

Section 4

Preparation of Contract Drawings

4.1 Drawing Presentation.

4.1.1 Drawings are a graphic representation of contractual project requirements. Provide only essential details to achieve a clear understanding of the contract requirements. Omit from drawings, repetitive details and unclear contract requirements. Avoid using excessive sectioning, repetition of dimension and notes.

4.1.2 Indicate contract requirements only once on drawings. This shall be indicated at the first opportunity in the drawings where the feature or item is shown.

4.1.3 Limit cross-hatching or patterns to indicate only enough to clearly designate material. Show hatching and other patterns used for walls and other continuous features at the beginning and end of the representative element. Provide cross-hatching and patterning only at the outline edges of the feature unless it is a long distance, in which case provide intermittent indications to represent the feature.

4.2 To the Detailer.

4.2.1 In order to expedite final Contract drawings, the Detailer will prepare sketches and marked up drawings essentially complete and accurate. The rule is contract drawings will not be scaled for dimensions; therefore, care shall be exercised in showing all dimensions and notes necessary for the construction of the object represented.

4.2.2 Methods of representation not covered in these instructions shall be determined by reference to a drawing in the files similar to the drawing in question. The Detailer should check worksheets and preliminary drawings for accuracy and uniformity before having the final Contract drawing completed.

4.2.3 The drawings indicate the relationships between components and materials and should show location, identification, dimension, details, and shape and form. Information such as physical quantities, chemical constituents, performance requirement, standards of workmanship, required quality of material and equipment. Installation requirements shall not be shown in the drawings but shall be included in the specifications.

4.2.4 Provide sufficient information to the Engineering Technician when assigning work to ensure the assigned details can be properly developed.

4.3 To the Engineering Technician

4.3.1 Engineering Technicians must be familiar with elementary drawing methods and the proper use of CADD equipment. The Engineering Technician is cautioned to bear in

mind accuracy, neatness and uniformity are desired on all drawings; haste to complete drawings shall not sacrifice these drawing requirements.

4.3.2 During the course of preparing a map or drawing, the Engineering Technician should exercise good judgment in making decisions and should request assistance when needed. Upon completion of an assignment the Engineering Technician should take time to check work and to assure the drawing is complete. The completed drawing should be delivered to the Detailer, care should be taken to return all notes, sketches, sample sheets, check prints, etc. that were used to develop the drawing.

4.3.3 Access to the electronic file manager requires permission from the Project Engineer (PE). Drawings desired from the file server must be obtained through Project Wise.

4.4 **Preliminary Preparation For Drawing Layout.**

4.4.1 *Standard and CADD Review.* Review the standard requirements of CADD Standards Guide CESAJR 1110-4-2 and the A/E/C CADD Standard ERDC/ITL TR-01-6. The CADD Standards Guide contains the requirements that apply to the Comprehensive Everglades Restoration Plan (CERP) and NonCERP related projects. The web link <http://w3saj/cadd/end/caddmanagementandsupport.htm> list the standards as follows:

A/E/C CADD Standard ERDC/ITL TR-01-6. Volume One Narrative portion, Volume Two Appendices portion (Level Assignments and Attribution) located at the web page <http://www.saj.usace.army.mil/cadd/end/caddmanagementandsupport.htm>.

CADD Standards Guide CESAJR 1110-4-2 located at web page <http://www.saj.usace.army.mil/cadd/end/caddmanagementandsupport.htm>.

4.4.2 *Select Drawing File Names.* Select the proper sheet and model file names for the project as required by the CADD Standards Guide CESAJR 1110-4-2 and the A/E/C CADD Standard ERDC/ITL TR-01-6.

4.4.3 *ProjectWise Initiation.* At the start of the project, the PE determines the type of disciplines required for project, users who will be developing the project and individuals requiring access to the drawing files are furnished by the PE to the ProjectWise Administrator. The PE provides the ProjectWise Administrator with project information that is required needed to set up the file structure for a project on ProjectWise. The ProjectWise Administrator sets up the project folders as required.

4.4.4 *ProjectWise Set Up by Administrator.* The Project Wise Administrator sets up on ProjectWise the project folder under the related program. The project folder contains subfolders under the project name. Subfolders are created for each feature and feature design disciplines being used for the drawing index. Additionally other subfolders are created to organize project data. As a minimum the subfolders: Imagery will be created, see figure 4-1 example.

Program
Project Title

Imagery
General
Pump Station 444
Discharge Canal

Figure 4-1

4.5 Project File Set Up.

4.5.1 Border File and Border Companion File. Based on the project type, the border ANSI size (D or E) and border companion ANSI (D or E) file are selected for the project by the Project Engineer or User. The standard size border is an ANSI D border and border companion file. If the project is, a large civil project or a navigation project then use the ANSI E border and border companion files. Based on the selected border size, the Administrator places in the project file a copy of the border file and the border companion file. The copy of the border file and border companion file placed within the project file are renamed to follow the CADD Standards naming convention.

4.5.1.1 Border Companion File. The border companion file shown on figure 4-2, allows the notes, and common graphic symbols to be copied into the sheet file drawing at the proper scale. The border companion file contains the north arrows, notes, section symbols, elevation symbols, as-built drawing note, superceded note, graphic architectural and engineering scales, titles (plan, elevation, section and detail), local notes, subject title, symbol views (elevation, section and detail), flow arrows, elevation datum symbol, revision triangle, drawing reduced 50 % note, and slope arrows. The elements of the border companion that are required for a project drawing are copied into the sheet file on the level required by the CADD Standards Guide and the A/E/C Standard Chapter 4, "Level/Layer Assignments" requirements.

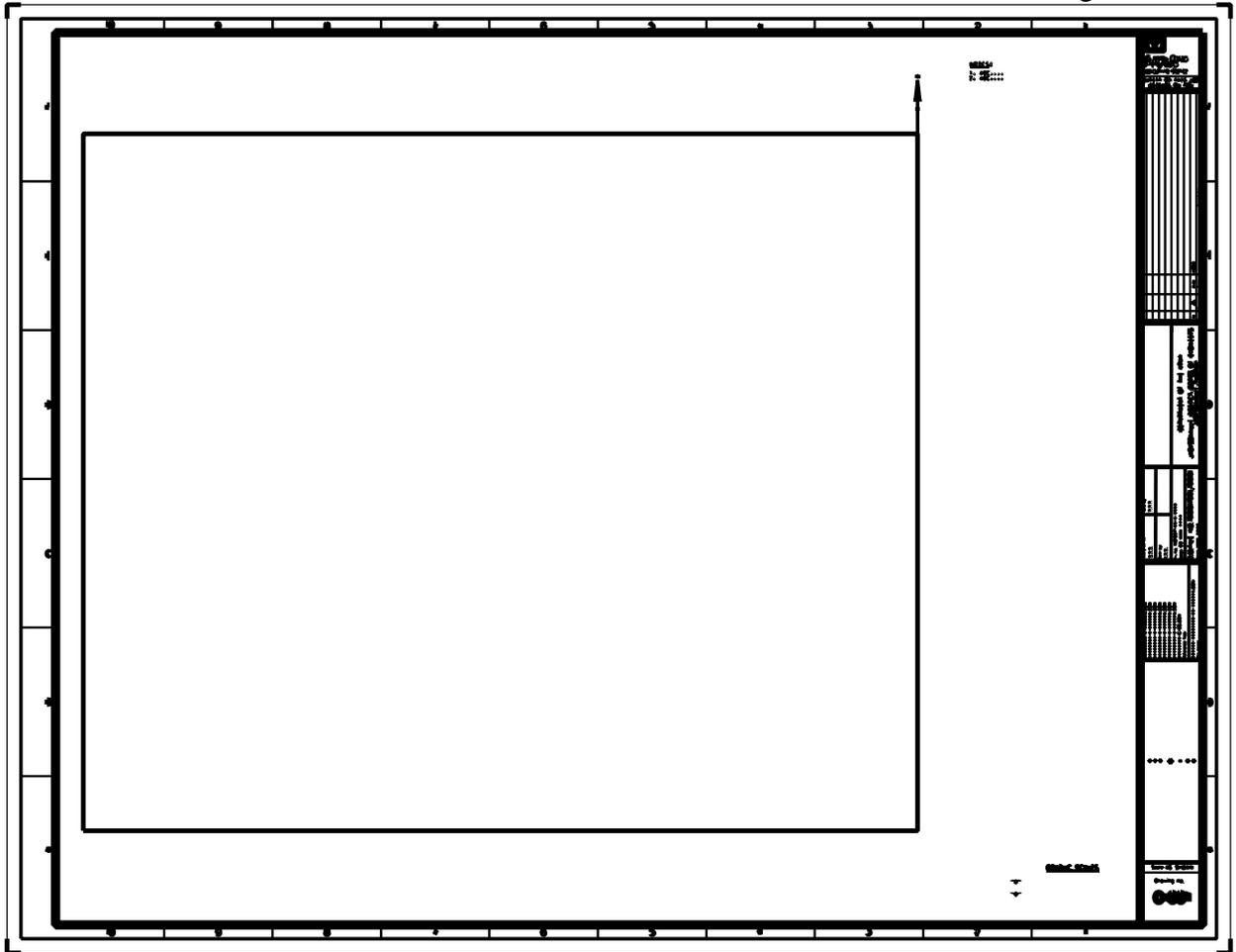


Figure 4-3

In the project general directory click on the border file that was renamed in the project general folder to open in Microstation. Use the text edit command and change the x placeholders where the text goes to the project title information of the border, see figures 4-4, 4-5 and 4-6. The title text placeholder is on G-ANNO-TEXT-PROJ level. The internal box located on level G-ANNO-FRME serves as a placeholder for placing images and aligning work. When plotting turn off the G-ANNO-FRME so the image box does not show up when plotting. In the border file text exit click on the title placeholders and revise the project title in the upper three xxx in the area between A and B shown in figure 4-4.

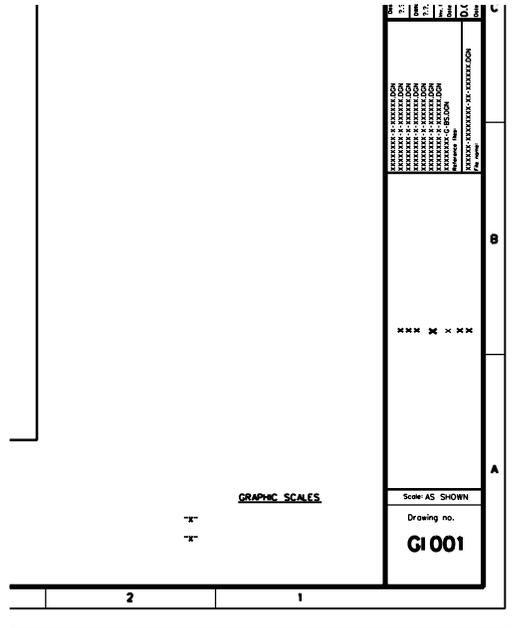


Figure 4-4

On figure 4-5. Under reference file edit, the first line that is located on G-ANNO-TEXT-PROJ and change to the project reference file name for the border file. Edit the text on G-ANNO-TEXT-PROJ that follows Inv No., Dated, DO FILE No., and Dated to match the related information concerning the project.

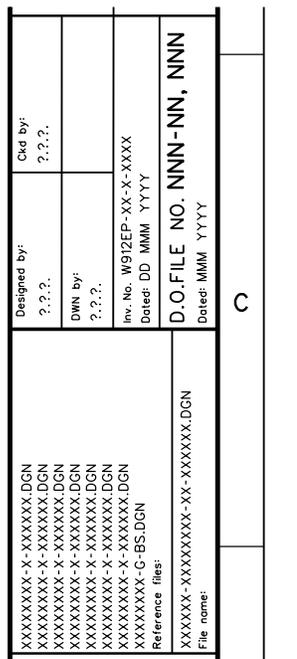


Figure 4-5

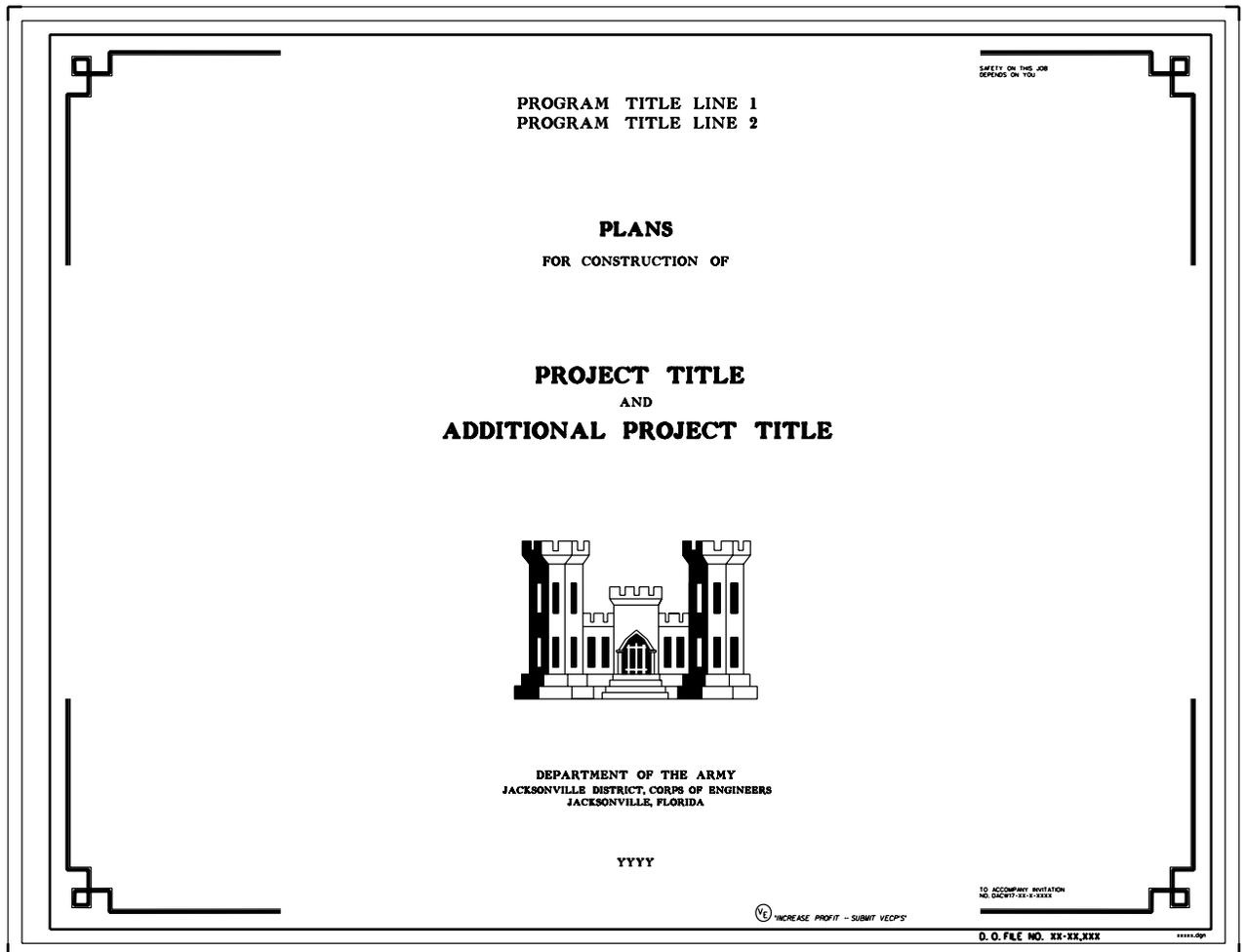


Figure 4-7

In Microstation on the level G-ANNO-NOTE, text edit the cover Program Title line 1 Program Title Line 2, Project title and Additional Project Title, To Accompany Invitation No., DO FILE NO. XX-XX,XXX, XXXXX.dgn. Edit the text YYYY to correspond the fiscal year the project is to be advertised.

4.5.3 *Index File*. Based on the selected ANSI size of border the same size index is selected for the project. The Administrator places a copy of the standard index as a guide. The index file serves reference file guide for developing the index sheet file. The index file is shown in figure 4-8. Revise the index name to correspond with the project naming convention that follows the CADD Standards.

The ProjectWise explorer opens up as shown on figure 4-10 below. Select *Jacksonville* data source with a left mouse click on the plus sign to open the data list of projects.

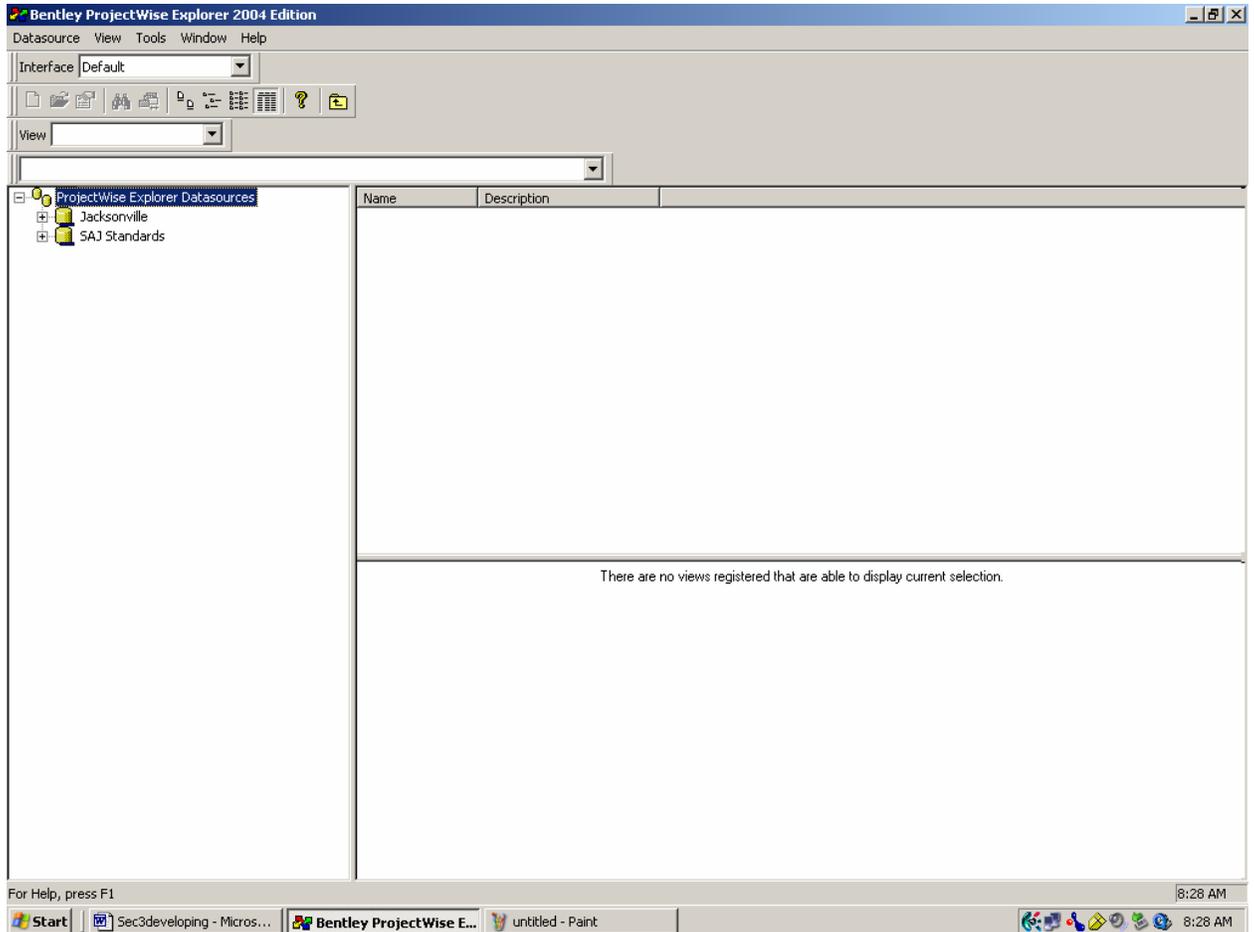


Figure 4-10

Select and highlight the project, by single clicking the project listed in the directory. In the right window pane click, and drag the mouse from new and click where it reads document as shown on figure 4-11.

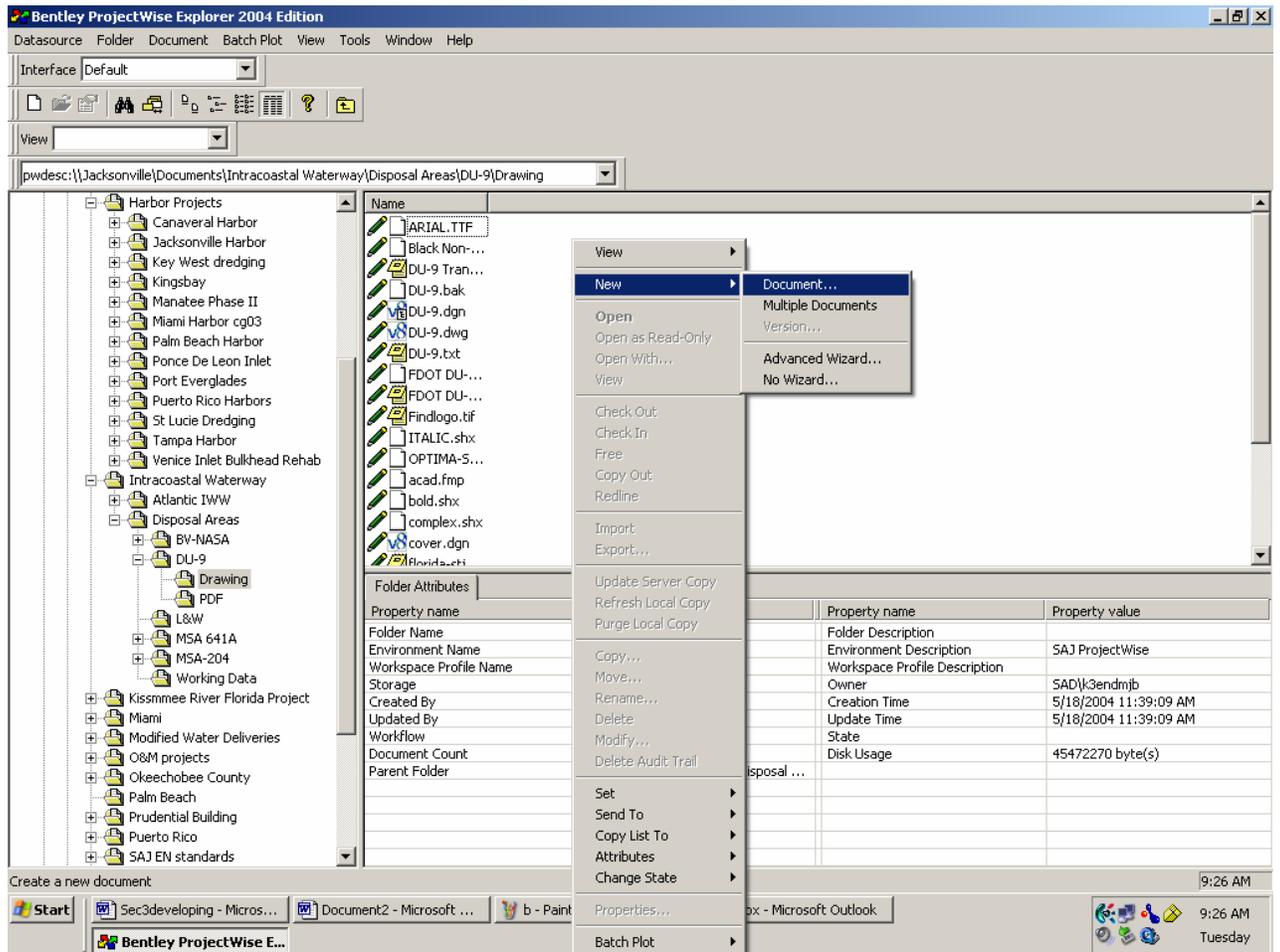


Figure 4-11

Next place a single mouse click on the advanced wizard and click the ok button as shown in figure 4-12.

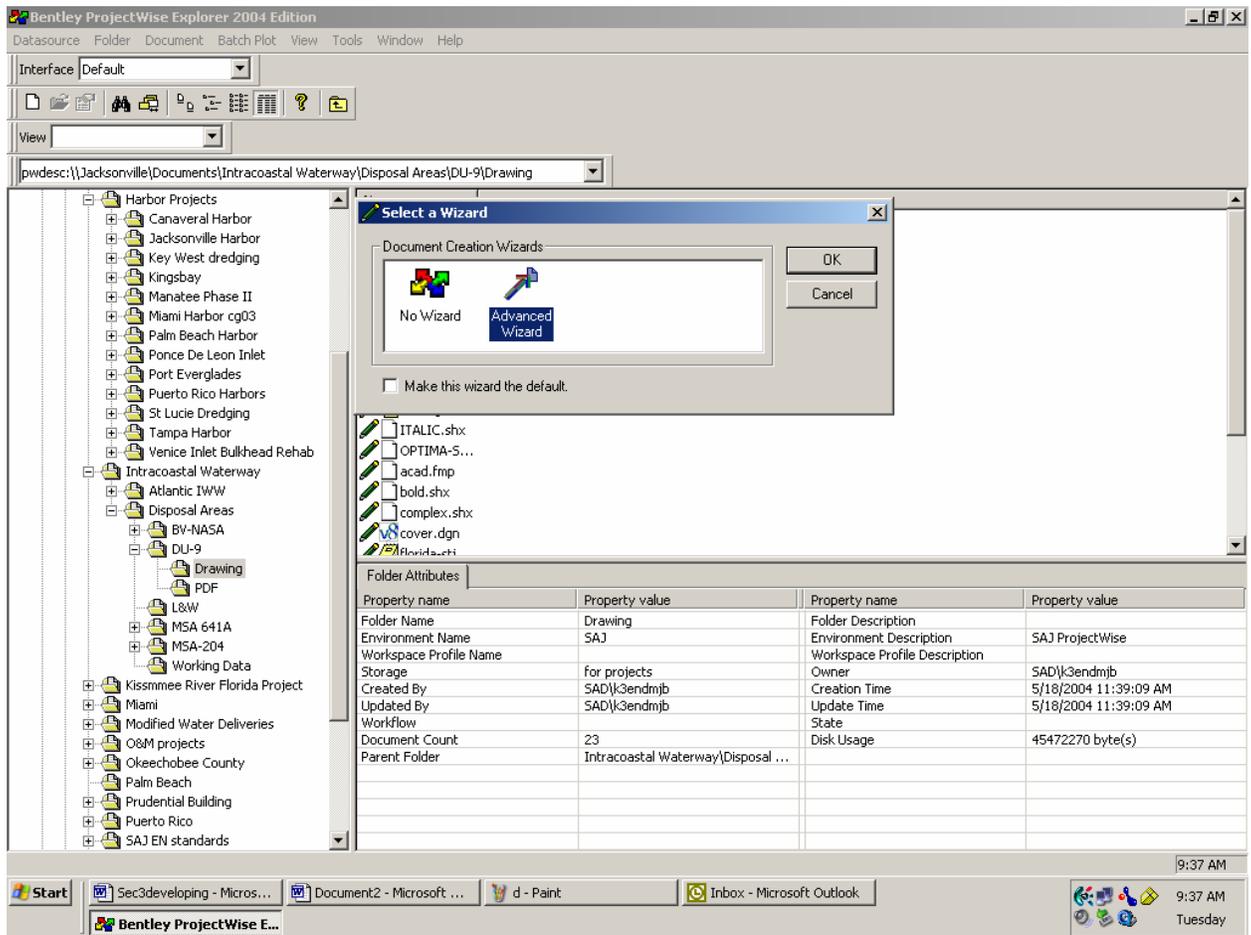


Figure 4-12

The advanced document creation wizard appears as shown in figure 4-13. Proceed by clicking the next button.

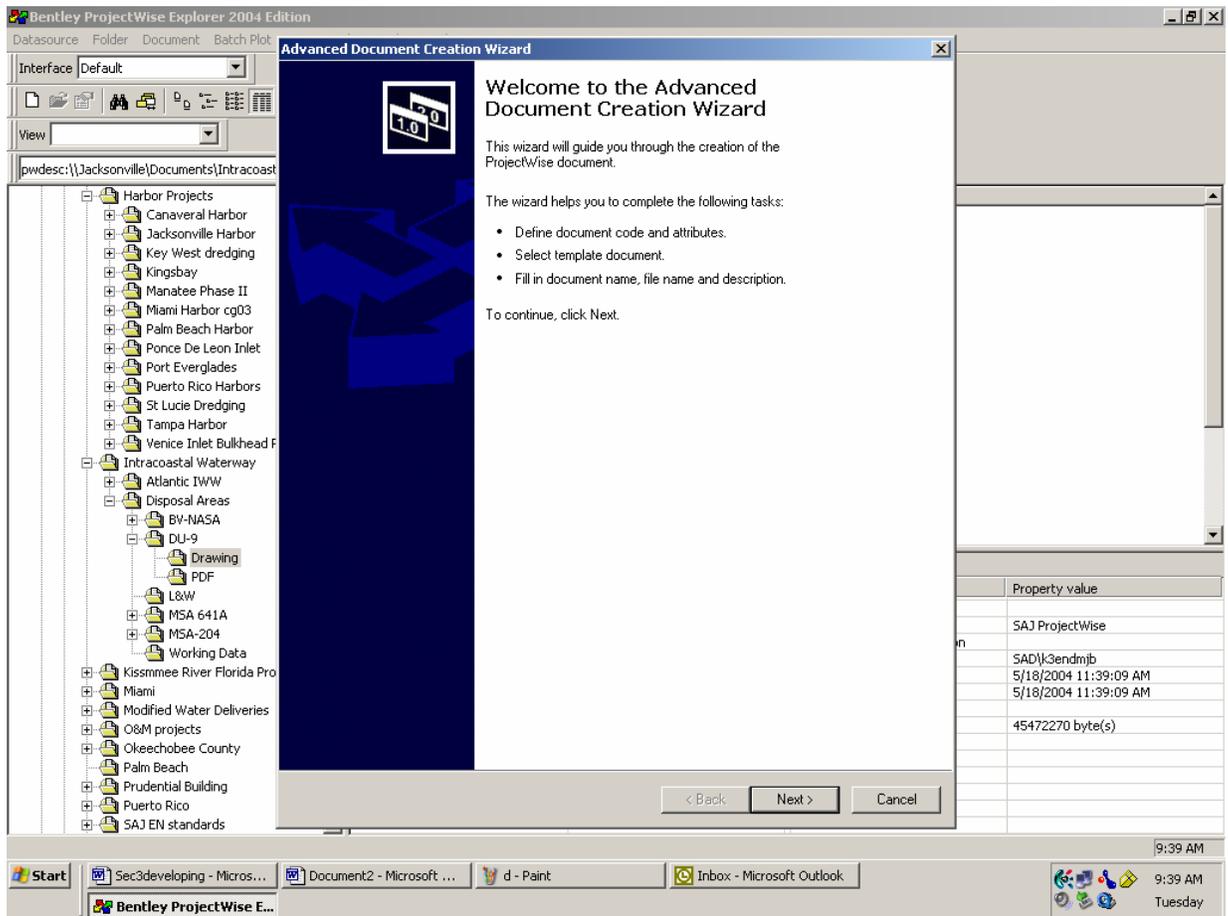


Figure 4-13

Select the project folder where the created file is to be placed, see example shown on figure 4-14.

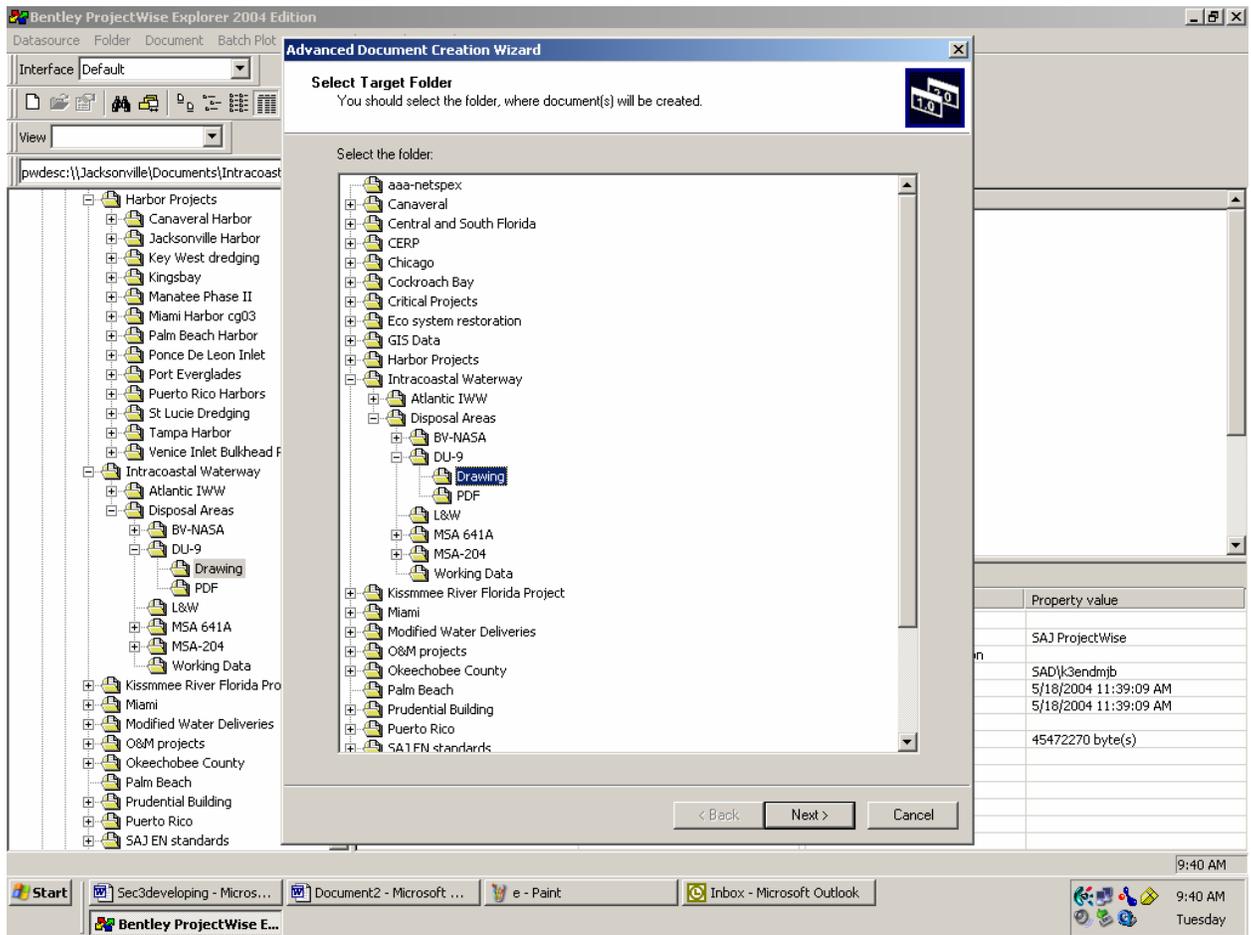


Figure 4-14

Select use ProjectWise document as a template shown on figure 4-15. Click the select button to browse to the template or seed file to be used.

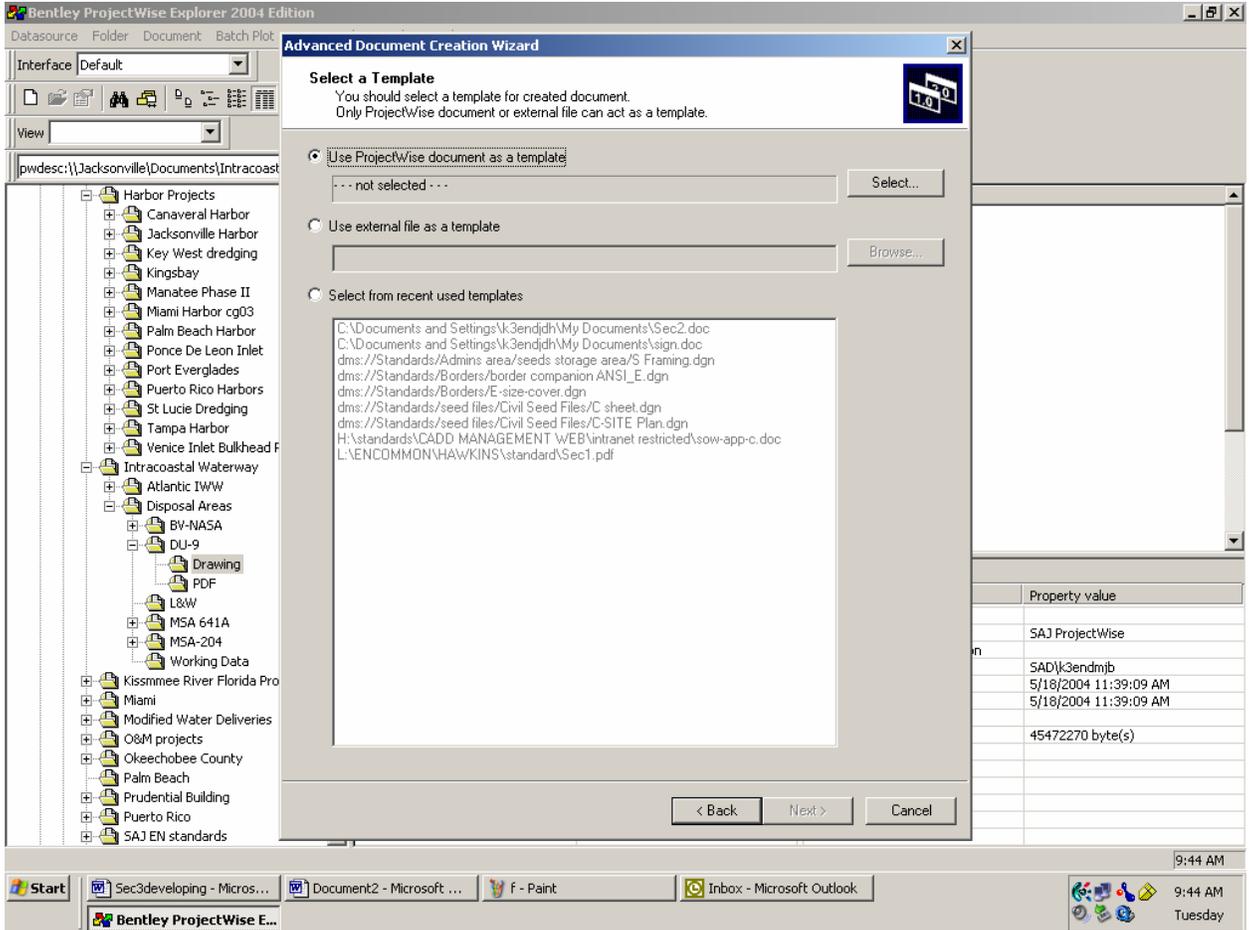


Figure 4-15

The select template document then appears; change the folder to SAJ EN Standards as shown on figure 4-16. Double click on the seed files folder under the list of documents.

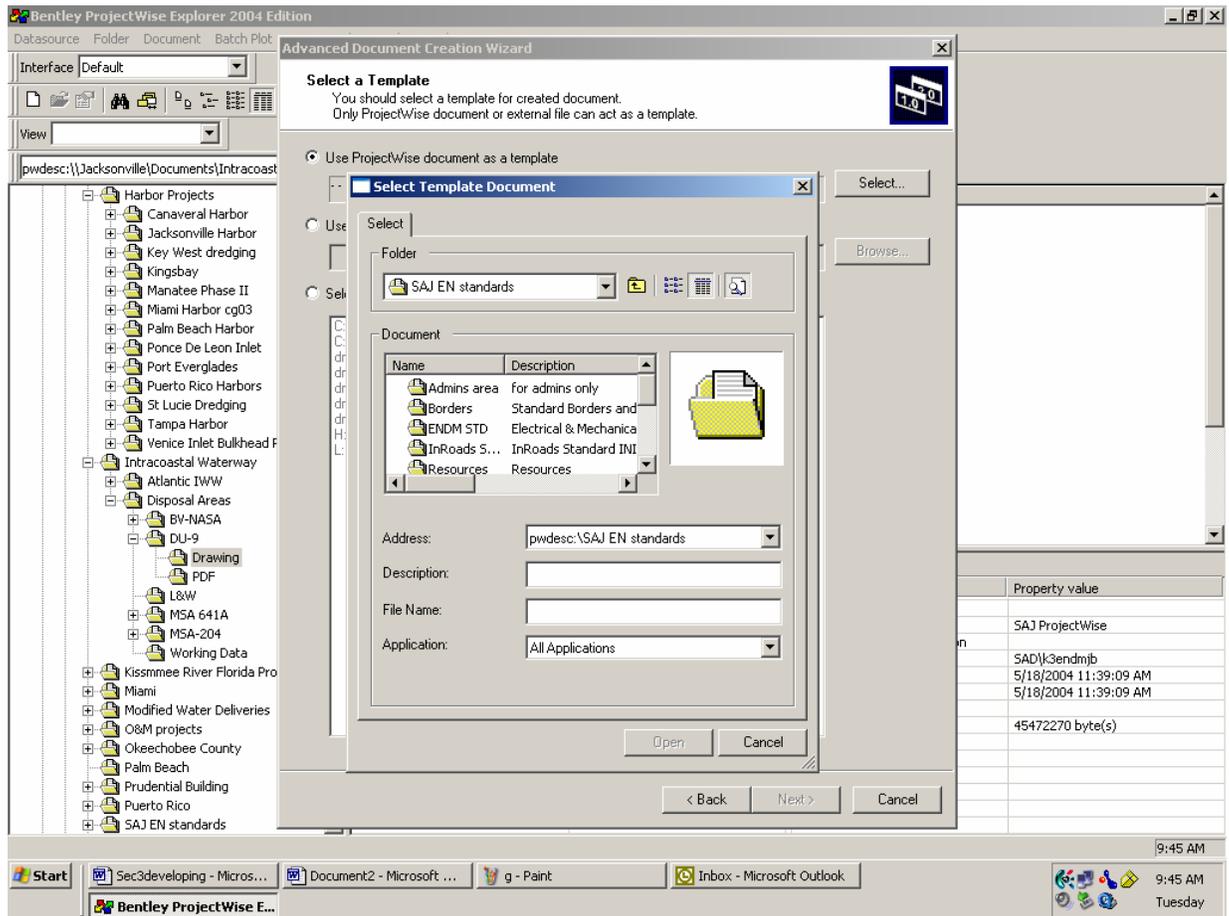


Figure 4-16

Double click in the document area the folder AEC seed files. After clicking, the folder the folder area under select then changes to AEC seed files as shown on figure 4-17.

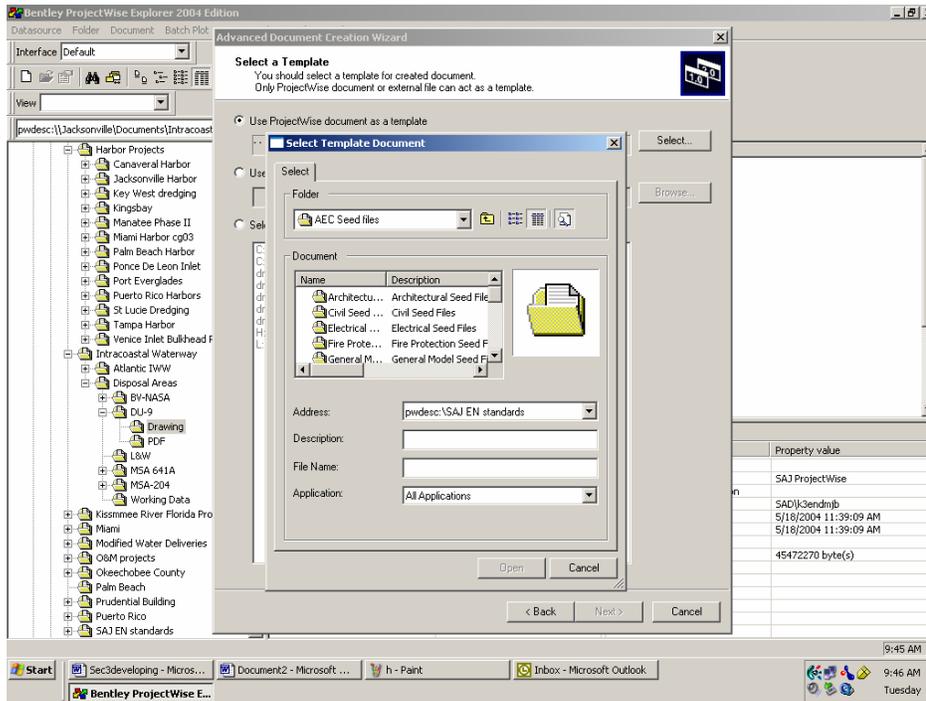


Figure 4-17

Double click on (civil) seed listed under the document area shown on figure 4-18.

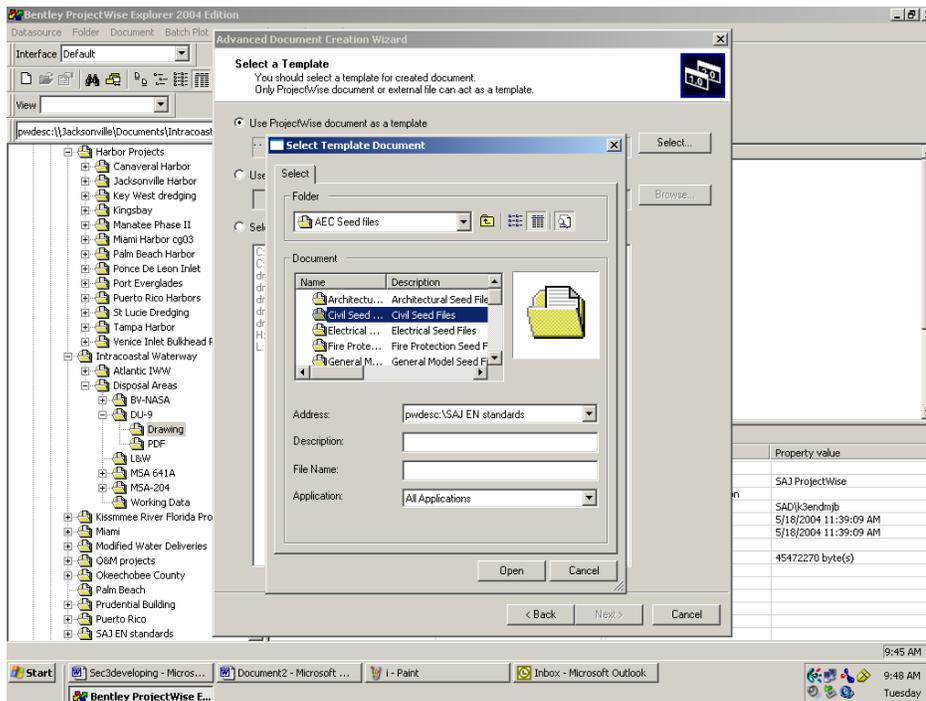


Figure 4-18

After the (civil) seed file is clicked opened, all the civil files are then listed under the document section as shown in figure 4-19.

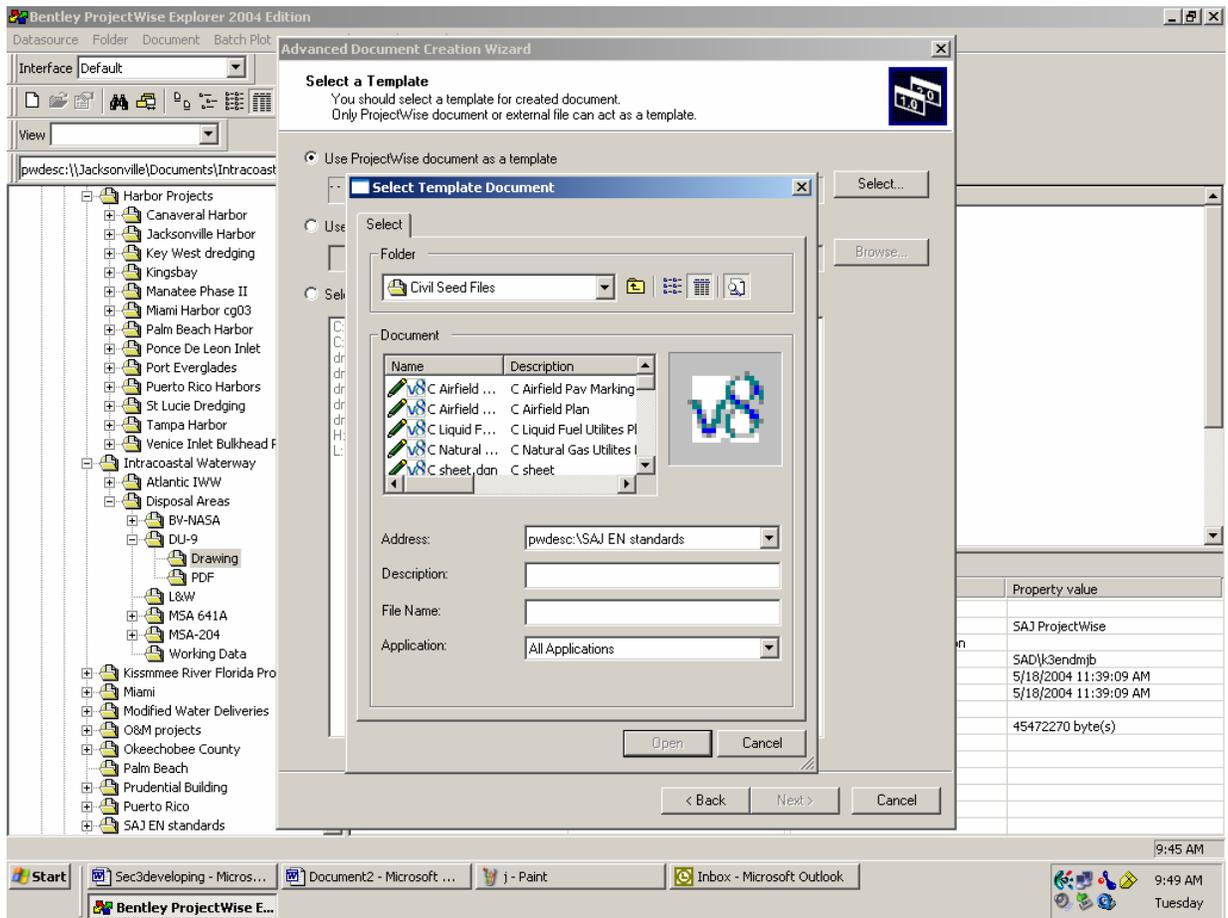


Figure 4-19

4.5.4.2 Creating New Model File Document. In order to create a new file model, the previous procedures are followed first through the initiation to develop a new document.

Click the model seed file c-xsection in the document area as shown in figure 4-20. Proceed by clicking the “Open button.

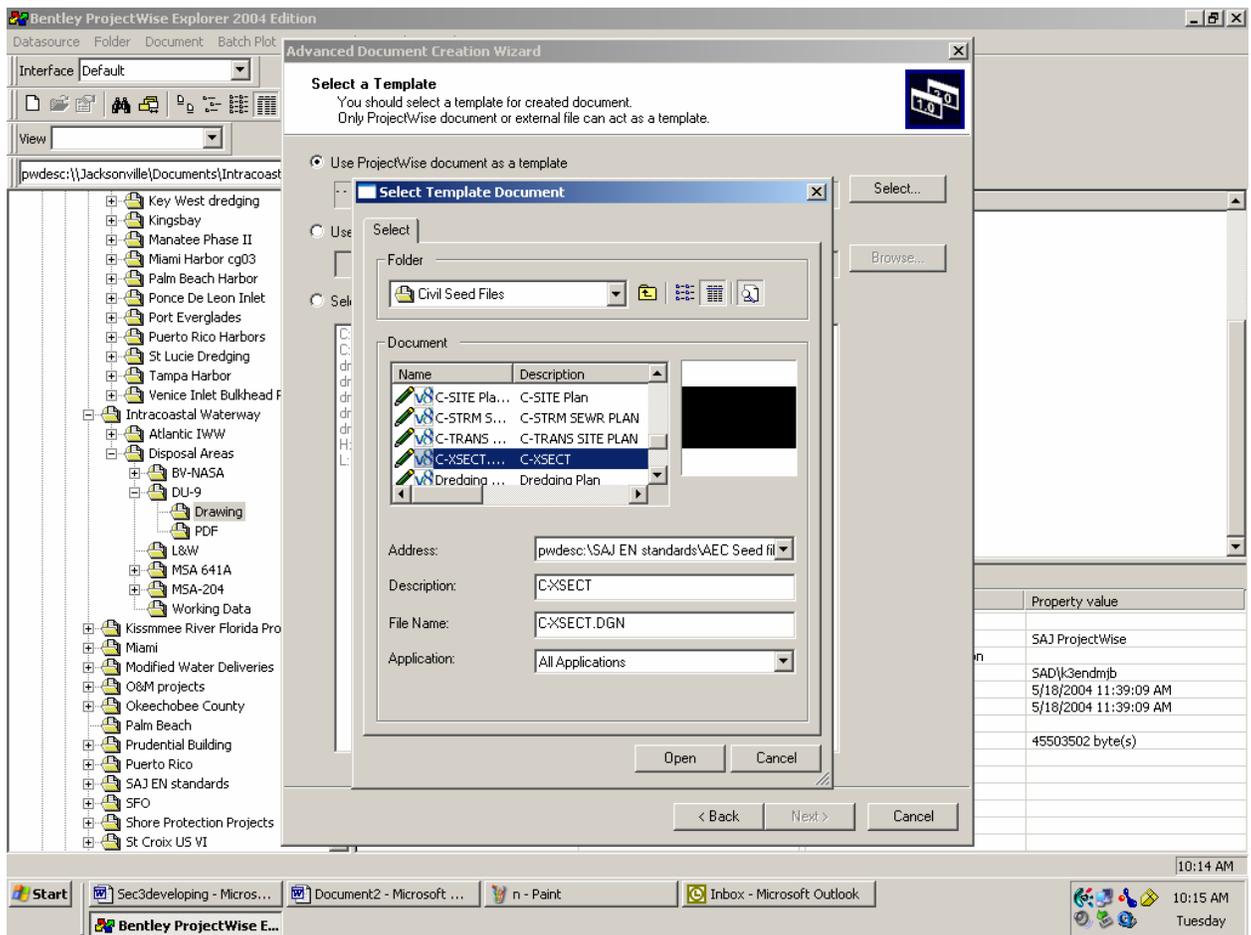


Figure 4-20

The advanced document creation wizard then appears as shown on figure 4-21. Click the select next button to proceed.

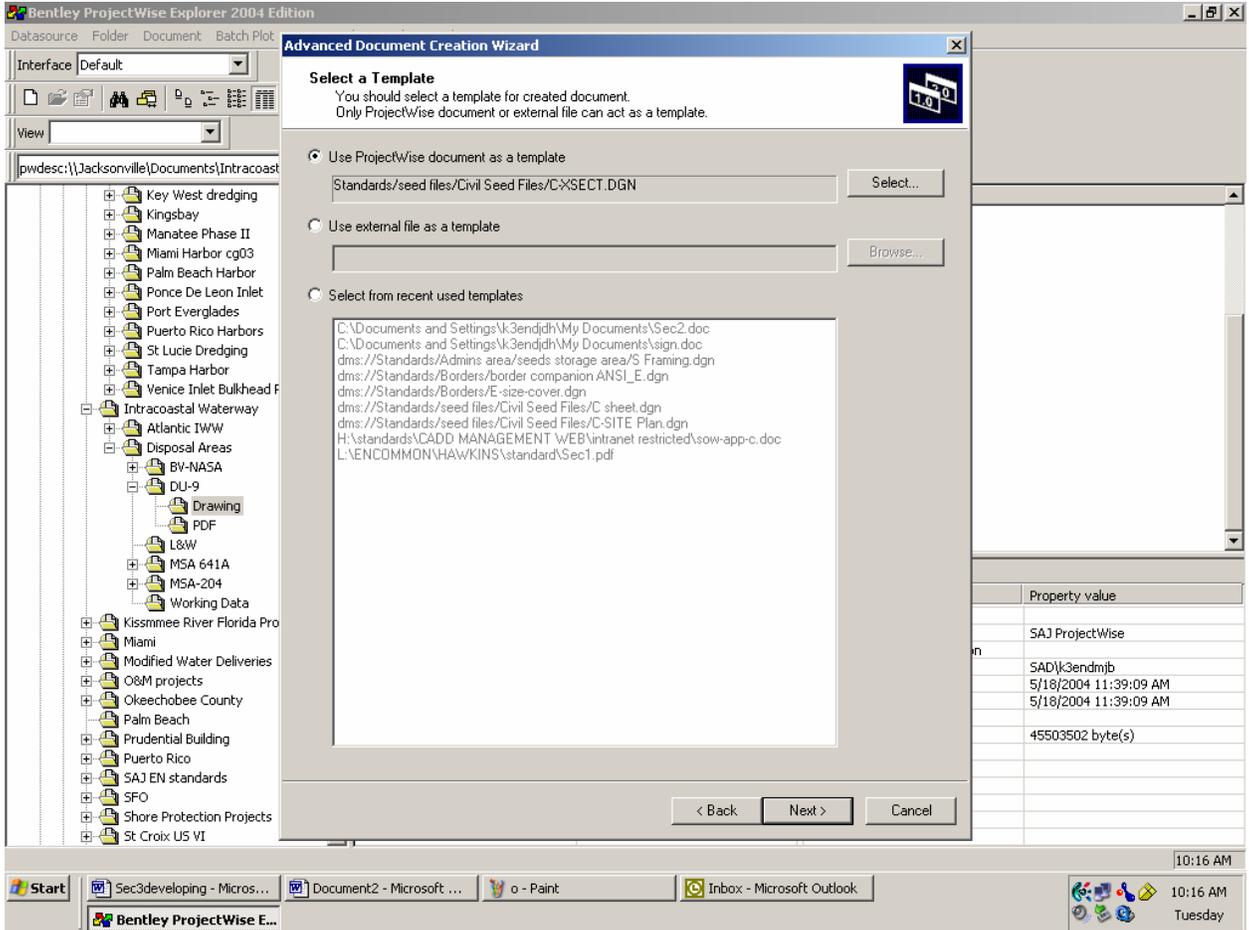


Figure 4-21

The advance documentation wizard then shows the current document properties of the file as shown below on figure 4-22.

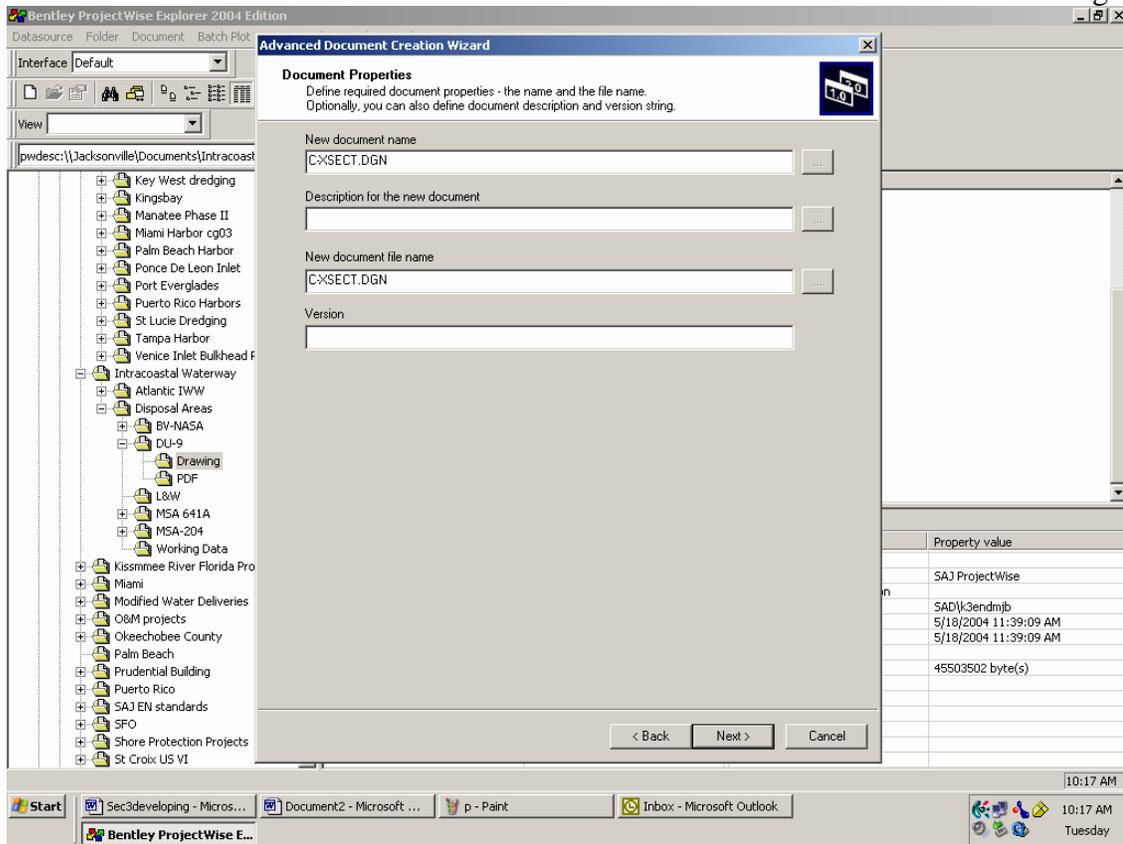


Figure 4-22

In the document properties add the new document name, provide a description that conveys what the sheet file is about, and input a new document file name according to the project and the CADD Standards naming convention as shown in the example 4-23. Refer to 2-.2.1 in the CADD Standards Guide model file naming convention to set up the model file name.

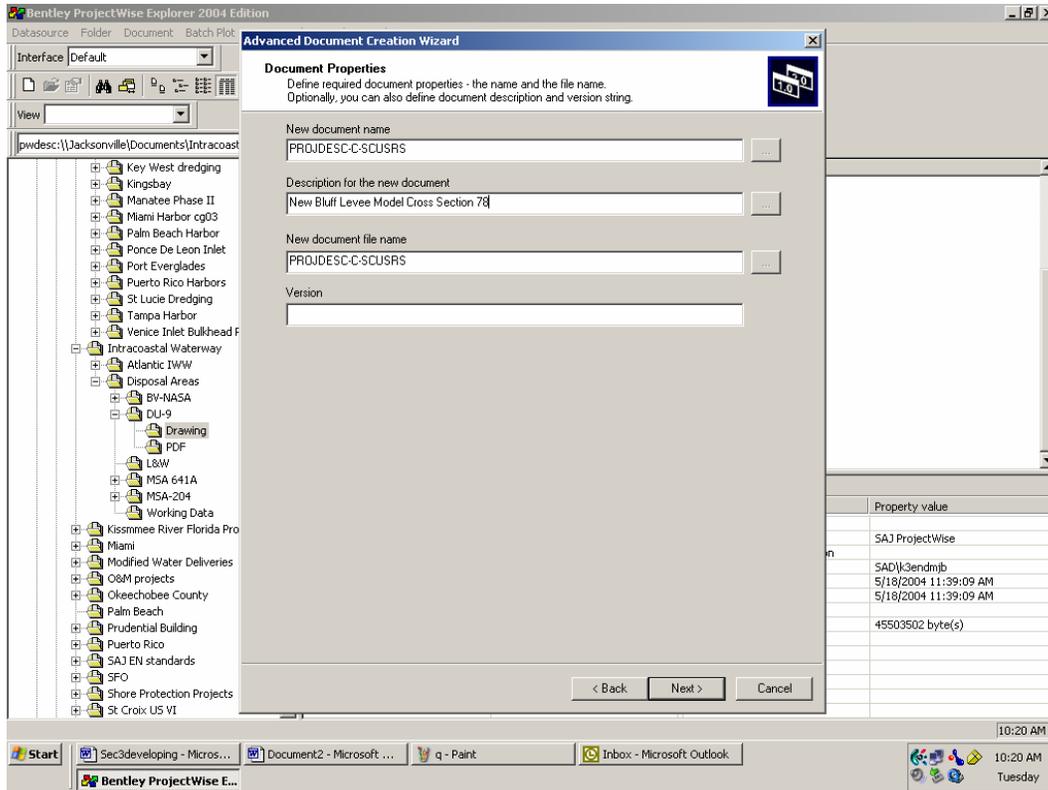


Figure 4-23

After 'Next' is clicked, 'Create a Document' appears as shown in figure 4-24 below. If the listing is correct, proceed by clicking the next button.

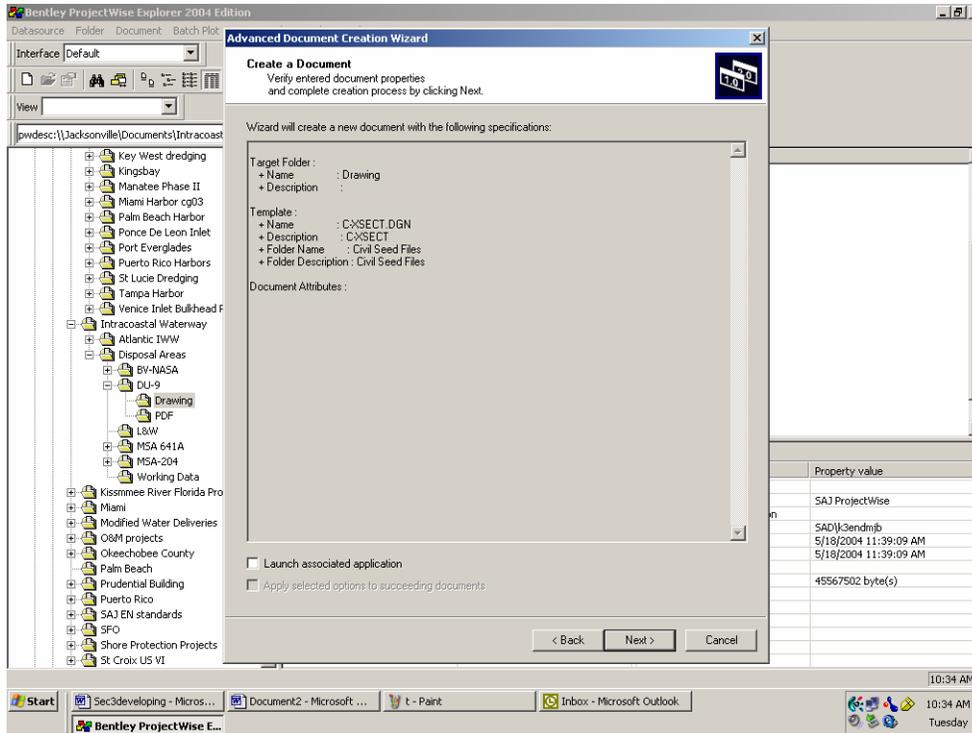


Figure 4-24

After “Next is clicked, advance document create wizard appears to show the document has been successfully completed as shown on figure 4-25. After the finish button is clicked the drawing is placed within the project directory and the process is complete.

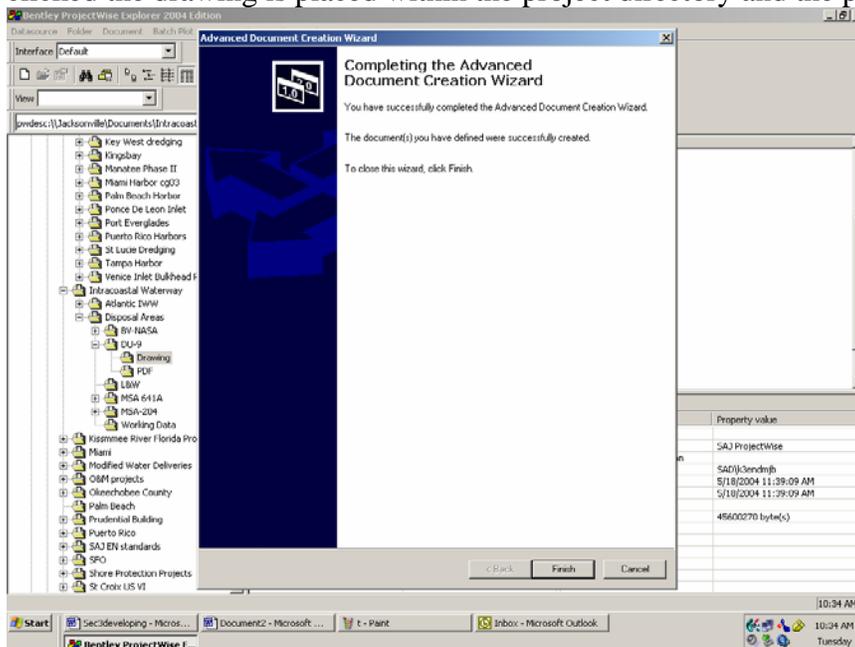


Figure 4-25

4.5.4.2 Creating New Sheet File Document. In order to create a new sheet file, first the previous procedures are followed through the initiation to develop a new document. Then click the model seed file Civil Sheet in the document area as shown in figure 4-26.

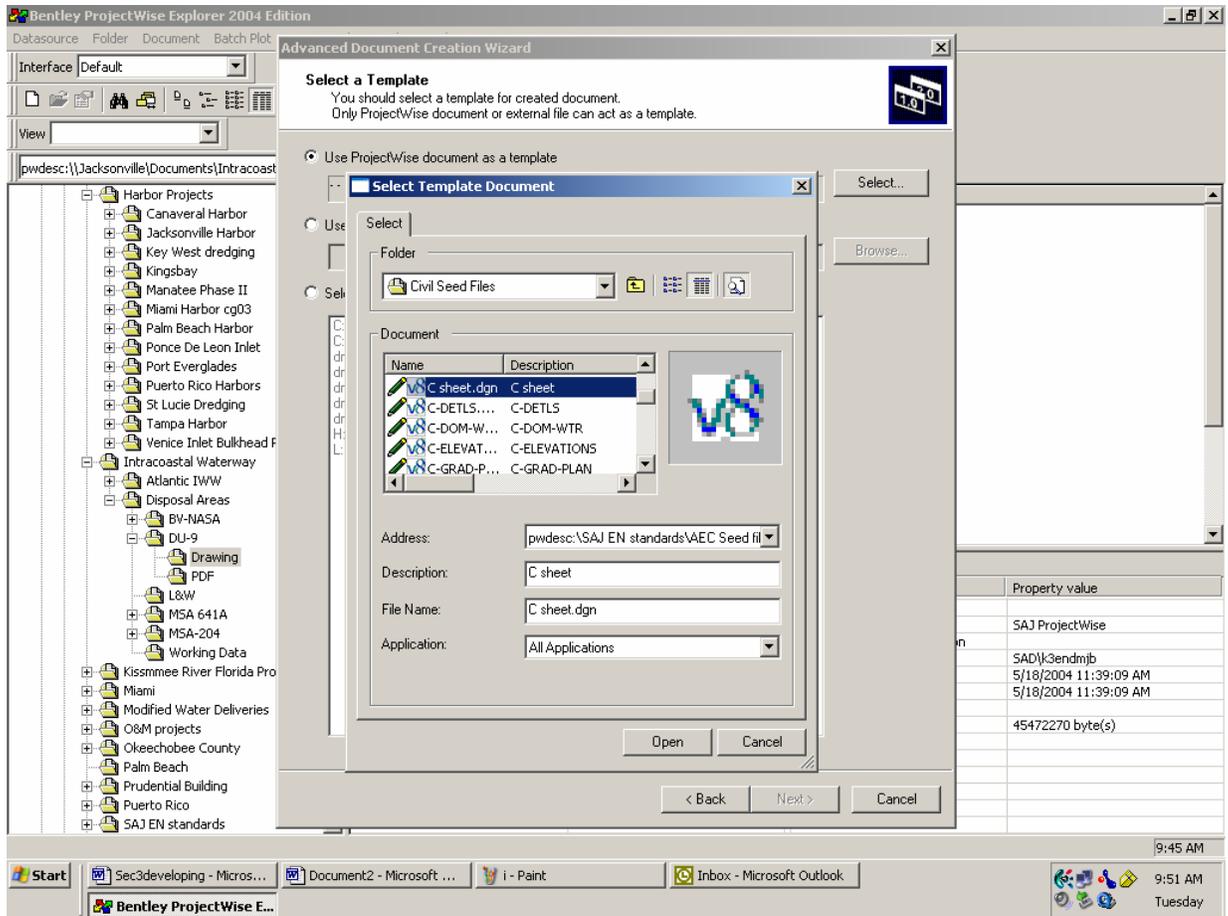


Figure 4-26

The advanced document creation wizard then appears as shown on figure 4-27. Click the ‘Select’ button of the use ProjectWise document as a template.

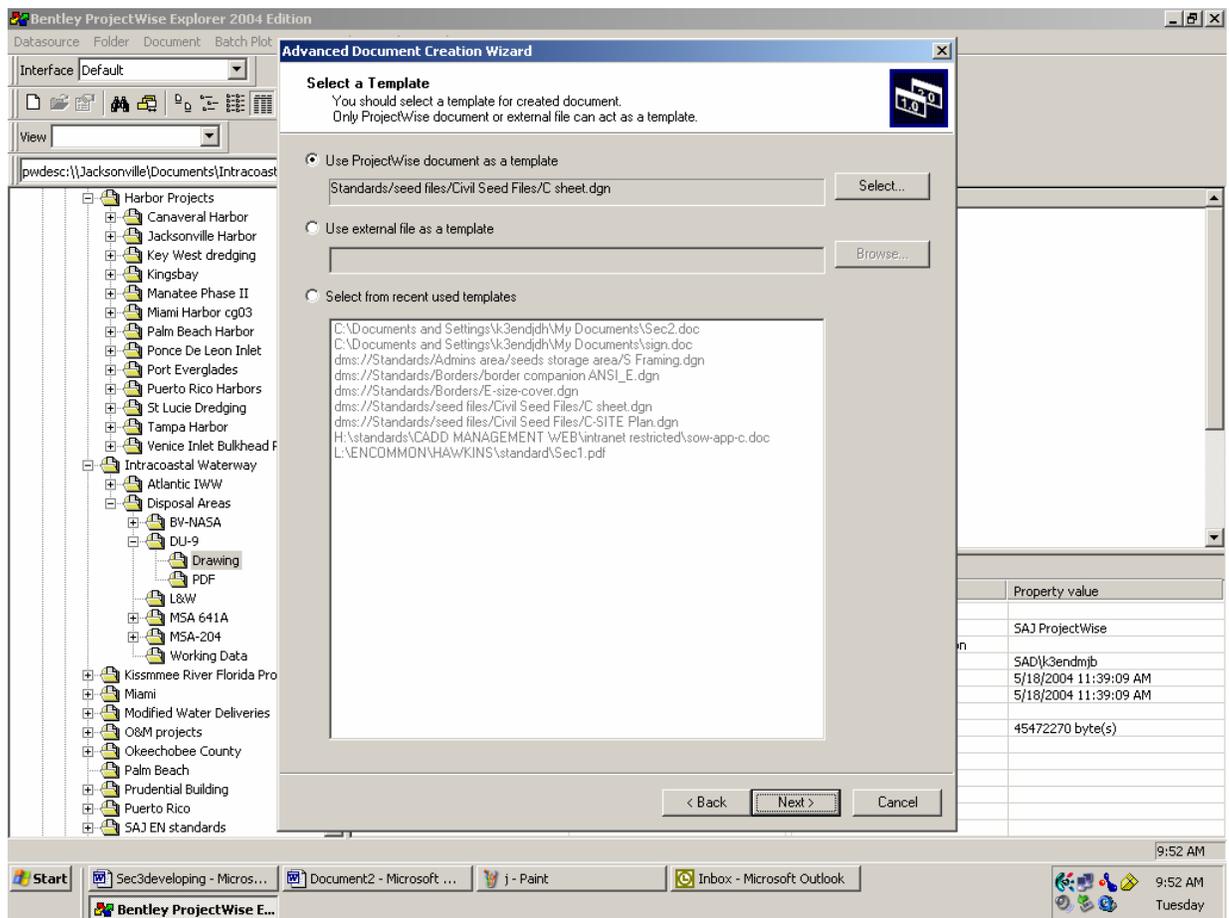


Figure 4-27

The advance documentation wizard shows the current document properties of the file as shown below on figure 4-28.

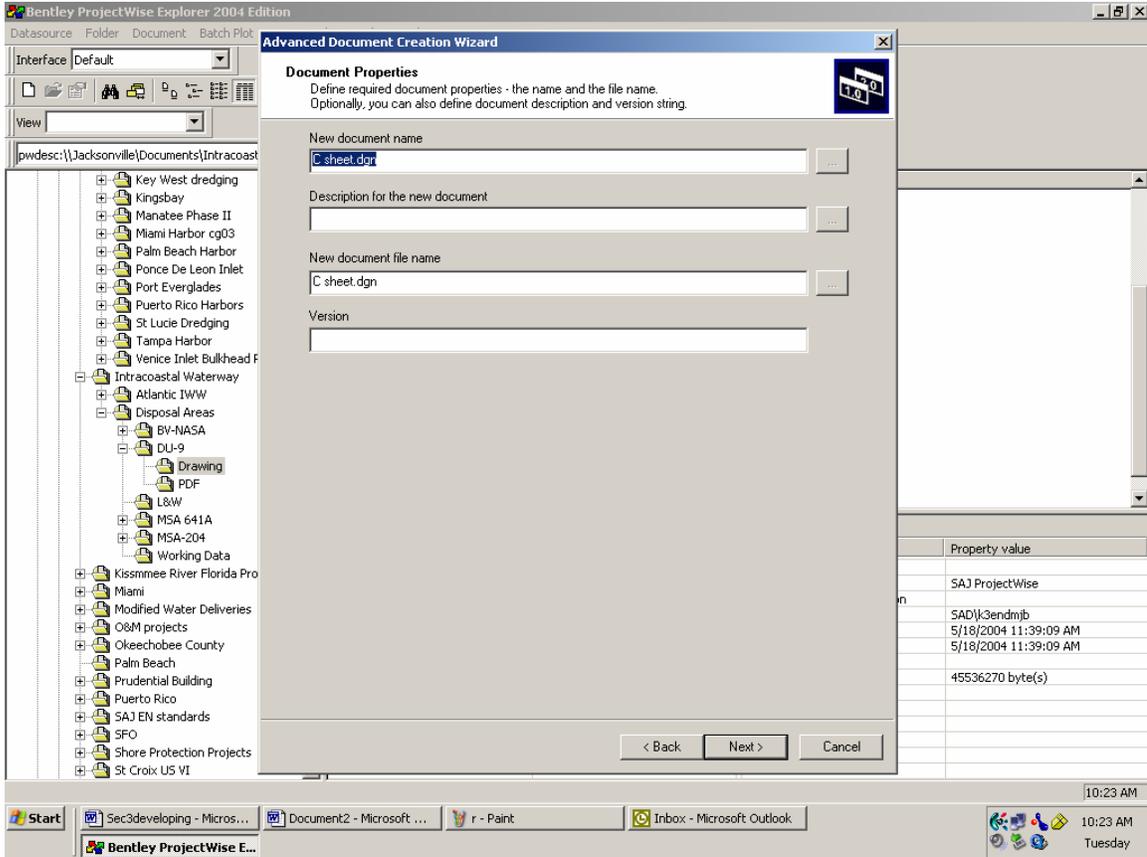


Figure 4-28

In the document properties add the new document name, provide a description that conveys what the model is about, and input a new document name according to the project and the CADD Standards Guide naming convention as shown in the example 4-29 below. Refer to section 2.2.2 sheet file naming convention in the CADD Standard Guide for procedure to set the sheet file name.

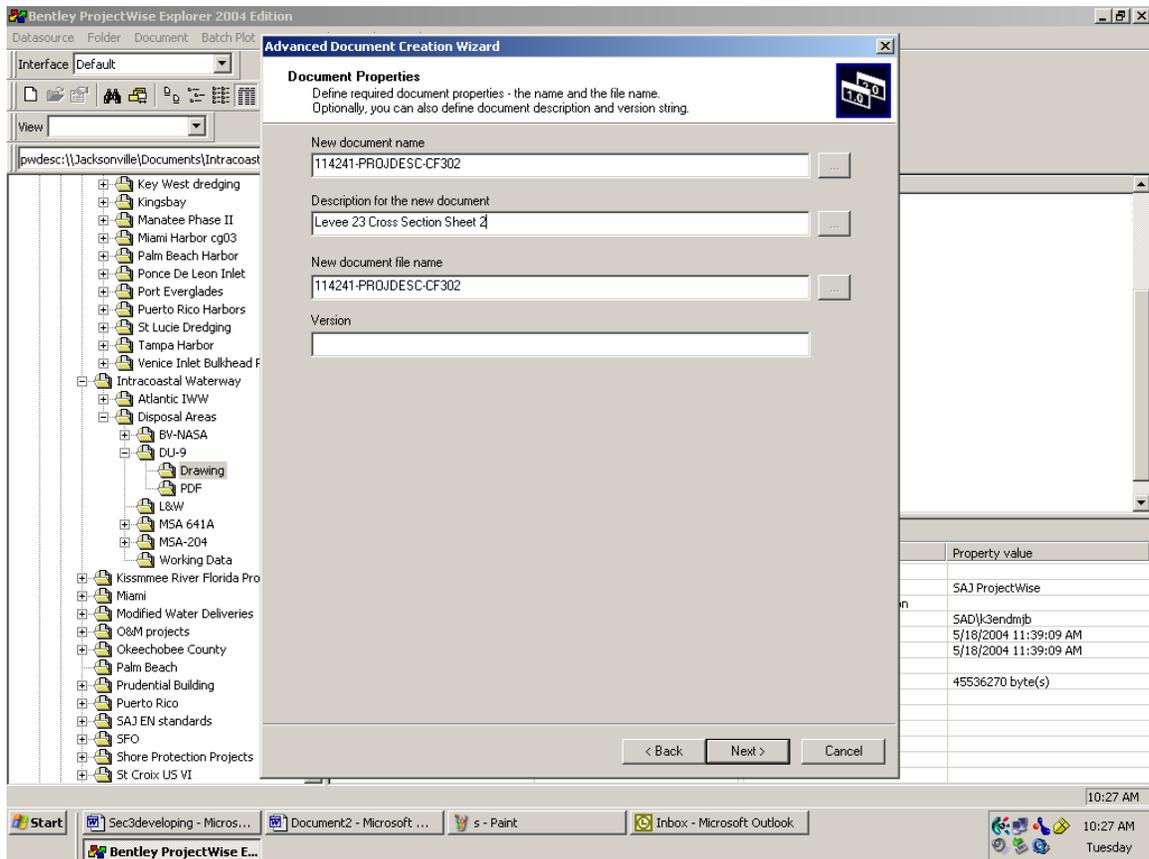


Figure 4-29

After 'Next' is clicked, the 'Create a Document' appears as shown in figure 4-30 below. If the listing is correct, proceed by clicking the 'Next' button.

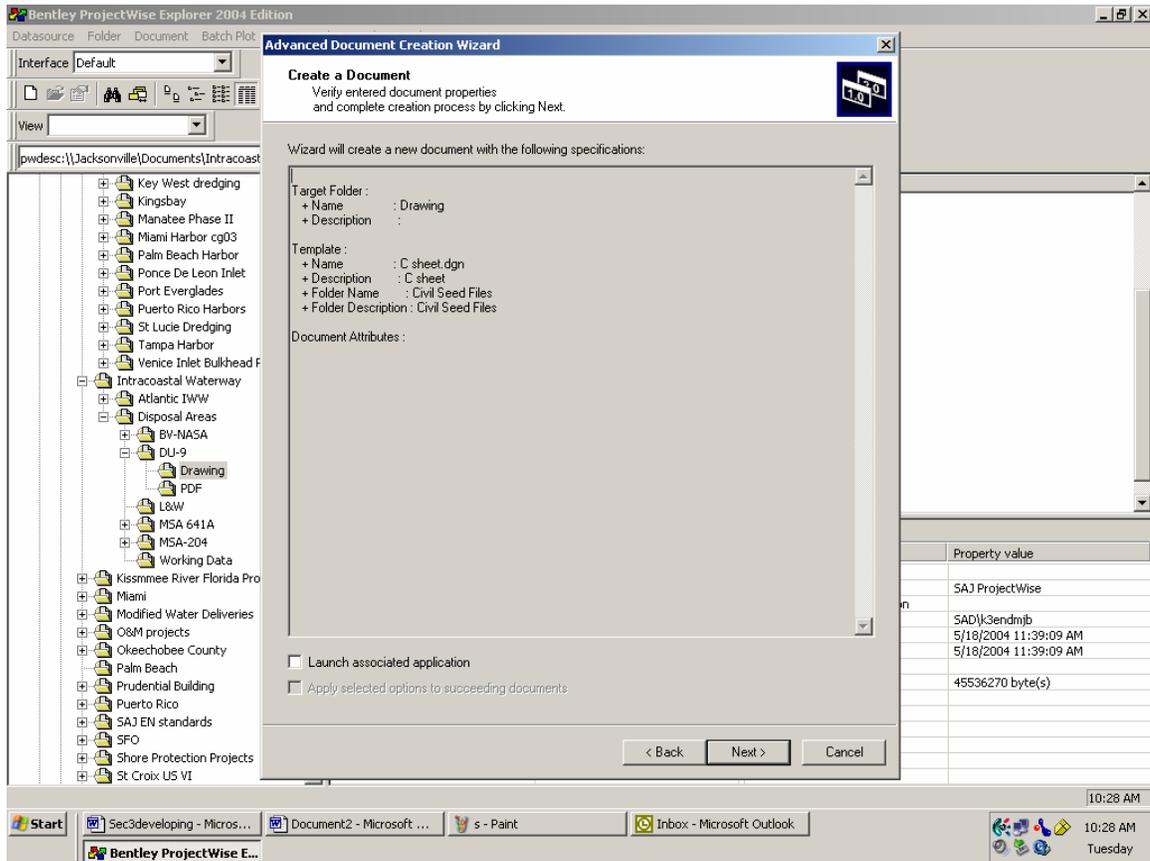


Figure 4-30

After 'Next' is clicked, the advance document create wizard appears to show the document has been successfully completed as shown on figure 4-31. After the finish button is clicked, the drawing is placed within the project directory and the process is complete.

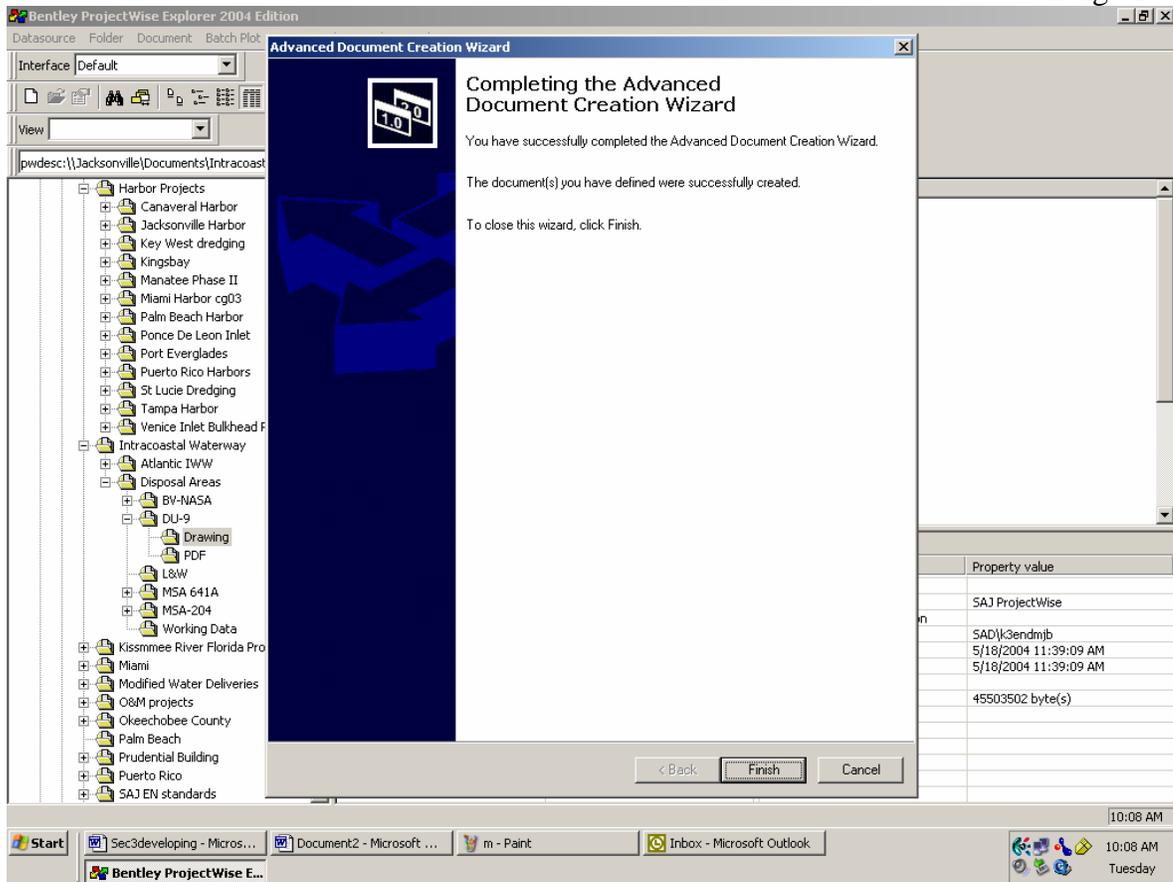


Figure 4-31

4.6 Drawing Initiation.

4.6.1 To begin drawing initiation, *Click on the Netspex designer icon* shown on figure 4-32 to start drawing in Microstation V8.



Figure 4-32

4.6.2 Once the Netspex designer is initialized, the Microstation splash screen appears and then afterwards the ProjectWise dialogue appears as shown in figure 4-33 below. Set the ProjectWise dialogue to the data source and set the other boxes according to the

user's name and password. Select in ProjectWise the project folder as shown in figure 4-33 below and click the drawing file. Proceed by clicking the 'Open' button and the file then opens in Microstation.

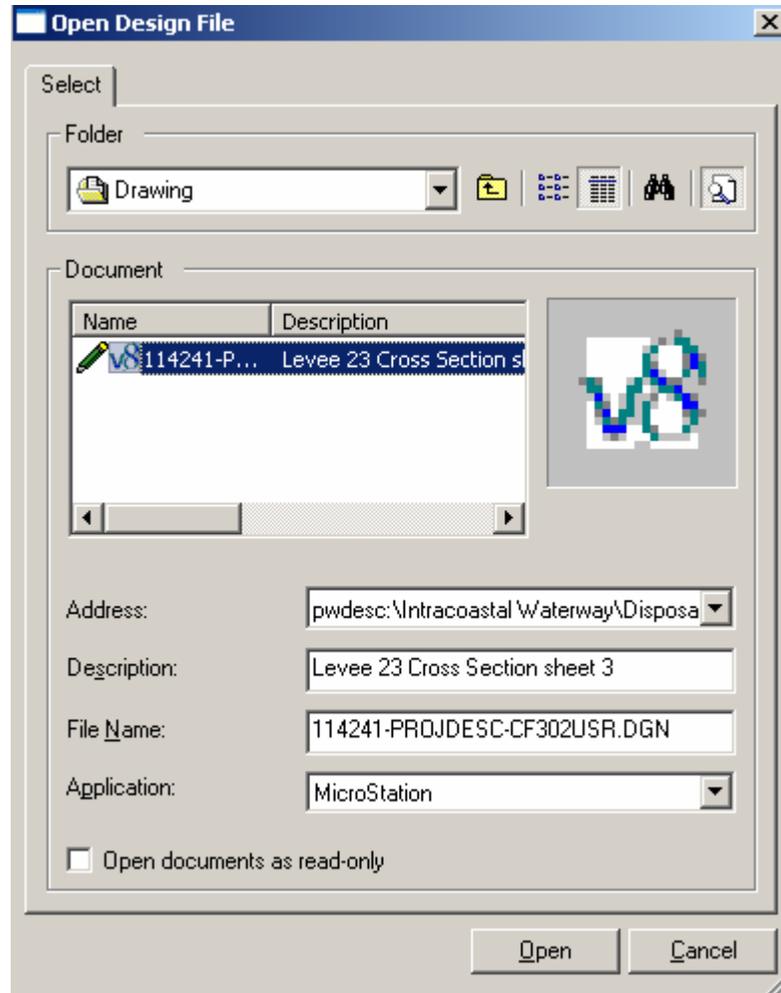


Figure 4-33

The Netspex branding wizard then appears. Select the discipline as civil, drawing type and scale 1=20', see figure 4-33. Within this model file there is only one type of model so keep the save branding to file checked.

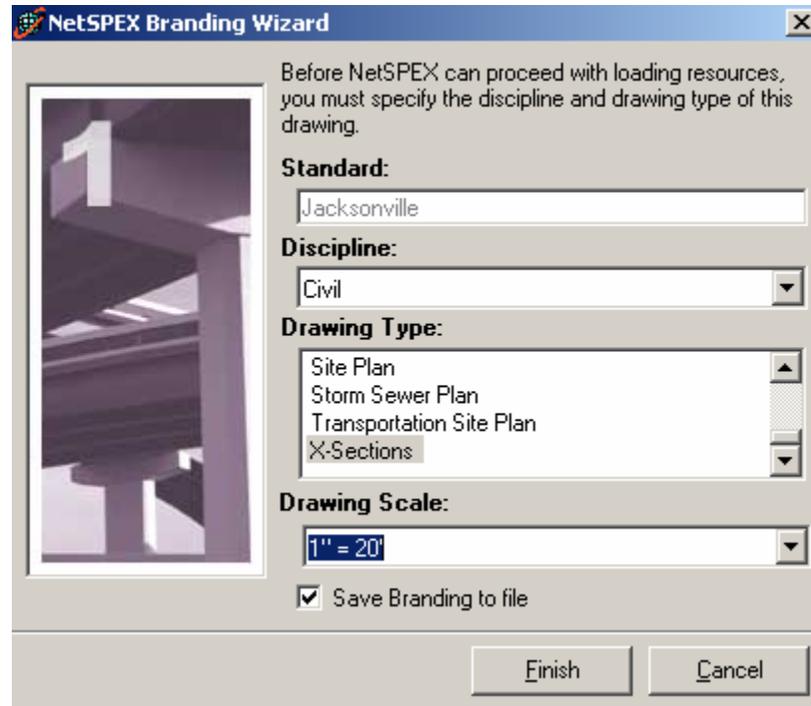


Figure 4-34

After the clicking the finish button of the Netspex Banding Wizard shown in figure 4-34, the Netspex Designer box appears.

4.7 Drawing File Elements. Use the model file to develop the drawing file elements. All design graphics pertain to the specific model type.

4.8 Scale Relationship. The plot scale of the sheet file and scale of the border file is set by the dominant model file used.

4.9 Placement of Elevations and Views. Place the elevations in a logical order; normally the front elevation is placed at the top-left corner of the sheet file. Other elevations are then placed to the right and below the front elevation. When a sheet file contains multiple views of a facility or structure, place the Plan View at the top-left corner of the sheet file. Then “unfold” the other views to the right and below the Plan view.

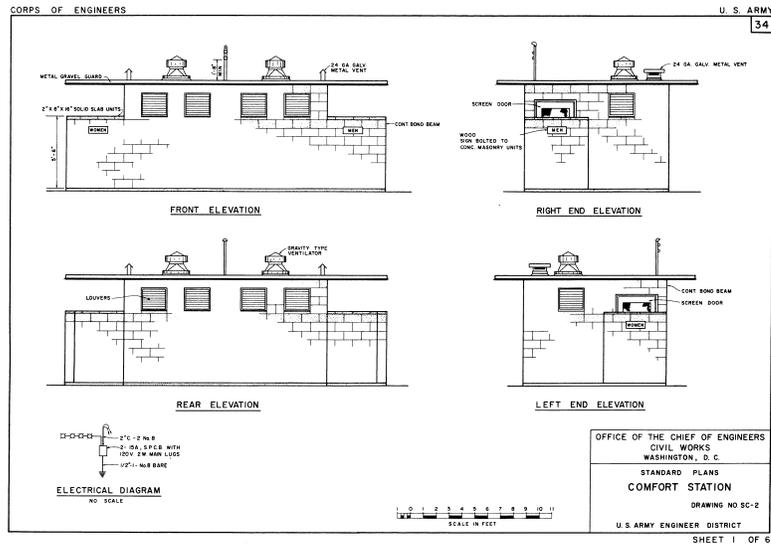
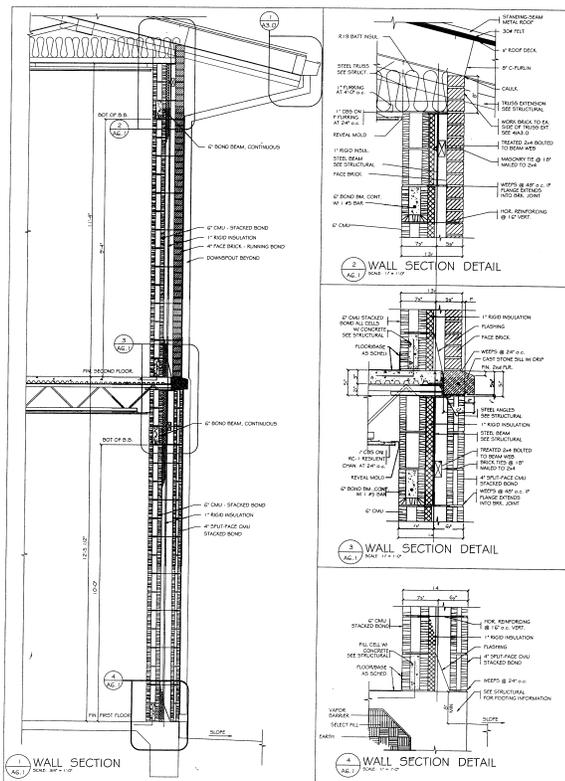


Figure 4-35

4.10 **Layout of Cut Sections.** Cut sections from the bottom of the sheet to the top of the sheet.



E 2-14 ■ Placing details near the source of the reference and using a logical order of presentation can aid the print reader. Courtesy G. Willard U.A., Archer & Archer PA.

Figure 4-36

4.11 **Detail Layout.** Set the details in a sequential flowing logical order, see example figure 4-37. If the detail contains a plan view, place the plan view in the top-left corner of the sheet file. When the details are laid out set all the views and sections in proper orientation to each other.

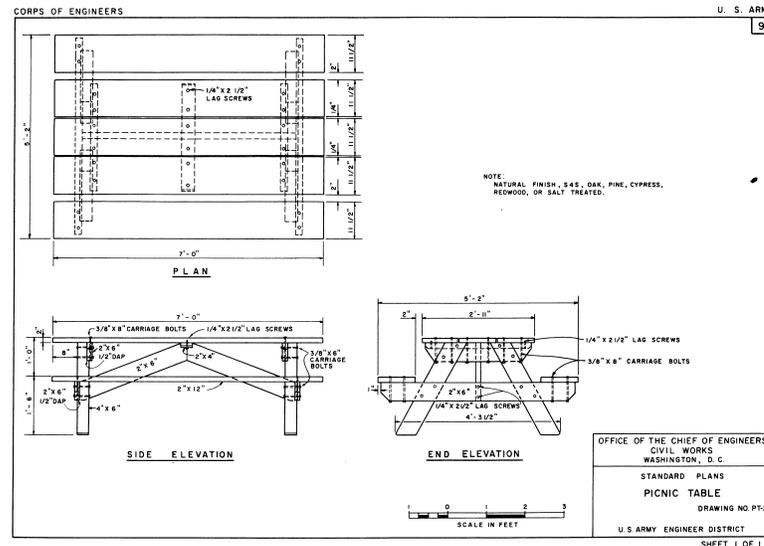


Figure 4-37

4.12 **Text and Scales.** Place text, scales and general notes on the sheet file, by copying from the border companion file, the general note placeholder, and the scale relating to the drawing.

4.13 **Model File Scale.** Model files are drawn at real world scale and typically represent an existing or proposed object or surface as seen in plan view, elevation, section, etc. All details and sections are drawn at full size. Enlarged elements such as details are referenced and resized at desired scale. Model file plans and elevations do not contain any plot scale dependent information such as text, dimensions or graphic symbols.

4.14 **Sheet File Development.** The sheet file serves as a container to which the model files are referenced. The sheet file is a container "holding one or more models and general information".

4.15 **Border File Attachment.** Reference the border file to the sheet file at the desired plot scale size for plotting the drawing using the border saved view. Set the scale of the reference border to the dominant scale to be used on the drawing.

Note: The border file should only be reference to the sheet file and not copied into the sheet file.

4.16 **Valve House Example.** A Valve House sheet file contains a series of drawings. The sheet file is created by choosing the seed file and saving as a new drawing.

The structural drawing r_valuvehouse.dgn model file is created and attached as a reference file, see figure 4-38.

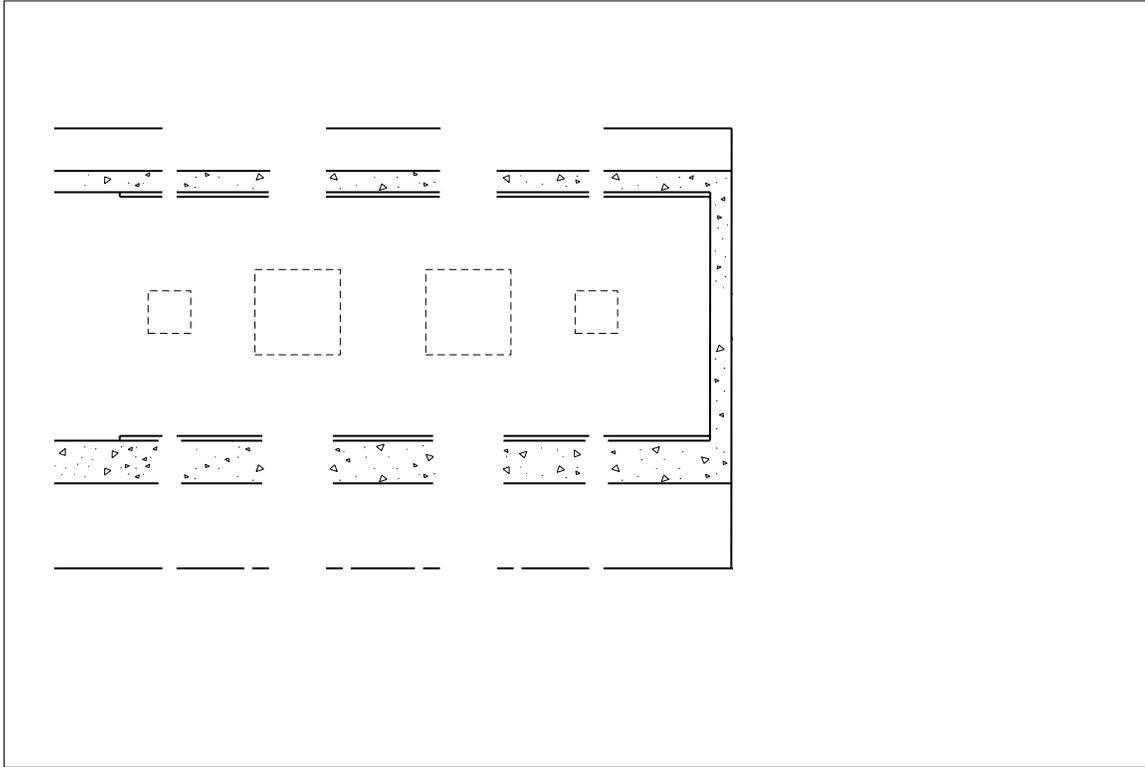


Figure 4-38

For the Valve House a Mechanical model file drawing r_valuvehouse.dgn is created and then referenced to the sheet file drawing shown as figure 4-39 where both the model structural and mechanical files are attached to the sheet file.

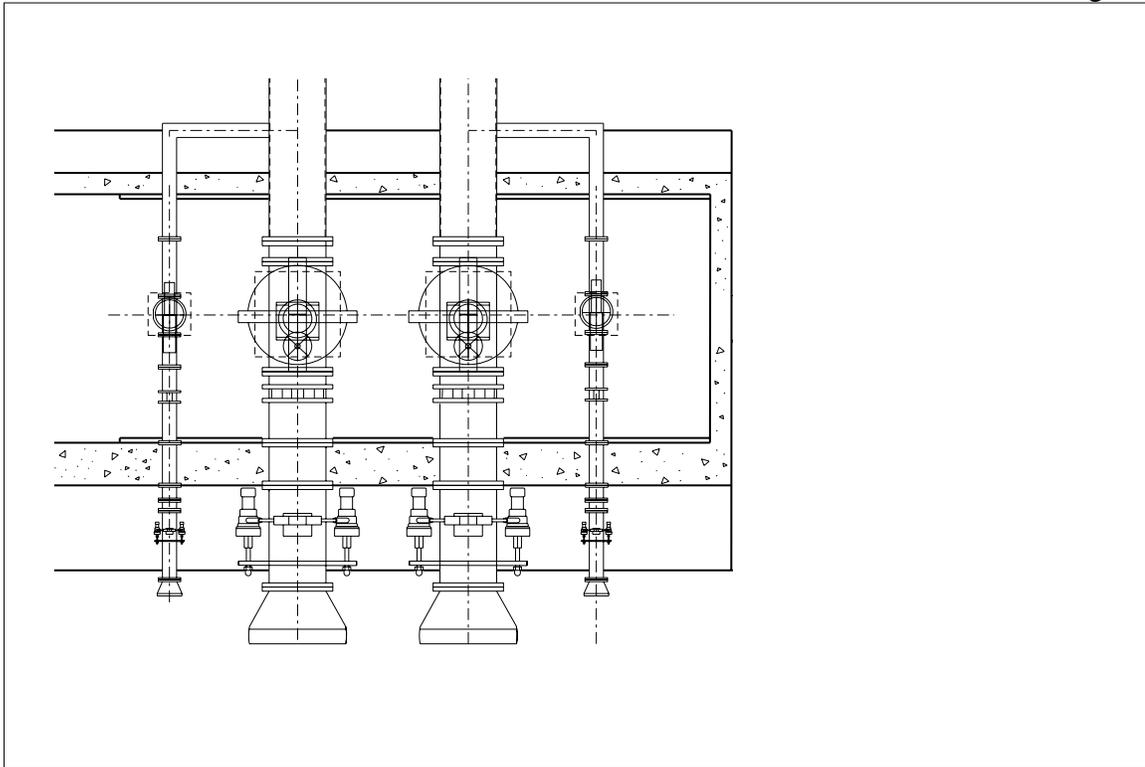


Figure 4-39

The border companion file is attached to the sheet drawing file using saved view. For a 3/8"=1'-0" scale set the master reference scale to the $1/(3/8)=2.6667$, see drawing figure 4-40.

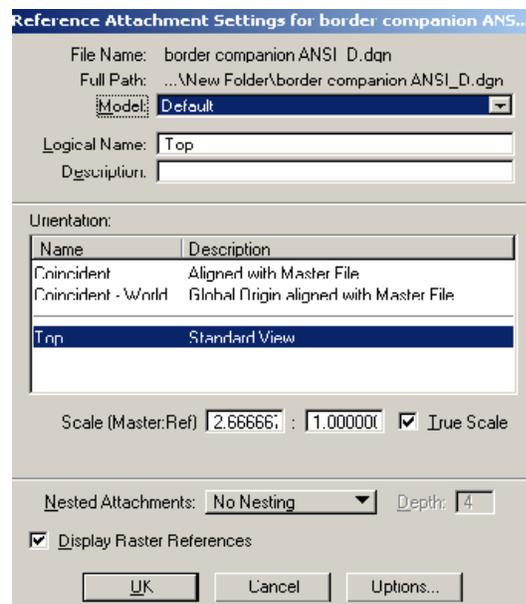


Figure 4-40

The border file is attached to the sheet file as a reference file use 'Save View' or 'Top Standard View' to set the orientation. Set the scale to the sheet file plot scale.

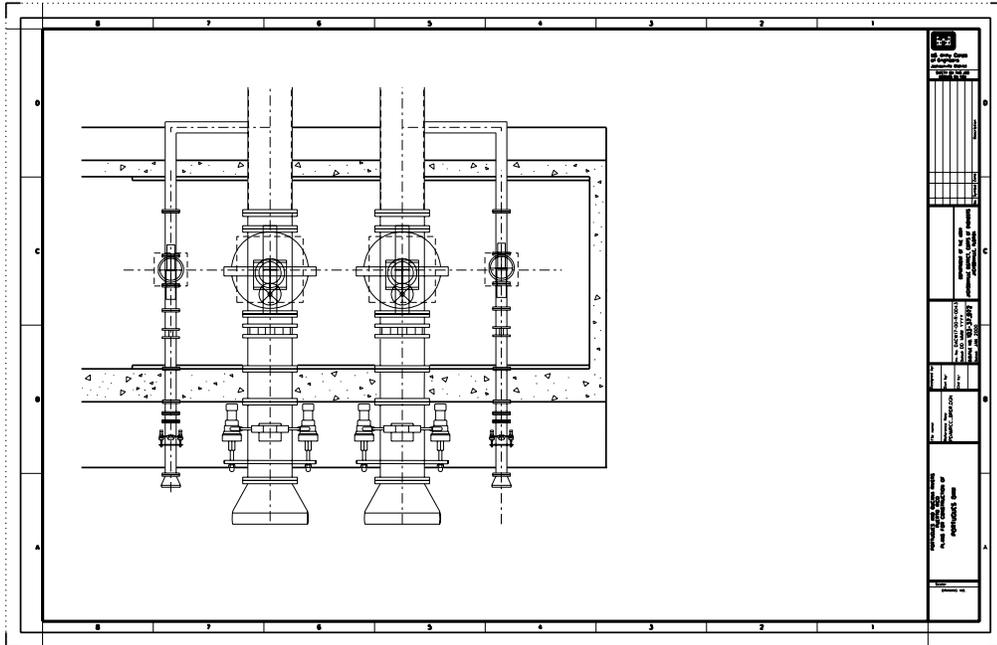


Figure 4-41

Using 'Saved View' reference the border to the required scale around the M-102 mechanical valve design. Using the border companion, copy the attached referenced elements graphic scales to the sheet file.

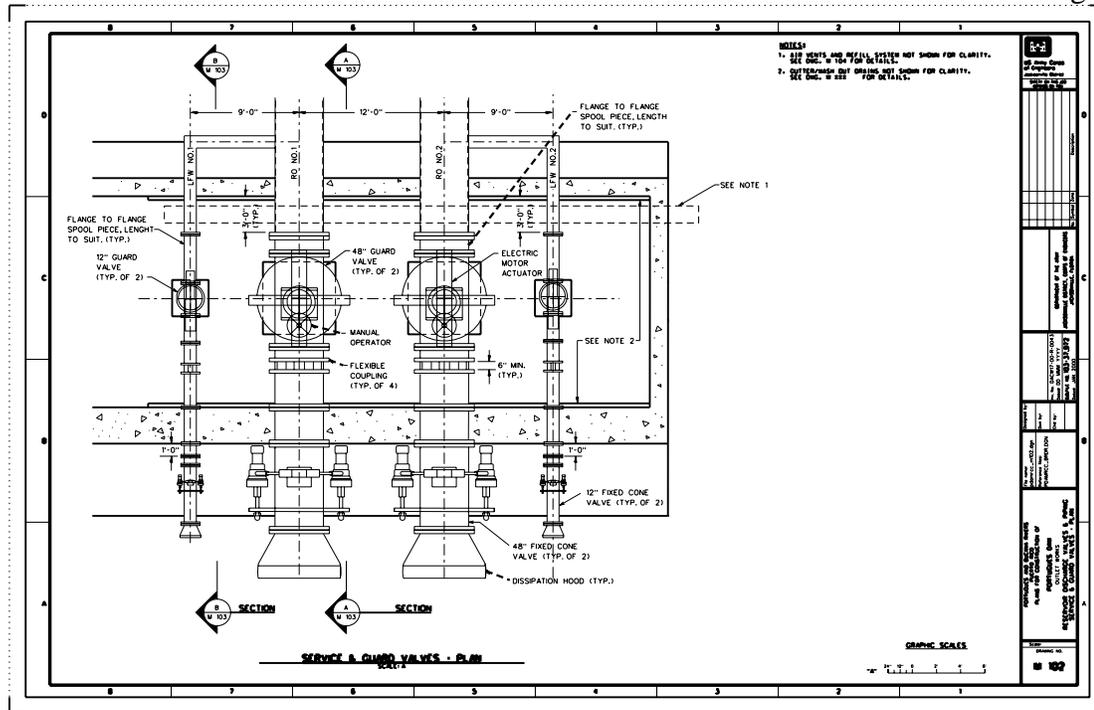


Figure 4-42

4.17 **Site Plan.** Indicate on the site plan, all work and construction limits applicable to the project. Clearly delineate the right-of-way, work limits and access and indicate topographic detail that may affect or restrict the construction.

4.18 **Orientation.**

4.18.1 General maps and site plans shall be oriented with north toward the top of the drawing. Vicinity maps shall be orientated in the same direction as the main map or the principal plan on the drawing.

3.18.2 Projects are laid out horizontally on a sheet.

4.18.3 Orient general and detail plans of canals, channels, locks, dams, and similar structures with the direction of water flow from top to bottom of the sheet, if practicable, or from left to right.

4.18.4 Riverbank orientation is always determined as being right bank or left bank by facing in direction of the water flow (downstream) see figure 4-43.

4.18.5 Cross sections are generally shown as if the observer were looking downstream. However, some construction drawings of flood control projects will require the section to be shown looking upstream. For instance, downstream elevations will be unique for some projects and drawn as shown in Figure 4-44.

4.18.6 Work Orientation on Existing Projects: The orientation of work on existing projects shall match existing project drawings, general plans, elevations, and longitudinal sections of channels, locks, dams, and similar hydraulic control structures to match existing project drawings.

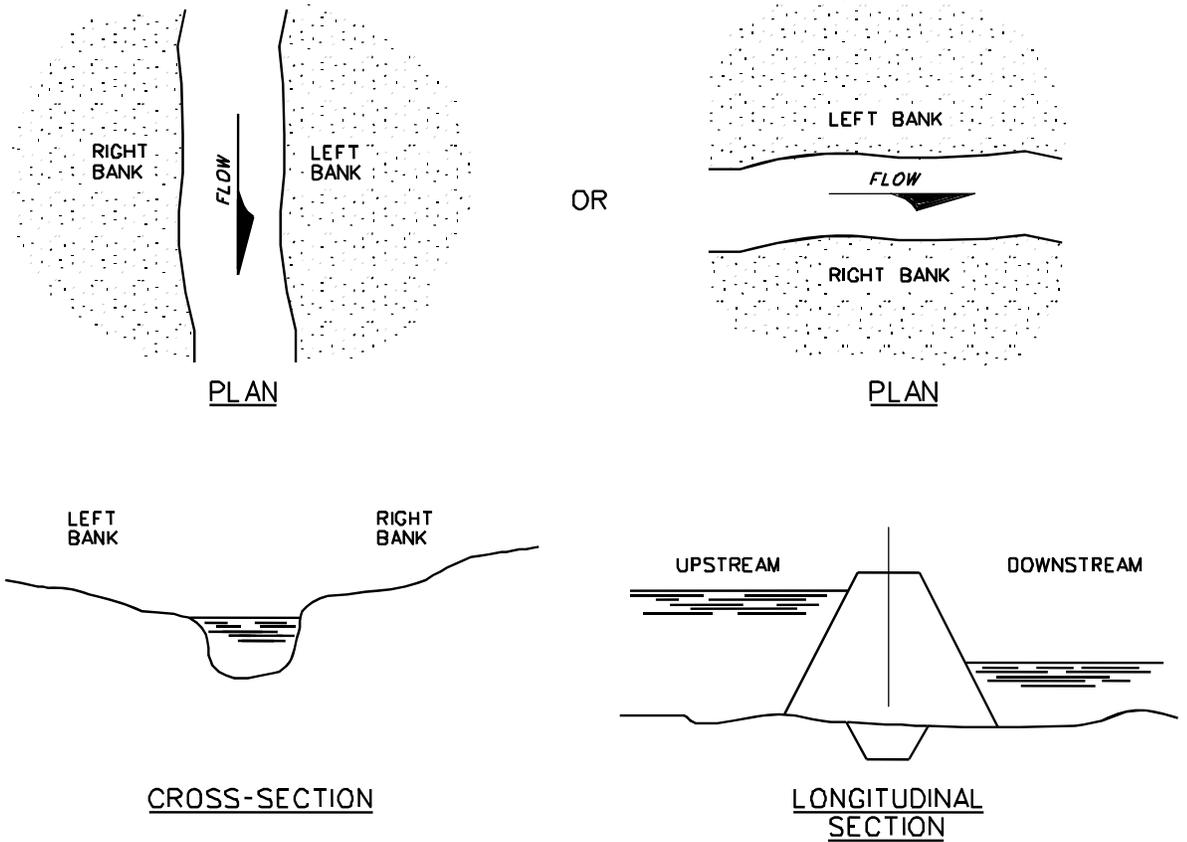


Figure 4-43

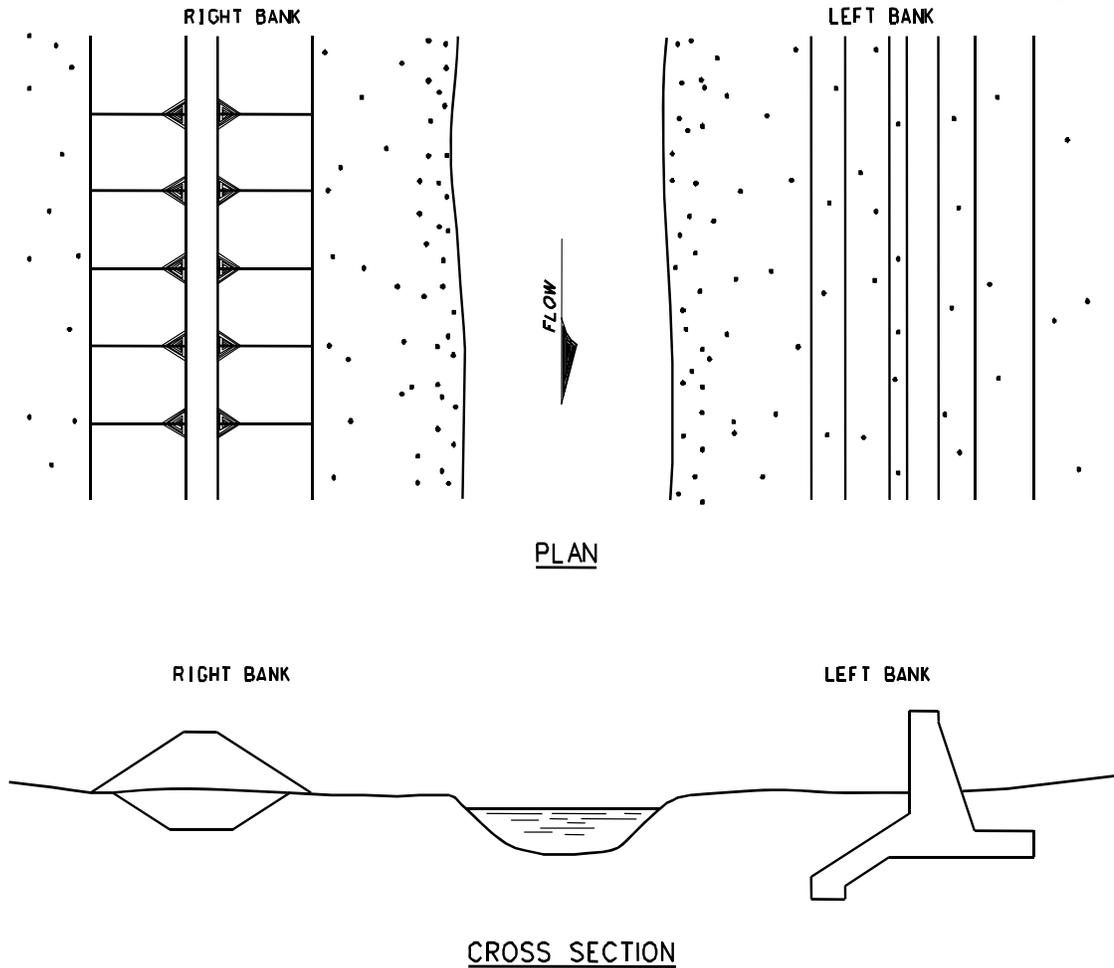
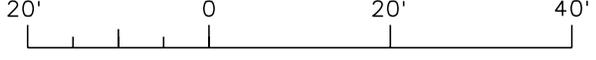


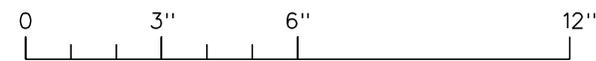
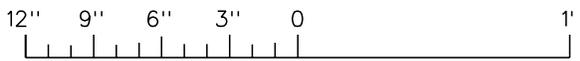
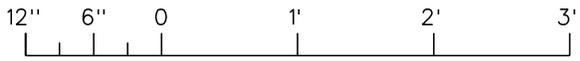
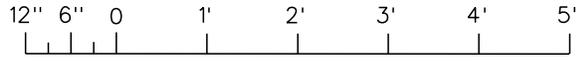
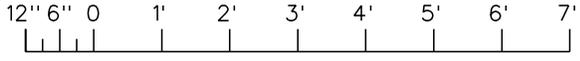
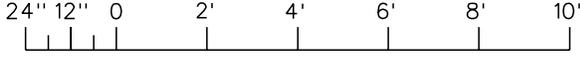
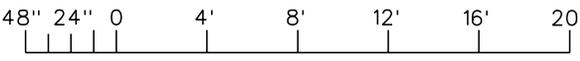
Figure 4-44

4.19 **Scales.** Use scales that are industry standard for architect and engineering scales, and avoid using unusual scales, see figure 4-45. The drawing shall scale to the size the drawing was prepared and scale to the indicated graphic scale size. The scale of each view, detail, or section drawn shall be indicated by a reference to a graphic scale located on the drawing. The graphic scale reference shall be entered directly below the title of the detail, view, or section using the format “SCALE: “*scale ID letter*”” under the title. In the case of diagrams, pictorials, and other drawings not prepared to any scale the word “N.T.S.” not to scale shall be entered after “SCALE” under the detail, view or section title, for example: “SCALE: N.T.S.”

ENGINEERING GRAPHIC SCALES

"X"		SCALE: 1"=100'-0"
"X"		SCALE: 1"=80'-0"
"X"		SCALE: 1"=60'-0"
"X"		SCALE: 1"=50'-0"
"X"		SCALE: 1"=40'-0"
"X"		SCALE: 1"=30'-0"
"X"		SCALE: 1"=20'-0"
"X"		SCALE: 1"=10'-0"
"X"		SCALE: 1"=5'-0"

ARCHITECTURAL GRAPHIC SCALES

"X"		SCALE: 1"=1'-0"
"X"		SCALE: 3"=1'-0"
"X"		SCALE: 1 1/2"=1'-0"
"X"		SCALE: 3/4"=1'-0"
"X"		SCALE: 1/2"=1'-0"
"X"		SCALE: 3/8"=1'-0"
"X"		SCALE: 1/4"=1'-0"
"X"		SCALE: 1/8"=1'-0"

NOTES:

SCALES TO BE IDENTIFIED ALPHABETICALLY, "A", "B", "C" PER SHEET.

Figure 4-45

4.20 **Key Plan.** A key plan representing a smaller image on a single drawing should be used when plans of larger buildings, structures or site work would be too large to show on a single drawing.

4.20.1 Segmental drawings shall include appropriate key plans and match lines.

4.20.2 The key plan shall be placed in a convenient location and shall indicate the represented plan area shown on the drawing by crosshatching.

4.21 **Utilization of Record Drawings Within the Contract Set.**

4.21.1 Referenced "As-Built" drawings from previous contracts are deemed necessary for information purposes only, the words "FOR REFERENCE ONLY" shall be printed in bold letters immediately above the title block or as near thereto as practical. The original title blocks shall not be changed. All reference drawings shall be identified as such and listed in the Index of Drawings as "REFERENCE ONLY- name of record As-Built Drawing."

4.21.2 When 'As-Built Drawings' are used within the set, the index drawing shall have the note included

“THREE-QUARTER SIZED DRAWINGS SHOWN ARE CONTRACT DRAWINGS FROM PREVIOUS PROJECTS AND MAY NOT REPRESENT CURRENT CONDITIONS. THESE DRAWINGS ARE INCLUDED FOR REFERENCE ONLY. THESE REFERENCE DRAWINGS ARE NOT TO SCALE AND SHALL NOT BE USED TO DETERMINE LINEAR OR ANGULAR MEASUREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING REFERENCE DRAWING INFORMATION USED DURING THE PERFORMANCE OF THIS CONTRACT. ALL KEY NOTES, GENERAL NOTES, AND NEW DETAILS SHOWN BESIDE OR BELOW THE REFERENCE DRAWINGS APPLY TO THIS CONTRACT.”

4.21.3 When reference to 'As-Built Drawings' from previous contracts are deemed necessary for information only purposes, but have been destroyed or are missing, a developed current condition drawing may be prepared as a substitute. Any drawing created, as a developed current condition drawing will be marked with the statement

“DEVELOPED CURRENT CONDITION SHOWN FOR INFORMATION ONLY, CONDITIONS, ARRANGEMENTS, AND APPLICATION HAVE NOT BEEN VERIFIED.”

4.21.4 When 'As-Built Drawing' is of poor quality, digital image of existing condition should be utilized to represent the condition.

4.22 **Redline Procedures.**

4.22.1 Check prints shall be marked-up by the engineer or drawing checker using the following color notations:

Red – indicates correction, revision, or addition is required.

Green – indicates information to the technician or draftsman.

Purple – indicates deletion.

Blue – indicates information to the engineer or drawing checker.

4.22.2 The designer or draftsman shall mark-up redline prints with a yellow highlighter as each correction, revision, or addition is accomplished. Once all corrections, revisions, or additions are completed the redline print and a current check print of the drawing will be returned to the engineer or drawing checker.

4.23 **Drawing Revision** (see figure 4-46).

4.33.1 During the contract advertisement period revisions are amendments, after award of a contract revisions are modifications.

4.23.2 Revision Symbol. Revision Symbol shall be an equilateral triangle. This triangle shall be 1.5 times the revision block size in the drawing area.

4.23.2.1 All revisions shall be flagged by a revision symbol. The revision symbol should be positioned adjacent to the change or revision. Revision symbols shall be uppercase letters in alphabetical sequence. The letters “I”, “O”, “Q”, and “X” shall not be used.

4.23.2.2 When revisions are numerous enough to exhaust the alphabet, the revision symbol following “Z” shall be “AA”, followed by “AB” and so on. The drawing index sheet shall be updated to include a revision symbol at the index listing for that drawing. When numerous changes are made to one area on the sheet and the revision symbols crowd the drawing, use a single revision symbol at the subtitle or title of the view.

4.23.2.3 How many times or locations the revision symbol is used on the drawing shall be indicated in the Number column of the Revision Block.

4.23.2.4 Location of the revision symbol on the drawing shall be shown in the Zone column of the Revision Block. If numerous revision symbols populate the entire drawing, a dash (hyphen) may be placed in the zone column.

4.23.2.5 A short description shall be placed in the Revision Block. When amendment changes are to be furnished to bidders through issuing a revised drawing and the amendment documents together. The wording in the Revision Block Description column

shall be “REVISED TO ACCOMPANY” the amendment. If drawings are revised descriptively, then the drawing shall be revised after the amendment, modification is issued, and the wording in the revision block description column shall be “revised to conform to amendment

4.23.2.6 Examples of amendment and modification revisions:

- a. Modification; “THIS DRAWING ADDED MODIFICATION SUFFIX “A””
- b. Amendment; “REVISED TO CONFORM TO AMENDMENT NO 0002”
- c. Amendment; “REVISED TO ACCOMPANY AMENDMENT NO 0005”

4.23.2.7 Filenames of modified or amended drawings will remain unchanged.

4.23.2.8 When a drawing is to be replaced to consolidate numerous revisions into one change, the revision letter next in sequence shall be entered in the Revision Block. The description of the change shall be entered in the description column or reference made to a change authorization document describing the change. The following note shall be added to the drawing immediately above the Title Block “THIS DRAWING REPLACES PREVIOUS DRAWING CONTAINING REVISIONS “?” THROUGH “?””. The replaced drawing shall have the word “SUPERSEDED,” added to the old original one beside the title block. The drawing file that has been replaced shall have the code “sup” added at the end of the file name.

4.23.2.9 When drawings are added to or deleted from an existing advertised/awarded contract project, a revision symbol shall be placed on the index of drawings adjacent to the added drawing. For deleted drawings, a line should be drawn through the index listing for that drawing with the word "deleted" inserted at the end of the title. The revisions block of the index drawing should also be flagged and the addition/deletion noted.

4.23.2.10 When a drawing has received extensive revisions a single revision symbol shall be placed within the title block border, just below the sheet identification block. This method should be used when the number or amount of revisions to the drawing graphics makes listing the zone of each revision impractical.

1	△	F5	REVISED TO ACCOMPANY AMENDMENT NO. 0007
3	△	C2,B7	REVISED TO ACCOMPANY AMENDMENT NO. 0005
No.	Symbol	Zone	Description

△ THE GRAPHIC REVISION SYMBOL SHALL BE 1.5 LARGER THAN THE REVISION BLOCK SYMBOLGY

NOTES:

1. START ON THE BOTTOM LINE AND GO UP.
2. BLOCK "NO." SHOWS HOW MANY TIMES THE REVISION IS SHOWN ON THE DRAWING. I.E. 3.
3. BLOCK "SYMBOL" INDICATES THE REVISION SEQUENCE SYMBOL. WE USE LETTERS. FIRST REVISION ON THE DRAWING IS 'A', SECOND WILL BE 'B' AND SO ON. ALL REVISIONS SYMBOLS ARE ENCLOSED BY A TRIANGLE.
4. BLOCK "ZONE" INDICATE WHICH ZONE THE REVISION SYMBOL IS SHOWN ON THE DRAWING. IF THE SYMBOL IS USED IN MULTIPLE ZONES. SHOW ALL ZONES IN THIS BLOCK. IF NECESSARY THE TEXT SIZE IN THIS BLOCK MAY BE REDUCED TO FIT ALL REQUIRED INFORMATION INSIDE THE BLOCK.
5. BLOCK "DESCRIPTION" SOME STANDARD STATEMENTS ARE LISTED BELOW:
 - "THIS DRAWING ADDED MOD SUFFIX "Y" OR THIS DRAWING ADDED TO CONFORM TO AMENDMENT"
 - "REVISED TO CONFORM TO AMENDMENT NO 0002" (IF DRAWING IS DONE AFTER AMENDMENT IS ISSUED).
 - "REVISED TO ACCOMPANY AMENDMENT NO 0005 (IF DWG IS DONE PRIOR TO THE AMENDMENT BEING ISSUED).
 - "MODIFIED TO CONFORM TO MOD SUFFIX "Y".
6. WE DO NOT USE A REVISION CLOUD ON OUR DRAWINGS.
7. THE REVISION SEQUENCE SYMBOL ALONG WITH TRIANGLE WILL BE PLACED AT EACH LOCATION ON THE DRAWING WHERE THE REVISION APPLIES.
8. THE REVISION SEQUENCE SYMBOL ALONG WITH TRIANGLE CAN BE PLACED ON THE DETAIL, SECTION, ETC IF THERE WAS A MAJOR REVISION OF THE DETAIL.

REVISION BLOCK CONVENTION

Figure 4-46

4.24 **Arrangement of Contract Plans.** Contract plan discipline designator drawing index sequence required by the National CAD Standard and A/E/C CADD Standard to be used for construction drawings.

4.25 **Plan Set Requirements.** All plan sets shall include as a minimum, Jacksonville District Corp of Engineers cover sheet, abbreviations, and a key plan.

JACKSONVILLE HARBOR, FLORIDA (.120) PREDREDGING SURVEY (.175) 38-FOOT PROJECT (.175) CONTRACT 75C-0050 (.120) CUTS 52 AND 53 (.140) PLAN (.140)	>
<u>PREDREDGING SURVEY</u>	
JACKSONVILLE HARBOR, FLORIDA (.120) MAINTENANCE DREDGING (.175) 38-FOOT PROJECT (.175) CUTS 18 THROUGH 42 (.120) PLAN (.140)	>
<u>MAINTENANCE DREDGING</u>	
CENTRAL AND SOUTHERN FLORIDA PROJECT (.120) UPPER ST. JOHNS RIVER BASIN (.120) LEVEE 74N (REMAINDER), (.175) STRUCTURE 263, STRUCTURE 264 (.175) AND STRUCTURE 256 REPAIRS (.175) LEVEE 74N ALIGNMENT PROFILES (.120) STA. 120+00 TO STA. 240+00 (.140)	>
<u>LEVEE</u>	

Figure 4-47

CENTRAL AND SOUTHERN FLORIDA PROJECT	(.120)
UPPER ST JOHNS RIVER BASIN	(.120)
STRUCTURE 96B AND TIEBACK LEVEE	(.175)
MECHANICAL	(.120)
GATE HOIST	(.140)
DETAILS NO. 1	(.140)
▷	
<u>STRUCTURE</u>	
CALOOSAHATCHEE RIVER AND LAKE	(.120)
OKEECHOBEE DRAINAGE AREAS, FLORIDA	(.120)
LOCK NO. 1-ST. LUCIE CANAL	(.175)
ARCHITECTURAL	(.120)
MACHINERY HOUSES	(.140)
PLANS, ELEVATIONS AND DETAILS	(.140)
▷	
<u>LOCK AND DAM</u>	
CENTRAL AND SOUTHERN FLORIDA PROJECT	(.120)
FOR FLOOD CONTROL AND OTHER PURPOSES	(.120)
LEVEE 29 BORROW CANAL ENLARGEMENT	(.120)
STRUCTURES 333, 334, AND 336	(.120)
STRUCTURE 333	(.175)
ELECTRICAL	(.120)
CONTROL WIRING DIAGRAM	(.140)
▷	
<u>CENTRAL AND SOUTH FLORIDA</u>	

Figure 4-48