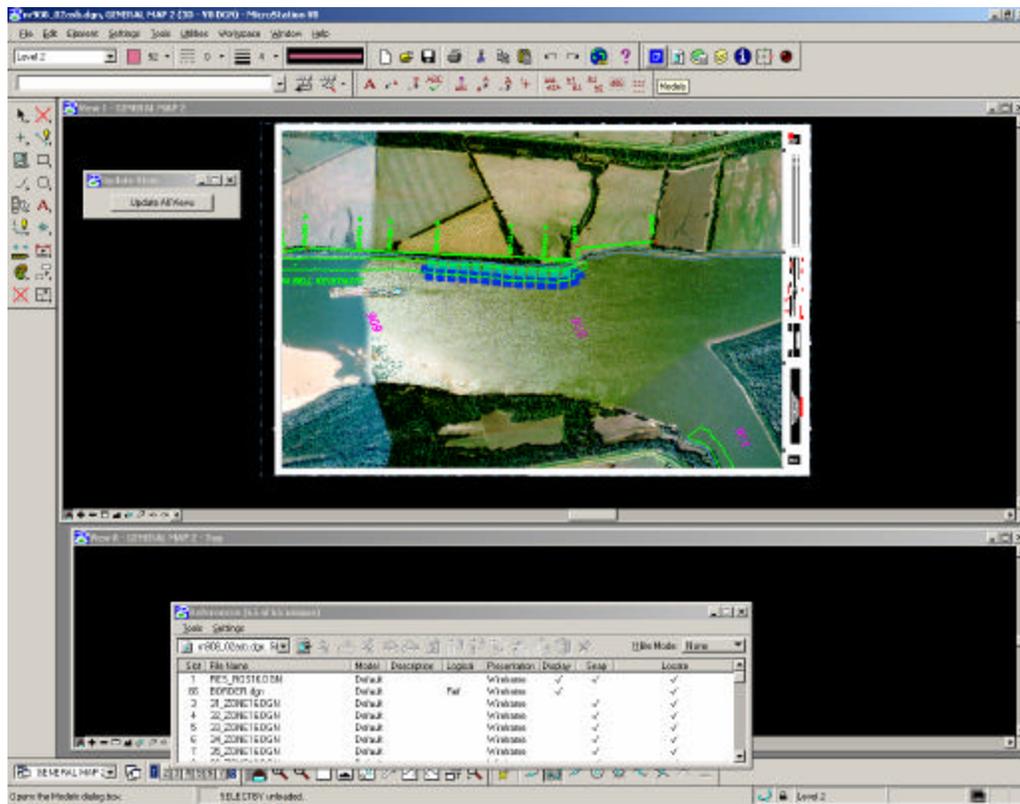


## Creation of final plan sheets:

### Step 1. Creation of the General Map

1. Create another model for the General Map
  - a. Click on the Models button at the top of the Microstation window. (This is the blue button seen below with the word “models” underneath it.)

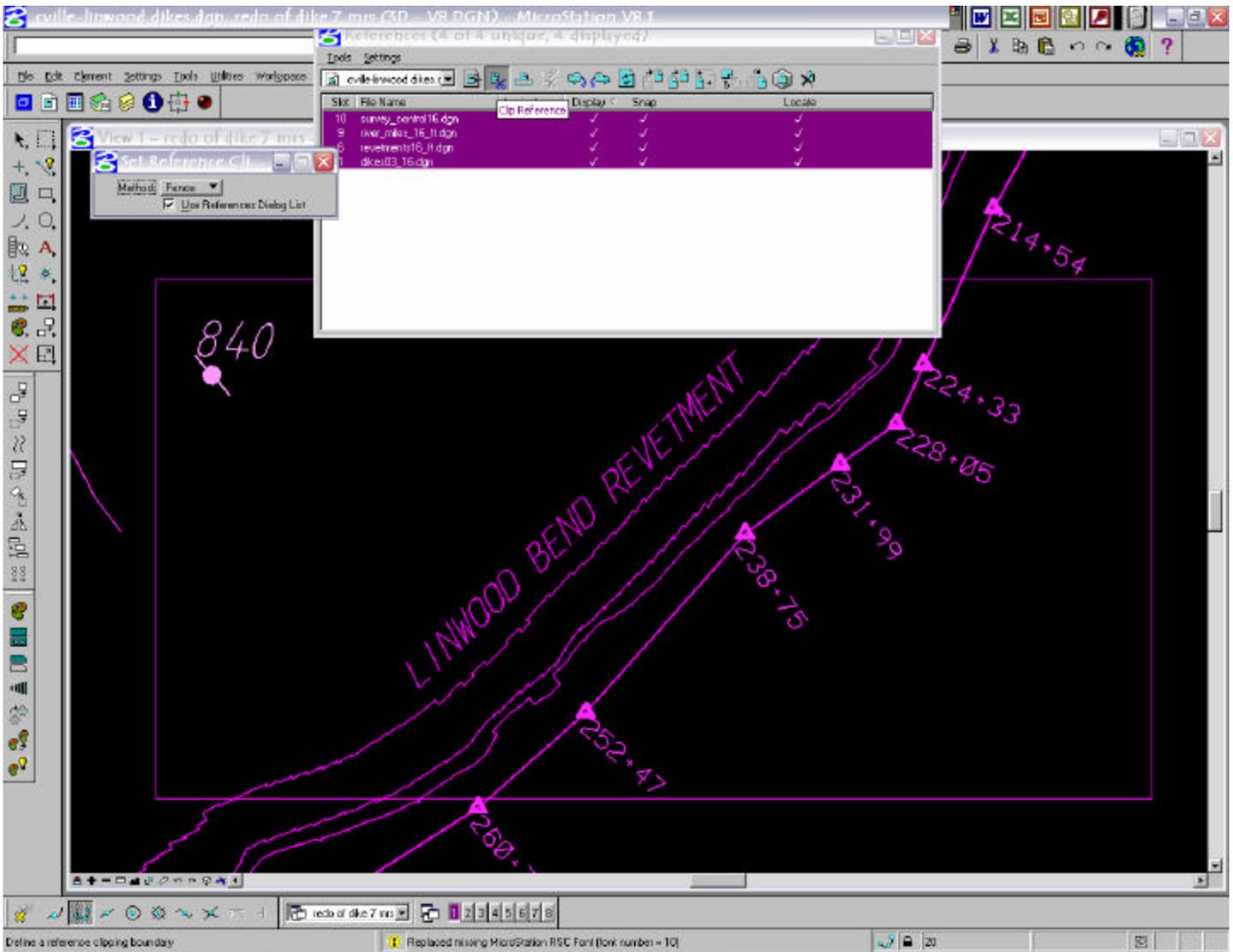


- b. Click on the Copy button on the Models window (This is the second button from the left.)
    - c. Choose the model to copy from the drop down list. I use the Revetment design model or the survey request model.
    - d. Give the model a name referring to the General Map.
    - e. Provide a brief description so that you can easily identify it later
    - f. Click the OK button
  2. Reference the correct border sheet for the General Map (hint: the name will have GM in it.) Here is a link to these files:

[\\Mvm-fs-river\River\\_Data2\river\\_engineering\\_personal\\_folders\Kandi's\\_workflows\borders\revetments](\\Mvm-fs-river\River_Data2\river_engineering_personal_folders\Kandi's_workflows\borders\revetments)

3. Move the border sheet to the area in which the work will be performed
      4. Rotate the sheet so that it best fits your project. This may mean that you are going to later need to rotate the file to make it perpendicular to the border sheet as shown above.
      5. If these are not already in your file, attach a reference file for:
        - a. River miles,
        - b. Survey Control Baseline,
        - c. Existing mat and riprap paving outlines (these two items are usually in the res\* file and will have the revetment names in it also.), and
        - d. Dike fields in the surrounding area.
      6. Place fence inside the border
      7. Select all the reference files that you attached in step 6 of this section (river miles, baseline, etc.)
        - a. Left click on the first reference file

- b. On the shift button on the keyboard down (only if all reference files are in a row) and left click on the last file in the list.
8. Clip the reference files except the border sheet



- a. with the reference files selected, Click on the clip reference button
- b. choose the fence option on the pop up window
- c. left click once in the window to view the clip
- d. left click again in the same window to accept the clip
9. Merge all of the reference files into the master except the border sheet
  - a. in the reference dialog window, go to file...merge into master
  - b. click on the working view window
  - c. click in the window again to accept the merge
10. Correct the line weight for all lines – this should be weight 4
  - a. Select the change attributes button
  - b. Click line weight on
  - c. Set line weight to 4
  - d. Click fence mode on
  - e. Click on the active window to select
  - f. Click again to accept
11. Correct the border sheet block

- a. Title block with title and river mile
- b. Sheet numbers
- c. Design by and checked by
- d. File name
- e. File no.
- f. Serial no.
- g. Etc.

12. This should be a completed General Map.

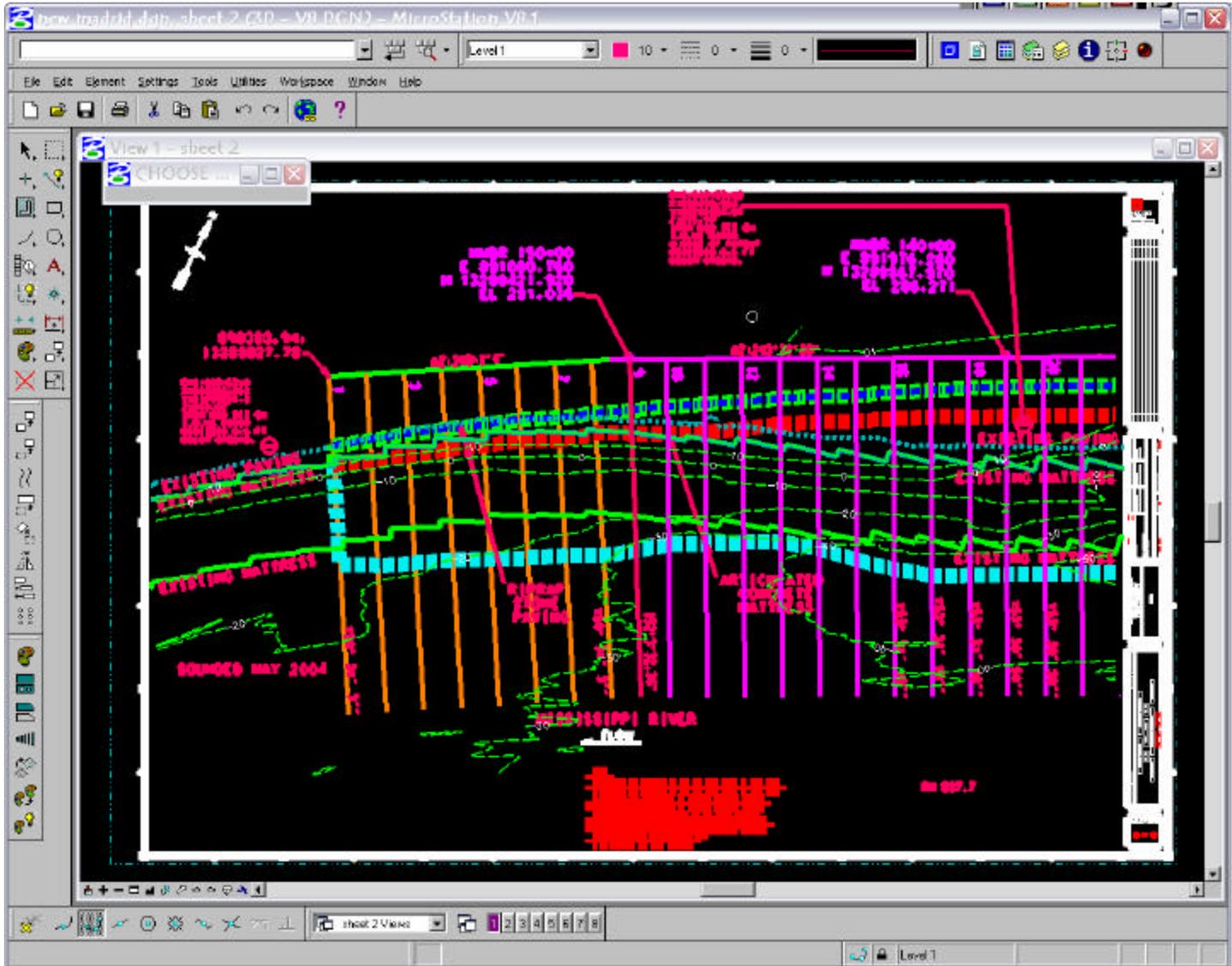
## Step 2. Creation of the Before Construction Survey Sheet(s)

1. Create a new model
  - a. Copy the revetment design model
  - b. Name the new model something to let you know that it is either sheet 2 or 3 or the BC survey sheet
  - c. Provide a description for the sheet that thoroughly describes the sheet
  - d. Click the ok button to complete the creation of the new model
  - e. Since the revetment design model will have the saved with View 1 and View 8 to pop up everytime that it is opened, then you will need to:
    - i. Close out View 8
    - ii. Maximize View 1
    - iii. Save settings
2. make sure that you are initially looking at the model in the top view
  - a. key-in vi=top  
or
  - b. choose the rotate view button on the bottom of the design view and choose top from the pop-up window
3. Reference in the border sheet for the bc-survey
4. Rotate the reference to best fit your design file – revetment design
  - a. For only one BC survey sheet in the plan set.
    - i. Information needed on these sheets are (immediately following the list is an example of how the before construction sheet should look):
      1. baseline – arbitrary or real depending on which was used in the design process.
      2. Recoverable points that were set by survey when you determined the construction locations for the year.
        - a. These points need to include point name, description, easting, northing, and elevation.
        - b. They also need to be located in the proper place if possible which should always be the case because when you asked survey to set the points, you should have provided the approximate location of the project along with explicit instructions on where want located.
      3. Distance and azimuth from one point to another along the baseline
      4. Designed limits for mat and paving with notes calling out each
      5. Existing mat and paving limits with notes calling each out.
      6. Cross sections lines which are the ones that you create for making the SOE file. These will also need to have the following:
        - a. The line name and
        - b. The line's azimuth for every beginning and ending line that has that same azimuth. In other words it the baseline is straight that you used to create your SOE file then you will only have 2 azimuths listed. If have

three lines that make up your baseline, then you will have three azimuth changes. Thus needing three sets of azimuths on the drawings.

7. River mile
  8. Note calling out Mississippi River with flow arrow underneath if possible.
  9. Sounded date for contours
  10. 10' contours using the latest survey
  11. North arrow
  12. corrected LWRP in the note at the center bottom of the sheet
- b. For two BC survey sheets in one file
- i. Reference the same border sheet twice in the same model
  - ii. Rotate the first reference border then the other to match the first one's rotation
  - iii. Overlap the second border sheet on the first
  - iv. Copy this model to another naming and providing the description relevant to order in which it will be in the set of plans. (i.e. Sheet 3 with description of BC survey sheet – lower end)
  - v. Go back to the first model (Sheet 2)
    1. Detach the second border sheet and any unnecessary reference files
    2. Rotate the view to make easier to clip
      - a. click on rotate view
      - b. choose 3 points
      - c. Tentative snap on the lower left corner of the border sheet then left click to choose
      - d. Tentative snap on the lower right corner of the border sheet then left click to choose
      - e. Tentative snap on the upper right corner of the border sheet then left click to choose.
    3. Place a fence on the inside of the border sheet
    4. Turn the border sheet off
    5. Clip the reference files that you have attached that need to be a part of this sheet
    6. Merge files into the master and clean up to make line clean and weights at a minimum weight 4
    7. Turn the border sheet back on
    8. Merge the border sheet into the Master
    9. Correct the border sheet and the LWRP in the note at the center bottom of the page
  - vi. Go to the second BC survey sheet (Sheet 3)
    1. Detach the first border sheet and any unnecessary reference files
    2. Rotate the view to make easier to clip
      - a. click on rotate view
      - b. choose 3 points
      - c. Tentative snap on the lower left corner of the border sheet then left click to choose
      - d. Tentative snap on the lower right corner of the border sheet then left click to choose
      - e. Tentative snap on the upper right corner of the border sheet then left click to choose.
    3. Place a fence on the inside of the border sheet
    4. Turn the border sheet off
    5. Clip the reference files that you have attached that need to be a part of this sheet

6. Merge files into the master and clean up to make line clean and weights at a minimum weight 4
  7. Turn the border sheet back on
  8. Merge the border sheet into the Master
  9. Correct the border sheet and the LWRP in the note at the center bottom of the page
5. This completes the BC Survey sheet(s) creation, and this is an example of how this sheet should look



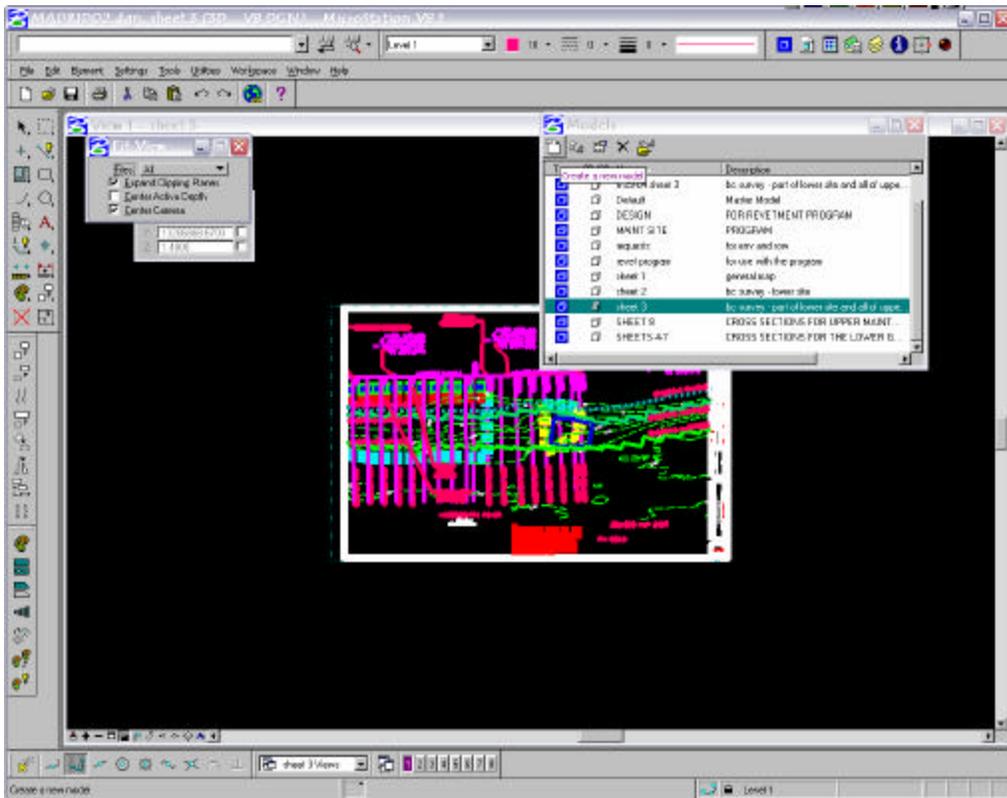
### Step 3. Creation of profile sheet

1. These were created in Steps 44-48 above when going through the design process. These will need some minor cleanups in the titles blocks and maybe on the profiles. Clean up!

### Step 4. Creation of gage sheet

1. Find the nearest gage to your project.
2. Go to [\\Mvm-wk-edd46338\users\Peterson\20YR\\_HYDRO](http://Mvm-wk-edd46338/users/Peterson/20YR_HYDRO) to get the correct design file for the chosen gage.
3. create a model in your design file with that gage file as the seed file
  - a. open the models window

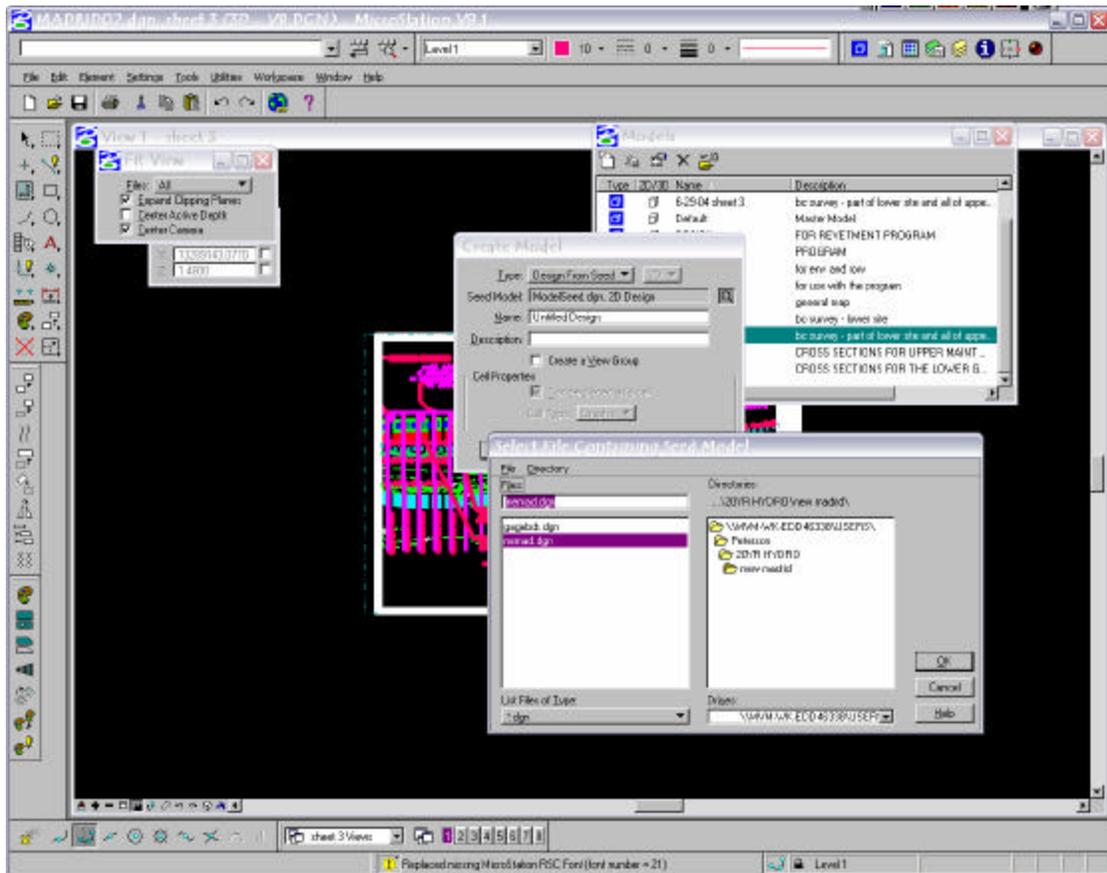
b. click on create new model



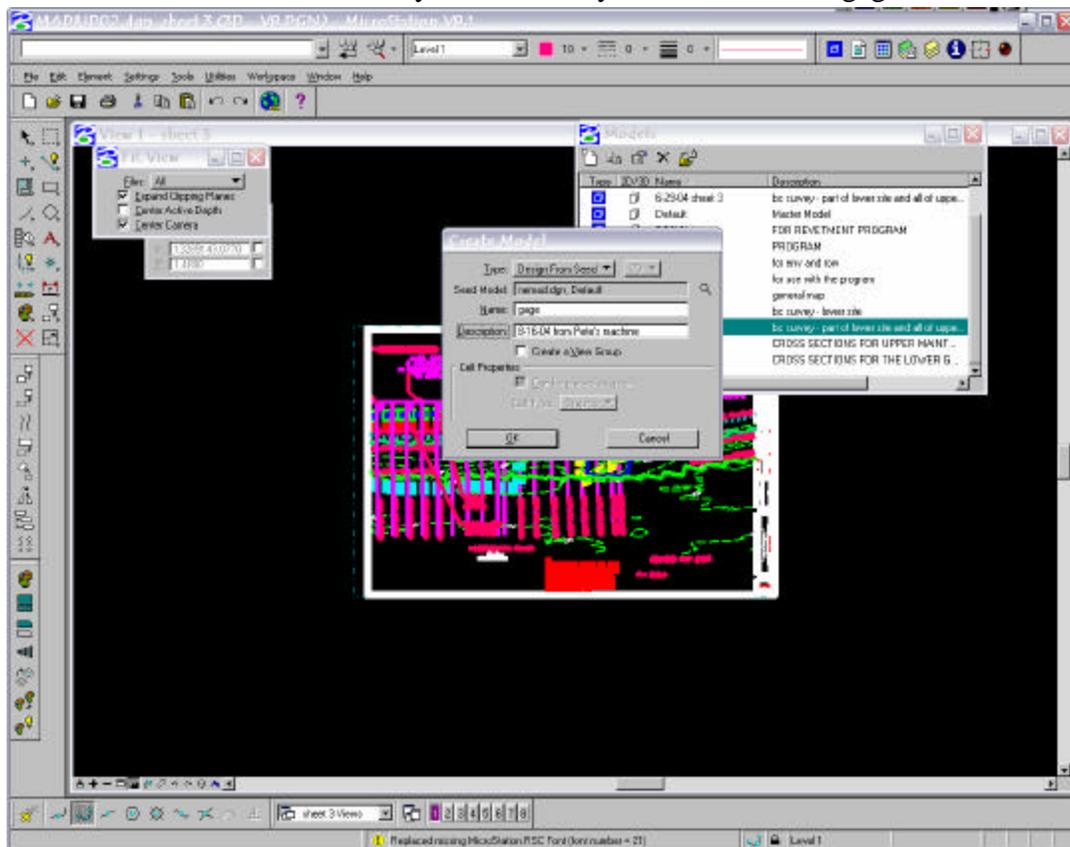
c. the create model window will pop up

d. click on the looking glass to the right of the seed model window. This will allow you to choose the design file that you want to serve as the seed file for this model.

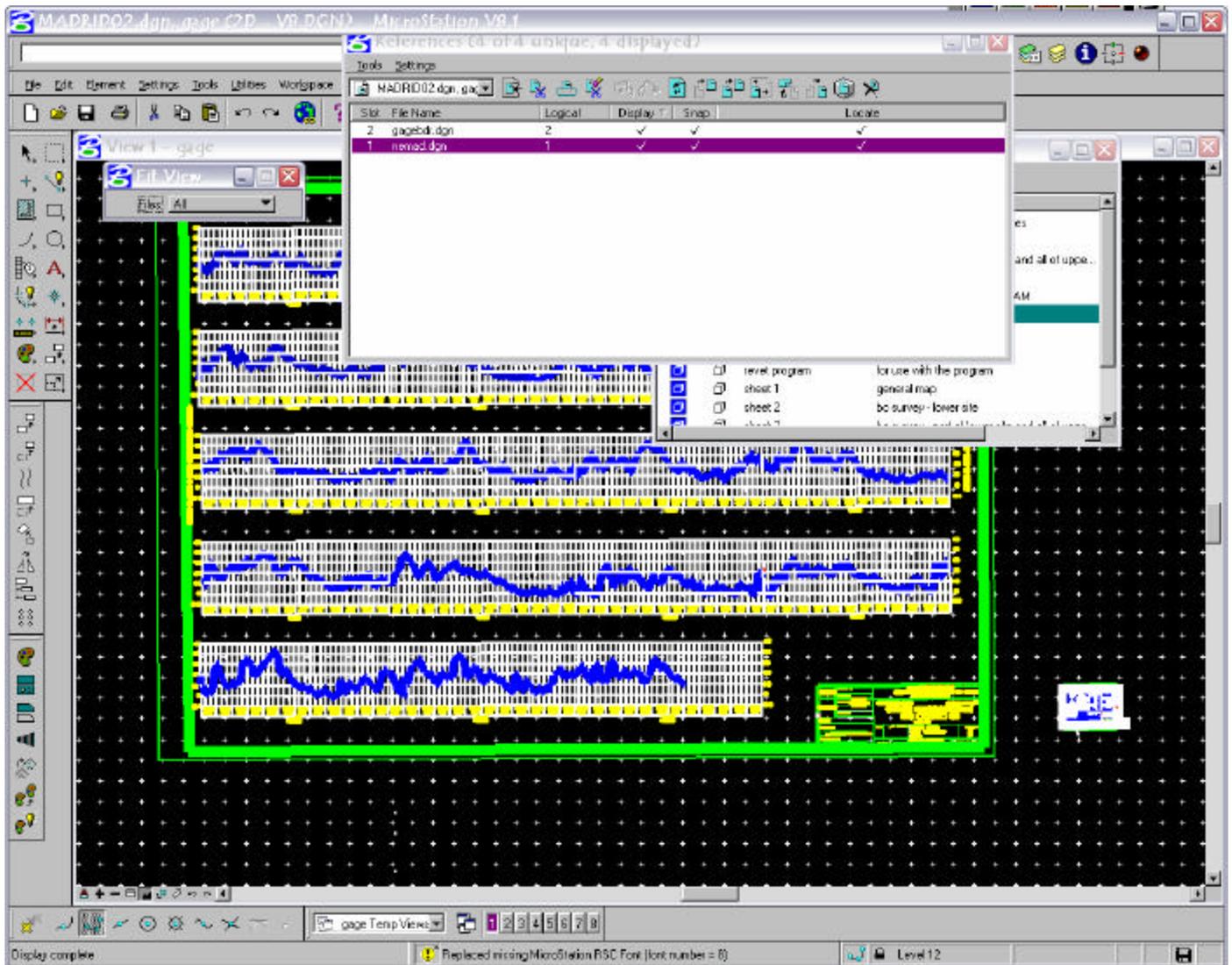
e. Choose the design file for the gage that you have chosen for your project



- f. Click the ok button
- g. Select a model window will pop up and have only one model to choose from which will be the default model . Just click the ok button on this window also.
- h. Give the model a logical name relating to the sheet number in the plan set
- i. Provide a description which may include a date that you got the data from his machine so that when the files are check later they can know if you used the latest gage data.



- j. Click the ok button
4. Turn on all levels
5. Reattach the reference files
6. Use the smaller sheet that is only seen when you reattach the reference files.
7. Delete all information outside of the small sheet



8. Just make sure that you are using the most current data sheet which means that you may have to check with Pete.
9. Clean up the sheet and place the correct information for your project on the sheet.

**Step 5.** Plot all of the plans for a review along with a print out of the checklist

**Step 6.** Complete the QCP/checklist.

**Step 7.** Get all required signatures for the plans, design authentication, and the QCP.

**Step 8.** Send 3 sets of plans to the Mat Sinking Unit and 3 sets of grading site plans or 2 sets of maintenance site plans to the Clearing and Snagging Crew/Grading Unit.

**Step 9.** You will also need to place a design file out on a ftp site for the MSU. This files should not be the final set of plans. It should only include the limits of the job as would be seen on the Before Construction Survey sheet.

**Step 10.** Scan in and place the QCP and Checklist in the correct file (QCP) under the correct project.

**Step 11.** Make sure that all files have logical name and are in the correct folders under the correct project name. Dates in the file names are always helpful for someone to follow behind you.