
5097	78	I	MINDEN
5110	50	F	MINGO
5130	43	E	MISSOURI VALLEY
5135	66	C	MITCHELL
5137	77*	J	MITCHELLVILLE
5137	50*2	N	MITCHELLVILLE
5142	43	F	MODALE
5152	43	G	MONDAMIN
5160	49	H	MONMOUTH
5162	22	O	MONONA
5165	50	G	MONROE

CITY #	CO #	CITY LETTER	CITY NAME
5172	79	G	MONTEZUMA
5182	53	D	MONTICELLO
5190	86	H	MONTOUR
5195	56	F	MONTROSE
5205	67	D	MOORHEAD
5207	94	K	MOORLAND
5212	04	D	MORAVIA
5225	53	E	MORLEY
5227	58	G	MORNING SUN
5235	38	F	MORRISON
5252	04	E	MOULTON
5257	06	G	MOUNT AUBURN
5262	80	H	MOUNT AYR
5292	44	C	MOUNT PLEASANT
5297	89	G	MOUNT STERLING
5300	44	D	MOUNT UNION
5302	57	L	MOUNT VERNON
5307	97	H	MOVILLE
5327	20	A	MURRAY
5330	70	D	MUSCATINE
5357	04	F	MYSTIC
5375	19	F	NASHUA
5392	81	E	NEMAHA
5397	78	J	NEOLA
5405	85	J	NEVADA
5412	03	C	NEW ALBIN
5427	19	G	NEW HAMPTON
5432	12	H	NEW HARTFORD
5437	82	L	NEW LIBERTY
5440	44	E	NEW LONDON
5442	87	H	NEW MARKET
5447	42	G	NEW PROVIDENCE
5450	62	F	NEW SHARON
5452	31	P	NEW VIENNA
5455	91	I	NEW VIRGINIA
5470	11	F	NEWELL
5472	06	H	NEWHALL

CITY #	CO #	CITY LETTER	CITY NAME
5482	50	H	NEWTON
5490	70	E	NICHOLS
5517	02	C	NODAWAY
5527	34	E	NORA SPRINGS
5547	22	P	NORTH BUENA VISTA
5555	48*	I	NORTH ENGLISH
5555	54*2	Q	NORTH ENGLISH
5557	52	E	NORTH LIBERTY
5565	19	H	NORTH WASHINGTON
5570	73	H	NORTHBORO
5580	98	G	NORTHWOOD
5587	91	J	NORWALK
5590	06	I	NORWAY
5607	04	G	NUMA
5630	78	K	OAKLAND
5631	50	I	OAKLAND ACRES
5642	58	H	OAKVILLE
5650	72	D	OCHEYEDAN
5655	81	F	ODEBOLT
5657	33	H	OELWEIN
5662	08	H	OGDEN
5667	30	D	OKOBOJI
5682	44	F	OLDS
5687	53	F	OLIN
5692	54	J	OLLIE
5700	67	E	ONAWA
5720	53	G	ONSLOW
5732	84	K	ORANGE CITY
5737	66	D	ORCHARD
5742	01	E	ORIENT
5747	30	E	ORLEANS
5760	66	E	OSAGE
5772	20	B	OSCEOLA
5780	62	G	OSKALOOSA
5785	96	F	OSSIAN
5787	22	Q	OSTERDOCK
5792	94	L	OTHO

CITY #	CO #	CITY LETTER	CITY NAME
5800	97	I	OTO
5822	46	H	OTTOSEN
5825	90	G	OTTUMWA
5832	42	H	OWASA
5845	52	F	OXFORD
5847	53	H	OXFORD JUNCTION
5852	75	H	OYENS
5860	65	F	PACIFIC JUNCTION
5865	51	E	PACKWOOD
5880	76	D	PALMER
5887	57	M	PALO
5897	83	G	PANAMA
5900	39	G	PANORA
5902	82	M	PANORAMA PARK
5915	12	I	PARKERSBURG
5917	48	J	PARNELL
5920	37	E	PATON
5922	61	E	PATTERSON
5927	71	E	PAULLINA
5947	63	G	PELLA
5957	31	Q	PEOSTA
5970	25	J	PERRY
5980	43	H	PERSIA
5990	21	F	PETERSON
6012	97	J	PIERSON
6040	08	I	PILOT MOUND
6062	46	I	PIONEER
6072	43	I	PISGAH
6082	09	D	PLAINFIELD
6087	04	H	PLANO
6102	77	K	PLEASANT HILL
6112	51	F	PLEASANT PLAIN
6122	27	H	PLEASANTON
6125	63	H	PLEASANTVILLE
6130	76	E	PLOVER
6142	17	E	PLYMOUTH
6150	76	F	POCAHONTAS

CITY #	CO #	CITY LETTER	CITY NAME
6170	77	L	POLK CITY
6175	13	G	POMEROY
6180	35	G	POPEJOY
6195	83	H	PORTSMOUTH
6197	03	D	POSTVILLE
6207	50	J	PRAIRIE CITY
6222	57	N	PRAIRIEBURG
6232	02	D	PRESCOTT
6235	49	I	PRESTON
6240	71	F	PRIMGHAR
6247	82	N	PRINCETON
6255	93	G	PROMISE CITY
6257	45	E	PROTIVIN
6265	26	D	PULASKI
6282	10	H	QUASQUETON
6287	18	G	QUIMBY
6297	42	I	RADCLIFFE
6307	95	E	RAKE
6312	14*	K	RALSTON
6312	37*2	H	RALSTON
6317	33	I	RANDALIA
6320	40	E	RANDALL
6322	36	D	RANDOLPH
6332	04	I	RATHBUN
6342	07	H	RAYMOND
6345	09	E	READLYN
6347	50	K	REASNOR
6360	69	D	RED OAK
6377	80	I	REDDING
6380	25	K	REDFIELD
6397	38	G	REINBECK
6405	11	G	REMBRANDT
6407	75	I	REMSEN
6410	46	J	RENWICK
6422	64	K	RHODES
6427	45*	F	RICEVILLE
6427	66*2	H	RICEVILLE

CITY #	CO #	CITY LETTER	CITY NAME
6437	54	K	RICHLAND
6447	31	R	RICKARDSVILLE
6450	24	J	RICKETTS
6457	96	G	RIDGEWAY
6467	13	H	RINARD
6472	32	E	RINGSTED
6475	37	F	RIPPEY
6492	82	O	RIVERDALE
6495	92	E	RIVERSIDE
6497	36	E	RIVERTON
6520	57	O	ROBINS
6537	17	F	ROCK FALLS
6542	60	H	ROCK RAPIDS
6550	84	L	ROCK VALLEY
6567	34	F	ROCKFORD
6575	17	G	ROCKWELL
6577	13	I	ROCKWELL CITY
6585	74	G	RODMAN
6587	67	F	RODNEY
6597	85	K	ROLAND
6600	76	G	ROLFE
6610	44	G	ROME
6615	62	H	ROSE HILL
6630	21	G	ROSSIE
6650	99	G	ROWAN
6652	10	I	ROWLEY
6655	21	H	ROYAL
6670	34	G	RUDD
6675	77	M	RUNNELLS
6687	59	D	RUSSELL
6692	74	H	RUTHVEN
6695	46	K	RUTLAND
6700	28	K	RYAN
6705	49	J	SABULA
6717	81	G	SAC CITY
6732	31	S	SAGEVILLE
6735	66	F	SAINT ANSGAR

CITY #	CO #	CITY LETTER	CITY NAME
6737	64	L	SAINT ANTHONY
6742	61	F	SAINT CHARLES
6745	49	K	SAINT DONATUS
6750	33	J	SAINT LUCAS
6752	91	K	SAINT MARYS
6755	22	R	SAINT OLAF
6757	56	G	SAINT PAUL
6762	44	H	SALEM
6770	97	K	SALIX
6775	71	G	SANBORN
6790	91	L	SANDYVILLE
6830	95	F	SCARVILLE
6832	81	H	SCHALLER
6840	24	K	SCHLESWIG
6865	37	G	SCRANTON
6867	79	H	SEARSBORO
6890	97	L	SERGEANT BLUFF
6907	93	H	SEYMOUR
6917	73	I	SHAMBAUGH
6920	88	G	SHANNON CITY
6920	80*	L	SHANNON CITY
6932	87	I	SHARPSBURG
6940	35	H	SHEFFIELD
6945	83*	I	SHELBY
6945	78*2	O	SHELBY
6947	77*	N	SHELDAHL
6947	8*2	J	SHELDAHL
6947	85*3	O	SHELDAHL
6950	71*	H	SHELDON
6950	84*2	N	SHELDON
6955	12	J	SHELL ROCK
6962	06	J	SHELLSBURG
6965	73	J	SHENANDOAH
6982	31	T	SHERRILL
7007	52	G	SHUEYVILLE
7012	72	E	SIBLEY
7017	36	F	SIDNEY

CITY #	CO #	CITY LETTER	CITY NAME
7027	54	L	SIGOURNEY
7030	65	G	SILVER CITY
7055	84	M	SIOUX CENTER
7057	97	M	SIOUX CITY
7062	11	H	SIOUX RAPIDS
7075	85	L	SLATER
7085	97	N	SLOAN
7092	97	O	SMITHLAND
7125	67	G	SOLDIER
7130	52	H	SOLON
7135	13	J	SOMERS
7142	48	U	SOUTH AMANA (Unincorp)
7152	54	M	SOUTH ENGLISH
7170	21	I	SPENCER
7180	96	H	SPILLVILLE
7185	30	F	SPIRIT LAKE
7202	49	L	SPRAGUEVILLE
7210	91	M	SPRING HILL
7225	49	M	SPRINGBROOK
7237	57	P	SPRINGVILLE
7250	66	G	STACYVILLE
7257	40	F	STANHOPE
7260	10	J	STANLEY
7262	69	E	STANTON
7265	16	F	STANWOOD
7272	64	M	STATE CENTER
7357	42	J	STEAMBOAT ROCK
7402	89	H	STOCKPORT
7405	70	F	STOCKTON
7422	11	I	STORM LAKE
7430	85	M	STORY CITY
7432	38	H	STOUT
7440	40*	G	STRATFORD
7440	94*2	N	STRATFORD
7442	22	S	STRAWBERRY POINT
7455	75	J	STRUBLE
7457	39*	H	STUART

CITY #	CO #	CITY LETTER	CITY NAME
7457	1*2	G	STUART
7467	50	L	SULLY
7490	09*	F	SUMNER
7490	33*2	P	SUMNER
7505	30	G	SUPERIOR
7507	71	I	SUTHERLAND
7512	17	H	SWALEDALE
7515	63	I	SWAN
7535	55	I	SWEA CITY
7545	52	I	SWISHER
7555	36*	G	TABOR
7555	65*2	H	TABOR
7575	86	I	TAMA
7597	14	L	TEMPLETON
7602	83	J	TENNANT
7617	30	H	TERRIL
7622	88	H	THAYER
7635	95	G	THOMPSON
7637	46	L	THOR
7640	54	N	THORNBURG
7642	17	I	THORNTON
7657	36	H	THURMAN
7662	52	J	TIFFIN
7672	80	J	TINGLEY
7677	16	G	TIPTON
7680	55	J	TITONKA
7692	86	J	TOLEDO
7702	23	L	TORONTO
7710	86	K	TRAER
7727	78	L	TREYNOR
7735	09	G	TRIPOLI
7752	11	J	TRUESDALE
7757	61	G	TRURO
7760	67	H	TURIN
7825	04	J	UDELL
7830	78	M	UNDERWOOD
7832	42	K	UNION

CITY #	CO #	CITY LETTER	CITY NAME
7845	04	K	UNIONVILLE
7855	52	K	UNIVERSITY HEIGHTS
7860	62	J	UNIVERSITY PARK
7872	06	K	URBANA
7875	77*	O	URBANDALE
7875	25*2	P	URBANDALE
7920	67	I	UTE
7927	24	L	VAIL
7932	50	M	VALERIA
7952	06	L	VAN HORNE
7957	25	L	VAN METER
7960	27	I	VAN WERT
7965	76	H	VARINA
7967	17	J	VENTURA
7990	48*	M	VICTOR
7990	79*2	I	VICTOR
8002	69	F	VILLISCA
8010	94	M	VINCENT
8012	86	L	VINING
8017	06	M	VINTON
8032	22	T	VOLGA CITY
8045	33	K	WADENA
8050	30	I	WAHPETON
8052	82	P	WALCOTT
8060	06*	N	WALFORD
8060	57*2	R	WALFORD
8062	57	Q	WALKER
8065	81	I	WALL LAKE
8085	32	F	WALLINGFORD
8087	78	N	WALNUT
8107	58	I	WAPELLO
8140	92	F	WASHINGTON
8150	18	H	WASHTA
8155	07	I	WATERLOO
8160	03	E	WATERVILLE
8175	33	L	WAUCOMA
8177	25	M	WAUKEE

CITY #	CO #	CITY LETTER	CITY NAME
8180	03	F	WAUKON
8190	09	H	WAVERLY
8197	44	I	WAYLAND
8205	21	J	WEBB
8207	54	O	WEBSTER
8212	40	H	WEBSTER CITY
8217	27	J	WELDON
8222	92	G	WELLMAN
8227	38	I	WELLSBURG
8235	23	M	WELTON
8242	55	K	WESLEY
8245	48	V	WEST AMANA (Unincorp)
8250	74*	I	WEST BEND
8250	55*2	M	WEST BEND
8252	16*	H	WEST BRANCH
8252	52*2	L	WEST BRANCH
8255	29	E	WEST BURLINGTON
8257	92	H	WEST CHESTER
8260	77*	P	WEST DES MOINES
8260	25*2	O	WEST DES MOINES
8275	70	G	WEST LIBERTY
8280	30	J	WEST OKOBOJI
8290	56	H	WEST POINT
8295	33	M	WEST UNION
8305	75	K	WESTFIELD
8307	33	N	WESTGATE
8312	83	K	WESTPHALIA
8315	24	M	WESTSIDE
8319	44	J	WESTWOOD
8322	54	P	WHAT CHEER
8325	23	N	WHEATLAND
8365	67	J	WHITING
8370	55	L	WHITTEMORE
8375	42	L	WHITTEN
8422	14	M	WILLEY
8425	40	I	WILLIAMS
8427	48	O	WILLIAMSBURG

CITY #	CO #	CITY LETTER	CITY NAME
8432	59	E	WILLIAMSON
8471	70*	H	WILTON
8471	16*2	I	WILTON
8477	77	Q	WINDSOR HEIGHTS
8480	44	K	WINFIELD
8497	61	H	WINTERSET
8502	10	K	WINTHROP
8505	15	H	WIOTA
8517	41	H	WODEN
8525	43	J	WOODBINE
8530	20	C	WOODBURN
8545	25	N	WOODWARD
8550	99	H	WOOLSTOCK
8552	31	U	WORTHINGTON
8562	53	I	WYOMING
8565	39	I	YALE
8587	13	K	YETTER
8602	73	K	YORKTOWN
8612	85	N	ZEARING
8637	31*	V	ZWINGLE
8637	49*2	N	ZWINGLE

APPENDIX 4

FHWA Urban Area Codes

City Number	County	City Name	Urban Area Code
0085	55	Algona	801
0155	08/85	Ames	871
0165	53	Anamosa	845
0187	77	Ankeny	802
0285	15	Atlantic	803
0750	08	Boone	804
0977	29	Burlington	872
8255	29	West Burlington	872
1125	14	Carroll	805
1187	57	Cedar Rapids	148
3432	57	Hiawatha	148
4775	57	Marion	148
6520	57	Robins	148
1210	04	Centerville	806
1242	34	Charles City	808
1272	18	Cherokee	809
1332	73	Clarinda	810
1372	17	Clear Lake	811
1415	23	Clinton	873
1040	23	Camanche	873
1642	78	Council Bluffs	046
1142	78	Carter Lake	046
1710	88	Creston	812
1827	82	Davenport	074
0587	82	Bettendorf	074
0952	82	Buffalo	074
2290	82	Eldridge	074
4252	82	Le Claire	074
5902	82	Panorama Park	074
6492	82	Riverdale	074
1867	96	Decorah	813
1920	24	Denison	814

City Number
1945
0132 1425
3827

5587	77
6102	25/77
7875	77
8177	91
8260	77
8477	77
2100	25
0252	25/77
6732	77
2417	31
2465	31
2690	31
2697	32
3127	51
3275	94
3665	56
3680	79
3715	83
1557	10
7855	91
3720	52
3942	52
4040	52
4257	42
4682	56
4742	63
4797	75
4822	28
5292	49
5330	64
2780	17
5405	44
5482	70
4185	70
	85

	Urban Area Code
Des Moines	071
Altoona	071
Clive	071
Johnston	071
Norwalk	071
Pleasant Hill	071
Urbandale	071
Waukee	071
West Des Moines	071
Windsor Heights	071
Dubuque	071
Asbury	206
Sageville	206
Estherville	206
Fairfield	815
Fort Dodge	816
Fort Madison	874
Grinnell	817
Harlan	818
Independence	819
Indianola	820
Iowa City	821
Coralville	327
University Heights	327
Iowa Falls	327
Keokuk	822
Knoxville	823
Le Mars	824
Manchester	825
Maquoketa	846
Marshalltown	826
Mason City	876
Mount Pleasant	877
Muscatine	827
Fruitland	828
Nevada	828
Newton/Lambs Grove	842
	829

County
77

City Name

City Number
5657
5780
0452
7860
5825
5947
5970
6360
6950
6965

7055	21	Spencer 838
7057	11	Storm Lake 150
6890	06	Vinton 150
7170	92	Washington 150
7422	07	Waterloo 150
8017	07	Cedar Falls 150
8140	07	Elk Run Heights 150
8155	07	Evansdale 839
1185	07	Hudson 840
2312	07	Raymond
2432	09	Waverly
3577	40	Webster City
6342		
8190		
8212		

County	City Name	Urban Area Code
	Oelwein	830
	Oskaloosa	831
	Beacon	831
33	Universit	831
62	y Park	878
62	Ottumwa	832
62	Pella	833
90	Perry	834
63	Red Oak	843
25	Sheldon	835
69	Shenandoah	848
71/84	Sioux	156
36/73	Center	156
84	Sioux City	836
97	Sergeant	837
97	Bluff	844

APPENDIX 5

Microstation can use various MDL's to activate programs used to update the Oracle database. To access the MDL's, open regular Microstation. Choose Utilities→ MDL Applications and then browse to the location of the file you wish to open.

Here are some summaries:

U:\idot\mdl\mdl\prod\1208073.mdl	Used by Maintenance to update levels of service and garage responsibilities for primary roads. Written by Mark Hempe and Bill Lutz. Used to create their Feature Inventory. Roads are color coded by garage. Kim Kammerer is the contact in Maintenance. This program will run only if you have permissions to write.