



Using the MSU Standards for Construction and Operational Drawings for IPF Projects.

This manual will provide step-by-step instructions for using the MSU Standards for Construction and Operational Drawings in Meridian to create project specifications and drawing sets for Infrastructure Planning and Facilities on the campus of Michigan State University.

The screenshot shows the Meridian Document Management System interface. The left pane displays a file tree structure under 'MSU:AS01/Main area'. The right pane shows a table with columns: Name, To-Do Person, MSU File Name, Original File Name, and Description.

Name	To-Do Person	MSU File Name	Original File Name	Description
CONSTRUCTION STANDARD				
DESIGN GUIDELINES				
FRONT END DOCUMENTS				
OBSOLETE				
PRIVATE				
PUBLIC				
CS_FED_C200_CONSENSUSDOCS_200.docx				CONSENSUSDOCS 200
CS_FED_C200_CONSENSUSDOCS_200.PDF				CONSENSUSDOCS 200
CS_FED_FED_FRONT_END_DOCUMENT_-_ALL_PROJE.doc				FRONT END DOCUMENT - ALL PROJECT TYPES
CS_FED_FED_FRONT_END_DOCUMENT_-_ALL_PROJE.PDF				FRONT END DOCUMENT - ALL PROJECT TYPES
CS_FED_PREVWAGE_PREVAILING_WAGE.docx				PREVAILING WAGE
CS_FED_PREVWAGE_PREVAILING_WAGE.PDF				PREVAILING WAGE
STANDARD DETAILS				
TECHNICAL STANDARDS				
CONSTRUCTION STANDARD - WIP				
FACILITIES DATA REPORTS				
FACILITIES PHOTOS				
FORMS, POLICIES, REFERENCES AND PROCEDURES				
OPERATIONAL DRAWING				
BASE FLOOR PLAN				
OBSOLETE				
PRIVATE				
PUBLIC				
0001				
0002				
O_0002_01_BASE.dwg				
O_0002_01_BASE.pdf				
O_0002_02_BASE.dwg				
O_0002_02_BASE.pdf				
O_0002_03_BASE.dwg				
O_0002_03_BASE.pdf				
O_0002_04_BASE.dwg				
O_0002_04_BASE.pdf				
O_0002_A_BASE.dwg				
O_0002_A_BASE.pdf				
O_0002_B_BASE.dwg				
O_0002_B_BASE.pdf				
O_0002_R_BASE.dwg				
O_0002_R_BASE.pdf				
O_0002_S8_BASE.dwg				
O_0002_S8_BASE.pdf				
0003				
0003A				
0003B				
0005				
0006				
0008				
0009				
0011				
0012				
0013				
0014				

MICHIGAN STATE UNIVERSITY

Infrastructure Planning & Facilities
Facilities Information Services
1147 Chestnut Rd. Room 101
Michigan State University
East Lansing, MI 48824-1215

For Assistance contact :
FIS Support
(517) 353-3434
fissupport@ipf.msu.edu
fissupport.ipf.msu.edu

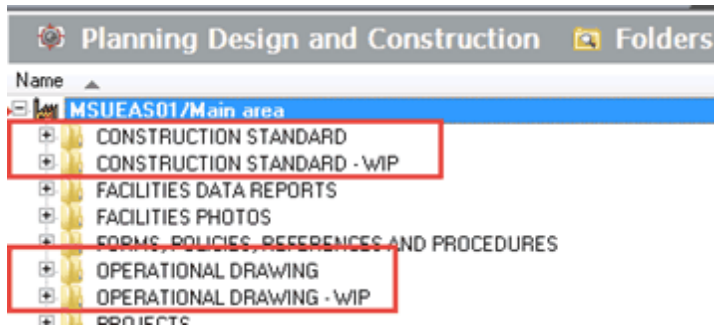
March 2, 2018

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1 Main vs. WIP (Work-In-Progress)

- There are now two folders for Construction Standards and two folders for Operational Drawings in the Operational Vault of Meridian. The WIP (Work-In-Progress) folder is a copy of the Main folder. Users with permissions will work on the copy of the file in WIP, then replace the original document content with the modified version when they are finished.



- The **Construction Standard** folder contains the published, released versions of the Standards for Construction used for MSU.
 - The files from this folder are published to the IPF website and are also available in Meridian Explorer.
 - These files are the most current, released versions that should be used for creating project specifications.
- The **Construction Standard - WIP** folder is where the CS Stewards can add new standards and modify existing construction standard files.
 - The (WIP) folder allows the editors to make changes to a document without those changes being available to the general users until they are finished.
 - While the document is in the WIP folder, the previous version of that document will still be available for use in Meridian and on the IPF website. Changes will not appear on the website until they are completed and released back into the Construction Standard folder.
- The **Operational Drawing** folder contains the published, released versions of the Operational Drawings used for MSU.
 - The files from this folder are published to the IPF website, are available in Meridian Explorer and also published to other network drives.
 - These files are the most current, released versions.
- The **Operational Drawing - WIP** folder is a where the FIS CAD staff can add new floor plans and modify existing floor plan files.
 - The (WIP) folder allows the editors to make changes to a document without those changes being available to the general users until they are finished.
 - While the document is in the WIP folder, the previous version of that document will still be available for use in Meridian and any other place they are displayed. Changes will not appear until they are completed and released back into the Operational Drawing folder.

1.1 Permissions

Viewers - Any user with a Meridian account can view the MSU Standards for Construction and Operational Drawings.. Users that use the Operational Projects area of Meridian can copy these files into their project folders and use them to make project specifications and drawings.

Construction Standard Stewards (CS Stewards) - A select group of full time staff members that have access to modify and release the MSU Standards for Construction in Meridian.

Construction Standard Editors - A select group of staff members that have permissions to modify the MSU Construction Standards and Standard Details, but cannot release them for use. The files modified by CS Editors have to be reviewed and approved by CS Stewards.

Operational Drawing Admin - The FIS CAD manager has access to add, modify and release the Operational Drawings in Meridian.

Operational Drawing Editors - FIS CAD staff members have permissions to add and modify the Operational Drawings, but cannot release them for use. The files modified by the Operational Drawing Editors have to be reviewed and approved by the Operational Drawing Admin.

1.2 'Main - WIP' Columns and Folders

Because of the Work In Progress (WIP) notion in Meridian (Construction Standard - WIP and Operational Drawing - WIP), the Nav views may now have an additional workflow folder level displayed or may appear to display duplicates of each file.

To alleviate confusion, here are some explanations:

'Main - WIP' Column View:

If it seems there are two of the same file in Meridian, check the '**Main - WIP**' column. This will tell you which version of the file you are looking at.

- The **Main** version will be the version of the file that will be used by Meridian viewers and Operational Projects staff.
 - It will also be published on the web and seen by Meridian Explorer users.
 - Once a change is being made, the Main - WIP columns and Status column will let users know what part of the workflow the file is in.
- The **WIP** version will be the one that can be modified. Do not use this file for your projects.

Name	Main - WIP	Status
Construction Standards - Technical Standards		
2 GENERAL REQUIREMENTS SUBGROUP		
3 FACILITY CONSTRUCTION SUBGROUP		
4 FACILITIES SERVICES SUBGROUP		
5 SITE AND INFRASTRUCTURE SUBGROUP		
31-EARTHWORK		
32-EXTERIOR IMPROVEMENTS		
33-UTILITIES		
35-WATERWAY AND MARINE CONSTRUCTION		
CS_TEC_2004_350001_FLOODED_ROADS.docx	WIP	
CS_TEC_2004_350001_FLOODED_ROADS.docx	Main	
CS_TEC_2004_350001_FLOODED_ROADS.pdf	WIP	
CS_TEC_2004_350001_FLOODED_ROADS.pdf	Main	

Important takeaway!!!!



If the folder or column starts with:

- **Main** - use that for your projects.
- **WIP** - do not use those files for your projects.

'Main - WIP' Folder View:

These folders will allow users to see which files are currently in a workflow process and what the status of those changes are.

- **Main** - the published, approved files that are not being worked on. If the file you are looking for isn't there, it is in the 'Main - WIP is in Workflow' folder. Use this file for your projects.
- **Main - WIP is in Workflow** - the file is being worked on in the WIP folder and is in a workflow process. The file in the 'Main - WIP is in Workflow' folder is the published version. Use this file for your projects.
- **WIP** - the copy of the file that is being worked on and in a workflow. Do NOT use this file for your projects.

Name	Main - WIP	Status	Doc SubClass	CSI Sub E
Construction Standards - All				
DESIGN GUIDELINES				
FRONT END DOCUMENTS				
STANDARD DETAILS				
TECHNICAL STANDARDS				
Main				
Main - WIP is in Workflow				
CS_TEC_2004_350001_FLOODED_ROADS.docx	Main - WIP is in Wor...	Main Released	TECHNICAL STAND...	350001-F
CS_TEC_2004_350001_FLOODED_ROADS.pdf	Main - WIP is in Wor...	Main Released	TECHNICAL STAND...	350001-F
WIP				
CS_TEC_2004_336315_PIPING_SPECIALTIES_FOR_STEAM_UTILITY_DISTRI...	WIP	WIP Released	TECHNICAL STAND...	336315-PI
CS_TEC_2004_336320_STEAM_AND_CONDENSATE_UTILITY_DISTRIBUTIO...	WIP	WIP Released	TECHNICAL STAND...	336320-S*
CS_TEC_2004_336320_STEAM_AND_CONDENSATE_UTILITY_DISTRIBUTIO...	WIP	WIP Released	TECHNICAL STAND...	336320-S*
CS_TEC_2004_336321_DIRECT_BURIED_STEAM_AND_CONDENSATE_UTIL...	WIP	WIP Released	TECHNICAL STAND...	336321-DI
CS_TEC_2004_336321_DIRECT_BURIED_STEAM_AND_CONDENSATE_UTIL...	WIP	WIP Released	TECHNICAL STAND...	336321-DI
CS_TEC_2004_337119_ELECTRICAL_UNDERGROUND_DUCTS_AND_MANH...	WIP	WIP Released	TECHNICAL STAND...	337119-EI
CS_TEC_2004_337119_ELECTRICAL_UNDERGROUND_DUCTS_AND_MANH...	WIP	WIP Released	TECHNICAL STAND...	337119-EI
CS_TEC_2004_350001_FLOODED_ROADS.docx	WIP	Pending Review and Release	TECHNICAL STAND...	350001-FL
CS_TEC_2004_350001_FLOODED_ROADS.pdf	WIP	Pending Review and Release	TECHNICAL STAND...	350001-FL

Important takeaway!!!!

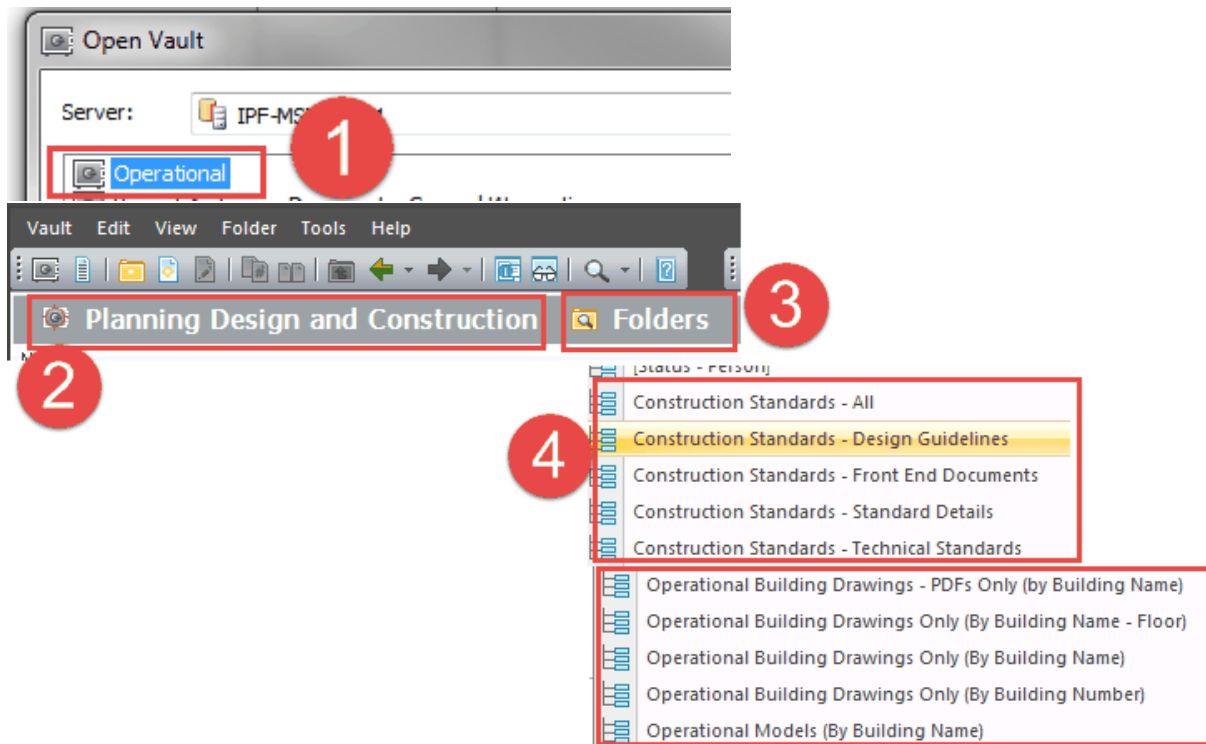


If the folder or column starts with:

- **Main** - use that for your projects.
- **WIP** - do not use those files for your projects.

1.3 Accessing the files

1. Open the 'Operational Vault' in Meridian
2. Navigate to the Scope that best represents the department or crew you work for if you are not already in one.
3. Click on the 'Folders' view
4. Select the Nav view that gets you to what you need.



Important takeaway!!!!



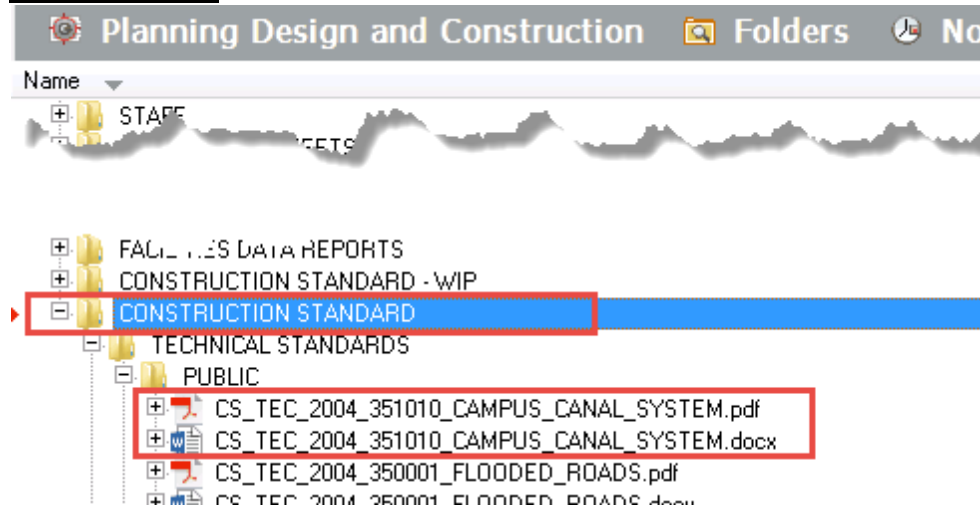
If the folder or column starts with:

- **Main** - use that for your projects.
- **WIP** - do not use those files for your projects.

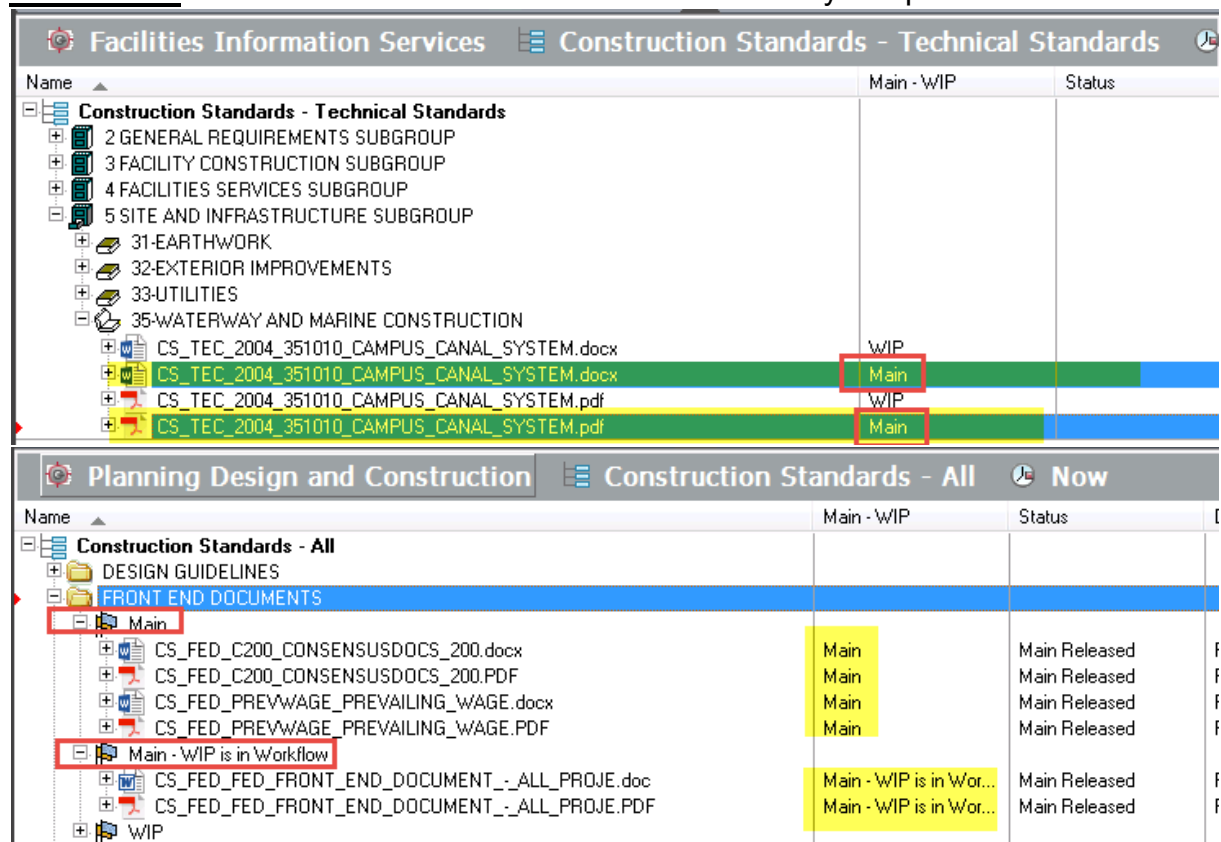
2 Creating a Project Specification

Only use the **CONSTRUCTION STANDARD (Main)** folder. Do not use the WIP folder if you can see it.

Folders View:



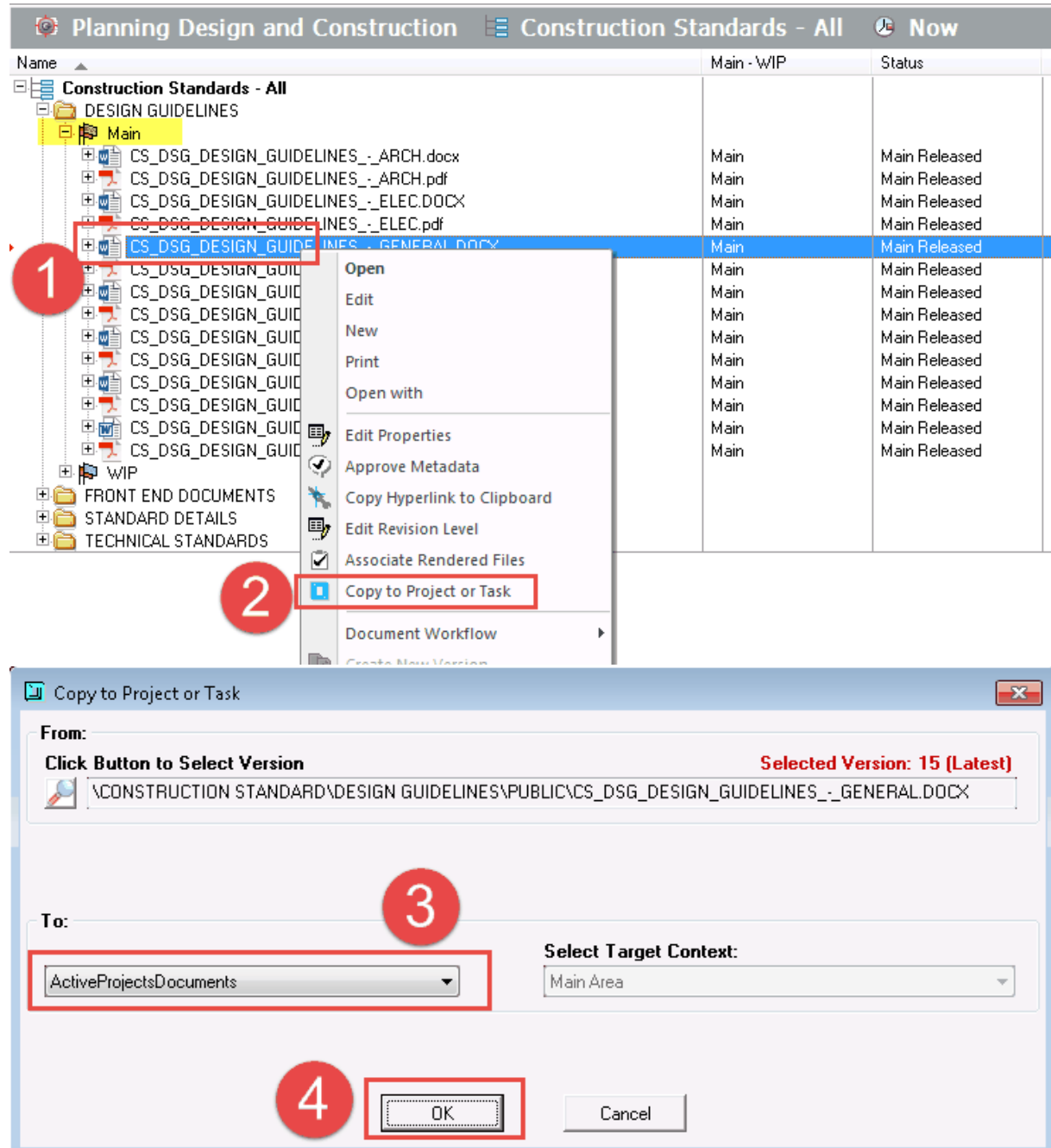
Nav Views: Use the file that is marked as 'Main' to create your specification.



2.1 Copy to Project or Task

To add the Construction Standard to your project and create the specification, you will use the 'Copy to Project or Task' feature.

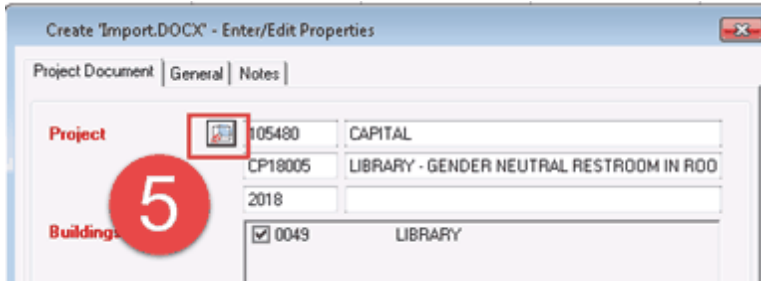
1. Right click on the file from the Main folder.
2. Select 'Copy to Project or Task'.
3. Verify the 'To:' is going to 'ActiveProjectDocuments'.
4. Click 'OK'.



2.2 Describe the file

When the Wizard appears, fill it in:

5. Use the magnifying glass icon to select the Project.



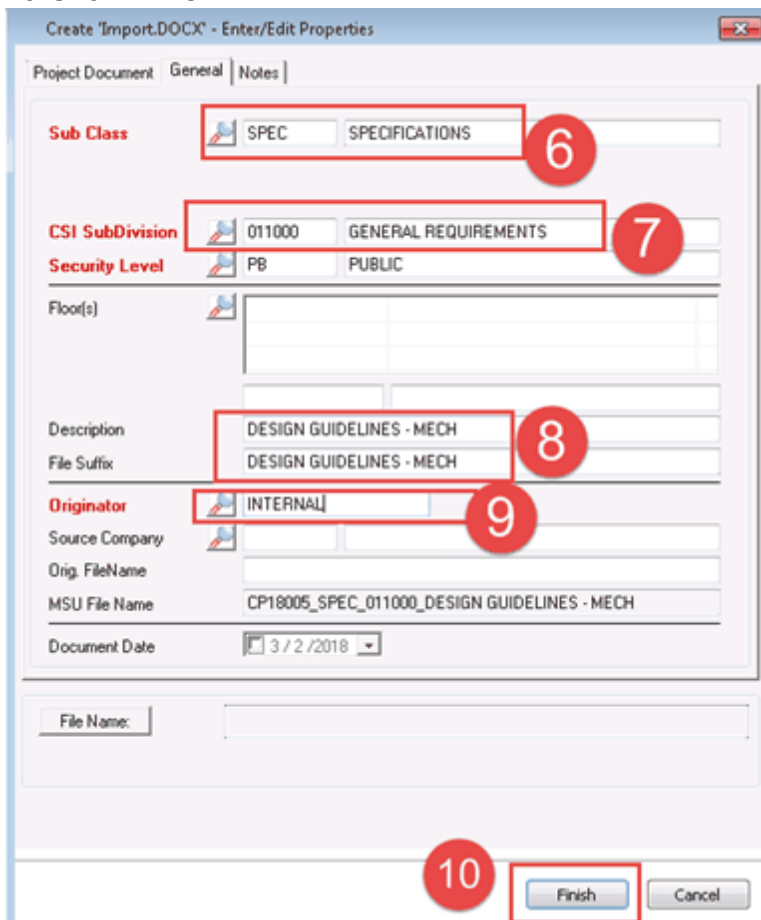
6. On the 'General' tab, fill in the Sub Class as 'SPECIFICATIONS'.

7. Select the correct CSI SubDivision. If the subdivision isn't in the list, you can create one specific to the project you selected (see instructions).

8. The description should have auto-populated. If file suffix is not filled in, click in the description field and click the right arrow on the keyboard.

9. Select 'INTERNAL' for the originator.

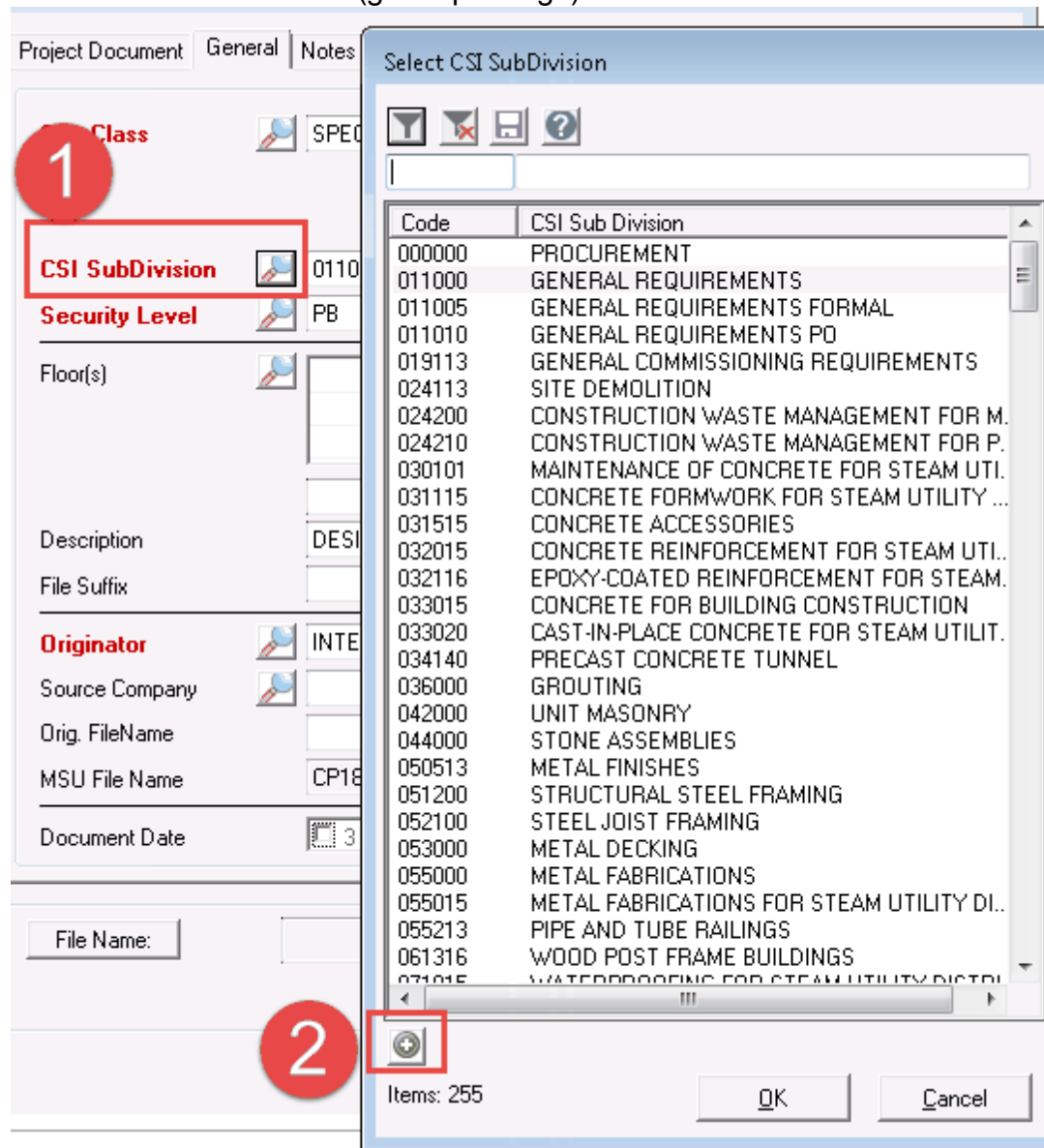
10. Click 'Finish'.



2.2.1 Create CSI Subdivision

If the CSI SubDivision you need isn't in the list, you have the ability to create it for this project. When you do this, it will NOT appear in the Standards for Construction, it will only be available for this specific project in Meridian.

1. Open the CSI SubDivision list of values.
2. Click on the add button (green plus sign).



3. Fill in a valid SubDivision Code.
4. Fill in a valid Sub Division description.
5. Click 'OK'.

Add

Add CSI SubDivision

Record ID 105480

SubDivision Code 353000

Sub Division DOCKS

OK Cancel

6. Your CSI SubDivision addition will now be available to select for this project only.
7. Click 'OK'.

Select CSI SubDivision

353000

Code	CSI Sub Division
353000	DOCKS

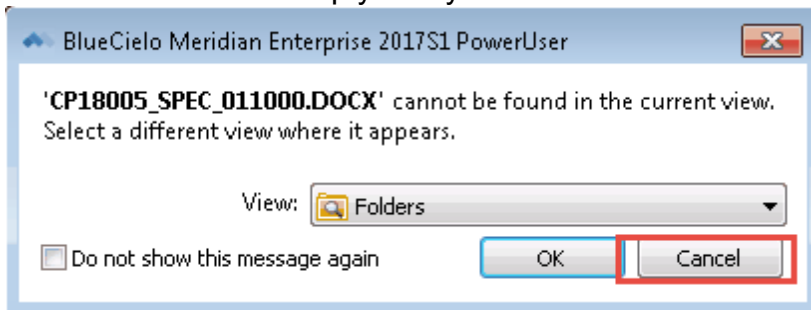
Items: 1

OK Cancel

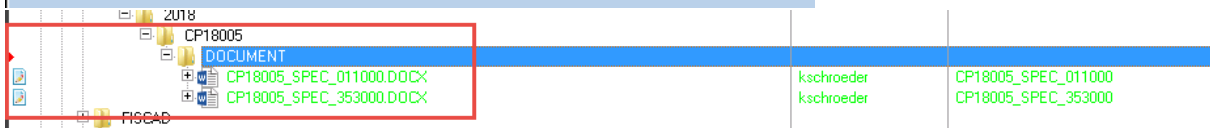
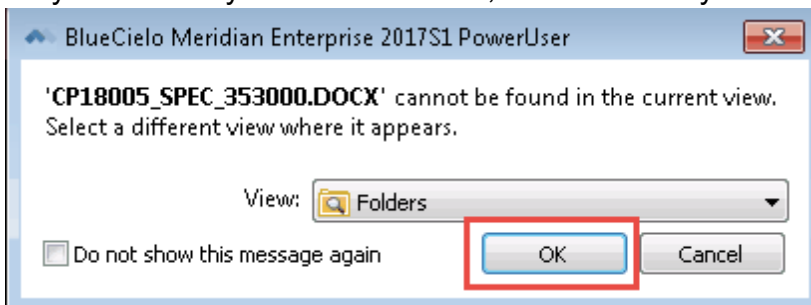
2.3 Work on Project Specification

After you finish describing the file, Meridian will want to take you to the file so you can work on it.

- If you are not ready to work on it and want to copy more standards to your project, click 'Cancel'. This will keep you in your current Nav View and you can repeat the process.



- If you are ready to work on the file, click 'OK' and you will be taken to the project file.

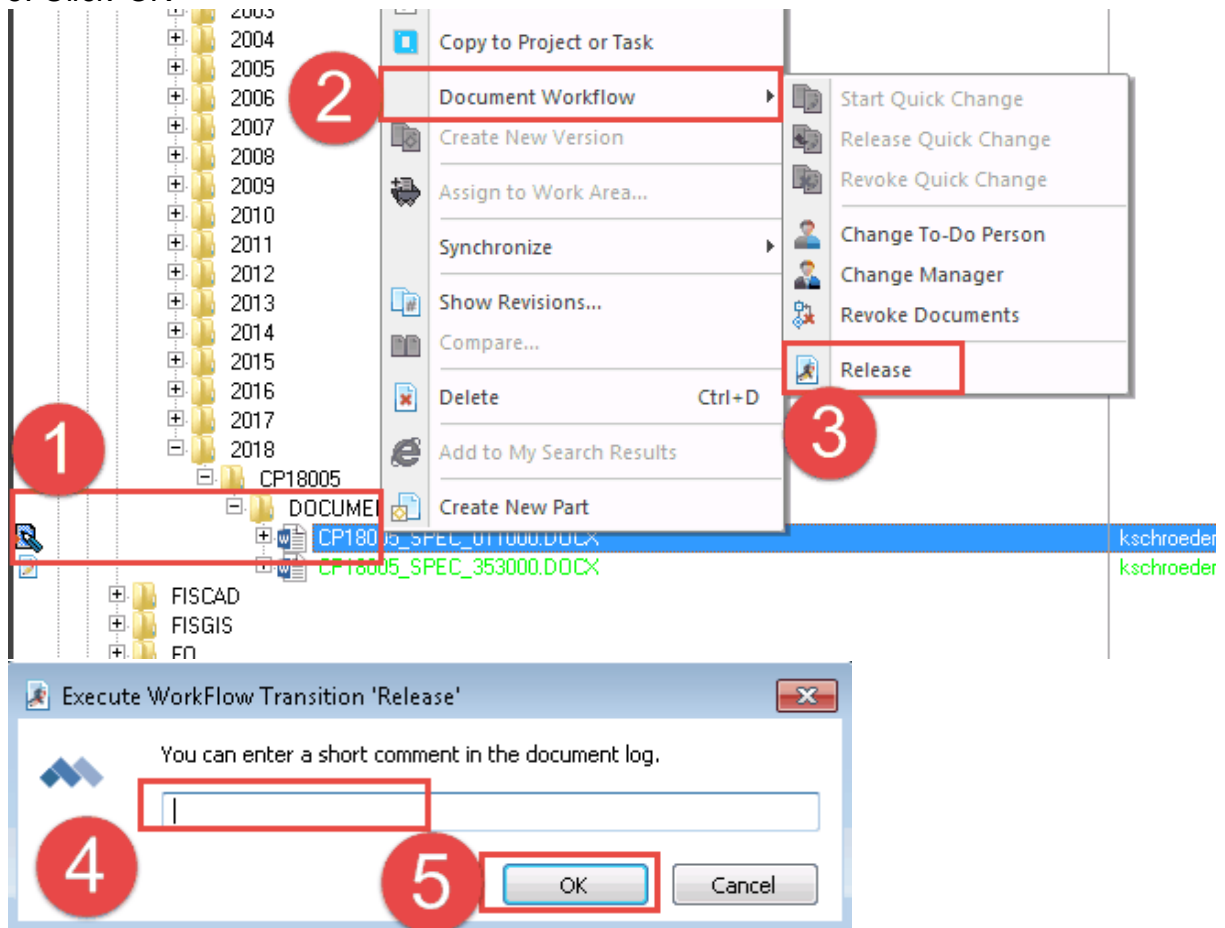


At this point, you can open the file(s) and make them project specific to create your project specification.

- When you save the file in the native application, the file will automatically save in Meridian.
- When you are done modifying the files, remember to release them.

2.3.1 Release the file

1. Right click on the file.
2. Select 'Document Workflow'.
3. Select 'Release'.
4. Enter a comment if you want.
5. Click 'OK'

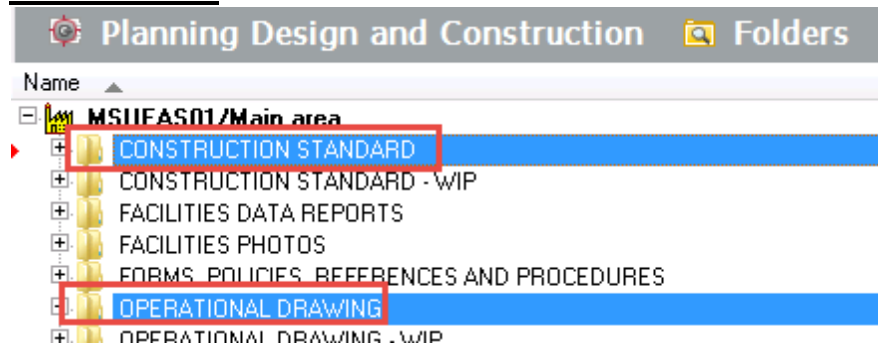


When you are finished, follow the normal procedure for creating the entire Specification.

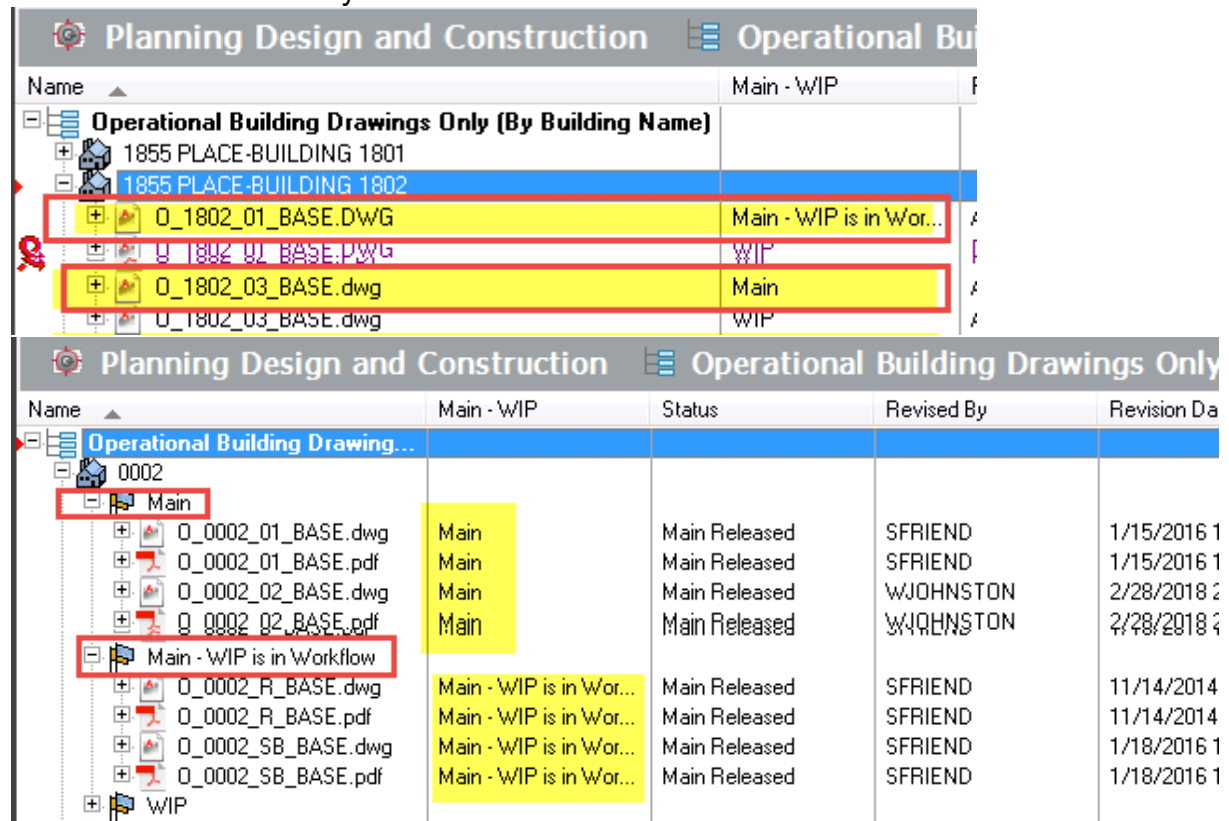
3 Creating the Project Drawings

Users can copy the Standard Details and Operational Drawings to their projects to use to create the drawing sets. Only use the **CONSTRUCTION STANDARD** or **OPERATIONAL DRAWING** folder. Do not use the WIP folder if you can see it.

Folders View:



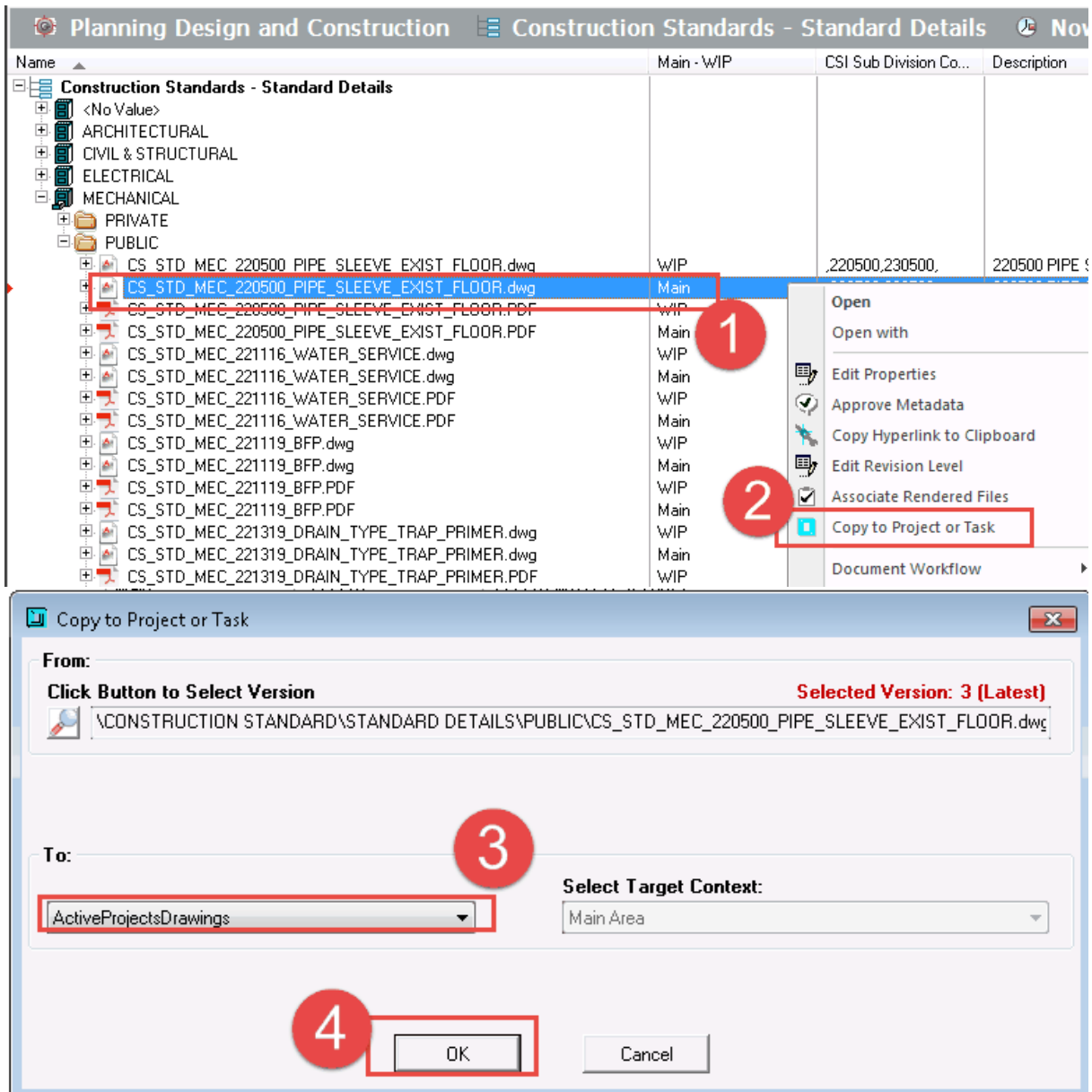
Nav Views: For both Standard Details and Operational Drawings, use the file that is marked as 'Main' for your drawings. If the file says 'Main - WIP is in Workflow', this means the file is currently under a revision.



3.1 Copy to Project or Task

To add the Operational Drawing or Standard Detail to your project and create the drawings, you will use the 'Copy to Project or Task' feature.

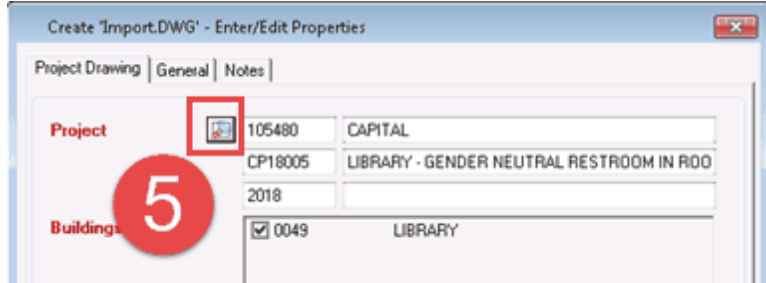
1. Right click on the file from the Main folder.
2. Select 'Copy to Project or Task'.
3. Verify the 'To:' is going to 'ActiveProjectDrawings'. If it isn't, change it.
4. Click 'OK'.



3.2 Describe the file

When the Wizard appears, fill it in:

5. Use the magnifying glass icon to select the Project.



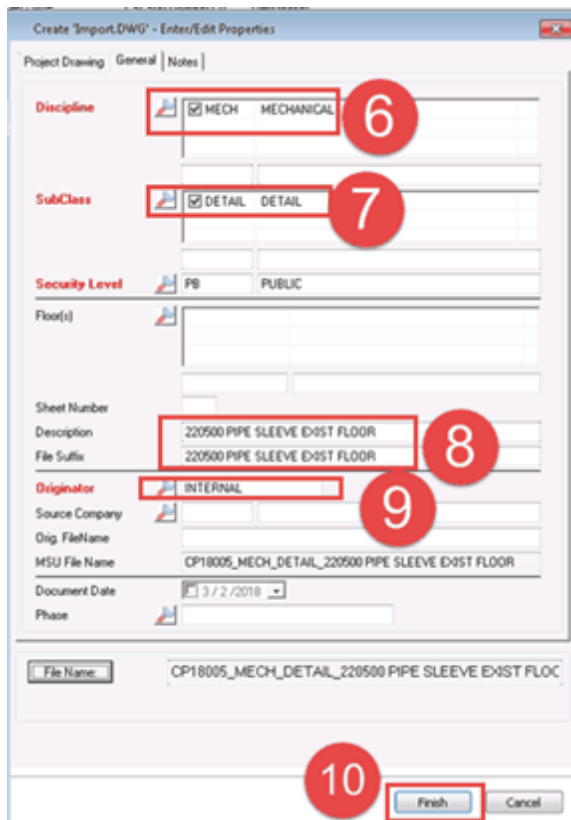
6. On the 'General tab', Fill in the correct Discipline(s).

7. Fill in the SubClass.

8. The description should have auto-populated. If file suffix is not filled in, click in the description field and click the right arrow on the keyboard.

9. Select 'INTERNAL' for the originator.

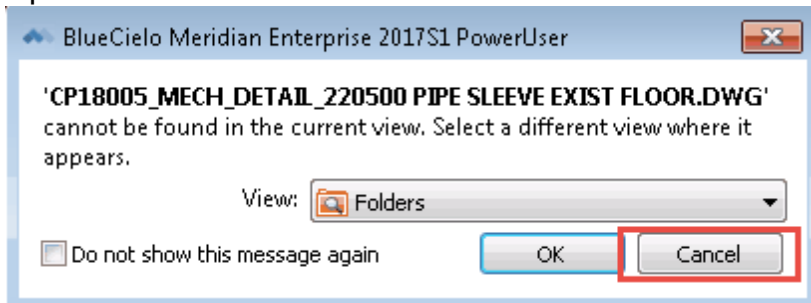
10. Click 'Finish'.



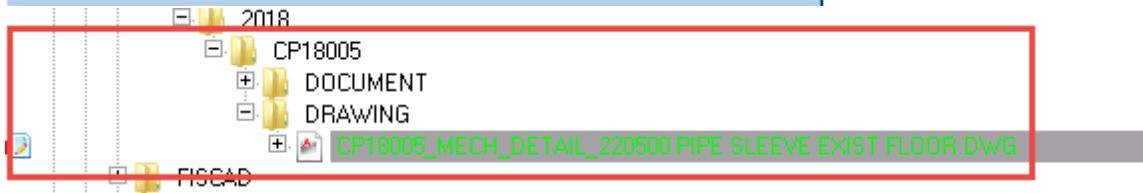
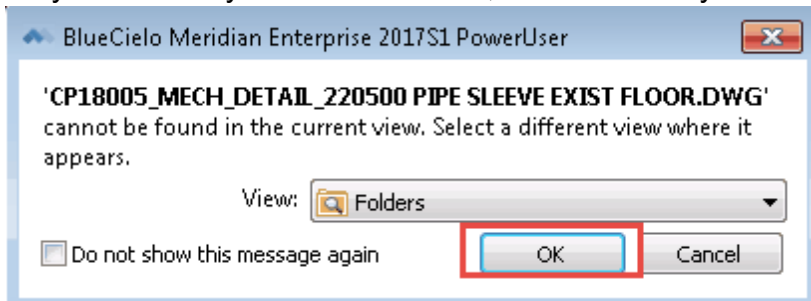
3.3 Work on Project Drawings

After you finish describing the file, Meridian will want to take you to the file so you can work on it.

- If you are not ready to work on it and want to copy more drawing files to your project, click 'Cancel'. This will keep you in your current Nav View and you can repeat the process.



- If you are ready to work on the file, click 'OK' and you will be taken to the project file.

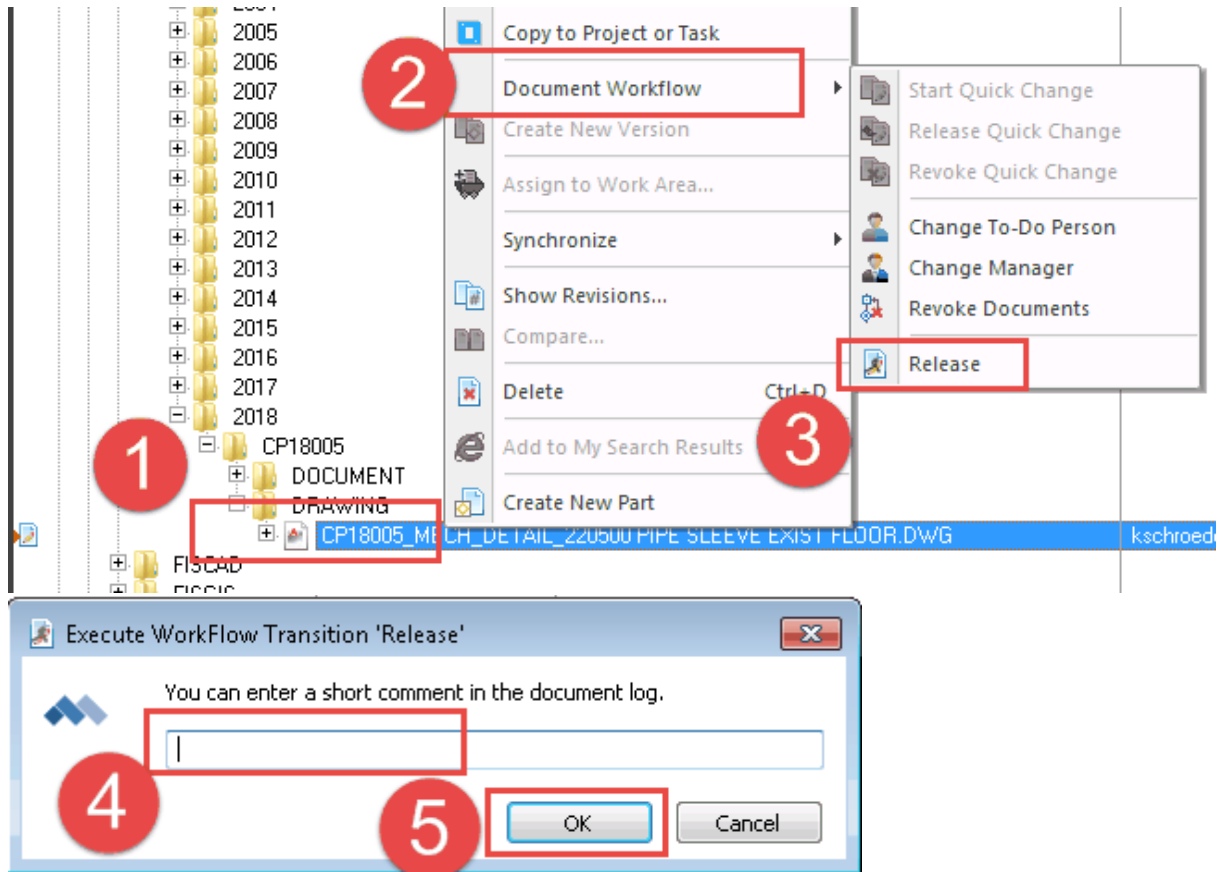


At this point, you can open the file(s) and make them project specific to create your project drawing or insert/xref the files into other drawings.

- When you save the file in the native application, the file will automatically save in Meridian.
- When you are done modifying the files, remember to release them.

3.3.1 Release the file

1. Right click on the file.
2. Select 'Document Workflow'.
3. Select 'Release'.
4. Enter a comment if you want.
5. Click 'OK'



When you are finished, follow the normal procedure for creating the entire Drawing Set.