

**2020  
LADOTD  
RECORDING  
AND CODING  
GUIDE**



# ALL BRIDGE INVENTORY FORMS

## Required Info

**The following 5 codes shall be recorded for each form.**

**Asset / Recall #** - {6 num char}

This code is the Asset/Recall number for the restrictive feature the Under Record is being recorded for.

**Update Type** – {1 num char}

Code the type of update that is being recorded.

<u>Code</u>	<u>Type</u>
A	Add
D	Delete
C	Change

**District** - {2 num char}

Use one of the following codes as appropriate.

<u>Code</u>	<u>District</u>
02	Bridge City
03	Lafayette
04	Bossier City
05	Monroe
07	Lake Charles
08	Alexandria
58	Chase
61	Baton Rouge
62	Hammond

**Parish Code** – {3 num char}

Record the 2 digit Parish Code. **Refer to Appendix A1.**

**On/Off** – {2 or 3 alpha char}

Code On for On-System structures or Off for Off -System structures.

On-System – State maintained highway system  
Off-System – Any non-state maintained highway

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# BRIDGE INVENTORY FORM 1

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# BRIDGE INVENTORY FORM 1

## Identification

**State Code (Item 1)** - {3 num char} The current state code for Louisiana is 226.

**Structure Number (Item 8)** - {15 num char}

Code the 15 digit NBI Structure Number for new structures only. This number, once established, will never change for the life of the bridge. Existing structure numbers shall remain the same. The NBI Structure number is a 15- digit code composed of the District code, the Parish code, 5 zeros, and the Asset Name (Recall Number) and shall be coded as such for On and Off System structures.

Example:

If the structure is in District (62), Washington Parish (59), and the Asset Name is 620315; the NBI Structure Number will be 625900000620315.

**Inventory Route (Item 5)** – {9 alpha-num char}

The inventory route is a 9 - digit code composed of 5 segments.

<u>Segment</u>	<u>Description</u>	<u>Length</u>
5A	Record type	1 digit
5B	Route Signing Prefix	1 digit
5C	Designated Level of Service	1 digit
5D	Route Number	5 digits
5E	Directional Suffix	1 digit

**Item 5A- Record Type** {1 alpha-num char}

There are two types of National Bridge Inventory records: “on” and “under”. Code the first digit (leftmost) using one of the following codes:

<u>Code</u>	<u>Description</u>
1	Route carried “on” the structure
2	Single route goes under the structure
A through Z	Multiple routes go “under” the structure

A signifies the 1<sup>st</sup> of multiple routes under the structure.

B signifies the 2<sup>nd</sup> of multiple routes under the structure.

Z signifies 26<sup>th</sup> of multiple routes under the structure.

# BRIDGE INVENTORY FORM 1

## **Item 5A-Record Type continued**

"On" signifies that the inventory route is carried "on" the structure. Each bridge structure carrying highway traffic must have a record identified with a type code = 1 (numeric). All of the NBI data items must be coded, unless specifically accepted, with respect to the structure and the inventory route "on" it.

"Under" signifies that the inventory route goes "under" the structure. If an inventory route beneath the structure is a Federal aid highway, is a STRAHNET route or connector or is otherwise important, a record must be coded to identify it. The type code must be 2 or an alphabetic letter A through Z. Code 2 for a single route under the structure. If 2 or more routes go under a structure on separate roadways, the code of 2 shall not be used. Code A, B, C, D, etc. consecutively for multiple routes on separate roadways under the same structure. When this item is coded 2 or A through Z, only the following items must be coded: Items 1, 3-13, 16, 17, 19, 20, 26-30, 42, 43, 47-49, 100-104, 109 and 110. All other items may remain blank.

When a state maintained highway passes under a structure Form 3 shall be filled out for every LRS Inventory Route.

It cannot be overemphasized that all route oriented data must agree with the coding as to whether the inventory route is "on" or "under" the structure.

There are situations of a route "under" a structure, where the structure does not carry a highway, but may carry a railroad, pedestrian traffic, or even a building. These are coded the same as any other "under" record and no "on" record shall be coded. In this case only Form 3 shall be filled out.

## **Item 5B - Route Signing Prefix** {1 num char}

In the second position, identify the route signing prefix for the inventory route using one of the following codes:

<b><u>Code</u></b>	<b><u>Description</u></b>
1	Interstate Highway
2	U.S. Numbered Highway
3	State Highway
4	Parish Road
5	City Street
6	Federal Lands Road
7	State Lands Road
8	Other (include toll roads not otherwise indicated or identified above)

When 2 or more routes are concurrent, the highest class of route will be used. The hierarchy is in the order listed above.

# BRIDGE INVENTORY FORM 1

## **Item 5C - Designated Level of Service** {1 num char}

In the third position, identify the designated level of service for the inventory route using one of the following codes:

<u>Code</u>	<u>Description</u>
0	None of the below
1	Mainline
2	Alternate (i.e. Route suffix is A)
3	Bypass
4	Spur (i.e. Route suffix is S)
6	Business (i.e. Route suffix is B, X, Y, or Z)
7	Ramp, Wye, Connector, etc.
8	Service and/or unclassified frontage road

**Note:** LA highways and parish roads are mainline unless designated otherwise.

## **Item 5D - Route Number** {5 alpha-num char}

Code the route number of the inventory route in the next 5 positions. This value shall be right justified in the field with leading zeros. (This should not include the route prefix, i.e. LA, US, etc.)

If concurrent routes are of the same hierarchy level, denoted by the route signing prefix, the lowest numbered route shall be coded. Code 00000 for bridges on roads without route numbers.

In some cases, letters may be used with route numbers and as part of the route numbers and not to indicate direction. In such cases, the letter should be included in the 5-position route number field.

## **Item 5E - Directional Suffix** {1 num char}

Currently this is not used in Louisiana, and therefore should always be coded "0" for Not Applicable.

## **District (Item 2)** {2 num char}

Use one of the following codes as appropriate.

<u>Code</u>	<u>District</u>
02	Bridge City
03	Lafayette
04	Bossier City
05	Monroe
07	Lake Charles
08	Alexandria
58	Chase
61	Baton Rouge
62	Hammond

# BRIDGE INVENTORY FORM 1

## Parish Name (Item 3) –

Fill in the Parish Name how it appears in Appendix A1.

## Place Code (Item 4) - {5 num char}

Cities, towns, townships, villages, and other census-designated places shall be identified using the Federal Information Processing Standards (FIPS) codes given in the current version of the Census of Population and Housing - Geographic Identification Code Scheme. If there is no FIPS place code or is not within the city limits, then code 00000.

**Refer to Appendix B2.** A bridge has to be within the incorporated or city limits of a particular city/town for this code to apply.

## Features Intersected (Item 6) – {not to exceed 24 alpha/num char}

The names of all features crossed over or under by a highway bridge will be recorded and separated by commas. When one or more of the features intersected is a state route, the route numbers should be recorded in the leftmost fields, followed by local roads, followed by, waterway name and any other features. **Abbreviations should be used only when necessary.** Meaningful abbreviations should be used, supplemented by the standard abbreviations provided. For structures other than highway bridges crossing over the state highway system, code the description rather than that of the highway crossed.

Code the actual name of the feature intersected. (No Nicknames)

### Example:

LA1,City STS,Miss. R.,RR

### Abbreviations

HWYS – Highways

N. – North

E. – East

S. – South

W. – West

ST – Street

STS – Streets

Buss-- Business

XING – Crossing

WW—Waterway

WWS – Waterways

XINGS – Crossings

CR – Creek

EXPY – Expressway

EXPYS – Expressways

CA – Canal

DR – Drain

RR – Railroad

STM – Stream

RD – Road number

B. – Bayou

RT – Route number

R. – River

OPS – Overpass

BR – Bridge

INTG – Interchange

INTGS – Interchanges

# BRIDGE INVENTORY FORM 1

## Facility Carried by the Structure (Item 7) – {not to exceed 18 alpha-num char}

The facility being carried by the structure shall be recorded and coded. In all situations this item describes the use “on” the structure. This item shall be left justified without trailing zeros.

### EXAMPLES:

US 66

MAIN STREET

COUNTY ROAD 450

C & O RAILROAD (appropriate for an “under” record only)

PEDESTRIAN BRIDGE (appropriate for an “under” record only)

## Location (Item 9) – {not to exceed 25 alpha-num char}

This item contains a narrative description of the bridge location. It is recommended that the location be keyed to a distinguishable feature on an official highway department map such as road junctions and topographical features. This item shall be left justified without trailing zeros.

### Example:

3.5 MI. S. OF LA 69

6.0 MI. SW. OF RICHMOND

## LRS Log Mile – (Item 11) {7 num char}

A 7 digit code, 4 digit whole number with 3 places behind the decimal (0000.000). For structures carrying the LRS inventory route, code the LRS log mile at the beginning of the structure. The LRS log mile can be found on the LADOTD intranet page under Project/Highway information. For On-system bridges, go to LADOTD Control Section Manual for Bridges. For Off-system bridges go to Off – System Bridges. If no LA LRS ID exists then code 0.00. Find a Recall Number near the location of your bridge and click Map. Use the mouse to position the crosshairs on the bridge location. Ctrl-click on the location to acquire a menu that includes the LRS log mile, **Refer to Appendix D**

EXAMPLE: 0012.360

## Base Highway Network (Item 12) – {1 num char}

This item is to be coded for all records in the inventory. The Base Highway Network includes the through lane (mainline) portions of the National Highway System (NHS), rural/urban principal arterial systems and rural minor arterial system. Ramps, frontage roads and other roadways are not included in the Base Network. For the inventory route identified in item 5- Inventory Route, indicate whether the inventory route is on the Base Highway Network or not on that network.

Use one of the following 1 digit codes: **Refer to Appendix D.**

### Code   Description

0   Inventory route is not on the Base Network

1   Inventory route is on the Base Network

**Note:** Code this item “1” if the route identified in Inventory Route (Item 5) is on the NHS **or** the Functional Class (I-26) is coded 01, 02, 06, 11, 12, or 14. All others shall be coded “0”.

# BRIDGE INVENTORY FORM 1

## LRS Inventory Route (Item 13A) – {10 char}

This item is the first 10 characters of the LA LRS ID including dashes. Please see Form 2 page 3 of this manual for direction on how to find this number.

This item is coded only for structures that carry state maintained highways.

Example:

LA LRS ID:  
828-11-1-010

Code:  
828-11-1-0

## Sub route Number (Item 13B) – {2 num char}

Code the 2 character Sub route Number. This is the last 2 characters of the LA LRS ID. Please see Form 2 page 3 of this manual for direction on how to find this number.

This item is coded only for structures that carry state maintained highways.

Example:

LA LRS ID:  
828-11-1-010

Code:  
10

## Latitude (Item 16)

Record as decimal degrees shown as a 2 digit whole number rounded to the nearest hundred thousandth of a degree (00.00000). Use trailing zeros if necessary. Always record the latitude at the beginning of the structure in the direction of the LRS inventory route. The latitude can be found on the Intranet, **Refer to Appendix D for directions.** (Bing Maps or Google Earth can be used if your district allows) **No handheld or vehicular devices are to be used for obtaining latitude and longitude without approval from headquarters**

EXAMPLE: 30.65432

## Longitude (Item-17)

Record as decimal degrees shown as a 2 digit whole number rounded to the nearest hundred thousandth of a degree (-00.00000). Use trailing zeros if necessary. Always record the longitude at the beginning of the structure in the direction of the LRS inventory route. The longitude can be found on the Intranet, **Refer to Appendix D for directions.** (Bing Maps or Google Earth can be used if your district allows) **No handheld or vehicular devices are to be used for obtaining latitude and longitude without approval from headquarters**

EXAMPLE: -92.65432

## Border Bridge (Item-98A)-{3 num char}

If a structure crosses the border of a neighboring State, record the 3 digit State Code for that bordering state. The first 2 digits are the Federal Information Processing Standards (FIPS) code for States, and the third digit is the FHWA region code.

056	Arkansas
284	Mississippi
486	Texas

# BRIDGE INVENTORY FORM 1

## **Percent Responsibility (Item 98B) – {2 num char}**

If a neighboring State codes the structure and accepts 100% of the responsibility for improvements, but your State still codes a record for the structure, then Item 98B in your State's record should be coded 99 to represent that your State has no responsibility for the structure.

### EXAMPLES:

A structure connects your State with Texas and Texas is responsible for funding 45 percent of future improvement costs.

### Code

45

## **Border Bridge Structure Number (Item 99) – {15 num char}**

Code the neighboring State's 15-digit National Bridge Inventory structure number for any structure noted in Item 98 - Border Bridge. This number must match exactly the neighboring State's submitted NBI structure number. The entire 15-digit field must be accounted for including zeros and blank spaces whether they are leading, trailing, or embedded in the 15-digit field. If Item 98 is blank, this item is blank. If the neighboring State accepts no responsibility for improvements and there is no NBI Structure Number in that State's inventory file, then the entire 15-digit field shall be coded zeroes.

# BRIDGE INVENTORY FORM 1

## Structure Type and Material

### Structure Type, Main- Material (Item 43A) – {1 num char}

Select the 1 digit code which indicates the kind of material in the main span.

<u>Code</u>	<u>Description</u>
1	Concrete
2	Concrete Continuous
3	Steel
4	Steel Continuous
5	Prestressed Concrete *
6	Prestressed Concrete Continuous *
7	Wood or Timber
8	Masonry
9	Aluminum, Wrought Iron, or Cast Iron
0	Other

\* Post-tensioned concrete should be coded as prestressed concrete.

### Structure Type, Main Design (Item 43B) – {2 num char}

Select the 2 digit code which indicates the predominant type of design and/or type of construction of the main span:

<u>Code</u>	<u>Description</u>	<u>Code</u>	<u>Description</u>
01	Slab	12	Arch – Thru
02	Stringer/Multi-beam or Girder	13	Suspension
03	Girder and Floor beam System	14	Stayed Girder
04	Tee Beam	15	Movable - Lift
05	Box Beam or Girders – Multiple	16	Movable - Bascule
06	Box Beam or Girders Single/Spread	17	Movable - Swing
07	Frame (except frame culverts)	18	Tunnel
08	Orthotropic	19	Culvert (includes frame culverts)
09	Truss Deck	20 *	Mixed types
10	Truss Thru	21	Segmental Box Girder
11	Arch Deck	22	Channel Beam
		00	Other

\* Applicable only to approach spans - Item 44

#### EXAMPLES:

	<u>Code 43A</u>	<u>Code 43B</u>
Wood or Timber Through Truss	7	10
Masonry Culvert	8	19
Steel Suspension	3	13
Continuous Concrete Multiple Box Girders	2	05
Simple Span Concrete Slab	1	01
Tunnel in Rock	0	18

# BRIDGE INVENTORY FORM 1

## **Structure Type, Approach Spans-Material (Item 44A) – {1 num char}**

Use the same 1 digit codes described in Item 43A. If the materials vary, code the most predominant. If no approach spans exist code “0”.

## **Structure Type, Approach Spans Design (Item 44B) {2 num char}**

Use the same 2 digit codes described in Item 43B. Use code 20 when no one type of design and/or construction is predominant for the approach units. If no approach spans exist code “00”.

## **Number of Spans in Main Unit (Item 45) – {3 num char}**

Record the number and indicate with a 3-digit number the number of spans in the main or major unit. This item will include all spans of most bridges, the major unit only of a sizable structure, or a unit of material or design different from that of the approach spans.

## **Number of Approach Spans (Item 46) - {4 num char}**

Record the number and indicate with a 4-digit number the number of spans in the approach spans leading up to the main span of the bridge, or the number of spans of material different from that of the major span of the bridge. If no approach spans exist code “0000”.

## **Deck Structure Type (Item 107) - {1 num char or 1 alpha char}**

Record the type of deck system on the bridge. If more than one type of deck system is on the bridge, code the most predominant. Code N for a filled culvert or arch with the approach roadway section carried across the structure. Use one of the following codes:

<u>Code</u>	<u>Description</u>
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	Wood or Timber
9	Other
N	Not applicable

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## **Wearing Surface/Protective System (Item 108A) - {1 num char or 1 alpha char}**

Record one of following code for the wearing surface/ protective system of the bridge deck.

<u>Code</u>	<u>Description</u>
1	Monolithic Concrete (concurrently placed with structural deck)
2	Integral Concrete (separate non-modified layer of concrete added to structural deck)
3	Latex Concrete or similar additive
4	Low Slump Concrete
5	Epoxy Overlay
6	Bituminous
7	Wood or Timber
8	Gravel
9	Other
0	None (no additional concrete thickness or wearing surface is included in the bridge deck)
N	Not Applicable (applies only to structures with no deck)

## **Type of Deck Membrane (Item 108B) - {1 num char or 1 alpha char}**

Record the type of deck membrane.

<u>Code</u>	<u>Description</u>
1	Built-up
2	Preformed Fabric
3	Epoxy
8	Unknown
9	Other
0	None
N	Not Applicable (applies only to structures with no decks)

## **Deck Protection (Item 108C) - {1 num char or 1 alpha char}**

Record the type of deck protection.

<u>Code</u>	<u>Description</u>
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 (applies only to structures with no deck)

# BRIDGE INVENTORY FORM 1

## Age of Service

### **Year Built (Item 27) - {4 num char}**

Record and code the year of construction of the structure. Code all 4 digits of the year in which construction of the structure was completed. If the year built is unknown, provide a best estimate. See also Item 106 - Year Reconstructed. If the year is estimated note that it was estimated on the ADD Sheet.

<u>EXAMPLES:</u>	<u>Code</u>
Construction completed 1956	1956
1892	1892

### **Year Reconstructed (Item 106) - {4 num char}**

Record and code the year of most recent reconstruction of the structure. Code all 4 digits of the latest year in which reconstruction of the structure was completed. If there has been no reconstruction code "0000".

For a bridge to be defined as reconstructed, the type of work performed, whether or not it meets current minimum standards, must have been eligible for funding under any of the Federal-aid funding categories. The eligibility criteria would apply to the work performed regardless of whether all State or local funds or Federal-aid funds were used. Code the same as the examples given for Item 27.

#### **Some types of eligible work not to be considered as reconstruction are listed:**

- Safety feature replacement or upgrading (for example, bridge rail, approach guardrail or impact attenuators)
- Painting of structural steel
- Overlay of bridge deck as part of a larger highway surfacing project (for example, overlay carried across bridge deck for surface uniformity without additional bridge work)
- Utility work
- Emergency repair to restore structural integrity to the previous status following an accident
- Retrofitting to correct a deficiency which does not substantially alter physical geometry or increase the load carrying capacity
- Work performed to keep a bridge operational while plans for complete rehabilitation or replacement are under preparation (for example, adding a substructure element or extra girder)

# BRIDGE INVENTORY FORM 1

## Service On (Item 42A) - {1 num char}

Record a 1 digit code to represent the type of service "on" the bridge using one of the following codes:

<u>Code</u>	<u>Description</u>
1	Highway
2	Railroad
3	Pedestrian-bicycle
4	Highway-railroad
5	Highway-pedestrian
6	Overpass structure at an interchange or second level of a multilevel interchange
7	Third level (Interchange)
8	Fourth level (Interchange)
9	Building or plaza
0	Other

## Service Under (Item 42B) - {1 num char}

Record a 1 digit code to represent the type of service "under" the bridge using one of the following codes:

<u>Code</u>	<u>Description</u>
1	Highway, with or without pedestrian
2	Railroad
3	Pedestrian-bicycle
4	Highway-railroad
5	Waterway
6	Highway-waterway
7	Railroad-waterway
8	Highway-waterway-railroad
9	Relief for waterway
0	Other

# BRIDGE INVENTORY FORM 1

## Lanes On the Structure (Item 28A) - {2 num char}

Record and code the number of lanes being carried by the structure. The number of lanes should be right justified with leading zero(s) coded as required. Include all lanes carrying highway traffic (i.e., cars, trucks, buses) which are striped or otherwise operated as a full width traffic lane for the entire length of the structure or under the structure by the owning/maintaining authority. This shall include any full width merge lanes and ramp lanes, and shall be independent of directionality of usage (i.e., a 1-lane bridge carrying 2-directional traffic is still considered to carry only one lane on the structure). It should be noted here that for the purpose of evaluating the Deck Geometry - Item 68, any "1-lane" bridge, not coded as a ramp (Item 5C = 7), which has a Bridge Roadway Width, Curb-to-Curb - Item 51 coded 16 feet or greater shall be evaluated as 2 lanes.

<u>Example:</u>	<u>Code</u>
1 lane on the structure	01
3 lane on the structure	03

## Lanes under the Structure (Item 28B) - {2 num char}

Record and code the number of lanes being crossed over by the structure. The number of lanes should be right justified with leading zero(s) coded as required.

When the inventory route is "on" the bridge (the first digit of Item 5 - Inventory Route is coded 1), the sum of the total number of lanes on all inventoried routes under the bridge shall be coded.

When the inventory route is "under" the bridge (the first digit of Item 5 - Inventory Route is coded 2 or A through Z), only the number of lanes being identified by that "under" record shall be coded in Item 28B.

When the inventory route is "under" the structure, the obstruction over the inventory route may be other than a highway bridge (railroad, pedestrian, pipeline, etc.). Code 00 for these cases if there are no highway lanes on the obstructing structure.

<u>Example:</u>	<u>Code</u>
0 lane under the structure	00
3 lane under the structure	03
12 lanes under the structure	12**

\*\* This example has 3 inventory routes under the bridge of 6, 4, and 2 lanes of 2-way traffic respectively. When coding an "under" record for each of these inventory routes, the first digit of Item 5 - Inventory Route is coded A, B, and C.

# BRIDGE INVENTORY FORM 1

## Average Daily Traffic (Item 29) - {6 num char}

Code a 6-digit number that shows the average daily traffic volume for the inventory route identified in Item 5. Make certain the unit's position is coded even if estimates of ADT are determined to tens or hundreds of vehicles; that is, appropriate trailing zeros shall be coded. The ADT coded should be the most recent ADT counts available. Included in this item are the trucks referred to in Item 109 – Average Daily Truck Traffic. If the bridge is closed, code the actual ADT from before the closure occurred.

The ADT must be compatible with the other items coded for the bridge. For example, parallel bridges with an open median are coded as follows: if Item 28 - Lanes On and Under the Structure and Item 51 – Bridge Roadway Width, Curb-to-Curb are coded for each bridge separately, then the ADT must be coded for each bridge separately (not the total ADT for the route) if there are parallel structures or divided roadways with different LRS inventory routes then you code half the ADT for each structure. **Refer to Appendix D for ADT.**

<u>EXAMPLES:</u>		<u>Code</u>
Average Daily Traffic	540	000540
	15,600	015600
	24,000	024000
Parallel Structures		
	17,000	008500

## Year of ADT (Item 30) – {4 num char}

Record the full year represented by the ADT in Item 29. This item should be coded when the structure is inventoried, but updates to this field will be generated from the Surface Type Log file. **See Appendix D.**

## Average Daily Truck Traffic (Item 109) - {2 num char}

Code a 2-digit percentage that shows the percentage of Item 29 – Average Daily Traffic that is truck traffic. Do not include vans, pickup trucks and other light delivery trucks in this percentage. If this information is not available, an estimate which represents the average percentage for the category of road carried by the bridge may be used. May be left blank if Item 29 - Average Daily Traffic is not greater than 100.

<u>EXAMPLES:</u>		<u>Code</u>
Average Daily Traffic	7% trucks	07
	12% trucks	12

## Bypass/ Detour Length (Item 19) - {2 num char}

Record the actual length to the nearest mile of the detour length. The detour length should represent the total additional travel for a vehicle which would result from closing of the bridge. (See Sketch 1A on the following page) The factor to consider when determining if a bypass is available at the site is the potential for moving vehicles, including military vehicles, around the structure. This is particularly true when the structure is in an interchange. For instance, a bypass likely would be available in the case of diamond interchanges, interchanges where there are service roads available, or other interchanges where the positioning and layout of the ramps is

**Continued on next page:**



# BRIDGE INVENTORY FORM 1

## Geometric Data

### **Length Max Span (Item 48) - {4 num char}**

Code a four-digit number with leading zeros which represents the distance along the centerline of the roadway, from center to center of the substructure, of the longest span in the bridge. Record the length to the nearest foot. (0000)

### **Total Length (Item 49) - {6 num char}**

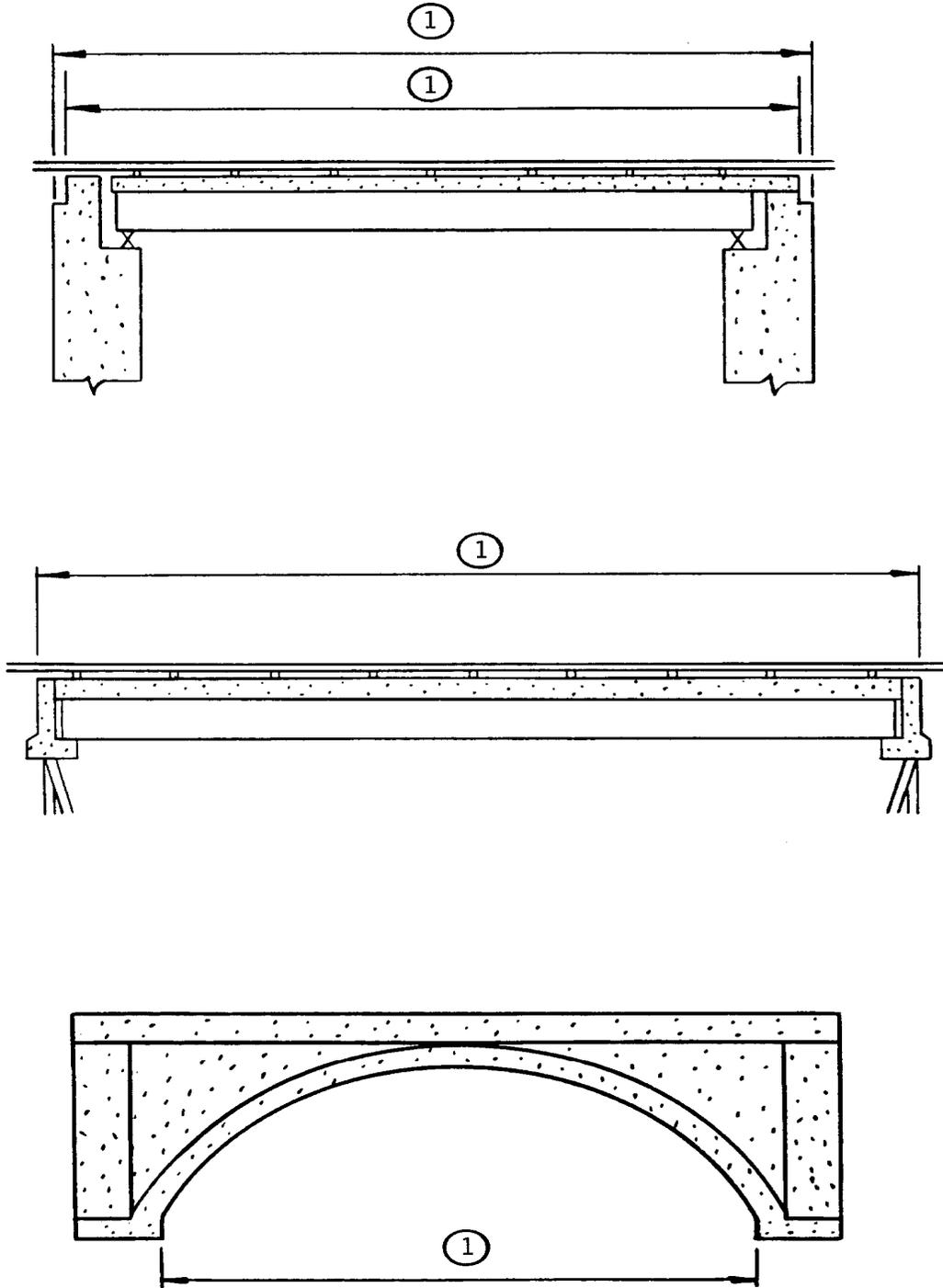
Code a six-digit number, with leading zeros, to represent the length of the structure to the nearest foot (000000). This shall be the length of roadway which is supported on the bridge structure. The length should be measured back to back of backwalls of abutments or from paving notch to paving notch. **Refer to Sketch 2A and 2B on pages 17 and 18.**

Culvert lengths should be measured along the center line of roadway regardless of their depth below grade. Measurement should be made between inside faces of exterior walls. See Sketch 2B on Page 18. **For additional information on culvert length refer to Appendix A2.**

<u>EXAMPLES:</u>		<u>Code</u>
Structure Length	35' – 7"	000036
	542.1 feet	000542

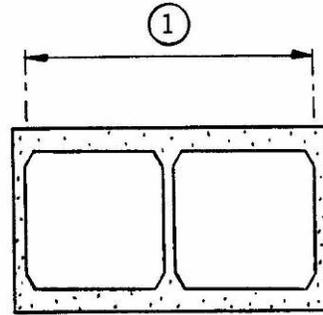
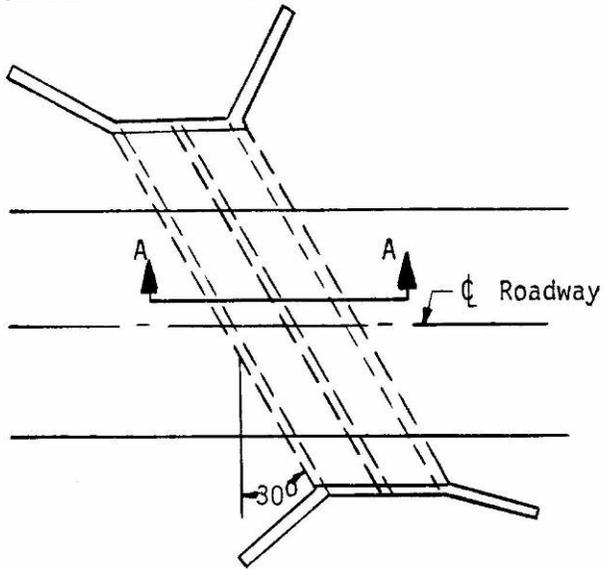
# BRIDGE INVENTORY FORM 1

Sketch 2A

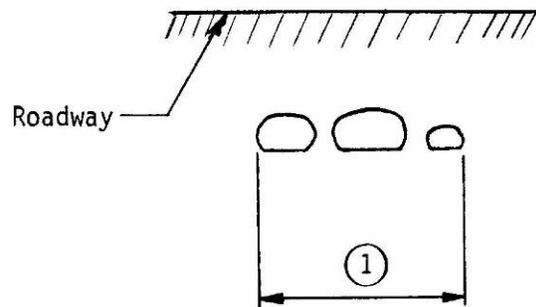
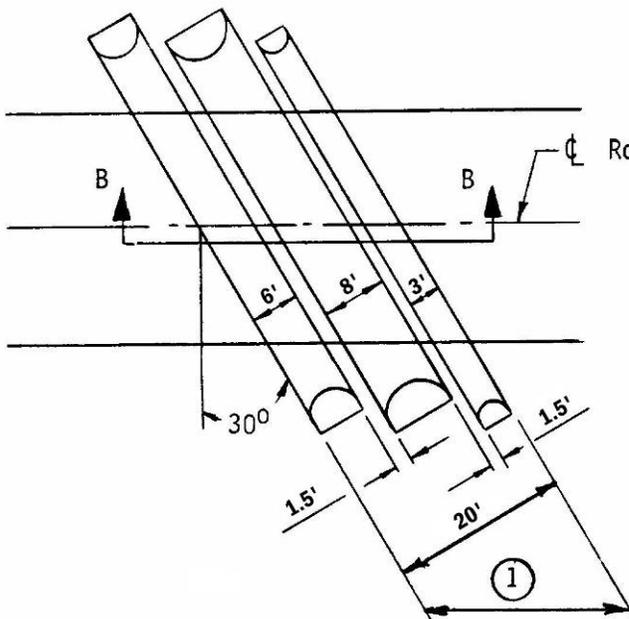


# BRIDGE INVENTORY FORM 1

Sketch 2B



SECTION A-A



SECTION B-B

(1) Total Length (I-49) =  $20' / \cos 30^\circ = 23.1'$

Code 000023

# BRIDGE INVENTORY FORM 1

## **Curb or Sidewalk Width [Right] (Item 50)** - {3 num char}

Record and code the width of the right curb or sidewalk to nearest tenth of a foot (00.0). "Left" and "Right" should be determined on the basis of direction of travel. For divided roadway structures with a raised or non-mountable median, record the minimum curb or sidewalk width after measuring those adjacent to all roadways. If there is no curb or sidewalk, code 00.0. **See Sketch 3A on Page 20 and 3B on Page 21. This does not include shoulders, only raised curbs or sidewalks.**

## **Curb or Sidewalk Width [Left] (Item 50)** - {3 num char}

Record and code the width of the left curb or sidewalk to nearest tenth of a foot (00.0). "Left" and "Right" should be determined on the basis of direction of travel. For divided roadway structures with a raised or non-mountable median, record the minimum curb or sidewalk width after measuring those adjacent to all roadways. If there is no curb or sidewalk, code 00.0. **See Sketch 3A on Page 20 and 3B on Page 21. This does not include shoulders, only raised curbs or sidewalks.**

## **Curb-to-Curb or Rail-to-Rail Width [Right] (Item-51)** – {3 num char}

Record the bridge roadway width dimension to the nearest one-tenth of a foot (00.0). If the bridge has a divided roadway with an open or a closed median area, record the width of the right roadway in the direction of control. A divided roadway must have a physical obstruction separating the traffic in the right and left roadways. Flared areas, such as acceleration and deceleration lanes, which are not intended for through traffic, will not be included in this dimension. **See Sketch 3A on Page 20 and 3B on Page 21.**

The measured distance is to be that which is the most restrictive between the curbs or between the rails. Where traffic runs directly on the top slab (or wearing surface) of a culvert type structure, e.g. an R/C box without fill, code the actual roadway width (curb to curb or rail to rail).

This will also apply where the fill is minimal and headwalls or parapets affect the flow of traffic. Where the roadway is on fill carried across a structure and the headwalls or parapets do not affect the flow of traffic, code 00.0. This is considered proper inasmuch as a filled section simply maintains the roadway cross section.

\* Raised or non-mountable medians, open medians, and barrier widths are to be excluded from the summation along with barrier-protected bicycle and equestrian lanes.

## **Curb-to-Curb or Rail-to-Rail Width [Left] (Item 51)** – {3 num char}

Record the bridge roadway width dimension of the left roadway in the direction of control of a divided roadway bridge to the nearest one-tenth of a foot (00.0). Leave blank if not applicable. See right roadway coding requirements above for more detail. **See Sketch 3A on Page 20 and 3B on Page 21.**

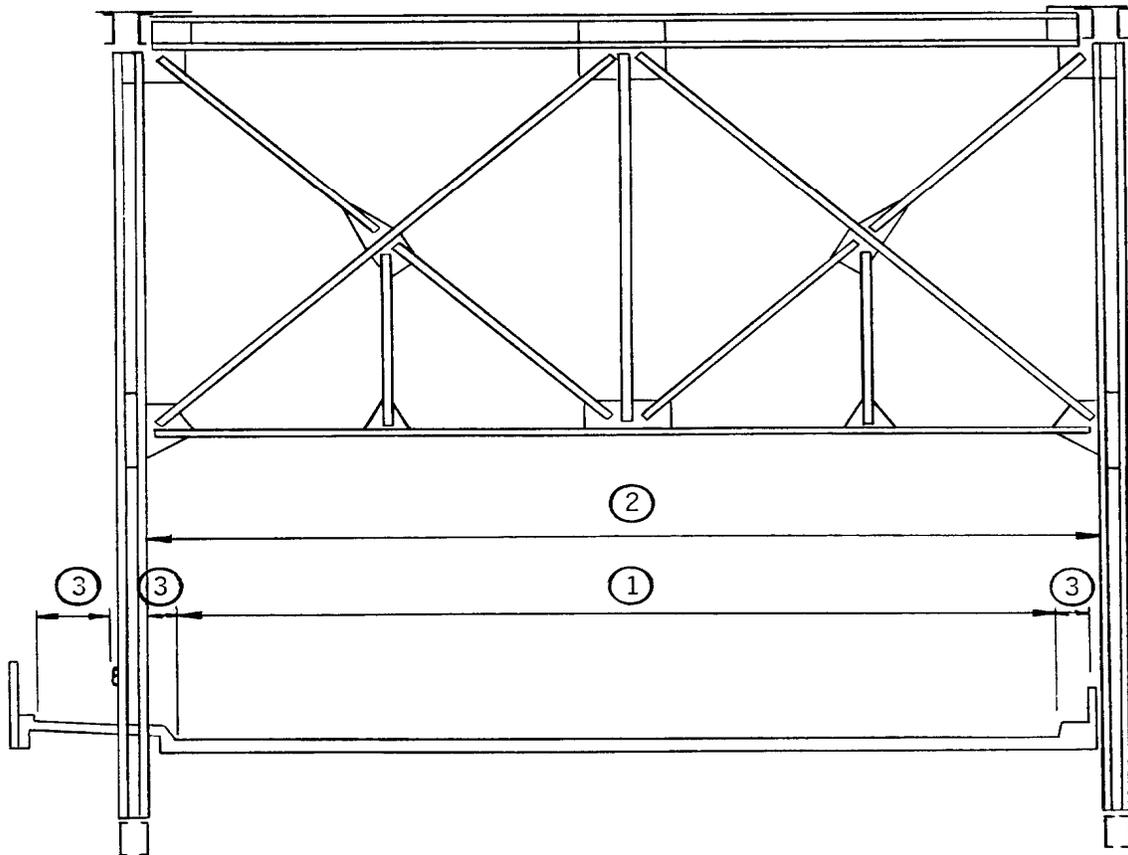
# BRIDGE INVENTORY FORM 1

## Out-to-Out Width (Item 52) – {4 num char}

Record and code a 4 digit number to show the out-to-out width to the nearest tenth of a foot (000.0). If the structure is a through structure, the number to be coded will represent the lateral clearance between superstructure members. The measurement should be exclusive of flared areas for ramps. See Sketches 3A and 3B on Page 19

Where the roadway is on a fill carried across a pipe or box culvert, code the actual width (out-to-out). **See Sketch 3A below, Sketch 3B on page 21, and Sketch 6 on Page 24.**

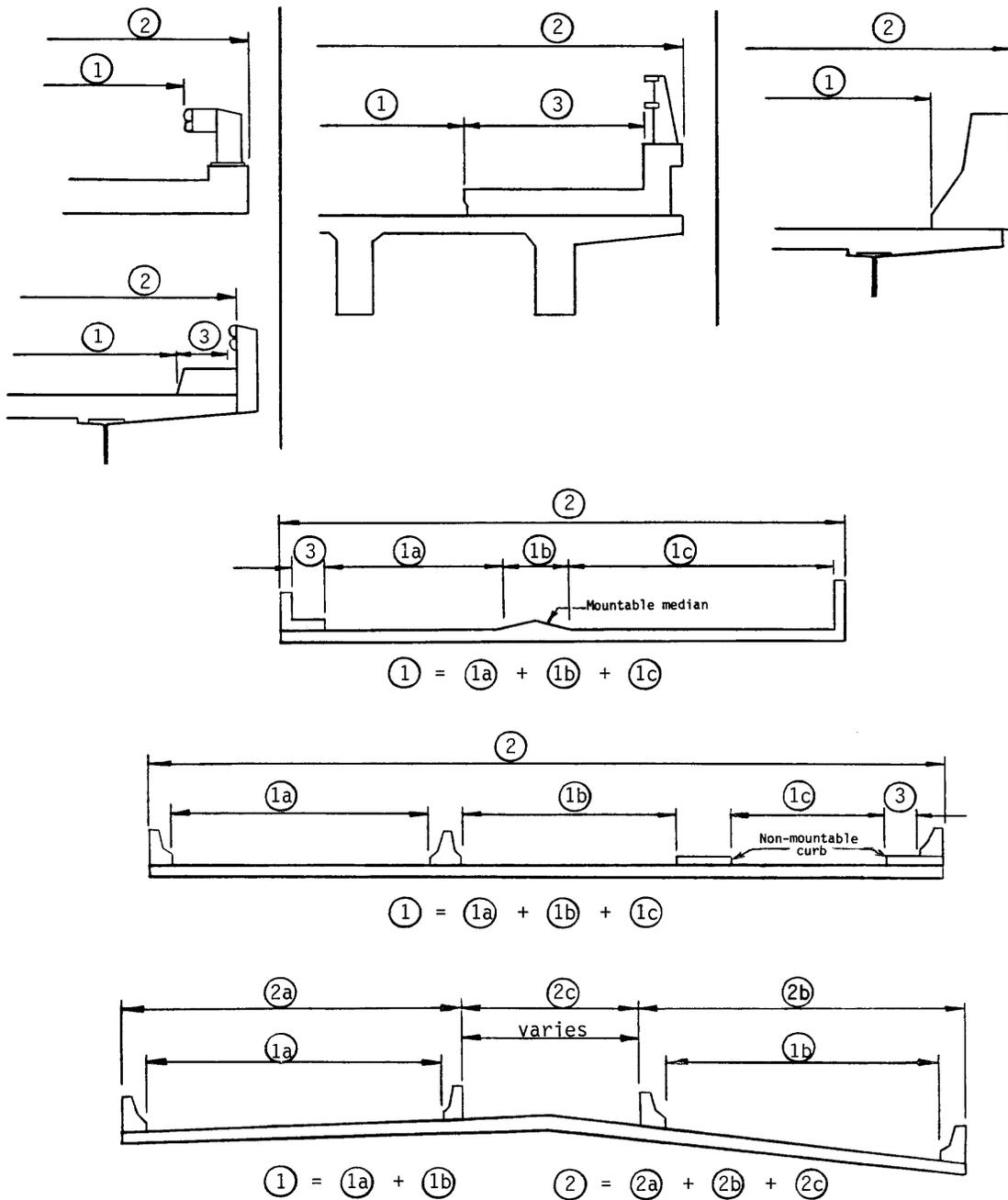
## Sketch 3A



- (1) Item 51 - Bridge Roadway Width, Curb-to-Curb
- (2) Item 52 - Deck Width, Out-to-Out
- (3) Item 50 - Curb or Sidewalk Width

# BRIDGE INVENTORY FORM 1

## Sketch 3B



- (1) Item 51 - Bridge Roadway Width, Curb-to-Curb
- (2) Item 52 - Deck Width, Out-to-Out
- (3) Item 50 - Curb or Sidewalk Width

# BRIDGE INVENTORY FORM 1

## Approach Roadway Width (Item 32) – {4 num char}

Code the normal width of usable roadway approaching the structure measured to the nearest tenth of a foot (000.0). Usable roadway width will include the width of traffic lanes and the widths of shoulders where shoulders are defined as follows:

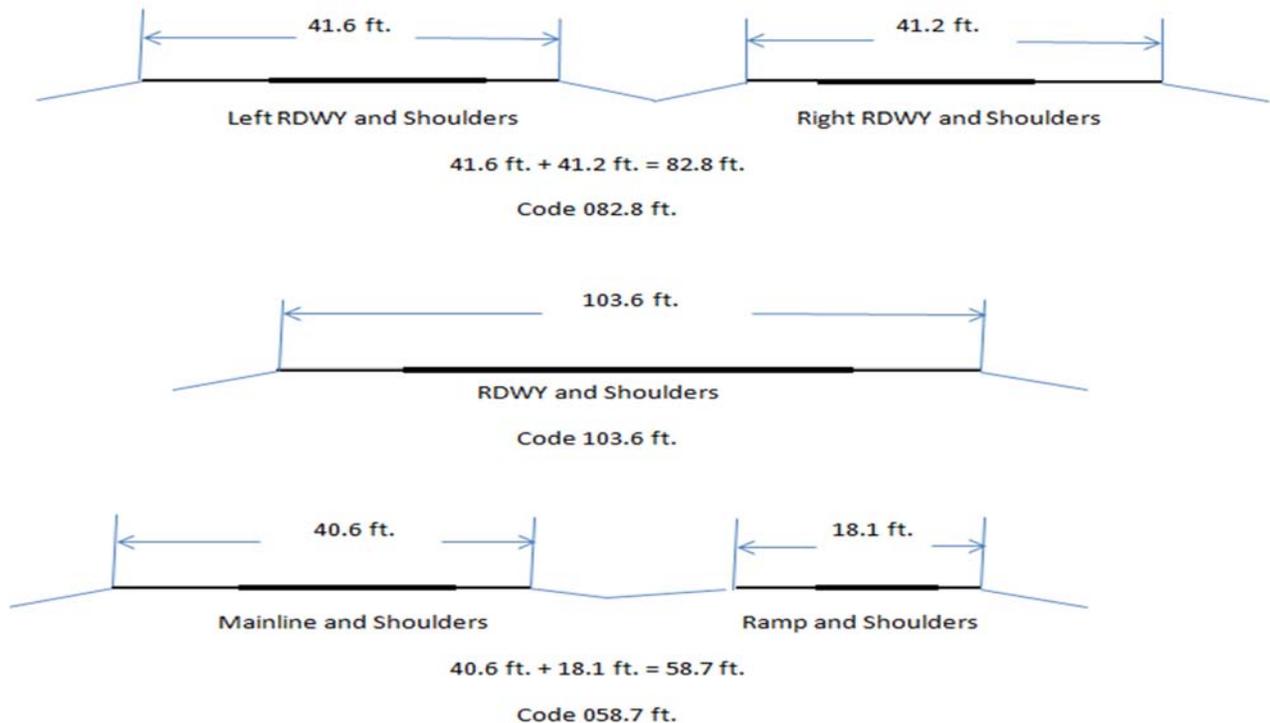
Shoulders must be constructed and normally maintained flush with the adjacent traffic lane, and must be structurally adequate for all weather and traffic conditions consistent with the facility carried. Unstabilized grass or dirt, with no base course, flush with and beside the traffic lane is not to be considered a shoulder for this item.

For structures with medians of any type and double decked structures, this item should be coded as the sum of the usable roadway widths for the approach roadways (i.e., all median widths which do not qualify as shoulders should not be included in this dimension). When there is a variation between the approaches at either end of the structure, record and code the most restrictive of the approach conditions.

Regardless of whether the median is open or closed, the data coded must be compatible with the other related route and bridge data (i.e., if Item 51 - Bridge Roadway Width, Curb-to-Curb is for traffic in one direction only, then Items 28, 29, 32, etc. must be for traffic in one direction only).

If a ramp is adjacent to the through lanes approaching the structure, it shall be included in the approach roadway width. **Refer to Sketch 4 below.**

### Sketch 4



# BRIDGE INVENTORY FORM 1

## Median Type (Item 33) – {1 num char}

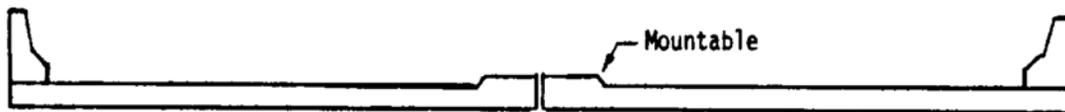
Indicate with a 1 digit code if the median is nonexistent, open, or closed. The median is closed when the area between the 2 roadways at the structure is bridged over and is capable of supporting traffic. All bridges that carry either 1-way traffic or 2-way traffic separated only by a centerline will be coded 0 for no median. A depression in the embankment between 2 roadways over a culvert is considered an open median. **Refer to Sketch 5 below.**

<u>Code</u>	<u>Description</u>
0	No median
1	Open median
2	Closed median (no barrier)
3	Closed median with non-mountable barriers

### Sketch 5



Open Median



Closed Median



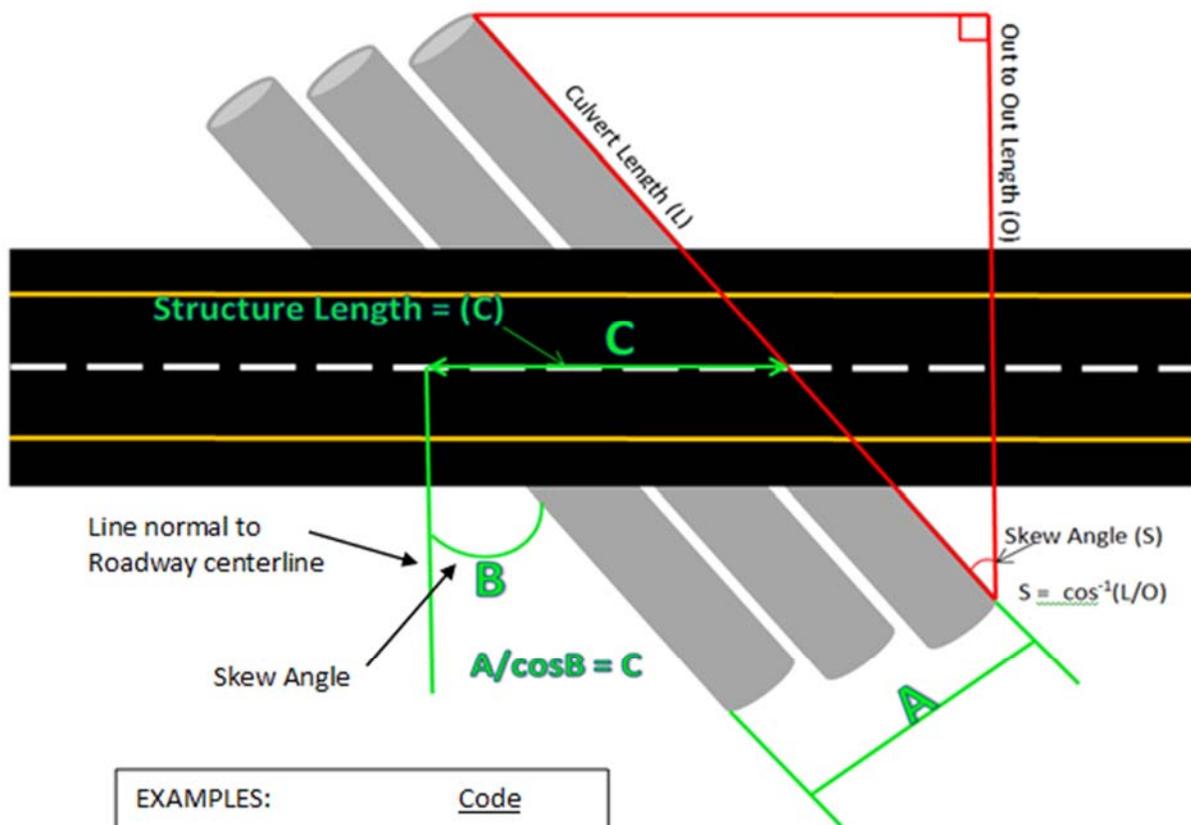
Closed Median with Non-Mountable Barrier

# BRIDGE INVENTORY FORM 1

## Skew Angle (Item 34) – {2 num char}

The skew angle is the angle between the centerline of a pier cap or culvert barrel and a line normal (perpendicular) to the roadway centerline. **Refer to Sketch 6 below.** The angle will be between 0 and 90 degrees. When plans are available, the skew angle can be determined from the plans. Careful review of plans is necessary as they often contain the opposite angle (between roadway centerline and pier). If no plans are available, the angle is to be field measured if possible. Record the skew angle to the nearest degree. When the structure is on a curve or if the skew varies for some other reason, the average skew should be recorded, if reasonable. Otherwise, record 99 to indicate a major variation in skews of substructure units. A two digit number should be coded with leading zeroes as needed.

### Sketch 6



EXAMPLES:	Code	
Skew angle	0°	00
	10°	10
	8°	08
	29°	29

# BRIDGE INVENTORY FORM 1

## Structure Flared (Item 35) – {1 num char}

Code this item to indicate if the structure is flared (i.e., the width of the structure varies). Generally, such variance will result from ramps converging with or diverging from the through lanes on the structure, but there may be other causes. Minor flares at ends of structures should be ignored.

<u>Code</u>	<u>Description</u>
0	No flare
1	Yes, flared

## Inv. Rt. Max Permittable Height (Item 10) – {3 num char}

Code a 3 digit number in feet and tenths (00.0), with leading zeros if necessary, to indicate the minimum vertical clearance over the inventory route identified in Item 5, whether the route is "on" the structure or "under" the structure. Truncate the measurement to the tenth of a foot. DO NOT ROUND UP. **The minimum clearance for a 10- foot width of the pavement or traveled part of the roadway where the clearance is the greatest shall be recorded and coded in feet and tenths (00.0).** For structures having multiple openings, clearance for each opening shall be recorded, but only the greatest of the "minimum clearances" for the two or more openings shall be coded regardless of the direction of travel. This would be the practical maximum clearance. When no restriction exists, code 9999.

## Inv. Rt. Total Horizontal Clearance (Item 47) – {3 num char}

The total horizontal clearance for the inventory route identified in Item 5 should be measured and recorded. The clearance should be the available clearance measured between the restrictive features; curbs, rails, walls, piers or other structural features limiting the roadway (surface and shoulders). The measurement should be recorded and coded as a 3-digit number to the nearest tenth of a foot (00.0). When the restriction is greater than 100 ft. code 99.9. **Refer to Sketch 7 on Page 26.**

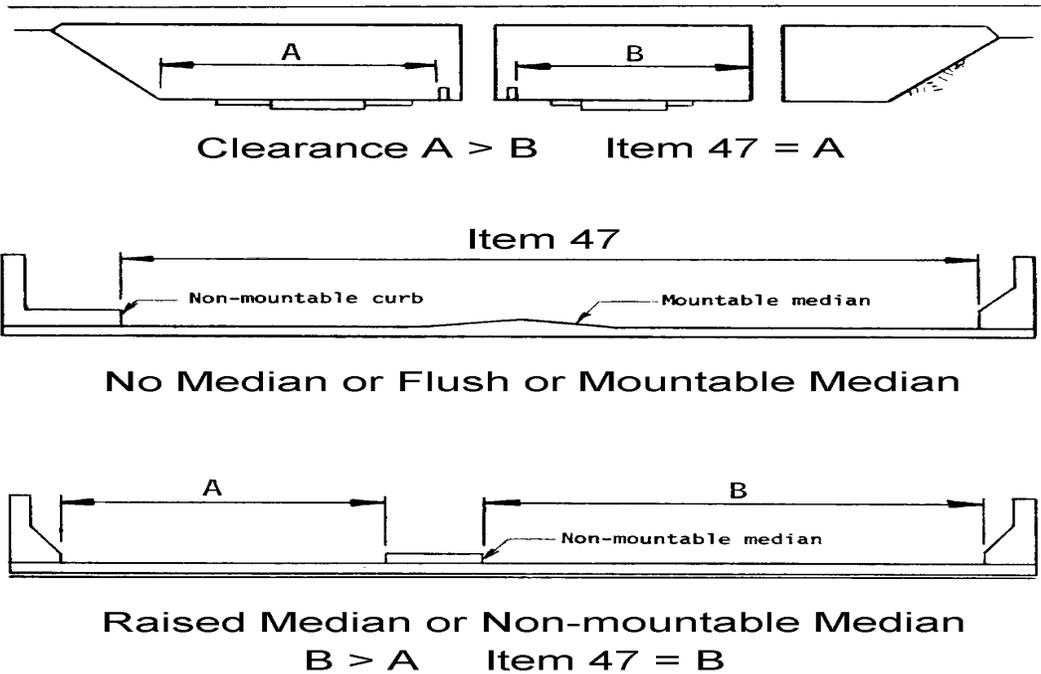
The purpose of this item is to give the largest available clearance for the movement of wide loads. Flush and mountable medians are not considered to be restrictions. This clearance is defined in 2 ways; use the most applicable:

1. Clear distance between restrictions of the inventory route either "on" or "under" the structure.
2. Roadway surface and shoulders - when there are no restrictions.

For a divided facility with a raised or non-mountable median, or an "under" route divided by piers, record the **greater** of the restricted widths in either direction, not both directions.

# BRIDGE INVENTORY FORM 1

## Sketch 7



### Min. Vertical Clearance over Bridge (Item 53) – {3 num char}

Record in tenths of feet with leading zeroes, rounded down to the nearest tenth, the actual minimum vertical clearance over the bridge roadway including shoulders, to any restriction (00.0). For double decked structures code the minimum, regardless whether it is pertaining to the top or bottom deck. When no restriction exists above the bridge roadway or when a restriction is 99 feet or greater, code 99.9.

### Vertical Under-Clearance Reference Feature (Item 54A) – {1 alpha char}

Using one of the codes below, code the reference feature from which the clearance measurement (Item 54B) is taken: When both a railroad and highway are under the structure, code the most critical dimension.

<u>Code</u>	<u>Description</u>
H	Highway beneath structure
R	Railroad beneath structure
N	Feature not a highway or railroad

### Vertical Under-Clearance (Item 54B) – {3 num char}

Record and code a 3 digit number in feet and tenths of a foot (00.0), with leading zeros, that represents the min. vertical clearance from the feature described in (Item 54A) to the structure, truncated to the nearest tenth of a foot. When a restriction is 100 feet or greater, code 99.9. If the feature is not a highway or railroad, code 00.0. **See Sketches 8A and 8B on pages 28 and 29.**

# BRIDGE INVENTORY FORM 1

## Horizontal Under-Clearance Rt. Reference Feature (Item 55A) – {1 alpha char}

Using one of the codes below, code the reference feature from which the clearance measurement (Item 55B) is taken. When a railroad and highway are under the structure, code the most critical dimension.

<u>Code</u>	<u>Description</u>
H	Highway beneath structure
R	Railroad beneath structure
N	Feature not a highway or railroad

## Horizontal Under-Clearance Right (Item 55B) – {3 num char}

Record and code the minimum lateral under-clearance on the right to the nearest tenth of a foot (00.0). The lateral clearance should be measured from the right edge of the roadway (excluding shoulders) or from the centerline (between rails) of the right hand track of a railroad to the nearest substructure unit (pier, abutment, etc.), to a rigid barrier (concrete bridge rail, etc.), or to the toe of slope steeper than 1 to 3, e.g. 1 to 1 or 2 to 1. The clearance measurements to be recorded will be the minimum after measuring the clearance in both directions of travel. In the case of a dual highway this would mean the outside clearances of both roadways should be measured and the smaller distance recorded and coded. If two related features are below the bridge, measure both and record the lesser of the two. An explanation should be written on the inspection form as to what was recorded. When the clearance is 100 feet or greater, code 99.9. If the feature beneath the structure is not a railroad or highway, code 00.0 to indicate not applicable. The presence of ramps and acceleration or turning lanes is not considered in this Item; therefore, the minimum lateral clearance on the right should be measured from the right edge of the through roadway. Right and Left are to be determined by the direction of travel.

**Refer to Sketch 8C and 8D on Pages 30 - 31.**

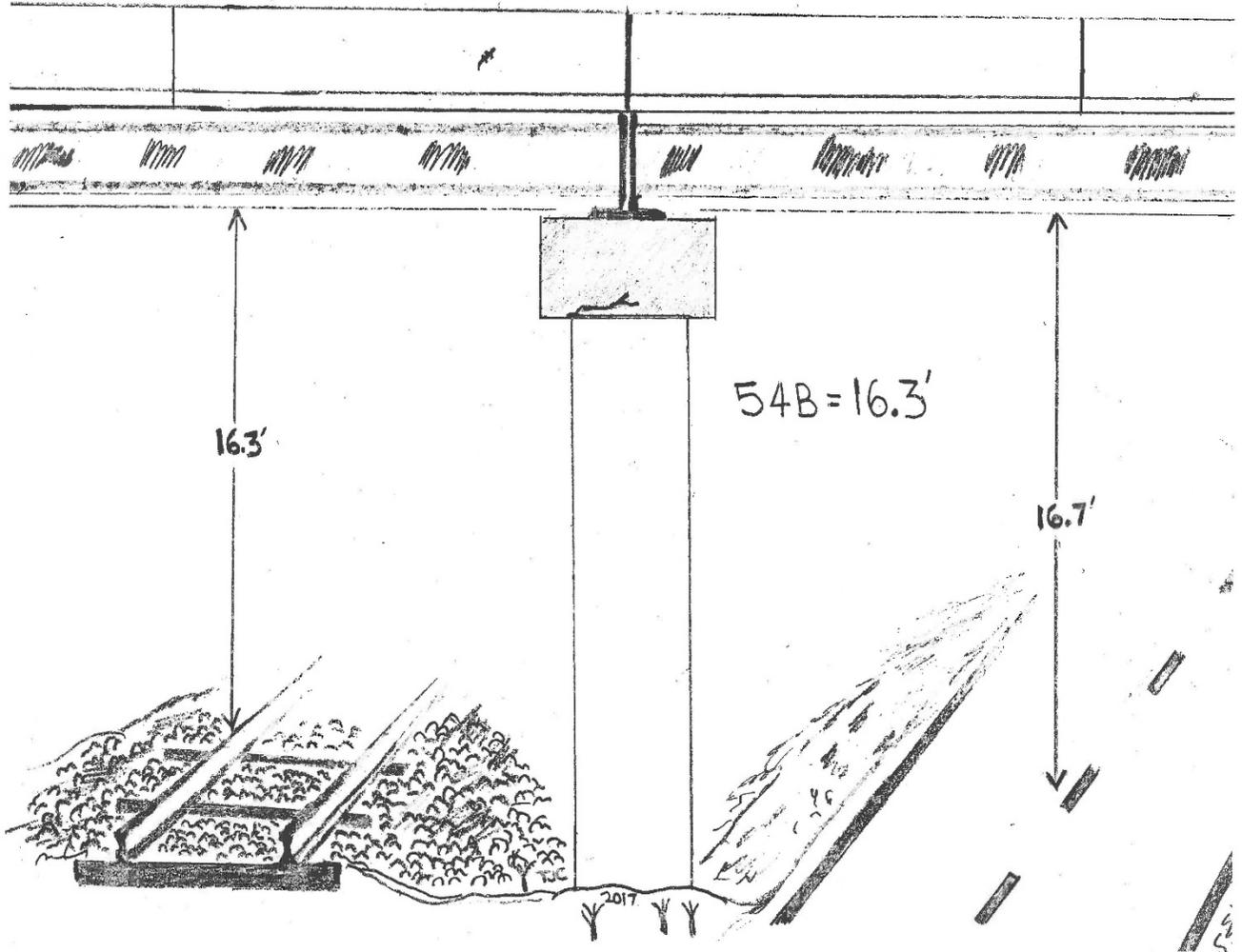
## Horizontal Under-Clearance Left (Item 56) – {3 num char}

Record the minimum horizontal dimension from the driver's left (median edge) of the roadway, for a divided highway, to the nearest barrier or substructure unit. Code the dimension to the nearest tenth of a foot (00.0). If there are no median obstructions on a divided highway, code 99.9. If there is no divided highway, or if some other feature is crossed, code 00.0. **Refer to**

**Sketch 8C and 8D on Pages 30 - 31.**

# BRIDGE INVENTORY FORM 1

## Sketch 8A Highway and RR



# BRIDGE INVENTORY FORM 1

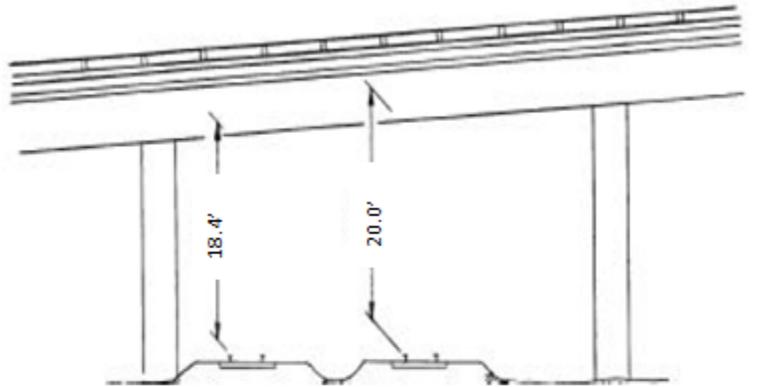
## Sketch 8B

### EXAMPLES:

Waterway Under Structure

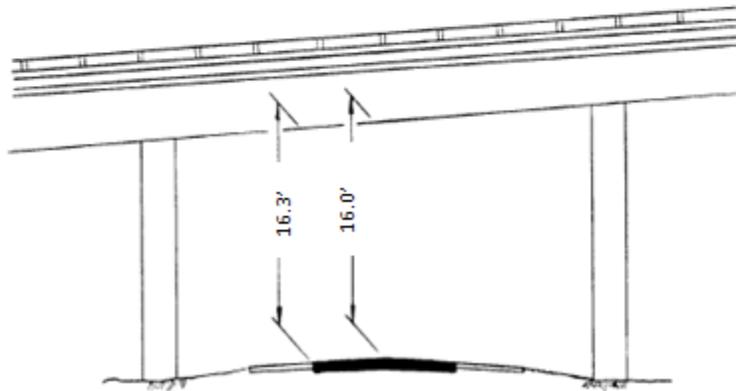
CODE

00.0



Railway Under Structure, Min. Clearance 18.4 feet

18.4

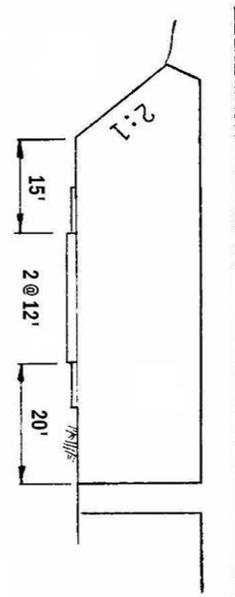


Highway Under Structure, Min. Clearance 16.0 feet

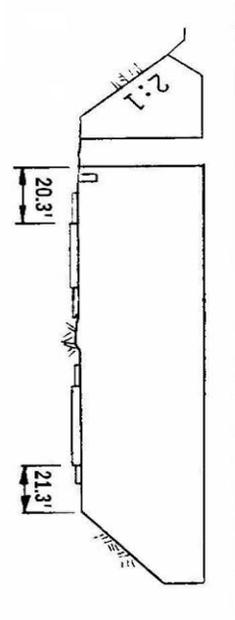
16.0

# BRIDGE INVENTORY FORM 1

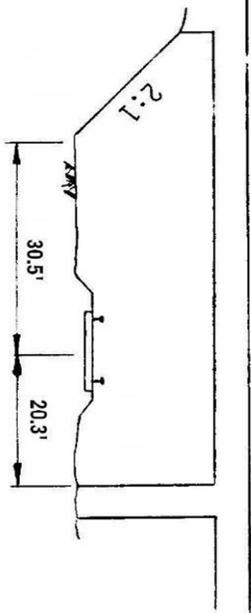
Sketch 8C



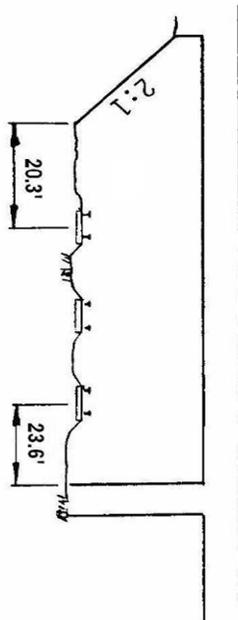
-- Lt. 15.0 Rt. for 2-way Traffic  
15.0 Lt. 20.0 Rt. for 1-way Traffic



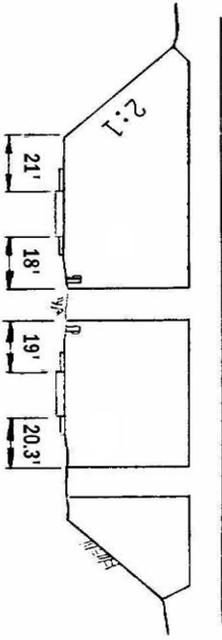
99.9 Lt. 20.3 Rt.  
\*Note the Horiz Chr. Lt. is coded 999 because there is an open median



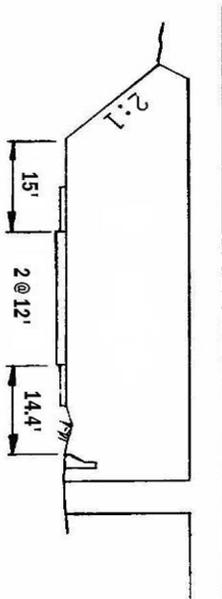
-- Lt. 20.3 Rt.



-- Lt. 20.3 Rt.



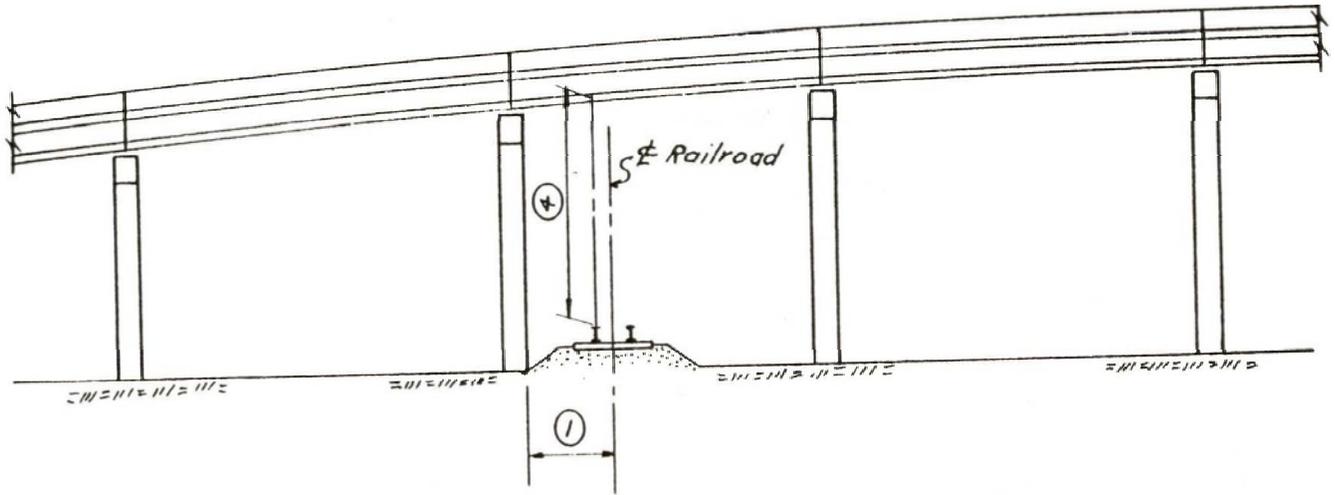
18.0 Lt. 20.3 Rt.



-- Lt. 14.4 Rt. for 2-way Traffic  
15.0 Lt. 14.4 Rt. for 1-way Traffic

# BRIDGE INVENTORY FORM 1

Sketch 8D



① - Minimum Lateral Clearance

④ - Minimum Vertical Clearance over Tracks

# BRIDGE INVENTORY FORM 1

## Proposed Improvements

The information to be recorded for this item will be the type of work proposed to be accomplished on the structure to improve it to the point that it will provide the type of service needed and whether the proposed work is to be done by contract or force account. **This section shall be filled out by the district bridge engineer.**

### **Type of Work Proposed (Item 75A) – {(2 num char)}**

This item must be coded for bridges eligible for the Highway Bridge Replacement and Rehabilitation Program. To be eligible, a bridge must carry highway traffic, be deficient and have a sufficiency rating of 80.0 or less. This item may be coded for other bridges at the option of the highway agency. Use one of the following codes to represent the proposed work type, otherwise leave blank:

<u>Code</u>	<u>Description</u>
31	Replacement of bridge or other structure because of substandard load carrying or substandard bridge roadway geometry.
32	Replacement of bridge or other structure because of relocation of road.
33	Widening of existing bridge or other major structure without deck rehabilitation or replacement; includes culvert lengthening.
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, including hydraulic replacements.

### **Work Done By (Item 75B) – {1 num char}**

Record using one of the following codes to indicate whether the proposed work is to be done by contract or by force account: If item 75A is blank, leave item 75B blank. If item 75A is blank, leave item 75B blank.

<u>Code</u>	<u>Description</u>
1	Work to be done by contract
2	Work to be done by owner's forces

**See examples on Page 33 for coding of Items 75A and 75B.**

# BRIDGE INVENTORY FORM 1

EXAMPLES:

	<u>Code 75A</u>	<u>Code 75B</u>
A bridge is to be replaced by contract because it has deteriorated to the point that it can no longer carry legal loads. The same code should be used if the bridge is replaced because it is now too narrow or the original design was too light to accommodate today's legal loads.	31	1
A bridge is to be replaced because the roadway must be straightened to eliminate a dangerous curve. The work will be done by contract.	32	1
A bridge is to be widened to increase shoulder width or the number of traffic lanes. The existing deck is in good condition and will be incorporated as is into the new structure. The work is to be done by contract.	33	1
A culvert is to be extended by contract to accommodate additional roadway width as part of a reconstruction contract to improve the safety of the adjacent slopes.	33	1
A deck is to be rehabilitated and the bridge widened to provide a full 3.6 meter shoulder. The existing shoulder is only .2 meters wide and an extra line of girders with appropriate substructure widening must be added. The work will be done by contract.	34	1
A bridge superstructure and substructure are to be rehabilitated by State forces to increase the bridge's load capacity.	35	2
A bridge deck is to be rehabilitated by contract and a safety curb to be removed which results in incidental widening of 0.6 meters.	36	1
A bridge deck is to be replaced by contract and the deck cantilever overhang extended 0.6 meters, which is the maximum that can be done without adding another line of stringers or girders to the superstructure.	37	1

# BRIDGE INVENTORY FORM 1

## Length of Structure Improvement (Item 76) – {6 num char}

Code a 6-digit number that represents the length of the proposed bridge improvement to the nearest tenth of a foot. (00000.0). For replacement or rehabilitation of the entire bridge, the length should be back to back of back walls of abutments or from pavement notch to pavement notch. For replacement or rehabilitation of only part of the structure, use the length of the portion to be improved.

This item must be coded for bridges eligible for the Highway Bridge Replacement and Rehabilitation Program. It may be coded for other bridges at the option of the highway agency.

For culvert improvements, use the proposed length measured along the centerline of the barrel regardless of the depth below grade. The measurement should be made between the inside faces of the top parapet or edge-stiffening beam of the top slab.

### EXAMPLES:

		<u>Code</u>
Length of Structure Improvement	228.6 feet	00228.6
	3600 feet	03600.0

For substructure or channel work only, code the length of superstructure over, or supported by, the substructure or channel. Typically, a replacement bridge is longer than the existing bridge. Nationwide averages for the increase in bridge length with replacement as a function of the existing length are given in the following figures. The length-expansion factors represent data for the years 1981 to 1985. Where site-specific data is lacking, these factors are suggested for estimating the length of replacement bridges. For exceedingly long bridges (i.e., 900 feet or more) the length-expansion factor approaches 1.0.

## Bridge Improvement Cost (Item 94) – {6 num char}

Code a 6-digit number to represent the estimated cost of the proposed bridge or major structure improvements in thousands of dollars. This cost shall include only bridge construction costs, excluding roadway, right of way, detour, demolition, preliminary engineering, etc. Code the base year for the cost in Item 97 - Year of Improvement Cost Estimate. Do not use this item for estimating maintenance costs.

This item must be coded for bridges eligible for the Highway Bridge Replacement and Rehabilitation Program. It may be coded for other bridges at the option of the highway agency.

### EXAMPLES:

		<u>Code</u>
Bridge Improvement Cost	\$55,850	000056
	\$250,000	000250
	\$7,451,233	007451

Nationally, the deck area of replaced bridges is averaging 2.2 times the deck area before replacement. The deck area of rehabilitated bridges is averaging 1.5 times the deck area before rehabilitation. Widening square foot costs are typically 1.8 times the square foot cost of new bridges with similar spans. For example, if the average cost of a new bridge is \$50 per square

# BRIDGE INVENTORY FORM 1

## **Bridge Improvement Cost (Item 94) continued**

foot, the average cost of the widened area would be \$90 per square foot. Each highway agency is encouraged to use its best available information and established procedures to determine bridge improvement costs. In the absence of these procedures, the highway agency may wish to use the following procedure as a guide in preparing bridge improvement cost estimates. Apply a construction unit cost to the proposed bridge area developed by using (1) current State deck geometry design standards and (2) proposed bridge length from Item 76 - Length of Structure Improvement.

## **Roadway Improvement Cost (Item 95) – {6 num char}**

Code a 6-digit number to represent the cost of the proposed roadway improvement in thousands of dollars. This shall include only roadway construction costs, excluding bridge, right-of-way, detour, extensive roadway realignment costs, preliminary engineering, etc. Code the base year for the cost in Item 97 - Year of Improvement Cost Estimate. Do not use this item for estimating maintenance costs. This item must be coded for bridges eligible for the Highway Bridge Replacement and Rehabilitation Program. It may be coded for other bridges at the option of the highway agency. In the absence of a procedure for estimating roadway improvement costs, a guide of 10 percent of the bridge costs is suggested. **Refer to coding example for item 94.**

## **Total project Cost (Item 96) – {6 num char}**

Code a 6-digit number to represent the total project cost in thousands of dollars, including incidental costs not included in Items 94 and 95. This item should include all costs normally associated with the proposed bridge improvement project. The Total Project Cost will therefore usually be greater than the sum of Items 94 and 95. Code the base year for the cost in Item 97 - Year of Improvement Cost Estimate. Do not use this item for coding maintenance costs. This item must be coded for bridges eligible for the Highway Bridge Replacement and Rehabilitation Program. It may be coded for other bridges at the option of the highway agency. In the absence of a procedure for estimating the total project cost, a guide of 150 percent of the bridge cost is suggested. **Refer to coding example for item 94.**

## **Year of improvement Cost Estimate (Item 97) – {4 num char}**

Record and code the year that the costs of work estimated in Item 94 - Bridge Improvement Cost, Item 95 - Roadway Improvement Cost, and Item 96 - Total Project Cost were based upon. This date and the data provided for Item 94 through Item 96 must be current; that is, Item 97 shall be no more than 8 years old.

### EXAMPLES:

		<u>Code</u>
Year of Cost Estimate	1994 costs	1994
	2000 costs	2000

# BRIDGE INVENTORY FORM 1

## **Future Average Daily Traffic (Item 114) – {6 num char}**

Code for all bridges the forecasted average daily traffic (ADT) for the inventory route identified in Item 5. This shall be projected at least 17 years but no more than 22 years from the year of inspection. The intent is to provide a basis for a 20-year forecast. This item may be updated anytime, but must be updated when the forecast falls below the 17-year limit. If planning data is not available, use the best estimate based on site familiarity.

The future ADT must be compatible with the other items coded for the bridge. For example, parallel bridges with an open median are coded as follows: if Item 28 -Lanes On and Under the Structure and Item 51 - Bridge Roadway

Width, Curb-to-Curb are coded for each bridge separately, then the future ADT must be coded for each bridge separately (not the total for the route).

<u>EXAMPLES:</u>		<u>Code</u>
Future ADT	540	000540
	15,600	015600
	240,000	240000

## **Year of Future Average Daily Traffic (Item 115) – {4 num char}**

Record and code the year represented by the future ADT in Item 114. The projected year of future ADT shall be at least 17 years but no more than 22 years from the year of inspection.

<u>EXAMPLE:</u>	<u>Code</u>
Year of Future ADT is 2014	2014

# BRIDGE INVENTORY FORM 1

## Inspections

### **Routine Inspection Frequency (Item 91) – {2 num char}**

Code 2 digits to represent the number of months between designated inspections of the structure. A leading zero shall be coded as required. This interval is usually determined by the individual in charge of the inspection program. For posted, understrength bridges, this interval should be substantially less than the 24-month standard. Refer to LA DOTD Bridge Maintenance Directive 4 – Bridge Inspection Procedures and Frequencies. The designated inspection interval could vary from inspection to inspection depending on the condition of the bridge at the time of inspection.

#### EXAMPLES:

Posted bridge with heavy truck traffic  
and questionable structural details  
that is designated to be inspected  
each month

#### Code

01

Bridge is scheduled to be inspected  
every 24 months

24

It should be noted that bridges will also require special non-scheduled inspections after unusual physical traumas such as floods, earthquakes, fires, or collisions. These special inspections may range from a very brief visual examination to a detailed in-depth evaluation depending upon the nature of the trauma. For example, when a substructure pier or abutment is struck by an errant vehicle, in most cases only a visual examination of the bridge is necessary. After major collisions or earthquakes, in-depth inspections may be warranted as directed by the engineer in overall charge of the program. After and during severe floods, the stability of the substructure of bridges may have to be determined by probing, underwater sensors or other appropriate measures. Underwater inspection by divers may be required for some scour critical bridges immediately after floods. See Item 113 in the FHWA Recording and Coding Guide - Scour Critical Bridges.

# BRIDGE INVENTORY FORM 1

**Critical Feature Inspection (Item 92 A, B and C) – {1<sup>st</sup> cell-1 alpha char, 2<sup>nd</sup> cell 2 num char}**

Denote critical features that need special inspections or special emphasis during inspections and the designated inspection interval in months as determined by the individual in charge of the inspection program. The designated inspection interval could vary from inspection to inspection depending on the condition of the bridge at the time of inspection.

The first cell of Item 92A, B, and C must be coded for all structures to designate either a yes or no answer. Those bridges coded with a Y in Item 92A or B should be the same bridges contained in the Master Lists of fracture critical and special underwater inspection bridges. In the second cell, code a 2-digit number to indicate the number of months between inspections only if the first digit is coded Y. If the cell is coded N, the second cell for 92A, B and C are left blank. Current guidelines for the maximum allowable interval between inspections can be summarized as follows:

- 92A Fracture Critical Details                    24 months**
- 92B Underwater Inspection                    60 months**
- 92C Other Special Inspections   6 or 12 months**

<u>EXAMPLES:</u>	<u>Item</u>	<u>Code 1<sup>st</sup> Cell</u>	<u>Code 2<sup>nd</sup> Cell</u>
A 2 girder system structure which is being inspected yearly and no other special inspection are required.	92A	Y	12
	92B	N	blank
	92C	N	blank
A structure where both fracture critical and underwater inspection are being performed on a 1 year interval. Other special inspections are not required.	92A	Y	12
	92B	Y	12
	92C	N	blank

# BRIDGE INVENTORY FORM 1

## Load Rating and Posting

### **Design Load (Item 31) – {1 num char}**

Use the codes below to indicate the live load for which the structure was designed. The numerical value of the railroad loading should be recorded on the form. Classify any other loading, when feasible, using the nearest equivalent of the loadings given below.

<u>Code</u>	<u>Description</u>
1	M 9 or H 10
2	M 13.5 H 15
3	MS 13.5 HS 15
4	M 18 H 20
5	MS 18 HS 20+Mod
6	MS 18+Mod HS 20+Mod
7	Pedestrian
8	Railroad
9	MS 22.5 HS 25 or Greater
0	Unknown (describe on inspection reporting form)
A	HL 93
B	Greater Than HL 93 (Ex. LADV-11)
C	Other

### **Bridge Posting (Item 70) – {1 num char}**

The National Bridge Inspection Standards require the posting of load limits only if the maximum legal load configurations in the State exceed the load permitted under the operating rating. If the load capacity at the operating rating is such that posting is required, this item shall be coded 4 or less. If no posting is required at the operating rating, this item shall be coded 5.

This item evaluates the load capacity of a bridge in comparison to the State legal load. It differs from Item 67 - Structural Evaluation in that Item 67 uses Item 66 - Inventory Rating, while the bridge posting requirement is based on Item 64 - Operating Rating.

Although posting a bridge for load-carrying capacity is required only when the maximum legal load exceeds the operating rating, highway agencies may choose to post at a lower level. This posting practice may appear to produce conflicting coding when Item 41 - Structure Open, Posted or Closed to Traffic is coded to show the bridge as actually posted at the site and Item 70 Bridge Posting is coded as bridge posting is not required. Since different criteria are used for coding these 2 items, this coding is acceptable and correct when the highway agency elects to post at less than the operating rating. Item 70 shall be coded 4 or less only if the legal load of the State exceeds that permitted under the operating rating.

The use or presence of a temporary bridge affects the coding. The actual operating rating of the temporary bridge should be used to determine this item. However the highway agency may choose to post at a lower level. This also applies to bridges shored up or repaired on a temporary basis.

# BRIDGE INVENTORY FORM 1

## Bridge Posting (Item 70) continued

The degree that the operating rating is less than the maximum legal load level may be used to differentiate between codes. As a guide and for coding purposes only, the following values may be used to code this item:

<u>Code</u>	<u>Relationship of Operating Rating to Maximum Legal Load</u>
5	35-44 or No Posting
4	25-40, 25-44, or 30-44 Sign Required
3	20-35 Sign Required
2	15-25 Sign Required
1	10-15 Sign required
0	Any required posting below 10-15

## **Structure Open/Posted/Closed to Traffic (Item 41) – {1 alpha char}**

This item provides information about the actual operational status of a structure. The field review could show that a structure is posted, but Item 70 - Bridge Posting may indicate that posting is not required. This is possible and acceptable coding since Item 70 is based on the operating stress level and the governing agency's posting procedures may specify posting at some stress level less than the operating rating. One of the following codes shall be used:

<u>Code</u>	<u>Description</u>
A	Open, no restriction
B	Open, posting recommended but not legally implemented (all signs not in place or not correctly implemented)
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 rehabilitation
G	New structure not yet open to traffic
K	Bridge closed to all traffic
P	Posted for load (may include other restrictions such as temporary bridges which are load posted)
R	Posted for other load-capacity restriction (speed, number of vehicles on bridge, etc.)

## **Posted Load – {5 alpha char}**

Record the load posting signs that are in place at the structure. Standard load postings have been established: CL---, ----, 03---, 04---, 05---, 10---, 10-15, 15---, 15-25, 20---, 20-35, 25-40, 25-44, 30-44, & 35-44. Any posted loads that are not included in the standard postings shall be coded "OTHER". When "OTHER" is used include a photo of the posting sign with the form.

<u>Examples:</u>	<u>Posted Load</u>	<u>Code</u>
	No Posting	----
	10-15 tons	10-15
	12 tons	OTHER

# BRIDGE INVENTORY FORM 1

## Classification

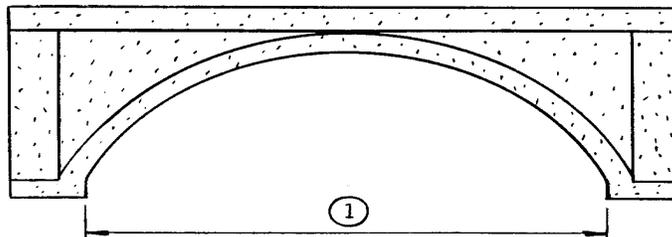
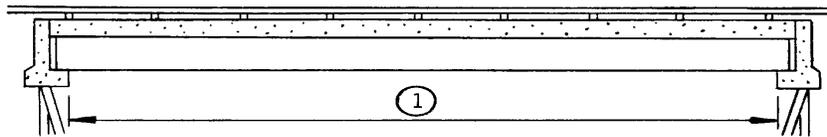
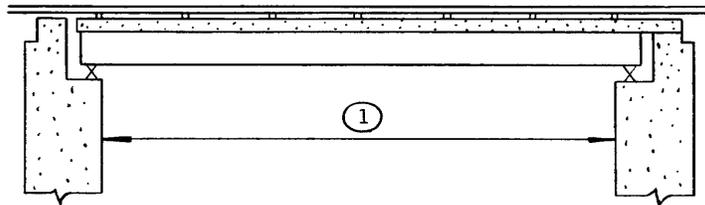
### **NBIS Bridge Length (Item 112)** – {1 alpha char}

Does this structure meet or exceed the minimum length specified to be designated as a bridge for National Bridge Inspection Standards purposes? The following definition of a bridge is to be used: A structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet\* between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half the diameter of the smaller adjacent opening. **Culverts must be 21 feet or greater from extreme ends of openings to be considered a structure. See Sketches 9A, 9B, and 9C. For additional information on culvert length refer to Appendix A2.**

Code   Description

Y      Yes  
N      No

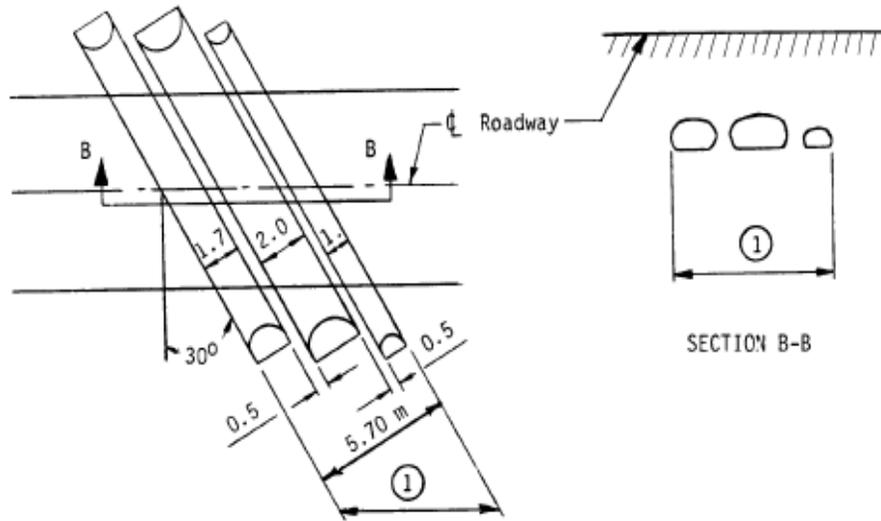
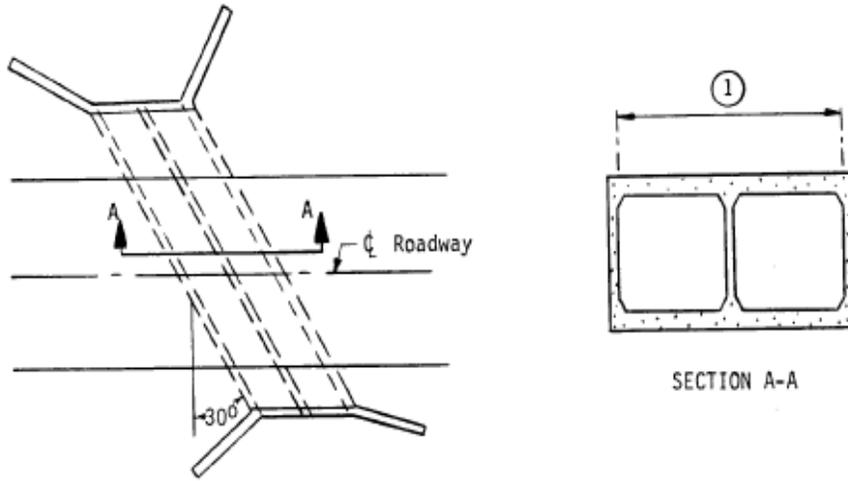
**Sketch 9A**



# BRIDGE INVENTORY FORM 1

(1) Item 112 - NBIS Bridge Length

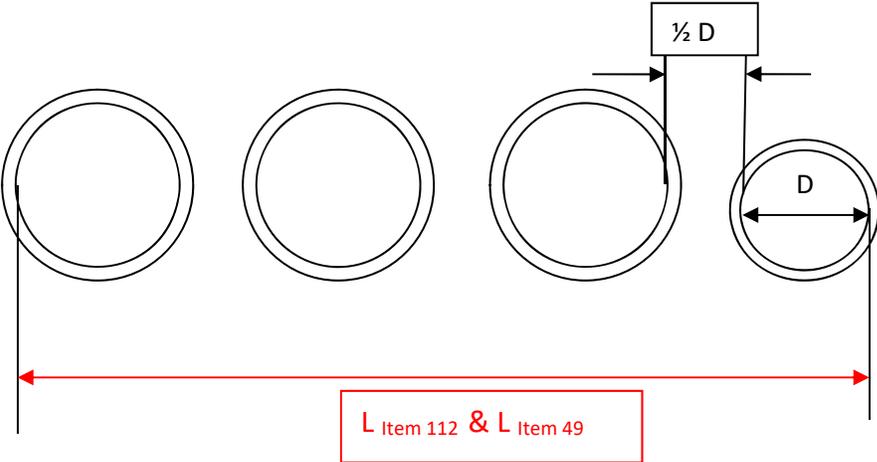
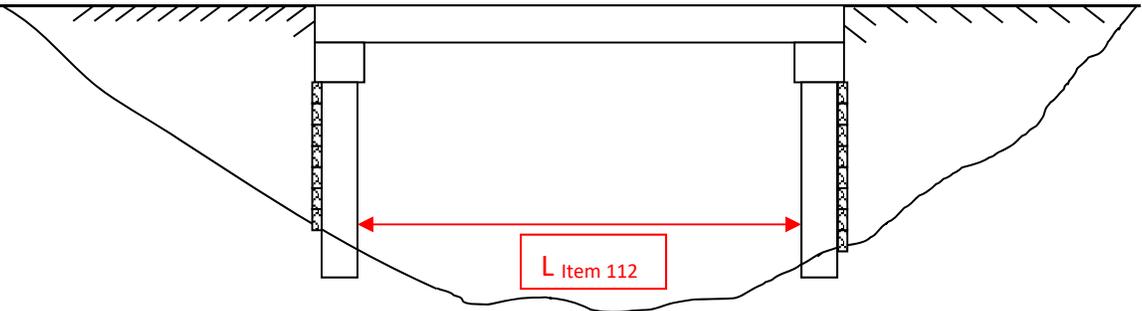
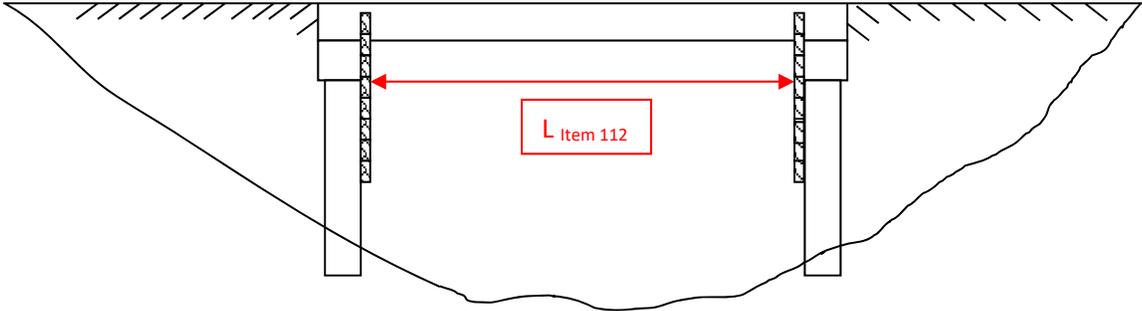
Sketch 9B



(1) Item 112 - NBIS Bridge Length

# BRIDGE INVENTORY FORM 1

Sketch 9C



# BRIDGE INVENTORY FORM 1

## NHS Inventory Route (Item 104) – {1 num char}

This item is to be coded for all records in the inventory. For the inventory route identified in Item 5, indicate whether the inventory route is on the National Highway System (NHS) or not on that system. Initially, this code shall reflect an inventory route on the NHS "Interim System" description in Section 1006(a) of the 1991 ISTEA. Upon approval of the NHS by Congress, the coding is to reflect the approved NHS **Refer to Appendix D** to find designation. Use one of the following codes:

<u>Code</u>	<u>Description</u>
0	Inventory Route is not on the NHS
1	Inventory Route is on the NHS

## Functional Classification of Inventory Route (Item 26) – {2 num char}

For the inventory route, code the functional classification using one of the following codes:

### Rural

<u>Code</u>	<u>Description</u>
01	Principal Arterial - Interstate
02	Principal Arterial - Other
06	Minor Arterial
07	Major Collector
08	Minor Collector
09	Local

### Urban

<u>Code</u>	<u>Description</u>
11	Principal Arterial - Interstate
12	Principal Arterial - Other Freeways or Expressways
14	Other Principal Arterial
16	Minor Arterial
17	Collector
19	Local

The bridge shall be coded rural if not inside a designated urban area. The urban or rural designation shall be determined by the bridge location and not the character of the roadway. The current classification for all Control-Sections can be found using instructions from **Appendix D.**

# BRIDGE INVENTORY FORM 1

## STRAHNET Highway Designation (Item 100) – {1 num char}

This item shall be coded for all records in the inventory. For the purposes of this item, the STRAHNET Connectors are considered included in the term STRAHNET. For the inventory route identified in Item 5 (**Refer to Appendix D**), indicate STRAHNET highway conditions using one of the following codes:

<u>Code</u>	<u>Description</u>
0	The inventory route is not a STRAHNET route.
1	The inventory route is on an Interstate STRAHNET route.
2	The inventory route is on a Non-Interstate STRAHNET route.
1.	The inventory route is on a STRAHNET connector route.

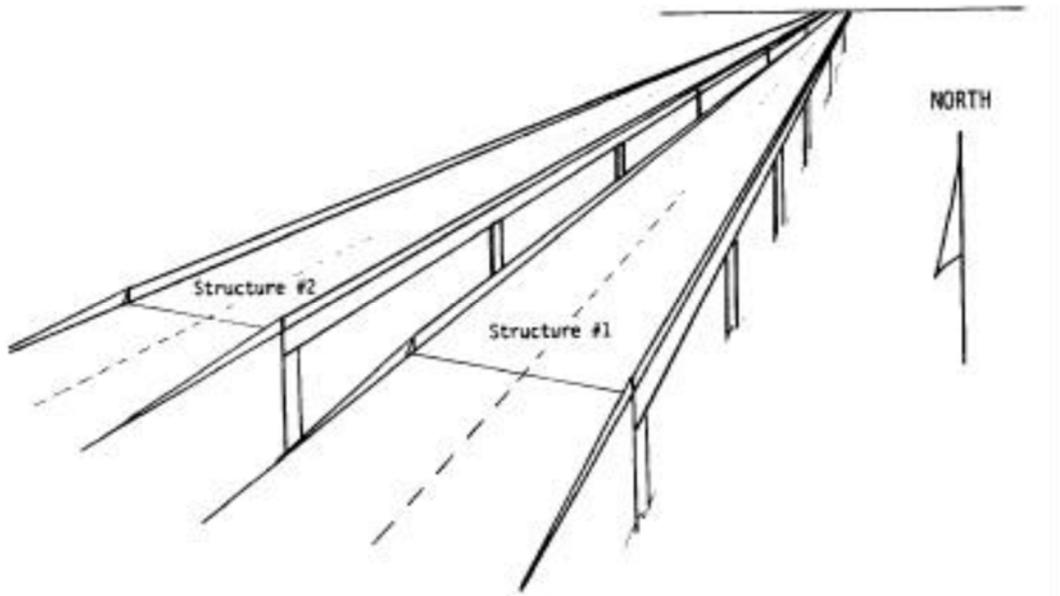
## Parallel Structure Designation (Item 101) – {1 alpha char}

Code this item to indicate situations where separate structures carry the inventory route in opposite directions of travel over the same feature. The lateral distance between structures has no bearing on the coding of this item. One of the following codes shall be used: **Refer to Sketch 10 Below.**

<u>Code</u>	<u>Description</u>
R	The right structure of parallel bridges carrying the roadway in the direction of the inventory. (For a STRAHNET 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.

<u>EXAMPLE:</u>	<u>Code</u>
Structure #1	R
Structure #2	L

**Sketch 10**



# BRIDGE INVENTORY FORM 1

## Direction of Traffic (Item 102) – {1 num char}

Code the direction of traffic of the inventory route identified in Item 5 as a 1-digit number using one of the codes below. This item must be compatible with other traffic-related items such as Item 28A Lanes on the Structure, Item 29 - Average Daily Traffic, Item 47 – Total Horizontal Clearance and Item 51 - Bridge Roadway Width, Curb-to-Curb.

<u>Code</u>	<u>Description</u>
0	Highway traffic not carried
1	1-way traffic
2	2-way traffic
3	1 lane bridge for 2-way traffic

## Temporary Structure Designation (Item 103) – {1 alpha char}

Code this item to indicate situations where temporary structures or conditions exist. This item should be blank if not applicable.

<u>Code</u>	<u>Description</u>
T	Temporary structure(s) or conditions exist.

Temporary structure(s) or conditions are those which are required to facilitate traffic flow. This may occur either before or during the modification or replacement of a structure found to be deficient. Such conditions include the following:

- 1) Bridges shored up, including additional temporary supports.
- 2) Temporary repairs made to keep a bridge open.
- 3) Temporary structures, temporary runarounds or bypasses.
- 4) Other temporary measures, such as barricaded traffic lanes to keep the bridge open.

Any repaired structure or replacement structure which is expected to remain in place without further project activity, other than maintenance, for a significant period of time shall not be considered temporary. Under such conditions, that structure, regardless of its type, shall be considered the minimum adequate to remain in place and evaluated accordingly.

If this item is coded T, then all data recorded for the structure shall be for the condition of the structure without temporary measures, except for the following items which shall be for the temporary structure:

<u>Item</u>
10 - Inventory Route, Minimum Vertical Clearance
41 - Structure Open, Posted, or Closed to Traffic
47 - Inventory Route, Total Horizontal Clearance
53 - Minimum Vertical Clearance Over Bridge Roadway
54 - Minimum Vertical Under clearance
55 - Minimum Lateral Under clearance on Right
56 - Minimum Lateral Under clearance on Left
70 - Bridge Posting

# BRIDGE INVENTORY FORM 1

## Federal Lands Highways (Item 105) – {1 num char}

Structures owned by State and local jurisdictions on roads which lead to and traverse through federal lands sometimes require special coded unique identification because they are eligible to receive funding from the Federal Lands Highway Program. One of the following codes shall be used:

<u>Code</u>	<u>Description</u>
0	Not applicable
1	Indian Reservation Road (IRR)
2	Forest Highway (FH)
3	Land Management Highway System (LMHS)
4	Both IRR and FH
5	Both IRR and LMHS
6	Both FH and LMHS
9	Combined IRR, FH and LMHS

## Designated Truck Network (Item 110) – {1 num char}

The national network for trucks includes most of the Interstate System and those portions of Federal-Aid highways identified in the Code of Federal Regulations (23 CFR 658). The national network for trucks is available for use by commercial motor vehicles of the dimensions and configurations described in these regulations. See Appendix D; For the inventory route identified in Item 5, indicate conditions using one of the following codes:

<u>Code</u>	<u>Description</u>
0	The inventory route is not part of the national network for trucks.
1	The inventory route is part of the national network for trucks.

## Toll (Item 20) – {1 num char}

The toll status of the structure is indicated by this item. Interstate toll segments under Secretarial Agreement (Title 23 - United States Code - Highways Section 129 as amended by 1991 ISTEA and prior legislation) shall be identified separately. Use one of the following codes:

<u>Code</u>	<u>Description</u>
1	Toll bridge. Tolls are paid specifically to use the structure.
2	On toll road. The structure carries a toll road, that is, tolls are paid to use the facility, which includes both the highway and the structure.
3	On free road. The structure is toll-free and carries a toll-free highway.
4	On Interstate toll segment under Secretarial Agreement. Structure functions as a part of the toll segment.
5	Toll bridge is a segment under Secretarial Agreement. Structure is separate agreement from highway segment.

# BRIDGE INVENTORY FORM 1

## Maintenance Responsibility (Item 21) – {2 num char}

The actual name(s) of the agency(s) responsible for the maintenance of the structure shall be recorded on the inspection form. The codes below shall be used to represent the type of agency that has primary responsibility for maintaining the structure. If more than one agency has equal maintenance responsibility, code one agency in the hierarchy of State, Federal, county, city, railroad, and other private.

<u>Code</u>	<u>Description</u>
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 Agencies
25	Other Local Agencies
26	Private (other than railroad)
27	Railroad
31	State Toll Authority
32	Local Toll Authority
60	Other Federal Agencies (not listed below)
61	Indian Tribal Government
62	Bureau of Indian Affairs
63	Bureau of Fish and Wildlife
64	U.S. Forest Service
66	National Park Service
67	Tennessee Valley Authority
68	Bureau of Land Management
69	Bureau of Reclamation
70	Corps of Engineers (Civil)
71	Corps of Engineers (Military)
72	Air Force
73	Navy/Marines
74	Army
75	NASA
76	Metropolitan Washington Airports Service
80	Unknown

## Owner (Item 22) – {2 num char}

The actual name(s) of the owner(s) of the bridge shall be recorded on the inspection form. The codes used in Item 21 – Maintenance Responsibility shall be used to represent the type of agency that is the primary owner of the structure. If more than one agency has equal ownership, code one agency in the hierarchy of State, Federal, county, city, railroad, and other private.

# BRIDGE INVENTORY FORM 1

## Historical Significance (Item 37) – {1 num char}

The historical significance of a bridge involves a variety of characteristics: the bridge may be a particularly unique example of the history of engineering; the crossing itself might be significant; the bridge might be associated with a historical property or area; or historical significance could be derived from the fact the bridge was associated with significant events or circumstances. This item will be coded by Section 28 (Environmental Section) Use one of the following codes:

<u>Code</u>	<u>Description</u>
1	Bridge is on the National Register of Historic Places.
2	Bridge is eligible for the National Register of Historic Places.
3	Bridge is possibly eligible for the National Register of historic Places (requires further investigation before determination can be made) or bridge is on a State or local historic register.
4	Historical significance is not determinable at this time.
5	Bridge is not eligible for the National Register of Historic Places.

## SHPO Number – {8 char, PP-XXXXXX, 2 digit Parish Number, dash, 5 digits Resource Number}

This number will be supplied by Section 28 (Environmental Section) and will not be coded by the inspector.

## Preservation Category – (up to 12 alpha char including dashes)

This value will be supplied by Section 28 (Environmental Section) and will not be coded by the inspector. If not evaluated leave blank.

Value  
Preservation Priority  
Preservation Candidate  
Non – Priority  
Non – Historic  
Excluded

# BRIDGE INVENTORY FORM 1

## Navigation Data

### **Navigation Control (Item 38)** – {1 alpha or num char}

Indicate for this item whether or not navigation control (a bridge permit for navigation) is required. Use one of the following codes:

<u>Code</u>	<u>Description</u>
N	Not applicable, no waterway.
0	No navigation control on waterway (bridge permit not required).
1	Navigation control on waterway (bridge permit required).

### **Pier or Abutment Protection for Navigation (Item 111)** – {1 num char}

If Item 38 - Navigation Control has been coded 1, use the codes below to indicate the presence and adequacy of pier or abutment protection features such as fenders, dolphins, etc. The condition of the protection devices may be a factor in the overall evaluation of Item 60 - Substructure. If Item 38 - Navigation Control has been coded 0 or N, leave blank to indicate not applicable.

<u>Code</u>	<u>Description</u>
1	Navigation protection not required
2	In place and functioning
3	In place but in a deteriorated condition
4	In place but reevaluation of design suggested
5	None present but reevaluation suggested

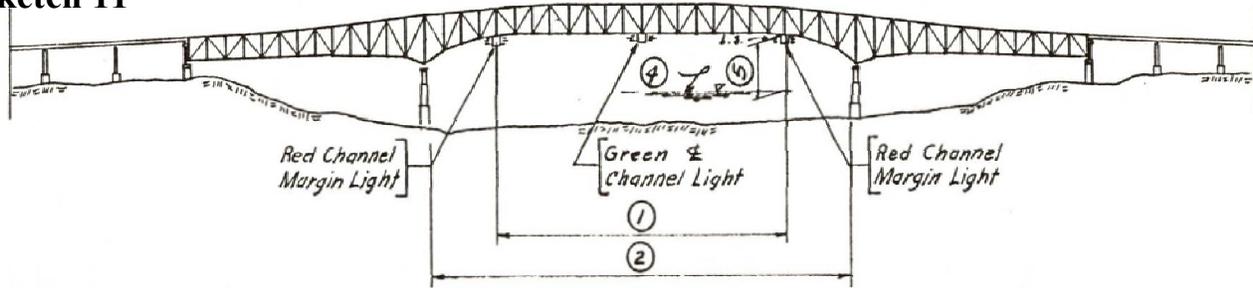
### **Navigation Vertical Clearance (Item 39)** – {4 num char}

If Item 38 - Navigation Control has been coded 1, record the minimum vertical clearance imposed at the site as measured above a datum that is specified on a navigation permit issued by a control agency. The measurement shall be coded as a 4-digit number to the tenth of a foot with leading zeros (000.0). This measurement will show the clearance that is allowable for navigational purposes. In the case of a swing or bascule bridge, the vertical clearance shall be measured with the bridge in the closed position (i.e., open to vehicular traffic). The vertical clearance of a vertical lift bridge shall be measured with the bridge in the raised or open position. Also, Item 116 – Minimum Navigation Vertical Clearance Vertical Lift Bridge shall be coded to provide clearance in a closed position. If Item 38 - Navigation Control is coded 0 or N, code 0000.0 to indicate not applicable. **See Sketch 11 on Page 51.**

Example: 25.6 feet is coded 025.6

# BRIDGE INVENTORY FORM 1

**Sketch 11**



- ① - Minimum Channel Width
- ② - Minimum Pier to Pier Width
- ④ - Reference Elevation
- ⑤ - Minimum Vertical Clearance

**Min Navigation Vertical Clearance, Vertical Lift Bridge (Item 116) – {4 num-char}**

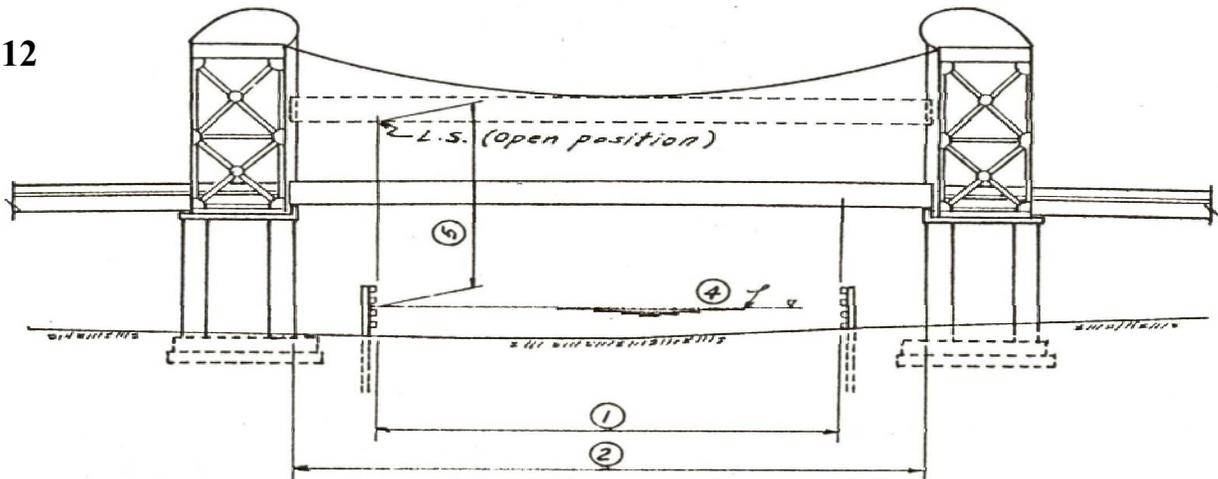
Record and code .The minimum vertical clearance imposed at the site as measured above a datum that is specified on a navigation permit issued by a control agency. Code this item as a 5-digit number to the tenth of a foot with leading zeros (000.0) only for **Vertical Lift** bridges in the dropped or closed position, otherwise leave blank. **Refer to Sketch 12 Below.**

EXAMPLES:

Code

Vertical Clearance 10.6 feet	0010.6
24.2 feet	0024.2

**Sketch 12**



- ① - Minimum Channel Width
- ② - Minimum Pier to Pier Width
- ④ - Reference Elevation
- ⑤ - Minimum Vertical Clearance

# BRIDGE INVENTORY FORM 1

## Navigation Horizontal Clearance (Item 40) – {6 num-char}

If Item 38 - Navigation Control has been coded 1, record the horizontal clearance measurement imposed at the site that is shown on the navigation permit. This may be less than the structure geometry allows. If a navigation permit is required but not available, use the minimum horizontal clearance between fenders, if any, or the clear distance between piers or bents. Code the clearance as a 6-digit number to the tenth of a foot with leading zeros (00000.0). If Item 38 - Navigation Control has been coded 0 or N, code 00000.0 to indicate not applicable.

### EXAMPLES:

		<u>Code</u>
Horizontal Clearance	53.5 feet	00053.5
	95.0 feet	00095.0

# BRIDGE INVENTORY FORM 2

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## BRIDGE INVENTORY FORM 2

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## BRIDGE INVENTORY FORM 2

### Bridge ID and Location

**Control-Section** – {5 num char} Record the Control number with leading zeroes as the first three digits. Record the Section number with a leading zero as the remaining two digits. The Control Section numbers shall be that of the route the bridge is on. The Control Section should always be that of the predominant route carried on the structure. Control Section information may be obtained from the intranet site:

<http://engrapps/hwyinfo/agilecsm/> or by reviewing District road maps from the internet site:

[http://wwwsp.dotd.la.gov/Inside\\_LaDOTD/Divisions/Multimodal/Data\\_Collection/Mapping/Pages/State\\_District\\_Parish\\_Maps.aspx](http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Multimodal/Data_Collection/Mapping/Pages/State_District_Parish_Maps.aspx)

For all Off-System structures code “000-00”.

**On/Off** – {2 or 3 alpha char} Code On for On-System structures or Off for Off -System structures.

On-System – State maintained highway system

Off-System – Any non-state maintained highway

**Parish Code (Item 3)** – {3 num char} Record the 2 digit Parish Code. **Refer to Appendix A1.**

**Control-Section Log Mile** – {4 num char} Record the log mile at the beginning of the bridge, measured from the beginning of the Control-Section or parish route to the nearest one-hundredth (.00) of a mile. Code leading zeroes as needed (00.00).

For all Off-System structures code “00.00”.

## BRIDGE INVENTORY FORM 2

**Facility Type** – {1 alpha char} Code the appropriate alpha character for the corresponding facility.

B – Highway Bridge: A bridge on a state highway or local road which carries vehicular traffic over a stream or other natural, geographic barrier.

O – Overpass: A bridge on a state highway or local road which carries vehicular traffic over a state highway, local road, or railroad.

U – Underpass: A bridge not on the state highway system or not carrying vehicular traffic, which passes over the state highway system, or any bridge built as part of the interstate system to carry a local road over the interstate.

T – Tunnel

F – Ferry Landing

S – Subway

C – Conveyor or Pipe Bridge

W – Pedestrian Bridge

**Place Code(Item 3)** - {5 num char} Within the boundaries of Cities, towns, townships, villages, and other census-designated place shall be identified using the Federal Information Processing Standards (FIPS) codes given in the current version of the Census of Population and Housing - Geographic Identification Code Scheme. If there is no FIPS place code, then code all zeros (00000).  
**Refer to Appendix B2**

**Bridge ID** – {1 num char} Record the digit which appropriately describes the roadway type and location in the direction of control.

- 1 Single Main Roadway or Right Main Roadway
- 2 Left Main Roadway
- 3 Right Frontage Road
- 4 Left Frontage Road
- 5 On-Ramp to Right Roadway
- 6 On-Ramp to Left Roadway
- 7 Off-Ramp from Right Roadway
- 8 Off-Ramp from Left Roadway
- 9 Emergency Cross-Over

## BRIDGE INVENTORY FORM 2

### **Project Number** – {Up to 25 alpha num char}

Code the actual State Project Number excluding hyphens. The project number recorded should be that of the original construction project. Rehabilitation projects are excluded. Replacement projects are considered original construction projects.

#### EXAMPLES:

S.P. 005-12-0003                      Code 005120003

S.P. 451-08-0167                      Code 451080167

H.009989                                  Code H.009989

If bridge is an Off-system bridge constructed by the parish code PARISH.

If bridge was constructed by the statewide bridge crew code STATEWIDE.

**LA LRS ID Number** – {12 or 18 num char} State Linear Reference System Identification Number. State maintained roads are assigned a 12 character ID. Non-state maintained roads are assigned an 18 character ID. Record the 12 or 18 digit LRS ID Number. This number can be found on the Intranet page under Project/Highway Information. For On - system bridges go to LADOTD Control Section Manual for Bridges. For Off-system bridges, go to Off – System Bridges to get the LRS ID Number. Find a Recall Number near the location of your bridge and click Map. Use the mouse to position the crosshairs on the bridge location. Ctrl-click on the location to acquire a menu that includes the LRS ID Number. For Additional guidance, **Refer to Appendix D.**

### **Federal Aid Project Number** – {Up to 25 alpha num char}

Record this number if Federal funds were used for construction or reconstruction of this structure. The Federal-Aid Project Number of the most recent project should be recorded. This number can be found on the title sheet of the project plans. Leave blank if not applicable.

**LRS Log Mile – (Item 11)** {7 num char} A 7 digit code, 4 digit whole number with 3 places behind the decimal (0000.000). For structures carrying the LRS inventory route, code the LRS log mile at the beginning of the structure. The LRS log mile can be found on the ladotd intranet page under Project/Highway information. . For On-system bridges, go to LADOTD Control Section Manuel for Bridges. For Off-system bridges go to Off – System Bridges. Find a Recall Number near the location of your bridge and click Map. Use the mouse to position the crosshairs on the bridge location. Ctrl-click on the location to acquire a menu that includes the LRS log mile, **Refer to Appendix D**

## BRIDGE INVENTORY FORM 2

**Bridge Name** – (Up to 63 alpha num char) Code the name of the bridge. This item should be left justified. Code the name assigned by the legislature as applicable.

Example: Huey P. Long Bridge

If the bridge has multiple names, separate them with commas.

Example: Gillis Long Bridge, Jackson St. Bridge

If there is no formal name use the Route and Feature Crossed.

Examples: LA 121 @ Calcasieu River  
Cormier Rd. @ Coulee

If the bridge has a nickname, put it in parenthesis after the route and crossing.

**LRS End Log Mile** - (7 num char) A 7 digit code, 4 digit whole number with 3 places behind the decimal (0000.000). For structures carrying the LRS inventory route, code the LRS End Log mile at the end of the structure. Use the same steps described in finding the LRS Log Mile to find the LRS End Log Mile.

**LRS End of Bridge Latitude** - (7 num char) Record as decimal degrees shown as a 2 digit whole number rounded to the nearest hundred thousandth of a degree (00.00000). Use trailing zeros if necessary. Always record the end latitude at the last abutment of the structure in the direction of the LRS id. The end of bridge latitude can be found on the Intranet, **Refer to Appendix D**. (Bing Maps or Google Earth can be used if your district allows)

No handheld or vehicular devices are to be used for obtaining latitude and longitude without approval from headquarters.

EXAMPLE: 30.65432

**End of Bridge Longitude** - (7 num char) Record as decimal degrees shown as a 2 digit whole number rounded to the nearest hundred thousandth of a degree (00.00000). Use trailing zeros if necessary and always put the minus sign “-” in front of the longitude. Record the end longitude at the last abutment of the structure in the direction of the LRS id. The end of bridge longitude can be found on the Intranet, **Refer to Appendix D**. (Bing Maps or Google Earth can be used if your District allows)

No handheld or vehicular devices are to be used for obtaining latitude and longitude without approval from headquarters.

EXAMPLE: -92.65432

## BRIDGE INVENTORY FORM 2

### Bridge Features

**Structure Type Name (Item 43)** - {6 alpha char} Code a six alpha character designation for the structure type represented by the predominant or main span description. **Refer to Appendix B1.**

**Waterway Name** - {up to 40 alpha num characters} Code the name of the waterway. The preferable coding is shown in the Coast Guard publication CG-425-2, or as listed on the bridge permit. Do not code if the waterway is not navigable. This is for permitted waterways only.

Example: Code: Grosse Tete Bayou Not: Bayou Gross Tete

**Total Number of Spans** – {4 num char} Code the total number of spans in the bridge, with leading zeros.

**River Mile Point** – {5 num char 0000.0} Code the “miles above mouth” as shown in the Coast Guard publication CG-425-2, or as listed on the bridge permit. Code in miles and tenths, using leading zeroes as required. Leave blank if the waterway is not navigable. If the District does not have a copy of the Coast Guard Publication contact Head Quarters for a copy.

**Shared Cost** – {1 alpha char} Code an asterisk “\*” if the operational and/or maintenance costs of the bridge are shared by the Department with another agency. If costs are not shared, leave blank.

**Pier-to-Pier** – {3 num char} Record the minimum horizontal opening between the piers adjacent to each side of the channel of a navigable waterway. If the opening is 999 feet or more, code 999. If the waterway is not navigable or the feature crossed is other than a waterway, code 000. Code the dimension to the nearest foot with leading zeroes.

**Railroad Code** – {up to 4 alpha char} The railroad code is left justified, 2 to 4 alpha character code that corresponds to the codes established by the Federal Railroad Administration. The current railroad codes are listed below:  
Based on the Federal Railroad Administration’s Codes for Railroads in LA,  
Rev. 01/24/2006. **Refer to Appendix B4**

## BRIDGE INVENTORY FORM 2

**Railing Type** – {6 alpha char} Use one of the following codes to record the predominant type of bridge rail on the structure. Leave blank if not applicable.

<u>Code</u>	<u>Description</u>
CONCPR	Concrete Post and Rail
COPRHR	Concrete Post and Rail with Hand Rail
COPRTB	Concrete Post and Rail with Thrie Beam
CPRTHR	Concrete Post and Rail with Thrie Beam and Hand Rail
CPRHDF	Concrete Post and Rail with High Density Foam Block Out
CONCFT	F – Shape Concrete Rail
CONCJT	Jersey Shape Concrete Rail
CONPAR	Concrete Parapet
CONCFW	Concrete Flat Wall
CONCTW	Concrete Tapered Wall
CNFMTR	Concrete Flat Wall with Metal Tube Rail
METTBP	Thrie Beam Metal Rail and Post
MTBPBB	Thrie Beam Metal Rail with Backer Board and Metal Post
METBWP	Thrie Beam with Wooden Post
MTBBWP	Thrie Beam with Backer Board and Wooden Post
METDBP	D Beam Metal Rail with Metal Post
MDBPBB	D Beam Metal Rail with Backer Board and Metal Post
MEBDWP	D Beam with Wooden Post
MDBBWP	D Beam with Backer Board and Wooden Post
MDBMBP	D Beam with Metal Backer and Metal Post
WOODPR	Wooden Rail with Wooden Post
METTUB	Metal Tube Rail with Metal Post
METPRL	Metal Pipe Rail and Post
METRIB	Metal Ribbon Rail with Any Post
OTHERS	Other type of rail that doesn't meet any criteria listed above

**District Maintained By** – {2 num char} Record the DOTD District which is actually responsible for the **maintenance** or **inspection** of the bridge. Code the District Number with a leading zero if required.

**Surface Thickness** – {2 num char} Record the average thickness of any material such as asphaltic concrete or gravel on the bridge deck to the nearest inch, with leading zeros. This value is recorded on the bridge inspection report and must be verified during every inspection. Any change from the previous inspection shall be updated on the inspection report or through a Bridge Inventory Form. The surface to be measured is that added above the structural deck, if there is no surface material added above the structural deck, record "00".

## BRIDGE INVENTORY FORM 2

### Load Rating Data

**This section shall be coded by Load Rating Section only.**

**Date Rated** – {8 num char (mm/dd/yyyy)} Record the actual date the structure was load rated. Bridges are to be rated in accordance with **EDSM I.1.1.8, I.1.1.15, and IV.4.1.2. And the BDEM (Bridge Design and Evaluation Manuel) Part II, Volume 5.** The BDEM can be found on the Intranet under the Office of Engineering, Bridge Design Section.

**Type of Rating** – Indicate what type of rating was used.

<u>Type of Rating</u>	<u>Coded</u>
As Built	AB
As Designed	AD
Present Condition	PC
Assigned	AS
Owner Provided	OP

**Rating Method** – Indicate what rating method was used by selecting one of the following codes below.

<u>Rating Method</u>	<u>Codes</u>
Resistance Factor	RF
Timber Rating (w/ SH veh)	T8
Load Factor	LF
Timber C (Timber 6 or 7)	TC
Working/Allowable Stress	WS

**Rated Surface Thickness** – {2 num char} Code a 2 digit number to indicate the thickness of any material on top of the structural deck. Some bridges, such as timber structures, often incorporate multiple materials on top of the structural deck. In these cases, the sum of all materials (e.g. gravel ballast and asphaltic concrete) is to be coded. Round up to the nearest inch.

**Inventory, Operating and Posting Vehicle Single / Combo (Deck, Super, Sub)**  
– {num char} Record the actual numbers off of the latest load rating. The PV-Single and PV- Combo are coded in tons.

## BRIDGE INVENTORY FORM 2

**SI&A Values Inventory (Items 66)** – {3 num char} Use the 00.0 format for all rating methods except Rating Factor (RF). For RF ratings use the 0.00 format. See examples below

For non-RF ratings, select the lowest last 2 digits (posting in tons) in the Inventory column from the Deck, Super, and Sub ratings; however, if the first digit (Type of Truck) is a 1, multiply by 1.25.

Non-RF Example: {00.0 format} There is no Deck rating. The lowest of the final 2 digits of the Super and Sub ratings is 13; however, the first digit (Type of Truck) is a 1. Therefore, 13 is multiplied by 1.25 resulting in an SI&A Value of 16.25. This result is truncated, so the SI&A Inventory value is coded 16.0.

	Inventory	Operating	PV-Single	PV-Combo
Deck				
Super	122	132	36	
Sub	113	122	22	
SI&A Values	16.0	27.0		

RF Example: {0.00 format} Only the Superstructure has a value assigned to it; therefore, the Super rating is 1.04 and is coded as such. Had the Deck and Substructure had ratings assigned to them, the lower would have been coded.

	Inventory	Operating	PV-Single	PV-Combo
Deck				
Super	1.04	1.34		67
Sub				
SI&A	1.04	1.34		

## BRIDGE INVENTORY FORM 2

**SI&A Values Operating (Items 64)** – {3 num char} Use the 00.0 format for all rating methods except Rating Factor (RF). RF ratings use the 0.00 format. See examples below }

For non-RF ratings, select the lowest last 2 digits (posting in tons) in the Operating, PV-Single, and PV-Combo columns from the Deck, Super, and Sub ratings; however, if the 1<sup>st</sup> first digit (Type of Truck) is a 1, multiply by 1.25

Non-RF Example: There is no Deck rating. The lowest of the final 2 digits of the Super and Sub ratings is 22; however, the first digit (Type of Truck) is a 1 therefore, 22 is multiplied by 1.25 resulting in an SI&A Value of 27.5. This result is truncated, so the SI&A value is coded 27.0.

	Inventory	Operating	PV-Single	PV-Combo
Deck				
Super	122	132	36	
Sub	113	122	22	
SI&A Values	16.0	27.0		

RF Example: {0.00 format} Only the Superstructure has a value assigned to it; therefore, the Super rating is 1.34 and is coded as such. Had the Deck and Substructure had ratings assigned to them, the lower would have been coded.

	Inventory	Operating	PV-Single	PV-Combo
Deck				
Super	1.04	1.34		67
Sub				
SI&A Values	1.04	1.34		

## BRIDGE INVENTORY FORM 2

### SI&A Method Inventory and Operating (Item 63 & Item 65) - {1 num char}

Record the 1 digit number.

	<u>Code</u>	
0		Field evaluation and documented engineering judgment
1		Load Factor (LF)
2		Working/Allowable Stress (WS)
3		Load and Resistance Factor (LRFR)
4		Load Testing
5		No rating analysis or evaluation performed
6		Load Factor (LF) rating reported by Rating Factor (RF) method using MS18 loading
7		Allowable Stress (AS) rating reported by Rating Factor (RF) method using MS18 loading
8		Load and Resistance Factor Rating (LRFR) rating reported by Rating Factor (RF) method using HL93 loadings
A		Assigned rating based on Load Factor Design (LFD) reported in metric tons
B		Assigned rating based on Allowable Stress Design (ASD) reported in metric tons
C		Assigned rating based on Load and Resistance Factor Design (LRFD) reported in metric tons
D		Assigned rating based on Load Factor Design (LFD) reported by Rating Factor (RF) using MS18 loading
E		Assigned rating based on Allowable Stress Design (ASD) reported by Rating Factor (RF) using MS18 loadings
F		Assigned rating based on Load and Resistance Factor Design (LRFD) reported by Rating Factor (RF) using HL93 loadings

### Posted Load — {5 alpha char}

Record the load posting signs that are in place at the structure. Standard load postings have been established: CL---, -----, 03---, 04---, 05---, 10---, 10-15, 15---, 15-25, 20---, 20-35, 25-40, 25-44, 30-44, & 35-44. Any posted loads that are not included in the standard postings shall be coded "OTHER". When "OTHER" is used include a photo of the posting sign with the form.

<u>Examples:</u>	<u>Posted Load</u>	<u>Code</u>
	No Posting	-----
	10-15 tons	10-15
	12 tons	OTHER

## BRIDGE INVENTORY FORM 2

**Required Posting** – {5 char} Record the required posting.

<u>Examples:</u>	<u>Required Posting</u>	<u>Code</u>
	25-40 Tons	25-40
	5 Tons	05---
	Closed	CL---
	No Posting	-----

**Conditional Posting Flag** – {1 char} Record a “Y” or “N” to indicate if a posting at a structure is different than the required posting. (Example: Load rating requires no posting but parish posts 10-15 then code “Y”)

**CEO Limit (Chief Engineer Order)** {5 alpha char} Record the weight limit issued by the Chief Engineer.

**CEO Date** – {8 num char, mm/dd/yyyy} Record the date the CEO was issued.

**CEO Number** – {8 num char} Record the Order Number.

**Review Flag** – {yes or no} This item is coded by the Load Rating Section to indicate whether the load rating was reviewed.

**Review Date** – {8 num char, mm/dd/yyyy} This Item is coded by the Load Rating Section.  
The date the load rating was reviewed by the Load Rating Section.

**Reviewed By** – {First initial and last name} This Item is coded by the Load Rating Section.  
The person who reviewed the load rating.

**Remarks** – This is a general remark section for recording significant information about the load rating.

**Review Remark**– This section to be used only by the Load Rating Section. This section is for recording significant information about the load rating review.

## BRIDGE INVENTORY FORM 2

### Hydraulics & Scour Data

**Bridge inspectors shall only code item 113 for bridges not over waterways and culverts, code N for bridges not over waterways and for culverts code 8**

**Scour Code (item 113)** – {1 alpha or num char} Use a single-digit code as indicated below to identify the current status of the bridge regarding its vulnerability to scour. Scour analyses shall be made by hydraulic/geotechnical/structural engineers. Details on conducting a scour analysis are included in the FHWA Technical Advisory 5140.23 titled, "Evaluating Scour at Bridges." Whenever a condition rating of 4 or below is determined for this item, the rating factor for Item 60 - Substructure may need to be revised to reflect the severity of actual scour and resultant damage to the bridge. When Item 113 is 2 or less Item 60(substructure) shall be rated the same. A scour critical bridge is one with abutment or pier foundations which are rated as unstable due to (1) observed scour at the bridge site or (2) a scour potential as determined from a scour evaluation study. **Refer to Appendix B3 for examples. Code "8" for all culverts and overpasses.**

<u>Code</u>	<u>Description</u>
N	Bridge not over waterway.
U	Bridge with "unknown" foundation that has not been evaluated for scour. Since risk cannot be determined, flag for monitoring during flood events and, if appropriate, closure.
T	Bridge over "tidal" waters that has not been evaluated for scour, but considered low risk. Bridge will be monitored with regular inspection cycle and with appropriate underwater inspections. ("Unknown" foundations in "tidal" waters should be coded U.)
9	Bridge foundations (including piles) on dry land well above flood water elevations.
8	Bridge foundations determined to be stable for assessed or calculated scour conditions; calculated scour is above top of footing. ( <u>Example A</u> )
7	Countermeasures have been installed to correct a previously existing problem with scour. Bridge is no longer scour critical.

(Cont. on next page)

## BRIDGE INVENTORY FORM 2

- |   |  |
|---|--|
| 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 piles. <u>(Example B)</u>  |
| 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 foundations determined to be unstable for calculated scour conditions:<br>- Scour within limits of footing or piles. <u>(Example B)</u><br>- Scour below spread-footing base or pile tips. <u>(Example C)</u> |
| 2 | Bridge is scour critical; field review indicates that extensive 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   |

**Date Scour Rating** – {8 num char, mm/dd/yyyy} Record the date of the latest scour rating.

**Pile Length** – {4 num char with leading zeros, 0000} Record, in feet, the length of the shortest pile/column on the bridge.

**Pile Penetration** – {3 num char with leading zeros, 000} Record, in feet, the length of pile that is actually in the ground.

**Abutment Revetment** – {1 or 2 alpha char} Does abutment revetment exist? For partial revetment, code N for No.

<u>Code</u>	
Yes	Y
No	N
Not Applicable	NA

## BRIDGE INVENTORY FORM 2

**Channel Revetment** – {1 or 2 alpha char} Does channel revetment exist? For partial revetment, code N for No.

	<u>Code</u>
Yes	Y
No	N
Not Applicable	NA

**Scour Rating Remarks** – This section is for recording significant information about the scour analysis.

## BRIDGE INVENTORY FORM 2

### Paint Data

This section shall be coded by the Area Engineer

**Paint project number** – {Up to 11 num char} Record the paint project number found on the contract.

**Paint Color Code** – {Up to 36 char} Record the paint color code found on the project specifications or contract.

**Date painted** – {8 num char, mm/dd/yyyy} Record the date the project was completed.

**Paint Clean Method** – Record the method that was used to clean the steel before paint was applied.

**Paint System** – Record the paint system used. This information is found on the project specifications.

[This Page Blank]

**BRIDGE INVENTORY FORM 3  
(UNDER RECORDS)**

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# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

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# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Instructions

This section provides instruction for completing “InspectTech Data Entry Form 3 – Under Record Items” (Under Record) for a route that crosses under a restrictive feature. This data shall only be recorded for a state maintained highway that crosses under a restrictive feature. A restrictive feature is defined as a highway, railroad, or pedestrian overpass.

An Under Record shall be completed for each Louisiana Linear Referencing System Identification (LA LRS ID). This shall include both directions of travel for a divided roadway, as well as any ramps, service roads, turn lanes, etc. **See Appendix C for examples.**

The Latitude and Longitude for a particular Under Record shall be taken at the point the under route intersects the restrictive feature in direction of travel. **See Appendix D.**

For multiple routes that cross under a single restrictive feature, the Under Records shall be inventoried in order based on the direction of control of the restrictive feature. For parish routes that cross over a federal highway, the direction of control for the parish route will be left to right in direction of control for the inventory route. **See Appendix C for examples.**

All items for the Under Record shall be coded for the state route traveling under the restrictive feature with the exception of the Asset Name / Recall Number and NBI Structure Number (SI&A Item 8) which shall be those coded for the restrictive feature.

**The following items shall be coded in addition to the other data on the Under Record only when it is being coded for a structure under a restrictive feature. It is not necessary to code these items for a ground-level roadway under a restrictive feature.**

<u>Item #</u>	<u>Description</u>
43A	Kind of Material
43B	Type Design
27	Year Built
42B	Type Service Under
48	Longest Span
49	Structure Length
103	Temp Structure

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Required Info

The following 5 codes shall be recorded for each form.

**Asset / Recall #** - {6 num char}

This code is the Asset/Recall number for the restrictive feature the Under Record is being recorded for.

**Update Type** – {1 num char}

Code the type of update that is being recorded.

<u>Code</u>	<u>Type</u>
A	Add
D	Delete
C	Change

**District** - {2 num char}

Use one of the following codes as appropriate.

<u>Code</u>	<u>District</u>
02	Bridge City
03	Lafayette
04	Bossier City
05	Monroe
07	Lake Charles
08	Alexandria
58	Chase
61	Baton Rouge
62	Hammond

**Parish Code** – {3 num char}

Record the 2 digit Parish Code. **Refer to Appendix A1.**

**On/Off** – {2 or 3 alpha char}

Code On for On-System structures or Off for Off -System structures.

On-System – State maintained highway system  
Off-System – Any non-state maintained highway

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Identification

### **State Code (Item 1)** – {3 num char}

This code will always remain 226 to indicate the State of Louisiana.

### **District (Item 2)** - {2 num char}

Use one of the following codes as appropriate.

<u>Code</u>	<u>District</u>
02	Bridge City
03	Lafayette
04	Bossier City
05	Monroe
07	Lake Charles
08	Alexandria
58	Chase
61	Baton Rouge
62	Hammond

### **Parish Name (Item 3)**

Fill in the Parish Name how it appears in **Appendix A1**.

### **Place Code (Item 4)** – {5 num char}

Within the boundaries of cities, towns, townships, villages, and other census-designated places shall be identified using the Federal Information Processing Standards (FIPS) codes given in the current version of the Census of Population and Housing - Geographic Identification Code Scheme. If there is no FIPS place code, then code 00000. A list of the codes is attached in **Appendix B2**.

### **Inventory Route (Item 5)** – {9 num char}

The inventory route is a 9-digit code composed of 5 segments. The Inventory Route is the roadway traveling under a restrictive feature.

<u>Segment</u>	<u>Description</u>	<u>Length</u>
5A	Record Type	1 digit
5B	Route Signing Prefix	1 digit
5C	Designated Level of Service	1 digit
5D	Route Number	5 digits
5E	Directional Suffix	1 digit

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

**Item 5A- Record Type** { 1 alpha-num char }

There are two types of National Bridge Inventory records: “on” and “under”. This form will only be coded for the “Under” record/s. Code the first digit (leftmost) using one of the following codes:

<u>Code</u>	<u>Description</u>
2	Single route goes under the structure
A through Z	Multiple routes go “under” the structure

A signifies the 1<sup>st</sup> of multiple routes under the structure.

B signifies the 2<sup>nd</sup> of multiple routes under the structure.

Z signifies 26<sup>th</sup> of multiple routes under the structure.

"Under" signifies that the inventory route goes "under" the structure. If an inventory route beneath the structure is a Federal aid highway, a STRAHNET route, State Highway, Connector, or is otherwise important, a record must be coded to identify it. The type code must be 2 or an alphabetic letter A through Z. Code 2 for a single route under the structure. If two or more routes go under the same structure on separate roadways, then Code A, B, C, D, etc. consecutively for each route.

**See Appendix C for examples.**

**Item 5B - Route Type** { 1 num char }

In the second position, identify the route signing prefix for the inventory route using one of the following codes:

<u>Code</u>	<u>Description</u>
1	Interstate Highway
2	U.S. Numbered Highway
3	State Highway
4	Parish Road
5	City Street
6	Federal Lands Road
7	State Lands Road
8	Other (include toll roads not otherwise indicated or identified above)

When 2 or more routes are concurrent, the highest class of route will be used. The hierarchy is in the order listed above.

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### **Item 5C - Designated Level of Service** { 1 num char }

In the third position, identify the designated level of service for the inventory route using one of the following codes:

<u>Code</u>	<u>Description</u>
0	None of the below
1	Mainline
2	Alternate (i.e. Route suffix is A)
3	Bypass
4	Spur (i.e. Route suffix is S)
6	Business (i.e. Route suffix is B, X, Y, or Z)
7	Ramp, Wye, Connector, etc.
8	Service and/or unclassified frontage road

**Note:** LA highways and parish roads are mainline unless otherwise noted.

### **Item 5D - Route Number** { 5 alpha-num char }

Code the route number of the inventory route in the next 5 positions. This value shall be right justified in the field with leading zeros. (This should not include the route prefix, i.e. LA, US, etc.)

If concurrent routes are of the same hierarchy level, denoted by the route signing prefix, the lowest numbered route shall be coded. Code 00000 for bridges on roads without route numbers.

In some cases, letters may be used with route numbers and as part of the route numbers and not to indicate direction. In such cases, the letter should be included in the 5-position route number field.

### **Item 5E - Directional Suffix** { 1 num char }

Currently this is not used in Louisiana, and therefore should always be coded "0" for Not Applicable.

### **Features Intersected (Item 6)** – { not to exceed 24 alpha-num char }

The names of all features intersected by the under record will be recorded and separated by commas. The route being inventoried will be coded first followed by feature intersected. When one or more of the features intersected is a state route, the route numbers should be recorded in the left-most fields. Local road names or descriptions should appear next, followed by any other features. Abbreviations should be used only when necessary. Meaningful abbreviations should be used, supplemented by the standard abbreviations provided on the following page. For structures other than highway bridges on the state highway system crossing over the roadway, code their description rather than that of the highway crossed.

**Ex: I-10 WB UNDER US 61**

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

N. – North	S. – South
W. – West	E. – East
WB – Westbound	EB – Eastbound
NB – Northbound	SB – Southbound
HWYS – Highways	ST – Streets
STS – Streets	Buss – Business
XING – Crossing	WWS – Waterways
XINGS – Crossings	CR – Creek
EXPY – Expressway	CA – Canal
EXPYS – Expressways	DR – Drain
RR – Railroad	STM – Stream
RD – Road number	B. – Bayou
RT – Route number	R. – River
OPS – Overpass	BR – Bridge
INTG – Interchange	INTGS – Interchanges

### **Facility Carried (Item 7)** – {not to exceed 18 alpha-num char}

The inventory route being carried by the Under Record shall be recorded and coded in all situations. This item describes the use “on” the inventory route. This item shall be left justified without trailing zeros.

#### Examples:

LA 421

US 61

I-10

### **NBI Structure Number (Item 8)** – {15 num char}

This will be the 15 digit NBI Structure Number for the restrictive feature. Code the NBI Structure Number for the structure crossing over the inventory route. Refer to the instructions for Item 8 in the Form 1 Coding Guide for additional information.

### **Location (Item 9)** – {not to exceed 25 alpha-num char}

This item contains a narrative description of where the inventory route being coded crosses under the restrictive feature. It is recommended that the location be keyed to a distinguishable feature on an official highway department map such as road junctions and topographical features. This item shall be left justified without trailing zeros.

#### Example:

3.5 MI. S. OF LA 69

6.0 MI. W. OF PARISH LINE

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### LRS Log Mile (Item 11) – {7 num char}

This is a 7 digit code that consists of a 4 digit whole number with 3 places behind the decimal (0000.000). This is the LRS log mile for the inventory route crossing under a restrictive feature. The LRS log mile will be taken at the point where the inventory route intersects the restrictive feature in the direction of travel. This can be found on the LADOTD Intranet page under Project/Highway Information. **See Appendix D for details.**

### Base Highway Network (Item 12) – {1 num character}

This item is to be coded for all records in the inventory. The Base Highway Network includes the through lane (mainline) portions of the National Highway System (NHS), rural/urban principal arterial systems and rural minor arterial system. Refer to Appendix D. Code this item “1” if the route identified in Inventory Route (Item 5) is on the NHS or the Functional Class (I-26) is coded 01, 02, 06, 11, 12, or 14. All others shall be coded “0”. Ramps, frontage roads and other roadways are not included in the Base Network. For the inventory route identified in item 5- Inventory Route, indicate whether the inventory route is on the Base Highway Network or not on that network. Use one of the following 1 digit codes:

<u>Code</u>	<u>Description</u>
0	Inventory route <u>is not</u> on the Base Network
1	Inventory route <u>is on</u> the Base Network

### LRS Inventory Route (Item 13A) – {10 num char}

This item is the first 10 characters of the LA LRS ID including dashes. Please see Form 2 page 3 of this manual for direction on how to find this number.

**This item is coded only for structures that carry state maintained highways.**

#### Example:

<u>LA LRS ID:</u>	<u>Code:</u>
828-11-1-010	828-11-1-0

### Subroute Number (Item 13B) – {2 num char}

Code the 2 character Sub route Number. This is the last 2 characters of the LA LRS ID. Please see Form 2 page 3 of this manual for direction on how to find this number.

**This item is coded only for structures that carry state maintained highways.**

#### Example:

<u>LA LRS ID:</u>	<u>Code:</u>
828-11-1-010	10

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### **Latitude (Item 16) – {8 num char}**

Record as decimal degrees shown as a 2 digit whole number rounded to the nearest hundred thousandth of a degree (00.00000). Use trailing zeros if necessary. Always record the latitude where the LRS inventory route intersects the restrictive feature in the direction of travel. This can be found on the LADOTD Intranet site. **See Appendix D.** (Bing Maps or Google Earth can be used if your district allows)

No handheld or vehicular devices are to be used for obtaining latitude and longitude without approval from headquarters.

EXAMPLE: 30.65432

### **Longitude (Item 17) – {8 num char}**

Record as decimal degrees shown as a 2 digit whole number rounded to the nearest hundred thousandth of a degree (-00.00000). Use trailing zeroes if necessary and always put the minus (-) sign in front of the longitude. Always record the longitude where the LRS inventory route intersects the restrictive feature in the direction of travel. This can be found on the LADOTD Intranet site.

**See Appendix D.** (Bing Maps or Google Earth can be used if your district allows)

No handheld or vehicular devices are to be used for obtaining latitude and longitude without approval from headquarters.

EXAMPLE: -92.65432

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Structure Type and Material

**These items will only be coded when the under record consists of a structure under a restrictive feature. These items will not be coded for only a ground level roadway under a restrictive feature.**

### **Structure Type of Material (Item 43A) – { 1 num char }**

Select the 1 digit code which indicates the kind of material of the main span.

<u>Code</u>	<u>Description</u>
1	Concrete
2	Concrete continuous
3	Steel
4	Steel continuous
5	Prestressed concrete *
6	Prestressed concrete continuous *
7	Wood or Timber
8	Masonry
9	Aluminum, Wrought Iron, or Cast Iron
0	Other

\* Post-tensioned concrete should be coded as prestressed concrete.

### **Structure Type Design/Construction (Item-43B) – { 2 num char }**

Select the 2 digit code to indicate the predominant type of design and/or type of construction of the main span and shall be coded using one of the following codes:

<u>Code</u>	<u>Description</u>
01	Slab
02	Stringer/Multi-beam or Girder
03	Girder and Floorbeam System
04	Tee Beam
05	Box Beam or Girders - Multiple
06	Box Beam or Girders - Single or Spread
07	Frame (except frame culverts)
08	Orthotropic
09	Truss - Deck
10	Truss - Thru
11	Arch - Deck
12	Arch - Thru
13	Suspension
14	Stayed Girder
15	Movable - Lift
16	Movable - Bascule

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

- 17 Movable - Swing
- 18 Tunnel
- 19 Culvert (includes frame culverts)
- 20 \* Mixed types
- 21 Segmental Box Girder
- 22 Channel Beam
- 00 Other

\* Applicable only to approach spans - Item 44

<u>EXAMPLES:</u>	<u>Code 43A</u>	<u>Code 43B</u>
Wood or Timber Through Truss	7	10
Masonry Culvert	8	19
Steel Suspension	3	13
Continuous Concrete Multiple Box Girders	2	05
Simple Span Concrete Slab	1	01
Tunnel in Rock	0	18

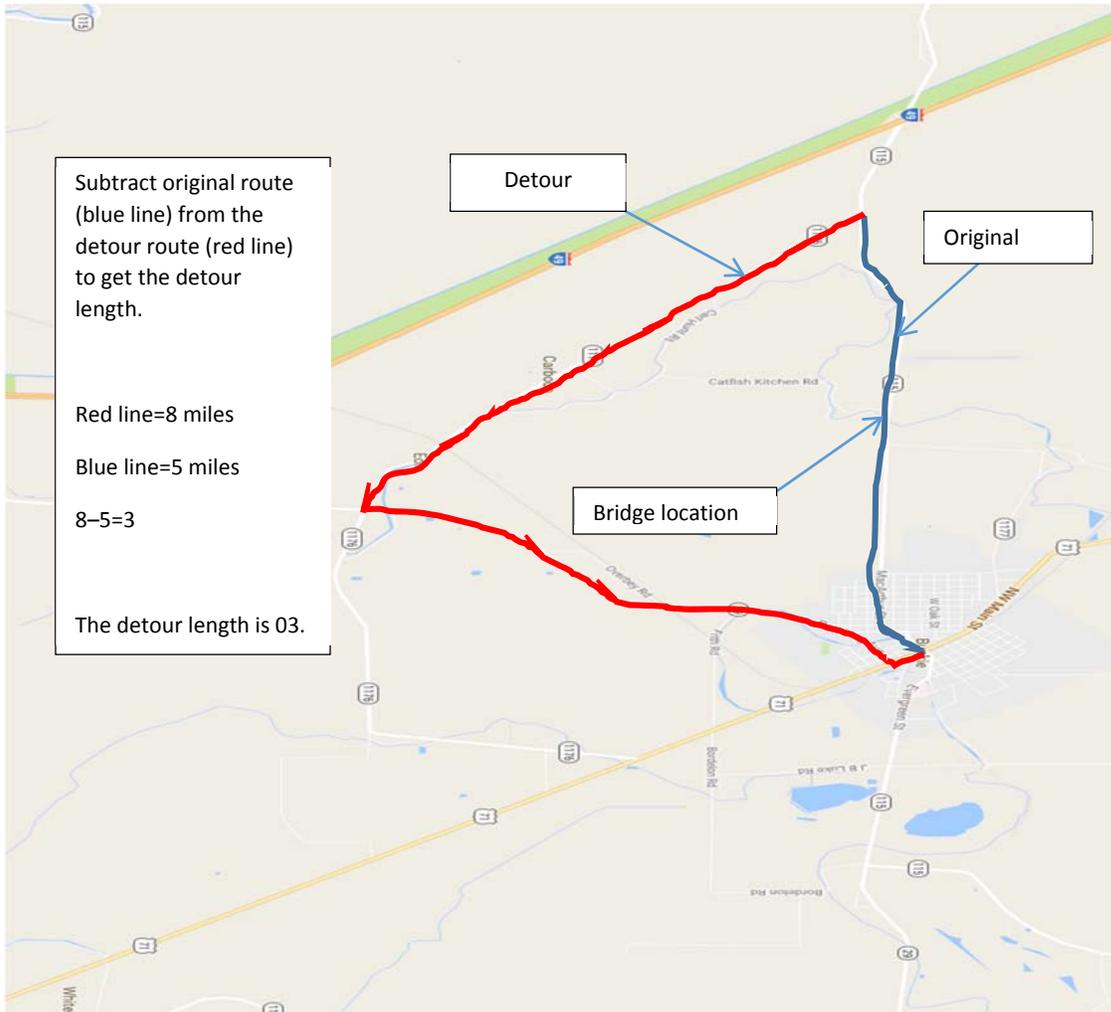
# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Age of Service

### **Bypass / Detour Length (Item 19) - {2 num char}**

Record the actual length to the nearest mile of the detour length. The detour length should represent the total additional travel for a vehicle which would result from not being able to pass under a restrictive feature. (See Sketch 1C) The factor to consider when determining if a bypass is available at the site is the potential for moving vehicles, including military vehicles, around the overpass. For instance, a bypass likely would be available in the case of diamond interchanges, interchanges where there are service roads available, or other interchanges where the positioning and layout of the ramps is such that they could be used without difficulty to get around the overpass. If a ground level bypass is available at the structure site for the inventory route, record and code the detour length as 00. In the event that a detour length is greater than or equal to 99 miles, code 99. This is currently not being used for Under Record purposes. Leave Blank.

### **SKETCH 1C**



# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### Year Built (Item 27) - {4 num char}

\*This will only be coded when a structure under a restrictive feature exists.

Record and code the year of construction of the structure. Code all 4 digits of the year in which construction of the structure was completed. If the year built is unknown, provide a best estimate.

<u>EXAMPLES:</u>	<u>Code</u>
Construction completed 1956	1956

### Lanes On the Structure (Item 28A) - {2 num char}

Record and code the number of lanes being carried by the inventory route identified in Item 5. The number of lanes should be right justified with leading zero(s) coded as required. Include all lanes carrying highway traffic (i.e., cars, trucks, buses) which are striped or otherwise operated as a full width traffic lane for the entire length under the structure by the owning/maintaining authority. This shall include any full width merge lanes and ramp lanes, and shall be independent of directionality of usage (i.e., a 1-lane bridge carrying 2-directional traffic is still considered to carry only one lane). Any "1-lane" bridge, not coded as a ramp (Item 5C = 7), which has a Bridge Roadway Width, Curb-to-Curb - Item 51 coded 16 feet or greater shall be evaluated as 2 lanes.

<u>Example:</u>	<u>Code</u>
1 lane on the structure	01
3 lane on the structure	03

### Lanes Under the Structure (Item 28B) - {2 num char}

Record and code the number of lanes being crossed over by the structure. The number of lanes should be right justified with leading zero(s) coded as required. When no travel lanes exist "under" then code "00".

<u>Example:</u>	<u>Code</u>
0 lane under the structure	00
3 lane under the structure	03

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

**Average Daily Traffic (Item 29) - {6 num char}**

Code a 6-digit number that shows the average daily traffic volume for the inventory route identified in Item 5. Make certain the unit's position is coded even if estimates of ADT are determined to tens or hundreds of vehicles; that is, appropriate trailing zeros shall be coded. The ADT coded should be the most recent ADT counts available. Included in this item are the trucks referred to in Item 109 – Average Daily Truck Traffic. The ADT must be compatible with the other items coded for the bridge. For example, parallel bridges with an open median are coded as follows: if Item 28 - Lanes On and Under the Structure and Item 51 – Bridge Roadway Width, Curb-to-Curb are coded for each bridge separately, then the ADT must be coded for each bridge separately (not the total ADT for the route). If the structure/roadway is a ramp and/or a service road then the ADT will be 10% of the total ADT for the inventory route. **See Appendix D.**

	<u>EXAMPLES:</u>	<u>Code</u>
Average Daily Traffic	540	000540
	15,600	015600
	24,000	024000
	80,000	040000 (for Left Roadway)
	80,000	040000 (for Right Roadway)
	10,000	001000 (for ramp/service roadway)

**Year of ADT (Item 30) – {2 num char}**

Record the last 2 digits of the year represented by the ADT in Item 29. This item should be coded when the structure is inventoried, but updates to this field will be generated from the Surface Type Log file. **See Appendix D.**

**Type of Service On (Item 42A) - {1 num char}**

Record a 1 digit code to represent the type of service "on" the underpass route using one of the following codes:

<u>Code</u>	<u>Description</u>
1	Highway
2	Railroad
3	Pedestrian-Bicycle
4	Highway-Railroad
5	Highway-Pedestrian
6	Overpass structure at an interchange or second level of a multilevel interchange
7	Third Level (Interchange)
8	Fourth Level (Interchange)
9	Building or Plaza
0	Other

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### **Type of Service Under (Item 42B) - { 1 num char }**

\*This will only be coded when a structure under a restrictive feature exists.

Record a 1 digit code to represent the type of service "under" the bridge using one of the following codes:

<u>Code</u>	<u>Description</u>
1	Highway, with or without pedestrian
2	Railroad
3	Pedestrian-Bicycle
4	Highway-Railroad
5	Waterway
6	Highway-Waterway
7	Railroad-Waterway
8	Highway-Waterway-Railroad
9	Relief for Waterway
0	Other

### **Average Daily Truck Traffic (Item 109) – { 2 num char }**

Code a 2-digit percentage that shows the percentage of Item 29 - Average Daily Traffic that is truck traffic. Do not include vans, pickup trucks and other light delivery trucks in this percentage. If this information is not available, an estimate which represents the average percentage for the category of road carried by the bridge may be used. May be left blank if Item 29 - Average Daily Traffic is not greater than 100. This item is typically filled by updates from the Surface Type Log file to the Inventory.

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Geometric Data

### **Max Permit Height (Item 10) - {3 num char}**

Code a 3 digit number in feet and tenths (00.0) with leading zeros if necessary to indicate the minimum vertical clearance over the inventory route identified in Item 5. Truncate the measurement to the tenth of a foot. **DO NOT ROUND UP.** This is the minimum clearance for a 10- foot width of the pavement or traveled part of the roadway where the clearance is the greatest shall be recorded. For structures having multiple openings, clearance for each opening shall be recorded, but only the greatest of the "minimum clearances" for the two or more openings shall be coded regardless of the direction of travel. This would be the practical maximum clearance for the movement of over height loads.

<u>Example:</u>	<u>Conversion:</u>	<u>Code</u>
18 ft. 4 in.	18.33	18.3
19 ft. 9 in.	19.75	19.7
20 ft. 5 ¾ in.	20.48	20.4

### **Inv. Rt. Total Horizontal Clearance (Item 47) - {3 num char}**

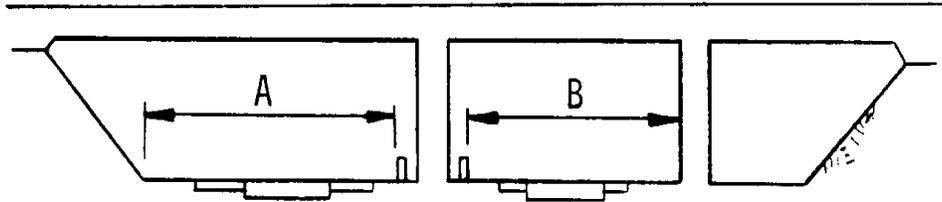
The total horizontal clearance for the inventory route identified in Item 5 should be measured and recorded. The clearance should be the available clearance measured between the restrictive features -- curbs, rails, walls, piers or other structural features limiting the roadway (surface and shoulders). The measurement should be recorded and coded as a 3-digit number to the nearest tenth of a foot (00.0). When the restriction is 100 feet or greater, code 999. **See Sketch 2C.**

The purpose of this item is to give the largest available clearance for the movement of wide loads. Flush and mountable medians are not considered to be restrictions. This clearance is defined in 2 ways; use the most applicable:

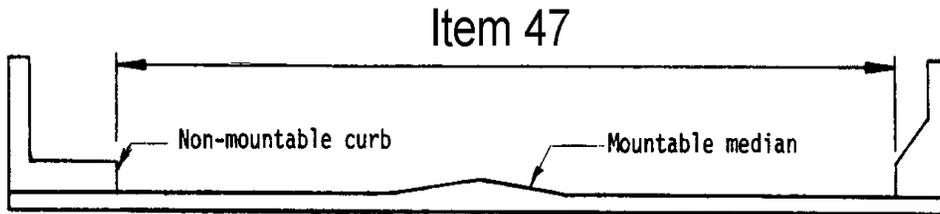
1. Clear distance between restrictions of the inventory route.
2. Roadway surface and shoulders - when there are no restrictions.

**BRIDGE INVENTORY FORM 3  
(UNDER RECORDS)**

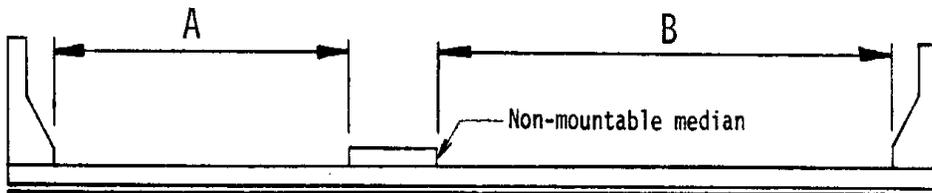
**SKETCH 2C**



Clearance  $A > B$     Item 47 = A



No Median or Flush or Mountable Median



Raised Median or Non-mountable Median

$B > A$     Item 47 = B

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## **Length Max Span (Item 48) - {4 num char}**

\*This will only be coded when a structure under a restrictive feature exists.

Code a four-digit number with leading zeros, which represents the distance along the centerline roadway, from center to center of substructure, of the longest span in the bridge. Record the length to the nearest foot. (0000)

## **Total Structure Length (Item-49) - {6 num char}**

\*This will only be coded when a structure under a restrictive feature exists.

Code a six-digit number, with leading zeros, to represent the length of the structure to the nearest foot (000000). This shall be the length of roadway which is supported on the bridge structure. The length should be measured back to back of backwalls of abutments or from paving notch to paving notch. **See Sketch 4C.**

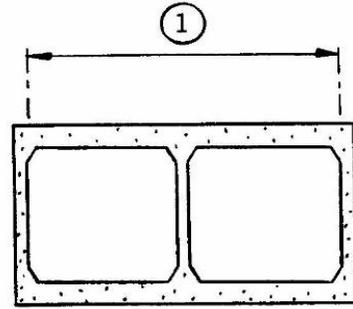
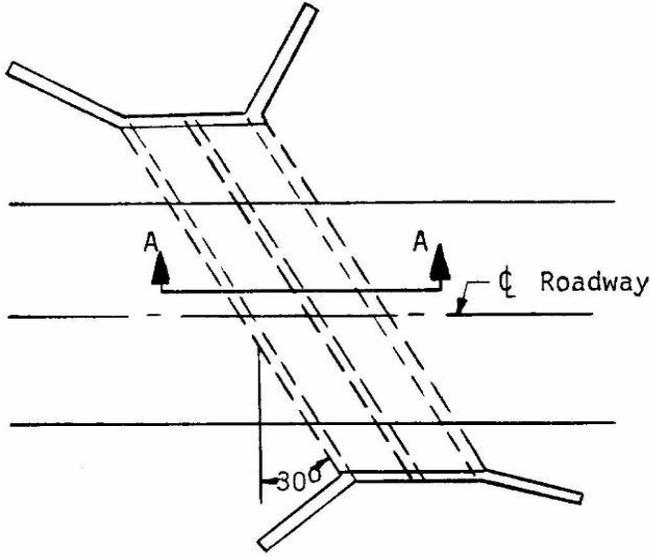
Culvert lengths should be measured along the center line of roadway regardless of their depth below grade. Measurement should be made between inside faces of exterior walls. Tunnel length should be measured along the centerline of the roadway. Be sure to code Item 5A = 2 for all tunnels. **See Sketch 3C.**

### EXAMPLES:

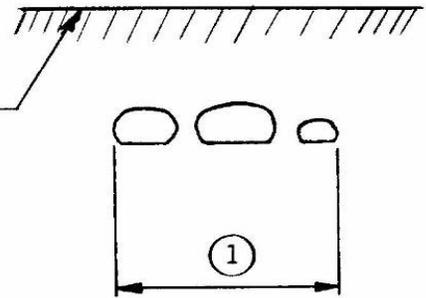
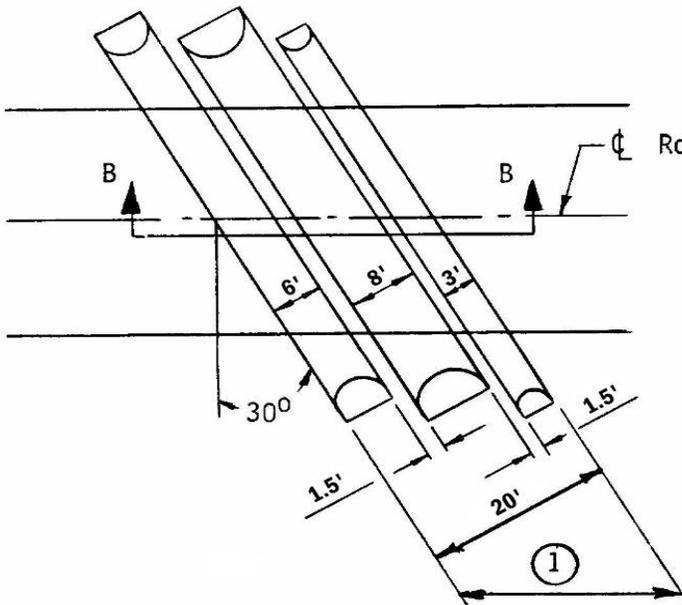
		<u>Code</u>
Structure Length	35' – 7"	000036
	542.1 feet	000542

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

SKETCH 3C



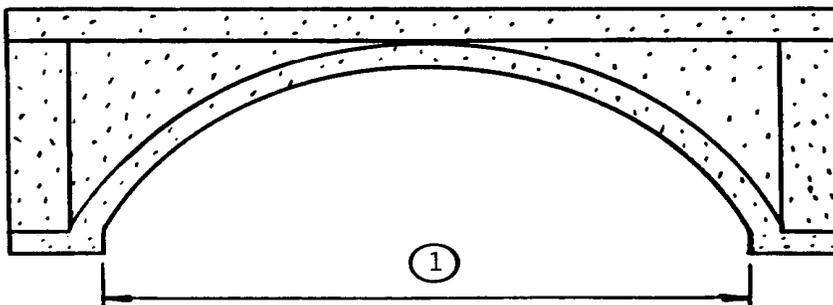
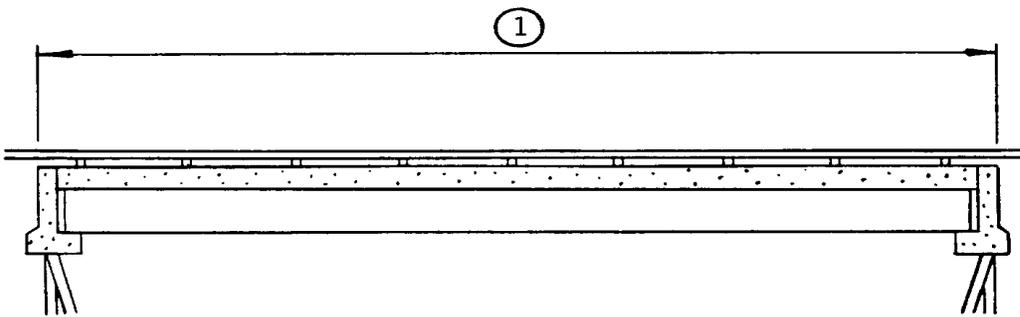
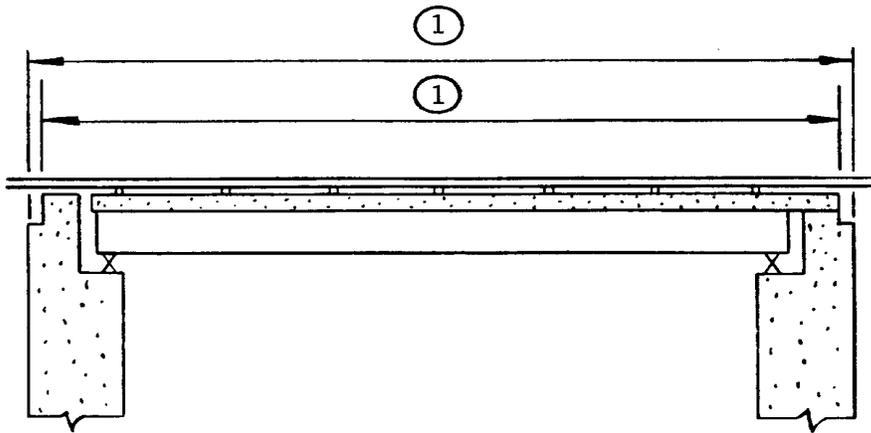
SECTION A-A



SECTION B-B

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

SKETCH 4C



# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Classification

### **Toll (Item 20)** – {1 num char}

The toll status of the structure is indicated by this item. Interstate toll segments under Secretarial Agreement (Title 23 - United States Code - Highways Section 129 as amended by 1991 ISTEA and prior legislation) shall be identified separately. Use one of the following codes:

<u>Code</u>	<u>Description</u>
1	Toll bridge. Tolls are paid specifically to use the structure.
2	On toll road. The structure carries a toll road, that is, tolls are paid to use the facility, which includes both the highway and the structure.
3	On free road. The structure is toll-free and carries a toll-free highway.
4	On Interstate toll segment under Secretarial Agreement. Structure functions as a part of the toll segment.
5	Toll bridge is a segment under Secretarial Agreement. Structure is separate agreement from highway segment.

### **Functional Classification of Inventory Route (Item 26)** – {2 num char}

For the inventory route, code the functional classification using one of the following codes:

#### **Rural**

<u>Code</u>	<u>Description</u>
01	Principal Arterial - Interstate
02	Principal Arterial - Other
06	Minor Arterial
07	Major Collector
08	Minor Collector
09	Local

#### **Urban**

<u>Code</u>	<u>Description</u>
11	Principal Arterial - Interstate
12	Principal Arterial - Other Freeways or Expressways
14	Other Principal Arterial
16	Minor Arterial
17	Collector
19	Local

# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### (Item 26 cont.)

The bridge shall be coded rural if not inside a designated urban area. The urban or rural designation shall be determined by the location and not the character of the roadway. The current classification for all Control Sections can be found on the LADOTD Intranet page.

**See Appendix D for details.**

### STRAHNET Highway Designation (Item 100) – { 1 num char }

This item shall be coded for all records in the inventory. For the purposes of this item, the STRAHNET Connectors are considered included in the term STRAHNET. For the inventory route identified in Item 5 (**See Appendix D**), indicate STRAHNET highway conditions using one of the following codes:

<u>Code</u>	<u>Description</u>
0	The inventory route is not a STRAHNET route.
1	The inventory route is on an Interstate STRAHNET route.
2	The inventory route is on a Non-Interstate STRAHNET route.
3	The inventory route is on a STRAHNET connector route.

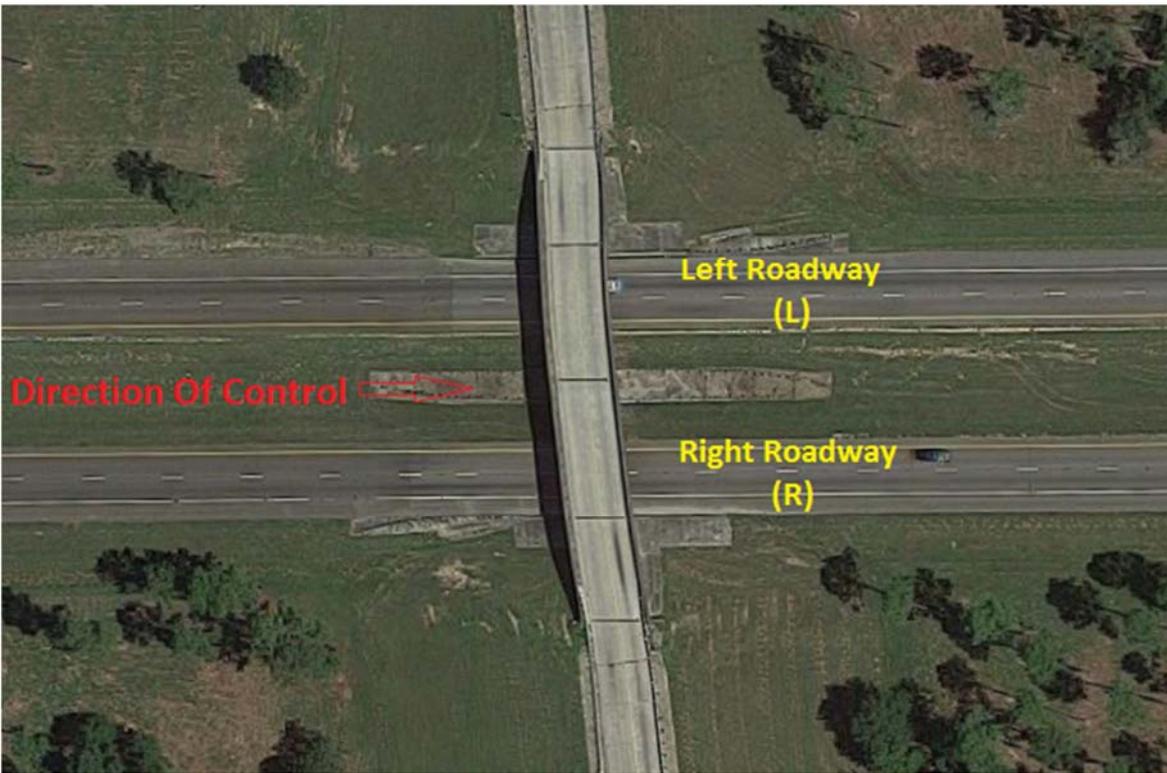
### Parallel Highway/Structure Designation (Item 101) – { 1 alpha char }

Code this item to indicate situations where separate structures and/or highways carry the same inventory route in opposite directions of travel under a restrictive feature. (**See Sketch 5C**) The lateral distance between structures has no bearing on the coding of this item. Ramps will not be considered and shall be coded “N”. One of the following codes shall be used:

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

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

SKETCH 5C



# BRIDGE INVENTORY FORM 3

## (UNDER RECORDS)

### Direction of Traffic (Item 102) – {1 num char}

Code the direction of traffic of the inventory route identified in Item 5 as a 1-digit number using one of the codes below. This item must be compatible with other traffic-related items such as Item 28A Lanes on the Structure, Item 29 - Average Daily Traffic, Item 47 – Total Horizontal Clearance.

<u>Code</u>	<u>Description</u>
0	Highway traffic not carried
1	1-way traffic
2	2-way traffic
3	1 lane bridge for 2-way traffic

### Temporary Structure Designation (Item 103) – {1 alpha char}

\*This will only be coded when a structure under a restrictive feature exists.

This item will only be used on a case by case basis. Contact the HQ Bridge Office for guidance if use of this field appears necessary or pertinent.

### NHS Inv. Rt. Designation (Item 104) – {1 num char}

This item is to be coded for all records in the inventory. For the inventory route identified in Item 5, indicate whether the inventory route is on the National Highway System (NHS) or not on that system. **See Appendix D**. Initially, this code shall reflect an inventory route on the NHS "Interim System" description in Section 1006(a) of the 1991 ISTEA. Upon approval of the NHS by Congress, the coding is to reflect the approved NHS. Use one of the following codes:

<u>Code</u>	<u>Description</u>
0	Inventory Route is not on the NHS
1	Inventory Route is on the NHS

### Designated National Truck Network (Item 110) – {1 num char}

The national network for trucks includes most of the Interstate System and those portions of Federal-Aid highways identified in the Code of Federal Regulations (23 CFR 658). The national network for trucks is available for use by commercial motor vehicles of the dimensions and configurations described in these regulations. **See Appendix D**. For the inventory route identified in Item 5, indicate conditions using one of the following codes:

<u>Code</u>	<u>Description</u>
0	The inventory route is not part of the national network for trucks.
1	The inventory route is part of the national network for trucks.

# BRIDGE INVENTORY FORM 3 (UNDER RECORDS)

## Permit Underclearances

**Vertical Clearances:** Measure and record the distance between the restrictive feature and the underlying roadway(s). Measurements shall be taken at the centerline and each gutter-line or edge of the travel lane. “Right Roadway” and “Left Roadway” shall be determined based on the direction of Control. “Right Curb” and “Left Curb” shall be determined based on the direction of travel. These measurements shall be periodically verified and shall be updated following any work that may alter the recorded clearances.

### Right Roadway:

- Centerline – {3 num char} – Record the minimum vertical clearance dimension at the centerline of the roadway. Code in feet and tenths with leading zeroes. (00.0) Truncate the measurement to the tenth of a foot. DO NOT ROUND UP. Code 99.9 when the clearance is 99.9’ or greater.
- Right Curb – {3 num char} – Record the minimum vertical clearance dimension in the right gutter-line or right edge of travel lane as described in the “Centerline” instruction.
- Left Curb – {3 num char} – Record the minimum vertical clearance dimension in the left gutter-line or right edge of travel lane as described in the “Centerline” instruction.

### Left Roadway:

This will only be coded when a divided roadway exists with only 1 LRS ID for that route. An example of this is where a 2 lane roadway separates into a 4 lane under an overpass then returns back to a 2 lane roadway. When a left roadway exists code the centerline, right curb, and left curb as above for Right Roadway.

### **LA LRS ID:** (12 num char)

This is the State Linear Reference System Identification Number that is used to identify a roadway and direction of travel. This information can be found on the LADOTD Intranet website. **See Appendix D for guidance.** This is a 12 character number in a (XXX-XX-X-XXX) format.

# Appendix A1

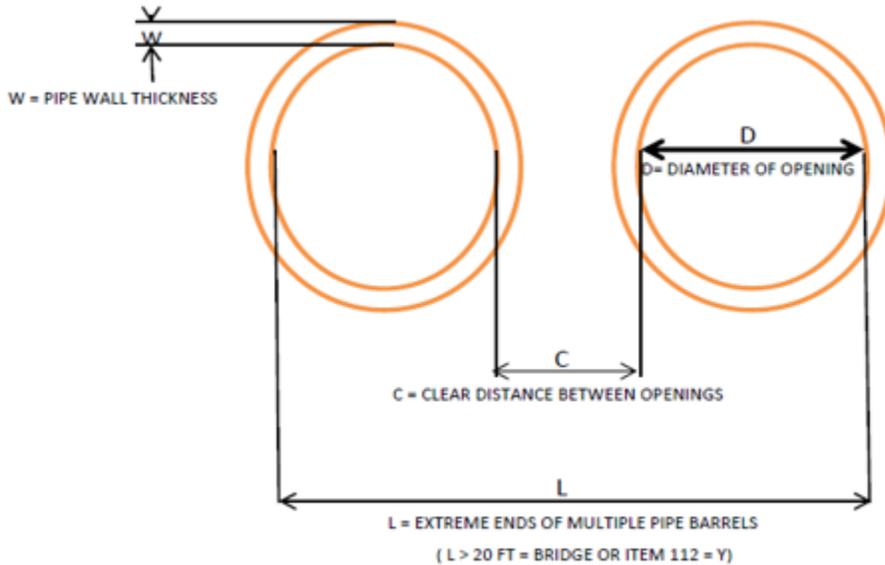
PAR	DIST	PARISH NAME	FIPS	PAR	DIST	PARISH NAME	FIPS
1	03	ACADIA	001	33	05	MADISON	065
2	07	ALLEN	003	34	05	MOREHOUSE	067
3	61	ASCENSION	005	35	08	NATCHITOCHE	069
4	61	ASSUMPTION	007	36	02	ORLEANS	071
5	08	AVOYLLES	009	37	05	OUACHITA	073
6	07	BEAUREGARD	011	38	02	PLAQUEMINES	075
7	04	BIENVILLE	013	39	61	POINTE COUPEE	077
8	04	BOSSIER	015	40	08	RAPIDES	079
9	04	CADDO	017	41	04	RED RIVER	081
10	07	CALCASIEU	019	42	05	RICHLAND	083
11	58	CALDWELL	021	43	08	SABINE	085
12	07	CAMERON	023	44	02	ST. BERNARD	087
13	58	CATAHOULA	025	45	02	ST. CHARLES	089
14	04	CLAIBORNE	027	46	62	ST. HELENA	091
15	58	CONCORDIA	029	47	61	ST. JAMES	093
16	04	DE SOTO	031	48	62	ST. JOHN THE BAPTIST	095
17	61	EAST BATON ROUGE	033	49	03	ST. LANDRY	097
18	05	EAST CARROLL	035	50	03	ST. MARTIN	099
19	61	EAST FELICIANA	037	51	03	ST. MARY	101
20	03	EVANGELINE	039	52	62	ST. TAMMANY	103
21	58	FRANKLIN	041	53	62	TANGIPAHOA	105
22	08	GRANT	043	54	58	TENSAS	107
23	03	IBERIA	045	55	02	TERREBONNE	109
24	61	IBERVILLE	047	56	05	UNION	111
25	05	JACKSON	049	57	03	VERMILLION	113
26	02	JEFFERSON	051	58	08	VERNON	115
27	07	JEFFERSON DAVIS	053	59	62	WASHINGTON	117
28	03	LAFAYETTE	055	60	04	WEBSTER	119
29	02	LAFOURCHE	057	61	61	WEST BATON ROUGE	121
30	58	LA SALLE	059	62	05	WEST CARROLL	123
31	05	LINCOLN	061	63	61	WEST FELICIANA	125
32	62	LIVINGSTON	063	64	08	WINN	127

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# Appendix A2

## CULVERT MEASUREMENTS

- Culvert lengths shall be measured centerline of the roadway from the 1<sup>st</sup> inside opening to the last inside opening.

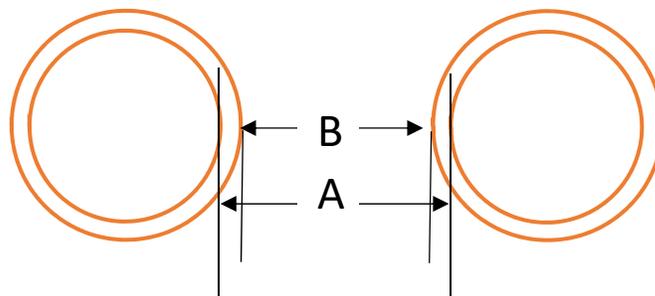


- For multiple pipe structures no matter what the diameter of the pipe; the clear distance between pipe openings must be smaller than  $\frac{1}{2}$  the diameter of the smallest contiguous opening. Which means if the distance between openings is greater than  $\frac{1}{2}$  the diameter of the smaller contiguous opening then that pipe opening would not be used in the sum of the structures total length. This measurement can only be on either side of the smaller opening. If the remaining openings are still 21' or more in length then all of the pipe openings would be measured as the structure not just that portion. (Refer to Diagrams 1 and 2)

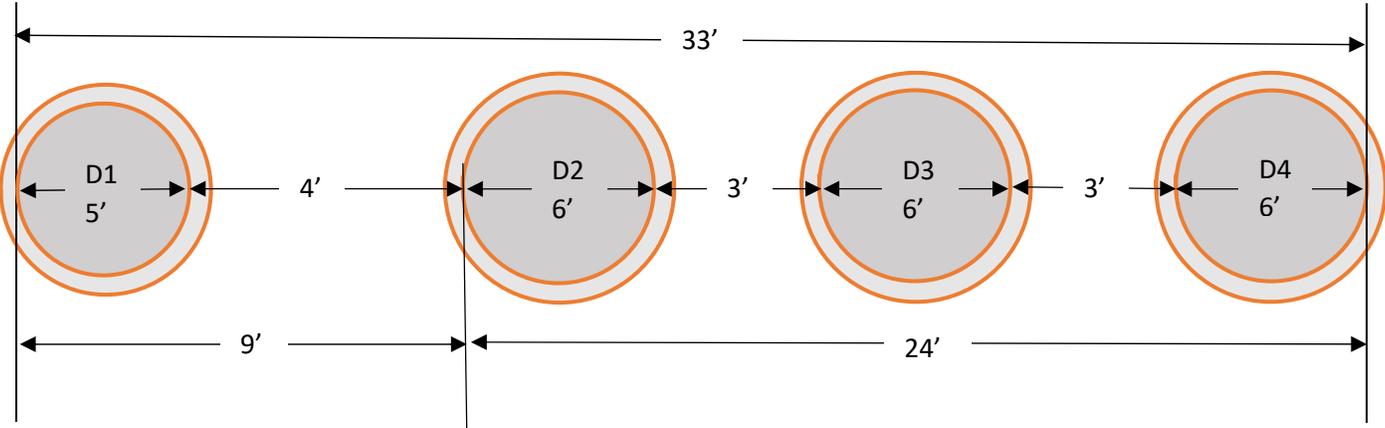
- You can measure C (The clear distance between two openings) two ways;

A - Measure from the inside of one opening to the inside of the other opening

B - Measure the distance between two openings and add the two wall thicknesses "W".



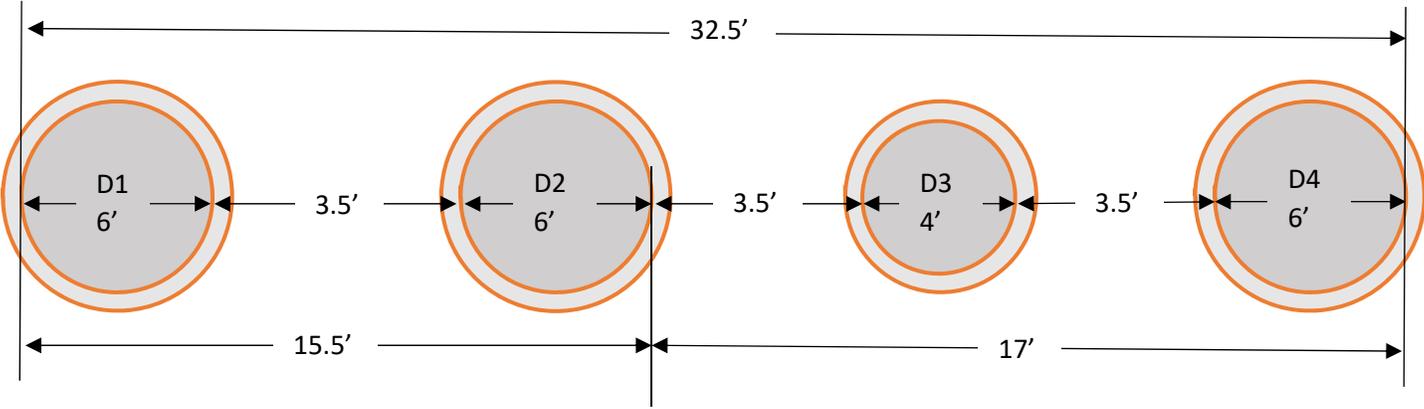
# Appendix A2



Although the distance between D1 and D2 is greater than  $\frac{1}{2}$  the diameter of D1 (the smaller contiguous opening) the length of the remaining openings still qualify as a structure. The length of the structure would be 33' not 24'. All the openings would remain a structure.

Wall thickness on all barrels is 6"  
and the distance between barrels on both sides of roadway are the same.

DIAGRAM 2



Since the distance between D2 and D3 is more than  $\frac{1}{2}$  the diameter of D3 (smallest contiguous opening). D3 and D4 would not be used in the sum of the total length. D1 and D2 would not meet the 21' or more length requirement so the remaining openings would not qualify as a structure.

# Appendix B1

Rev. 10/25/2017

## LADOTD Structure Type Names

NAME	DESCRIPTION
<b><u>Timber Spans</u></b>	
TTTRES	Treated Timber Trestles
TTTCOF	Treated Timber Trestles (w/ Concrete Deck)
TTMUDS	Treated Timber Mud Sill
TTTLAM	Treated Timber Trestles (w/ Laminated Deck and/or Stringers)
<b><u>Timber &amp; Steel Spans</u></b>	
CIBTTF	Timber Trestle w/ I-Beam Stringers (w/ Timber Deck)
CIBTCF	Timber Trestle w/ I-Beam Stringers (w/ Concrete Deck)
CIBTTM	Timber Trestle w/ I-Beam Stringers (Removable Span)
<b><u>Concrete Girder/Slab Spans</u></b>	
COSLAB	Concrete Slab
LWSLAB	Lightweight Concrete Slab
CNTSLB	Concrete Slab - Continuous
COPCSS	Concrete Precast Slab Units
LWPCSS	Lightweight Concrete Precast Slab Units
CPCSSC	Concrete Precast Slab Span w/ Closure Pours
CPSCCD	Concrete Prestressed Slabs w/ Continuous Cast-In-Place Deck
COPSCH	Concrete Prestressed Channel Units (Welded)
CORECH	Concrete Precast Reinforced Channel Units (Bolted)
COPVCD	Concrete Precast Voided Units w/ Cast-In-Place Deck
COVSLB	Concrete Voided Slab
CCOVSL	Concrete Voided Slab - Continuous
CODEKG	Concrete Deck Girder
CNTCDG	Concrete Deck Girder - Continuous
COPSGR	Concrete Prestressed Girders (AASHTO Type)
PSGRLW	Concrete Prestressed Girders (AASHTO Type) w/ Lightweight concrete deck
CPGCCD	Concrete Prestressed Girders (ASSHTO Type) w/Continuity Diaphragms & Continuous Cast-In-Place Deck
CPGLSD	Concrete Prestressed Girders (ASSHTO Type) w/ Linked Slab Continuous Deck
PCPSSP	Concrete Prestressed Girders (AASHTO Type) w/Precast Monolithic Deck
COBTGR	Concrete Prestressed Bulb Tee Girders (BT Type)
CBTGCD	Concrete Prestressed Bulb Tee Girders (BT Type) w/Continuous Cast-In-Place Deck
CPSQBG	Concrete Prestressed Quad-Beam Girder
CPQCCD	Concrete Prestressed Quad-Beam Girder w/Continuous Cast-In-Place Deck
COLGGR	Concrete Prestressed Louisiana Girder (LG Type)
CLGGCD	Concrete Prestressed Louisiana Girder (LG Type) w/Continuous Cast-In-Place Deck
COBXGR	Concrete Box Girder
COXBMB	Concrete Box Beam
CBXSEG	Concrete Box Girder - Segmental
CONRCH	Concrete Arch
<b><u>Movable Spans</u></b>	
HISWNG	Steel High Truss Swing Span
LOSWNG	Steel Low Truss Swing Span
PGSWNG	Steel Plate Girder Swing Span
IBSWNG	Steel I-Beam Swing Span
TRBASC	Steel Truss Bascule Span
PGBASC	Steel Plate Girder Bascule Span
STVERT	Steel Vertical Lift Span
PONTON	Pontoon Bridge

# Appendix B1

Rev. 10/25/2017

## LADOTD Structure Type Names

	NAME	DESCRIPTION
<b><u>Culverts</u></b>		
(Over 20ft total opening)	CONBOX	Concrete Box Culvert(s)
	COPBOX	Precast Concrete Box Culvert(s)
	CONPIP	Concrete Pipe Culvert(s)
	CFRCLV	Concrete Frame Culvert(s)
	STLRCH	Steel/Metal Arch Culvert(s)
	ALURCH	Aluminum Arch Culvert(s)
	STLPIP	Steel/Metal Pipe Culvert(s)
	ALUPIP	Aluminum Pipe Culvert(s)
	RRTKCR	Railroad Tank Car(s)
	RRBXCR	Railroad Box Car(s)
	PLARCH	Plastic Pipe Culvert(s)
<b><u>Steel Girder Spans</u></b>		
	CONIBM	Steel I-Beam (Rolled)
	CNTIBM	Steel I-Beam (Rolled) - Continuous
	SUSIBM	Steel I-Beam (Rolled) - Suspended
	CORIBM	Steel I-Beam (Rolled) - Removable Span
	COMWEL	Welded I-Beam w/ Composite Concrete Deck
	CMWLLW	Welded I-Beam w/ Composite Lightweight Concrete Deck
	CNTWEL	Welded I-Beam w/ Composite Concrete Deck - Continuous
	IBMWEL	Welded I-Beam w/ Steel Bents and Floor
	STPLGR	Steel Plate Girder
	STCPLG	Steel Plate Girder - Continuous
	SUSPLG	Steel Plate Girder - Suspended
	STCAPG	Steel Plate Girder (Cable Stayed)
	STCUGR	Steel Curved Plate Girder
	STBXGR	Steel Box Girder
	SSTBXG	Steel Box Girder (Single or Spread)
	STCAGR	Steel Box Girder (Cable Stayed)
	STCUBX	Steel Curved Box Girder
<b><u>Truss Spans</u></b>		
	STHITR	Steel High Truss (Simple Through Truss)
	STCANT	Steel High Truss (Cantilevered Through Truss)
	STLOTR	Steel Low Truss (Pony Truss)
	STDKTR	Steel Deck Truss
<b><u>Miscellaneous Structures</u></b>		
	RRFLCR	Railroad Flat Car
	PEDXNG	Pedestrian Walkway
	BAILEY	Bailey, ACRO, or other "Portable Army Type" Bridging
	FERRYT	Ferry - Toll
	TUNNEL	Tunnel or Subway
	OTHERS	<p>* Combination of Type of Construction and/or Material IN SAME SPAN, such as a CODEKG "widened" using Timber Pile and Precast Span Units.</p> <p>* This code will only be used in special situations, and only as directed by the Structures &amp; Facilities Maintenance Engineer.</p>

# Appendix B2

## Louisiana Place Codes (Cities)

00100 Abbeville city	07205 Bienville village	15290 Choudrant village
00240 Abita Springs town	07730 Blanchard town	15465 Church Point town
00415 Addis town	08150 Bogalusa city	15605 Claiborne CDP
00835 Albany village	08535 Bonita village	15745 Clarence village
00975 Alexandria city	08710 Boothville CDP	15780 Clarks village
01780 Ama CDP	08745 Bordelonville CDP	15850 Clayton town
01815 Amelia CDP	08920 Bossier City city	15990 Clinton town
01885 Amite City town	09095 Bourg CDP	16375 Colfax town
01920 Anacoco village	09130 Boutte CDP	16655 Collinston village
02165 Angie village	09165 Boyce town	16830 Columbia town
02550 Arabi CDP	09235 Branch CDP	17180 Convent CDP
02655 Arcadia town	09340 Breaux Bridge city	17215 Converse village
03110 Arnaudville town	09480 Bridge City CDP	17880 Cottonport town
03145 Ashland village	10075 Broussard city	17915 Cotton Valley town
03320 Athens village	10145 Brownfields CDP	18055 Coushatta town
03390 Atlanta village	10225 Brownsville CDP	18125 Covington city
03810 Avondale CDP	10600 Brusly town	18295 Creola village
03985 Baker city	10705 Bryceland village	18335 Crescent CDP
04020 Baldwin town	10950 Bunkie city	18650 Crowley city
04055 Ball town	10985 Buras CDP	18790 Cullen town
04230 Banks Springs CDP	11580 Cade CDP	18930 Cut Off CDP
04300 Barataria CDP	11825 Calhoun CDP	20155 Delcambre town
04580 Basile town	11930 Calvin village	20190 Delhi town
04615 Baskin village	12000 Cameron CDP	20330 Delta village
04685 Bastrop city	12280 Campti town	20435 Denham Springs city
05000 Baton Rouge city	12420 Cankton village	20575 DeQuincy city
05105 Bawcomville CDP	12665 Carencro city	20610 DeRidder city
05175 Bayou Blue CDP	12840 Carlyss CDP	20680 Des Allemands CDP
05210 Bayou Cane CDP	13260 Castor village	20820 Destrehan CDP
05260 Bayou Country Club	13330 Catahoula CDP	20890 Deville CDP
05315 Bayou Gauche CDP	13575 Cecilia CDP	21135 Dixie Inn village
05350 Bayou Goula CDP	13855 Center Point CDP	21170 Dodson village
05378 Bayou L'Ourse CDP	13960 Central City	21240 Donaldsonville city
05525 Bayou Vista CDP	14100 Chackbay CDP	21450 Downs ville village
05945 Belcher village	14135 Chalmette CDP	21590 Doyline village
06120 Belle Chasse CDP	14310 Charenton CDP	21765 Dry Prong village
06260 Belle Rose CDP	14450 Chataignier village	21800 Dubach town
06750 Belmont CDP	14485 Chatham town	21835 Dubberly village
06925 Benton town	14520 Chauvin CDP	21940 Dulac CDP
07030 Bernice town	14660 Cheneyville town	22255 Duson town
07100 Berwick town	15150 Choctaw CDP	22465 East Hodge village

# Appendix B2

## Louisiana Place Codes (Cities)

22610 Eastwood CDP	29045 Gillis CDP	37270 Inniswold CDP
22722 Eden Isle CDP	29150 Glencoe CDP	37410 Iota town
22815 Edgard CDP	29220 Glenmora town	37445 Iowa town
22850 Edgefield village	29395 Gloster CDP	37830 Jackson town
23025 Egan CDP	29640 Golden Meadow town	37935 Jamestown village
23235 Elizabeth town	29745 Goldonna village	38075 Jeanerette city
23567 Elmwood CDP	29850 Gonzales city	38092 Jean Lafitte town
23620 Elton town	30515 Grambling city	38145 Jefferson CDP
23725 Empire CDP	30550 Gramercy town	38285 Jena town
24145 Epps village	30690 Grand Cane village	38355 Jennings city
24180 Erath town	30760 Grand Coteau town	38670 Jonesboro town
24215 Eros town	30830 Grand Isle town	38775 Jonesville town
24250 Erwinville CDP	30900 Grand Point CDP	38845 Jordan Hill CDP
24390 Estelle CDP	31180 Gray CDP	38880 Joyce CDP
24460 Estherwood village	31250 Grayson village	38985 Junction City village
24565 Eunice city	31565 Greensburg town	39055 Kaplan city
24775 Evergreen town	31705 Greenwood town	39085 Keachi town
25160 Farmerville town	31915 Gretna city	39475 Kenner city
25335 Fenton village	32020 Grosse Tete village	39545 Kentwood town
25440 Ferriday town	32055 Gueydan town	39650 Kilbourne village
25545 Fifth Ward CDP	32405 Hackberry CDP	39685 Killian town
25615 Fisher village	32510 Hahnville CDP	39720 Killona CDP
25860 Florien village	32650 Hall Summit village	39755 Kinder town
26140 Folsom village	32755 Hammond city	40210 Kraemer CDP
26280 Fordoche town	32930 Harahan city	40280 Krotz Springs town
26350 Forest village	33210 Harrisonburg village	40420 Labadieville CDP
26420 Forest Hill village	33245 Harvey CDP	40595 Lacassine CDP
26665 Fort Jesup CDP	33420 Haughton town	40665 Lacombe CDP
26746 Fort Polk North CDP	33490 Hayes CDP	40735 Lafayette city
26757 Fort Polk South CDP	33525 Haynesville town	40840 Lafitte CDP
27155 Franklin city	33735 Heflin village	40878 Lafourche Crossing CDP
27190 Franklinton town	33875 Henderson town	41050 Lake Arthur town
27435 French Settlement village	34015 Hessmer village	41155 Lake Charles city
27540 Frierson CDP	34085 Hester CDP	41400 Lake Providence town
28065 Galliano CDP	35100 Hodge village	41470 Lakeshore CDP
28275 Gardere CDP	35870 Homer town	41645 Lakeview CDP
28345 Garyville CDP	36045 Hornbeck town	42030 Laplace CDP
28660 Georgetown village	36150 Hosston village	42135 Larose CDP
28835 Gibsland town	36255 Houma city	42520 Lawtell CDP
28940 Gilbert village	36885 Ida village	42800 Lecompte town
29010 Gilliam village	37025 Independence town	43010 Leesville city

# Appendix B2

## Louisiana Place Codes (Cities)

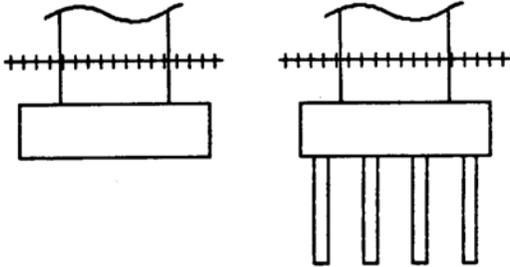
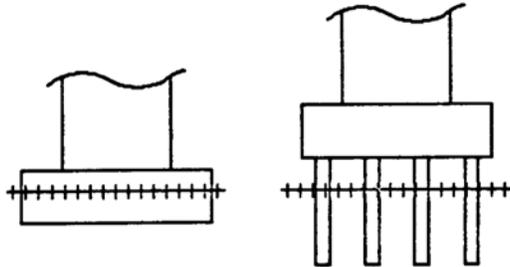
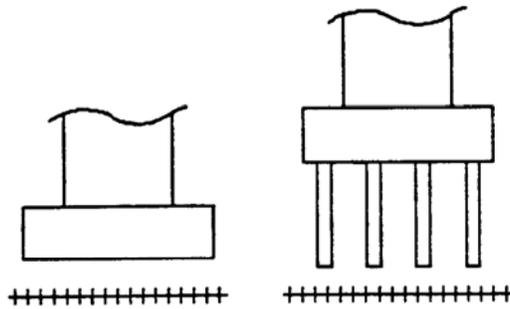
43255 Lemannville CDP	50990 Minorca CDP	58150 Oretta CDP
43395 Leonville town	51410 Monroe city	58360 Ossun CDP
43920 Lillie village	51550 Montegut CDP	58745 Paincourtville CDP
44235 Lisbon village	51585 Monterey CDP	58780 Palmetto village
44655 Livingston town	51620 Montgomery town	58920 Paradis CDP
44690 Livonia town	51645 Monticello CDP	59165 Parks village
44900 Lockport town	51690 Montpelier village	59340 Patterson city
44970 Lockport Heights CDP	51795 Montz CDP	59375 Paulina CDP
45040 Logansport town	51800 Moonshine CDP	59445 Pearl River town
45460 Longstreet village	51830 Mooringsport town	60075 Pierre Part CDP
45530 Longville CDP	51970 Moreauville village	60495 Pine Prairie village
45670 Loreauville village	52040 Morgan City city	60530 Pineville city
46370 Lucky village	52075 Morganza village	60565 Pioneer village
46615 Luling CDP	52320 Morse village	60600 Pitkin CDP
46720 Lutcher town	52425 Moss Bluff CDP	60670 Plain Dealing town
46755 Lydia CDP	52565 Mound village	60880 Plaquemine city
47315 McNary village	52740 Mount Lebanon town	60985 Plaquemine village
47560 Madisonville town	53370 Napoleonville village	61055 Pleasant Hill village
48085 Mamou town	53475 Natalbany CDP	61160 Pleasure Bend CDP
48225 Mandeville city	53510 Natchez village	61440 Pointe a la Hache CDP
48260 Mangham town	53545 Natchitoches city	61473 Point Place CDP
48365 Mansfield city	53930 Newellton town	61580 Pollock town
48400 Mansura town	54035 New Iberia city	61615 Ponchatoula city
48470 Many town	54175 New Llano town	61790 Port Allen city
48610 Maringouin town	55000 New Orleans city	61825 Port Barre town
48645 Marion town	55105 New Roads city	62070 Port Sulphur CDP
48750 Marksville city	55140 New Sarpy CDP	62105 Port Vincent village
48785 Marrero CDP	55420 Noble village	62245 Powhatan village
48925 Martin village	55525 Norco CDP	62280 Poydras CDP
49170 Mathews CDP	55910 North Hodge village	62385 Prairieville CDP
49240 Maurice village	56170 North Vacherie CDP	62510 Presquille CDP
49730 Melville town	56295 Norwood village	62647 Prien CDP
49800 Meraux CDP	56540 Oakdale city	62733 Prospect CDP
49870 Mermentau village	56820 Oak Grove town	62770 Provencal village
49905 Mer Rouge village	56855 Oak Hills Place CDP	63120 Quitman village
49940 Merrydale CDP	57205 Oak Ridge village	63155 Raceland CDP
50010 Merryville town	57450 Oberlin town	63645 Rayne city
50115 Metairie CDP	57590 Oil City town	63680 Rayville town
50395 Midway CDP	57705 Old Jefferson CDP	63855 Red Chute CDP
20815 Milton CDP	57905 Olla town	63890 Reddell CDP
50885 Minden city	58045 Opelousas city	64100 Reeves village

# Appendix B2

## Louisiana Place Codes (Cities)

64310 Reserve CDP	71820 South Mansfield village	79240 Walker town
64590 Richmond village	72092 South Vacherie CDP	79275 Wallace CDP
64660 Richwood town	72170 Spearsville village	79310 Wallace Ridge CDP
64765 Ridgecrest town	72310 Spokane CDP	79870 Washington town
64905 Ringgold town	72415 Springfield town	79940 Waterproof town
65150 River Ridge CDP	72485 Springhill city	80010 Watson CDP
65290 Roanoke CDP	72800 Stanley village	80360 Welcome CDP
65325 Robeline village	72975 Starks CDP	80430 Welsh town
65535 Rock Hill CDP	73010 Start CDP	80815 Westlake city
65710 Rodessa village	73255 Sterlington town	80920 Westminster CDP
65850 Romeville CDP	73395 Stonewall town	80955 West Monroe city
66060 Rosedale village	73570 Sugartown CDP	81165 Westwego city
66165 Roseland town	73640 Sulphur city	81375 White Castle town
66200 Rosepine town	73955 Sun village	82215 Wilson village
66655 Ruston city	74060 Sunset town	82460 Winnfield city
67215 St. Francisville town	74235 Supreme CDP	82495 Winnsboro city
67250 St. Gabriel city	74340 Swartz CDP	82565 Wisner town
67355 St. James CDP	74550 Taft CDP	83002 Woodmere CDP
67495 St. Joseph town	74690 Tallulah city	83125 Woodworth town
67600 St. Martinville city	74760 Tangipahoa village	83335 Youngsville town
67635 St. Maurice CDP	75180 Terrytown CDP	83405 Zachary city
67740 St. Rose CDP	75425 Thibodaux city	83685 Zwolle town
67880 Saline village	75670 Tickfaw village	
68125 Sarepta town	75740 Timberlane CDP	
68300 Schriever CDP	76440 Triumph CDP	
68475 Scott city	76615 Tullos town	
69225 Shenandoah CDP	76685 Turkey Creek village	
69455 Shongaloo village	77035 Union CDP	
70000 Shreveport city	77490 Urania town	
70175 Sibley town	77910 Varnado village	
70245 Sicily Island village	78015 Venice CDP	
70385 Sikes village	78050 Ventress CDP	
70525 Simmesport town	78470 Vidalia town	
70595 Simpson village	78540 Vienna town	
70630 Simsboro village	78545 Vienna Bend CDP	
70665 Singer CDP	78680 Village St. George CDP	
70675 Siracusaville CDP	78715 Ville Platte city	
70770 Slaughter town	78820 Vinton town	
70805 Slidell city	78855 Violet CDP	
71190 Sorrel CDP	78890 Vivian town	
71225 Sorrento town	79100 Waggaman CDP	

# Appendix B3

EXAMPLES:	CALCULATED SCOUR DEPTH	ACTION NEEDED
<p>A. Above top of footing</p>		<p>None - indicate rating of 8 for this item</p>
<p>B. Within limits of footing or piles</p>		<p>Conduct foundation structural analysis</p>
<p>C. Below pile tips or spread-footing base</p>		<p>Provide for monitoring and scour countermeasures as necessary</p>
	<p>SPREAD FOOTING (NOT FOUNDED IN ROCK)</p>	<p>PILE FOOTING</p>

+++++ = Calculated scour depth

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# Appendix B4

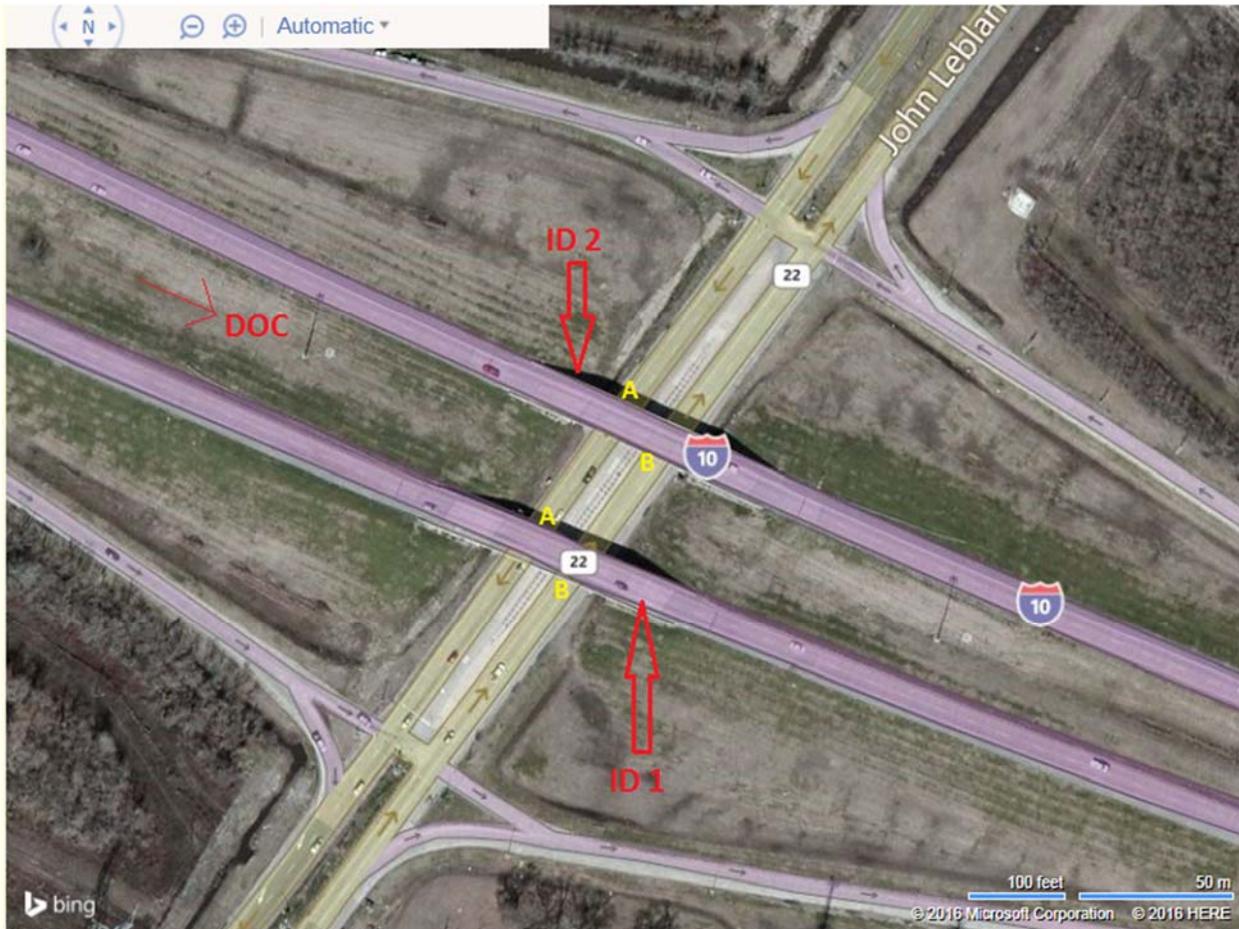
## Railroad Codes

ATK -	Amtrak
AKDN -	Acadiana Railway
GLSR -	Gloster Southern RR Co.
BNSF -	Burlington Northern Santa Fe
CSX -	CSX Transportation
DSRR -	Delta Southern Railroad Co.
IC -	Illinois Central Railroad
KCS -	Kansas City Southern Railway
LCHD -	Lake Charles Harbor & Term. Dist.
LDRR -	Louisiana & Delta
LNW -	Louisiana & North West
NOGC -	New Orleans Gulf Coast
NOPB -	New Orleans Public Belt
NS -	Norfolk Southern Corp
ALM -	Arkansas Louisiana & Mississippi Railroad Company (subsidiary of NS)
OUCH -	Ouachita Railroad SP - Southern Pacific Trans. Co.
SSW -	Saint Louis Southwestern
UP -	Union Pacific
LAS -	Louisiana Southern (subsidiary of WATCO)

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# APPENDIX C

## ILLUSTRATION 1



When a single route that is divided has multiple LA LRS IDs, Item 5A will be coded A-Z. The first LA LRS ID to cross under the restrictive feature in Direction of Control (DOC) will be coded “A” and continue in DOC for each LA LRS ID.

# APPENDIX C

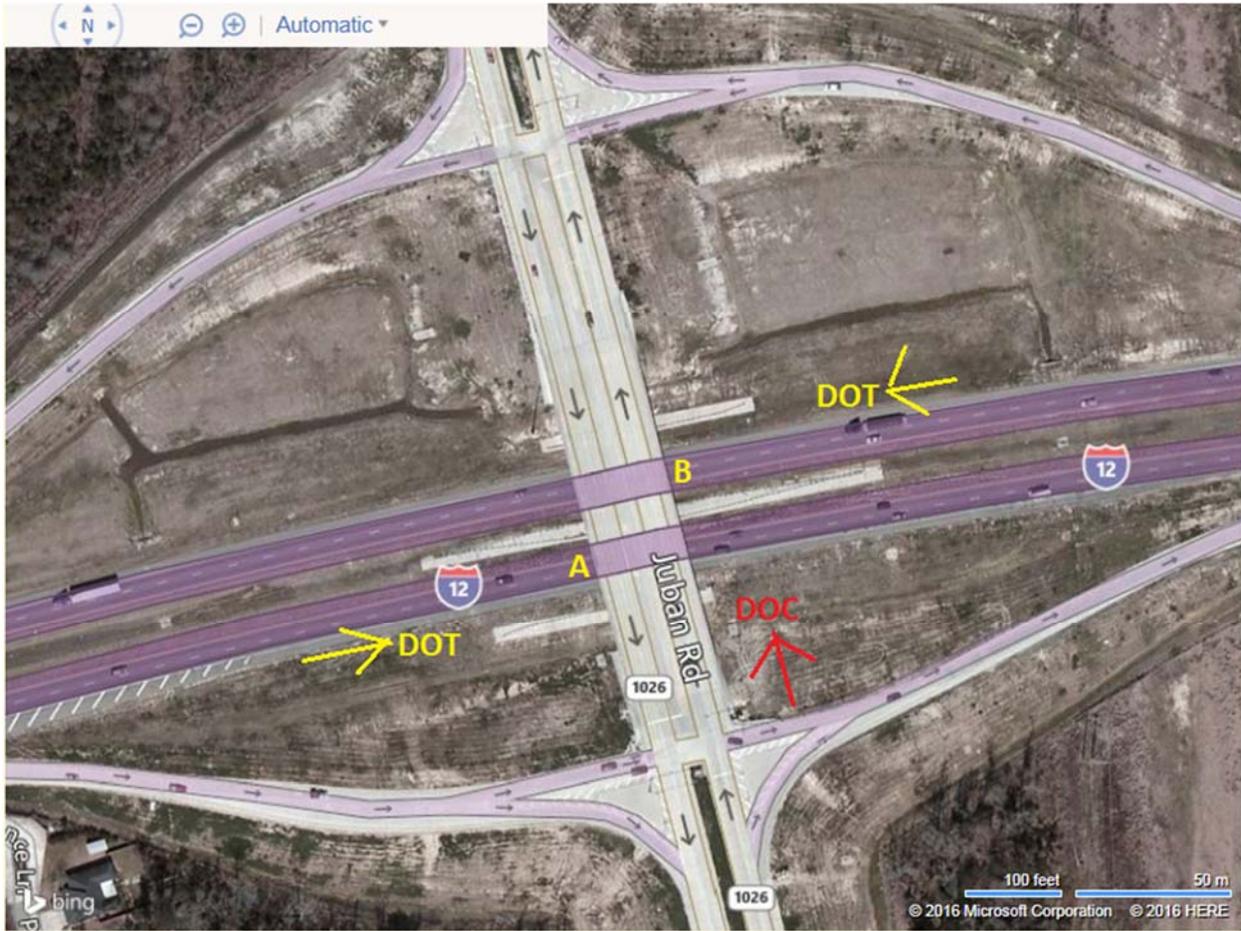
## ILLUSTRATION 2



DOC – Direction of Control  
DOT – Direction of Travel

# APPENDIX C

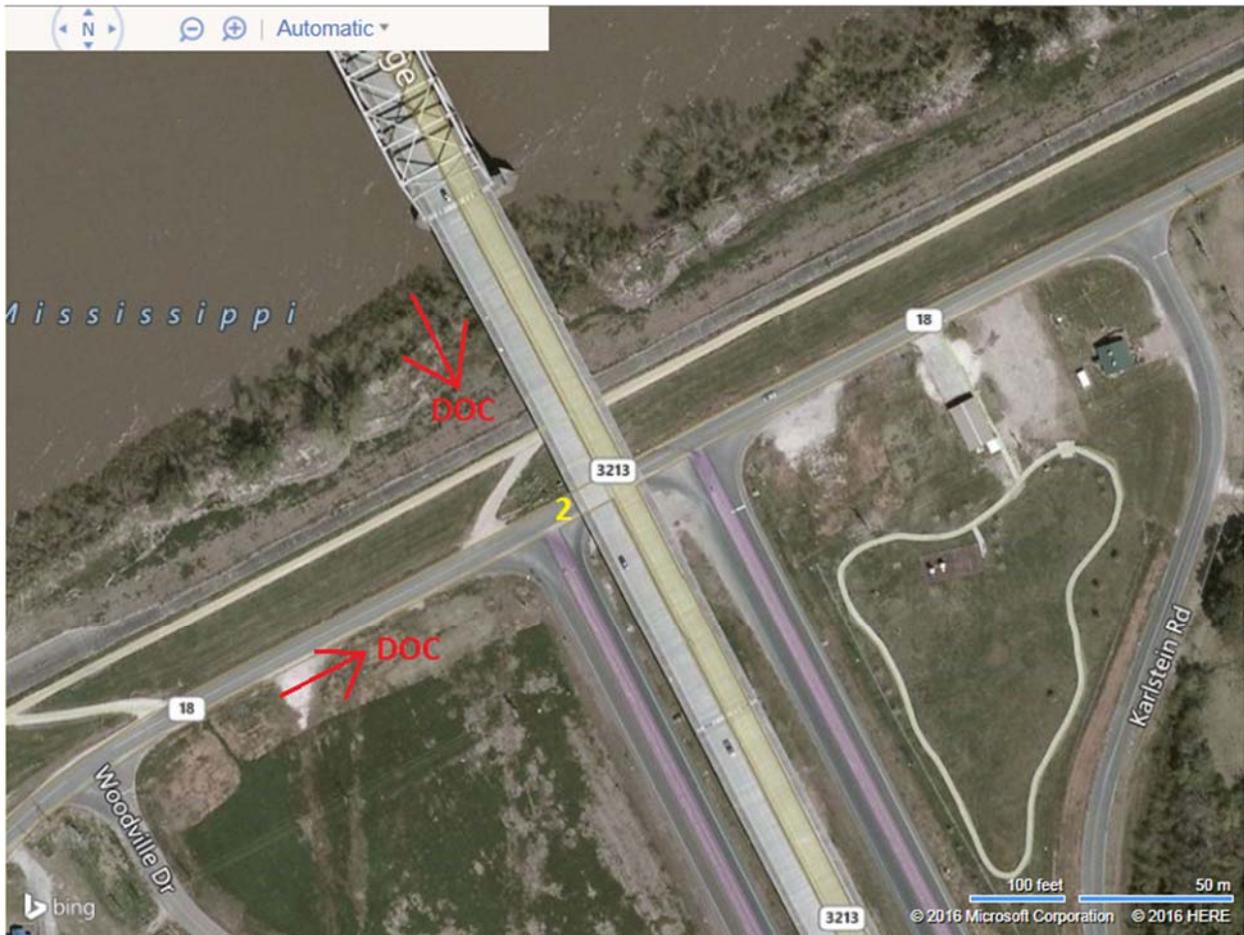
## ILLUSTRATION 3



DOC – Direction of Control  
DOT – Direction of Travel

# APPENDIX C

## ILLUSTRATION 4



When there is a single route with a single LA LRS ID, Item 5A will be coded 2 and the inventory information will be taken where the inventory route intersects the restrictive feature in Direction of Control (DOC).

# APPENDIX C

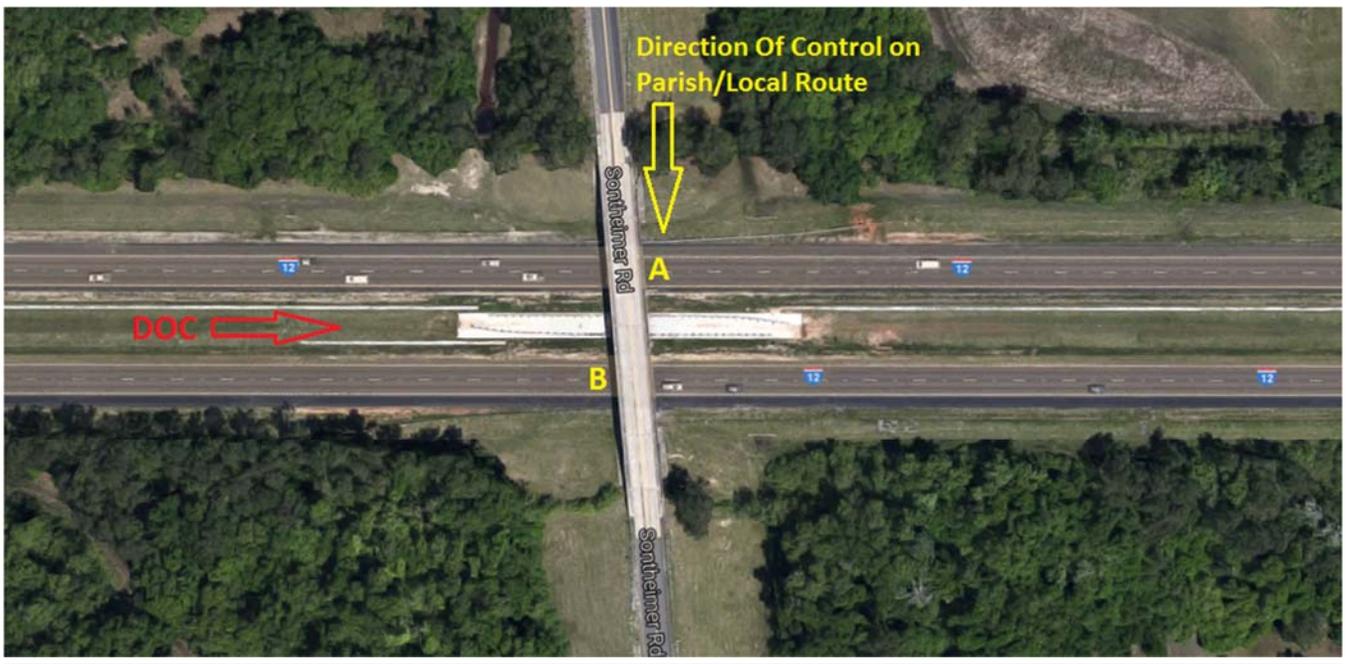
## ILLUSTRATION 5



DOC – Direction of Control  
DOT – Direction of Travel

# APPENDIX C

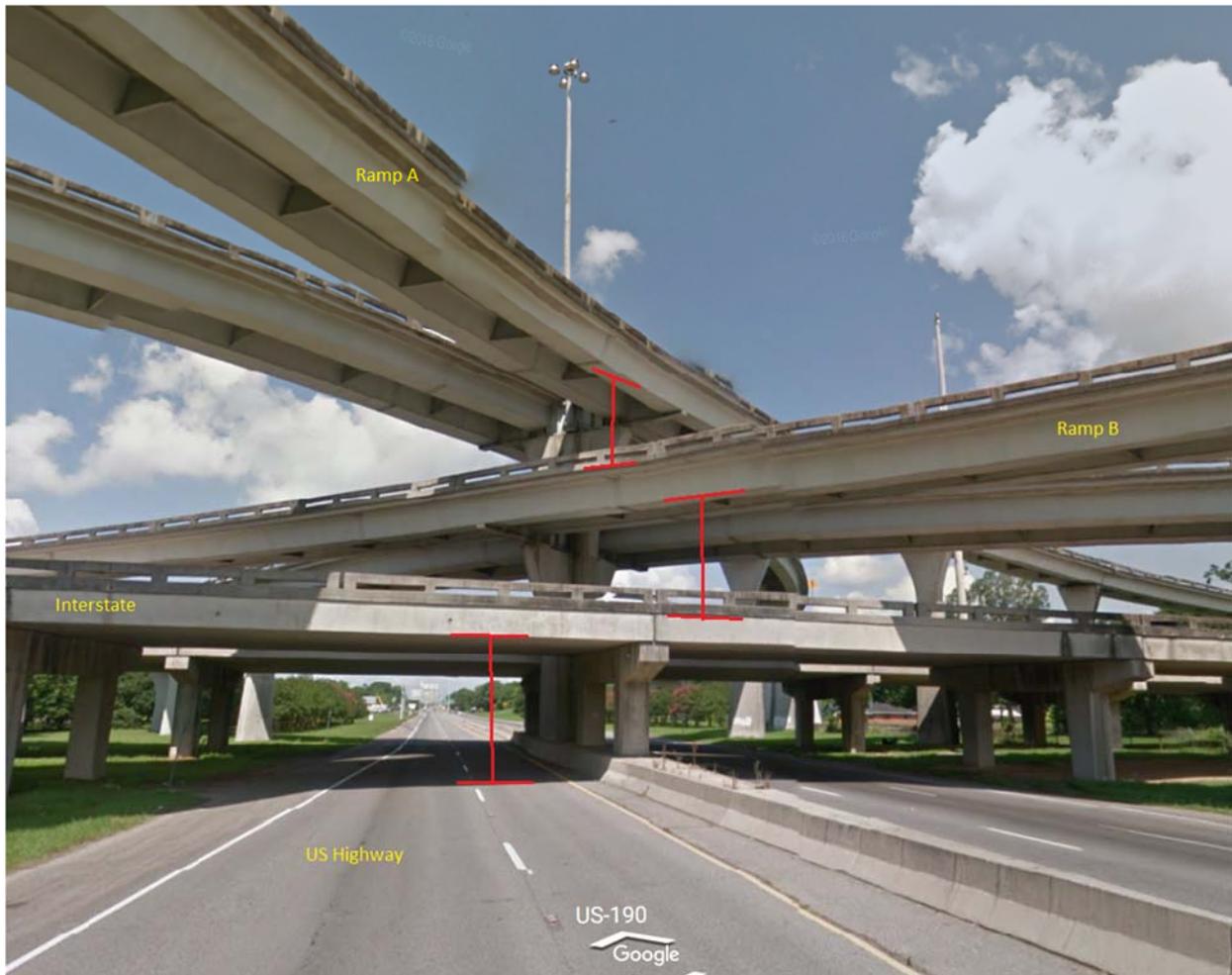
## ILLUSTRATION 6



DOC – Direction of Control

# APPENDIX C

## ILLUSTRATION 7



When there are multiple levels, Item 28B (Lanes Under), will be coded only for the lanes that would directly impact the restrictive feature. This is represented in the illustration above with red lines. (e.g. Ramp A Item 28B will be coded for the lanes on Ramp B only. The Interstate and US Highway do not affect Ramp A).

This also applies for the number of Under Records for a restrictive feature. In the Illustration above Ramp A will only have Under Records for Ramp B, Ramp B will only have Under Records for the Interstate, etc. Ramp A will not require an Under Record for the Interstate because Ramp B is more restrictive.

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## Appendix D

### LRS ID & LRS LOGMILE

The following steps show how to obtain the LRS ID and LRS Logmile for any bridge in the state.

1. Open the DOTD Intranet page in the web browser.
2. Select the Project/Highway Information tab under Resource Center located on left side of web page. (Illustration 1)
3. On right side under Highway Information select the link for Surface-Type Log File (Highway Inventory). (Illustration 2)
4. This now opens a page with multiple choices (Illustration 3). Select the check boxes for ADT station Map, NHS, Strahnet, & Truck Route. Then put in Control Section and click “Submit”. (Illustration 4)
5. The Surface-Type Log File for the Control Section now opens (Illustration 5). The Control Section is broke down into Logmile groups. Select the “Map” button to view a particular Logmile group. (Illustration 6)
6. The interactive “Bing” map will open, displaying a road map view for the particular Logmile group. (Illustration 7)
7. Zoom in to the bridge location. As the map zooms in, the view will switch from Road to Aerial view. Zoom close enough to see the particular Underpass. (Illustration 8)
8. Hold CTRL and left click at the point where the inventory route passes under the restrictive feature in direction of travel. A blue dot will appear with a white text box. If the cursor moves off the blue dot, the text box disappears. Left click on the dot to allow text box to remain visible, which also puts the information from the text box on lower left side of screen. (Illustration 9)
9. The Latitude, Longitude, LRS ID, & LRS Logmile data is contained in the text box. Multiple sets of information may appear for different routes. Make sure the information being gathered is from the correct Inventory Route. (Illustration 9)
10. Go Back to the Surface-Type Log File. The ADT, NHS, Strahnet, & Truck Route information is displayed for each Logmile group. (Illustration 10)
11. Select the Control Section for the Logmile Group to display all information for that section of road. (Illustration 11)

# Appendix D

12.All information for the Logmile group will be displayed. This information contains the Year of ADT, Fips Parish, Place Code, Funct. Class, ADT, NHS, & Truck Route data.

## ILLUSTRATION 1

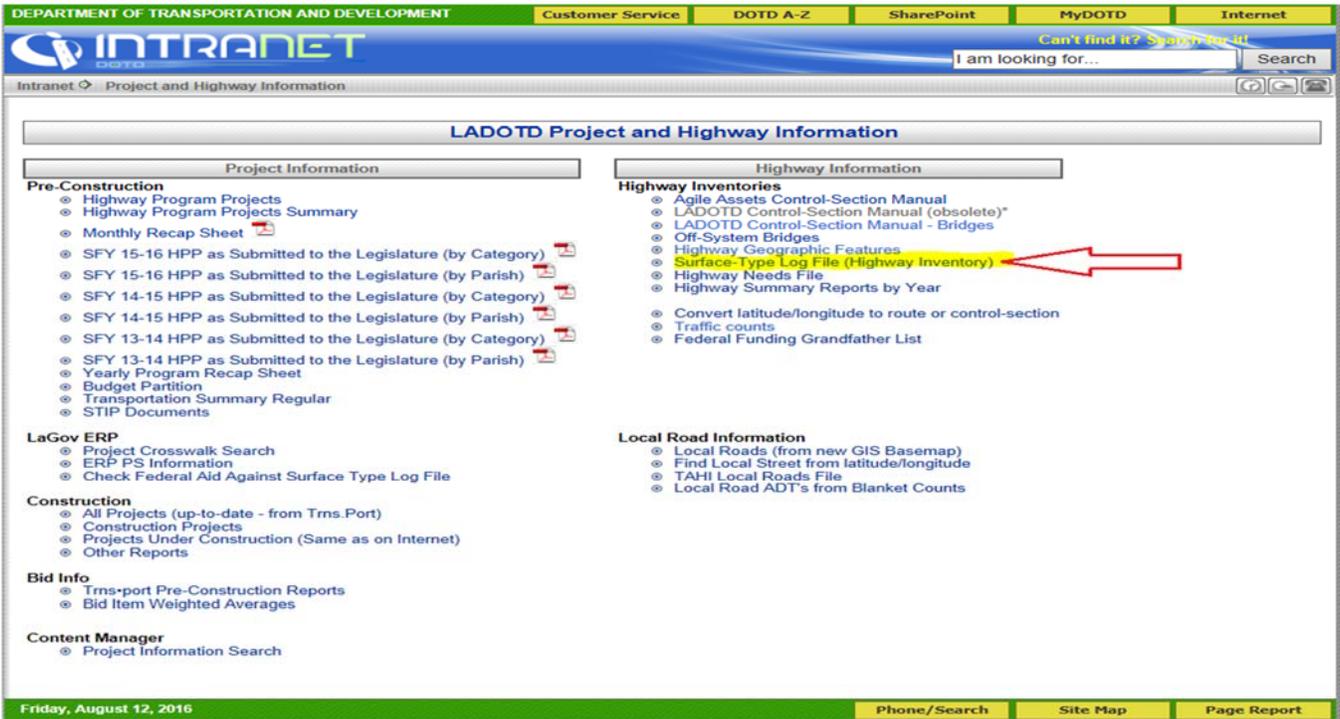
The screenshot displays the DOTD Intranet website interface. At the top, there is a navigation bar with links for 'Customer Service', 'DOTD A-Z', 'SharePoint', 'MyDOTD', and 'Internet'. Below this is a search bar with the text 'Can't find it? Search for it!' and a search button. The main content area is divided into several sections:

- I.T. Help (225) 379-1690:** Includes links for 'Create a Service Request', 'Client Services', 'Change a Password', and 'Hardware/Software Procurement'.
- Resource Center:** Lists various resources such as 'Content Manager', 'Daily News Articles', 'Records Management', and 'Project/Highway Information' (highlighted with a blue arrow).
- Miscellaneous:** Contains links for 'Calendars', 'Credit Unions', 'Lunch Menu', 'Official State Holidays', 'Sunrise/Sunset', and 'Weather N, SE, SW'.
- Bulletin Board Announcements:** Features a 'Last 5 Announcements Added' section with dates and topics like '4-Man Golf Tournament' and 'Fiscal Year 2016 Shopping Cart Deadlines'.
- Office of Engineering:** Lists various engineering sections including 'EDSMs', 'Bridge Design Section', 'Design Programs & Documents', and 'Project Management Section'.
- Office of the Secretary:** Includes links for 'Audit & Quality Control', 'Compliance Programs', and 'Diversity and Inclusion Initiative'.
- Office of Mgmt & Finance:** Lists 'Administrative Manual', 'Budget Section', and 'Procurement'.
- Office of Multimodal Planning:** Includes 'Aviation', 'Marine & Rail', and 'Port Priority Program'.
- Office of Operations:** Lists 'Asset Management', 'Bridge Maintenance', and 'Traffic Services'.

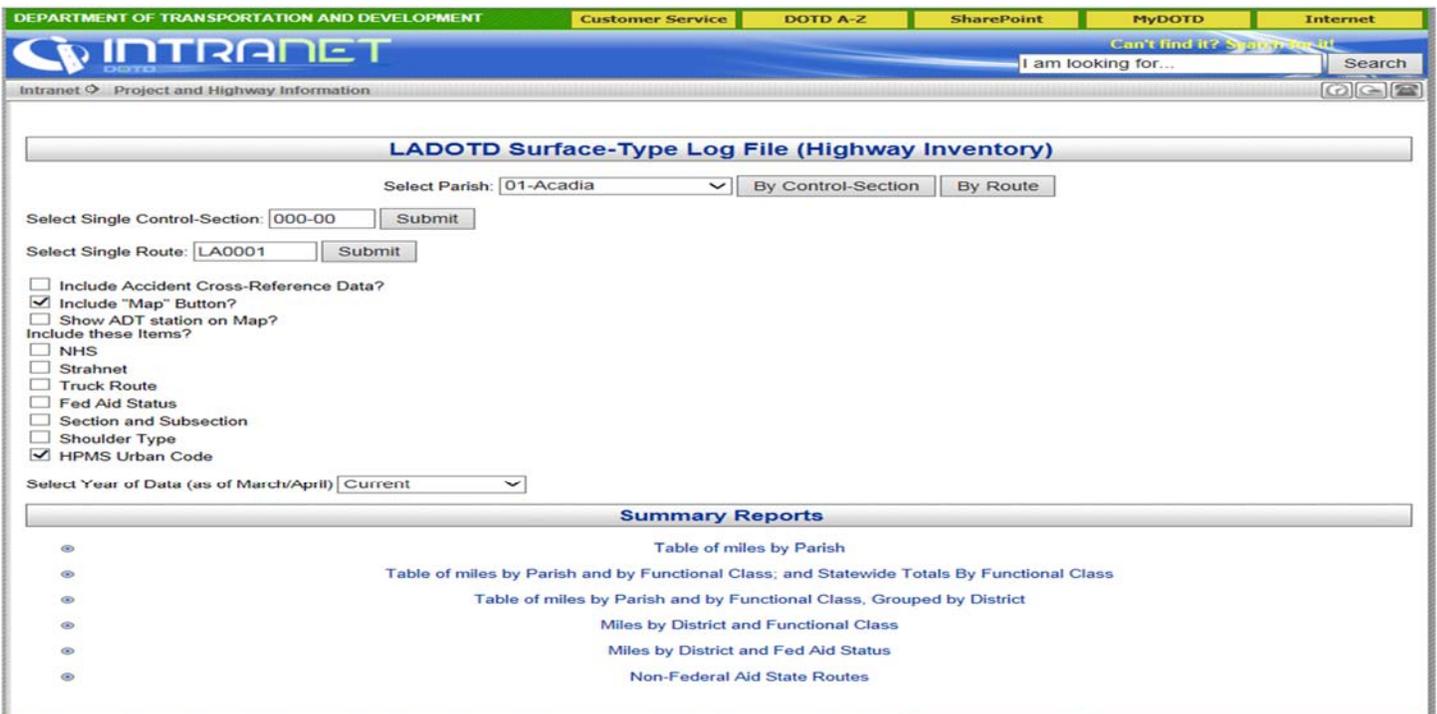
At the bottom of the page, there are several logos and banners, including '30th Anniversary', 'GEALX RIDE HQ & 61', 'GET A GAMEPLAN', and 'TTEC Request a Roc'.

# Appendix D

## ILLUSTRATION 2



## ILLUSTRATION 3



# Appendix D

## ILLUSTRATION 4

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT    Customer Service    DOTD A-Z    SharePoint    MyDOTD    Internet

**INTRANET**    Can't find it? Search for it!    I am looking for...    Search

Intranet > Project and Highway Information

---

**LADOTD Surface-Type Log File (Highway Inventory)**

Select Parish: 01-Acadia    By Control-Section    By Route

Select Single Control-Section: 454-02    **Submit**

Select Single Route: LA0001    Submit

Include Accident Cross-Reference Data?  
 Include "Map" Button?  
 Show ADT station on Map?  
 Include these Items?  
 NHS  
 Strahnet  
 Truck Route  
 Fed Aid Status  
 Section and Subsection  
 Shoulder Type  
 HPMS Urban Code

Select Year of Data (as of March/April) Current

## ILLUSTRATION 5

LADOTD Surface-Type Log File - by Control Section - As of 01/09/2017

Control Section 454-02

Map	Control Sect	Beg Logmi	End Logmi	Par ish	Func Sys	ADT	Lanes	Pave Type	Pave Width	Shldr Width	Med Type	Med Width	Route	Beg Mile Point	End Mile Point	Len	NHS	Strahnet	Truck route	Urban Code	
	454-02	from: E Baton Rouge Ph Line (W end of Amite River Br, SW of Denham Springs)										to: Tangipahoa Ph Line (W end of Natalbany River Br, SE of Albany)									
map	<a href="#">ivision</a> 454-02	0.000	2.360	Livn	1-Inter	108600	6	pcc	72	10	open>30	64	I-12	8.415	10.775	2.360	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	2.360	2.740	Livn	1-Inter	74532	6	pcc	72	10	open>30	64	I-12	10.775	11.155	0.380	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	2.740	7.216	Livn	1-Inter	63400	6	bitcon	72	10	open>30	64	I-12	11.155	15.631	4.476	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	7.216	10.758	Livn	1-Inter	50500	6	bitcon	72	10	open>30	64	I-12	15.631	19.173	3.542	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	10.758	11.600	Livn	1-Inter	50500	4	bitcon	48	10	open>30	64	I-12	19.173	20.015	0.842	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	11.600	14.500	Livn	1-Inter	51300	4	bitcon	48	10	open>30	64	I-12	20.015	22.915	2.900	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	14.500	14.794	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	22.915	23.209	0.294	1	Y	Y	Baton R	
map	<a href="#">ivision</a> 454-02	14.794	20.800	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	23.209	29.215	6.006	1	Y	Y	Rural	
map	<a href="#">ivision</a> 454-02	20.800	24.600	Livn	1-Inter	43400	4	bitcon	48	10	open>30	64	I-12	29.215	33.015	3.800	1	Y	Y	Rural	
map	<a href="#">ivision</a> 454-02	24.600	25.809	Livn	1-Inter	42500	4	bitcon	48	10	open>30	64	I-12	33.015	34.224	1.209	1	Y	Y	Hammond	

[Map all Subsections](#)

# Appendix D

## ILLUSTRATION 6

LADOTD Surface-Type Log File - by Control Section - As of 01/09/2017

Control Section 454-02

Map	Control Sect	Beg Logmi	End Logmi	Par ish	Func Sys	ADT	Lanes	Pave Type	Pave Width	Shldr Width	Med Type	Med Width	Route	Beg Mile Point	End Mile Point	Len	NHS	Strahnet	Truck route	Urban Code	
	454-02	from: E Baton Rouge Ph Line (W end of Amite River Br, SW of Denham Springs)											to: Tangipahoa Ph Line (W end of Natalbany River Br, SE of Albany)								
map	<a href="#">ivision</a> <a href="#">454-02</a>	0.000	2.360	Livn	1-Inter	108600	6	pcc	72	10	open>30	64	I-12	8.415	10.775	2.360	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	2.360	2.740	Livn	1-Inter	74532	6	pcc	72	10	open>30	64	I-12	10.775	11.155	0.380	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	2.740	7.216	Livn	1-Inter	63400	6	bitcon	72	10	open>30	64	I-12	11.155	15.631	4.476	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	7.216	10.758	Livn	1-Inter	50500	6	bitcon	72	10	open>30	64	I-12	15.631	19.173	3.542	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	10.758	11.600	Livn	1-Inter	50500	4	bitcon	48	10	open>30	64	I-12	19.173	20.015	0.842	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	11.600	14.500	Livn	1-Inter	51300	4	bitcon	48	10	open>30	64	I-12	20.015	22.915	2.900	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	14.500	14.794	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	22.915	23.209	0.294	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	14.794	20.800	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	23.209	29.215	6.006	1	Y	Y	Rural	
map	<a href="#">ivision</a> <a href="#">454-02</a>	20.800	24.600	Livn	1-Inter	43400	4	bitcon	48	10	open>30	64	I-12	29.215	33.015	3.800	1	Y	Y	Rural	
map	<a href="#">ivision</a> <a href="#">454-02</a>	24.600	25.809	Livn	1-Inter	42500	4	bitcon	48	10	open>30	64	I-12	33.015	34.224	1.209	1	Y	Y	Hammond	

[Map all Subsections](#)

## ILLUSTRATION 7

**DOTD**  
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LADOTD Bing Maps Tool

Add a point:  
latitude, longitude:

Measure  
Distance:

Current Position:  
30.515593, -90.936099

Last Clicked Position:

Use Ctrl-Click to get the LRS ID and logmile of a point.

**LRS ID**  
**454-02-1-010**  
**From 7.216**  
**To 10.758**

bing

Lat/Long Formats:  dd . ddddd  dd : mm . mmm  dd : mm : ss . s  ddmms

# Appendix D

## ILLUSTRATION 8

**DOTD**  
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LADOTD Bing Maps Tool

Add a point:

latitude, longitude:

Measure

Distance:

Current Position:  
30.469476,-90.863478

Last Clicked Position:  
30.470035,-90.862965

Use Ctrl-Click to get the LRS ID and logmile of a point.

**LRS ID**  
**454-02-1-010**  
**From 7.216**  
**To 10.758**

alcker South Rd

447

12

12

50 feet 25 m

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bigger

Lat/Long Formats:  dd . dddd  dd : mm . mmm  dd : mm : ss . s  ddmms

# Appendix D

## ILLUSTRATION 9

**DOTD**  
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LADOTD Bing Maps Tool

Add a point:  
latitude,longitude:  
[input field]

Measure  
Distance:  
[input field]

Current Position:  
30.469696,-90.863677

Last Clicked Position:  
30.470251,-90.862165

Use Ctrl-Click to get the LRS ID and logmile of a point.

**LRS ID**  
**454-02-1-010**  
**From 7.216**  
**To 10.758**

30.469956,-90.862977  
lrs\_id=454-02-1-010  
lrs\_logmile=7.607  
offset=1 ft  
Parish=32  
street name=Interstate 12  
cont-sect=454-02  
cs\_logmile=7.607  
route=I-12  
milepoint=16.022  
map year=2016  
[picture](#) [ivision](#)

30.469956,-90.862977  
lrs\_id=454-02-1-010  
lrs\_logmile=7.607  
offset=1 ft  
Parish=32  
street name=Interstate 12  
cont-sect=454-02  
cs\_logmile=7.607  
route=I-12  
milepoint=16.022  
map year=2016  
[picture](#) [ivision](#)

lrs\_id=268-01-1-010  
lrs\_logmile=8.339  
offset=19 ft  
Parish=32  
street name=Walker South Rd  
bridge recall=621000  
structure=62322680108361  
cont-sect=268-01  
cs\_logmile=8.339  
route=LA 447  
milepoint=8.339  
[picture](#) [ivision](#)

50 feet 25 m  
© 2017 Microsoft Corporation © 2017 HERE

bigger Lat/Long Formats:  dd . ddddd  dd : mm . mmm  dd : mm : ss . s  ddmms

30.469956,-90.862977  
lrs\_id=454-02-1-010  
lrs\_logmile=7.607  
offset=1 ft  
Parish=32  
street name=Interstate 12  
cont-sect=454-02  
cs\_logmile=7.607  
route=I-12  
milepoint=16.022  
map year=2016  
[picture](#) [ivision](#)

# Appendix D

## ILLUSTRATION 10

LADOTD Surface-Type Log File - by Control Section - As of 01/09/2017

Control Section 454-02

Map	Control Sect	Beg Logmi	End Logmi	Par ish	Func Sys	ADT	Lanes	Pave Type	Pave Width	Shldr Width	Med Type	Med Width	Route	Beg Mile Point	End Mile Point	Len	NHS	Strahnet	Truck route	Urban Code	
	454-02	from: E Baton Rouge Ph Line (W end of Amite River Br, SW of Denham Springs)										to: Tangipahoa Ph Line (W end of Natalbany River Br, SE of Albany)									
map	<a href="#">ivision</a> <a href="#">454-02</a>	0.000	2.360	Livn	1-Inter	108600	6	pcc	72	10	open>30	64	I-12	8.415	10.775	2.360	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	2.360	2.740	Livn	1-Inter	74532	6	pcc	72	10	open>30	64	I-12	10.775	11.155	0.380	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	2.740	7.216	Livn	1-Inter	63400	6	bitcon	72	10	open>30	64	I-12	11.155	15.631	4.476	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	7.216	10.758	Livn	1-Inter	50500	6	bitcon	72	10	open>30	64	I-12	15.631	19.173	3.542	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	10.758	11.600	Livn	1-Inter	50500	4	bitcon	48	10	open>30	64	I-12	19.173	20.015	0.842	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	11.600	14.500	Livn	1-Inter	51300	4	bitcon	48	10	open>30	64	I-12	20.015	22.915	2.900	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	14.500	14.794	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	22.915	23.209	0.294	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	14.794	20.800	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	23.209	29.215	6.006	1	Y	Y	Rural	
map	<a href="#">ivision</a> <a href="#">454-02</a>	20.800	24.600	Livn	1-Inter	43400	4	bitcon	48	10	open>30	64	I-12	29.215	33.015	3.800	1	Y	Y	Rural	
map	<a href="#">ivision</a> <a href="#">454-02</a>	24.600	25.809	Livn	1-Inter	42500	4	bitcon	48	10	open>30	64	I-12	33.015	34.224	1.209	1	Y	Y	Hammond	

[Map all Subsections](#)

## ILLUSTRATION 11

LADOTD Surface-Type Log File - by Control Section - As of 01/09/2017

Control Section 454-02

Map	Control Sect	Beg Logmi	End Logmi	Par ish	Func Sys	ADT	Lanes	Pave Type	Pave Width	Shldr Width	Med Type	Med Width	Route	Beg Mile Point	End Mile Point	Len	NHS	Strahnet	Truck route	Urban Code	
	454-02	from: E Baton Rouge Ph Line (W end of Amite River Br, SW of Denham Springs)										to: Tangipahoa Ph Line (W end of Natalbany River Br, SE of Albany)									
map	<a href="#">ivision</a> <a href="#">454-02</a>	0.000	2.360	Livn	1-Inter	108600	6	pcc	72	10	open>30	64	I-12	8.415	10.775	2.360	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	2.360	2.740	Livn	1-Inter	74532	6	pcc	72	10	open>30	64	I-12	10.775	11.155	0.380	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	2.740	7.216	Livn	1-Inter	63400	6	bitcon	72	10	open>30	64	I-12	11.155	15.631	4.476	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	7.216	10.758	Livn	1-Inter	50500	6	bitcon	72	10	open>30	64	I-12	15.631	19.173	3.542	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	10.758	11.600	Livn	1-Inter	50500	4	bitcon	48	10	open>30	64	I-12	19.173	20.015	0.842	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	11.600	14.500	Livn	1-Inter	51300	4	bitcon	48	10	open>30	64	I-12	20.015	22.915	2.900	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	14.500	14.794	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	22.915	23.209	0.294	1	Y	Y	Baton R	
map	<a href="#">ivision</a> <a href="#">454-02</a>	14.794	20.800	Livn	1-Inter	43600	4	bitcon	48	10	open>30	64	I-12	23.209	29.215	6.006	1	Y	Y	Rural	
map	<a href="#">ivision</a> <a href="#">454-02</a>	20.800	24.600	Livn	1-Inter	43400	4	bitcon	48	10	open>30	64	I-12	29.215	33.015	3.800	1	Y	Y	Rural	
map	<a href="#">ivision</a> <a href="#">454-02</a>	24.600	25.809	Livn	1-Inter	42500	4	bitcon	48	10	open>30	64	I-12	33.015	34.224	1.209	1	Y	Y	Hammond	

[Map all Subsections](#)

# Appendix D

## ILLUSTRATION 12

route	I012	median_type	5-Divided > 30 ft
section	1	shoulder_type_oth	0-Unknown
subsection	200	pavement_type_oth	00
record_type	8	pavement_width_oth	0
description		no_lanes_oth	0
year	2016	neut_ground_width	64
state_code	22	old_func_class	11
fips_parish	63-Livingston	proposed_eliminate	
place_code	05000-Baton Rouge	shoulder_width_pri	10
section_length	3.542	shoulder_width_oth	10
milepoint	15.631	nhs_flag	1-On NHS System
travel_route_cat	1-Interstate	nhs_segment	000
travel_route_num	I012	class_station	0000
domain	30-State	nhs_link	0
govt_level_control	01-State Highway	truck_route	1-On a Truck Route
admin_class	1-Primary	acc_route	I012
fed_aid_sys_trav	1-Interstate	acc_milepost_from	16
fed_aid_sys_desig	1-Interstate	acc_milepost_to	17.55
toll	1-Not a Toll	control_section	454-02
fed_aid_urban_area	4-Urban > 200K	logmile_from	7.216
functional_class	11-Interstate Urban	logmile_to	10.758
highway_class	H-Urban 6-lane Interstate	adt_station_num	213360
special_system	08-Other Federal	csect_opp_route	
municipality	1-Not Municipality	fed_aid_status	1-Interstate
census_category	1-Rur Uninc - Not Urbaniz	district	62
pop_group	0-Rural	parish	32-Livingston
pkwy_trucks	1-Not Park, Truck OK	urban_area_code	05680-Baton Rouge
access_control	1-Full Control	formatted_route	I-12
adt	50500	oid	454020721
row_width	300	lrs_id	454-02-1-010
shoulder_type_pri	4-Shoulder > 6 ft	last_userid	D2102
pavement_type_pri	60-Bituminous Concr	last_update	2/19/2016
pavement_width_pri	72	f_system	1-Interstate
num_lanes	6	urban_code	5680

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ADT Truck	109	1 & 3	Age of Service
Appraoch Rdwy Width	32	1	Geometric Data
ASSHTOWARE File Saved		2	Load Rating Data
<b><u>B</u></b>			
Base Highway Network	12	1 & 3	Identification
Border Bridge Code	98A	1	Identification
Border Bridge Percent Responsible	98B	1	Identification
Border Bridge Structure Number	99	1	Identification
Bridge ID		2	Bridge ID & Location
Bridge Improvement Cost	94	1	Proposed Improvements
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<b><u>C</u></b>			
CEO Date		2	Load Rating Data
CEO Limit		2	Load Rating Data
CEO Number		2	Load Rating Data
Channel Revetment		2	Hydraulics & Scour Data
Conditional Posting		2	Load Rating Data
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Control Section Logmile		2	Bridge ID & Location
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Curb/Sidewalk Width	50	1	Identification
<b><u>D</u></b>			
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Date Rated		2	Load Rating Data
Date Scour Rating		2	Hydraulics & Scour Data
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Deck Protection	108C	1	Structure Type & Material
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<b><u>F</u></b>			
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<b><u>H</u></b>			
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<b><u>I</u></b>			
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<b><u>L</u></b>			
LA LRS ID		2 & 3	Bridge ID / Identification
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Lanes Under	28B	1 & 3	Age of Service
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Lateral Underclearance Right Reference	55A	1	Geometric Data
Latitude	16	1 & 3	Identification
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## N

National Truck Network	110	1 & 3	Classification
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## O

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## P

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Pile/Column Length		2	Hydraulics & Scour Data
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Place Code		2	Bridge ID & Location
Preservation Category		1	Classification

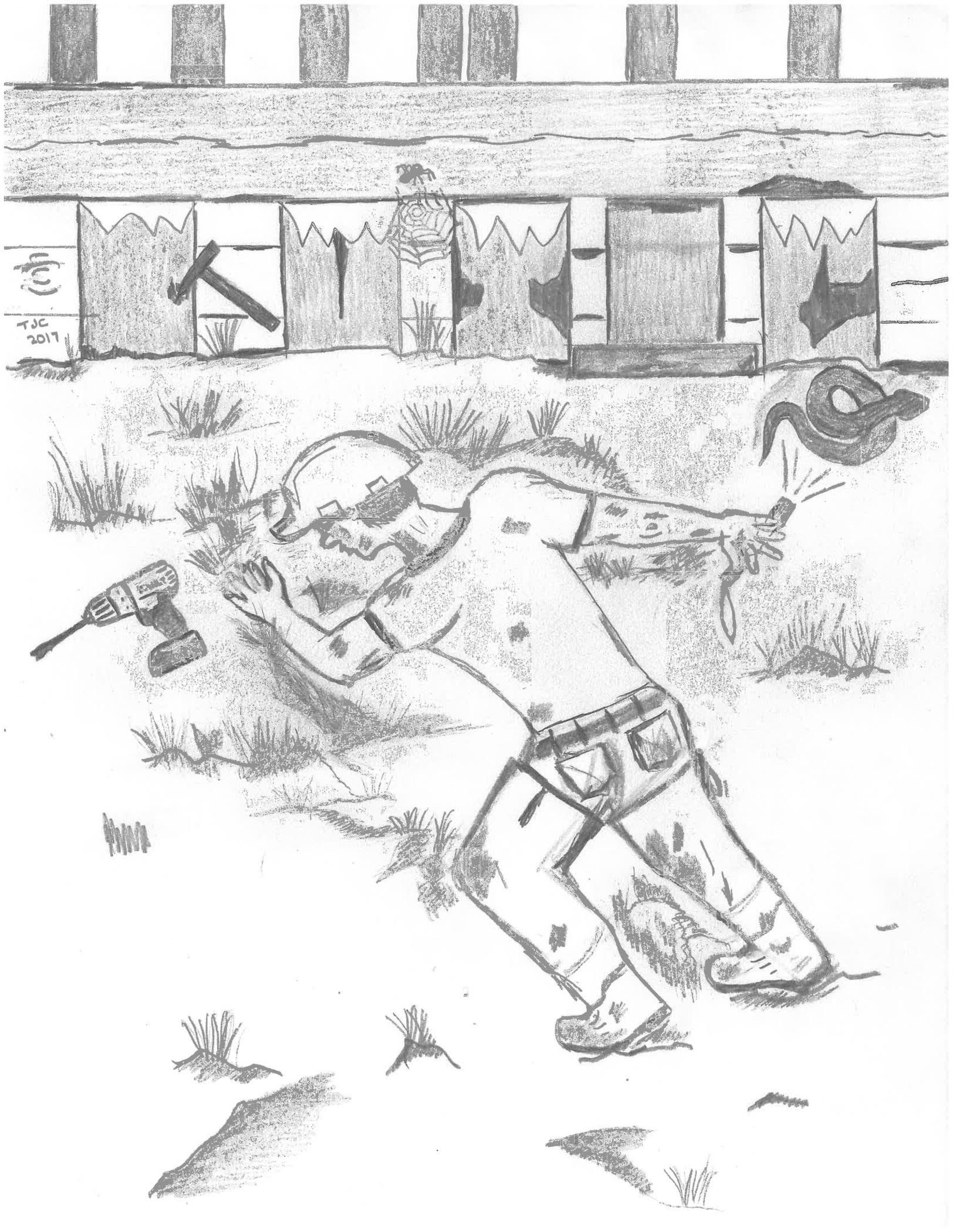
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Review Date		2	Load Rating Data
Review Flag		2	Load Rating Data
Review Remarks		2	Load Rating Data
Reviewed By		2	Load Rating Data
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<b><u>I</u></b>			
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Type Service On	42A	1 & 3	Age of Service
Type Service Under	42B	1 & 3	Age of Service
Type Work Done By	75B	1	Proposed Improvements
Type Work Proposed	75A	1	Proposed Improvements
<b><u>U</u></b>			
Underwater Inspection Frequency	92B	1	Inspections
<b><u>V</u></b>			
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<b><u>W</u></b>			
Waterway Name		2	Bridge Features
Wearing Surface	108A	1	Structure Type & Material
<b><u>Y</u></b>			
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Year of Future ADT	115	1	Proposed Improvements
Year of Improvement Cost Estimate	97	1	Proposed Improvements
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