

Coding in AssetWise



OSARC

— OFFICE OF —
STATE AID ROAD CONSTRUCTION

Office of State Aid Road Construction

July 1, 2021

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Inspection Data

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New or Replaced Structures

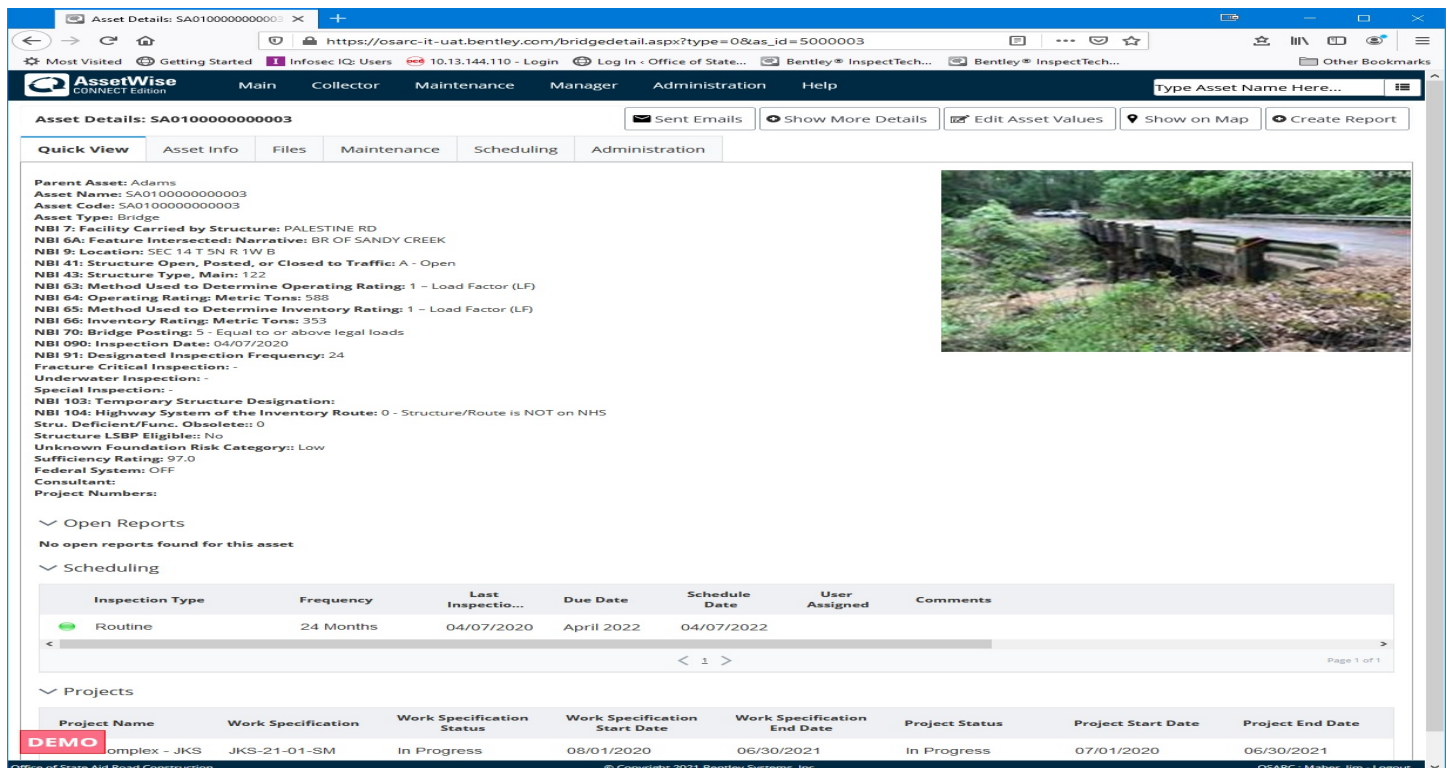
If a structure is new to the inventory or has been replaced, send the following information to the OSARC IT Manager:

New (never been on the inventory) or Replaced
County
Place Code (NBI 4)
Feature Intersected (NBI 6)
Facility Carried (NBI 7)
Section, Township and Range (NBI 9)
Latitude (NBI 16), Longitude (NBI 17)
Structure Type (NBI 43, NBI 44)
Number of Spans (NBI 45, NBI 46)
Piling Types
Project Number

NOTE: If a bridge has been replaced and the replacement structure is on new alignment (more than 1 roadway width from the old location), it is considered to be a New bridge.

Existing Structures Asset Details

After selecting the structure, you are taken to the Asset Details page. The first thing you want to do is to select the **Show on Map** button on the right.



Asset Details: SA010000000003

Parent Asset: Adams
Asset Name: SA010000000003
Asset Code: SA010000000003
Asset Type: Bridge
NBI 7: Facility Carried by Structure: PALESTINE RD
NBI 6A: Feature Intersected: Narrative: BR OF SANDY CREEK
NBI 9: Location: SEC 14 T 5N R 1W B
NBI 41: Structure Open, Posted, or Closed to Traffic: A - Open
NBI 43: Structure Type, Main: 122
NBI 63: Method Used to Determine Operating Rating: 1 - Load Factor (LF)
NBI 64: Operating Rating: Metric Tons: 588
NBI 65: Method Used to Determine Inventory Rating: 1 - Load Factor (LF)
NBI 66: Inventory Rating: Metric Tons: 353
NBI 70: Bridge Posting: 5 - Equal to or above legal loads
NBI 090: Inspection Date: 04/07/2020
NBI 91: Designated Inspection Frequency: 24
Fracture Critical Inspection: -
Underwater Inspection: -
Special Inspection: -
NBI 103: Temporary Structure Designation:
NBI 104: Highway System of the Inventory Route: 0 - Structure/Route is NOT on NHS
Stru. Deficient/Func. Obsolete: 0
Structure LSBP Eligible: No
Unknown Foundation Risk Category: Low
Sufficiency Rating: 97.0
Federal System: OFF
Consultant:
Project Numbers:

Open Reports
No open reports found for this asset

Scheduling

Inspection Type	Frequency	Last Inspectio...	Due Date	Schedule Date	User Assigned	Comments
Routine	24 Months	04/07/2020	April 2022	04/07/2022		

Projects

Project Name	Work Specification	Work Specification Status	Work Specification Start Date	Work Specification End Date	Project Status	Project Start Date	Project End Date	
DEMO	Complex - JKS	JKS-21-01-SM	In Progress	08/01/2020	06/30/2021	In Progress	07/01/2020	06/30/2021

Asset Details: SA010000000003

https://osarc-it-uat.bentley.com/bridgedetail.aspx?type=0&as_id=5000003

AssetWise CONNECT Edition


Main Collector Maintenance Manager Administration Help

Asset Details: SA010000000003

Sent Emails Show More Details Edit Asset Values Show on Map Create Report

Quick View Asset Info Files Maintenance Scheduling Administration

Parent Asset: Adams
 Asset Name: SA010000000003
 Asset Code: SA010000000003
 Asset Type: Bridge
 NBI 7: Facility Carried by Structure: PALESTINE RD
 NBI 6A: Feature Intersected: Narrative: BR OF SANDY CREEK
 NBI 9: Location: SEC 14 T 5N R 1W B
 NBI 41: Structure Open, Posted, or Closed to Traffic: A - Open
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 NBI 66: Inventory Rating: Metric Tons: 353
 NBI 70: Bridge Posting: 5 - Equal to or above legal loads
 NBI 090: Inspection Date: 04/07/2020
 NBI 91: Designated Inspection Frequency: 24
 Fracture Critical Inspection: -
 Underwater Inspection: -
 Special Inspection: -
 NBI 103: Temporary Structure Designation:
 NBI 104: Highway System of the Inventory Route: 0 - Structure/Route is NOT on NHS
 Stru. Deficient/Func. Obsolete:: 0
 Structure LSBP Eligible: No
 Unknown Foundation Risk Category: Low
 Sufficiency Rating: 97.0
 Federal System: OFF
 Consultant:
 Project Numbers:



Open Reports

No open reports found for this asset

Scheduling

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Projects

Project Name	Work Specification	Work Specification Status	Work Specification Start Date	Work Specification End Date	Project Status	Project Start Date	Project End Date
DEMO complex - JKS	JKS-21-01-SM	In Progress	08/01/2020	06/30/2021	In Progress	07/01/2020	06/30/2021

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This will open a new browser tab that allows you to refine the position of the bridge marker. Click on the **Aerial** button to get the aerial view, click the marker so that a blue dot appears then move the marker to the center of the bridge. Clicking **Save Position Change** will update items 16 and 17.

Asset Details: SA010000000000: X Main Map - InspectTech X

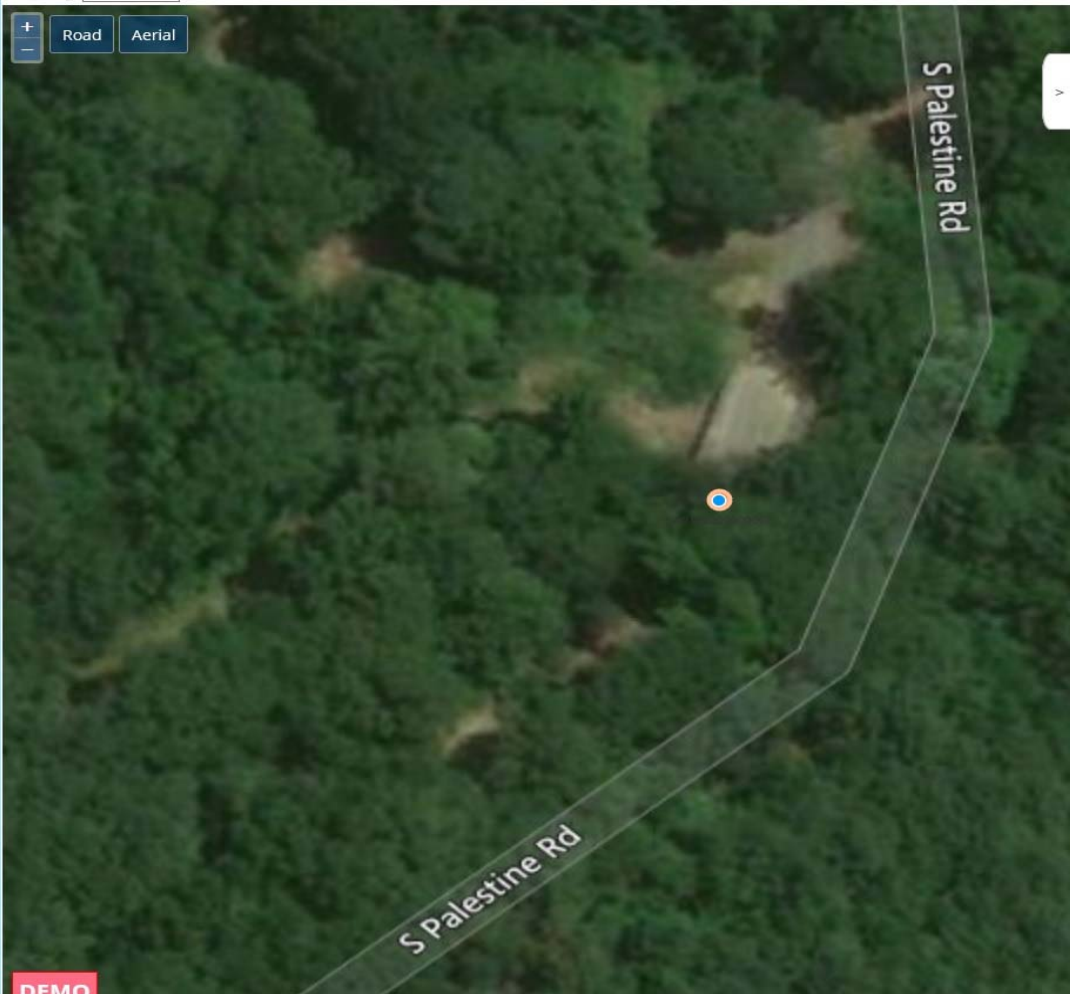
https://osarc-it-uat.bentley.com/gis_map.aspx?as_id=5000003

AssetWise CONNECT Edition Main Collector Maintenance Manager Administration Help Type Asset Name Here...

Main Map

Geometry: Point

+ - Road Aerial



S Palestine Rd

S Palestine Rd

Information Streetside

SA0100000000003

- Parent Asset: Adams
- Asset Name: SA0100000000003
- Asset Code: SA0100000000003
- Asset Type: Bridge
- NBI 7: Facility Carried by Structure: PALESTINE RD
- NBI 6A: Feature Intersected: Narrative: BR OF SANDY CREEK
- NBI 9: Location: SEC 14 T 5N R 1W B
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- Stru. Deficient/Func. Obsolete: 0
- Structure LSBP Eligible: No
- Unknown Foundation Risk Category: Low
- Sufficiency Rating: 97.0
- Federal System: OFF
- Consultant:
- Project Numbers:

DEMO

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Close the tab when you are finished.

You are now ready to create a new inspection report by clicking the **Create Report** button. This opens an initial window.

Create Inspection Report Based On: select "Asset Values"

Options: This checkbox should be left unchecked.

Part of Work Specification: Select the Work Specification associated with the inspection project.

The next item is **Report Type**. For AssetWise, Report Type is based on the type of structure being inspected (*what*): Standard, Box Bridge, Truss, Fracture Critical (and not a truss). The correct Report Type should be preselected by default. If it isn't, click the drop-down arrow and select the correct Report Type. (Let us know so the proper default Report Type for the structure can be set.) **Please be aware that the Report Type must be correct. There is no way to change the Report Type once an inspection report is created.**

The screenshot displays the AssetWise software interface. A modal dialog box titled "Create Inspection Report Based On:" is open in the foreground. The dialog contains the following elements:

- Create Inspection Report Based On:** Two radio buttons: "Blank report" (unselected) and "Asset Values" (selected).
- Options:** A checkbox labeled "Copy previous report section attachments (PDF)" which is unchecked.
- Part of Work Specification:** A dropdown menu currently showing "Not associated with a work specification".
- Report Type:** A dropdown menu currently showing "Standard".
- Inspection Type:** A grid of checkboxes:
 - Routine
 - Initial
 - Special
 - Repair
 - In Depth
 - Supplemental
 - Fracture Critical
 - Posting and Closing
 - Underwater
 - Error Correction
 - Scour Monitoring
 - QC-QA
 - Damage
 - Load Rating

At the bottom of the dialog are "Create" and "Cancel" buttons. Red arrows in the image point to the "Part of Work Specification" dropdown, the "Report Type" dropdown, and the "Supplemental" checkbox. The background shows the "Asset Details" page for asset SA010000000003, with a "DEMO" watermark in the bottom left corner.

Next is **Inspection Type**. This is the Reason for the inspection (*why*). Check all that apply. Fracture Critical needs to be checked for Trusses. **Only those Inspection Types assigned to the Work Specification will be displayed.**

- Initial: The initial inspection for structures new to the inventory (new structure number).
- Routine: A full inspection scheduled by NBI Items 90 and 91.
- In Depth: An inspection utilizing more intensive methods and procedures.
- Fracture Critical: An inspection of identified Fracture Critical details and noted in NBI Items 92A and 93A.
- Underwater: A specialized inspection of substructure components not accessible during low-water and noted in NBI Items 92B and 93B.
- Special: An inspection type reserved for out-of-the ordinary inspections such as a mechanical/electrical inspection on a movable bridge and noted in NBI Items 92C and 93C. Do not code a Special Inspection for substandard substructure (i.e. bad timber piles).
- Scour Monitoring: An inspection to check for changes to the Waterway Adequacy and stream cross-section profile.
- Repair: A re-inspection to check on the status of repairs made to the structure.
- Supplemental: A re-inspection of a structure by a second inspection team.
- Damage: An inspection called to check for damage such as in the cases of fire, impact or flooding.
- Posting and Closing: An inspection report to verify and code the presence updated posting signs or closure barricades.
- Error Correction: An inspection report opened for the purposes of correcting errors discovered after previous inspection reports have been approved.
- QC-QA: An inspection report to document QC-QA inspections. **NOTE: The QC-QA inspection type DOES NOT update asset values.**
- Load Rating: An inspection report to document Load Rating Results.

Clicking the **Create** button will create the new inspection report record and open the forms.

Section1: Report Info

Inspection Info

Create Date: 07/27/2017
Inspection Date: [Calendar Icon]
NBI (Item 90) Date: 01/22/2015 [Calendar Icon]

Inspection Type: Routine Special In Depth
 Fracture Critical Underwater Scour Monitoring
 Damage Initial Follow-Up

User Assignment:
Team Leader: Maher, Jim
Available Users: Administrator, InspectTech, Armistage, Jennifer, Barrett, David, Bond, Jonathan, Britt, Larry, Brown, Michael, Buras, James, Cabaret, Robert
Users Assigned to Report: Maher, Jim
Set as Team Leader

Inspection Summary:
Unable to inspect the substructure components below the bearings due to high water caused by beaver dams. See the "General Comments" section of the report for details of the inspection findings.

Report Assignment History:
Report History:

Inspection Date	Sub Assets	Owner	Inspectors	Inspection Type	Status
01/22/2015	none	Snell, Jason	Brown, Michael Snell, Jason	Routine	Approved on 03/04/2015
01/01/2013	none	Administrator, InspectTech			Approved on 06/30/2014
01/01/2011	none	Administrator, InspectTech			Approved on 06/30/2014
01/01/2010	none	Administrator, InspectTech			Approved on 06/30/2014
01/02/2008	none	Administrator, InspectTech		Routine	Approved on 03/24/2015
01/02/2006	none	Administrator, InspectTech		Routine	Approved on 03/24/2015
01/02/2004	none	Administrator, InspectTech		Routine	Approved on 03/24/2015
01/02/2002	none	Administrator, InspectTech		Routine	Approved on 03/24/2015
01/02/2000	none	Administrator, InspectTech		Routine	Approved on 03/24/2015
01/02/1997	none	Administrator, InspectTech		Routine	Approved on 03/24/2015
01/02/1995	none	Administrator, InspectTech		Routine	Approved on 03/24/2015

Start by coding the **Inspection Date** field. **This field is coded every time a report is created.** If the inspection is an Item 90 scheduled inspection (Routine) or the Initial inspection on a new cross structure, code the inspection date in NBI (Item 90) Date.

The NBI (Item 90) Date MUST be updated when conducting an Initial or Routine Inspection. DO NOT change the NBI (Item 90) Date if the report is not for a Routine or Initial Inspection.

Double check the Inspection Type(s) checked to make sure they are correct. Under User Assignment, the name of the person who created the new report will be shown as both the Team Leader and the User Assigned to Report. From the list on the left, select the name of the Inspection Team leader and (only) the other members of the inspection team. Press the right facing arrow to add them to the right pane. In the right pane, select the Team leader's name and click the **Set as Team Leader** button to designate that user as the inspection team leader. If the person who created the report is not part of the inspection team, their name should be removed from the Assigned Users list by selection the name and clicking the left facing arrow. Do not include users that are/were not part of the actual inspection team.

Inventory Status

SA010000000003

https://osarc-it-uat.bentley.com/form.aspx?id=230964&type=1&fg_id=2&fm_id=129

Inventory Status

Structure Class: **Non-Complex** Inspection Class:

Inspection Status

(90) Inspection Date: (91) Designated Inspection Frequency:

(92) Critical Features Inspection:

(93) Critical Features Inspection Date:

Upcoming Inspections

Routine Inspection: Scour Inspection:

Fracture Critical Inspection: Underwater Inspection: Other Special Inspection:

Consultants:

Complex Consultant:

Timber Substructure Consultant:

Non-Complex Consultant: **Jordan, Kaiser & Sessions** Timber Substructure:

Underwater Inspection Consultant: Requires Underwater Inspection:

Inspection Consultant(s):

Condition Ratings

(58) Deck Rating: (59) Superstructure: (60) Substructure: (62) Culvert:

(104) Highway System: (112) NBIS Bridge Length:

Status

Sufficiency Rating: Unknown Foundation Risk Category:

Stru. Deficient/Func. Obsolete: Scour POA Required:

Structure LSBP Eligible: Recommended Closed:

Critical Findings

Critical Finding: Date of Critical Finding:

Recommended Action: Date of Compliance:

Consultant Logo: Project Number(s):

Forms

- Report Info
 - Inspection Info
 - Inventory Status**
 - Photo/File Upload
 - Location Map
 - Asset Files
 - Report Section
 - Forms
- SIA
 - Identification
 - Identification - AA
 - Classification
 - Age and Service
 - Proposed Improvements
 - Inspection and Status
 - Inspection and Status 2
 - Condition Ratings
- Inspection Data
 - Bridge Ends
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - Elements
 - test form
 - NBI Calcs
 - NBI Error Check
 - NBI Values Check

DEMO

This page gives an “at a glance” view of the classification and general status of the structure. This page is not editable.

Inspection Plan

Bridge Inspection Plan

Structure Number:

Plan Date:

Structure Description:

Special Equipment:

Inspection Plan (Upload additional documentation PDFs as needed)

DISCLAIMER The assessments given in this report are opinions given in good faith at the time of inspection. Due to inaccessibility and hidden conditions, no members, connections or conditions could be completely assessed. No representation is made that all defects have been discovered or that defects will not future. This report should not be used as the sole basis for repair, construction or capital improvement plans.

The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily those of the Office of State Aid Road Construction, Department of Transportation, the State of Mississippi or the Federal Highway Administration.

PROCEDURE: The field inspection of Bridge SA010000000003 consisted of an arm's length visual examination of all structural components above ground. Inspection were visual inspection from Bent 1 to Bent 4 inclusive and form the basis for this report. Access to the underside of the bridge was accomplished using a 35' platform unit (Hydra Platform Trailer Model HP35) and alternating one-way traffic on Palestine Road. Estimated inspection time is 5.0 hours.

FRACTURE CRITICAL BRIDGE PLAN: There are no fracture critical members on this bridge.

COMPLEX BRIDGE PLAN: No additional specialized inspection procedures, training, or experience if required to inspect this structure.

Forms

- Report Info
 - Inspection Info
 - Inventory Status
 - Inspection Plan**
 - Photo/File Upload
 - Location Map
 - Asset Files
 - Report Section
 - Forms
- SIA
 - Identification
 - Identification - AA
 - Classification
 - Age and Service
 - Proposed Improvements
 - Inspection and Status
 - Inspection and Status 2
 - Condition Ratings
- Inspection Data
 - Bridge Ends
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - Elements
 - test form
 - NBI Calcs
 - NBI Error Check
 - NBI Values Check

DEMO

Enter the bridge inspection plan on this form. Make sure the change the date as the plan is updated. If additional documentation is required (drawings, photos, etc.), upload them as PDFs and include them in the PDF report after the Inspection Plan form (see **Add Sections/PDF Attachments** on page 16).

Photo/File Upload

The screenshot shows a web browser window with the URL https://osarc-it-uat.bentley.com/forms/pictures.aspx?id=230964&type=1&fm_id=2&fg_id=-1. The page title is "Attach Picture/File".

The main interface is divided into several sections:

- Attach Picture/File:** A large empty area for uploading files. To the right, there is a "File Type" dropdown menu set to "File", a "File Date (i.e. Date Picture Taken):" input field, and a checkbox labeled "Set description to file name on".
- Filter By:** A section with "File Date:" (From: and To: input fields), "File Name:" (input field), and "File Description:" (input field) with a "Filter" button.
- Photos (0):** A section showing "No Photos found".
- Files (1):** A section showing one file: "File Name: Downstream Elev.jpg", "File Date: 05/07/2021", "Description:", and "Linked Fields:". There are "Delete" and "Attach" buttons next to the file entry.
- Load Ratings (0):** A section showing "No Load Ratings found".

A red "DEMO" button is visible in the bottom left corner. On the right side, there is a "Forms" sidebar with a tree view containing categories like "Report info", "SIA", and "Inspection Data".

This is the page where you upload photos and files to the inspection report. Select what is going to be uploaded either by dragging and dropping the files into the upload area or from the drop-down list to the right. Each type has its own area in the uploaded file library (Photo, File, Load Ratings, Sketch, QC-QA, Audio, Video, CrossSection, Location Map). Photos and Sketches **MUST** be image files (JPG, BMP, etc.) Click the **Add More Files** button, navigate to the folder where the photos or files are stored and select all you want to upload, then click **Attach**. We are working to make this the official bridge file, so include any additional required documents. **Also, you should use descriptive file names such as 'SA01-001 2017-08-01 Load Rating Data.pdf'**. Depending on the number and size of files to be uploaded and your connection speed, this is probably a good time to get up and move around. Repeat this process until all the photos and files you want attached to the inspection report have been uploaded.

Location Map

The screenshot shows a web browser window with the Bentley OSARC Location Map interface. The browser's address bar displays the URL: <https://osarc-it-uat.bentley.com/customer/OSARC/forms/LocationMap.aspx?id=230964&type=1&fr...>. The page title is "SA0100000000003". The map area shows a location marked with a purple circle and labeled "SA0100000000003". The map includes controls for "Road", "Aerial", "Zoom In", and "Zoom Out". A scale bar indicates 1000 feet and 250 meters. The right sidebar shows a "Forms" menu with options like "Report Info", "SIA", and "Inspection Data". A "DEMO" button is visible in the bottom left corner.

If you want to include a map of the bridge in the PDF report, you will need to create a location map. Click the **Create New Image** button, size the image to show map context, then click the **Save** button.

Asset Files

SA010000000003

Asset and Reports

- Manager Files
 - Photo
 - File
- Report 05/07/2021
- Report 04/07/2020
- Report 10/24/2019
- Report 02/22/2018
- Report 02/09/2017
- Report 12/09/2014
- File types

Files (2)

File Name: Downstream Elev.jpg File Date: 05/07/2021 Description: Linked Fields:	File Name: Frequency Compliance Form File Date: SA0100000000003.jpg Description: Linked Fields:
---	--

Load Ratings (0)

Sketches (0)

QC-QA (0)

Audio (0)

Video (0)

CrossSections (0)

Location Maps (0)

Forms

- Report Info
 - Inspection Info
 - Inventory Status
 - Photo/File Upload
 - Location Map
 - Asset Files**
 - Report Section
 - Forms
- SIA
 - Identification
 - Identification - AA
 - Classification
 - Age and Service
 - Proposed Improvements
 - Inspection and Status
 - Inspection and Status 2
 - Condition Ratings
- Inspection Data
 - Bridge Ends
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - Elements
 - test form
 - NBI Calcs
 - NBI Error Check
 - NBI Values Check

DEMO

This page shows all the uploaded photos and files. Only those actually attached to the report are available for inclusion in the PDF report. **NOTE: Photos have a checkbox that must be checked for a photo to be included in the PDF report.**

Report Section

This is where the PDF report(s) get built.

The default order is:

- Cover
- Table of Contents
- Location Map
- Inspection Summary
- Structural Inventory and Appraisal
- Waterway
- Load Rating and Posting
- Pictures
- Sketches
- Field Notes (Descriptive Conditions)
- Stream Profile
- General Comments
- Urgent Maintenance Noted
- Routine Maintenance Noted
- Inspection Team

The screenshot shows the Bentley software interface for managing report sections. The main window displays a list of sections in a table with columns for 'Remove Section', 'Order', and 'Section Name'. A red arrow points to the 'Add Sections/PDF Attachments' button at the bottom of the list. A modal dialog box titled 'Add PDF Attachment' is open, showing options to add a PDF file, files linked to the report, and custom sections from other reports. The dialog includes a 'File' field with a 'Browse...' button, a 'Name' field, and several checkboxes for 'Print', 'Include in Table of Contents', 'Insert Cover Page Before Section', 'Show Page Number', and 'Show Footer'. Below this, there are sections for 'Add Files Linked to Report' and 'Add Custom Sections from Other SA010000000003 Reports', each with an 'Update' button. The 'Add Custom Sections' section contains a table of report sections with columns for 'Add Section Name', 'Report', and 'View'.

Add Section Name	Report	
<input type="checkbox"/> Bridge Inspection Plan (SA01-003)	04/07/2020	View
<input type="checkbox"/> Handwritten (SA01-003)	04/07/2020	View
<input type="checkbox"/> LFR Rating with EV 19 Span, 26 6 Roadway (SA01-003)	04/07/2020	View
<input type="checkbox"/> Load Rating Summary Sheet Signed (SA01-003)	04/07/2020	View
<input type="checkbox"/> Mississippi LFR Posting Sign Selector (SA01-003)	04/07/2020	View

DEMO

Additional sections can be added using the **Add Sections/PDF Attachments** button at the bottom of the list.

Consultant reports should be added using "Add Files Linked to Report". Click the **Save Order Changes** button. The sections below any inserted documents will automatically be reordered.

NOTE: It is possible to insert documents directly into the PDF report (Add PDF Attachment). **DO NOT DO THIS**. Documents inserted directly into the PDF report **will not** be included into the Photo/file Upload section.

If you wish not to include certain sections, **DO NOT** remove/delete the sections. Instead deselect the **Print** and **Include in Table of Contents** check boxes. This will suppress these sections from being included in your inspection's "standard" PDF report but allow them to be available once the inspection report has been approved.

Section 2: SIA

All NBI items are coded as per the **Recording and Coding Guide for the Structural Inventory and Appraisal of the Nation's Bridges** (Coding Guide), as amended. All leading and trailing zeros (for padding) and decimals should be explicitly coded, **EXCEPT** for items 64 and 66. **DO NOT CODE DECIMALS IN ITEMS 64 and 66.**

The Coding Guide, amendments and updates can be found in OSARC's WebShare and in the **Documents** area under the AssetWise "Help" tab.

Identification

The screenshot shows the 'IDENTIFICATION' form in a web browser. The form is for structure SA010000000003. The data entered is as follows:

Field	Value
(8) Structure Number	SA010000000003
(6A) Features Intersected	BR OF SANDY CREEK
(6B)	
(1) State Code	284
(7) Facility Carried	PALESTINE RD
(2) MDOT District	07
(9) Location	SEC: 14 T: 5 N: N R: 1 System: <input checked="" type="checkbox"/> State Aid
(3) County	001-ADAMS
(4) Place Code	91485 - Supervisor District 3
(11) Kilometer Point	0009.495
(5) Inventory Route	
(12) Base Highway Network	0 - Inventory Route is not on the Base I
(5A) Record Type	1 - route carried "on" the stru
(13) LRS Inv. Rt. Subroute No.:	
(5B) Route Signing Prefix	4 - COUNTY HIGHWAY
LRS Inventory Route:	
(5C) Designated Level of Service	1 - MAINLINE
Subroute Number:	
(5D) Route Number	00003
(16) Latitude	31 Degrees 25 Minutes 05.91 Seconds
(17) Longitude	-091 Degrees 14 Minutes 44.92 Seconds
(5E) Directional Suffix	0 - NOT APPLICABLE
Longitude degrees value must begin with a minus sign.	
(98) Border Bridge	
Neighboring State Code:	
Percent Responsibility:	%
(99) Border Bridge Structure No.:	

A 'DEMO' label is visible in the bottom left corner of the form area. On the right side, there is a 'Forms' sidebar with a tree view containing the following items:

- Report Info
 - Inspection Info
 - Inventory Status
 - Photo/File Upload
 - Location Map
 - Asset Files
 - Report Section
 - Forms
- SIA
 - Identification
 - Identification - AA
 - Classification
 - Age and Service
 - Proposed Improvements
 - Inspection and Status
 - Inspection and Status 2
 - Condition Ratings
- Inspection Data
 - Bridge Ends
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - Elements
 - test form
 - NBI Calcs
 - NBI Error Check
 - NBI Values Check

- (8) Structure Number - NBI 8 - The 15-digit identification number is coded by OSARC
- (1) State Code - NBI 1 - Coded "284" by the system.
- (2) MDOT District - NBI 2 - This item is coded by OSARC
- (3) County - NBI 3 - This item is coded by OSARC
- (4) Place Code - NBI 4 - This is the 5-digit FIPS code of the bridge location, selected from a drop-down list filtered by county.
- (5) Inventory Route - NBI 5
- (5A) Record Type - Selected from a pre-populated drop-down list.
 - (5B) Route Signing Prefix - Selected from a pre-populated drop-down list.
 - (5C) Designated Level of Service - Selected from a pre-populated drop-down list.
 - (5D) Route Number (xxxxx) - The 5-digit route number, coded with leading zeros (0).
 - (5E) Directional Suffix - Selected from a pre-populated drop-down list.
- (6A) Features Intersected - NBI 6A – 24-character description of the feature crossed by the bridge. Use of all caps is preferred.
- (6B) - Critical Facility Indicator - NBI 6B - Use of NBI 6B has been discontinued and is not editable.
- (7) Facility Carried - NBI 7 - Facility Carried – 18-character description of the facility carried by the bridge. Use of all caps is preferred.
- (9) Location - NBI 9 - OSARC breaks this field into 6 segments, Section (SEC), Township (T) (xx), Township direction (North/South) (drop-down), Range (R) (xx), Range direction (East/West) (drop-down) and OSARC System Identifier (checkbox). In the NBI data, OSARC System bridges are identified by a "B" as the last character of NBI 9 (the checkbox can only be edited by OSARC).
- (11) Kilometer Point - NBI 11 (xxxx.xxx) - This is the 7-digit (plus the decimal) distance along the route in kilometers, with leading and trailing zeros as necessary.
- (12) Base Highway Network - NBI 12 - No structures on the county/local system are on the Base Highway network. This item is not editable.
- (13) LRS Inv. Rt Subroute No. - NBI 13 - No structures on the county/local system are on the Base Highway network. This item is not editable.
- (16) Latitude - NBI 16 (xx) (xx) (xx.xx) - Code the latitude of the structure in degrees, minutes seconds and decimal seconds, with trailing zeros, as necessary[#].

(17) Longitude - NBI 17 (-xxx) (xx) (xx.xx) - Code the longitude of the structure in degrees, minutes seconds and decimal seconds, with trailing zeros, as necessary#.

NOTE: Degrees Must include a minus sign (-) for West offset for mapping purposes. The system strips the minus sign from the NBI data.

Do not code leading zeros in NBI 16 and 17. A recent update has issues with leading zeros in these items.

(98) Border Bridge - NBI 98 - No structures on the county/local system meet the criteria for this item. This item is not editable.

(99) Border Bridge Structure No. - NBI 99 - No structures on the county/local system meet the criteria for NBI 98. This item is not editable.

Classification

The screenshot displays the Bentley InspectTech web application interface. The main content area is titled "Classification" and contains a grid of dropdown menus for various classification criteria. The browser address bar shows the URL: https://osarc-it-uat.bentley.com/form.aspx?id=230964&type=1&fg_id=1&fm_id=15. The browser tabs include "SA010000000003", "Most Visited", "Getting Started", "Infosec IQ: Users", "10.13.144.110 - Login", "Log In - Office of State...", "Bentley® InspectTech...", and "Bentley® InspectTech...". The right sidebar is titled "Forms" and lists various form categories, with "Classification" highlighted in blue. A red "DEMO" button is visible in the bottom left corner of the application window.

Field ID	Field Name	Selected Value	Field ID	Field Name	Selected Value
(20)	Toll Facility:	3 - On Free	(101)	Parallel Structure:	N - No para
(21)	Custodian:	02 - County	(102)	Direction of:	2 - 2-way tr.
(22)	Owner:	02 - County	(103)	Temporary Structure:	
(26)	Functional Class:	09 - Rural -	(104)	Highway System:	0 - Structur
(37)	Historical Significance:	5 - Not eligi	(105)	Federal Lands Highways:	0 - Not App
(100)	Defense Highway:	0 - Not a STRA	(110)	Designated National Network:	0 - Inventory r
	Federal System:	OFF	(112)	NBIS Length:	Yes

(20) Toll Facility - NBI 20 - No structures on the county/local system is a toll facility. This item is not editable.

(21) Custodian - NBI 21 - This is the entity responsible for the maintenance and upkeep of the structure, selected from a drop-down list.

(22) Owner - NBI 22 - This is the entity that has ownership of the structure, in virtually all cases the owner and custodian are the same. This is selected from a drop-down list.

(26) Functional Class - NBI 26 - This is the functional class of the inventory route. The drop-down list is populated with the functional classifications applicable to the county/local system. Functional class can be checked using MDOT functional class maps here: <https://mdot.ms.gov/portal/maps>.

(37) Historical Significance - NBI 37 - This is the determined historical significance of the bridge, selected from a drop-down list. Hint: Almost all are "5".

(100) Defense Highway - NBI 100 - Few structures on the county/local system meet the criteria for this item. This item is coded by OSARC.

(101) Parallel Structure - NBI 101 - This is to code parallel structures, selected from a drop-down list. Hint: Almost all are "N".

(102) Direction of - NBI 102 (Direction of Traffic) - This is to code traffic usage on the structure, selected from a drop-down list.

(103) Temporary Structure - NBI 103 - This item records the existence of a temporary structure or support(s), selected from a drop-down list.

NOTE: 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*:

Item 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 Underclearance

55 - Minimum Lateral Underclearance on Right

56 - Minimum Lateral Underclearance on Left

70 - Bridge Posting

DO NOT RECODE NBI ITEMS 43, 58, 59 or 60 FOR THE TEMPORARY STRUCTURE.

(104) Highway System - NBI 104 - This shows if the structure is on the designated National Highway System, selected from a drop-down list.

NOTE: Designated structures have been coded by OSARC.

(105) Federal Lands Highway - NBI 105 - This shows if the structure is on a designated Federal Lands Highway. The drop-down list is populated with the codes applicable to the county/local system.

NOTE: This item is coded by OSARC

(110) Designated National Network - NBI 110 - No structures on the county/local system meet the criteria for this item. This item is coded by OSARC.

(112) NBIS Bridge Length - NBI 112 - No structures on the county/local system do not meet the criteria for this item. This item is coded by OSARC.

Age and Service

The screenshot displays the 'AGE AND SERVICE' form in the Bentley InspectTech application. The form is organized into several sections with input fields and dropdown menus. The values entered in the fields are as follows:

Field ID	Field Name	Value
(19)	Detour Length	018
(27)	Year Built	1983
(28A)	Lanes On	02
(28B)	Lanes Under	00
(29)	ADT	000050
(30)	Year of ADT	2008
(42A)	Type of Service On	1 - Highway
(42B)	Type of Service Under	5 - Waterway

Below the main form, there are fields for 'Project Number(s):' and 'Consultant Logo:'. A sidebar on the right, titled 'Forms', lists various report and data options, with 'Age and Service' highlighted in blue. A red 'DEMO' button is located in the bottom left corner of the application window.

(19) Detour Length - NBI 19 (xxx) - The 3-digit distance to the nearest kilometer to detour around the structure, coded with leading zeros (0). If the structure can be bypassed at the site, code "000", if no detour is possible, code "199".

(27) Year Built - NBI 27 (xxxx) - The 4-digit year the structure was built.

(28A) Lanes On - NBI 28A (xx) - The 2-digit number of lanes carried ON the structure, coded with leading zeros (0).

(28B) Lanes Under - NBI 28B (xx) - The 2-digit number of traffic lanes running UNDER the structure, coded with leading zeros (0).

(29) ADT - NBI 29 (xxxxxx) - The 6-digit traffic volume, coded with leading zeros (0).

(30) Year of ADT - NBI 30 (xxxx) - The 4-digit year the ADT was recorded.

(42A) Type of Service On - NBI 42A - The type of service carried ON the structure, selected from a drop-down list.

(42B) Type of Service Under - NBI 42B - The type of service UNDER the structure, selected from a drop-down list.

(106) Year Reconstructed - NBI 106 (xxxx) - The 4-digit year the structure was reconstructed/rehabilitated.

NOTE: Stubbing in timber piles is usually considered Temporary Shoring. If the entire structure has been replaced, a Replacement Record is required, as previously covered.

(109) Truck ADT - NBI 109 (xx) - 2-digit percentage of commercial truck traffic represented in the ADT, coded with leading zeros (0). If the ADT is 100 or less, this may be left blank.

Project Number(s) - Known construction and rehabilitation project numbers should be entered here.

Consultant Logo – Select the inspection consultant’s **pre-loaded logo#** to be displayed on the new report cover.

See “Using AssetWise” for information about logos.

Proposed Improvements

The screenshot displays the Bentley AssetWise web application interface for the 'PROPOSED IMPROVEMENTS' form. The browser address bar shows the URL: https://osarc-it-uat.bentley.com/form.aspx?id=230964&type=1&fg_id=1&fm_id=25. The form is titled 'PROPOSED IMPROVEMENTS' and contains the following fields:

(75A) Type of Work Proposed:	33 - Widenli	(75B) Work Done by:	1 - Work to	(96) Total Cost:	000350
(76) Length of Improvements:	00017.4	(97) Year of Cost Estimate:		(114) Future ADT:	000075
(94) Bridge Cost:	000200	\$ In Thousands		(115) Year of Future ADT:	2028
(95) Roadway Cost:	000150	\$ In Thousands			

The right sidebar, titled 'Forms', contains a list of navigation options:

- Report Info
 - Inspection Info
 - Inventory Status
 - Photo/File Upload
 - Location Map
 - Asset Files
 - Report Section
 - Forms
- SIA
 - Identification
 - Identification - AA
 - Classification
 - Age and Service
 - Proposed Improvements**
 - Inspection and Status
 - Inspection and Status 2
 - Condition Ratings
- Inspection Data
 - Bridge Ends
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - Elements
 - test form
 - NBI Calcs
 - NBI Error Check
 - NBI Values Check

A 'DEMO' button is visible in the bottom left corner of the form area.

(75A) Type of Work Proposed - NBI 75A - This item codes the type of proposed improvements, selected from a drop-down list.

(75B) Work Done By - NBI 75B - This item codes how the proposed improvements are to be carried out, selected from a drop-down list.

(76) Length of Improvements - NBI 76 (xxxxx.x) - This is the 6-digit (plus the decimal) length of the improvements proposed in NBI 75A, coded with leading zeros (0).

(94) Bridge Cost - NBI 94 (xxxxxx) - This is the 6-digit cost, in thousands of dollars, of the bridge improvements proposed in NBI 75A, coded with leading zeros (0).

NOTE: 000010 = \$10,000. See NBI 97 for year-of-cost information.

(95) Roadway Cost - NBI 95 (xxxxxx) - This is the 6-digit cost, in thousands of dollars, of the roadway improvements proposed in NBI 75A, coded with leading zeros (0).

NOTE: 000010 = \$10,000. See NBI 97 for year-of-cost information.

(96) Total Cost - NBI 96 (xxxxxx) - This is the 6-digit all-inclusive total cost, in thousands of dollars, of the improvements proposed in NBI 75A, coded with leading zeros (0).

NOTE: 000010 = \$10,000. See NBI 97 for year-of-cost information.

(97) Year of Cost Estimate - NBI 97 (xxxx) - The 4-digit year the structure was built.

Items 75, 76, 94, 95 and 96 should left blank if the Sufficiency Rating is greater than or equal to 80.

(114) Future ADT - NBI 114 (xxxxxx) - The 6-digit estimate of future traffic volume, coded with leading zeros (0).

(115) Year of Future ADT - NBI 115 (xxxx) - The 4-digit year for the future ADT estimate.

Inspection and Status

Inspection Report Information

(90) Inspection Date: 04/07/2020

(91) Designated Inspection Frequency: 24

(92) Critical Feature Inspection:

(92A) Fracture Critical Details: Check For Yes Check For No

(92B) Underwater Inspection: Check For Yes Check For No

(92C) Other Special Inspection: Check For Yes Check For No

Sufficiency Rating: 97.0

Unknown Foundation Risk: 74

Unknown Foundation Risk Category: Low

Structure LSBP Eligible: No

Stru. Deficient/Func. Obsolete: 0

(93) Inspection Interval, Months: 24

(93A) Fracture Critical Details:

(93B) Underwater Inspection:

(93C) Other Special Inspection:

Forms

- Report Info
 - Inspection Info
 - Inventory Status
 - Photo/File Upload
 - Location Map
 - Asset Files
 - Report Section
 - Forms
- SIA
 - Identification
 - Identification - AA
 - Classification
 - Age and Service
 - Proposed Improvements
 - [Inspection and Status](#)
 - Inspection and Status 2
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 - NBI Error Check
 - NBI Values Check

DEMO

(90) Inspection Date - NBI 90 - This is updated on the Report Info->Inspection Info page. The field on this page is read-only.

(91) Designated Inspection Frequency - NBI 91 - The designated frequency (12 or 24 months), selected from a drop-down list. **NOTE: DO NOT change NBI 91 except during a scheduled Routine inspection. If NBI 91 is coded "24" and any of NBI Items 58, 59, 60 or 62 have been coded as "4" or less, NBI Item 91 should be recoded to "12".**

(92) Critical Feature Inspection - NBI 92 and (93) Inspection Interval, Months - NBI 93:

(92A) Fracture Critical Details:

Select the checkbox [Click for Yes] if the structure has had a fracture critical inspection and select the designated frequency from the drop-down list.

(93A) Fracture Critical Details: (xxxx)

Code the date of the fracture critical details inspection.

NOTE: A fracture critical details inspection plan **must** be included in the uploaded files.

(92B) Underwater Inspection:

Select the checkbox [Click for Yes] if the structure has had an underwater inspection and select the designated frequency from the drop-down list.

(93B) Underwater Inspection; (xxxx)

Code the date of the Underwater Inspection.

NOTE: An Underwater Inspection (dive) inspection plan must be included in the uploaded files.

(92C) Other Special Inspection:

Select the checkbox [Click for Yes] if the structure has had an "Other Special" inspection and select the designated frequency from the drop-down list.

(93C) Other Special Inspection: (xxxx)

Code the date of the Other Special Inspection.

NOTES: 1. "Other Special Inspection" should be used for specialized inspections such as for the mechanical components of a movable bridge. It SHALL NOT be used to indicate that a bridge has a poor timber substructure.

2. A plan outlining the "Other Special Inspection" **must** be included in the uploaded files.

Sufficiency Rating: This is the sufficiency rating calculated by AssetWise upon selecting the "NBI Calcs" page. It may not match the sufficiency rating generated by the FHWA and may not be displayed uniformly by AssetWise. This item is read-only.

Unknown Foundation Risk Category: This is the risk category assigned to structures with "Unknown Foundations" (NBI 113="U") as High, Moderate Low or [blank N/A]. Currently this is calculated and maintained by OSARC. OSARC will populate this item. This item is read-only.

NOTE: Structures with RISK_CAT (column DD) of "HIGH" in the Inspection List spreadsheet require a current **High Risk Unknown Foundation Scour Plan of Action** (POA) in the bridge file. The **High Risk Unknown Foundation Scour POA** form is available in the Bridge Files workspace on the OSARC WebShare site ([High Risk Unknown Foundation POA Form.pdf](#)).

Structure LSBP Eligible: LSBP is now calculated within AssetWise and is displayed on the Inventory Status page. This field is no longer used.

Stu. Deficient/Func. Obsolete: This show whether the structure is assessed to be Structurally Deficient (1), Functionally Obsolete (2), neither (0) or N/A (N), according the FHWA standards, calculated by AssetWise upon selecting the "NBI Calcs" page. This item is read-only.

NOTE: The read-only fields are updated in AssetWise from external sources and may be out-of-date. The best source for the current version of this data can be found in the NBIS CSV files downloadable from the OSARC website under Bridge Information.

Scour POA Data

Rev: 10-02-2020 SA010000000003

Scour Plan of Action Inventory Data

OFFICE OF STATE AID
ROAD CONSTRUCTION

STRUCTURE NUMBER:	SA010000000003	COUNTY:	001-ADAMS
BRIDGE OWNER:	91485 - Supervisor District 3	LOCATION:	SEC 14 T 5N R 1W B
ROAD NAME:	PALESTINE RD	LATITUDE:	31250591
CROSSING:	BR OF SANDY CREEK	LONGITUDE:	091144492

TYPE OF SUPERSTRUCTURE

MAIN SPAN:	1 - Concrete	APPROACH SPAN:	0 - Other
	22 - Channel Beam		00 - Other

TYPE OF SUBSTRUCTURE

ABUTMENTS:	Steel
BENTS:	Steel
PIERS:	Steel

SCOUR EVALUATION

U - Bridge with "unknown" foundation that has not been evaluated for scour.

NBI CODING INFORMATION

	Current	Previous
INSPECTION DATE:	04/07/2020	04/07/2020
ITEM 60: SUBSTRUCTURE:	6	6
ITEM 113: SCOUR CRITICAL:	U	U

CONTACT PERSONNEL

	Name:	Telephone Number:
County or Local Road Manager		
County or Local Law Enforcement		
County Engineer		

[The data on this page will be used to generate a printable PDF Scour POA form to be used as Needed.]

[Bottom]

Forms

- Report Info
 - Photo/File Upload
 - Inventory Status
 - Location Map
 - Asset Files
 - Report Section
- SIA
 - Identification
 - Classification
 - Age and Service
 - Proposed Improvements
 - Inspection and Status
 - Scour POA Data**
- Inspection Data
 - Bridge Ends
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - Elements
 - OSARC Calcs Form
 - NBI Calcs
 - NBI Error Check
 - NBI Values Check

This form contains the information needed to create a structure's Scour Plan of Action, if one is required. Please enter the contact personnel data.

Section 3: Inspection Data

This includes all condition assessment NBI date as well as additional condition information which is useful to the bridge owners, QC-QA inspectors and future inspectors.

Bridge Ends

The screenshot shows a web-based form titled "BRIDGE ENDS". The form is divided into several sections:

- Bridge is Closed:** A dropdown menu set to "No".
- Bridge Closed Comments:** A text input field.
- Posting Signs In Place:** A table with columns for "In Tons or LBS.", "Bridge Beam", and "Bridge End". Rows include "H Truck", "HS Short", "HS Long", "Tandem Axle", "Single Axle", and "Gross()".
- Emergency Vehicle Posting (Tons):** A table with columns for "EV Single Axle", "EV Tandem Axle", and "EV Gross".
- Traffic Safety Features:** A table with columns for "Code", "Condition", and "Comment". Rows include "(36a) Bridge Rail", "(36b) Rail Transitions", "(36c) Approach Guard Rail", and "(36d) Guard Rail Ends".
- (72) Approach Roadway Alignment:** A dropdown menu set to "9 - Superior to pr".
- General Comments:** A large text input field.
- Urgent Maintenance noted:** A text input field.

A sidebar on the right side of the form contains a navigation menu with the following items:

- Forms
- Report Info
 - Inspection Info
 - Photo/File Upload
 - Location Map
 - Asset Files
 - Report Section
- SIA
 - Identification
 - Classification
 - Age and Service
 - Proposed Improvements
 - Inspection and Status
- Inspection Data
 - Bridge Ends (highlighted)
 - Deck
 - Superstructure
 - Substructure
 - Waterway Appraisal
 - Load Rating and Posting Summary
 - Cross Section
 - NBI Calcs
 - Elements

Bridge is Closed: Explicitly states whether the bridge is closed, select the from the drop-down list.

NOTE: The closure can be temporary in nature until it can be replaced with MUTCD standard signage and barricades.

Bridge Closure Comments: Relevant comments related to the bridge closure. These comments are displayed on the PDF report cover page.

Posting Signs In Place

(41) Open/Posted/Closed - NBI 41 - Select the current posting condition based on the current load rating and signage.

NOTE: Code "B" if the current signage does not match end-to-end or one or both signs have been defaced to the point where they have become illegible at legal speeds or if the structure is recommended to be closed and the closure has not been put into place at the time of the inspection.

In Tons or LBS - The unit of measure for the existing signs, selected from a drop-down list.

Bridge Begin / Bridge End - Enter the posted weight limits for the existing signs on either end of the bridge, in the direction of the route (South/West to North/East).

Emergency Vehicle Posting

Bridge Begin / Bridge End - Enter the posted weight limits for the existing signs on either end of the bridge, in the direction of the route.

Traffic Safety Features

Bridge rails shall be deemed to meet criteria if they met the existing criteria when the bridge was constructed and are in good condition. **In no case shall wood posts on bridge rails nor turned down (buried) approach guardrail terminal treatments considered acceptable.**

(36a) Bridge Rail - NBI 36A - Select the appropriate condition code from the drop-down list. From the next drop-down list, select the general condition of the Bridge Rail. Enter a brief description and additional descriptive information in the comments section.

(36b) Rail Transitions- NBI 36B - Select the appropriate condition code from the drop-down list. From the next drop-down list, select the general condition of the Rail Transitions. Enter a brief description and additional descriptive information in the comments section.

(36c) Approach Guard Rail - NBI 36C - Select the appropriate condition code from the drop-down list. From the next drop-down list, select the general condition of the Approach Guard Rail. Enter a brief description and additional descriptive information in the comments section.

(36d) Guard Rail Ends - NBI 36D - Select the appropriate condition code from the drop-down list. From the next drop-down list, select the general condition of the Guard Rail Ends. Enter a brief description and additional descriptive information in the comments section.

(72) Approach Roadway Alignment - NBI 72 (x) - Enter the one (1) digit appraisal code.

General Comments: Enter additional descriptive information in this section. Firefox Users: You can grab the lower right-hand corner of any comments box showing 3 dots and drag the box to expand it.

Urgent Maintenance Noted: Enter any maintenance items that require immediate corrective action to reopen or keep the structure in service in this section.

Routine Maintenance Noted: Enter any lower-priority maintenance items that need to be scheduled in this section.

Deck

The screenshot shows the Bentley software interface for the 'Deck' form. The form is titled 'Deck' and contains several sections: 'Geometry' with fields for vertical clearance, lanes, deck width, and deck geometry; 'Descriptive Conditions' with dropdown menus for joints, drains, rail, sidewalks, deflection, debris, and overall structure; and 'General Comments' with a text area. A 'DEMO' button is visible at the bottom left. On the right, a 'Forms' sidebar shows a tree view with 'Deck' selected under 'Inspection Data'.

(107) Deck Structure Type - NBI 107 - From the drop-down list, select the code for the deck structure type.

(108A) Wearing Surface - NBI 108A - From the drop-down list, select the code that describes the wearing surface.

NOTE: "N" (N/A) applies only to structures with no deck.

(108B) Type of Membrane - NBI 108B - From the drop-down list, select the code that describes the deck protective membrane surface.

NOTE: "N" (N/A) applies only to structures with no deck.

(108C) Deck Protection - NBI 108C - From the drop-down list, select the code that describes the deck protection system.

NOTE: "N" (N/A) applies only to structures with no deck.

Geometry

(10) Min. Vertical Clearance - NBI (10) (xx.xx) - Code the 4-digit (plus decimal) minimum vertical clearance of the structure in meters, with leading and trailing zeros as necessary. For no restriction, or restrictions in excess of 30 meters, code "99.99".

(28A) Lanes On - NBI 28A (xx) - Code the 2-digit number of traffic lanes carried on the structure, with a leading zero as necessary.

(28B) Lanes Under - NBI 28B (xx) - Code the 2-digit number of traffic lanes under the structure, with a leading zero as necessary.

(32) Approach Roadway Width - NBI 32 (xxx.x) - Code the 4-digit (plus decimal) approach roadway width in meters, with leading and trailing zeros as necessary.

(33) Bridge Median - NBI 33 - From the drop-down list, select the code for the bridge median.

(34) Skew - NBI 34 (xx) - Code the 2-digit skew angle of the structure, with a leading zero as necessary. For no skew, code "00".

(35) Structure Flared - NBI 35 - From the drop-down list, select the appropriate code.

(47) Inv. Route Total Horizontal Clearance - NBI 47 (xx.x) - Code the 3-digit (plus decimal) total horizontal clearance in meters, with leading and trailing zeros as necessary. If the restriction is 100 meters or greater, code "99.9".

(50A) Left Curb or Sidewalk Width - NBI 50A (xx.x) - Code the 3-digit (plus decimal) width of the left (in the direction of the route) curb and sidewalk in meters, with leading and trailing zeros as necessary.

(50B) Right Curb or Sidewalk Width - NBI 50B (xx.x) - Code the 3-digit (plus decimal) width of the right (in the direction of the route) curb and sidewalk in meters, with leading and trailing zeros as necessary.

(51) Deck Rdwy Width - NBI 51 (xxx.x) - Code the 4-digit (plus decimal) bridge roadway width, curb-to-curb in meters, with leading and trailing zeros as necessary.

(52) Deck Width (out-to-out) - NBI 52 (xxx.x) - Code the 4-digit (plus decimal) bridge deck width, out-to-out in meters, with leading and trailing zeros as necessary. If the traffic is carried on the top slab of a culvert (low or no fill), code the actual width. If the roadway is carried on fill such that where the headwalls do not affect traffic, code "000.0"

(53) Min. Vert. Clear Over Bridge Rdwy. - NBI 53 (xx.xx) - Code the 4-digit (plus decimal) ACTUAL minimum vertical clearance over the roadway in meters, with leading and trailing zeros, as necessary. For no superstructure restriction, or restrictions in excess of 30 meters, code "99.99".

(68) Deck Geometry - NBI 68 - This is by calculated AssetWise upon selecting the "NBI Calcs" page. This item is not editable.

Descriptive Conditions:

For each of the listed components, select the appropriate condition from the drop-down list. Enter a brief description and additional descriptive information in the comments sections. These should not be left blank.

(58) Deck Condition: - NBI 58 - Select the condition appraisal code for the deck from the drop-down list.

General Comments: Enter additional descriptive information in this section. **Hint:** You can grab the lower right-hand corner of any comments box showing 3 dots or angles lines and drag the box to expand it.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.

Superstructure

The screenshot shows the Bentley Superstructure form interface. The form is titled "Superstructure" and contains several sections:

- Geometry:** (48) Max Span Length: 0005.8; (49) Structure length: 00017.4
- Main span unit:** (43a) Material Type: 1 - Concrete; (43b) Design Type: 22 - Channel; (45) No. of Main Spans: 003
- Approach span unit:** (44a) Material Type: 0 - Other; (44b) Design Type: 00 - Other; (46) No. of App Spans: 0000
- Descriptive conditions:** A table with columns for Condition and Comment. (59) Superstructure Condition: 7 - Good Cond. Have Flood Waters Reached the Superstructure?: No
- General Comments:** A text box containing the text "The superstructure components are in 'Good' condition." and a "DEMO" button.

Geometry

(48) Max Span Length - NBI 48 (xxxx.x) - Code the 5-digit (plus decimal) maximum span length in meters, with leading and trailing zeros, as necessary.

(49) Structure Length - NBI 49 (xxxxx.x) - Code the 6-digit (plus decimal) length of the structure in meters, with leading and trailing zeros, as necessary. Box bridges shall be measured along the centerline of the roadway.

Main span unit

(43a) Material Type - NBI 43A - Select the material type for the main span(s) of the superstructure from the drop-down list.

(43b) Design Type - NBI 43B - Select the design type for the main span(s) of the superstructure from the drop-down list.

(45) No. of Main Spans - NBI 45 (xxx) - Code the 3-digit number of spans in the main unit, with leading zeros, as necessary.

NOTE: Spans of the same material/design and similar span should be considered part of the main unit.

Approach span unit

(44a) Material Type - NBI 44A - Select the material type for the main span(s) of the superstructure from the drop-down list.

(44b) Design Type - NBI 44B - Select the design type for the main span(s) of the superstructure from the drop-down list.

(46) No. of Main Spans - NBI 46 (xxxx) - Code the 4-digit number of spans in the main unit, with leading zeros as necessary.

(54) Minimum Vertical Underclearance - NBI 54

Reference Feature - Select the reference feature from the drop-down list.

Minimum Vertical Underclearance - (xx.xx) - Code the 4-digit (plus decimal) minimum vertical underclearance from the traffic lane(s) or railroad tracks (when appropriate) in meters, with leading and trailing zeros as necessary.

NOTES: 1. If the feature is not a highway or railroad, code "N" and "00.00".

2. If the clearance is in excess of 30 meters, code "99.99".

(55) Minimum Lateral Underclearance on Right - NBI 55

Reference Feature - Select the reference feature on the right (in the direction of the route) from the drop-down list.

Minimum Lateral Underclearance - (xx.x) - Code the 3-digit (plus decimal) minimum lateral underclearance from the traffic lane(s) or railroad tracks (when appropriate) in meters, with leading and trailing zeros as necessary.

NOTES: 1. If the feature is not a highway or railroad, code "N" and "00.0".

2. If the clearance is in excess of 30 meters, code "99.9".

(56) Minimum Lateral Underclearance on Left - NBI 56 (xx.x) - Code the 3-digit (plus decimal) minimum lateral underclearance on the left (in the direction of the route) from the traffic lane(s) or railroad tracks (when appropriate) in meters, with leading and trailing zeros as necessary.

NOTES: 1. If there are no obstructions, code "99.9".

2. If the clearance is in excess of 30 meters, code "99.8".

3. Code "00.0" to indicate not applicable.

(69) Underclearance Rating - NBI 69 - This is by InspectTech upon selecting the "NBI Calcs" page. This item is not editable.

Descriptive Conditions:

For each of the listed components, select the appropriate condition from the drop-down list. Enter additional descriptive information in the comments sections. These should not be left blank.

(59) Superstructure Condition - NBI 59 - Select the condition appraisal code for the superstructure from the drop-down list.

Have Flood Water Reached the Superstructure? Select Yes or No to answer this question.

General Comments: Enter additional descriptive information in this section. **Hint:** You can grab the lower right-hand corner of any comments box showing 3 dots or angles lines and drag the box to expand it.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.

Substructure

Descriptive Conditions:

For each of the listed components, select the appropriate condition from the drop-down list. Enter a brief description and additional descriptive information in the comments sections. These should not be left blank.

NOTE: Abutment and Intermediate pile types must be entered. Do not enter information about headwalls and wingwalls in these fields.

(60) Substructure Condition - NBI 60 - Select the condition appraisal code for the substructure from the drop-down list.

High Water Mark Visible? Select Yes or No to answer this question.

General Comments: Enter additional descriptive information in this section. **Hint:** You can grab the lower right-hand corner of any comments box showing 3 dots or angles lines and drag the box to expand it.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.

Waterway Appraisal

The screenshot shows the Bentley Waterway Appraisal software interface. The main window displays the 'WATERWAY APPRAISAL' form with various input fields and dropdown menus. The 'Navigation Data' section includes fields for Navigation Control (0), Navigation Vertical Clearance (000.0), and Navigation Horizontal Clearance (0000.0). The 'Waterway' section includes fields for Waterway Adequacy (9), Scour Critical Bridge (5), Overall Channel Condition (Poor), Bank Protection (None), Realignment of Channel (No), Indications of Scour (No), Structure in Tidal Zone (No), Streambed Material (Mud), Bank Vegetation (Well Vegetated), Indications that High Waters Overlap Structure and/or Approach Roadway (No), Underwater Inspection Required? (N N N), Sediment and/or Gravel Accumulation (None), Obstructions in the Waterway (Yes), Has Channel Shifted? (No), Bank Erosion (Upstream, Site, Downstream, None), Streambed Aggradation (No), Streambed Degradation (No), Abutment(s) Encroach in Channel (No), Scour Countermeasures in Place (Yes), If Yes, Condition, Stream Velocity (Low), Debris/Drift (Upstream, Site, Downstream, None), and Unknown Foundation Risk Category. A 'Forms' sidebar on the right lists various report sections, with 'Waterway Appraisal' highlighted. A 'DEMO' watermark is visible in the bottom left corner of the screenshot.

Navigation Data

(38) Navigation Control - NBI 38 - Select the navigation control code for the substructure from the drop-down list, with leading and trailing zeros as necessary.

(39) Navigation Clearance - NBI 39 (xxx.x) - Code the 4-digit (plus decimal) navigation vertical clearance in meters, with leading and trailing zeros as necessary.

NOTES: 1. code "000.0" for not applicable.

2. For Swing or Bascule bridges, the measurement is taken with the bridge in the vehicular traffic (closed) position.

3. For Vertical Lift Bridges, the measurement shall be taken with the bridge in the raised position.

(40) Navigation Horizontal Clearance - NBI 40 (xxxx.x) - Code the 5-digit (plus decimal) horizontal navigation clearance in meters, with leading and trailing zeros as necessary. Code "0000.0" for not applicable.

(61) Channel and Channel Protection: - NBI 61 - Select the condition appraisal code for the channel and channel protection from the drop-down list.

(111) Pier Protection - NBI 111 - Select the condition appraisal code for pier protection from the drop-down list.

(116) Minimum Navigation Vertical Clearance, Vertical Lift Bridge - NBI 116 (xx.xx) - Code the 4-digit (plus decimal) navigation vertical clearance, with the lift section in the dropped or closed (to allow vehicular traffic) position, in meters, with leading and trailing zeros as necessary.

Waterway

(71) Waterway Appraisal - NBI 71 - Select the condition appraisal code for waterway adequacy from the drop-down list.

(113) Scour Critical Bridge - NBI 113 - Select the scour criticality condition code from the drop-down list. This item is coded by OSARC.

NOTES: If this item is coded 3 or less, a current **Scour Critical Bridge Plan of Action** (POA) is required in the bridge file. The **Scour Critical Bridge POA** form is available in the Bridge Files workspace on the OSARC WebShare site ([Scour Critical Bridge POA Form pdf](#)).

Overall Channel Condition: Enter the overall condition for the channel.

Bank Protection: Enter the bank protection for the channel.

Realignment of Channel: Select Yes or No to answer this question.

Indications of Scour: Select Yes or No to answer this question.

If Yes, Location and Description: Enter the location and description of scour indicators.

Structure in the Tidal Zone: Select Yes or No to answer this question.

NOTE: This should agree with NBI 113.

Streambed Material: Describe the material of the streambed.

Bank Vegetation: Describe the type and extent of the bank vegetation.

Indications that High Waters Overtop Structure and/or Approach Roadway: Select Yes or No to answer this question.

Underwater Inspection Required? Select Yes, No or N/A (if the structure is not over a waterway) to answer this question.

NOTES: Select YES if the bridge (1) has had an underwater inspection and underwater inspections are still necessary or (2) has NOT had an underwater inspection and an underwater inspection **IS** necessary.

Sediment or Gravel Accumulation: Describe the extent of sediment or Gravel accumulation at the bridge site, if any.

Obstructions in the Waterway: Describe any obstructions in the waterway. Include fenders and/or dolphins if present. Do not include drift or debris.

Has Channel Shifted? Select Yes or No to answer this question.

Bank Erosion: Select the location of any bank erosion at or near the bridge site. Select all that apply. If no erosion is evident, select "None".

Streambed Aggradation: Select Yes or No to answer this question.

Streambed Degradation: Select Yes or No to answer this question.

Abutment(s) Encroach in Channel: Select Yes or No to answer this question.

Scour Countermeasure in Place: Select Yes, No or N/A (if the structure is not over a waterway) to answer this question.

If Yes, Condition: Describe and give the condition of the existing scour countermeasures.

Stream Velocity: Select the velocity of the stream at the time of the inspection, select (blank) if the structure is not over a waterway.

Debris/Drift: Select the location of any drift or debris at or near the bridge site. Select all that apply. If the structure is not over a waterway, select "None".

Unknown Foundation Risk Category: This is the risk category assigned to structures with "Unknown Foundations" (NBI 113="U") as High, Moderate Low or [blank N/A]. Currently this is calculated and maintained by OSARC. As soon as it is feasible, OSARC will populate this item. This item is not editable.

NOTE: Structures with RISK_CAT (column DD) of "HIGH" in the Inspection List spreadsheet require a current **High Risk Unknown Foundation Scour Plan of Action** (POA) in the bridge file. The **High Risk Unknown Foundation Scour POA** form is available in the Bridge Files workspace on the OSARC WebShare site ([High Risk Unknown Foundation POA Form.pdf](#)).

General Comments: Enter additional descriptive information in this section.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.

Load Rating and Posting Summary

(31) Design Load - NBI 31 - Select the structure's design load from the drop-down list.

NOTE: Use the coding detailed in "[FHWA Updates to Items 31, 63 & 65 2011-02-02.pdf](#)" available under "Documentation" of in the Bridge Files workspace on the OSARC WebShare site.

(41) Open/Posted/Closed - NBI 41 - Select the current posting condition based on the current load rating and signage.

NOTE: Code "B" if (1) The current signage does not match or does not match the current recommended posting based on the current load rating (including "Closed") (2) One or both signs have been defaced to the point where they have become illegible at legal speeds.

NOTE: For NBI Items 63, 64, 65 and 66, code these items for **METRIC TONS**, **EXCEPT** for LRFD design structures.

(63) Method used to Determine Operating Rating - NBI 64 - Select the structure's design load from the drop-down list.

NOTE: Use the coding detailed in "[FHWA Updates to Items 63 & 65 2011-11-15.pdf](#)" available under "Documentation" or in the Bridge Files workspace on the OSARC WebShare site.

(64) Operating Rating - NBI 64 (xxx) - Enter the 3-digit value, with leading and trailing zeros as needed. If NBI 64 > 100MT, code 999. **DO NOT code a decimal in this item.** AssetWise does not read this item correctly when a decimal is entered.

(65) Method used to Inventory Operating Rating - NBI 65 - Select the structure's design load from the drop-down list.

NOTE: Use the coding detailed in "[FHWA Updates to Items 63 & 65 2011-11-15.pdf](#)" available under "Documentation" or in the Bridge Files workspace on the OSARC WebShare site.

(66) Inventory Rating - NBI 66 (xxx) - Enter the 3-digit value, with leading and trailing zeros as needed. If NBI 66 > 100MT, code 998. **DO NOT code a decimal in this item.** AssetWise does not read this item correctly when a decimal is entered.

(67) Structural Evaluation - NBI 67 - This is calculated by AssetWise upon selecting the "NBI Calcs" page. This item is not editable.

(70) Bridge Posting - NBI 70 - Select the percentage of structure's load rated carrying capacity to the legal load the drop-down list.

NOTE: This item must be in agreement with NBI Item 41 and NBI Item 64.

Date Load Rated (MM/DD/YYYY) – Enter the date the current Load Rating was performed. (Load Rate only as structural changes dictate.)

EV2 Rating Factor (x.xx) – Enter the 3-digit value, with the decimal and with leading and trailing zeros as needed for the LRFR or LRFD EV2 rating factor.

EV3 Rating Factor (x.xx) – Enter the 3-digit value, with the decimal and with leading and trailing zeros as needed for the LRFR or LRFD EV3 rating factor.

Recommended Posting Limits

You should consider the Recommended Posting Limits section as having 4 parts.

Part 1 - Recommended Closed: Select "YES" if the bridge is recommended to be or remain closed. Select "NO" if the structure has been repaired and is open to traffic.

Part 2 - R12-5 Mod (3 Trucks): Enter the recommended posting limits for the H, HS Short and HS Long Trucks, as determined by the current load rating.

Part 3 - R12-4 Mod: Enter the recommended posting limits for Tandem and/or Single Axle, as determined by the current load rating.

Part 4 – R12-1 Mod Gross Weight: Enter the recommended posting limit for maximum Gross vehicle weight, as determined by the current load rating.

Code only one part, **leaving the other entries blank.** It is strongly recommended that you utilize the Posting Sign Selector spreadsheets to determine what to code, as this information is used to populate the Posting Schedule.

Emergency Vehicle Posting

Required - Enter the recommended posting values, as determined by the current load rating.

Posting Signs In Place

(Non-editable echo from the Bridge Ends page)

Bridge is Closed

In Tons or LBS

Bridge Begin / Bridge End - The posted weight limits for the existing signs on either end of the bridge, in the direction of the route.

Emergency Vehicle Posting

Bridge Begin / Bridge End - The posted weight limits for the existing signs on either end of the bridge, in the direction of the route.

General Comments: Enter additional descriptive information in this section.

Urgent Maintenance Noted: Enter any maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Enter any lower-priority maintenance items that needs to be scheduled in this section.

NOTE: All structures **MUST** have a current Load Rating Summary sheet, signed and sealed by the load rating engineer, in the bridge file. The form is available in the Bridge Files workspace on the OSARC WebShare site ([Load Rating Summary Sheet 2017-07-21 Rev.1.0.pdf](#)).

Cross Section

Entering the profiles takes several steps. At the very least you need the actual stream channel cross-section and the location of the bents. **It must be updated each Routine or Scour Monitoring Inspection.** Follow along using the images below. From the top:

Channel Section

Total Points 11

Date of Cross Section:

Distance Measured From:

Depths Measured From:

Channel bed											
Measurement Points	1	2	3	4	5	6	7	8	9	10	11
Custom Header	Bent 1			Bent 2	Bent 3		Bent 4	Bent 5			Bent 6
Measurement Location *	0.0	3.47	15.47	30.99	61.99	68.00	92.99	123.99	139.51	151.51	154.98
Depth Measured	3.08	3.08	9.08	9.08	16.50	16.83	16.25	9.08	9.08	3.08	3.08

Fixed Objects

Total Objects 6

Fixed Objects in channel bed						
Fixed Objects	1	2	3	4	5	6
Custom Header	Bent 1	Bent 2	Bent 3	Bent 4	Bent 5	Bent 6
Measurement Location *	0.0	30.99	61.99	92.99	123.99	154.98
Depth to Top	2.62	2.62	2.62	2.62	2.62	2.62
Depth to Bottom	32.62	37.62	37.62	37.62	37.62	32.62
Object Type	14" CP	14" CP	14" CP	14" CP	14" CP	14" CP

Test Profile

Comments:

Water Level:

Show Water Level:

High Water Mark:

Show High Water Mark:

Show Previous Section:

Show Fixed Objects:

Measurement Type:

DEMO

Channel Section: This is the actual stream channel cross-section.

Total Points: This is the number of profile points you will be entering. After you enter the number of points, click on **Add/Remove Points** to adjust the **Channel Bed** table to the correct number of columns.

NOTE: When you click **Add/Remove Points**, this line will shift to remain aligned with the right-hand edge of the table.

Date of Cross Section: Enter the date the profile was taken.

Distance Measured From: This is the horizontal datum and should be set to 0.0 (bridge end).

Depths Measured From: This is the vertical datum. In this example, the finished grade from the plans is used, but 0.0 works OK, too.

Channel Bed Table: This is where the profile data is entered.

Custom Header: This is a description of the point. We only entered a description for the bents and left the others blank. This works well at keeping the profile "sketch" uncluttered.

Measurement Location: This is the horizontal "X" distance out from the horizontal datum.

Depth Measured: This is the vertical "Y" distance down from the vertical datum, don't use negative numbers.

Fixed Objects: These are fixed objects in the stream including bents, piers, fenders, dolphins, etc. For this example, there were only bents, so that's what we used.

Total Objects: This is the number of objects you will be entering. After you enter the number of points, click on **Add/Remove Objects** to adjust the **Fixed Objects in Channel Bed** table to the correct number of columns.

NOTE: When you click **Add/Remove Objects**, this line will shift to remain aligned with the right-hand edge of the table.

Fixed Objects in Channel Bed Table: This is where the fixed object data is entered.

Custom Header: This is a description of the object. We honestly don't know if this was included in the "sketch" or not. Add it anyway, so the next time around, you'll know what the objects are.

Measurement Location: This is the horizontal "X" distance out from the horizontal datum.

Depth to Top: This is the vertical "Y" distance down from the vertical datum to the top of the object. We used the distance to the bottom of the cap (pile cut-off).

Depth to Bottom: This is the vertical "Y" distance down from the vertical datum to the bottom of the object. We added the length of the piles from the pile schedule on the plans but converting actual pile tip elevations is best. If you don't know the pile lengths/tip elevations, we suggest adding 5 feet to the **Depth to Top** to indicate the location of the bents and that the pile tip elevations are unknown.

Object Type: This is another description of the object. It was not included on the "sketch". Add it anyway, so the next time around, you'll know what the objects are.

Comments: Also, not included on the "sketch". Consider this information you want to be known to the inspector the next time through.

Water Level: This is the vertical "Y" distance down from the vertical datum to the water level when the cross-section was taken.

Show Water Level: Select "Yes" to have this displayed as a blue line on the "sketch". This was omitted from the example.

High Water Mark: This is the vertical "Y" distance down from the vertical datum to the observed high water mark.

Show High Water Mark: Select "Yes" to have this displayed as a dotted line on the "sketch". This was also omitted from the example.

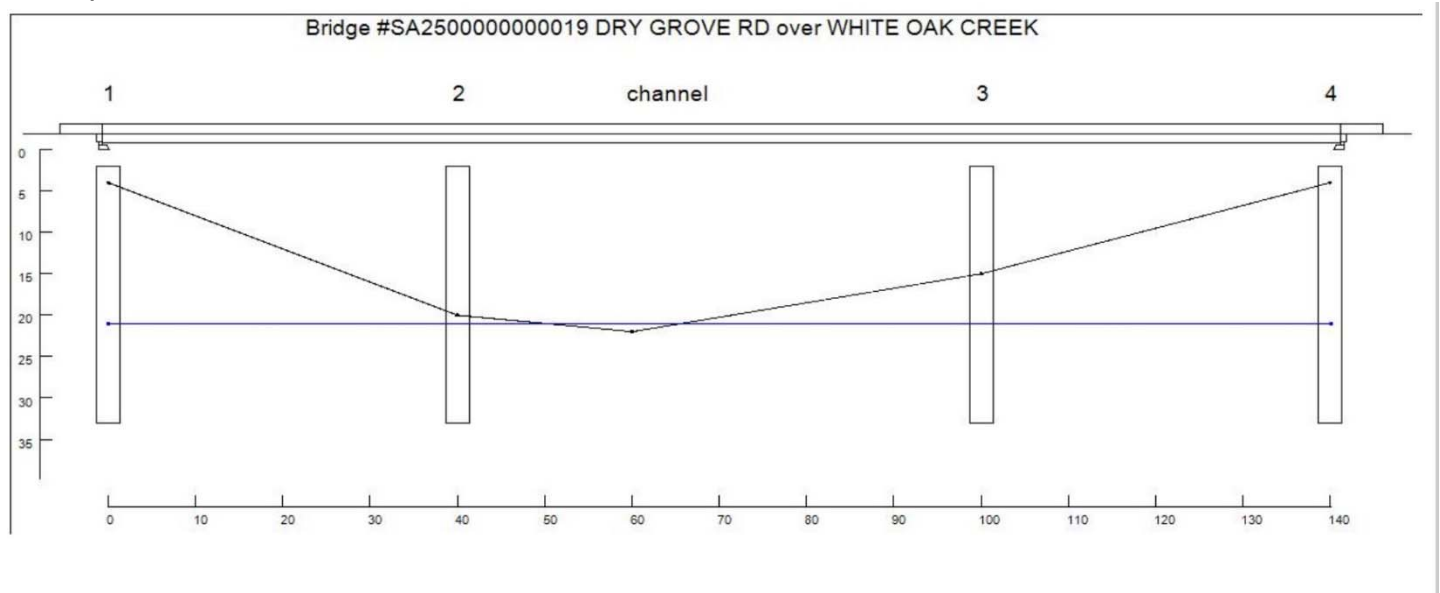
Show Previous Section: Select "Yes" to have this displayed.

Show Fixed Objects: Select "Yes" to have the fixed objects displayed.

Measurement Type: Select "Depth from Reference Point" so that the scaling is set properly.

Click on **View Sketch** to view the profile. If you are satisfied, click on **Save Sketch** to save the "sketch" and data.

Example Cross Section Sketch



OSARC Calcs

Calculates Federal System, Next Inspections, Unknown Foundation Risk Category and LSBP Eligibility.

NBI Calcs

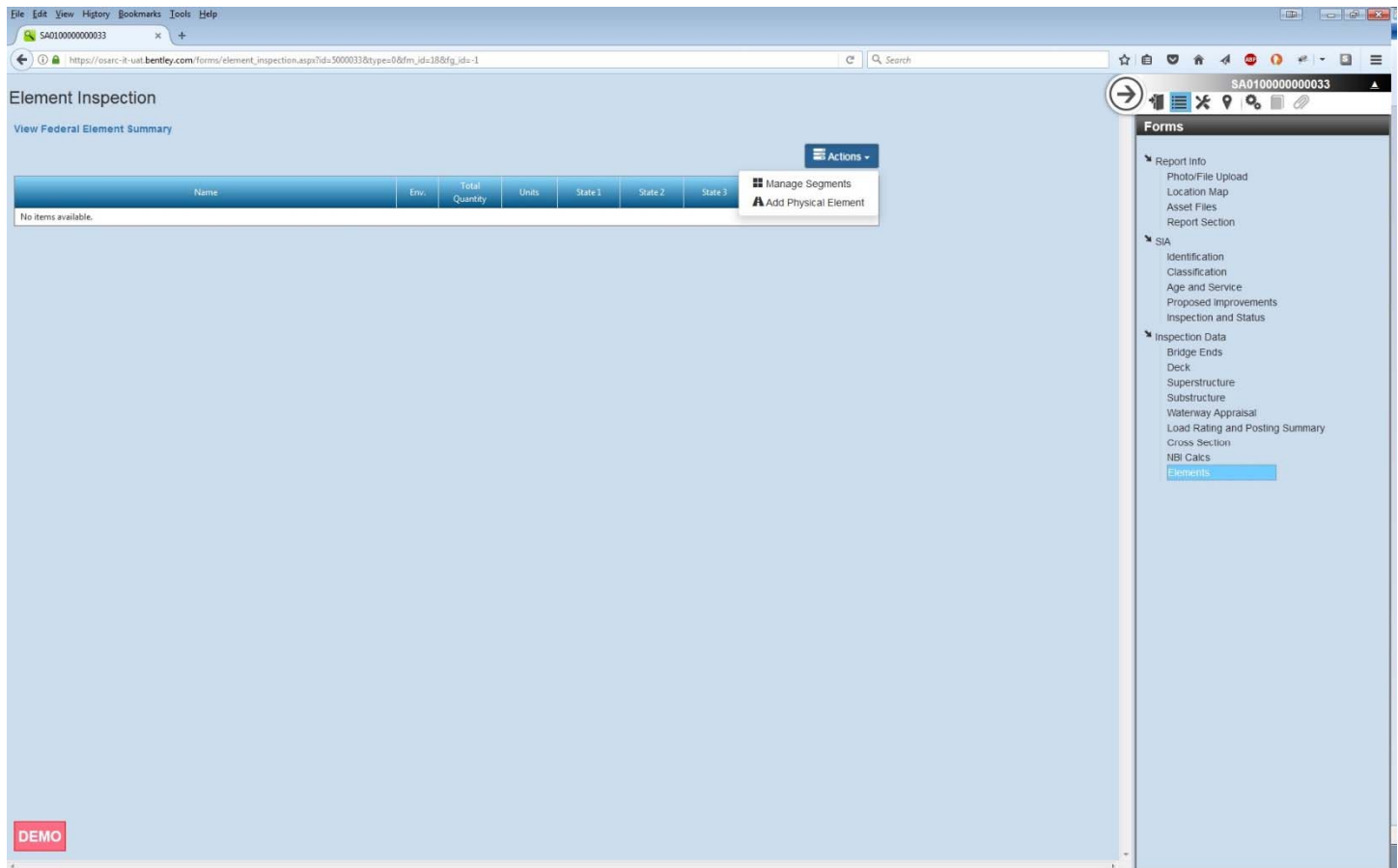
Calculates NBI 67 - Structural Evaluation, NBI 68 - Deck Geometry, NBI 69 - Underclearances, Vertical and Horizontal, Structurally Deficient/Functionally Obsolete and Sufficiency Rating.

NOTE: This page **MUST** be selected at the end of each structure's coding session to insure these items are calculated.

NBI Error Check

This performs checks and cross-checks on the NBI data to ensure it is correct. **NOTE:** This page **MUST** be selected at the end of each structure's coding session to insure the NBI data is checked. There are a number of Known Problems with the NBI Error Check routine. The current list is on the OSARC Web Site under Help->Help Me with AssetWise.

Elements



Element coding is only required for national Highway System (NHS) bridges. These bridges are identified by NBI Item 104="1". Element coding uses the standard element coding as put forth in the AASHTO "Manual for Bridge Element Inspection", as amended.

Click the Actions button and select Manage Segments to create structure segments. Click the Actions button and select Add Physical Element to add the element and condition codes.

Fracture Critical

Component (Member Inspected)	General Location (of Members)	Specific Location (of Members)	Inspection Comments
L0L2	Truss	Bottom Chord	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
L2L4	Truss	Bottom Chord	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
L4L6	Truss	Bottom Chord	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
L6L8	Truss	Bottom Chord	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
L8L10	Truss	Bottom Chord	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
U1L2	Truss	Diagonal	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
U3L4	Truss	Diagonal	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.
DEMO	Truss	Diagonal	Report results of inspection at each location. If no defects found, record "OK" to indicate member was inspected.

This form is available only in “Fracture Critical” and “Truss” Report Types and is used to record details and inspection results for fracture critical details. A fracture critical detail is by definition a (metal) detail that if it were to fail would cause the subsequent failure of the entire structure. Timber structures/piling are NOT fracture critical.

Click the **Add New** button to add each fracture critical component/member/detail and complete the fields.

General Comments: Enter additional descriptive information in this section.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.

Truss

The screenshot shows a web browser window displaying the 'TRUSS FORM'. The browser's address bar shows the URL: https://oserc-it-ust.bentley.com/form.aspx?id=134098&type=1&fg_id=4&fm_id=28. The form is titled 'TRUSS FORM' and is divided into several sections:

- Descriptive Conditions:** This section contains ten rows of data entry fields. Each row has a label on the left, a dropdown menu, and a text input field. The labels and their current values are: End Posts (4 - Good), Portals (N/A), Chords Top (4 - Good), Chords Bottom (4 - Good), Verticals (4 - Good), Diagonals (4 - Good), Sway Bracing (N/A), Top Lateral Struts (N/A), Top Lateral X Bracing (N/A), and Bottom Laterals (4 - Good). The text input field for Bottom Laterals contains the text: "Smaller bolts at connections than on adjacent truss members."
- General Comments:** This section contains a text area with the following text: "Truss is in overall fair condition. Truss is likely not original to this site. Members are connected using several different sizes of bolts & rivets. Truss verticals are connected to bottom chord gusset plates by rivet shank only. Rivet heads were removed from exterior surfaces of both gusset plates to facilitate floorbeam and kicker bracket connections. Visible rivet heads on the interior surfaces appear to..."
- Urgent Maintenance Noted:** This section contains a text area with the following text: "Consider replacing the truss verticals to bottom chord gusset plate rivets with bolts since the rivet heads are missing from the exterior faces."
- Routine Maintenance Noted:** This section contains an empty text area.

A sidebar on the right side of the form is titled 'Forms' and contains a list of report types. The 'Truss' report type is highlighted in blue. Other report types include: Report Info, Inspection Info, Photo/File Upload, Location Map, Asset Files, Report Section, SA, Identification, Classification, Age and Service, Proposed Improvements, Inspection and Status, Inspection Data, Bridge Ends, Deck, Superstructure, Substructure, Waterway Appraisal, Load Rating and Posting Summary, Fracture Critical, Truss, Cross Section, NBI Calcs, and Elements.

A red 'DEMO' button is located in the bottom left corner of the form.

By definition all trusses are fracture critical, but not all fracture critical bridges are trusses. This form is available only in the “Truss” Report Type and allows for a more generalized appraisal of the basic truss components.

Descriptive Conditions:

For each of the listed components, select the appropriate condition from the drop-down list. Enter additional descriptive information in the comments sections.

General Comments: Enter additional descriptive information in this section.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.

Box Bridge

The screenshot shows a web-based form titled "BOX BRIDGE" within a browser window. The form is divided into several sections:

- Header:** (107) Deck Structure Type: N - Not Applicable, (108) Wearing Surface/Protective System: (108A) Wearing Surface: N - NA, (108B) Type of Membrane: N - NA, (108C) Deck Portion: N - NA.
- Geometry:** A grid of input fields for various dimensions and clearances, including (10) Inventory Route, (28A) No. Lanes On Structure, (32) Approach Roadway Width, (33) Bridge Median, (34) Skew, (35) Structure Flared, (47) Inventory Route, Tot. Horiz. Clear., (48) Max Span Length, (49) Structure Length, (50) Curb/Sidewalk Width, (51) Deck Rdway width, (52) Deck Width (out-to-out), (53) Min. vert. Clear Over Bridge Rdwy., (54) Minimum Vertical Underclearance, (55) Minimum Lateral Underclearance on Right, (56) Min. Lateral Underclearance on Left, (58) Deck Geometry, and (59) Underclearances, Vertical and Horizontal.
- Main Span Unit:** (43a) Material Type: 1 - Concrete, (43b) Design Type: 19 - Culvert (indi), (45) No. of Main Spans: 001.
- Approach Span Unit:** (44a) Material Type: 0 - Other, (44b) Design Type: 00 - Other, (46) No. of Main Spans: 0000.
- Culvert Dimensions:** Fill Height: 4, Cell Height: 5, Cell Width: 10, Cell Length: 42.
- Condition and Comments:** A table with columns for "Condition" and "Comments". Rows include Structural Condition, Side Walks, Live Load Deflection/Vibration, Debris Accumulation, Condition Cell 1, and Condition Cell 2.

A sidebar on the right titled "Forms" contains a tree view with categories like "Report Info", "SIA", and "Inspection Data".

This form is available only in the “Box Bridge” **Report Type** and is used to record information specific to box bridges and culverts.

(107) Deck Structure Type - NBI 107 - From the drop-down list, select the code for the deck structure type.

(108A) Wearing Surface - NBI 108A - From the drop-down list, select the code that describes the wearing surface.

NOTE: "N" (N/A) applies only to structures with no deck.

(108B) Type of Membrane - NBI 108B - From the drop-down list, select the code that describes the deck protective membrane surface.

NOTE: "N" (N/A) applies only to structures with no deck.

(108C) Deck Protection - NBI 108C - From the drop-down list, select the code that describes the deck protection system.

NOTE: "N" (N/A) applies only to structures with no deck.

Geometry

- (10) Min. Vertical Clearance - NBI (10) (xx.xx) - Code the 4-digit (plus decimal) minimum vertical clearance of the structure in meters, with leading and trailing zeros, as necessary. For no restriction, or restrictions in excess of 30 meters, code "99.99".
- (28A) Lanes On - NBI 28A (xx) - Code the 2-digit number of traffic lanes carried on the structure, with a leading zero as necessary.
- (28B) Lanes Under - NBI 28B (xx) - Code the 2-digit number of traffic lanes under the structure, with a leading zero as necessary.
- (32) Approach Roadway Width - NBI 32 (xxx.x) - Code the 4-digit (plus decimal) approach roadway width in meters, with leading and trailing zeros as necessary.
- (33) Bridge Median - NBI 33 - From the drop-down list, select the code for the bridge median.
- (34) Skew - NBI 34 (xx) - Code the 2-digit skew angle of the structure, with a leading zero as necessary. For no skew, code "00".
- (35) Structure Flared - NBI 35 - From the drop-down list, select the appropriate code.
- (47) Inv. Route Total Horizontal Clearance - NBI 47 (xx.x) - Code the 3-digit (plus decimal) total horizontal clearance in meters, with leading and trailing zeros as necessary. If the restriction is 100 meters or greater, code "99.9".
- (48) Max Span Length - NBI 48 (xxxx.x) - Code the 5-digit (plus decimal) maximum span length in meters, with leading and trailing zeros as necessary.
- (49) Structure Length - NBI 49 (xxxxx.x) - Code the 6-digit (plus decimal) length of the structure in meters, with leading and trailing zeros, as necessary. Box bridges shall be measured along the centerline of the roadway.
- (50) Curb/Sidewalk Width:
- (50A) Left Curb or Sidewalk Width - NBI 50A (xx.x) - Code the 3-digit (plus decimal) width of the left (in the direction of the route) curb and sidewalk in meters, with leading and trailing zeros as necessary.
- (50B) Right Curb or Sidewalk Width - NBI 50B (xx.x) - Code the 3-digit (plus decimal) width of the right (in the direction of the route) curb and sidewalk in meters, with leading and trailing zeros as necessary.
- (51) Deck Rdwy Width - NBI 51 (xxx.x) - Code the 4-digit (plus decimal) bridge roadway width, curb-to-curb in meters, with leading and trailing zeros as necessary.
- (52) Deck Width (out-to-out) - NBI 52 (xxx.x) - Code the 4-digit (plus decimal) bridge deck width, out-to-out in meters, with leading and trailing zeros, as necessary. If the traffic is carried on the top slab of a culvert (low or no fill), code the actual width. If the roadway is carried on fill such that where the headwalls do not affect traffic, code "000.0"

(53) Min. Vert. Clear Over Bridge Rdwy. - NBI 53 (xx.xx) - Code the 4-digit (plus decimal) ACTUAL minimum vertical clearance over the roadway in meters, with leading and trailing zeros, as necessary. For no superstructure restriction, or restrictions in excess of 30 meters, code "99.99".

(54) Minimum Vertical Underclearance - NBI 54

Reference Feature - Select the reference feature from the drop-down list.

Minimum Vertical Underclearance - (xx.xx) - Code the 4-digit (plus decimal) minimum vertical underclearance from the traffic lane(s) or railroad tracks (when appropriate) in meters, with leading and trailing zeros as necessary.

NOTES: 1. If the feature is not a highway or railroad, code "N" and "00.00".
2. If the clearance is in excess of 30 meters, code "99.99".

(55) Minimum Lateral Underclearance on Right - NBI 55

Reference Feature - Select the reference feature on the right (in the direction of the route) from the drop-down list.

Minimum Lateral Underclearance - (xx.x) - Code the 3-digit (plus decimal) minimum lateral underclearance from the traffic lane(s) or railroad tracks (when appropriate) in meters, with leading and trailing zeros as necessary.

NOTES: 1. If the feature is not a highway or railroad, code "N" and "00.0".
2. If the clearance is in excess of 30 meters, code "99.9".

(56) Minimum Lateral Underclearance on Left - NBI 56 (xx.x) - Code the 3-digit (plus decimal) minimum lateral underclearance on the left (in the direction of the route) from the traffic lane(s) or railroad tracks (when appropriate) in meters, with leading and trailing zeros as necessary.

NOTES: 1. If there are no obstructions, code "99.9".
2. If the clearance is in excess of 30 meters, code "99.8".
3. Code "00.0" to indicate not applicable.

(68) Deck Geometry - NBI 68 - This is by InspectTech upon selecting the "NBI Calcs" page. This item is not editable.

(69) Underclearance Rating - NBI 69 - This is by InspectTech upon selecting the "NBI Calcs" page. This item is not editable.

Main span unit

(43a) Material Type - NBI 43A - Select the material type for the main span(s) of the superstructure from the drop-down list.

(43b) Design Type - NBI 43B - Select the design type for the main span(s) of the superstructure from the drop-down list.

(45) No. of Main Spans - NBI 45 (xxx) - Code the 3-digit number of spans in the main unit, with leading zeros as necessary.

NOTE: Spans of the same material/design and similar span should be considered part of the main unit.

Approach span unit

(44a) Material Type - NBI 44A - Select the material type for the main span(s) of the superstructure from the drop-down list.

(44b) Design Type - NBI 44B - Select the design type for the main span(s) of the superstructure from the drop-down list.

(46) No. of Main Spans - NBI 46 (xxxx) - Code the 4-digit number of spans in the main unit, with leading zeros as necessary.

Culvert Dimensions

Fill Height: Enter the height of the fill over top of the box, **in Feet**.

Cell Height: Enter the interior height of the cell, **in Feet**.

Cell Width: Enter the interior width of the cell, **in Feet**.

Cell Length: Enter the interior length of the cell, **in Feet**.

- NOTES:**
1. Each box bridge is required to have a current Information Required for Load Rating Box Bridges form in the bridge file. This form is available in the Bridge Files workspace on the OSARC WebShare site ([INFORMATION REQUIRED FOR LOAD RATING BOX BRIDGES 1.1.pdf](#)).
 2. If the box bridge has not been load rated, a copy of this form is to be forwarded to the OSARC Bridge Inspection Program Manager so that the structure can be load rated.

Descriptive Conditions:

For each of the listed components, select the appropriate condition from the drop-down list. Enter additional descriptive information in the comments sections.

(62) Culvert Condition - NBI 62 - Select the condition appraisal code for the box bridge/culvert from the drop-down list.

General Comments: Enter additional descriptive information in this section.

Urgent Maintenance Noted: Detail all maintenance items that require immediate corrective action to reopen or keep the structure in this section.

Routine Maintenance Noted: Detail all lower-priority maintenance items that need to be scheduled in this section.