

New Jersey Department of Transportation

CoMBIS Guidance for Inventory Level Data Collection

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By:

Structural Evaluation & Bridge Management

This document is primarily extracted from the CoMBIS Fields Coding Guide developed for the original Microsoft Access CoMBIS database. It is meant as a transition guide as we move from the old Access database to the new InspectTech System. **The intent is to summarize the data fields that require coding for all Inventory level inspections in CoMBIS.** The required CoMBIS Inventory fields include Federal, State, and CoMBIS-specific items.

Inventory level (Cycle 0) inspection will be performed for all structures in the original list provided by the Department during the Consultant Selection Process within each project which are determined to be non-CoMBIS structures. For CoMBIS structures, this information can be directly input into the Cycle 1 report (Note: Priority Repairs can only be issued from the Cycle 1 Report).

Guidance is provided for each CoMBIS-specific item that is required for the Inventory data collection effort. Refer to the Federal and State Coding Manuals for specific guidance on proper coding of Federal and State fields required for CoMBIS Inventory.

This guide manual has been modified to reduce the amount of information required to be gathered during the inventory phase <u>for CoMBIS structures only</u>. A Column has been added to the right (titled "If CoMBIS Str.") in the following Table which shows which fields MUST be populated during the inventory phase for CoMBIS structures (the rest of the information can be added during the regular inspection - marked "Can defer"). For a non-CoMBIS structure, ALL information required MUST be obtained during the inventory phase (<u>including the 2 or 4 required photos</u> that must be attached to the Cycle 0 report).

LIST OF REQUIRED FIELDS FOR Combis inventory level inspection

Notes:

- 1. Some items (fields) that were originally part of the old Access 2003 database are no longer part of the current InspectTech System. These items are contained in the table below for reference (light gray and strike-through), but no specific coding details are offered following the table, as the user will no longer be coding these items.
- 2. The guidance provided in the "Remarks" column is specific to the Inventory effort, and does not reflect the level of effort required during the regular (full or visual) inspection.
- 3. The column titled "If CoMBIS Str." Explains which fields can be deferred for collection during the Regular Inspection IF the structure has been determined to be a CoMBIS Structure.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M1	Key	N/A	N/A	Not part of InspectTech System input.	
M2	<i>I_3</i>	3 County Code	County Code (Federal FIPS code)	Input.	Must Input.
M3	I_4	4 Place Code	Place Code (Federal FIPS code)	Input.	Can defer.
M4	1_6	N/A	N/A	Not part of InspectTech System input.	
M5	I_6A	6 Features Intersected	Features Intersected	See document titled: "Bridge and Route Naming Conventions in the SI&A Fields" for detailed guidance.	Must Input.
M6	I_6B	N/A	N/A	Not part of InspectTech System input.	
M7	I_7	7 Facility Carried by Structure	Facility Carried by Structure - Route or Road Name	See document titled: "Bridge and Route Naming Conventions in the SI&A Fields" for detailed guidance.	Must Input.
M8	<i>I_8</i>	8 Structure No.	State Bridge Number - Uses State System for Numbering Structures	Note: If you need to create a number for a new bridge, it must include a letter somewhere in the 7-digits (follow the general convention established for this County by the NJDOT).	Must Input.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M9	I_9	9 Location	Short Location Description	Try to reference the highest Route available (as long as description is actually useful). Note: It is OK to reference from local road intersection if necessary	Must Input.
M10	<i>I_H</i>	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	Must Input.
M11	I_11_decimal_ format	11 Mile Point	Mile Point in miles	Input.	Must Input.
M12	I_12	12 Base Highway Network	On Base Highway Network?	Input.	Must Input.
M13	I_13A	13A LRS Inventory Route	LRS Inventory Route - This is the State's SRI Number (as Found in the Straight Line Diagram) (Note: we break the 17-digit SRI number into two pieces. The first 10 digits are placed here. If there structure is on a ramp, then the remaining 7-digits are placed in M15)	This is to be coded for ALL structures. If no SRI exists, code the following (10-digits) CCMM0000_ Where CCMM is the same code as entered for Item A. Example: 12180000_ By entering this code you are certifying that you made a COMPLETE check and that NO SRI exists for this road. Note: We suggest you print out the SRI sheets for all Routes in the County and then code all your bridges at the same time.	Must Input.
M14	I_13B	13B Subroute Number	Sub-Route Number	Always leave blank.	
M15	I_13R	13R Ramp Code	Ramp Code (Digits 11-17 of the SRI)	Input.	Must Input.
M16	I_16	16 Latitude (DDMMSS.SS)	Latitude (old format)	Field is read only in InspectTech System; use the decimal (digital) version.	
M17	I_17	17 Longitude (DDMMSS.SS)	Longitude (old format)	Field is read only in InspectTech System; use the decimal (digital) version.	
M18	I_21	21 Maintenance Responsibility	Maintenance Responsibility	Input.	Must Input.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M19	I_22	22 Owner	Owner	Input.	Must Input.
M20	1_26	26 Functional Classification	Functional Classification of Inventory Route	Input.	Can defer.
M21	I_27	27 Year Built	Year Built	Input.	Must Input.
M22 *	I_28	N/A	N/A	Not part of InspectTech System input.	
M23	I_28A	28A Lanes On Structure	Lanes on the structure	Input.	Must Input.
M24	I_28B	28B Lanes Under Structure	Lanes under the structure	Input.	Must Input.
M25	I_29	29 ADT Total	Average Daily Traffic	Input (If information not available then leave blank).	Can defer.
M26	I_30	30 Year of ADT	Year of Average Daily Traffic	Input (If information not available then leave blank).	Can defer.
M27	I_31	31 Design Load	Design Load	Input (If information not available then leave blank).	Can defer.
M28	I_32	32 Approach Roadway Width (w/ shoulders)	Approach Roadway Width	Input.	Must Input.
M29	I_34	34 Skew (in Degrees)	Structure Skew - number of degrees off of perpendicular to the roadway	Input (approximate – may be off by a couple of degrees).	Must Input.
M30	I_36	N/A	N/A	Not part of InspectTech System input.	
M31	I_36A	36A Bridge Rail	Bridge Railings	Input.	Can defer.
M32	I_36B	36B Transition	Transitions	Input.	Can defer.
M33	I_36C	36C Approach Rail	Approach guardrail	Input.	Can defer.
M34	I_36D	36D End Treatments	Approach guardrail ends	Input.	Can defer.
M35	I_41	41 Posting Status	Structure Open, Closed, Posted	Input.	Must Input.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M36	I_42	N/A	N/A	Not part of InspectTech System input.	
M37	I_42A	42A Type of Service On	Type of Service on Bridge	Input.	Must Input.
M38	I_42B	42B Type of Service Under	Type of Service under Bridge	Input.	Must Input.
M39	<u>I_43</u>	N/A	N/A	Not part of InspectTech System input.	
M40	I_43A	43A Main Span Material	Structure Type, Main - Kind of material and/or design	Input.	Must Input.
M41	I_43B	43B Main Span Design	Structure Type, Main - Type of design and/or construction	Input. Also input further information in M143 & M144.	Must Input.
M42	I_45	45 Number of Main Spans	Number of Spans	Input.	Must Input.
M43	<u>I_47</u>	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M44	I_47_decimal_ format	47 Inventory Route Total Horizontal Clearance	Inventory Route Total Horizontal Clearance in feet	Input.	Can defer.
M45	I_48	48 Length of Maximum Span	Length of Maximum Span	Input.	Can defer.
M46	I_49	49 Structure Length	Structure Length Measured along centerline of road in feet. This field will determine if the structure needs to be placed into the NBIS program.	This is to be field verified to the extent possible during the INVENTORY effort.	Must Input.
M47	I_50	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M48	I_50_A_ decimal_format	50A Left Curb/Sidewalk Width	Curb or Sidewalk Widths Left in feet	Input.	Can defer.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M49	I_50_B_ decimal_format	50B Right Curb/Sidewalk Width	Curb or Sidewalk Widths Right in feet	Input.	Can defer.
M50	I_51	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M51	I_51_decimal_ format	51 Bridge Roadway Width, Curb-to- Curb	Bridge Roadway Width, Curb-to-Curb in feet	Input.	Must Input.
M52	<u>I_52</u>	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M53	I_52_decimal_ format	52 Deck Width, Out-to-Out	Deck Width, Out-to- Out in feet	Input.	Can defer.
M54	I_53	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M55	I_53_decimal_ format	53 Minimum Vertical Clearance over Bridge	Minimum Vertical Clearance over Bridge Roadway in feet	Input.	Can defer.
M56	<u>1_54</u>	N/A	N/A	Not part of InspectTech System input.	
M57	I_54_A	54A Minimum Vertical Underclearance Ref	Minimum Vertical Underclearance Reference Feature	Input.	Can defer.
M58	I_54_B_ decimal_format	54B Minimum Vertical Underclearance	Minimum Vertical Underclearance in feet	Input.	Can defer.
M59	I_90	90 Inspection Date	Regular Inspection Date	DO NOT INPUT. This field is for the Regular inspection date, and does not apply for Inventory Level inspection.	
M60	I_100	100 STRAHNET Highway Designation	STRAHNET highway Designation	Input. See SI&A Coding Guide (Pages SB1 – SB10) available online at http://www.nj.gov/transportation/eng/structeval/downloads.shtm	Can defer.
M61	I_103	103 Temporary Struct. Designation	Temporary Structure Designation	Input.	Must Input.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M62	I_104	104 NHS System	Highway System of the Inventory Route	Input.	Can defer.
M63	I_106	106 Year Reconstructed	Year Reconstructed 0000 if no reconstruction	Input if information is available. Otherwise leave blank.	Can defer.
M64	I_107	107 Deck Structure Type	Deck Structure Type	For the Inventory, input, at a minimum, a final value for the first digit (coding digits 2 and 3 as "8" if unknown at this stage)	Must Input.
M65	I_A	(A) Town	Town	Input.	Must Input.
M66	I-AA	(AA) Inventory Route	Route (SI&A Route Number)	Input.	Must Input.
M67	I_AB	(AB) Structure Name	Name of Structure	See document titled: "Bridge and Route Naming Conventions in the SI&A Fields" for detailed guidance.	Must Input.
M68	I_AG	(AG) Type of Bridge Rail	Type of Bridge Railing	Input.	Can defer.
M69	I_AH	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M70	I_AH_ decimal_ format	(AH) Height of Bridge Rail	Height of Bridge Railing in feet	Input.	Can defer.
M71	I_AI	(AI) Speed Limit Posting (mph)	Speed Posting	Input.	Can defer.
M72	I_AM	N/A	N/A	Not part of InspectTech System input. Code corresponding field in decimal format.	
M73	I_AM_ decimal_ format	(AM) Depth of Fill over Structure	Depth of Fill over Structure in feet (relates to 43B)	Input if information is available. Otherwise leave blank.	Must Input.
M74	I_AN	(AN) Plans Available	Plans Availability	Leave blank until this is determined (one way or the other).	Input as soon as known.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M75	I_AU	(AU) Additional Structure Type 1	Additional Structure Type (supplements items 43, 44) 1 = Add'l Str. Typ. 1 2 = Add'l Str. Typ. 2	Input if information is available. Otherwise leave blank.	Must Input.
M76	I_AV	(AV) Widened Structure Type	Widened Structure Type 1AA2BB 1 = first widening material A = first widening design 2 = second widening material B = second widening design	Input if information is available. Otherwise leave blank.	Must Input.
M77	I_CM	(CM) Current Consultant	Consultant 3 digit code for the Consultant who performed this inspection	Input.	Must Input.
M82	County_Bridge _Number	M82 County Bridge No	County Bridge Number - to reflect the number the County uses	This field is to be coded EXACTLY as Instructed by the County.	Must Input.
M83	Municipal_ Bridge_ Number	M83 Municipal Bridge No	Municipal (or other owner's) bridge number - to reflect the number the Municipality uses	This field is to be coded EXACTLY as Instructed by the County.	Must Input.
M84	I_16_degree_ format	M84 Latitude (Degrees)	Latitude (digital) in degrees	Input.	Must Input.
M85	I_17_ degree_ format	M85 Longitude (Degrees)	Longitude (digital) in degrees	Input.	Must Input.
M86	Inspection_ Date	Inspection Date	Inspection date associated with a particular report	Input the date that the Inventory level inspection is performed for Cycle 0 data.	Must Input.
M87	Agr_No	M87 Contract State Agreement No	Contract State Agreement Number 200xBIxxxA (ex. 2002BI496E)	Input by State in InspectTech System.	

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M88	Group_Number	Group Number	Group Number of State Project (ex. XS9D)	Input by State in InspectTech System.	
M90	Frc_Crt_Str	FC Inspection Required	Fracture Critical Structure Yes (checked) / No (unchecked)	Check as appropriate. Same as SI&A Item 92A.	Must Input.
M91	On_Off_System	M91 On/Off System Bridge	On or Off-System Structure	Input by State in InspectTech System.	
M92	Owner_Culvert -No	N/A	N/A	Not part of InspectTech System input.	
M93	Owner	M93 Owner	Name of the actual Owner of the structure	Input if information is available. If not determined, comment accordingly.	Must Input.
M94	Maintenance_ Responsibility	M94 Maintenance Responsibility	Name of the Maintainer	Input if information is available. If not determined, comment accordingly.	Must Input.
M95	Ownership_ Resolved	M95 Ownership Resolved	Ownership (Jurisdiction) Resolved	Input if information available from County. Otherwise leave blank.	Input as soon as known.
M96	Comments_ Ownership	M96 Comments Ownership	Comments on Ownership (Jurisdiction)	Comment as appropriate.	
M97	Structural_ Material_Type_ Desc	M97 Structure Material Type Description	Structural Material or Type Description.	Input if information is available. Otherwise leave blank (if, for example, there was no way to determine this).	Must Input.
M98	Standalone_or_ Connected	M98 Str. is Standalone or Connected	Standalone or Connected structure.	Input.	Must Input.
M99	Length_Portion _Included	M99 Length of Portion Included (ft)	Length of Included Portion of Structure in feet	Input as EXPLAINED. Otherwise leave blank. Note: In case of longer bridges where only partial inspection is performed, input length of the portion included up to the first joint in the culvert beyond the edge of the shoulder/pavement.	Input as soon as known.
M100	Width_Of_ Opening	M100 Width of Opening (ft)	Width Of Opening in feet	Abandoned. Code M141 instead.	

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M101	Total_ Structure_ Openning	M101 Total Structure Opening (SF)	Total Sq. Ft. of Structure Opening	Input.	Must Input.
M102	Purpose	N/A	N/A	Not part of InspectTech System input.	
M103	Actual_Rt_No	N/A	N/A	Not part of InspectTech System input.	
M104	Inspection_ Type	Inspection Type	Type of Inspection	Input. If "other", complete M105 Desc_Inspection_Type.	Must Input.
M105	Desc_ Inspection_ Type	M105 Description of Inspection Type	Description of the Type of Inspection performed	Input if coding "other" <i>M104 Inspection_Type</i> , or if additional explanation is needed for some reason.	Must Input.
M106	Priority_Repair _Issued	M106 Priority Repair Issued	Priority Repair Recommendation Issued	This will be filled out IF a deficiency is seen that requires priority action. Otherwise leave blank.	Must Input.
M107	Priority_Repair _Type	M107 Priority Repair Type	Priority Repair Recommendation Type	This will be filled out IF a deficiency is seen that requires priority action. Otherwise leave blank.	Must Input.
M109	Comments_on_ Condition	M109 Comments on Condition	Comments on the Condition	Input.	Must Input.
M110	Comments_on_ Channel &Scour	M110 Comments on Channel & Scour	Comments on Channel and Scour	Input.	Must Input.
M111	Gen&Misc_ Comments	M111 General and Misc Comments	General and Miscellaneous Comments	Input.	Must Input.
M112	Photo_End_ Elev	N/A	N/A	Not part of InspectTech System input.	
M113	Photo_End_ Elev_Desc	N/A	N/A	Not part of InspectTech System input.	
M114	Photo_Gen_ Rdwy	N/A	N/A	Not part of InspectTech System input.	
M115	Photo_Gen_ Rdwy_Desc	N/A	N/A	Not part of InspectTech System input.	

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M117	Submit_Type	M117 Status of Report Submission	Consultant is Submitting as Preliminary or Final	Input.	Must Input.
M118	Certifying_ Date	M118 Certifying Date	Certifying Date	Input.	Must Input.
M119	Certifying_ Engineer	M119 Certifying Engineer	Name of Certifying Consultant Engineer	Input.	Must Input.
M120	Certifying_ Engr_License	M120 Certifying Engineer Lic. No.	Certifying Engineer New Jersey PE License Number	Input.	Must Input.
M121	Field_Team_ Leader	M121 Field Team Leader	Name of Consultant Field Team Leader	Input.	Must Input.
M122	Other_Field_ Personnel	M122 Other Field Personnel	Names of Other Consultant Field Personnel	Input.	Must Input.
M123	County_ Correct_Data_ Acceptance	N/A	N/A	Not part of InspectTech System input.	
M124	County_ Comments	N/A	N/A	Not part of InspectTech System input.	
M125	State_ Correct_Data_ Acceptance	N/A	N/A	Not part of InspectTech System input.	
M126	State_Comment	N/A	N/A	Not part of InspectTech System input.	
M127	DB_Sync_Key	N/A	N/A	Not part of InspectTech System input.	
M128	Do_Not_Use_ Flag	N/A	N/A	Not part of InspectTech System input.	
M129	Syn_This_ Record_Flag	N/A	N/A	Not part of InspectTech System input.	
M130	Project_Name	M130 Project Name	Project Name	Input by State in InspectTech System.	
M131	UW_Insp_ Required	UW Inspection Required	Underwater Inspection Required Yes (checked) / No (unchecked)	Input. Same as SI&A Item 92B.	Must Input.

No.	Access 2003 DB Field Name	Displayed CoMBIS Field Name	Purpose	Remarks	If CoMBIS Str.
M132	Confined_Spac e_Entry	M132 Confined Space Entry	Confined Space Entry Permit Needed Y/N	Input.	Must Input.
M133	Photo_Extra	N/A	N/A	Not part of InspectTech System input.	
M134	Photo_Extra_ Desc	N/A	N/A	Not part of InspectTech System input.	
M135	Photo_Extra_1	N/A	N/A	Not part of InspectTech System input.	
M136	Photo_Extra_ Desc_1	N/A	N/A	Not part of InspectTech System input.	
M141 **	N/A	M141 CoMBIS Effective Width (ft)	Width Of Opening in feet	Input. See "CoMBIS Structure Definition" document available online at http://www.state.nj.us/transporta tion/eng/structeval/countyculvert insp.shtm	Must Input.
M143 **	N/A	M143 Structure Type Primary	Structure Type of Portion Beneath Roadway	Input.	Must Input.
M144 **	N/A	M144 Structure Type Secondary	Structure Type of next Most Prominent Structure Type	Input.	Must Input.
M145	N/A	M145 Vertical Opening Design	Total Vertical Opening Available at the Larger of the two Ends	Input.	Must Input.
M146 **	N/A	M146 Vertical Opening South or West	Maximum Vertical Dimension at South or West	Input.	Must Input.
M147	N/A	M147 Vertical Opening North or East	Maximum Vertical Dimension at North or East	Input.	Must Input.

^{*} Indicates new field added in MS Access Version 2.0.0
** Indicates new field added in InspectTech System

INVENTORY CODING DETAIL GUIDANCE (for selected fields)

Details are only provided for CoMBIS-specific fields that are included in the InspectTech System, are required for the Inventory effort, and benefit from additional commentary. Refer to the Federal and State Coding Manuals for specific guidance on proper coding of Federal and State fields that are required for the Inventory effort.

M11. 11 Mile Point

Input Linear Referencing System (State SRI) mile point to establish the location of the bridge on the inventory route.

M15. 13R Ramp Code

This is for digits 11-17 of the SRI and only applies to ramps. Input if the structure is on a ramp of a road listed in the SRI (actually assigned a SRI number). Otherwise leave blank.

For example "A106030" (This code ALWAYS comes from the "Straight Line Diagrams" - Interchange Diagrams sheets)

M44. 47 Inventory Route Total Horizontal Clearance

Input inventory route total horizontal clearance as per Federal SI&A Coding Guide EXCEPT using decimal format.

M48. 50A Left Curb/Sidewalk Width

Input curb or sidewalk widths on left as per Federal SI&A Coding Guide EXCEPT using decimal format.

M49. 50B Right Curb/Sidewalk Width

Input curb or sidewalk widths on right as per Federal SI&A Coding Guide EXCEPT decimal format.

M51. 51 Bridge Roadway Width, Curb-to-Curb

Input bridge roadway width, curb-to-curb, as per Federal SI&A Coding Guide EXCEPT using decimal format.

M53. **52 Deck Width, Out-to-Out**

Input deck width, out-to-out, as per Federal SI&A Coding Guide EXCEPT using decimal format.

M55. 53 Minimum Vertical Clearance over Bridge

Input minimum vertical clearance over bridge roadway, as per Federal SI&A Coding Guide EXCEPT using decimal format.

M57. 54A Minimum Vertical Underclearance Ref

Input minimum vertical underclearance, reference feature, as per Federal SI&A Coding Guide.

M58. 54B Minimum Vertical Underclearance

Input minimum vertical underclearance as per Federal SI&A Coding Guide EXCEPT using decimal format.

M59. **90 Inspection Date**

Leave blank for Inventory level inspection. This is for regular/routine inspection date only (*NOT SAME AS M86. INSPECTION DATE*).

M70. (AH) Height of Bridge Rail

Input height of bridge railing as per State SI&A Coding Guide EXCEPT using decimal format.

M73. (AM) Depth of Fill over Structure

Input depth of fill over structure (relates to I_43_B) as per State SI&A Coding Guide EXCEPT using decimal format.

M82. M82 County Bridge No

This is the structure number used by the County. Obtain the exact format for this field from the County.

M83. M83 Municipal Bridge No

This is the structure number used by the municipalities or other local owners. Obtain the exact format for this field from the County.

M84. M84 Latitude (Decimal Degrees)

This is the digital format of Latitude in degrees.

M85. M85 Longitude (Decimal Degrees)

This is the digital format of Longitude in degrees (Note: As we are west of the Prime Meridian, all values are negative).

M86. **Inspection Date**

This is the inspection date associated with a particular report generated in CoMBIS. For the Inventory level (Cycle 0) report, the Inspection Date will be the date that the Inventory level inspection was performed.

M87. M87 Contract State Agreement No

This is contract agreement number with the state. This field is to be input by State, and appears as read only to other users.

M88. Group Number

This is the group number provided by state. This field is to be input by State, and appears as read only to other users.

M90. FC Inspection Required

This field is same as SI&A Item 92A. To code this field check the box as per the following:

Checked – Yes, this structure is Fracture Critical.

Unchecked – No, this structure is not Fracture Critical.

M91. M91 On/Off System Bridge

This field is to be input by State, and appears as read only to other users.

"0" – Off-System Structure

"1" – On-System Structure

M93. *M93 Owner*

This is the full name of the owner.

M94. M94 Maintenance Responsibility

This is the full name of the maintainer responsible for the structure's maintenance.

M95. M95 Ownership Resolved

This is the ownership or jurisdiction of the structure resolved as one of the following options:

"E" – Established

"U" – Unknown

M96. M96 Comments Ownership

This is the field for comments on ownership or jurisdiction of the structure. Always comment in this field (by describing the current status) if ownership or jurisdiction is not fully established.

M97. M97 Structure Material Type Description

This is used for County data coming in (many Counties have a field like this in their databases) as a general description of Structure material and type. Complete as instructed by the County. If the County does not provide instructions, then provide a brief description of the culvert.

Examples:

2 - 4.1' round RCCP

2 – 4' x 6' elliptical RCCP

1- 4' x 6' partial ellipt. corrugated metal pipe

M98. M98 Str. is Standalone or Connected

This flags whether structure is just a portion of a run of a longer structure, or is a stand-alone structure. It is coded as one of the following:

"S" – Standalone structure

"C" - Connected structure, a part of a longer structure

M99. M99 Length of Portion Included (ft)

This is the length of the portion of the structure included in this inspection. This is measured parallel to the flow of water. In case of longer bridges where only partial inspection is performed, limit the length of portion included to the first joint in the culvert after the edge of the shoulder/pavement. See the following sketch for detail description.

First Joint After Edge of Shoulder Culvert

How to Measure Length Included

M100. M100 Width of Opening (ft)

This field is being abandoned. It is replaced with: M141"Effective CoMBIS Width"

M101. M101 Total Structure Opening (SF)

This is the total minimum size of opening measured in square feet - rounded to nearest foot (Assume water is flowing through entire available height). If multiple pipes or openings are included, this is the sum of all.

M104. Inspection Type

This is the type of inspection performed on the structure. It can be one of the following options:

- "C" Complete (Regular) inspection
- "I" Inventory inspection (for those structures that have not yet, or will not [non-CoMBIS structures], receive a regular inspection).
- "V" Visual (Regular) inspection A Regular inspection where the culvert barrels were not entered due to a size limitation.
- "Z" Other

M105. M105 Description of Inspection Type

This is the appropriate comments regarding the type of Inspection performed.

M106. M106 Priority Repair Issued

This is the Priority Repair Recommendation Issued as one of the following options:

"9" - None

"E" - Emergency Repair

"1" – Priority 1 Repair

"2" – Priority 2 Repair

M107. M107 Priority Repair Type

This is the Priority Repair Recommendation Type as a result of this inspection of the as one of the following options:

"S" – Safety Inspection

"X" – Structural Inspection

"C" - Scour

"Z" – Other

"T" – Settlement

"D" - Debris

M109. M109 Comments on Condition

This is for comments on the current condition of the structure.

M110. M110 Comments on Channel & Scour

This is for comments on Channel and Scour.

M111. M111 General and Misc Comments

This is for General and Miscellaneous Comments.

M117. M117 Status of Report Submission

This area is for the consultant to indicate the status of data as one of the following options:

"P" - Preliminary Submission/Data

"F" - Final Submission/Data

When you have completed the inventory data collection, and all data has been properly reviewed, then flag the data as final. This flags the inventory portion of the effort as completed. (Note: Data deferred for collection in the Regular Inspection effort does NOT have to be included here).

M118. M118 Certifying Date

This is field for the Certifying Date of the inventory inspection.

M119. M119 Certifying Engineer

This is for the name of Person (Consultant) who Certified Inventory Data or Report for this Inspection.

M120. M120 Certifying Engineer Lic. No.

This is for the certifying engineer (consultant) New Jersey PE license number. Enter this information at the time the data is flagged as FINAL (also complete M.117 & M.118).

M121. M121 Field Team Leader

This is for the name of the Consultant Field Team Leader responsible for this inspection.

M122. M122 Other Field Personnel

This is area for entering the names of Other Consultant Field Personnel involved during this inspection.

M130. M130 Project Name

This is the field to input the project name. This field is to be input by State, and appears as read only to other users.

M131. UW Inspection Required

This field is same as SI&A Item 92B. To code this field check the box as per the following:

Checked – Yes, UW Inspection is required.

Unchecked – No, UW Inspection is not required.

M132. M132 Confined Space Entry

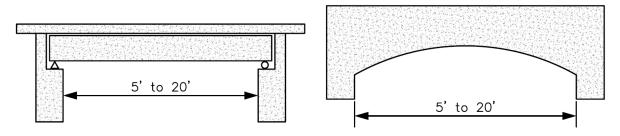
This field is required to know if we need permit and/or training for confined space entry. To code this field select one of the following:

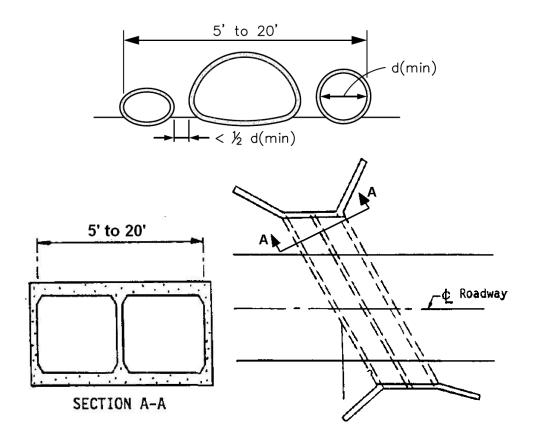
"Y" – Yes, this is Confined Space Entry.

"N" – No, this is not Confined Space Entry.

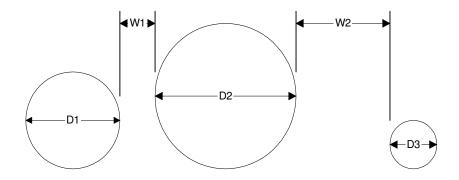
M141. M141 Effective CoMBIS Width (ft)

The structure opening measured PERPENDICULAR to the flow of water (or equivalent measure) between undercopings 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 of the smaller contiguous opening. For inclusion as a "CoMBIS Structure", the Effective CoMBIS Width must be from 5 to 20 feet. There are structures that fit the criteria for both CoMBIS and NBIS, as the NBIS measure of length (Item 49) adjusts the length so as to be measured along the traveled way, and CoMBIS does not. If so, they are NBIS Structures and do NOT qualify for the CoMBIS program. See below for examples of CoMBIS Structures.





Definition of Included Openings



FHWA Culvert Inspection Manual - July 1986 Section 3-1.1 e. - Multiple Barrels

"The span or opening length of multiple barrel culverts includes the distance between barrels as long as that distance is less than half the opening length of the adjacent barrels."

For the above example, W1<(D1)/2 W2>(D3)/2

Therefore, the total span length for this example is: D1+W1+D2

For the above situation, dimensions are to be reported as follows:

Effective CoMBIS Width = D1 + W1 + D2

There is one unusual situation that may be encountered that requires special consideration. This is when there are 2 or more <u>parallel</u> pipes in one <u>common</u> headwall - <u>each</u> pipe (or pipe group) qualifying on its own to be in CoMBIS, but the pipes are too far apart to be measured as one length as described above. In this situation the pipes will be considered as one structure, and dimensions are to be reported as follows (using D1 & D2 above as examples):

Effective CoMBIS Width = $D1 + \frac{1}{2}D1 + D2$

M143. M143 Structure Type Primary

This field defines the type of design and/or construction of the portion of the structure directly under the roadway. This item augments NBI Item 43 to provide for more culvert types. Select proper value from pull down menu.

M144. M144 Structure Type Secondary

This field defines the type of design and/or construction of the next most prominent structure type. This item augments NBI Item 44 to provide for more culvert types. Select proper value from pull down menu.

M145. M145 Vertical Opening Design

This field defines the total vertical opening available, at the larger of the end openings, if there is no silting or other obstruction in a culvert with a man-made bottom, or the design clearance in a structure with a natural stream bed.

M146. M146 Vertical Opening South or West

This field defines the total vertical opening available at the south or west end opening, if there is no silting or other obstruction in a culvert with a man-made bottom, or the design clearance in a structure with a natural stream bed.

M147. M147 Vertical Opening North or East

This field defines the total vertical opening available at the north or east end opening, if there is no silting or other obstruction in a culvert with a man-made bottom, or the design clearance in a structure with a natural stream bed.