Automated Bridge Staking report

Place a Civil Point on the Feature Definition: Bridge Staking Data



The name of the feature is used to populate the point location in the report. Set it to be the location (i.e. Pier1_CL)

Select all the points placed with this feature. Then type in the name of the base line chain.

91 P	roperties							—	×
1	6 Elements (9)								
Þ	🔶 Point: E_Abutme	nt_CL							
Þ	+ Point: E Abutme	nt LT							
Þ	-	-							
	-	nt_Ki							
Þ	i fond field_oc								
⊳	Point: Pier1_LT								
Þ	Point: Pier1_RT								
	General		*	Geometry		*	Feature		*
	Element Description	**Varies**		> Start	"Varies", "Varies"		Feature Definition	Bridge Staking Data	
	Level	Default ((none))		> End	**Varies**,**Varies**		Feature Name	**Varies**	
	Color	ByLevel (0)		Length	0.0000sf		Description		
	Line Style	ByLevel (0)		Direction	N90°00'00.0"E				
	Weight	🔛 ByLevel (0)		Delta X	0.0000sf				
	Class	Primary		Delta Y	0.0000sf				
	Template	(None)		Total Length	0.0000sf				
	Transparency	0							
	Priority	0							
	Extended		*	Bridge Staking Da	ita	*	Geometry Points		~
	Model	Default		Point Location	**Varies**		Х	**Varies**	
	Last Modified	**Varies**		Northing	**Varies**		Y	**Varies**	
	Snappable	Snappable		Easting	**Varies**		Elevation	**Varies**	
	Modified	Modified		Elevation			Rotation	N90°00'00.0"E	
	New	New		Base Line	ML_DOT-Drive		Rotation Reference	None	
	Locked	Unlocked		Base line Station	**Varies**		Absolute Angle	True	
	Line Style Parameters			Base line Offset	**Varies**				
	Display Style	(From View Display)							



The report finds all elements in the file that have the Item Type Bridge Staking Data.

This is the report preview.

Drag a column header						
Point Location Y	Northing T	Easting T	Elevation T	Base line Station T	Base line Offset T	
W-Abutment_LT	7645353.155	18525489.436		102+50.00	-20.00	
W_Abutment_RT	7645313.155	18525489.426		102+50.00	20.00	
W_Abutment_CL	7645333.155	18525489.431		102+50.00	.00	
E_Abutment_LT	7645353.080	18525789.436		105+50.00	-20.00	
E_Abutment_CL	7645333.080	18525789.431		105+50.00	.00	
E_Abutment_RT	7645313.080	18525789.426		105+50.00	20.00	
Pier1_RT	7645313.076	18525639.426		104+00.00	20.04	
Pier1_CL	7645333.117	18525639.431		104+00.00	.00	
Pier1_LT	7645353.159	18525639.436		104+00.00	-20.04	

Reports				×
Utilities				
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Bridge Reports Export results	Properties			
Abutment Wing Elevations	Search Location		*	^
Abutment Wing Wall Footing	Location Type Model			
PierCap Report	Location Active	file		
PierFooting Elevation Report	Model Active	Model		
PierFooting Report	Include Reference Attac No			
PierPile Report	Include Cell Contents No			
Pridge Staking	Objects		*	~
 Bridge Staking Data Report 	Summary			
🍘 Untitled	Search in: Active Model in Active	file		
	Find all: Bridge Staking Data			
	Where: (Unfiltered)			

Save the exported report results to Excel:

AutoSave 💿 🌔	5 9 ° ° °	®,	Bridge	Staking Data Report	• Saved 🗸	,∕⊃ Sear	rch					\mathbb{V}_{0}		Hamski	Thomas	🔋 🖻			×
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					Wrap Text				Conditional Formatting \		Cell Styles ~	E Insert ~	∑ ~ ₩ ~ � ~	AZY Sort & Fin Filter ~ Sele		sitivity	D Create PE	Gettings F	
Clipboard 😼	Font		5	Alignme	nt	5	Number	F2		Styles		Cells		Editing	Sen	sitivity	Bluebea	am	
B2 👻 :	×	% 7645353	3.155																
A	В	С	D	E	F	G	н	1	J	К	L	м	N	0	Р	Q	R	S	
Point Location			Elevation	Base line Station	Base line Offset														
W-Abutment_LT				102+50.00	-20														
W_Abutment_RT	7645313.155	18525489.43		102+50.00	20														
W_Abutment_CL	7645333.155	18525489.43		102+50.00	0														
E_Abutment_LT	7645353.08	18525789.44		105+50.00	-20														
E_Abutment_CL	7645333.08	18525789.43		105+50.00	0														
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			-																

Configuration consisted of the following:

Created Point Feature Definition with Item Type for staking data attached.

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	I Properties (OpenRoads Standards)			– – × ⁱⁱ
Primary Selection General	Selection (1)			
<pre></pre>	✓ Selection (1) ✓ ⊗ Bridge Staking Data			
🔀 File	 Bridge Staking Data 			
😝 Items				
🕞 Resources				
🕘 OpenRoads Model				
🚽 Sheet Index				
🗄 Links	Selection			*
🕘 OpenRoads Standards	Name	Bridge Staking Data		
() S 🔍 🔍 ()	Feature Definition			*
▲ 😻 Standards	Name	Bridge Staking Data		
VB Libraries	Description Name Seed			
 COR_ML_DOT-Drive.dgn (Default) 				
Feature Definitions	Point			*
Alignment	Point Feature Symbology	Bridge Staking Data		
2 Augument	Items			
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Gr Superelevation	Bridge Staking Data			*
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▶ ♥ Linear	Elevation Point Location			
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Drainage and Utilities				
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A Point	-			

Corresponding Feature Symbology:

Internet Control ■ Standards ■ Standards ■	Properties (OpenRoads Standards)		
imary Selection General plorer	T Selection (1)		
File	Bridge Staking Data		
Items			
	-		
Resources			
OpenRoads Model	-		
Sheet Index			
Links	Selection		
OpenRoads Standards	Name	Bridge Staking Data	
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V V Linear	Plan		,
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🗹 🦿 Bridge Staking Data	Profile		
Þ 🗹 🏘 Mesh	Annotation Group	None	
Survey	Element Template	None	
B Site	3D		
Analysis	Element Template	None	
Drainage and Utilities			
 Feature Symbologies 			
▷ ∕ Linear ▲ ∻ Point			
 Point Staking Data 			
Staking Data			
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Solid			
Surface			
Annotation Groups			
🖌 🙉 Plan			
📂 Drawing			
📂 Linear	*		

Corresponding Element Template:

s 🏽 🗶 🗅 🛍 I ^ 🗸 I 🗙 🔰	Properties		
COR_ML_DOT-Drive.dgn	General Settings		~
⊕ D Surface	Levels	Default	_
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	Line Styles	ByLevel	
	Weights	ByLevel	
Bridge Staking Data	Cell Settings		•
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Item Type:

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🔺 🥪 Staking Data	Properties	
Bridge Staking Data	Item Type	*
📈 🔤 Point Location	Item Name "Bridge Staking Data"	
🔀 🔤 Northing	Use Item Name for Elemei No	
🔀 🔤 Easting		
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Report:

Reports	—) ×
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Bridge Reports	Properties	
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Abutment Wing Wall Footing	Location Type Model	
PierCap Report	Location Active file	
PierFooting Elevation Report	Model Active Model	
PierFooting Report	Include Reference Attach No	
▷ S PierPile Report	Include Cell Contents No	
Provide Staking	Objects	~
 Bridge Staking Data Report 	Show Active File	
Columns	Selected Bridge Staking Data	
	Filtered By (Unfiltered)	
Point Location	Selection	~
o Northing	Selection Type All	
o 🚺 Easting		
🝊 👖 Elevation	Summarize	^
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o Base line Offset		
Sorting Rules	Summary	
🔚 Groups & Aggregates	Search in: Active Model in Active file	
Summarize		
Untitled	Find all: Bridge Staking Data	

OpenBridge Designer Version Upgrade Maintenance

There are two maintenance items recommended after installing a new version of OpenBridge Designer.

To refresh the list of available functional components for modeling the bridge abutments, follow the steps to remove the old versions of the parametric cells that were deleted from the managed workspace. ProjectWise copies to the local computer under your working area all available functional components with the first access to the managed workspace. This process makes only the current abutments available in the list for placing the custom abutments.

- 1. In Windows Explorer, navigate to C:\pw_work\pwmain\username with username being your personal working directory.
- 2. Search for *.cel in folders under that location
- 3. Determine the directory the cel files for integral abutments are stored in, if present.



- 4. Navigate to and select that specific folder.
- 5. Right click and select Delete.



6. Next time an OpenBridge Modeler file is opened in ProjectWise the current functional components will be copied locally.

To clean up system files between versions, follow the steps to remove copies of XML files that may cause functional issues. Following a previous version upgrade it was discovered that the Place Custom Abutment tool did not work correctly in the new version until these files were deleted.

1. In Windows Explorer, navigate to C:\Users\username\AppData\Local\Bentley\OpenBridgeModeler\

AppData is a hidden system area. This location can be copied and pasted to the explorer address bar. Modify for your Windows profile.

0.50	ers > ajeffer > AppData > Local >	benney v openbhagemodeler	
	Name	Date modified	Туре
*	10.0.0	1/26/2021 11:37 A	File folder
*			

- 2. Navigate to the specific subfolders you have available. There may be one or more of these folders.
 - o 10.0.0\prefs\civil_commands
 - o 10.0.0_1\prefs\civil_commands
- 3. Delete all XML extension named files in the folder(s).

Use of LEAP Analysis with OpenBridge Designer

OpenBridge Designer can be used for analysis without a model created through OpenBridge Modeler. The Standalone File Groups option must be used. If the BIM Workflow option is used, then the model of the bridge is needed and sent to the analysis programs.

The following steps should be followed:

- 1. Launch OpenBridge Designer.
- 2. Create an obdx file.
 - Select New File.
 - Navigate to location to create new file.
 - Enter a name that matches the project directory number or a name that logically indicates the work you are doing.

🌆 Save As						×
\leftarrow \rightarrow \checkmark \uparrow \square \Rightarrow This PC	> Windows (C:) > TEMP > OBD) Testing	~	ට 🔎 Sea	rch OBD Testing	
Organize 🔻 New folder						?
AutoHotkey_1. ^ Nat BentleyDownlc Documents an ePower Intel Oracle PerfLogs Program Files Program Siles ProgramData pw_work Python27 Recovery System Volume	me	Date modified No items match	Type a your search.	Size		
File <u>n</u> ame: 9999999997						~
Save as type: OBDX files(* A Hide Folders	.obdx)			<u>S</u> av	e Cancel	~

- Click Save button.
- 3. Create Standalone Group.
 - Select Standalone workflow option.
 - Click the Add Group button (folder with green plus).

🖉 0603003092.obd - OpenBridge Designer
File
Standalone File Groups
BIM Workflow Standalone
Add a group to begin

• Enter the project name for name of the group.



- Click OK button.
- 4. Click on the Analysis icon.

OpenBridge Designer CONNECT Edition			
Modeling Analysis	Drawings Interop.		
Ana	lysis		
LEAP Bridge Steel	File Not Created Run application to begin.		

- 5. Launch LEAP Bridge Concrete (or other application) from the shortcut for applications listed in the lower portion.
- 6. Proceed with entry of model and typical analysis steps.
- 7. Click on File > Save or File > Save As to save the model.
- 8. Enter the file name.
- 9. Click OK button.
- 10. The analysis file will be added to the list in the obdx file.
- 11. Reopen the existing analysis files by selecting in the group list in the obdx file and launching the appropriate analysis application.

As a workflow example, to create a Substructure only file:

- Complete steps 1-5.
- Access the Substructure tab and click on Substructure button to launch Substructure (RC Pier) module.

ELEAP Bridge Concrete CONNECT Edition - Untitled *
File Edit View Tools 2D Viewer Options Help
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
1
🔛 Project 🔆 Geometry 🖙 SuperStructure 🎹 SubStructure 🏢 Reports 🦊 Drawings
Project ▲ Geometry ▼ SuperStructure ISO Substructure ISO A Drawings

- o Build the model.
- Click on File > Save or File > Save As and save the model.
- Enter the file name.
- Click OK button.
- When you exit the substructure module, the analysis file will be added to the list in the obdx file.

🌆 99999999997.obdx - OpenBridge Designer	
File	
Standalone File Groups	
BIM Workflow Standalone	
Standalone Group : Testing OBD Analysis	
— 🛜 Pier Cap.lbcx	
	ł

 Reopen the saved analysis file by selecting it in the list and Launch LEAP Bridge Concrete. It will open the Substructure module.



Notes:

- The obdx file is required for managing the analytical files. The location of the file can be on local or network drive or on ProjectWise server.
- The files are saved within the obdx database only and are not available outside the OpenBridge Designer interface.
- If only doing analysis, when you close an analysis module you may see a dialog box indicating to update the model. Make sure to click the No button and exit.

LEAP Bridge Concrete CE V20	×
? Would you like to update the LEAP Bridge C	oncrete model?
Yes No	Cancel

- Existing LEAP Bridge Concrete files created with a previous version can be opened to start a new file.
 - Highlight the Standalone group not a listed file.

 ⁴⁷ 99999997.abdx OpenBridge Designer
 ⁴⁷

File		
	OpenBridge Desig	gner CONNECT Edition
Standalone File Groups Image: Comparison of the standalone BIM Workflow • Standalone standalone Group: Testing OBD Image: Comparison of the standalone Image: Comparison of the standalone of the standalone Group: Testing OBD Image: Comparison of the standalone	Modeling Analysis	Drawings
-		Analysis
	LEAP Bridg Steel	ge File Not Created Run application to begin.
	LEAP Bridg Concrete	

- Click on the Analysis icon.
- Launch LEAP Bridge Concrete.
- Click Open and navigate to the existing lbcx file.

	Bridge Concrete CONNECT E t View Tools 2D Viewer		🍪 🍐	🥝 🎲 🔛	<i>1</i>		× •••
	pen Save Save As Print		:s Graphics Report: /:) > Highway > B	Help Bentley Site About			rch OBD Testing
Prc	Organize New folde			5	3		·····
-	OneDrive	Name	^	Date modified	Туре	Size	
		CCS.lbcx		1/2/2020 6:40 AM	LBCX File	9,401 KB	
esig	This PC	. —					
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		me: CCS.lbcx				~ All LEAP	Bridge Concrete files (
elp, p	File na						

- Click Open button.
- The file will be added to the Standalone group once loaded.
- The workflow when working in ProjectWise has slightly different steps to create the obdx file.
 - Select ProjectWise option after launching OpenBridge Designer

	+	*
Browse	New File	ProjectWise
	Browse	

- Log in to ProjectWise
- Select New File.
- Navigate through the Select button to the project directory Bridge subfolder in ProjectWise to create the new file.

Folder				Save
I			Select	Save to disk
Document				Cancel
Name:	New File.obd			
Description:				
File Name:	New File.obd			
Format:			Format	
Application:		Department:		

Select		×
Folders		
	CONNECT_PilotProject_01 Concept Concept Construction Co	~
pw:\\n	tPwInt1.dot.int.lan:PWMain\Documents\Projects\z0	•
	OK Ca	ncel

- Click OK button
- Enter a name that matches the project directory number.
- Click Save button.
- Steps 3 11 are the same with the files saved to the ProjectWise location.
 When exiting OpenBridge Designer a Check In dialog box for ProjectWise will display.

neral Comment			
Documents Name		Application	Description
999999997	.000x		
<			>
1 -	ects\zCONNECT_PilotProject_01	\Bridge	>
1 -		\Bridge	>
Folder: Proje		\Bridge	>
Folder: Proje		\Bridge	>

• Click Check In button.

These instructions were created with:

OpenBridge Designer CONNECT Edition Version 10.09.00.10

OpenBridge Designer for Starting Bridge Model

OpenBridge Designer (OBD) will be used for creating the model through the OpenBridge Modeler (OBM) module. The Standalone File Groups option should be used. If the BIM Workflow option is used, then the model of the bridge is needed to send analysis data to the analytical module programs.

The following steps should be followed:

1. Launch OpenBridge Designer (OBD).



2. Select ProjectWise in OpenBridge Designer interface.



3. In the ProjectWise Log In window, select the Windows Domain or ProjectWise Authentication option. This is dependent on the version of ProjectWise Client being used. Toggle on Use Windows Single Sign-On for authentication and click Log in button.

🌆 ProjectWise	Log in	×
Datasource:	PWMain 💌	Log in
Authentication:	Windows Domain 💌	Cancel
User Name:	IDOTCENTRAL \ajeffer	
Password:		
	✓ Use Windows Single Sign-On for a	authentication
		//

If this is the first time logging in to this ProjectWise datasource on the computer you are using, respond **Yes** to the warning to create the Working Directory.

)j	ProjectW	ise	×
L	?	Working Directory c:\pw_work\pwmain\dmulho1 does not exist. Do you want to create it? Click No to browse for a different folder.	
l		Yes No Cancel	

4. Create an obdx file by selecting New File.



5. Use Select button and browse to Bridge folder for the correct Project Directory.

ive Document	As			×
General Folder Bridge Document Name: Description: File Name: Format:	New File.obdx		Select	Save Save to disk Cancel
Application:		Department: I		

 Enter a Document Name that matches the project directory number. Add a logical description and location of the project in Document Description field. Providing a good description with a location of the structure will help users in locating the proper file in a project. <u>Name</u> example: 0603003092.obdx <u>Description</u> examples: Polk Co. US 69 or Designs Polk Co. 223, 323 & Story Co. 323, 423, 724

Examples of obdx file Name and Description in ProjectWise:

Name	File Updated	File Size	Description
/ 7703504015.obdx	10/15/2021 9:52:01 AM	21,094 KB	Designs Polk 223, 323 and Story 323, 423, 724
Name	F	ile Updated	Description
🖉 🂯 (117)_Bridge Replacement-PPCB			
N 🖉 BRPrelim			
🖉 💟 Design Events			
NojectResources			
/ 🖉 7706901019.obdx	7/14/2021	7:02:38 AM	Polk Co. US 69
🧷 📇 ОВМ_77069117_DOT_0223_040681_Z08.dgn	10/5/2021 1	11:45:39 AM	Polk Co. Des. 223 Over Fourmile Creek

7. Select Application field and change from <none> to Bentley OpenBridge Designer for future recognition by ProjectWise for the associated application.

The Bentley OpenBridge Designer GenerativeComponents option should only be selected if working with a Generative Component in your model due to performance issues.

Application:		Department:		
<none></none>	-	<none></none>		-
Bentley OpenBridge Design			^	
 Bentley Open Bridge Design 		tiveComponents		
 Bentley OpenPlant PowerPl 	D			
Bentley OpenRoads Design	er			
Bentley PondPack			~	

- 8. Select Department field and change from <none> to Bridge Bridge Design.
- 9. Click Save button.
- 10. Create Standalone Group by selecting the Standalone workflow option. (Standalone workflow is the default selection, *currently Iowa DOT will <u>not</u> be using the BIM Workflow option*.)
- 11. Click the Add Group button (folder with green plus).

🖉 0603003092.obd - OpenBridge Designer	
File	
Standalone File Groups	
BIM Workflow Standalone	
Add a group to begin	

12. Enter project name into following dialog when prompted.

🌆 Standalone Name	_		×
Benton US 30			
	OK	Ca	ncel
			-

- 13. Click OK button.
- 14. Check that the Modeling module icon is highlighted.
- 15. Launch OpenBridge Modeler (OBM) from the shortcut for applications listed in the lower portion.



16. When OpenBridge Modeler window opens, select New File.

The CONNECT workspace will load after creation of the new file.

OpenBridge Modeler CONNECT Edition

Imperial Standards 🔹 Tutorial 1 🔹

Recent Files

You haven't opened any files recently. To browse for a file, start by clicking on Browse.



- 17. Select No Wizard in the New file dialog box.
- 18. Click OK button.

🖊 New		×
Document Creati	on Wizards	OK
No Wizard	Advanced Wizard	OK Cancel
Make this wiz	ard the default.	

19. The new dialog box displays.

Chan	
	Cancel
	Apply
l3d-Imperial	
13d-Imperial	
l3d-Imperial.dgn	
Department:	
<none></none>	\sim
	3d-Imperial 3d-Imperial.dgn Department:

20. Select Change... button in Folder and locate Project Directory in ProjectWise and select the Bridge folder to place the OBD/OBM files in.

lew		>
General		
Folder		OK
Bridge -	Change	Cancel
Document		Apply
Name:	OBM_06030209_DOT_216_700495_SPN	
Description:	OBM-seed3d-Imperial	
File Name:	OBM_06030209_DOT_216_700495_SPN.dgn	
Application:	Department:	
MicroStation	<< <none></none>	
Source File:		
ntley\OpenB	idge Designer CONNECT Edition\OpenBridgeModeler\Configu	
	Seed Import	

21. Select Seed... button to locate the proper Seed File to use with the set Geographic Coordinate System/Zone (Iowa Regional Coordinate System IaRCS).

older						
💯 Seed						✓ ◆ ▶ □ □ □
ocument						
Name	^	File Updated	File Size Folder Id	Status (Out to Desc	ription
Nocess 🏹 🖉 Access			1013842 1013842			
Sheets			1013842			
			1010012			
c						>
ddress:						
escription:						
ile Name:						
pplication:	MicroStation					
Open document as	read-only					

22. Select Application field and change from MicroStation to Bentley OpenBridge Modeler.

ect	
older	
💟 Seed	
locument	~
Name	
Access	
20 Excel	
10 Sheets	
	1.1
OBM-seed3	5
	RPPP_DOT_DSN#_FHWANO_SPN.dgn
OBM_CCRR	RPPP_DOT_DSN#_FHWANO_SPS.dgn
OBM_CCRR	RPPP_DOT_DSN#_FHWANO_UD.dgn
OBM_CCRR	AutoCAD
OBM_CCRR	
MORM CCRR	BCM MicroStation
	Bentley Architecture
OBM_CCRR	P Bentley Building Electrical Systems (US) Bentley Building Mechanical Systems
OBM_CCRR	Bentley Building Suite
OBM_CCRR	RP Bentley CivilStorm
OBM_CCRR	P Bentley Digital Print Format(DPR) Bentley Electrical
OPM CCPPI	D Rentley Eaclities Disoner
OBM CCRR	P Bentley FlowMaster Bentley HAMMER
OBM CCRR	P Rentley Man
MORM CCPPI	P Bentley Mechanical Bentley Navinator
UBM_CCRR	RP Bentley OpenBridge Designer Bentley OpenBridge Designer GenerativeComponents
<	Bentley OpenBridge Modeler
	Bentley OpenPlant PowerPID
	Bentley OpenRoads Designer Bentley PondPack
Address:	Bentley PondPack V8i
escription:	Bentley PowerCivil
	Bentley PowerMap
ile Name:	Bentley PowerMap Field Bentley ProStructures
CARDINER	Bentley SewerCAD

23. Browse to the proper Seed File to use with the set Geographic Coordinate System/Zone (Iowa Regional Coordinate System, IaRCS).

The Seed files are located at: PWMain\Documents\IowaDOTStandardsConnect\Configuration\Organization-Civil\IowaDOT_Standards\Seed\

t Ider								
V Seed							v 🔶 🚺 🗄	
y seed							· • •	-0- 0
cument								
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	RRPPP_DOT_DSN#_FHWANO_UD.dgn	10/7/2021 1:34:49 PM	105 KB		Checked In		OBM_CC	
	RRPPP_DOT_DSN#_FHWANO_Z01.dgn	10/7/2021 1:35:00 PM	108 KB		Checked In		OBM_CC	
	RRPPP_DOT_DSN#_FHWANO_Z02.dgn	10/7/2021 1:34:59 PM	108 KB		Checked In		OBM_CC	
	RRPPP_DOT_DSN#_FHWANO_Z03.dgn	10/7/2021 1:34:59 PM	108 KB		Checked In		OBM_CC	
-	RRPPP_DOT_DSN#_FHWANO_Z04.dgn	10/7/2021 1:34:58 PM	108 KB		Checked In		OBM_CC	
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	RRPPP_DOT_DSN#_FHWANO_Z07.dgn	10/7/2021 1:34:55 PM	108 KB		Checked In		OBM_CC	
	RRPPP_DOT_DSN#_FHWANO_Z08.dgn	10/7/2021 1:34:54 PM	108 KB		Checked In		OBM_CC	
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24. Select Open button.

повм сс	RRRPPP DOT DSN# FHWANO Z03.dgn	10/7/2021 1:34:59 PM 108 F	3 1013842	Checked In	OBM CC	
	CRRPPP DOT DSN# FHWANO Z04.dgn	10/7/2021 1:34:58 PM 108	3 1013842	Checked In	OBM CC	
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25. Select Yes button.

26. The new dialog box displays.

lew		×		
General				
Folder		ОК		
Bridge -	Change	Cancel		
Document		Apply		
Name:	OBM_CCRRRPPP_DOT_DSN#_FHWANO_Z08.dgr]		
Description:	OBM_CCRRRPPP_DOT_DSN#_FHWANO_Z08.dgn			
File Name:	OBM_CCRRRPPP_DOT_DSN#_FHWANO_Z08.dgn			
Application:	Department:			
Bentley Open	Bridge Modeler V <none> V</none>	/		
Source Docum	ent:			
OBM_CCRRR	PPP_DOT_DSN#_FHWANO_Z08.dgn - OBM_CCRRRPPP_DC	D		
	Seed Import			

27. Change the name of the file in Name field and add a proper description in Description field. Providing a good description with a location of the structure will help users in locating the proper file in a project.

Name: OBM_CCRRRPPP_DOT_DSN#_FHWANO_Z08.dgn

OBM = Designates this as an OpenBridge Modeler file.

CCRRRPPP = County (CCC) Route (RRR) Paren (PPP) from the Project Number.

DOT = Signifies entity responsible for creation of model (DOT = Iowa DOT). If the project is created by a Consultant, then DOT would be replaced with the Consultants abbreviated name.

DSN# = Four-digit Design Number of structure.

FHWANO = The six-digit FHWA Number.

Name Example: OBM_77069117_DOT_0223_040681_Z08.dgn Description Example: Polk Co. Des. 223 Over Fourmile Creek Example listing of files.

Name	File Updated	Description
ℤ [™] (245)_Bridge-Unspecified		
N 🖉 BRPrelim		
Nov Design Events		
NojectResources		
208.dgn 🖉 🖉 🖉 🖉 🖉 🖉 🖉	10/6/2021 2:22:19 PM	Project Overview Polk-Story
/ 🖉 7703504015.obdx	10/15/2021 9:52:01 AM	Designs Polk 223, 323 and Story 323, 423, 724
No. 101 208.00	10/15/2021 9:51:40 AM	NE 126TH AVE (ELKHART INTERCHANGE) BRIDGE
2 10 08M_77035246_DOT_0323_041871_Z08.dgn	6/23/2021 1:19:19 PM	NE 142ND AVE OVER I-35
Number 2012 12 12 12 12 12 12 12 12 12 12 12 12 1	6/23/2021 1:04:45 PM	NE 158TH AVE OVER I-35
NGM_85035269_DOT_0323_049141_Z08.dgn	6/23/2021 12:41:40 PM	315TH ST BRIDGE OVER I-35
OBM_85035284_DOT_0223_049011_Z08.dgn	6/23/2021 1:10:56 PM	IA 210 OVER I-35

- 28. Select Application field and change from MicroStation to Bentley OpenBridge Modeler.
- 29. Select Department field and change from <none> to Bridge Bridge Design.
- 30. Click OK button.
- 31. Click Yes button for the configuration Alert and restart.

📶 Ale	t ×
?	OpenBridge Modeler must be restarted to load the new configuration. Do you want to restart now?
	<u>Y</u> es <u>N</u> o

Note: Steps 16 -30 can be skipped if the file is created using Copy Seed. Refer to <u>CONNECT Seed Files and Naming Convention</u>

- 32. When OpenBridge Modeler completes loading, activate the OpenBridge Modeling workflow from the pick list in the upper left corner if it is not already active.
- 33. Reference the geometry and terrain files needed for the location of the bridge. Always use Coincident World orientation when referencing models.

GEO_ prefix named files are located at Design/CADD_Files/Geometry. This contains alignments and profiles for the project.

TRN_ prefix named files are located at Design/CADD_Files/Terrains. This contains any terrain models for the project.

Documents					
Folder 💓 Geometry				~ 🔶 🚺	8-8- 8-8- 8-8-
A D					~
Name			Folder Id	File Size Status	
🖉 💟 GPK			1020475		
GEO_ML030_06			1020475	637 KB Check	
GEO_MLREV_06			1020475	220 KB Check	
GEO_RMPA021			1020475	192 KB Check	
GEO_RMPB021			1020475	192 KB Check	
GEO_RMPC021			1020475	192 KB Check	
GEO_RMPD021			1020475	192 KB Check	
GEO_SUR021_0			1020475	192 KB Check	
020_01030_0	6030087.dgn		1020475	467 KB Check	
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Application:	All Applications				
Extension:	*.dgn;*.dwg;*.dxf				
		Add	Remove		
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GEO_ML030_06		_			

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Description:	Master	Model				
Orientation:						
View		Description				
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Slot 🏴 🗋 File 🕅	Name	Model	Description	Logical	Orientation	Presentation	🗔 🎜 🕨	G
	WORKDIR:d1020475\GEO_ML030_06030087.dgn WORKDIR:d\TRN_SS2_ML030_06030087SPN.dgn	Default Default	Master Model Master Model		Coincident - World Coincident - World	Wireframe Wireframe	✓ ✓ ✓ ✓ ✓ ✓	
Scale 1.000000000	: 1.00000000 Rotation		Offset X		Y	Z		
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New Level Display:	▼ Georeferenced:	-						

The referenced GEO file should always have Display on for bridge modeling. Turning this reference off may cause problems with the function of the model.

- 34. Fit the views to see the resulting geometry and terrain.
- 35. To begin modeling the bridge, select Bridge Wizard in the Bridge Setup tab of the ribbon.



36.	Enter fields for the	specifics of t	he bridge to	place within	the model.
•••		op 000.000 01 0		p	

🌈 Bridge Wizard		×
Geometry Materials		
Bridge Name	Br 1	
Bridge Type	Beam Slab (P/S or RC Concrete Girders)	~
Alignment	Create new alignment	~
Bridge Start Station	1+00.0000	
Alignment Advanced C	Options	
Alignment Start Station	0+00.0000	
Start X	0.000	
Start Y	0.000	
Elevation (Z)	100.000	
Start Tangent Direction	0.0000°	
Radius	0.000	
Hand	Clockwise	\sim
Deck Template	Slab w/ constraints	
O Custom Deck		
Spans	80 2@100 70	
Support Skew Angles	0°	
Beam Spacing	5@8	
Beam Template	Type IV	
Abutment Template	3 Lane - 40ft	
Pier Template	Pile_Bent_Batter	
 Left Barrier Template 	32" F SHAPE L	
Right Barrier Template	32" F SHAPE R	

- Enter Bridge Name with County and Design Number. Example Polk Des. 223.
- Select Bridge Type for the specific bridge.

Bridge Type	Beam Slab (P/S or RC Concrete Girders)
Alignment	Beam Slab (P/S or RC Concrete Girders)
Bridge Start Station	Beam Slab (Steel Girders)
	CIP Concrete Box
	RC Slab

• Select Alignment from the available alignments in the attached referenced GEO file.

• Set advanced options, if needed.

(\frown)	Alignment Advanced	Options
<u> </u>		

-	
Alignment Start Station	0+00.0000
Start X	0.000
Start Y	0.000
Elevation (Z)	100.000
Start Tangent Direction	0.0000°
Radius	0.000
Hand	Clockwise

- Select Deck Template from the template library.
- Enter Span lengths.
- Enter Skew Angle for support lines.
- Enter Beam Spacing.
- Select Beam Template from the template library.
- Select Abutment Template from the template library. Abutments available are not Iowa specific. The model will be modified to use a Custom Abutment.
- Select Pier Template from the template library.
- Select Barrier Template from the template library for both left and right barriers.

37. Click OK button.

The model will be placed at the appropriate location. Proceed with any modifications of various components.

Additional information on modifications will be added in the future.