

# BRIDGE DATA SYSTEM

## USER GUIDE



# TABLE OF CONTENTS

<b>PART 1: ACCESSING, SEARCHING, AND VIEWING</b> .....	<b>1</b>
<b>Chapter 1: Introduction</b> .....	<b>2</b>
Section 1.1 - Overview .....	2
Section 1.2 – Accessing the Bridge Data System .....	2
Section 1.3 – Accessing and Understanding the Data .....	5
<b>Chapter 2: Searching</b> .....	<b>6</b>
Section 2.1 – Navigating the system .....	6
Section 2.2 – Searching Tips / Notes .....	10
Section 2.3 – Searching .....	11
Primary Search Criteria .....	12
Type and Sub-Type Search Criteria .....	13
Region, District, and County Search Criteria .....	13
Status Search Criteria .....	13
Searching for structure work .....	14
Explanation of structure work .....	14
Search directly for structure work .....	15
Search for structure work through the structure .....	17
Using the structure work tree .....	17
Locating the structure work .....	18
Searching for a drawing or document .....	19
Search directly for drawings .....	19
Search for a drawing through the structure .....	20
<b>Chapter 3: Viewing</b> .....	<b>21</b>
Section 3.1 – Viewing Work .....	21
Section 3.2 – Printing Images .....	22
Section 3.3 – Using the Viewer .....	24
<b>Part One: Quick Hits</b> .....	<b>25</b>
Search for Structure .....	26
Search for Structure Work .....	26
Search for Drawing .....	27
<b>PART 2: ADDING WORK TO THE SYSTEM</b> .....	<b>28</b>
<b>Chapter 4: Critical Steps</b> .....	<b>29</b>
<b>Chapter 5: Step 1 – Add New Structure</b> .....	<b>31</b>
Section 5.1: Adding a Structure (Getting a Structure Number) .....	31
Section 5.2 – Definitions/Descriptions of Structure Details data .....	33
General Structure data .....	33
Structure Location data .....	35
Structure Alias/Near Data .....	37
Structure Design data .....	38
Misc Structure data .....	39
Replace Structure data .....	39
<b>Chapter 6: Step 2 – Add New Work for the Structure</b> .....	<b>40</b>
Section 6.1 – Important Notes .....	40
Section 6.2 – Adding New Work to the Structure .....	41
Section 6.3 – Definitions/Descriptions of Structure Work Details .....	43
<b>Chapter 7: Step 3 – Get Drawing Numbers</b> .....	<b>45</b>
Section 7.1 – Understanding Drawing Numbers .....	45
Section 7.2 – Get Drawing Numbers .....	46
Section 7.4 – Definition/Description of new drawings data .....	48
<b>Chapter 8: Step 4 – Get Mylars Imaged within ODOT</b> .....	<b>49</b>

<b>Chapter 9: Step 5 – Add Images to the System .....</b>	<b>51</b>
Section 9.1 – Electronic Location of Images .....	51
Section 9.2 – Adding Images to the System .....	51
<b>Chapter 10: Steps 6 to 11 – Edit or Update structure, work, and drawing details.....</b>	<b>55</b>
Section 10.1 – Edit Structure Details.....	55
Section 10.2 – Edit Work Details .....	56
Section 10.3 – Edit Drawing Details .....	57
Section 10.4 – Replace the Available Image .....	58
<b>Part Two Quick Hits .....</b>	<b>60</b>
Edit Drawing Details.....	60
Add New Structure .....	60
Add New Structure Work.....	61
Add New Drawings.....	61
Add New Images .....	62
Replace an Image .....	62
Get Signed Mylars / As Constructs Imaged (Scanned).....	63
<b>Appendix A: Mandatory structure data .....</b>	<b>64</b>
<b>Appendix B: Bridge Naming Conventions .....</b>	<b>65</b>
<b>index .....</b>	<b>73</b>

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**If there are topics that are not adequately addressed  
in this publication, please contact Wendy Stams  
(Document Control Specialist) at Bridge  
Headquarters.**

**PART 1: ACCESSING,  
SEARCHING, AND  
VIEWING**

# CHAPTER 1: INTRODUCTION

## **Section 1.1 - Overview**

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There are two primary purposes of the Bridge Data System. First, is to provide Oregon Department of Transportation drafters and engineers and Oregon Department of Transportation's consultants a means of tracking and viewing all work related to projects. Second, to provide a means of obtaining structure and drawing numbers for new work. The system contains drawings and drawing, project, and structure details.

## **Section 1.2 – Accessing the Bridge Data System**

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Access to viewing and editing project work details within the Bridge Data System requires administrative rights. System Administrators may be contacted by calling the ODOT Computer Support Desk at 503-986-3800.

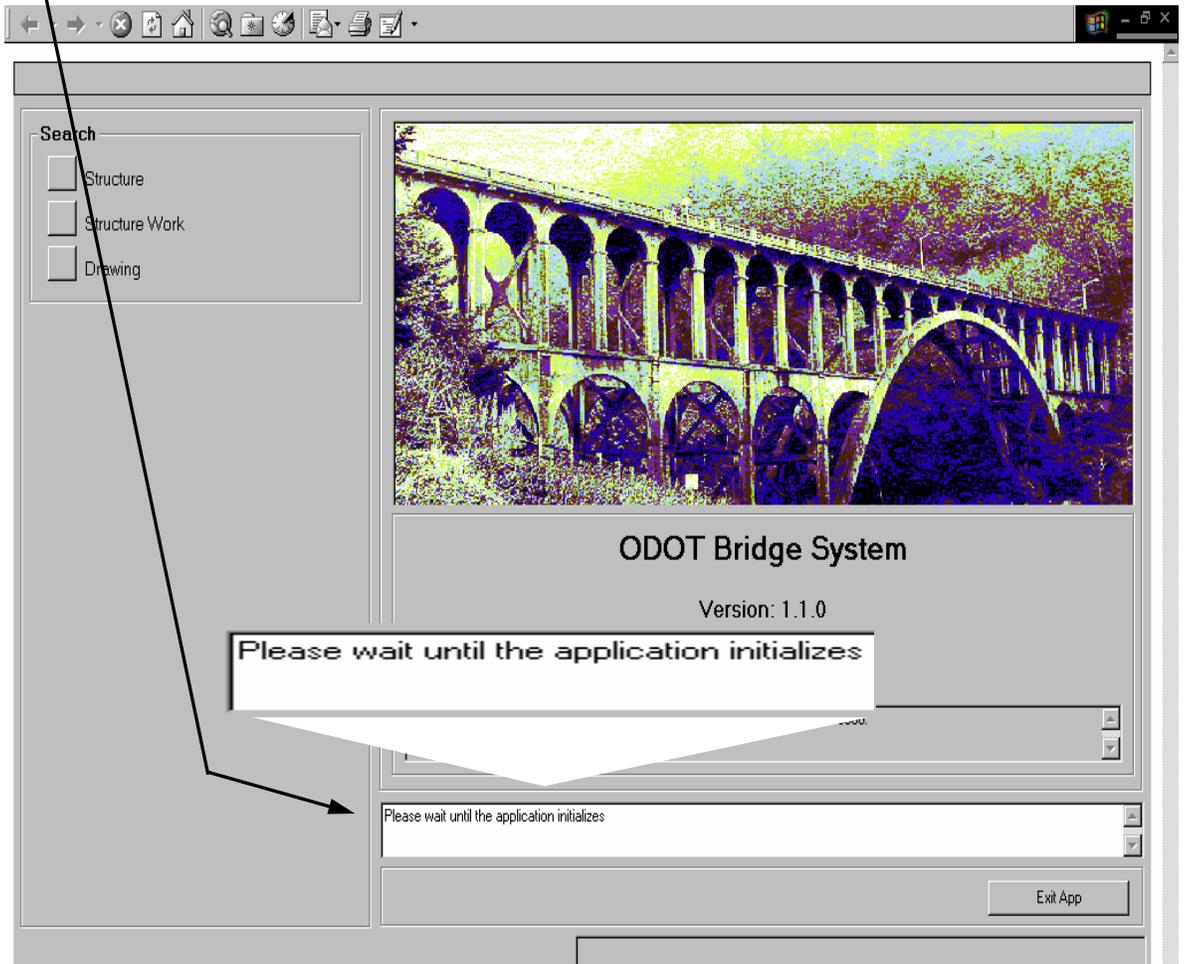
When administrative rights have been received and the program is installed, the Bridge Data System can be opened from the Start Menu by selecting Programs/Bridge Data System. To create a shortcut for the desktop (Access to viewing and editing project work details within the Bridge Data System requires administrative rights. System Administrators may be contacted by calling the ODOT Computer Support Desk at 503-986-3800.

When administrative rights have been received and the program is installed, the Bridge Data System can be opened from the Start Menu by selecting Programs/Bridge Data System. To create a shortcut for the desktop (  right-click the icon and select "create shortcut". Drag the shortcut to the desktop for future accessibility.

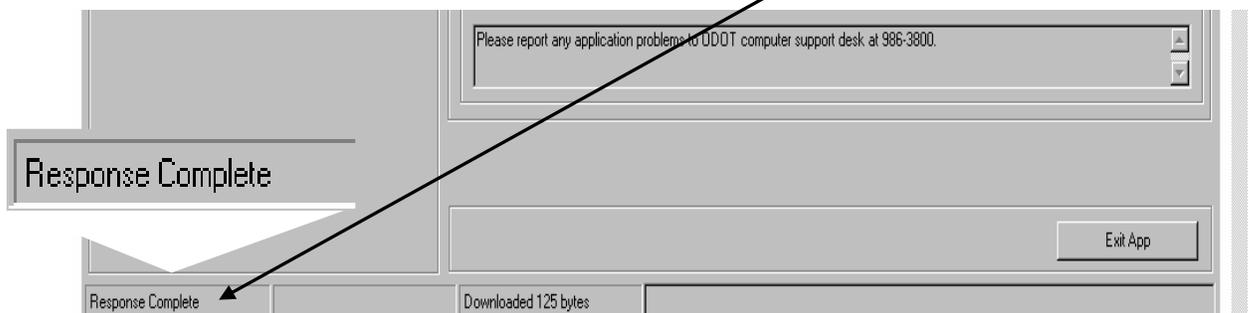
When opening Bridge Data System, watch the message bar in the lower left corner of the screen. Do not attempt to use the program until the message "Response Complete" appears. It may take a few seconds.

Once the application has opened, the screen that is displayed will be dependent on the permissions the user has been given. Therefore, one user may have the ability to add a new structure to the system and another user may not have that option available. User security levels are based on their needs and job requirements.

A user message is displayed when the program initiates. This is an important observation because errors can occur if selections are made while the program is loading.

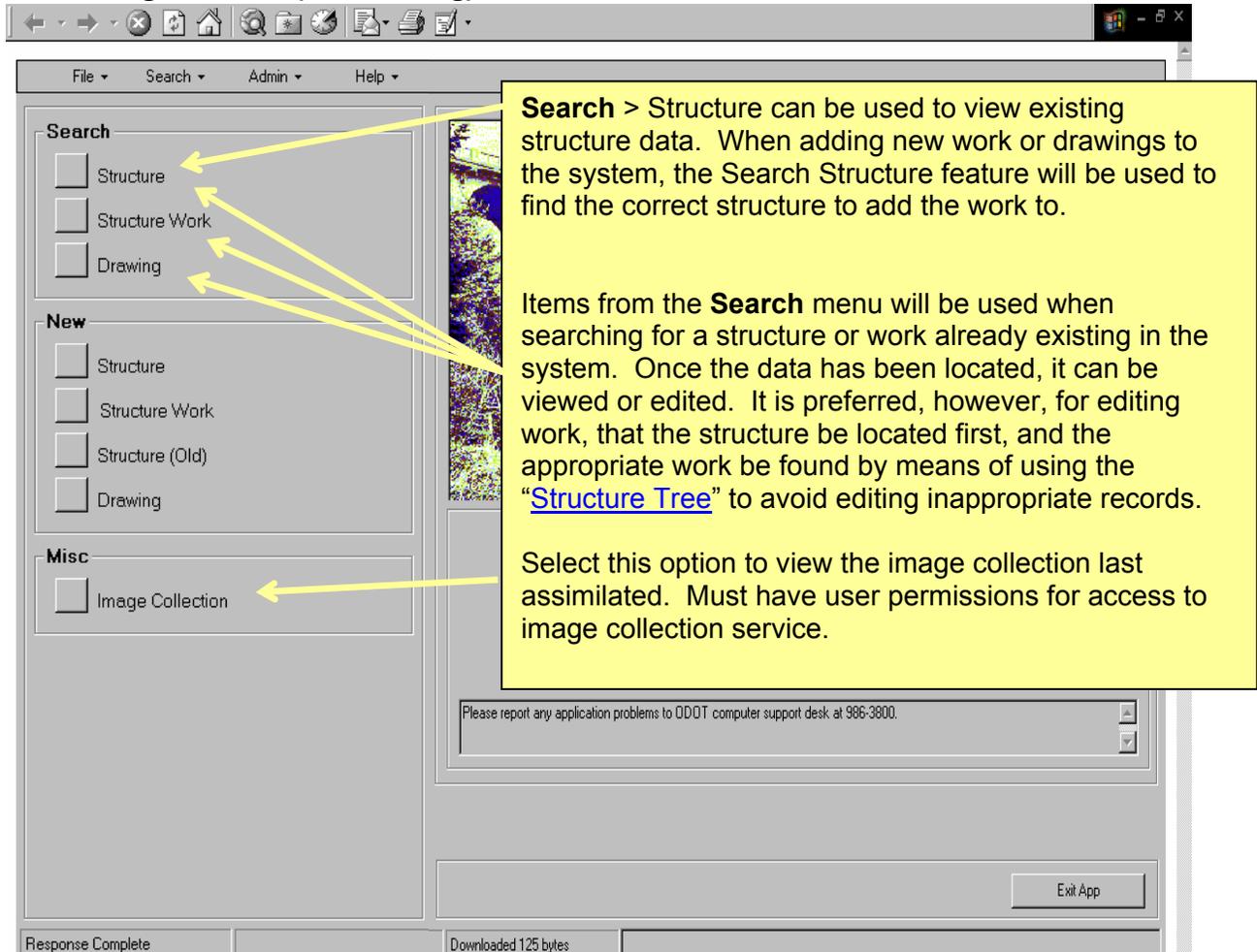


When the program has initialized the screen will look like this on the bottom:



## Section 1.3 – Accessing and Understanding the Data

### Accessing the data (for viewing)



The screenshot shows a web application interface with a menu bar (File, Search, Admin, Help) and a main content area. The content area is divided into three sections: Search, New, and Misc. The Search section contains three checkboxes: Structure, Structure Work, and Drawing. The New section contains four checkboxes: Structure, Structure Work, Structure (Old), and Drawing. The Misc section contains one checkbox: Image Collection. A yellow callout box on the right contains text explaining the Search > Structure option and the Image Collection option. Arrows point from the text in the callout box to the corresponding checkboxes in the interface.

**Search > Structure** can be used to view existing structure data. When adding new work or drawings to the system, the Search Structure feature will be used to find the correct structure to add the work to.

Items from the **Search** menu will be used when searching for a structure or work already existing in the system. Once the data has been located, it can be viewed or edited. It is preferred, however, for editing work, that the structure be located first, and the appropriate work be found by means of using the [“Structure Tree”](#) to avoid editing inappropriate records.

Select this option to view the image collection last assimilated. Must have user permissions for access to image collection service.

Please report any application problems to ODOT computer support desk at 986-3800.

Exit App

Response Complete      Downloaded 125 bytes

### Home Screen

### Understanding the data

The Bridge Data System has been built on the following concept:

*Structure has Work*

*Work has Documents and Drawings*

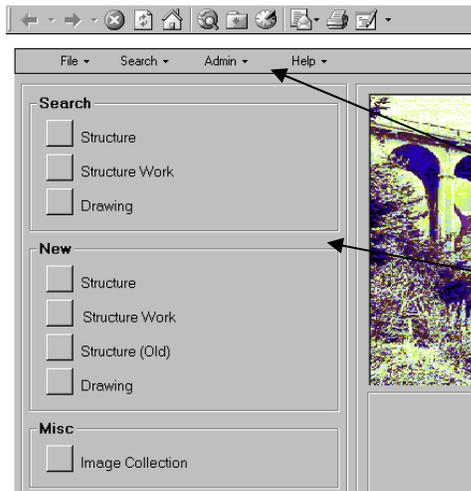
# CHAPTER 2: SEARCHING

## Section 2.1 – Navigating the system

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### General Navigation

Open the application and wait for the program to initialize. Set the view to full screen by clicking on the maximize icon in the upper-right corner. Enabling this feature will allow all options and fields in a screen to be viewed at once, without using the scroll bars.



Select the appropriate option on this screen. There are two menus available from which the same option can be selected.

One is at the top of the screen utilizing pull-down menus.

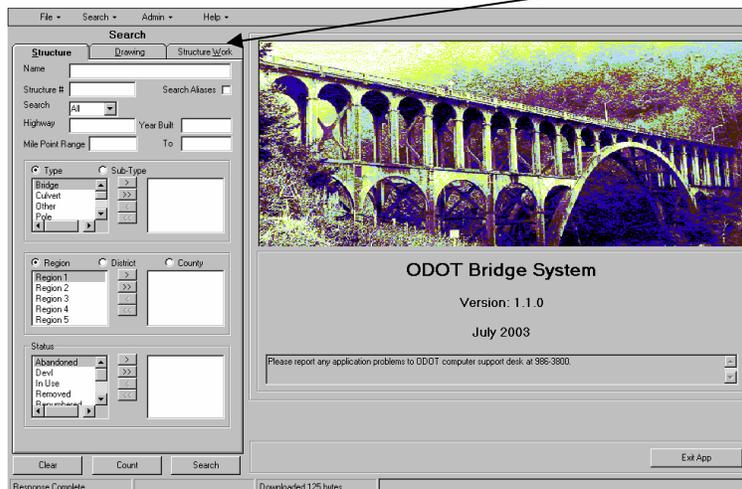
The other is to the left of the screen with all options displayed.

To search for a structure, drawing, or document, select an option from the “**Search**” menu.

There is a built in menu displayed at the top of every screen. This menu allows a user to select a different function at any time. The drop-down menus and their options are displayed below:

Menu Title:	File	Search	Admin	Help
<i>What it means to user:</i>	<b>add new</b>	<b>find</b>	<b>system administrator options, available with proper permissions only</b>	<b>help tool for the BDS program</b>
	New Structure	Structure		
	New Structure Work	Drawing		
	New Drawings	Structure Work		

If “Structure” has been selected from the “Search” menu, the following “Search” screen will be displayed. There are three tabs on the left side of the screen.



Since “Structure” was selected from the menu on the previous screen, the “Structure” tab is displayed.

If “Drawing” or “Structure Work” had been selected, they would be displayed.

A different tab may be selected at any point during the search to bring focus to an alternative search method.

## Navigation basics

### **Closing screens:**

On each screen there should be a “Close” button. Using this button will only close the current screen. The previous screen will then be displayed. Once all screens have been closed and the “Structure Search Results” screen is displayed, using the “Close” button again will display the “Home Screen”.

Keep in mind that using the menus to navigate to another search method will create additional open screens. One way to minimize this, is to use the **Help** dropdown from the menu toolbar. Selecting the “**About**” option will clear all screens and display the “Home” screen.

To retain previous screen data, do not use the **Help**, “**About**” method. It can be advantageous to have the ability to return to a previous screen to view alternate data.

**Warning!** Opening and closing screens excessively, without clearing the data, may cause the system to lock up and force “Exiting” the application and “Re-opening” it to retrieve further data.

### **Selecting a search result:**

To select a search result (which will always be returned on the right side of the screen), double-click the record. This will display the associated data.

To select a search result for viewing an image, highlight the record and click on the “View Representative Image” button at the bottom of the screen. If a representative image is available it will display. If not, an error message will appear stating that there is no representative image set. This does not mean there are not images for this structure. It simply means no image has been set as a representative image. Double click the search result and go into the structure tree to find available images. Another method of viewing the representative image is to single-click the drawing icon next to the structure number and then single click again. It may take a few seconds, then the drawing will appear (if there is one).

### **Getting back to the beginning:**

Use the “Close” buttons until back to the beginning or “Exit” the application and “Re-open” it.

Using “**Help**” from the menu toolbar at the top of the screen, and selecting “**About**” will also display the “Home Screen”.

There is really no need to get back to the “Home Screen”. Every option available on the “Home Screen” is also available on the menu bar at the top of the screen. If navigating excessively through the system, using the **Help**, “**About**” method can avoid “screen-stacking” issues.

### **Using the command buttons to navigate:**

The command buttons not available for use are grayed out.

The “**Edit**” and “**New**” command buttons will navigate directly to the “Edit...” and “Add...” screens. These will not be used for viewing purposes.

Selecting the “**Report**” or “**View Representative Drawing**” buttons will navigate directly to prepared reports and images. To close out of these screens and return to the previous screen, click the X in the upper right corner.

### **Using the “Clear” feature:**

On the “**Search**” screen there is a “**Clear**” button in the lower left corner. Use this button to erase all search criteria previously used.

### **Use of Keyboard in this application:**

#### *Enter Key -*

When all “Search” criteria have been determined and ready to view results, it is our natural instinct to press the Enter key. This option is not available in the Bridge Data System. It is necessary to use the mouse and click the “**Count**” and “**Search**” buttons at the bottom of the screen.

In fact, this can be advantageous. Performing a search will sometimes provide numerous results. The “**Count**” button is provided directly to the left of the “**Search**” button. Click on the “**Count**” button to determine the number of results that will be displayed. The number of results that will be displayed is found directly above the “**Count**” button. If the number is reasonable and agreeable, click on the “**Search**” button to display the results. Only 25 records are displayed at a time. See [Section 2.2 – Searching Tips / Notes](#) for details.

#### *Tab Key –*

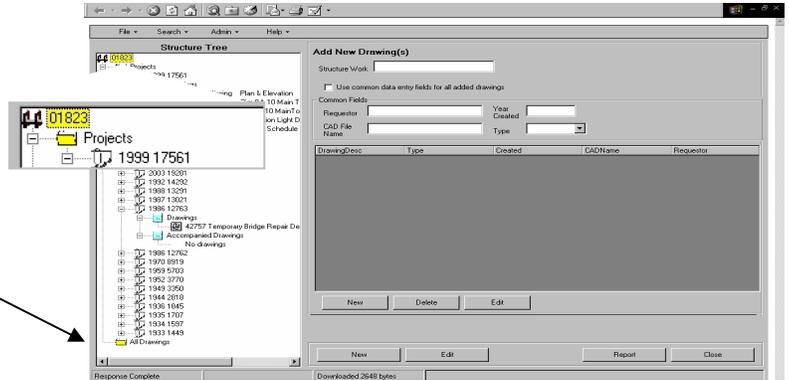
Continuous tabbing will navigate throughout a screen, making all commands and options available. For some of the sub-list options, it is more convenient to point and click.

## Changing screens:

Every time an option is selected, or when the focus has changed (i.e., from one folder to another), a screen with pertinent and associated data to that option will display. The current screen may offer different options and actions than the last. Some changes are subtle. See the following examples.

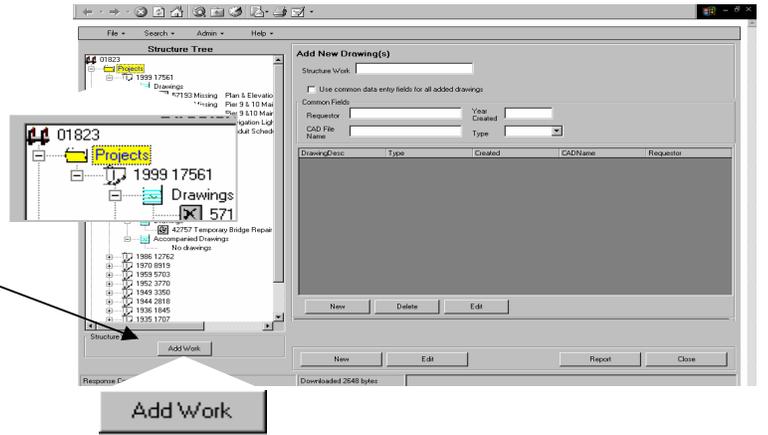
When the Structure number is highlighted:

*There are no additional options.*



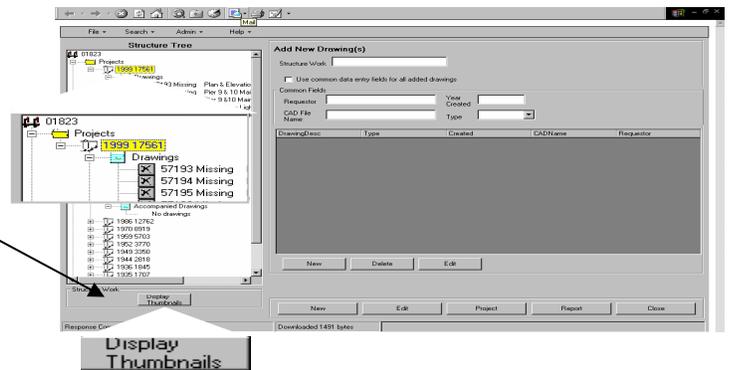
When one of the four main folders is highlighted; in this case, the "Project" folder:

*Note the "Add Work" button that now appears. In the previous screen, there were no additional options available.*



When one of the Work sub folders is highlighted:

*Note the "Display Thumbnails" button that now appears.*



## Closing out of the Viewer or a Report:

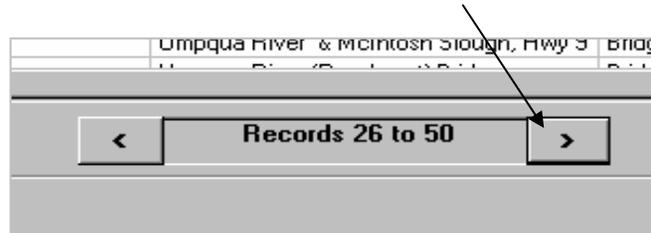
Use the X in the upper right hand corner to close out of the viewer or report and return to the previous screen. Do not use the X to close screens other than the viewer.

## Section 2.2 – Searching Tips / Notes

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Please keep the following points in mind:

- ◆ Use the “**Count**” button on the lower left corner of the search screen to determine the number of results returned based on search criteria entered. If satisfied with the count results, click on “**Search**” to have the results returned to the right side of the screen.
- ◆ \*\*Only 25 results will be returned at one time. To go to the next 25 results, click the “next record” arrow.



- ◆ Check the “Search Aliases” checkbox to include all possible results in the search. A structure name may have additional names by which it is known.
- ◆ Remember, when searching by other criteria (i.e., type and sub-type), results are dependant upon that data having been previously entered by another user of the system. If that piece of information has not been included, that information will not be picked up in a query that is looking for a certain sub-type of structure. For example:

In this example, the following criteria have been selected:

- Search Aliases
- Must have been built in 2003, and
- Must be a flume, and
- Must be in Region 2

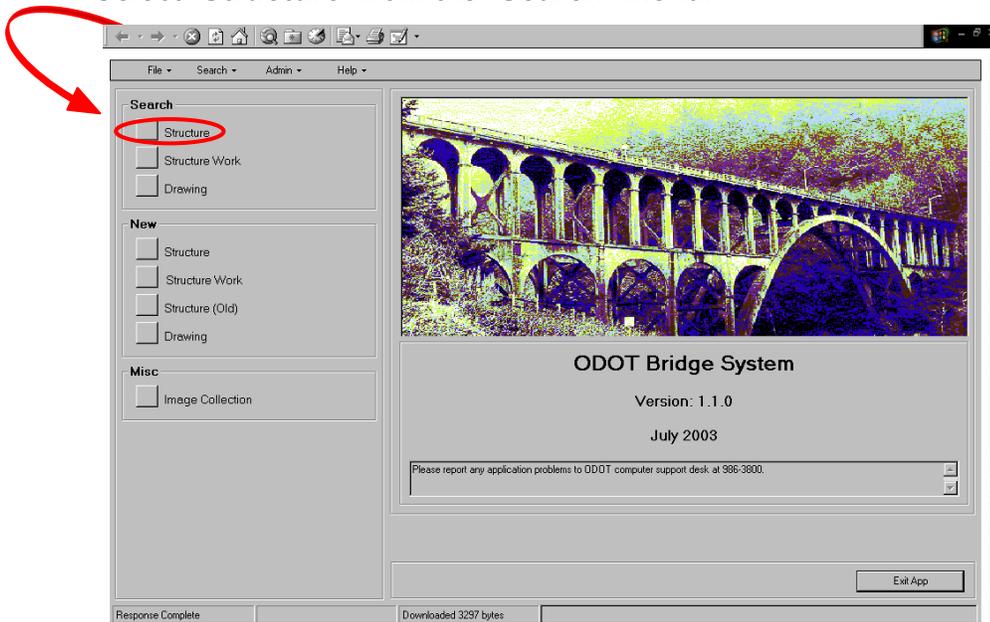
If any one of these pieces of information was not included when the data was entered into the system, structures will be ignored even though they are valid.

Consider this when adding additional criteria for searches: ***The structure search is only as good as the detail originally entered.***

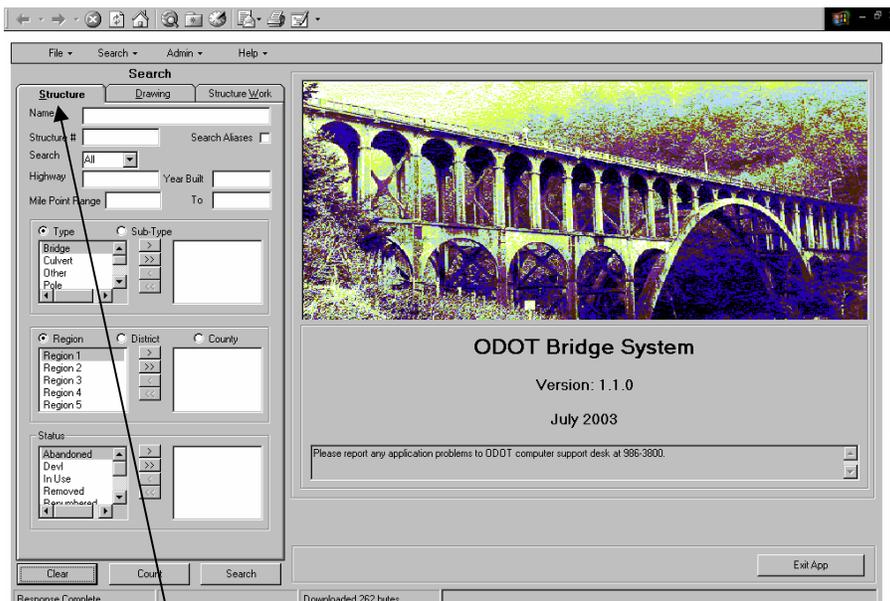
## Section 2.3 – Searching

Searching for a structure

Select “**Structure**” from the “**Search**” menu.



The following **Search** screen will be displayed:



The Structure tab is in focus and ready to receive search criteria.

The following four tables specifically define the criteria requirements for the Structure Search screen. Two of the tables have multiple screen shots of the same sections, each focusing on the criteria available for a single option. (i.e., when Sub-Type is selected, a list of different criteria appears). Criteria may be selected using any combination of the four sections on the Search screen. Increasing the criteria selections may decrease the chance of successful (100%) data retrieval.

Searches can only bring up records for which data has been entered into the fields on which you are searching. The system contains many records with incomplete information. For example, if searching for structures located in Polk County, the results returned will not include structures in Polk County for which the county field was originally left blank.

### *Primary Search Criteria*

<b>Field</b>	<b>Information/Requirements</b>
<b>Name</b>	Name of the structure. Partial name may be entered. A vague partial name will increase the number of results.
<b>Structure #</b>	Structure number is typically five to six characters in length. The numeric portion of the structure number will always be five digits. Partial structure number may be entered. This would increase the number of results to include all structure numbers containing the partial number entered. A partial number entered in this field really has no value, unless searching for a structure where only part of the number is available for some reason.
<b>Search Aliases</b>	Check this box to include aliases in the search. Aliases will need to have been added to structure data if they are to be displayed in search results.
<b>Search...</b>	Search Prior work, Maintenance work, Project work, or All work. Be careful. If data was not originally entered properly, it will be excluded from the search results.
<b>Highway</b>	Enter whole three digit highway number (not Route number) or partial number. A partial number will increase the number of results. A partial number will return anything with that number in it.
<b>Mile Point Range</b>	Works best in conjunction with the Highway number. Enter the beginning range number here. Use decimal fractions if appropriate.
<b>To</b>	Enter the ending milepoint range number here. Use decimal fractions if appropriate.

### Type and Sub-Type Search Criteria



Field	Information/Requirements
Type/Sub-Type	Select the “ <b>Type</b> ” or “ <b>Sub-Type</b> ” option. Click on an individual <b>list item</b> and use the right arrow to move it into the empty box (for adding desired criteria). Repeat for each item desired. Only one item may be added at a time. Keyboard shortcuts not applicable. Be careful. If data was not originally entered properly, it will be excluded from the search results. Only one option list may be used (i.e., either Type <b>or</b> Sub-Type)

### Region, District, and County Search Criteria



Field	Information/Requirements
Region, District, County	Select the “ <b>Region</b> ” or “ <b>District</b> ” or “ <b>County</b> ” option. Click on an individual <b>list item</b> and use the right arrow to move it into the empty box (for adding desired criteria). Repeat for each item desired. Only one item may be added at a time. Keyboard shortcuts not applicable. Be careful. If data was not originally entered properly, it will be excluded from the search results. Only one option list may be used (i.e., either Region <b>or</b> District <b>or</b> County)

### Status Search Criteria



Field	Information/Requirements
Status	Click on an individual <b>list item</b> and use the right arrow to move it into the empty box (for adding desired criteria). Repeat for each item desired. Only one item may be added at a time. Keyboard shortcuts not applicable. Be careful. If data was not originally entered properly, it will be excluded from the search results.

Once all limiting criteria have been selected, click on the “**Count**” button at the bottom of the screen to see how many records will be displayed. Only 25 records will be displayed at a time. Then click on the “**Search**” button to view the results. If there are more than 25 results, to see the next set of records, click the “right arrow” directly below the search results. Note: the bottom one or two records of each set of 25, can be viewed by scrolling down.

Search results will appear to the right of the screen. To view structure details for a structure, double-click on it.

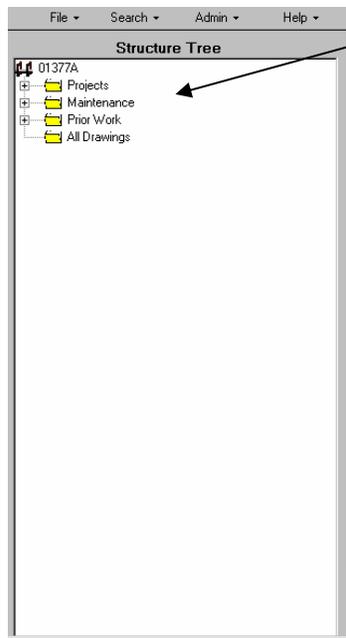
To view a representative image, highlight the structure and click on “**View Representative Image**” at the bottom of the screen. OR, single-click on the drawing icon; then single click again. It may take a few seconds for the image to load. This option will only be available if a representative image has been assigned to the structure. If an x [X] appears, then there is currently no representative image in the system for that drawing or one has not been set. When a drawing icon [D] appears, there is an image available.

## Searching for structure work

### *Explanation of structure work*

Before getting into searching for work, it is important to understand what **Structure Work** is. Structure work can be thought of as a job or work order related to a particular structure.

Equally as important, the *Structure Tree* needs an introduction. Once a structure has been accessed, the following view will be displayed on the left side of the screen.



This is referred to as a **Structure Tree**. The tree view currently displays four main folders for a structure.

**Projects folder** – Contains Project drawings (not maintenance or prior work). Work done on a structure with a PCS Key number will be stored in the Projects folder.

**Maintenance folder** – Contains Maintenance drawings only. (repair, upgrades, etc. ). Work done on a structure for the purpose of maintaining the structure will require a Maintenance number and will be stored in the Maintenance folder.

**Prior Work** – Contains drawings for all work prior to the existence of the Bridge Data System database.

**All Drawings** – This folder will display every drawing associated with the structure.

## *Search directly for structure work*

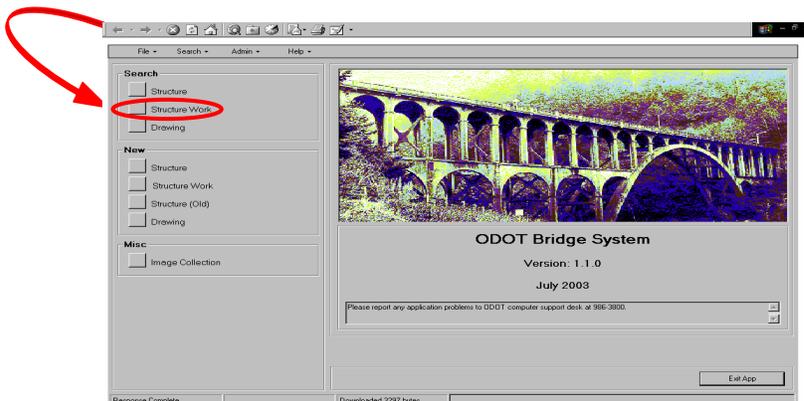
This method of searching for structure work is recommended if drawings are not being accessed **and** when:

- the structure work number is known
- searching for specific types (project or maintenance) of work done in a range of time
- searching for work completed on a structure in a range of time
- searching for a specific type of work performed, (i.e., widenings)

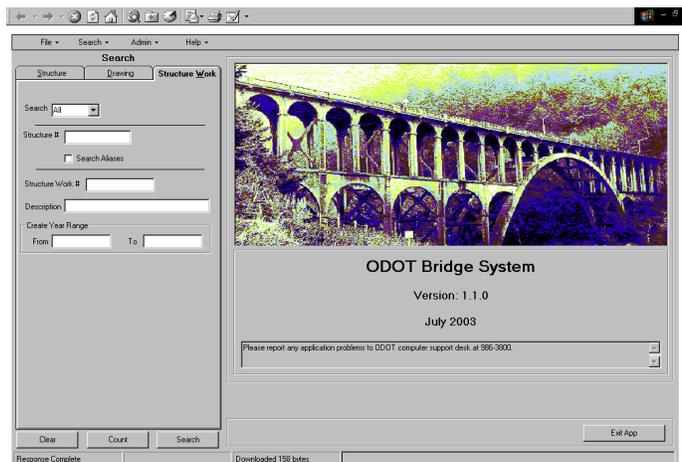
***\*Drawings cannot be viewed using this search method. Only the structure work details will be displayed.***

If not searching for any of the bulleted items above, or if accessing drawings, we recommended searching through the structure. See [Search for structure work through the structure](#)

Select “**Structure Work**” from the “**Search**” menu.



The following **Search** screen will be displayed:



## Structure Work Search Criteria Definitions

<i>Field</i>	<i>Information/Requirements</i>
<b>Search (dropdown)</b>	Select All, Prior, Maintenance, or Project drawings.
<b>Structure #</b>	Structure number is typically five to six characters in length. The numeric portion of the structure number will always be five digits. Partial structure number may be entered. This would increase the number of results to include all structure numbers containing the partial number entered. A partial number entered in this field really has no value, unless only part of the structure number is known to the user.
<b>Search Aliases</b>	Check this box to search for aliases of the structure number entered.
<b>Structure Work #</b>	Enter the structure work number. Partial structure work number may be entered. This would increase the number of results to include all structure work numbers containing the partial number entered. A partial number entered in this field really has no value, unless only part of the structure number is known to the user.
<b>Description</b>	Partial entry recommended in this field to get the most accurate results. For instance, enter "rail" and all structure work that has anything to do with the rail will be displayed. If "rail retrofit" was entered, maybe all possibilities will not be displayed because a different description may have been used when the work was originally entered. Use the trial and error method until satisfied. This is a very flexible field.
<b>Create Year Range: From &amp; To</b>	Enter a start year in the "From" field and an ending year in the "To" field. Certain minimum and maximum date rules will apply. If exceeded, error messages will be displayed.

Once all limiting criteria have been selected, click on the "**Count**" button at the bottom of the screen to see how many records will be displayed. Only 25 records will be displayed at a time. Then click on the "**Search**" button to view the results. If there are more than 25 results, to see the next set of records, click the "right arrow" directly below the search results. To view records 24 and 25 of each set, use the scroll bar.

Search results will appear to the right of the screen. To view details for structure work, double-click on the desired work. ***\*Drawings cannot be viewed using this search method. Only the structure work details will be displayed.***

To just view a report of the results, click "Report" at the bottom of the screen.

Remember that the report will only be for the current 25 records showing on the screen. To print a report of all records, advance to the next set of records by clicking on the "right arrow", click on Report, and repeat for each next set of records until finished.

### *Search for structure work through the structure*

This method of searching for structure work is recommended if drawings (or documents) are being accessed **or** when:

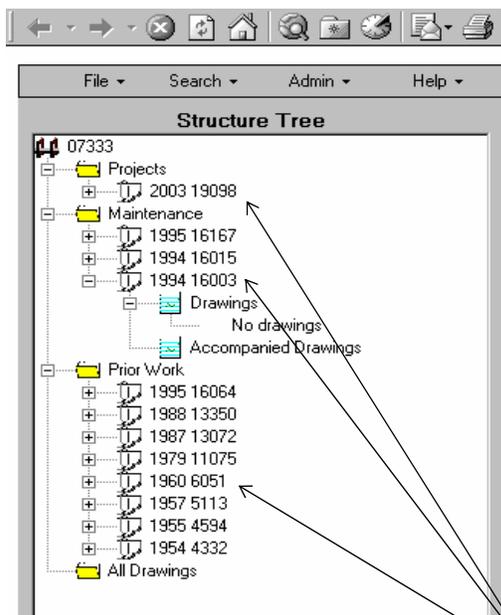
- the structure work number is not known
- searching for specific types of work (project or maintenance) related to a structure
- searching for all work completed on a structure
- desiring an environment in which all related work can be easily viewed and accessed in one screen (using the Structure Work Tree)

Search for the structure as shown in [Searching for a structure](#), Section 2.3.

Once the structure has been found, double click on it to view the structure details and the Structure Work Tree.

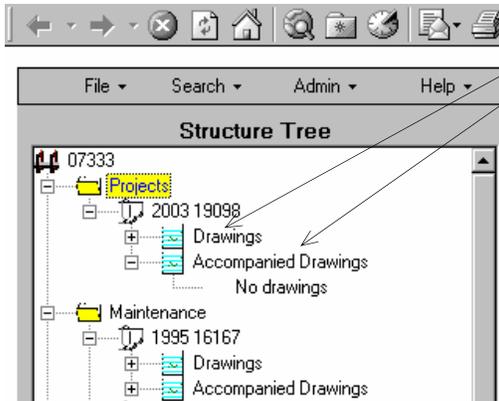
### *Using the structure work tree*

When each folder in the structure tree has been expanded, a screen similar to this will be displayed:



(The sub-folders are assigned work numbers. These numbers are automatically assigned as new work is added to the system.)

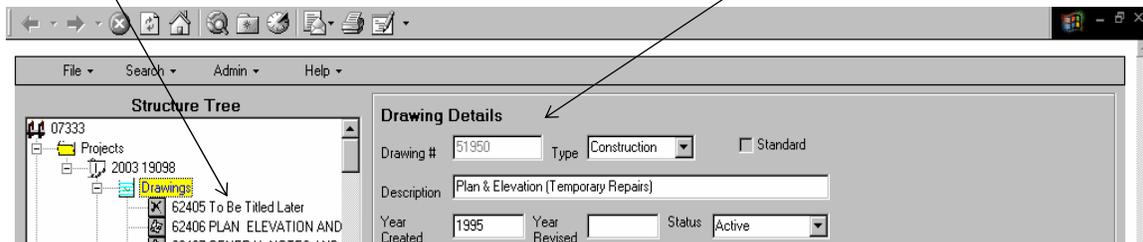
Expanding the work folder further displays two additional subfolders:



The Drawings folder contains unique drawings for the work done.

The Accompanied Drawings folder contains drawings that are standard or may not be unique to only this project. In either case, they are drawings that were used for this work.

By expanding the folders completely, the drawings' icons will be displayed showing the drawing title for each. If an x [  ] appears, then there is currently no image in the system for that drawing\*. When a drawing icon [  ] appears, there is an image available†. By double-clicking on the drawing, the drawing details will be displayed as shown: (to view the drawing, click on "View Drawing")

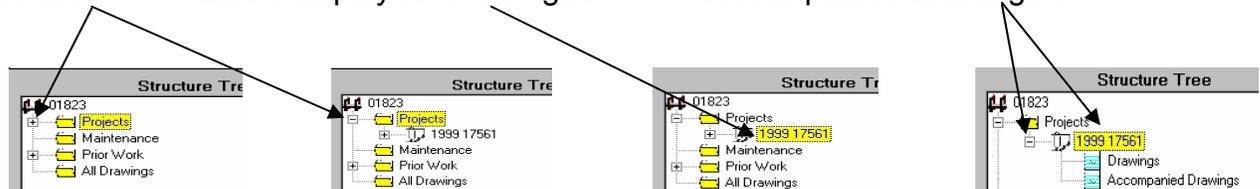


### Locating the structure work

Expand the appropriate folder

Highlight a structure work subfolder. Structure work details will be displayed to the right.

To view images of structure work, expand the folder and highlight "Drawings" or "Accompanied Drawings".



\* This does not apply when in Search view. If this symbol appears while in Search view it may mean that there is simply no "representative" drawing for a structure.

† Or, if this symbol appears in a Search view, it may mean that there is a "representative" image for this structure.

## Searching for a drawing or document

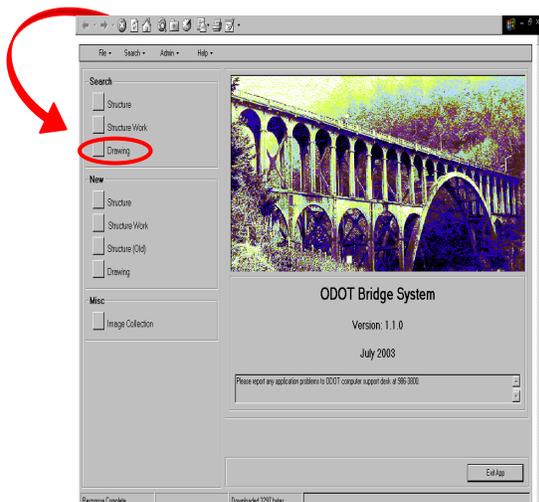
### *Search directly for drawings*

This method of searching for a drawing is recommended when:

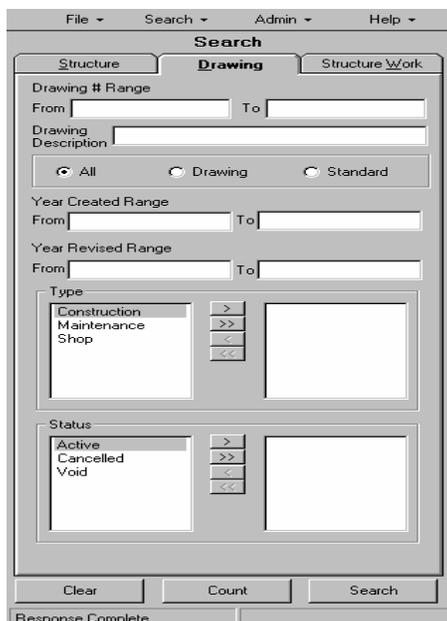
- the drawing number is known
- searching for examples of types of work or drawings
- searching for all drawings in specific criteria ranges

If not searching for any of the bulleted items above, we recommended searching through the structure. See [Search for drawings through the structure](#)

Select “**Drawing**” from the “**Search**” menu.



The following **Search** screen will be displayed:



File Search Admin Help

**Search**

Structure **Drawing** Structure Work

Drawing # Range  
From [ ] To [ ]

Drawing Description [ ]

All  Drawing  Standard

Year Created Range  
From [ ] To [ ]

Year Revised Range  
From [ ] To [ ]

Type  
Construction Maintenance Shop

Status  
Active Cancelled Void

Clear Count Search

Response Complete

## Drawing Search Criteria Definitions

<i>Field</i>	<i>Information/Requirements</i>
<b>Drawing # Range: From &amp; To</b>	Enter a range of drawing numbers to display. Partial numbers may be used, but result in all drawing numbers containing the numbers entered. It is best to enter whole drawing numbers to get an accurate range display.
<b>Drawing Description</b>	Partial entry recommended in this field to get the most accurate results. For instance, enter “wingwalls” instead of deck & wingwalls (because the word “and” may be in the form of the “and” symbol, or a comma may be involved in some cases). Use terms that are common in their most commonly written form. Use the trial and error method until satisfied. This is a very flexible field.
<b>All, Drawing, Standard</b>	Select appropriate categories of drawing to search for. Selecting “Standard” will display all standard drawings in the system.
<b>Year Created Range: From &amp; To</b>	Enter a start year in the “From” field and an ending year in the “To” field.
<b>Year Revised Range: From &amp; To</b>	Enter a start year in the “From” field and an ending year in the “To” field.
<b>Type</b>	Add as many limiting criteria options as desired by highlighting the list option to the left and clicking on the “right arrow” to place the list item in the box to the right.
<b>Status</b>	Add as many limiting criteria options as desired by highlighting the list option to the left and clicking on the “right arrow” to place the list item in the box to the right.

Once all limiting criteria have been selected, click on the “**Count**” button at the bottom of the screen to see how many records will be displayed. Only 25 records will be displayed at a time. Then click on the “**Search**” button to view the results. If there are more than 25 results, to see the next set of records, click the “right arrow”.

Search results will appear to the right of the screen. To view details for a drawing, double-click on it. To just view the drawing, highlight the drawing and click on “View Drawing” at the bottom of the screen.

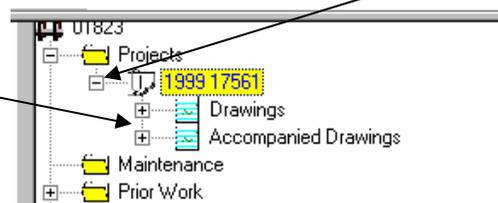
### *Search for a drawing through the structure*

This method of searching for a drawing is recommended when: searching for drawings related to work on a structure.

Search for the structure as shown in [Searching for a structure](#) in Section 2.3. Once the structure has been located, search for the structure work as shown in [Search for structure work through the structure](#) in Section 2.3.

Once the structure work has been found, using the Structure Work Tree, expand the structure work folder to view the Drawings and Accompanied drawings sub-folders.

Search for a drawing by expanding the Drawings and Accompanied drawing sub-folders. The drawing title appears for each drawing.



## CHAPTER 3: VIEWING

### Section 3.1 – Viewing Work

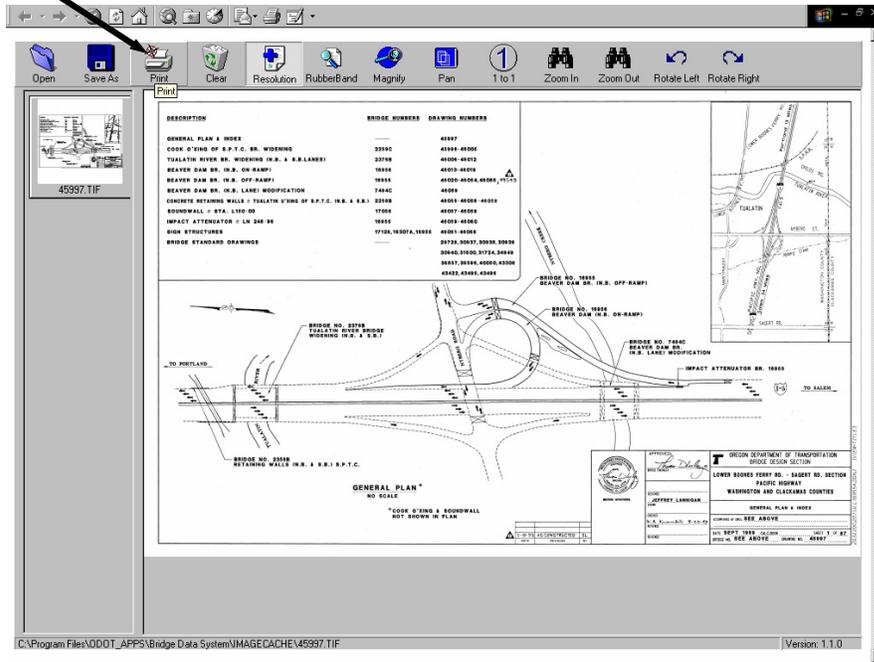
---

Want to:	How
<i>View drawing details and access <b>single</b> drawing</i>	<ol style="list-style-type: none"> <li>1. From the structure tree, select the folder the work is in and expand each sub-fold until the Drawings are listed.</li> <li>2. Highlight a drawing. Details are displayed to the right.</li> <li>3. Select <b>View Drawing</b> from the bottom of the screen.</li> </ol>
<i>View <b>all</b> drawings associated with the work</i>	<ol style="list-style-type: none"> <li>1. Highlight the structure work folder.</li> <li>2. Select <b>Display Thumbnails</b> from the bottom of the screen. Wait for the drawings to load; or, right-click on the structure work and select <b>Display Thumbnails</b>.</li> <li>3. Click on the first drawing.</li> <li>4. Hold <b>Shift</b> key down and click on the last drawing.</li> <li>5. Select <b>View Drawing</b> from the bottom of the screen.</li> </ol>
<i>View <b>some</b> of the drawings associated with the work</i>	<ol style="list-style-type: none"> <li>1. Highlight the structure work folder.</li> <li>2. Select <b>Display Thumbnails</b> from the bottom of the screen. Wait for the drawings to load.</li> <li>3. Click on the first drawing.</li> <li>4. Hold <b>Ctrl</b> key down and click on each drawing to be viewed.</li> <li>5. Select <b>View Drawing</b> from the bottom of the screen.</li> </ol>
<i>View all drawings associated with the structure</i>	<p>Special permissions are needed to use the “<b>Add to Image Collection</b>” method. This method requires more work, but will allow the viewing of all/multiple structures. The drawings that are copied to a computer file are read only. To use this method:</p> <ol style="list-style-type: none"> <li>1. Highlight the first available drawing and an option to “<b>Add to Image Collection</b>” will be displayed at the bottom of the tree. <b>OR, right-click</b> on the drawing and select “<b>Add to Image Collection</b>”.</li> <li>2. Click on that option. Select another drawing. Click on “<b>Add to Image Collection</b>” again. Repeat for each drawing.</li> <li>3. Go to the <b>Admin</b> menu at the top of the screen and select View Image List.</li> <li>4. Click on <b>change location</b>. Select a folder to copy the drawing to.</li> <li>5. Click on “<b>Copy Files</b>” at the bottom of the screen.</li> <li>6. When the gray screen appears with “<b>Copy Operation Complete</b>”, close the screen.</li> <li>7. Open <b>Windows explorer</b> and find the location the drawings were copied to. View the drawings.</li> <li>8. You can open all drawings by clicking on the first drawing, holding the <b>shift</b> key down, and then clicking on the last drawing. Then go to the <b>File</b> menu in <b>Windows Explorer</b> and select open.</li> </ol>

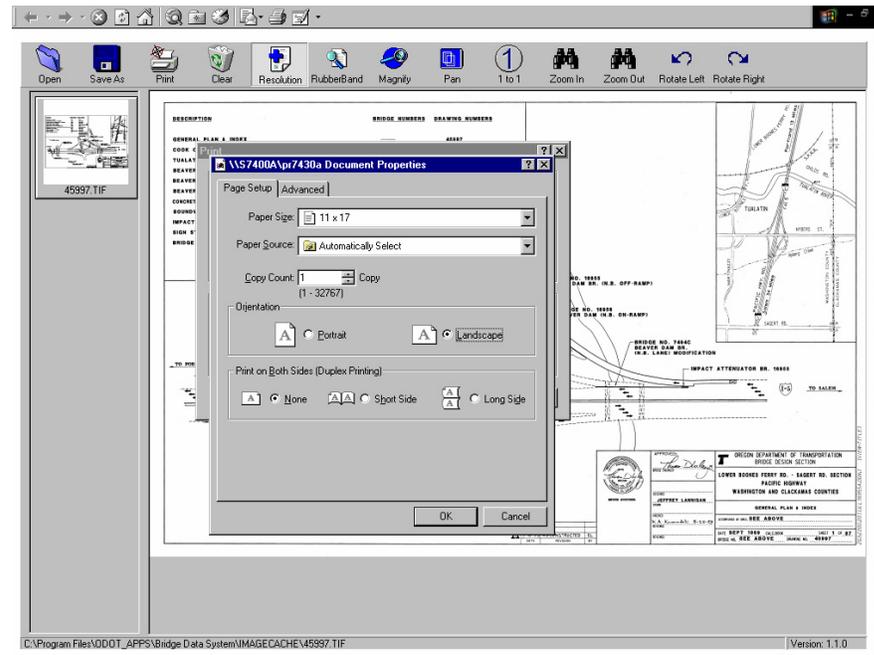
## Section 3.2 – Printing Images

To print a single image:

**Print** the image currently being viewed:

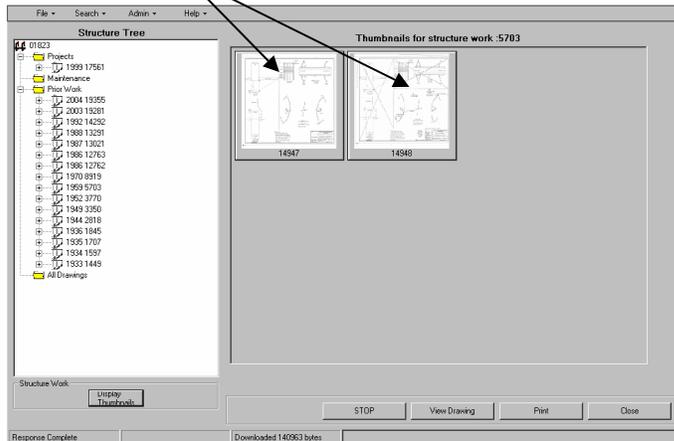


In the dialogue box that appears, change the settings appropriately:

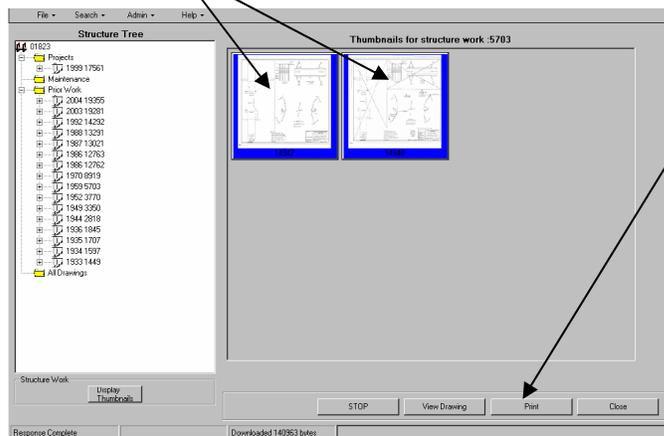


To print multiple images using thumbnails:

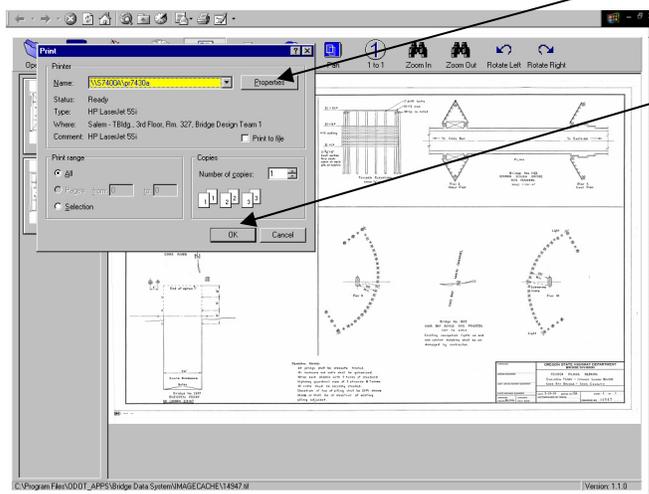
Display thumbnails as shown in "[Viewing Work](#)", Section 3.1



Once multiple drawings have been selected, click on **Print** at the bottom of the page.



The following screen will be displayed. Edit print settings as appropriate. Click o.k..



Close viewing screen.

## Section 3.3 – Using the Viewer

---

### **Viewing Images**

The complete drawing image is displayed in the Image Viewer. You can manipulate the image using the buttons on the viewer toolbar. To enlarge the details press the **Zoom In** button until the details are a readable size. Clicking the **Zoom Out** button will decrease the image size.

Clicking the **Pan** button opens a pan window – a small window with a version of the image displayed. The area of the drawing that is currently displayed is shown in the pan window as a small rectangle. Other areas of the image can be easily displayed by clicking on the rectangle and dragging it around. Navigation works until the left mouse button is released. To disable the pan feature click the X on the top right hand corner of the small pan window.

The **Rubberband** button lets you select a portion of the image to magnify. Select the upper left corner of the area desired and drag the mouse, with the left mouse button still held down, so the rectangle created surround the area of the image you want to magnify. Let go of the mouse button. The image is magnified and the Rubberband feature is turned off.

Clicking the **Magnify** button creates a virtual ‘magnifying glass’ that you can move around the image. The portion under ‘magnifying glass’ is enlarged.

Avoid the **1 on 1** button. It blows the image up to a huge size and you must then zoom out multiple times to undo the effect. The size is supposed to be the actual size of the drawing but it appears to be larger.

Clicking the **Print** button activates the Printer Setup window. Be sure the select a large paper size, such as tabloid and select landscape. The default size on most printers is 8x11 portrait. This setting will print the drawing image on the top half of page.

**PART ONE:  
QUICK HITS**

## Search for Structure

---

### *By structure number*

1. **Search** > Structure
2. Enter Structure Number > Search
3. Double-click appropriate Structure

### *By other available criteria*

1. **Search** > Structure
2. Enter a vague but narrowing name, if known
3. Enter any KNOWN data > Search
4. Try again with different variances of data if not successful

## Search for Structure Work

---

### *By structure work number*

1. **Search** > Structure Work
2. Enter Structure Work Number > Search
3. Double-click appropriate Structure Work

### *By structure number*

- A
1. **Search** > Structure Work
  2. Enter Structure Number > Search, or
  3. Enter any known pertinent information > Search
  4. Double-click each result until appropriate Structure Work appears
- B
1. **Search** > Structure
  2. Enter Structure Number > Search
  3. Double-click appropriate Structure
  4. Expand the appropriate work type folder
  5. Highlight the appropriate structure work folder to view Structure Work Details

## Search for Drawing

---

### ***By drawing number***

1. **Search** > Drawing
2. Enter Drawing Number or Number Range > Search
3. Double-click to view a drawing

### ***By work description or date range or combination of both***

1. **Search** > Drawing
2. Enter Drawing Description or Date Range or combination > Search
3. Double-click to view structure work
4. Highlight appropriate drawing > Edit
5. Drawing still highlighted > Edit to view drawing details

### ***By structure work number***

1. **Search** > Structure Work
2. Enter Structure Work Number > Search
3. Double-click appropriate Structure Work
4. Highlight appropriate drawing > Edit
5. Drawing still highlighted > Edit to view drawing details

### ***By structure number***

- A
1. **Search** > Structure Work
  2. Enter Structure Number > Search
  3. Double-click each result until appropriate Structure Work appears
  4. Highlight appropriate drawing > Edit
  5. Drawing still highlighted > Edit to view drawing details

- B
6. **Search** > Structure
  7. Enter Structure Number > Search
  8. Double-click appropriate Structure
  9. Expand the appropriate work type folder
  10. Expand the appropriate structure work folder to view Structure Work Details
  11. Highlight the appropriate drawings folder to view drawings
  12. Highlight the appropriate drawing to view details on the right side of the screen.

### ***By other available criteria***

1. Search > Structure
2. Enter a vague but narrowing name, if known
3. Enter any KNOWN data > Search
4. For each applicable result:
5. Double-click a structure
6. Expand the appropriate work type folder
7. Expand the appropriate structure work folder to view Structure Work Details
8. Highlight the appropriate drawings folder to view drawings
9. Highlight the appropriate drawing to view details on the right side of the screen.
10. If not successful, try the next structure in search results by clicking the "close" button until back to the results screen.
11. If not successful after trying all resulting structures, try adjusting the search criteria and repeat process.

**PART 2: ADDING WORK  
TO THE SYSTEM**

## CHAPTER 4: CRITICAL STEPS

### Step 1

Add new structure to the system **\*\*[See Appendix B: Bridge Naming Conventions](#)**

### Step 2

Add new work for the structure

### Step 3

Get drawing numbers for work

### Step 4

Get signed mylars imaged

### Step 5

Add images to the system

### Step 6

Update structure details for completeness and change status to "Construction"

Step 7  
Update original mylars to “As-Constructed”

[Step 8](#)  
Scan “As-Constructed” drawings

[Step 9](#)  
Replace original image with “As-Constructed” image

[Step 10](#)  
Update structure data and change status to “in-use”

[Step 11](#)  
Update structure, work, and drawing details as needed.

# CHAPTER 5: STEP 1 – ADD NEW STRUCTURE

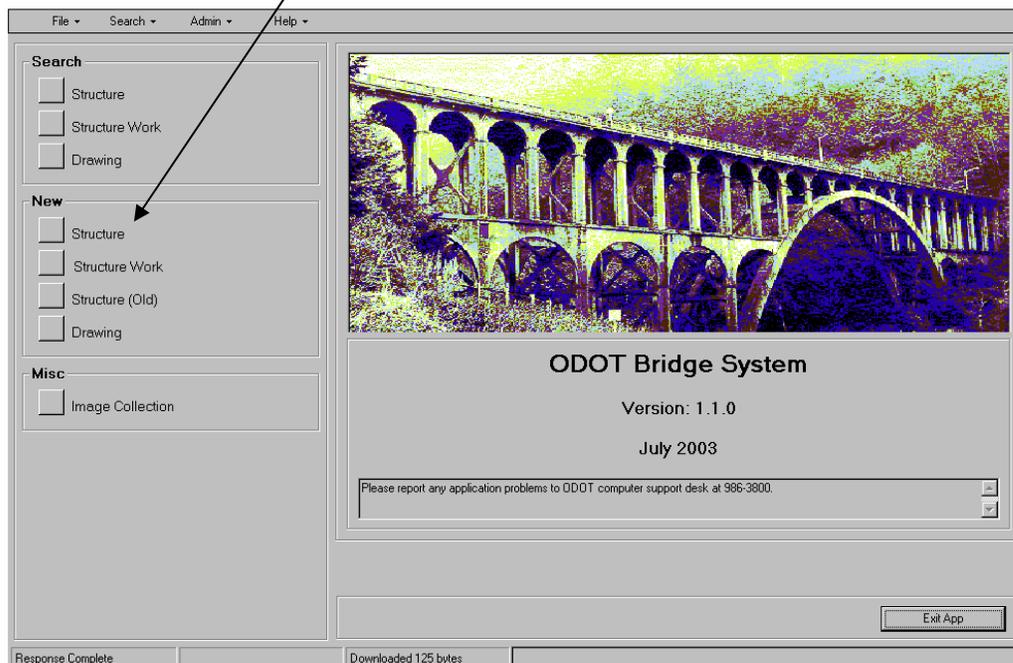
## Section 5.1: Adding a Structure (Getting a Structure Number)

---

Certain information about the new structure must be entered into the Bridge Data System in order to obtain a new structure number. See [Appendix A](#).

It is critical that as much information as possible be input when getting a new structure number. We request that all data be provided. If there are data fields that cannot be filled in initially, we ask that it get added as soon as possible.

The first step in adding a new structure to the system, is to access the Bridge Data System and select “**Structure**” from the “**New**” menu. See [Part One, Chapter 1 – Introduction](#).



The “**Add Structure Details**” screen will be displayed to the right, as shown:

Enter data into each field appropriately. Click on **Update** at the bottom of the screen when data input is complete. This will permanently add the data to the Bridge Data System and get a new structure number.

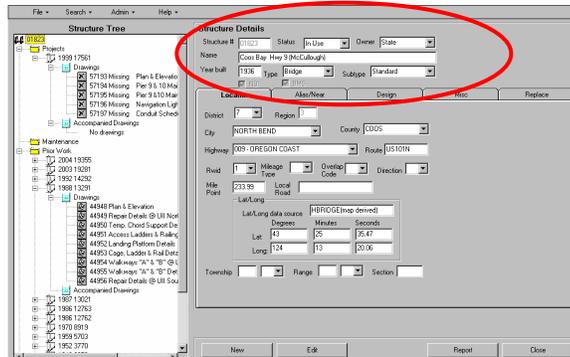
For detailed field requirements and helpful information, see [Section 5.2: Definitions/Descriptions of Structure Details data](#).

A “**Structure Details**” screen will be displayed when the structure details have finished updating. Four options are available once in this screen. These four options and their actions are listed in the following table:

Option	Action Desired
<b>New</b> .....	Add another structure to the system
<b>Edit</b> .....	Edit the structure data just entered
<b>Report</b> .....	Print a Structure Details report for the new structure
<b>Close</b> .....	Close screen

## Section 5.2 – Definitions/Descriptions of Structure Details data

Following are specific parameters for entering NEW Structure Data into the Bridge Data System:



*To view detail in this picture, enlarge page display to 200% or better.*

### General Structure data

Field	Options	Information/Requirements
Status	Abandoned Devl Renumbered Unknown Replaced In Use Void Removed	- Started and then abandoned - Being developed - Has been renumbered - Status not known - Replaced with new structure - Currently in use - Never constructed - Structure removed
Owner	State, County, Township, City, State Park, Local Park, Other State, Other Local, Private, Railroad, State Toll, Local Toll, Other Federal, BIA, US Forest Service, National Park, BLM, B of Reclam, Corps of Engineers, Unknown	Select the appropriate owner for the structure.
Name		See <a href="#">Appendix B</a> : Bridge Naming Conventions; For State Owned structures, the ODOT official name, created with the NBI rules. For other structures, the primary name associated with the structure.
Year Built		The year the structure was completed.
Type	Bridge, Culvert, Other, Poll, Retaining Wall, Sign Structure, Sound Wall, Tunnel	Physical type of structure. Type includes buildings since until about 1993 the ODOT Bridge Engineering section designed many of the buildings for which Facilities is now responsible.

Field	Options	Information/Requirements
<b>Sub Type</b>	For Bridge: Standard Bike Pedestrian Structure Covered Bridge Movable Bridge Railroad Viaduct For Culvert: <6' Culvert 6' – 19' Culvert 20' + Culvert For Other: Cattle Pass Ferry Flume Toll House Other For Pole: Standard For Retaining Wall: Standard Retaining Wall For Sign Structure Standard Sign Structure For Sound Wall: Standard Sound Wall For Tunnel: Bike/Pedestrian Tunnel Standard Tunnel	For each type of structure a unique list of sub-types will be available. The sub-types codes were supplied by the business users. Many are codes that are used with other Bridge systems.
<b>NBI (checkbox)</b>		When checked, indicates that the structure is an NBI structure. NBI structures are federally reported. Since NBI length is calculated differently than the overall structure length, this flag has to be set by information sent from BMS.
<b>BMS (checkbox)</b>		When checked, denotes that the structure is managed by ODOT.

### Structure Location data

Field	Options	Information/Requirements
<b>District</b>	1, 10, 11, 12, 13, 14, 2A, 2B, 2C, 3, 4, 5, 7, 8, 9	An organization within ODOT that is responsible for the maintenance of State roads within its geographic area of responsibility.
<b>Region</b>	1, 2, 3, 4, 5	Geographic divisions of the state of Oregon. When a District is selected, the Region automatically fills in once the tab key is depressed.
<b>City</b>	Oregon's Cities listed in alphabetical order	A geographic area representing a political table that is incorporated for government management in accordance with the laws of and within the borders of the State of Oregon.
<b>County</b>	Oregon's Counties listed in alphabetical order	A geographic area representing a political entity as designated by the State of Oregon Constitution for government management in accordance with the laws of and within the borders of the State of Oregon.
<b>Highway</b>	Oregon's Highways listed in alphabetical order by Code.	The primary identifier of the road. In IT IS, this is five characters. The first three characters identify the road. The last two characters identify frontage and connecting roads that relate to the primary road. Since the Bridge Section uses the first three characters of the road, the system will put spaces in the remaining two characters.
<b>Route</b>		Interstate, Oregon or US highway route.
<b>Rwid</b>	1, 2, 3	The roadway identifier is a one-digit code used in conjunction with the highway number and mile point to identify the alignment on which the mile point exists.

<b>Mileage Type</b>	<p>Y = Spur Mileage – A highway spur is a short off-shoot of an established highway.</p> <p>Z = Overlapping Mileage – When a road is lengthened in the middle due to realignment, Z-mileage is created.</p> <p>T = Temporary mileage – Mileage on a temporary traveled route, usually due to a detour or highway under construction.</p>	<p>Used to make mile points unique in areas where there are multiple occurrences of a mile point on a single highway.</p> <p>Note: 'X' prefix is no longer used, it has been replaced with a '-' negative sign.</p>
<b>Overlap Code</b>	1, 2, 3, 4	Milepoint overlapping code used only in conjunction with mileage type of 'Z'. It indicates a unique series of overlapping 'Z' mileages. The first chronological occurrence of 'Z' mileage will have a code of 1, the second chronological occurrence will have a code of 2, etc.
<b>Direction</b>	Blank, N, S, E, W	Direction of the structure from the landmark. Example: the structure is south of Bend. Valid values (E, N, NE, NW, W, S, SE, SW, Un (Unknown) ) are stored as constraints in the database.
<b>Milepoint</b>		Approximate distance in miles from the beginning of a state highway.
<b>Local Road</b>		Actual street or road name as known by the public.
<b>Lat/Long data source</b>		Source of latitude and longitude data. Example: provided by ODOT GIS, calculated from map, etc.
<b>Lat: Degrees</b>		The latitude of the location of the structure in degrees.
<b>Lat: Minutes</b>		The minute component of latitude (0-59)
<b>Lat: Seconds</b>		The seconds component of latitude (0-59.99)
<b>Long: Degrees</b>		The longitude of the location of the structure in degrees.
<b>Long: Minutes</b>		The minute component of longitude (0-59)
<b>Long: Seconds</b>		The seconds component of longitude (0-59.99)
<b>Township</b>		<p>A public land surveying unit. A division of territory six miles square, contains 36 sections. Values allowed: 2 digits + N,S</p> <p>Note: The meridians included in each great survey are numbered in order east and west from the "principal meridian" of that survey, and the townships in the range are numbered north and south from the "base line," which runs east and west; as, township No. 6, N., range 7, W., from the fifth principal meridian.</p>
<b>Range</b>		A north-south strip of townships, each six miles square, numbered east and west from a specified meridian in a U.S. Public land survey, Values allowed: 2 digit + E or W
<b>Section</b>		A one square mile area that is one of 36 in a range which is in a township. Township, range, and section identify a geographic location.

### Structure Alias/Near Data

<i>Field</i>	<i>Options</i>	<i>Information/Requirements</i>
<b>Alias Name</b>		Name other than the official name, by which a structure is referred to or also known as.
<b>Alias Number</b>		County number or other number structure is known by. (cross-reference information)
<b>Landmark</b>		Name or description of the landmark. Examples: Salem Yeon State Park Washington/Multnomah county line Intersection of I-5 and Portland Road
<b>Type</b>	Unknown Cemetery Road, Street, Bridge, Highway Shopping Center Park Subdivision Railroad, Airport Lake, Pond, Bay Fish Hatchery City City Line Church Commercial Business County Line Interchange National Monument, Dam, Canyon, River	Description of the type of landmark.
<b>Direction</b>	N, E, S, W, NE, SE, SW, NW, Un (Unknown)	Direction of the structure from the landmark.
<b>Miles From</b>		Distance in miles between the structure and the landmark.

## Structure Design data

Field	Options	Information/Requirements
<b>Configur-ation</b>		A free-form description of the component mix of the structure
<b>Total Number of Spans</b>		The number of spans. A span is a section of a bridge that runs between two bearing points.
<b>Overall Structure Length</b>	<i>*If one measurement unit is measured, the others auto-fill in.</i>	Overall length of structure, or pole height, in meters (which may or may not match the length of the structure after the project is complete). Must be updated at status change from Dev to In Use.
<b>Curb to Curb Width</b>	<i>*If one measurement unit is measured, the others auto-fill in.</i>	The width of a structure measured between the curbs- i.e. not counting the sidewalks. This is the maximum surface on which driving and bike lanes can be laid out. Stored in decimal feet.
<b>Out to Out Width</b>	<i>*If one measurement unit is measured, the others auto-fill in.</i>	Maximum width of a bridge includes driving lanes, curbs, sidewalk and outer rails. Stored in decimal feet.
<b>Span Type</b>	RCBG, RCMB, RC Slb, RC Rigid Frame, RC Thru Arch, Comp, RC Deck Arch, RC Dk Panel, RC Spandrel Arch, RC Arch Culv, St Box Gir, St Rigid Frm, St Orthotropic, St Thru Arch, St Cont Thru Tru, St Thru Truss, RCDG, St Dk Truss, St Pony Truss, St Dk Arch, St Susp, St Swing, St Lift Vert, St Bascule, StDkGir, St I-Bm, TBR Untreated, RCBB, TBR Trtd, TBR Thru Truss, TBR "A" Frame, TBR Dk Truss, TBC, TBR Drain Tnl, Tnl, CMP, RCBC, St Sign Br, St Cant Sign, Alum Sign Br, Alum Cant Sign	<p>Categorization of a section of a bridge that runs between two bearing points.</p> <p>Examples are:  Steel Swing Span  Steel Rigid Frame  Timber Treated  Reinforced Concrete Decked Girder</p>
<b>Length</b>		Length of span in either feet or meters.
<b>QTY</b>		Number of spans of this type
<b>Main</b>		Distinguishes between approach and main spans.

### Misc Structure data

<i>Field</i>	<i>Information/Requirements</i>
<b>Representative image</b>	Image that has been assigned to represent the work
<b>Comments</b>	Misc. comments
<b>Record Created</b>	Computer generated field. Date and time record was added.

### Replace Structure data

<i>Field</i>	<i>Information/Requirements</i>
<b>Replaces Structure Number</b>	Enter Structure Number for bridge originally being replaced. This data will automatically update the original structure.
<b>Replaced by Structure Number</b>	Enter Structure Number of new bridge replacing currently used bridge.

## CHAPTER 6: STEP 2 – ADD NEW WORK FOR THE STRUCTURE

New project or maintenance work done to a structure will require structure work numbers (numbers automatically assigned to project or maintenance work when details are entered into the system). Structure work numbers will be obtained by searching for the structure first and then using the “Structure Work Tree” to add work directly to the structure. **See Part 1, [Section 2.3, Searching for structure work](#) for an explanation of structure work and the “Structure Work Tree”.**

### Section 6.1 – Important Notes

---

#### **Note One:**

Only two options should be used when selecting a “Work Type”, Project or Maintenance. “Prior Work” should not be used. The “Prior Work” folder contains all project data prior to the existence of the Bridge Data System. New work should NEVER be placed in the “Prior Work” folder.

#### **Note Two:**

The requirements for filling in the *Description* field are very important. Please ensure that this data is entered using the information provided in the table as a guideline. (refer to **Section 6.3 – Definitions/Descriptions of Structure Work Details**). Specific examples are provided. Administrators of the system and the ODOT Bridge Section would like to know exactly what was being done to the structure, in a concise manner. See Description requirements

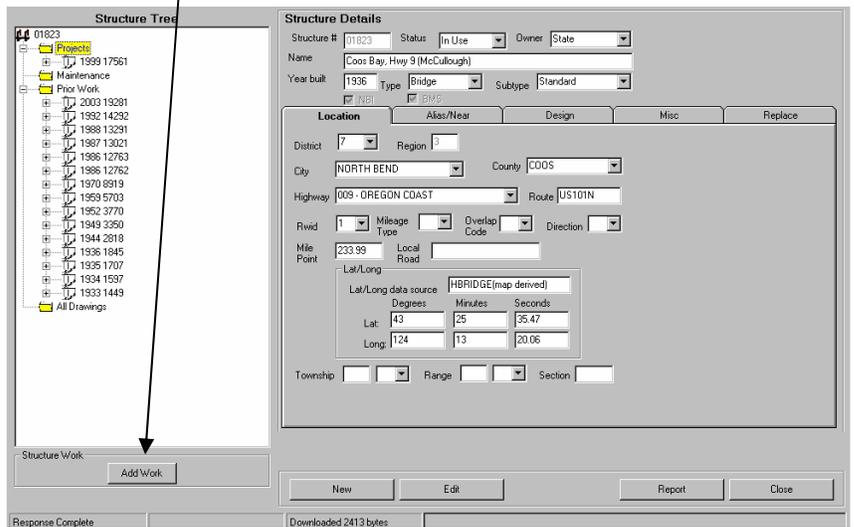
## Section 6.2 – Adding New Work to the Structure

Search for the structure. (refer to **Part 1: Accessing, Searching, and Viewing**).

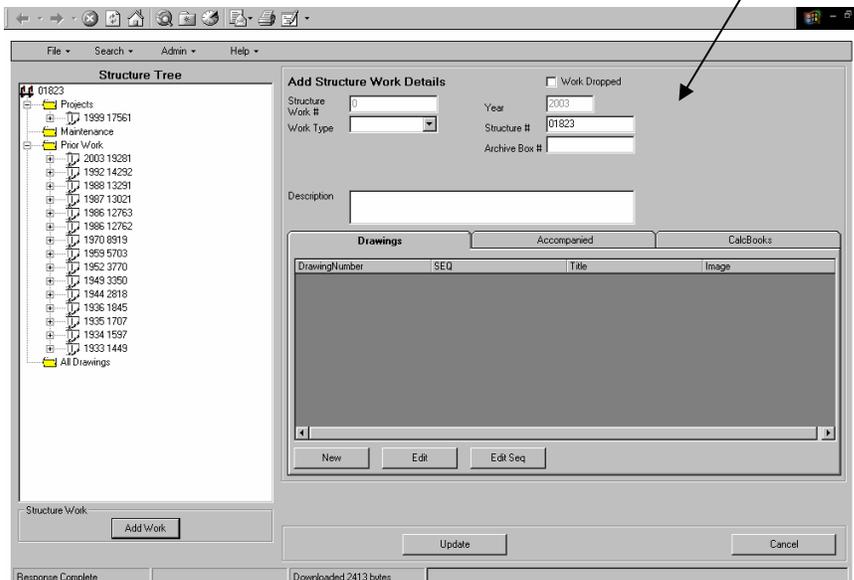
Once the appropriate structure is displayed, double-click on it to view the structure details and Structure Work Tree.

Expand the appropriate Work Type folder (Project or Maintenance)

Highlight the folder and look to the bottom of the screen where an **“Add Work”** option now appears:



When the **“Add Work”** button is clicked, the following screen appears:



Fill in the work details, referring to Sections [6.1](#) and [6.3](#) for specific requirements, definitions, and notes.

Once the “Work Type” is filled in the screen will change slightly. The following two illustrations show the subtle differences in screen appearance based on which “Work Type” is selected.

If “**Project**” is selected, when the tab key is depressed, the following screen will appear:

The screenshot shows a software window titled "Add Structure Work Details". At the top right, there is a checkbox labeled "Work Dropped". Below this, the form contains several input fields: "Structure Work #" with the value "0", "Year" with the value "2003", "Work Type" set to "Project", "Structure #", "Archive Box #", "PCSKey", "Project Name", and "Description". At the bottom, there are three tabs: "Drawings", "Accompanied", and "CalcBooks". Two black arrows originate from the bottom left and point to the "PCSKey" and "Project Name" fields respectively.

Note the differences. A **PCSKey** and **Project Name** field are now displayed.

If “**Maintenance**” is selected, when the tab key is depressed, the following screen will appear:

The screenshot shows the same "Add Structure Work Details" window. The "Work Type" is now set to "Maintenance". The "PCSKey" and "Project Name" fields are no longer present. Instead, there is a "Maintenance #" field. The "Description" field is also visible. The "Drawings" tab remains active. A single black arrow points from the bottom left to the "Maintenance #" field.

Note that now a **Maintenance #** field is displayed.

When the details have each been entered accordingly, double-check the data entered. Finally, click on the **Update** Button located at the bottom of the screen.

There will now be new work added to the structure, to which drawings can be attached when available.

## Section 6.3 – Definitions/Descriptions of Structure Work Details

The screenshot shows a software window titled 'Add Structure Work Details'. It contains several input fields: 'Work Dropped' (checkbox), 'Structure #', 'Year', 'Structure #', and 'Archive Box #'. A red oval is drawn around these five fields. Below these fields is a 'Description' text area. At the bottom of the window are buttons for 'New', 'Edit', 'Edit Seq', 'Update', and 'Cancel'. The status bar at the very bottom indicates 'Downloaded 2007 System'.

### All Work

Field	Options	Information/Requirements
Work Dropped		When checked, indicates that the work on the structure was not done.
Structure Work #		System generated number
Year		Year the work was requested
Work Type	<p>Project (requires PCS Key)</p> <p>Maintenance (requires maintenance EA number)</p> <p>Prior Work (should not be used)</p>	<p>Default is Project. Project work should be selected for work that has a PCS Key.</p> <p>Maintenance Work, that does not have a PCS Key, is work done as part of maintenance or emergency repair work. The Maintenance number is the Maintenance EA number. (repair, upgrades, etc. ) This work is usually done by ODOT maintenance crews.</p> <p>Prior Work is work done prior to the creation of the Bridge Data System database.</p>
Archive Box #		To be entered when Structure Work is being archived and when archive box number is known. The administrative staff supporting the Bridge Section will be the contact for this.
Description		A specific description of the work being done to the structure should be entered. Examples of descriptions are installation of Sign Pole, Paving, Rail Retrofit, Flood Damage Repair, and Bridge Replacement. Do not enter vague descriptions. For example - Sign Pole, Shop Drawing, Design, and Plan and Elevation are inappropriate and/or too vague.

The screenshot shows a software window titled "Add Structure Work Details". It contains several input fields: "Structure Work #", "Year" (set to 2003), "Work Type" (a dropdown menu with "Project" selected), "Structure #", "Archive Box #", "PCSKey", "Project Name", and "Description". The "PCSKey" and "Project Name" fields are circled in red. At the bottom, there are three buttons: "Drawings", "Accompanied", and "CalBooks".

## Project Work

<i>Field</i>	<i>Options</i>	<i>Information/Requirements</i>
PCSKey		Project identifier
Project Name		Auto-filled

The screenshot shows the same "Add Structure Work Details" window. In this instance, the "Work Type" dropdown menu is set to "Maintenance". The "Maintenance #" field is circled in red. The "Year" is still set to 2003. The "PCSKey" and "Project Name" fields are no longer present or circled.

## Maintenance Work

<i>Field</i>	<i>Options</i>	<i>Information/Requirements</i>
Maintenance #		The EA Charge Number for maintenance work done.

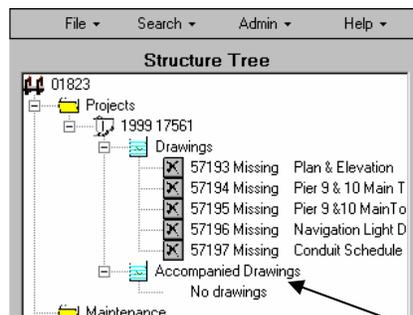
# CHAPTER 7: STEP 3 – GET DRAWING NUMBERS

New drawings or documents associated with structure work will require drawing numbers (numbers automatically assigned to drawings or documents when details are entered into the system). Drawing numbers will be obtained by searching for the structure first, finding the structure work, and then using the “Structure Work Tree” to add drawings directly to the work and the structure.

## Section 7.1 – Understanding Drawing Numbers

---

***Do not obtain drawing number until just prior to the printing of FINAL Contract mylars. This will assure sequential drawing numbers in Contract Plans.***



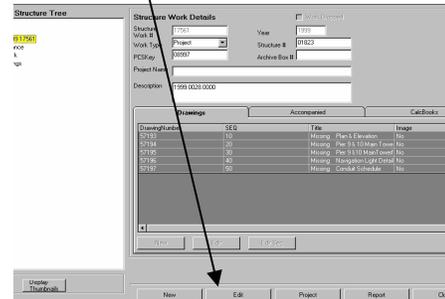
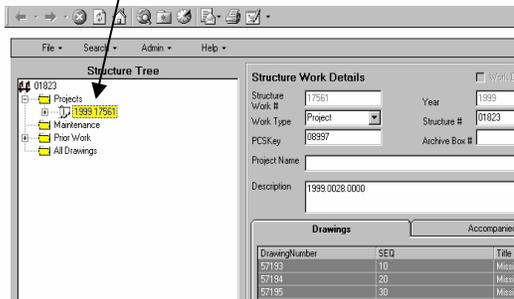
A drawing may be associated to other structures in a contract plan as an Accompanied Drawing. Accompanied drawings were previously assigned another structure or a standard.

## Section 7.2 – Get Drawing Numbers

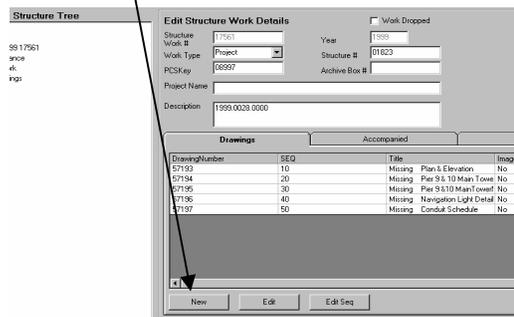
**Important:** Avoid reserving Drawing Numbers in advance of Final Mylars. However, if it is necessary for drawing numbers to be obtained prior to Final Mylars, obtain numbers only for completed drawings. (It is not necessary for drawing numbers to be in consecutive numerical order, or even in the same number range.)

**Warning:** Non-existent drawings that are assigned drawing numbers can cause difficulty in data management - possibly immediately; certainly down the road.

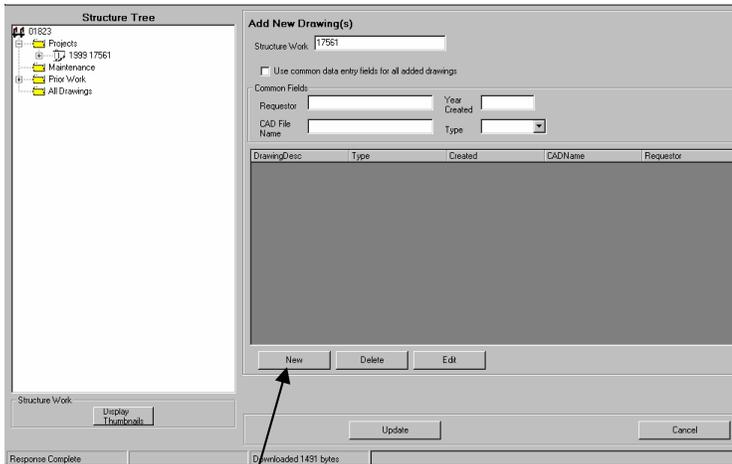
1. Search for the structure and double-click on it. Search for the Structure Work in the “**Structure Work Tree**”. Refer to Part 1, Chapter 2.
2. Once the appropriate structure work is displayed, expand the appropriate Work Type folder (Project or Maintenance).
3. Highlight the appropriate work:
4. Click “**Edit**”:



5. Click “**New**”:



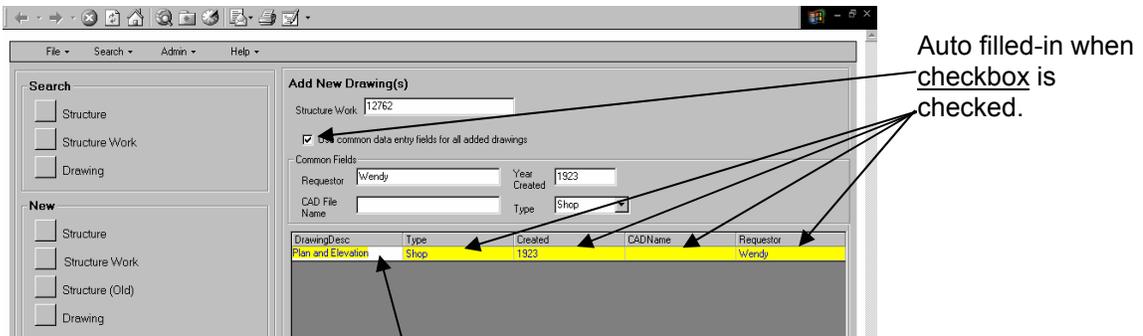
6. The “Add New Drawing(s)” screen now appears:



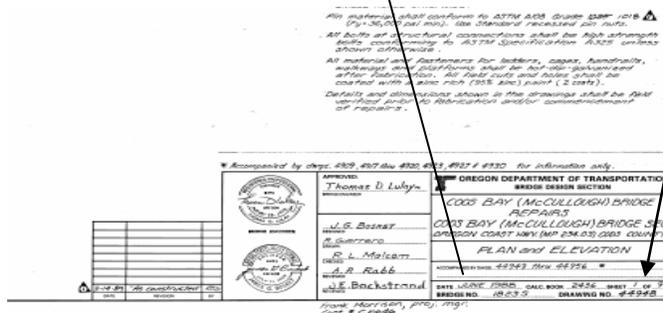
Enter the information for the six fields in the top portion of the screen. Checking the “Use common data entry fields for all added drawings” checkbox can auto-fill the common fields for each drawing added. See [Section 7.4 – Definitions/Descriptions of Drawing Data](#) for help with entering data.

Once the data fields in the top portion of the screen have been filled-in, drawings can be added.

7. Click on “New” and five additional fields will appear. If “Use common data...” has been checked, the screen will look something like this:



8. Type in drawing data appropriately. If the Type, Created, CadName, and Requestor fields have been auto filled-in, all that is left to enter is the Drawing Description (the first field). The description to be used is located in the Title Block of the drawing.



9. Continue adding each drawing by clicking on “**New**” for the next drawing. If a mistake was made in the data entry, use the Edit button to revise the appropriate record. If, for some reason, the edit caused problems with the entry, use the “**Delete**” button to delete the incorrect record and then re-enter (as “New”) the drawing. The *New*, *Delete*, and *Edit* options can be used successfully to manage the data entered until the **UPDATE** button is used. Once used, the data is permanently updated to the system, and depending on the user’s administrative rights, may have to be corrected by System Administrators (a time consuming process).
10. Remember, if it is necessary to edit or delete drawings, the numerical sequence of the drawings may become out-of-order, and that is acceptable.
11. Once all drawings are entered, click the **UPDATE** button. A **REPORT** button is available to print out a report with the newly assigned Drawing Numbers.

A “**Structure Work Details**” screen will be displayed when the structure details have finished updating. Five options are available once in this screen. These five options and their actions are listed in the following table:

Option	Action Desired
<b>New</b>	Add more structure work to this structure
<b>Edit</b>	Edit Structure work details OR Edit/Add drawings
<b>Project</b>	Display project details, if any, related to this structure work
<b>Report</b>	Print a Report of the structure work details and drawings
<b>Close</b>	Close screen

## **Section 7.4 – Definition/Description of new drawings data**

<i>Field</i>	<i>Options</i>	<i>Information/Requirements</i>
Structure Work		Auto filled in when adding work through the Structure Work itself.
Use common data entry fields for all added drawings		When checked, all fields (except for the drawing description) will be auto-filled-in with the same data entered in the top portion of the screen.
Requestor		User places first and last name here. If a consultant, place first initial, last name, and Consultant firm abbreviation.
CAD File Name		Pulled from data entered into “Add Drawing Number” screen. (see STEP 3, Section 3.3). Can be edited from this screen.
Year Created		Pulled from data entered into “Add Drawing Number” screen. (see STEP 3, Section 3.3)
DrawingDesc		Description of the drawing. Taken from the Title Block of the drawing. (i.e., Plan and Elevation)
Type	Construction Maintenance Shop	

## CHAPTER 8: STEP 4 – GET MYLARS IMAGED WITHIN ODOT

Requesting half-size prints and electronic documents:

- 1) Get drawing numbers for drawings (see [Chapter 7: Step 3 – Get drawing numbers for work](#))
- 2) Have ready the following items:
  - a) Signed mylars
  - b) The acquired drawing numbers
  - c) PCSKey number
  - d) Expenditure Account (EA#)
  - e) Phone number
  - f) Contact name
  - g) Crew number
  - h) Work request form –

*Documentation Services will accept the work without the Work Request form for those in the regions or not located in the immediate vicinity of their office. Bridge suggests that the forms be obtained and used. The items listed above are required to accompany the work. If imaging facilities are not available in the regions, the packaged request can be mailed to:*

*Documentation Services  
355 Capitol St. NE, Room 17  
Salem, OR 97301-3871*

- 3) Fill out the appropriate work request form for Documentation Services. Forms can be obtained from Documentation Services, located in the basement (room 17) of the Transportation Building in Salem.
- 4) Take (or mail, if not in the immediate vicinity) the package to Documentation Services for processing. When the request is completed, the package will be returned.

Accessing the imaged drawings:

- 1) Go to [\\scdata\brdgshar\bridge\reprographics\](#)
- 2) Find the appropriate folder:
  - a) A folder has been created with the name of the PCSKey. If the drawing is a revision to an original drawing, a suffix of “r” will be appended to the end of the PCSKey folder name to indicate a revision (example: ...bridge\reprographics\6767r1).
  - b) Each image will be named using the drawing number (example: ...64324)
  - c) Upload the image into the BDS System (see [Chapter 7: Step 5 – Add images to the system](#))

# CHAPTER 9: STEP 5 – ADD IMAGES TO THE SYSTEM

## Section 9.1 – Electronic Location of Images

---

When “uploading” images to the Bridge Data System, there will be a point in the process where the user will need to access the imaged drawings.

If drawings have been scanned by ODOT’s Documentation Services, the location of the imaged drawings will be found at: \\sodata\brdgshar\bridge\reprographics\ . Map to this site prior to continuing on to **Section 9.2 – Adding Images to the System** if not already currently mapped. See [Chapter 8: Getting Mylars Imaged within ODOT for further details](#).

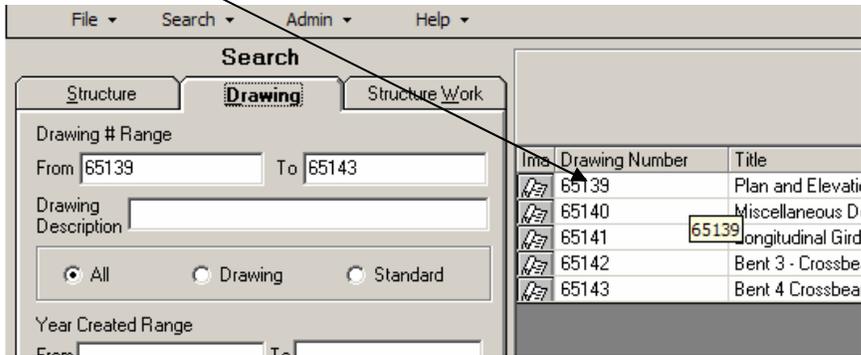
If the drawings have been scanned and stored on a user’s local machine (in the share folder for that machine), the images can be easily accessed, using the same windows explorer folder ODOT employees currently have and use.

## Section 9.2 – Adding Images to the System

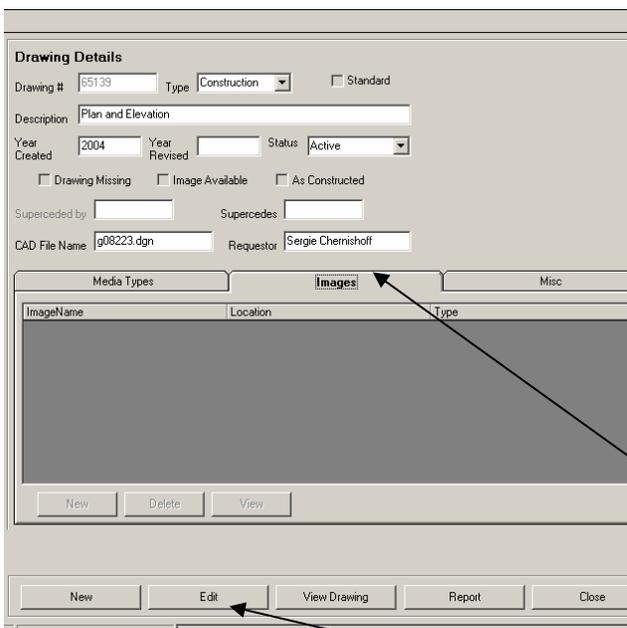
---

1. Search for the drawing number range of the drawing images that need to be uploaded. Select “**Drawing**” from the “**Search**” menu. Then enter the first drawing number in the range in the “**From**” field and the last drawing number in the range in the “**To**” field. Click on “**Search**” at the bottom of the screen. This will display the results to the right of the screen.

2. Double-click on the first drawing.

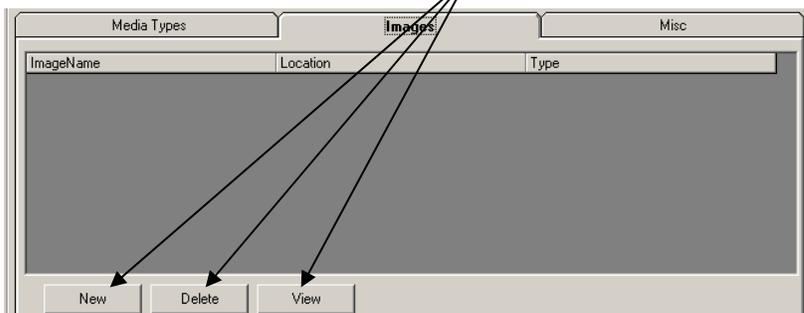


The following screen will be displayed to the right:

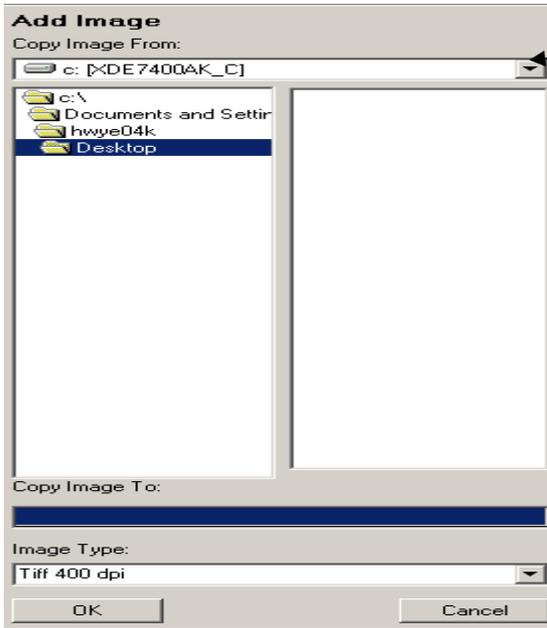


3. To add an image to this drawing, click on **Edit** and select the **Images** tab.

The screen now displays additional options.



4. Click on “New”. A screen, similar to the following, now appears to the left:

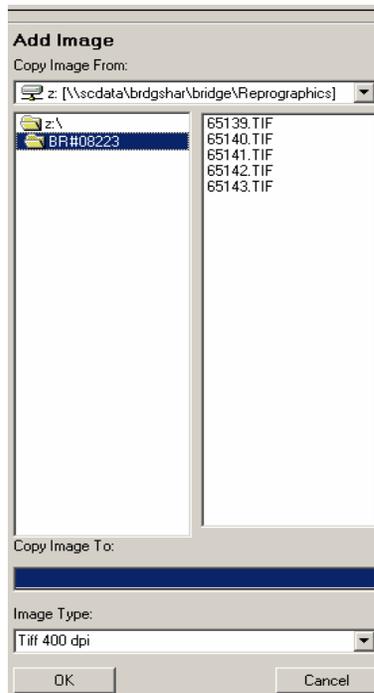


5. Using the pull down menu, select the appropriate drive that contains the images.

6. Continue selecting appropriate folders and sub-folders until the folder the images are stored in is highlighted.

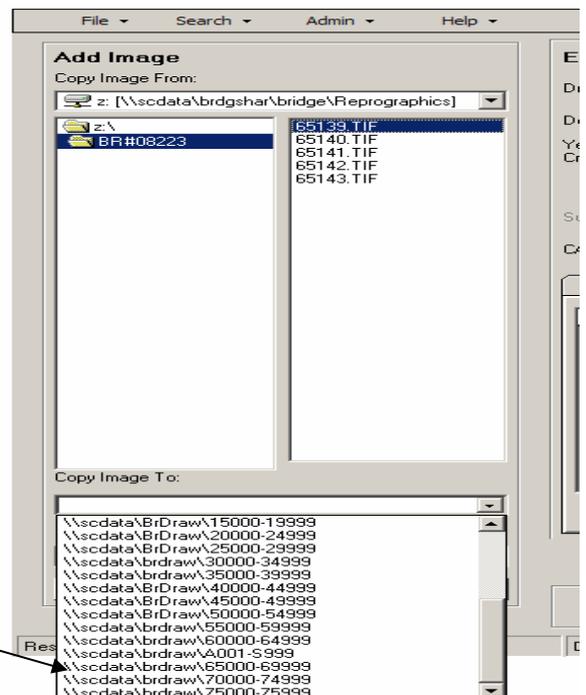
7. Double-click on that folder to display its contents to the right.

The screen should now look something like this:



8. Highlight the first drawing in the range by single-clicking on it.

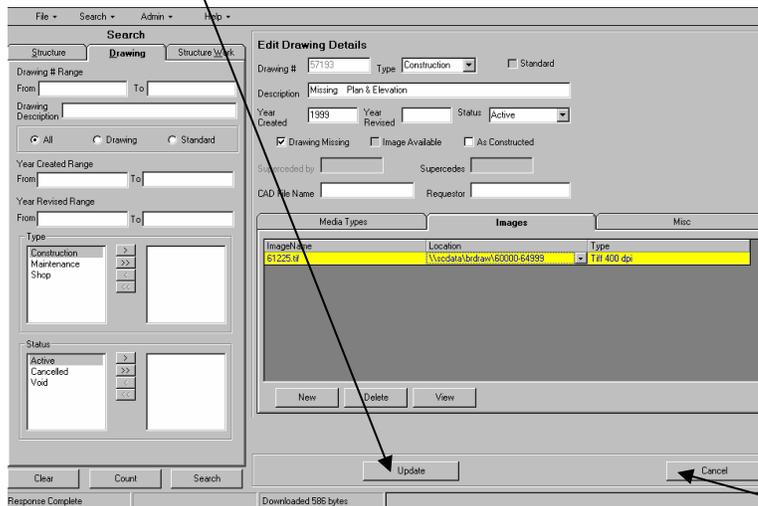
9. Click on the “Copy Image To” box to reveal a drop down menu. Select the appropriate number range. The appropriate range will be the one in which the image numerically resides.



For instance, drawing number 65139 would reside here, in the range “...65000-69999”:

The image will now be copied to an associate database, linking the image to the correct structure work for future electronic viewing and access.

10. The image type will default to Tiff 400 dpi, which is the preferred setting.
11. Click on “OK” to attach the image.
12. The new image data will appear on the right side of the screen, in the “**Images**” tab. Select “**Update**” at the bottom of the screen – only when everything has been verified:



If the “**Update**” button has not been activated, it is not too late to cancel and begin again if necessary. Repeat this process for each drawing.

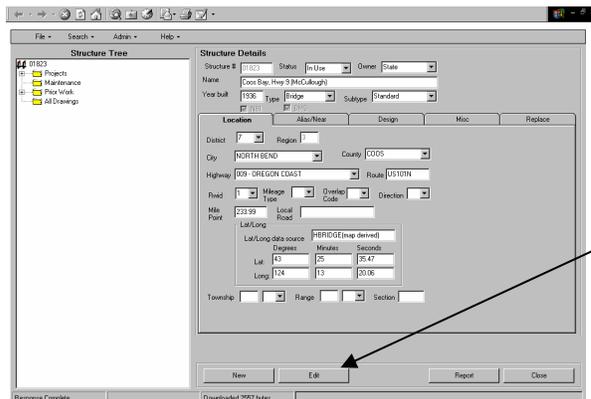
# CHAPTER 10: STEPS 6 TO 11 – EDIT OR UPDATE STRUCTURE, WORK, AND DRAWING DETAILS

## Section 10.1 – Edit Structure Details

---

Search for the structure and double-click on it. Refer to Part 1, Chapter 2.

Click Edit. Click on the corresponding details tab where edits or updates are necessary.

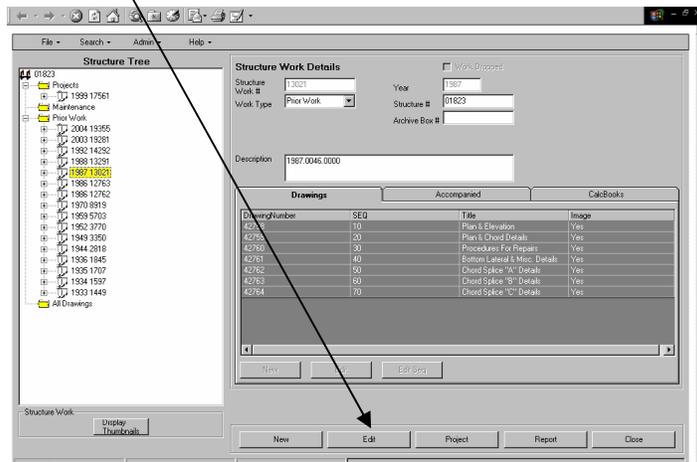


Make necessary changes and click “Update”. To print a report of the changes, click “Report” at the bottom of the screen.

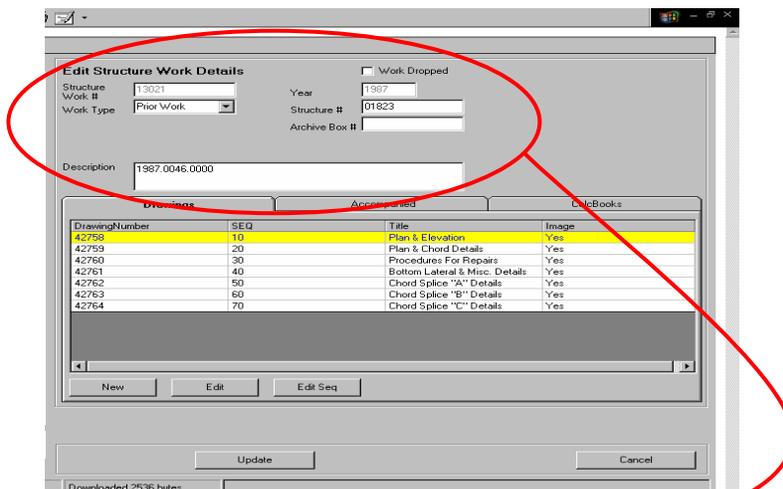
## Section 10.2 – Edit Work Details

Search for the structure and then the structure work. Refer to Part 1, Chapter 2.

Click Edit.



The following screen is now displayed on the right side of the screen:

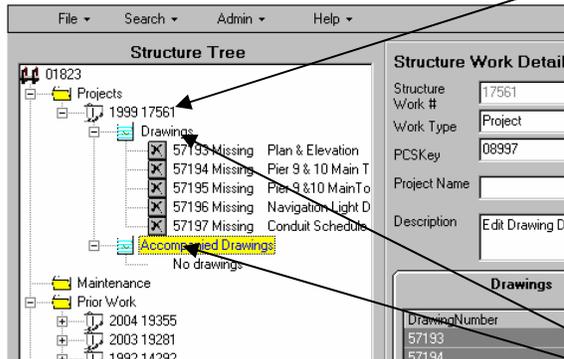


Edit the Structure Work Details only.

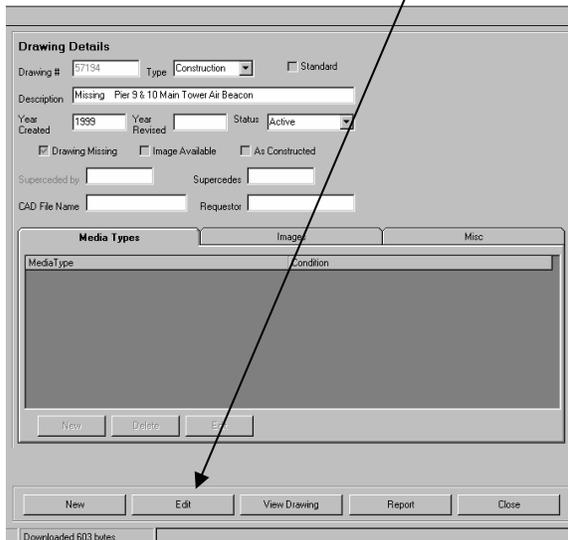
Click **Update** to finalize the changes.

## Section 10.3 – Edit Drawing Details

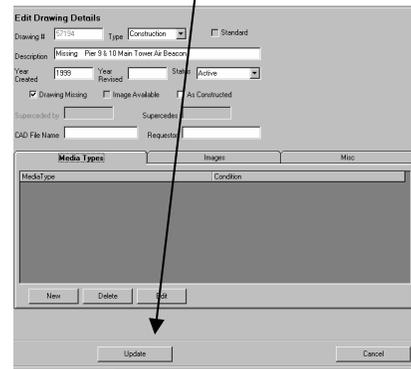
Search for the structure and then the structure work. Refer to Part 1, Chapter 2.



Expand the Drawings and Accompanied Drawings folders to view the drawings. Select the drawing that requires updates/edit by highlighting it. The following screen is displayed on the right. Click "Edit". Change drawing details as needed.



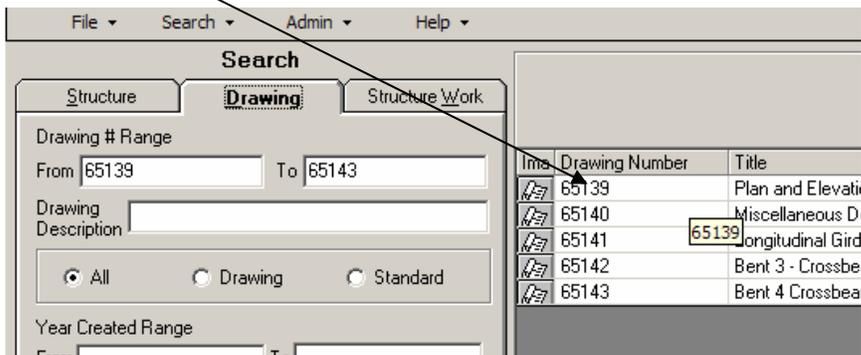
Then click "Update" to finalize the changes.



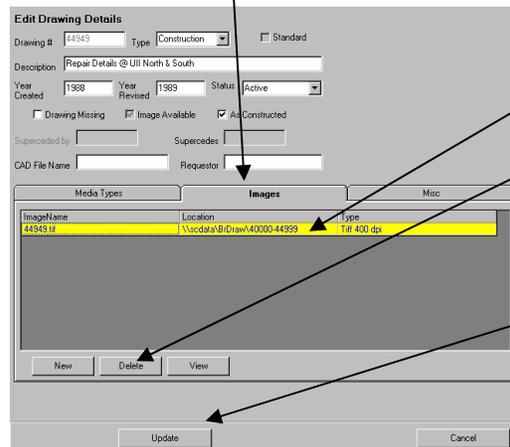
## Section 10.4 – Replace the Available Image

---

1. Search for the drawing number range of the drawing images that need to be uploaded. Select **“Drawing”** from the **“Search”** menu. Then enter the first drawing number in the range in the **“From”** field and the last drawing number in the range in the **“To”** field. Click on **“Search”** at the bottom of the screen. This will display the results to the right of the screen.
2. Double-click on the appropriate drawing:



The following screen will be displayed to the right:  
Click on the **Images** tab:



3. Highlight the image.
4. Click **“Delete”**. (View the image first to be absolutely sure this is the drawing that is to be replaced. Only when sure, click **“Delete”**)
5. Click **“Update”** to finalize the deletion.

Click "Edit" again:

The screenshot shows the 'Drawing Details' dialog box. At the top, there are fields for 'Drawing #', 'Type' (set to 'Construction'), and a 'Standard' checkbox. Below that is a 'Description' field containing 'Missing Plan Elevation'. The 'Year Created' is '1999', 'Year Revised' is empty, and 'Status' is 'Active'. There are checkboxes for 'Drawing Missing', 'Image Available', and 'As Constructed'. Below these are 'Superseded by' and 'Requestor' fields. The main area is a table with columns 'ImageName', 'Location', and 'Type'. At the bottom of the dialog are buttons for 'New', 'Edit', 'View Drawing', 'Report', and 'Close'. A black arrow points from the text 'Click "Edit" again:' to the 'Edit' button.

6. Finally, follow the procedure, as shown in Chapter 9, for adding the new image to this drawing number.

**Note:** *Replacing an image with an updated image should only be done when the drawing number is not changing.*

## PART TWO QUICK HITS

---

### Edit Drawing Details

---

#### By structure

1. Find Structure
2. Find Structure Work
3. Expand Drawings or Accompanied Drawing folder
4. Select appropriate drawing > Edit
5. Change details as needed > Update

#### By drawing number

1. Search > Drawing
2. Enter Drawing Number > Search
3. Edit
4. Change details as needed > Update

---

### Add New Structure

---

1. **New** > Structure
2. Enter all data > Update
3. Structure number will be provided. Click "Report" if desired.

## Add New Structure Work

---

1. **Search** > Structure
2. Enter Structure Number > Search
3. Double-click appropriate Structure
4. Expand the appropriate work type folder > Add Work
5. Enter all data > Update, OR – if getting drawing numbers at this time
6. Click New (Structure Work number now provided)
7. See “Add New Drawings” next paragraph, beginning at the fifth bullet.

## Add New Drawings

---

1. **Search** > Structure
2. Enter Structure Number > Search
3. Double-click appropriate Structure
4. Expand the appropriate work type folder
5. Highlight the appropriate structure work folder
6. Click Edit
7. Click New
8. Enter all data
9. Click New
10. Enter all data
11. Click Update
12. Drawing numbers will be provided. Click on “Report” if desired.

## Add New Images

---

1. Map to drive containing images
2. **Search** > Drawing
3. Enter drawing number range > Search
4. Double-click a drawing
5. Click Edit
6. Select "Images" tab
7. Click New
8. Find the folder the images are stored in
9. Find image and highlight
10. Copy image to appropriate range folder
11. Click OK
12. Click Update and wait for the record to update
13. Click Close
14. Double-click next drawing and repeat steps 5-13

## Replace an Image

---

1. Map to drive containing images
2. **Search** > Drawing
3. Enter drawing number range > Search
4. Double-click a drawing
5. Click Edit
6. Highlight the current image
7. Click Delete
8. Click Update
9. Click Edit
10. Click New
11. Find the folder the images are stored in
12. Find image and highlight
13. Copy image to appropriate range folder
14. Click OK
15. Click Update and wait for the record to update
16. Click Close

## Get Signed Mylars / As Constructs Imaged (Scanned)

---

1. Get drawing numbers
2. Gather required information and signed drawings
3. Fill out Work Request Form
4. Hand deliver or mail to Reprographics
5. Request an estimated time of completion > retrieve imaged drawings
6. Go to <\\scdata\brdgshar\bridge\reprographics> to retrieve electronic image
7. Upload image into the BDS System ([Chapter 7: Step 5 – Add images to the system](#))

# APPENDIX A: MANDATORY STRUCTURE DATA

## Mandatory System Requirements

The following data fields are required to process structure additions and/or changes:

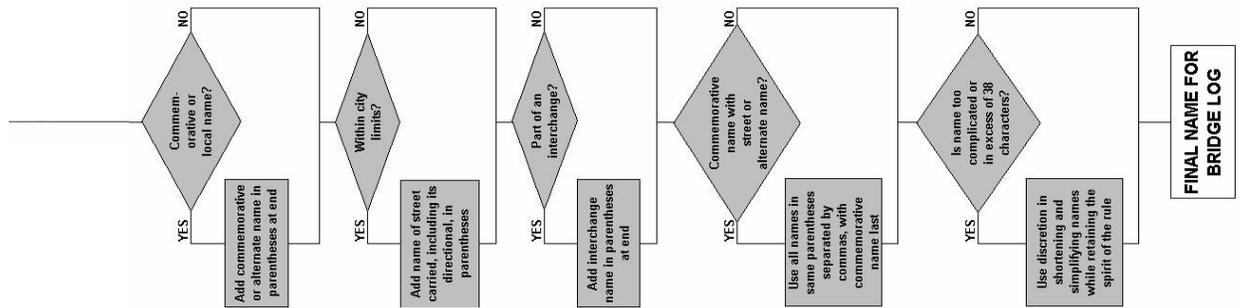
Required for adding NEW STRUCTURE

<i>Field</i>	<i>Mandatory...</i>
Structure Number	Mandatory (auto-assigned)
Type/Subtype	Mandatory
Status	Mandatory
Owner	Mandatory
City	Mandatory if owner is a City
County	Mandatory
Structure Name	Mandatory
Township, Range, Section	Mandatory if one of the three is specified
Region	Mandatory
District	Mandatory
Lat (Degrees Minutes, Seconds)	All mandatory if longitude is specified
Long (Degrees Minutes, Seconds)	All mandatory if longitude is specified

**APPENDIX B:  
BRIDGE NAMING  
CONVENTIONS**



# Bridge Naming Flow Chart, continued.



### Section 3.3: Bridge Naming Rules

Table color for “Rule” color coordinates with Flow Chart

#### Basic Rule

Rule	Examples	Notes on Examples
Keep the name simple, preferably less than 38 characters, always less than 50 characters.	SW Terwilliger Blvd over Hwy 1 & Ramps	<- <i>Not</i> “SW Terwilliger Blvd over Hwy 1 & SB Hwy 1 Ramp to SW Barbur Blvd & SW Bertha Blvd Ramp to NB Hwy 1 & SW Canby St”

#### Primary Rules

##### 1. WATER CROSSING RULE (“WATER, HWY” RULE)

(applies to bay crossings and stream crossing including culverts, except for nameless creeks)

Rule	Examples	Notes on Examples
<b>1A. Use the Feature Intersected (NBI Item 6) without the word “Bridge”, followed by a comma and the Facility Carried (NBI Item 7, generally the ODOT Highway Number).</b>	Yaquina Bay, Hwy 9	
<b>1B. If the bridge also crosses a highway or railroad, etc. indicate the secondary feature by adding a “+” sign to the main Feature Intersected.</b>	Willamette River +, Hwy 64 (George Abernethy)	<- The fact that this bridge also crosses Hwy 1E is indicated but not specifically mentioned. We could replace “+” with “etc.” in lists for public consumption.
<b>1C. If it carries a divided highway on separate structures, follow the feature intersected with a comma &amp; the roadway carried &amp; direction of traffic.</b>	Cow Creek, Hwy 1 NB	
<b>1D. If multiple creek crossings occur on the same highway, add “at” and the milepoint.</b>	Little Elk Creek, Hwy 33 at MP 25.44	

## 2. GRADE SEPARATION RULE ( "THIS OVER THAT" RULE )

(applies to road & railroad crossings, pedestrian & bikeway bridges & flumes, but not to freeway or connection ramps, viaducts & tunnels)

Rule	Examples	Notes on Examples
<b>2A. Use the form “Facility Carried (NBI Item 7) over Feature Intersected (NBI Item 6)”, ignoring any signed route number that may appear in either NBI field.</b>	Empire Ave over Hwy 4 Hwy 1 over Silverton Rd NE Pedestrian over Hwy 64 USRS Irrigation Flume over Hwy 20	
<b>2B. If either of the features is a divided highway, include traffic direction as appropriate.</b>	Hwy 1 NB over Hwy 51 SB	
<b>2C. If either of the features in the name is a city street, include directionals as appropriate.</b>	“D” Street NE over Hwy 1 NE Weidler St over Hwy 1	
<b>2D. If the bridge crosses more than one major feature, name each of them, separate them by “&amp;”.</b>	Hwy 1 over NE Hassalo St & NE Holladay St Hwy 1 SB over SPRR & County Road	
<b>2E. Where Rule 2 produces excessively long names, Bridge Operations personnel, in consultation with the RBI where questions arise, shall exercise direction in shortening and simplifying names (e.g. combining features) while retaining the spirit of the rule.</b>	SW Terwilliger Blvd over Hwy 1 & Ramps.	<-NOT “SW Terwilliger Blvd over Hwy 1 & SB Hwy 1 Ramp to SW Barbur Blvd & SW Bertha Blvd Ramp to NB Hwy 1 & SW Canby ST”

## 3. CONNECTION RULE ( "THIS TO THAT" RULE )

(applies to freeway & connection ramps)

Rule	Examples	Notes on Examples
<b>3A. Use the form “Origin Feature to Destination Feature”.</b>	Hwy 1 NB Ramp to Hwy 2 EB	
<b>3B. Use “Conn to” where the connection goes between two ODOT highways.</b>	Hwy 1 NB Conn to Hwy 2 EB	
<b>3C. Use “Ramp to” where the connection goes between a city street or county road and an ODOT highway.</b>	Hwy 1 NB Ramp to SW Terwilliger Blvd	
<b>3D. Where Rule 2 Conflicts with Rule 3 (bridge is both a grade separation and a connection), Bridge Operations personnel, in consultation with the RBI where questions arise, shall exercise discretion in shortening and simplifying names, giving precedence to Rule 2.</b>	County Rd Ramp over Hwy 2 Hwy 2 Ramps to Corbett Hill Rd	<-NOT “County Rd Ramp to WB Hwy 2 over Hwy 2”  <-NOT “EB Hwy 2 Ramp to Corbett Hill Rd & Corbett Hill Rd Ramp to EB Hwy 2”

4. TUNNEL & VIADUCT RULE  
(applies to tunnels & viaducts only)

Rule	Examples	Notes on Examples
<b>4A. Use the accepted tunnel name, followed by a comma and the ODOT Hwy number.</b>	Salt Creek Tunnel, Hwy 18	
<b>4B. Precede the Highway number by the traffic direction if a divided highway.</b>	Vista Ridge Tunnel, Hwy 47 EB  Tooth Rock Tunnel, Hwy 2 EB	<-Distinguishes this tunnel from WB Vista Ridge Tunnel  <-Because there is no WB Tooth Rock Tunnel
<b>4C. If the bridge has no definite Feature Intersected (NBI Item 6), use the accepted viaduct name, followed by a comma and the ODOT Hwy number.</b>	Elliot School Viaduct, Hwy 1	
<b>4D. If a viaduct has no accepted name, use the form "Viaduct, Hwy XXX at MP XXX.XX" or "Half-Viaduct, Hwy XXX at MP XXX.XX".</b>	Half Viaduct, Hwy 9 at MP 40.58	

## Secondary Rules

### 5. COMMEMORATIVE OR LOCAL NAME RULE (applies to all bridges except for nameless creeks)

Rule	Examples	Notes on Examples
<b>5A. If the bridge has a commemorative or historic name, add it in parentheses.</b>	Rock Creek, Hwy 9 (Ben Jones)	
	Siuslaw River, Hwy 9 (Florence)	
	Willamette River +, Hwy 64 (George Abernethy)	
	Hwy 2 over UPRR (Cereghino)	
	Hwy 9 over Pedestrian Pass (Spanish Head)	
<b>5B. If the bridge occurs within a city, add the name of the carried street, including its directional, in parentheses.</b>	Shelton Ditch, Hwy 72 (12 <sup>th</sup> St)	
	Hwy 1E (NE MLK Blvd) over SPRR & Division St (Paulson Viaduct)  Ped Bridge (SE Salmon St) over Hwy 64	
<b>5C. If the feature intersected has an alternate name, add the alternate name in parentheses.</b>	Abiqua Creek O'flow, Hwy 160 (Evans Creek)	
<b>5D. If the bridge has a commemorative name and an alternate name or occurs within a city, add all names in parentheses separated by comma(s), with the commemorative name given last.</b>	Rogue River, Hwy 25 (Grants Pass, Caveman)	
<b>5E. If the bridge has an interchange name, include it in parentheses.</b>	Hwy 6 EB over Hwy 2 (Irrigon Jct Intchg)	
<b>5F. If the bridge is not on the right-of-way, indicate it's location by "Rt.", "Frontage Rd Rt". "Lt" or "Frontage Rd St" as appropriate after the name.</b>	Dean Creek, Hwy 1 Frontage Rd Rt.	

## 6. NAMELESS RULE

(applies to creeks, non-vehicular underpasses & retaining walls with no name)

Rule	Examples	Notes on Examples
<b>6A. If creek or irrigation ditch has no name, use the form “Creek, Hwy XXX at MP XXX.XX”, or “Irrigation Ditch, Hwy XXX at MP XXX.XX”, or “Culvert, Hwy XXX at MP XXX.XX if the structure is a culvert.</b>	<b>Creek, Hwy 7 at MP 34.45</b>  <b>Culvert, Hwy 9 at MP 12.43</b>	
<b>6B. If a nameless cattlepass or equipment pass, use the form “Cattlepass, Hwy XXX at MP XXX.XX”.</b>	<b>Cattlepass, Hwy 4 at MP 65.99</b>	
<b>6C. If a retaining wall, use the form “Retaining Wall, Hwy XXX at MP XXX.XX, Dir.” Where MP is the lowest milepoint where the wall is first encountered, and “Dir.” is “Left” or “Right” relative to looking toward the increasing milepoint. Where applicable, add the locally accepted wall name in parentheses.</b>	<b>Retaining Wall, Hwy 9 at MP 55.92, Left</b>  <b>Retaining Wall, Hwy 47 at MP 71.32 Right (Sylvan Wall)</b>	

## 7. PROHIBITIONS

(applies to all bridges)

Rule	Examples	Notes on Examples
<b>7A. If the bridge is county or city owned, do not put (“County”) or (“City”) in the name.</b>	SE Yamhill St over Hwy 1	<-NOT “SE Yamhill St (County Br) over Hwy 1”
<b>7B. If a border bridge is owned by Washington state, add “(Owned by WSDOT)”.</b>	Columbia River, Hwy 70 EB (Umatilla) (Owned by WSDOT)	<-NOT “Columbia River, EB Hwy 70 (Umatilla)”
<b>7C. Do not use the word “Bridge”.</b>	Rocky Creek, Hwy 9 (Ben Jones)  Yaquina Bay, Hwy 9	<-NOT “Rocky Creek (Ben Jones) Bridge”, and NOT “Rocky Creek (Ben Jones Bridge)”  <-NOT “Yaquina Bay Bridge, Hwy 9”
<b>7D. Do not use the word “Culvert” except as outlined in Rule 6A.</b>	Austin Creek, Hwy 33	<NOT “Austin Creek Culvert, Hwy 33”
<b>7E. Do not use the word “U’xing”.</b>	Quinaby Rd NE over Hwy 1	<-NOT “Uxing Quinaby Rd NE”
<b>7F. Do not use the word “O’xing”.</b>	Hwy 1 over Neil Creek Rd	<-NOT “Oxing Neil Creek Rd”

# INDEX

<p>Accessing structure data ..... 7</p> <p>Accessing the Bridge Data System ..... 5</p> <p>Accompanied drawing ..... 47</p> <p>Accompanied drawings folder, structure work tree. 20</p> <p>Add new</p> <p style="padding-left: 20px;">drawing ..... 16</p> <p>Add structure work</p> <p style="padding-left: 20px;">all work ..... 14, 15, 18, 22, 45</p> <p style="padding-left: 20px;">maintenance work ..... 46</p> <p style="padding-left: 20px;">project work ..... 46</p> <p style="padding-left: 20px;">when project work type is selected ..... 44</p> <p><b>Alias name, definition</b> ..... 39</p> <p><b>Alias number, definition</b> ..... 39</p> <p>All drawings, structure tree ..... 16</p> <p>Archive box number, <i>definition</i> ..... 45</p> <p>Bay crossings, bridge naming ..... 70</p> <p><b>BMS, definition</b> ..... 36</p> <p>Bridge Data System</p> <p style="padding-left: 20px;">accessing ..... 5</p> <p style="padding-left: 20px;">overview .... 5, 8, 12, 13, 23, 24, 26, 35, 42, 43, 45, 47, 48, 50, 53, 57, 58, 59</p> <p style="padding-left: 20px;">system administrators ..... 5</p> <p>Bridge Naming Flow Chart ..... 68</p> <p><b>Bridge Naming Rules</b> ..... 70</p> <p style="padding-left: 20px;">all bridges ..... 73, 74</p> <p style="padding-left: 20px;"><b>basic rule</b> ..... 70</p> <p style="padding-left: 20px;">connection ramps ..... 71</p> <p style="padding-left: 20px;">creeks ..... 74</p> <p style="padding-left: 20px;">freeway ramps ..... 71</p> <p style="padding-left: 20px;">non-vehicular underpasses ..... 74</p> <p style="padding-left: 20px;">pedestrian and bikeway bridges and flumes ..... 71</p> <p style="padding-left: 20px;">railroad ..... 71</p> <p style="padding-left: 20px;">retaining walls ..... 74</p> <p style="padding-left: 20px;">road ..... 71</p> <p style="padding-left: 20px;"><b>secondary rules</b> ..... 73</p> <p style="padding-left: 20px;">tunnels ..... 72</p> <p style="padding-left: 20px;">viaducts ..... 72</p> <p style="padding-left: 20px;">water crossing ..... 70</p> <p>CAD file name, <i>definition</i> ..... 50</p> <p><b>City</b></p>	<p style="padding-left: 20px;"><b>definition</b> ..... 37</p> <p style="padding-left: 40px;">new structure mandate ..... 66</p> <p>Commemorative, bridge naming ..... 73</p> <p><b>Comments, definition</b> ..... 41</p> <p>Common data entry fields, drawings ..... 49</p> <p style="padding-left: 20px;"><i>illustration</i> ..... 49</p> <p><b>Configuration</b></p> <p style="padding-left: 20px;"><b>definition</b> ..... 40</p> <p>Connection ramps, bridge naming ..... 71</p> <p><b>County</b></p> <p style="padding-left: 20px;"><b>definition</b> ..... 37</p> <p style="padding-left: 40px;">new structure mandate ..... 66</p> <p>Creeks, bridge naming ..... 74</p> <p>Culverts, bridge naming ..... 70</p> <p>Data, accessing ..... 7</p> <p>Description</p> <p style="padding-left: 20px;">drawing data ..... 50</p> <p style="padding-left: 20px;">drawing details ..... 49</p> <p style="padding-left: 20px;">structure work data ..... 45</p> <p><b>Direction</b></p> <p style="padding-left: 20px;"><b>definition</b> ..... 38</p> <p style="padding-left: 20px;"><b>landmark</b> ..... 39</p> <p><b>District</b></p> <p style="padding-left: 20px;"><b>definition</b> ..... 37</p> <p style="padding-left: 40px;">new structure mandate ..... 66</p> <p>Drawing</p> <p style="padding-left: 20px;">accompanied ..... 47</p> <p style="padding-left: 20px;">description ..... 49</p> <p style="padding-left: 20px;">numerical sequence ..... 50</p> <p>Drawing details</p> <p style="padding-left: 20px;">CAD file name ..... 50</p> <p style="padding-left: 20px;">description ..... 50</p> <p style="padding-left: 20px;">requestor ..... 50</p> <p style="padding-left: 20px;">year created ..... 50</p> <p>Drawing number</p> <p style="padding-left: 20px;">use common data checkbox ..... 49</p> <p>Drawings folder</p> <p style="padding-left: 20px;">structure work tree ..... 20</p> <p>Find</p> <p style="padding-left: 20px;">drawing ..... 17, 20</p>
--	--

structure .....	13, 17, 21	Retaining walls, bridge naming .....	74
structure work .....	20	Road crossing, bridge naming .....	71
Freeway ramps, bridge naming .....	71	<b>Roadway ID (Rwid)</b>	
Grade separation, bridge naming .....	71	<b>definition</b> .....	37
<b>Highway, definition</b> .....	37	<b>Route, definition</b> .....	37
<b>Landmark</b>		Searching	
<b>definition</b> .....	39	structure .....	13, 17, 21
<b>direction</b> .....	39	<b>Section</b>	
<b>type</b> .....	39	<b>definition</b> .....	38
<b>Lat/Long data source, definition</b> .....	38	new structure mandate .....	66
<b>Latitude</b> .....	38	Sequence, <i>drawing numbers</i> .....	50
new structure mandate .....	66	Shortcut, desktop .....	5
<b>Length</b>		<b>Span type, definition</b> .....	40
<b>definition</b> .....	40	<b>Status</b>	
<b>span</b> .....	40	<b>structure details</b>	
<b>Local road, definition</b> .....	38	<b>definition</b> .....	35
Local, bridge naming .....	73	new structure mandate .....	66
<b>Longitude</b> .....	38	Stream crossing, bridge naming .....	70
new structure mandate .....	66	Structure	
<b>Main, definition</b> .....	40	find .....	13, 17, 21
Maintenance		Structure details	
number .....	46	<b>alias/near data</b>	
structure tree .....	16	<b>alias name</b> .....	39
Mandatory System Requirements		<b>alias number</b> .....	39
adding a new structure .....	66	<b>landmark</b> .....	39
<b>Mileage type, definition</b> .....	38	<b>direction</b> .....	39
<b>Milepoint, definition</b> .....	38	<b>type</b> .....	39
<b>Miles from</b>		<b>miles from, definition</b> .....	39
<b>definition</b> .....	39	<b>design data</b>	
<b>landmark</b> .....	39	<b>configuration</b> .....	40
<b>Name</b>		<b>length</b> .....	40
<b>definition</b> .....	35	<b>main</b> .....	40
new structure mandate .....	66	<b>overall structure length</b> .....	40
<b>NBI, definition</b> .....	36	<b>qty</b> .....	40
Non-vehicular underpasses, bridge naming .....	74	<b>Span type</b> .....	40
<b>Overall structure length</b> .....	40	<b>total number of spans</b> .....	40
<b>Overlap code, definition</b> .....	38	general (common) data .....	35
<b>Owner</b>		<b>BMS</b> .....	36
<b>definition</b> .....	35	<b>name</b> .....	35
new structure mandate .....	66	<b>NBI</b> .....	36
PCSKey, <i>definition</i> .....	46	<b>owner</b> .....	35
Pedestrian and bikeway bridges and flumes, bridge		<b>status</b> .....	35
naming .....	71	<b>sub-type</b> .....	36
Prior work		<b>type</b> .....	35
structure tree .....	16	<b>year built</b> .....	35
Project name, <i>definition</i> .....	46	<b>location data</b>	
Projects, structure tree .....	16	<b>city</b> .....	37
<b>Qty, definition</b> .....	40	<b>county</b> .....	37
Railroad crossings, bridge naming .....	71	<b>direction</b> .....	38
<b>Range</b>		<b>district</b> .....	37
<b>definition</b> .....	38	<b>highway</b> .....	37
new structure mandate .....	66	<b>lat/long data source</b> .....	38
<b>Record created, definition</b> .....	41	<b>latitude</b> .....	38
<b>Region</b>		<b>local road</b> .....	38
<b>definition</b> .....	37	<b>longitude</b> .....	38
new structure mandate .....	66	<b>mileage type</b> .....	38
<b>Replaced by structure number, definition</b> .....	41	<b>milepoint</b> .....	38
<b>Replaces structure number, definition</b> .....	41	<b>overlap code</b> .....	38
<b>Representative image, definition</b> .....	41	<b>range</b> .....	38
Requestor, <i>definition</i> .....	50	<b>region</b> .....	37
Response complete .....	5	<b>roadway ID (Rwid)</b> .....	37

<b>route</b> .....	37	Structure work number	
<b>section</b> .....	38	<i>definition</i> .....	45
<b>misc data</b>		<b>Sub-type, structure details, <i>definition</i></b> .....	36
<b>comments</b> .....	41	Symbol, image available .....	16, 20
<b>record created</b> .....	41	Symbol, no image available.....	16, 20
<b>representative image</b> .....	41	System Administrators .....	5
<b>replace data</b>		TABLE OF CONTENTS .....	2
<b>replaced by structure number</b> .....	41	<b>Total span count</b>	
<b>replaces structure number</b> .....	41	<b>definition</b> .....	40
Structure name		<b>Township</b>	
new structure mandate .....	66	<b>definition</b> .....	38
Structure tree		new structure mandate .....	66
accompanied drawings folder .....	20	Troubleshooting	
all drawings.....	16	<i>Add Structure Work Details</i> screen changes .....	44
drawings folder .....	20	Tunnels, bridge naming .....	72
maintenance .....	16	<b>Type</b>	
prior work .....	16	<b>landmark</b> .....	39
projects .....	16	<b>structure details, <i>definition</i></b> .....	35
Structure work		Type/Subtype, new structure mandate.....	66
accompanied drawings folder .....	20	Update, <i>screen option</i> .....	50
archive box number .....	45	Viaducts, bridge naming.....	72
description .....	45	Water crossing, bridge naming .....	70
drawings folder .....	20	Work dropped, <i>definition</i> .....	45
maintenance number .....	46	Work type folder, <i>illustration</i> .....	53
PCSKey .....	46	Work type, structure work data, <i>definition</i> .....	45
project name .....	46	<b>Year built</b>	
structure work number .....	45	<b>definition</b> .....	35
work dropped.....	45	Year created, <i>definition</i> .....	50
work type .....	45	Year, structure work data, <i>definition</i> .....	45
year .....	45		