State of Florida

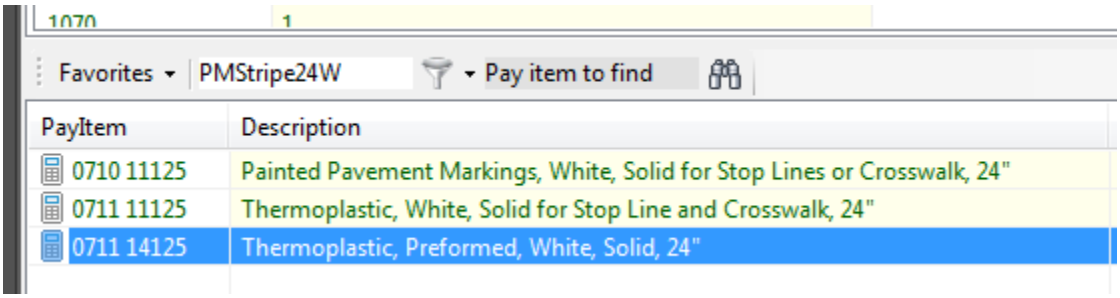
Department of Transportation

Traffic Plans Using Civil 3D 2015 Workshop

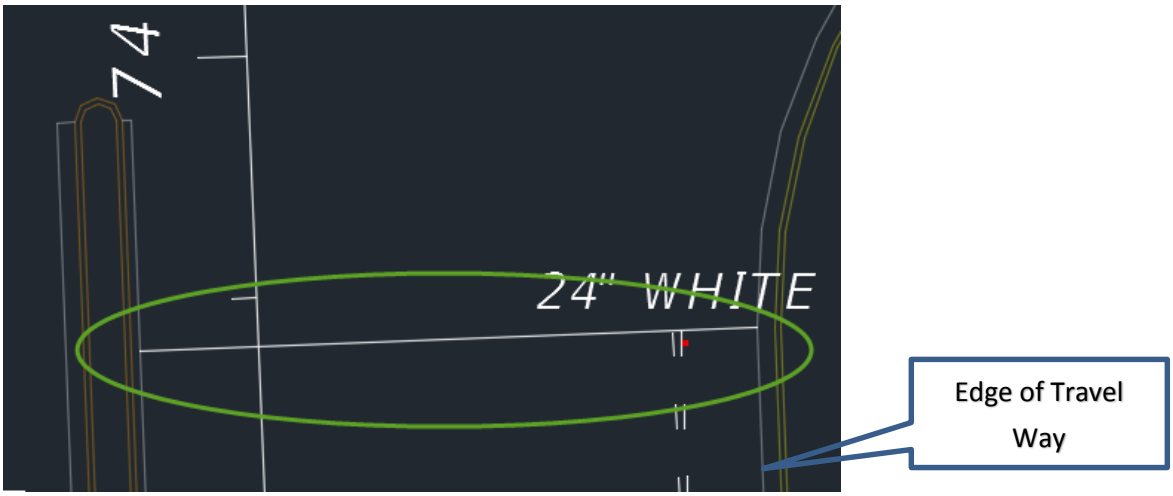
Traffic Workshop

1. Draw Stop Bar

- Open DSGNSP Blank.dwg
- Launch Entity Manager from the FDOT Ribbon
- Search for PMStripe24W

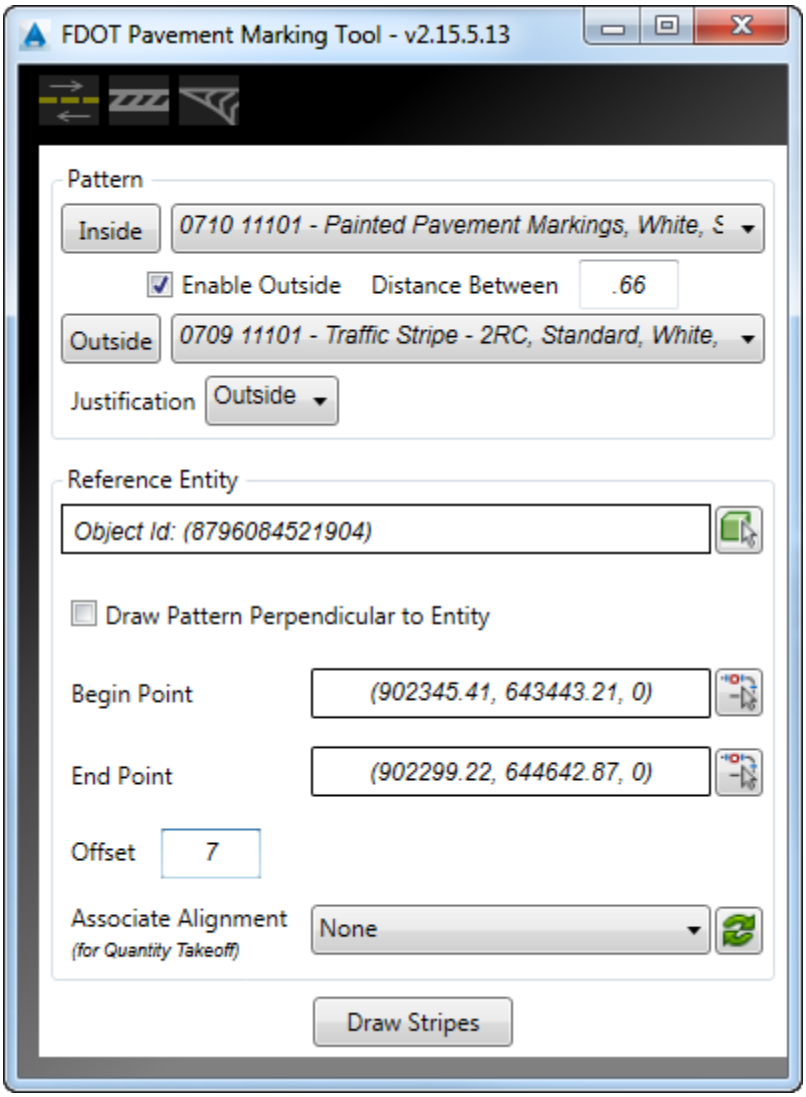


- Select draw Polyline under Influence from the drawing tools
- On the Southern end of the Intersection North Bound using the END point Osnap select the PC of the curb return < then using the PERpendicular osnap select the opposite side of the PC. Should end up with this

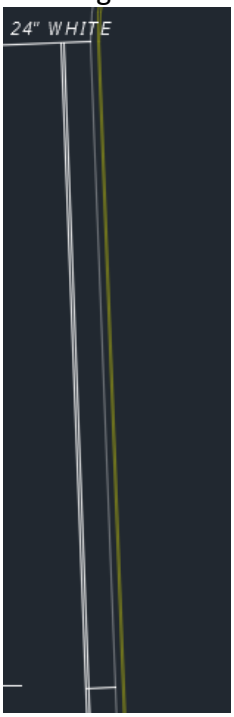


2. Draw Double 6” White Stripes (Dotted and Solid)

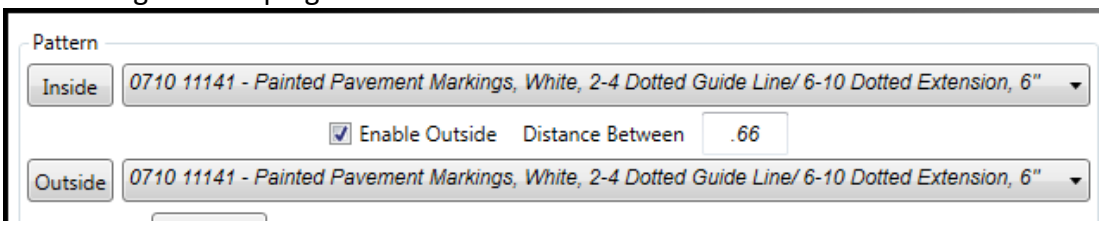
- Launch Pavement Markings on the FDOT Ribbon
- Make selections to match diagram below, for Reference Entity select the edge of travel way. The distance between Inside and Outside is 8” or .66’, Justification is Outside



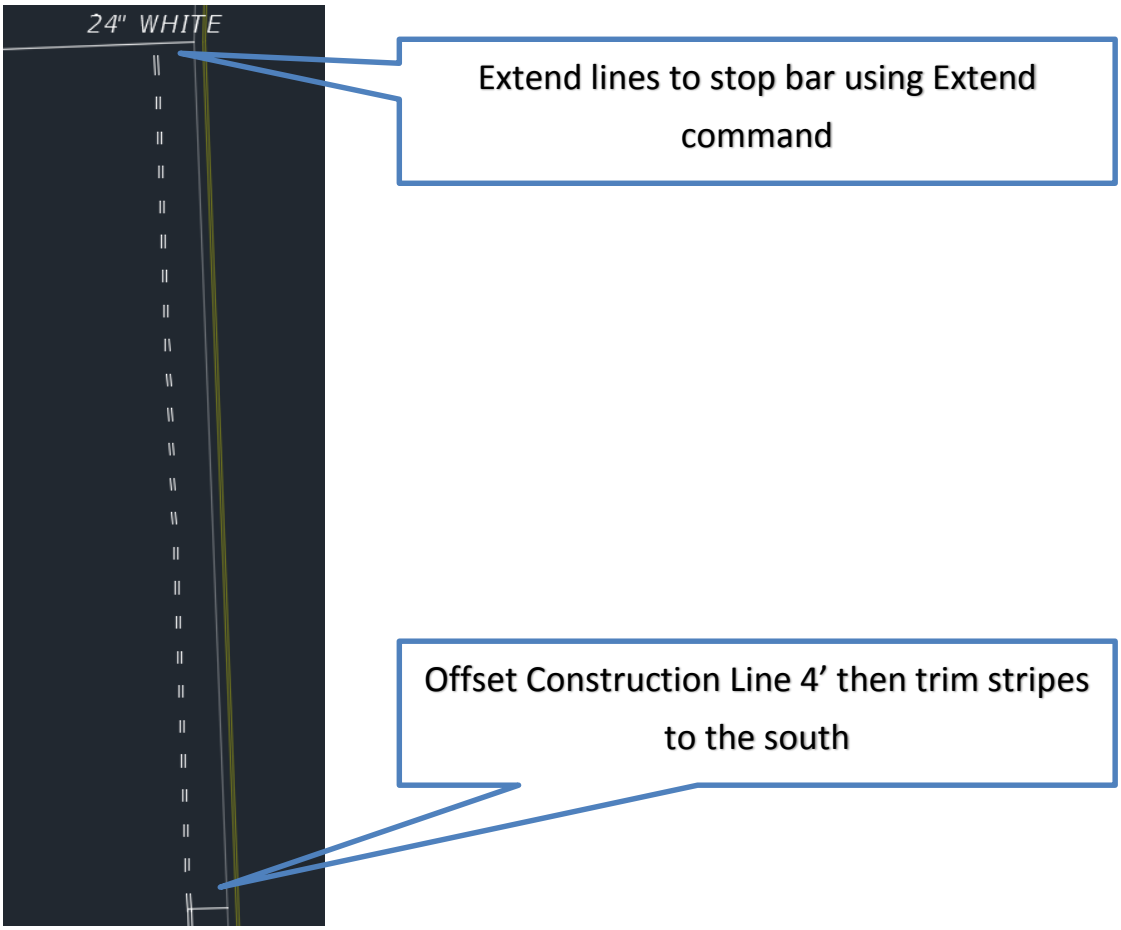
- Draw Stripes
- Drawing should look like this



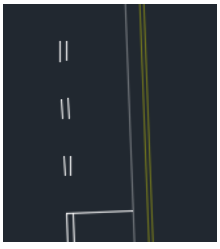
- Using the AutoCAD Trim command – Trim from the bottom construction line as seen in the diagram above. You should end up with no lines from that point to the intersection
- Now change the striping to 2-4 dotted as shown below



- Before you draw the stripes pick the **BEGIN** point using the end osnap and pick the end point of the bottom construction line – For **END** point pick the end point of either side of the stop bar.
- Draw Stripes
  Your Drawing should look like below. Follow instructions on diagram

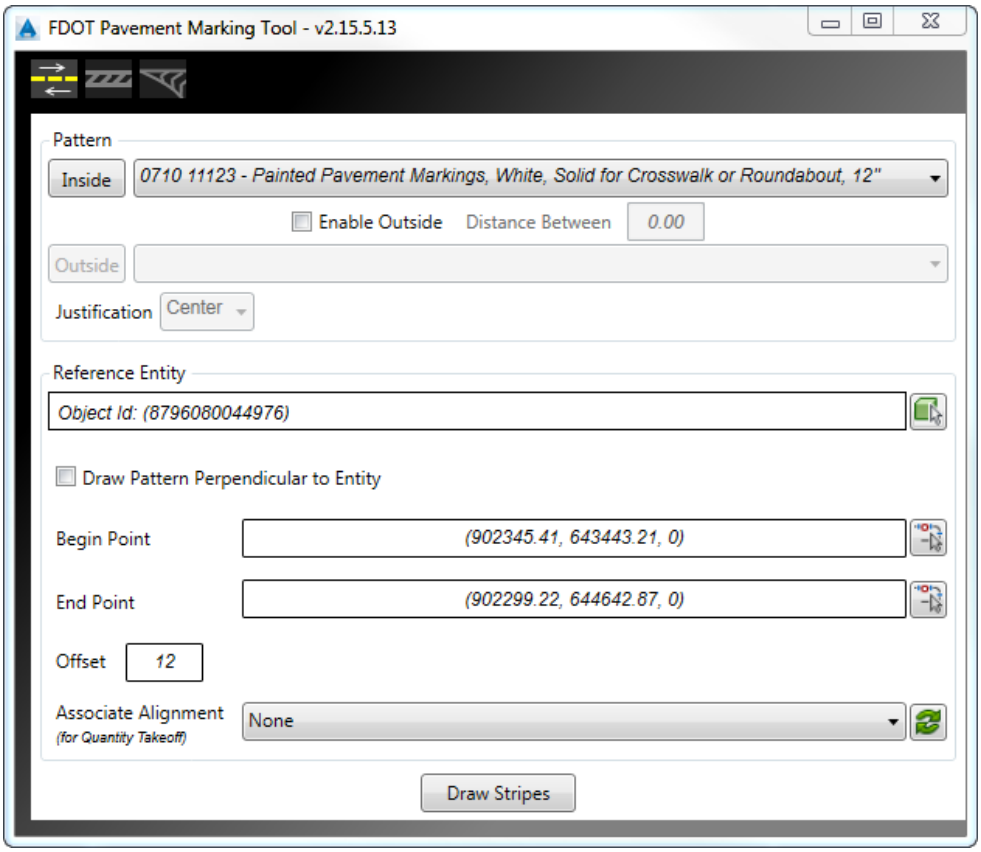



North End

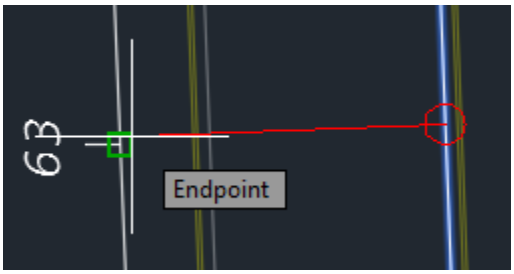

South End

3. Draw Parking Spaces with Bike Lane

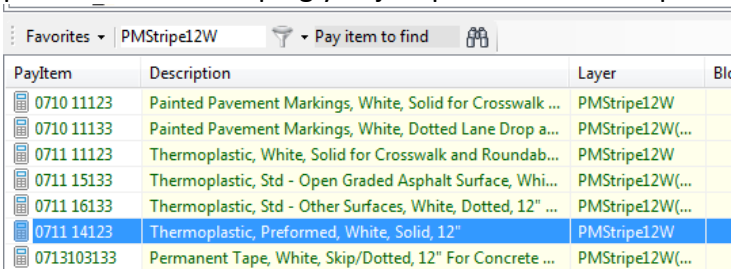
- Pan in your drawing to the south to the rectangle area
- Trim the double 6” solid striping to the northern edge of rectangle < Erase remaining striping to the south of the rectangle
- Using Pavement Marking Tool make the following selections < for Reference Entity select the Same Edge of Travel Way.



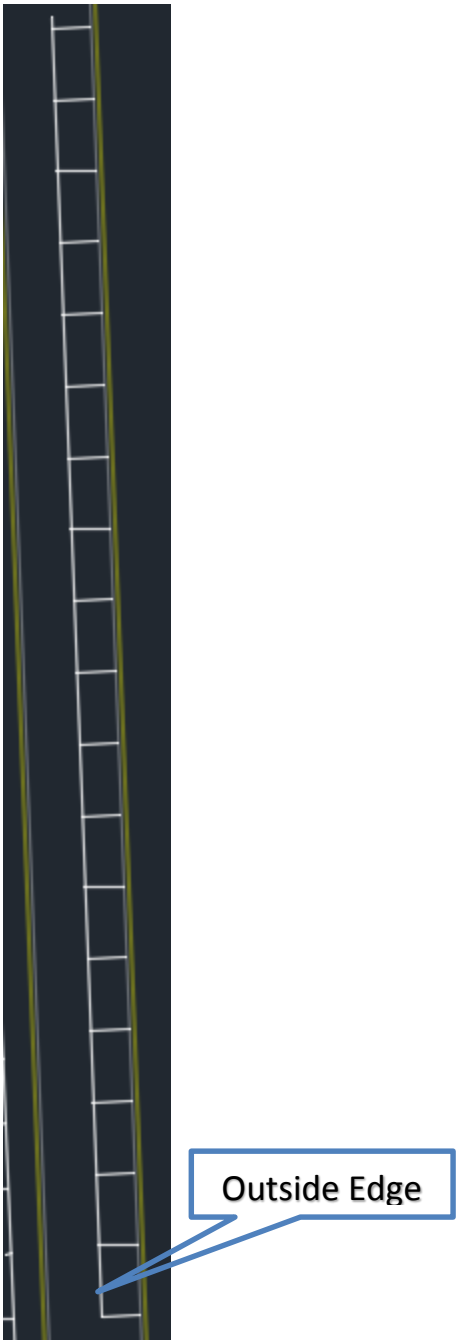
- Pick Begin Point and snap to Station 63+00 on the Alignment



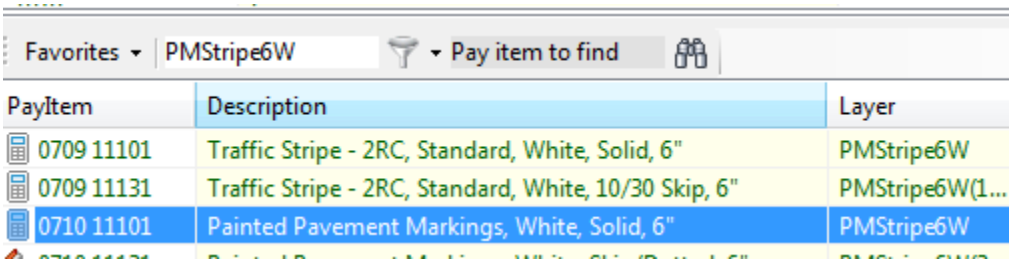
- Pick End Point and snap to station 67+00 on the Alignment
- Draw Stripes. You should see a 12” White Stripe drawn from Station 63 to 67 only.
- Using EMX and the Polyline Drawing Tool draw the following 12” striping from the southern end point of the 12” striping you just placed to the PERpendicular side of edge of travel way



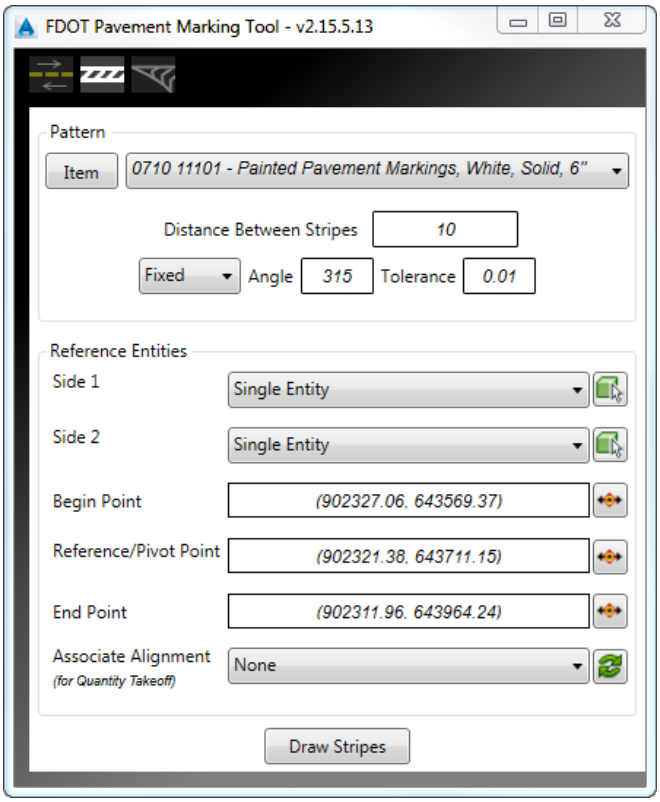
Using the AutoCAD Offset command offset the Striping just placed 22’ to the North along the entire striping. Your drawing should look like below



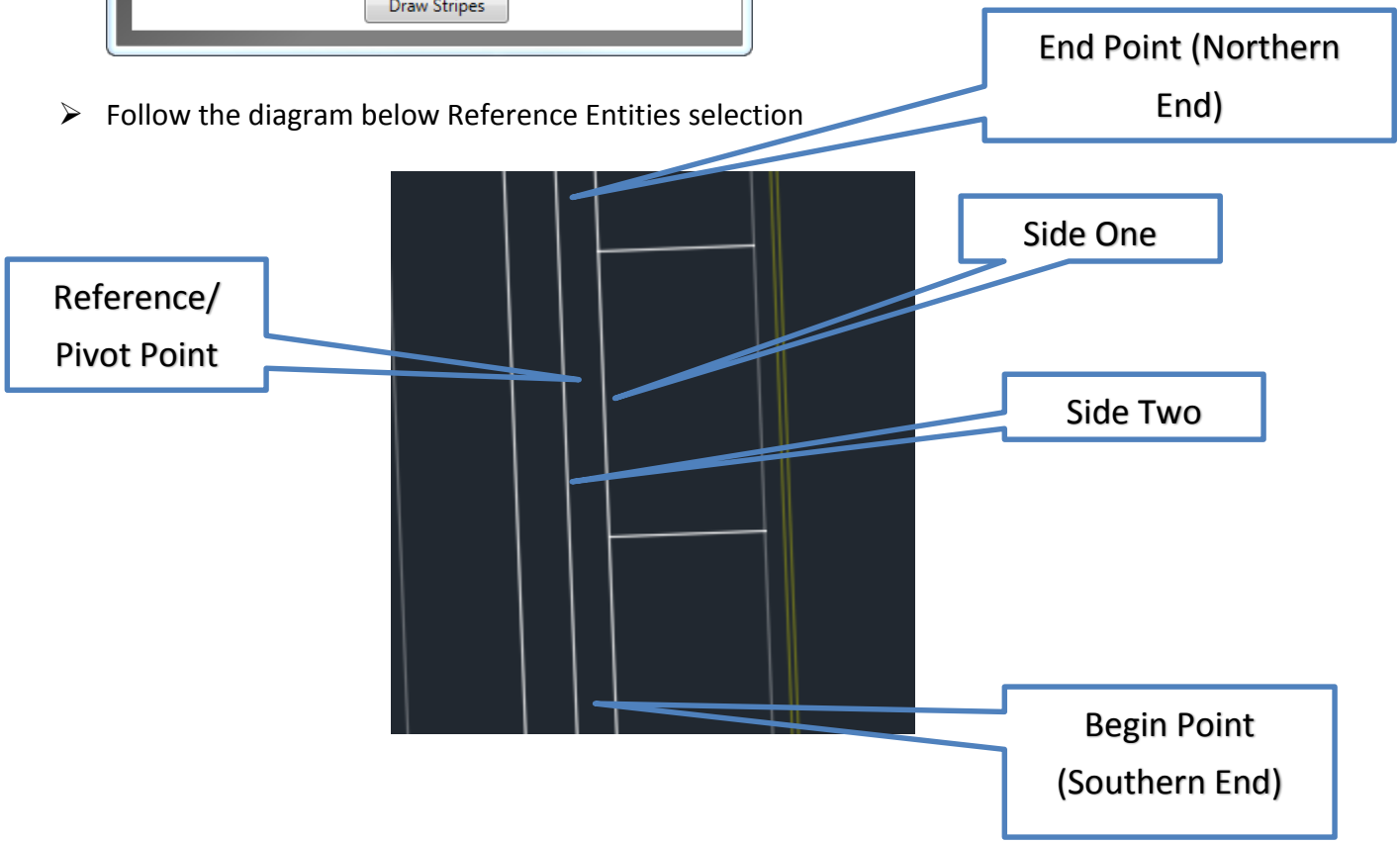
- Using EMX make the following selection



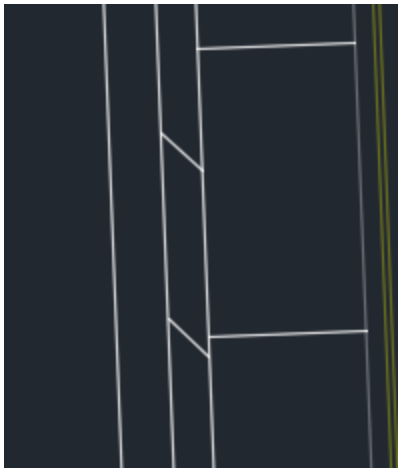
- Using the Offset Drawing Tool select the outside edge of striping and select 3’ for the distance < then hit enter to re-enter the offset command and select 7’ from the same source line.
- On the Pavement Marking Tool switch to the make the following selections



- Follow the diagram below Reference Entities selection

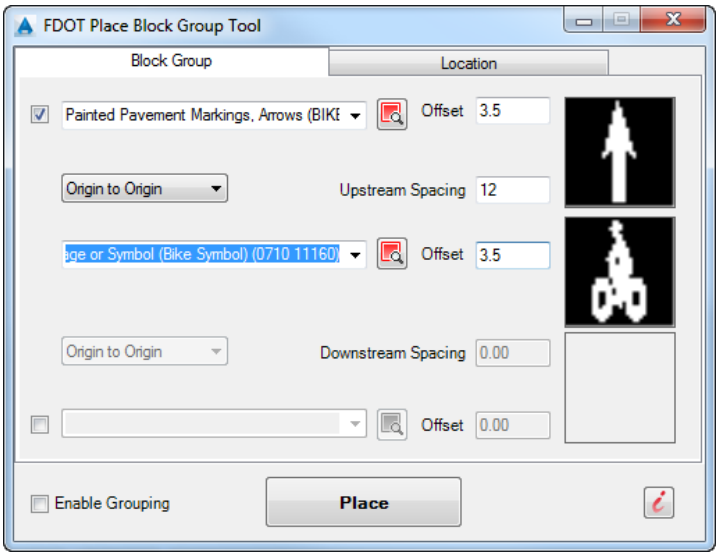


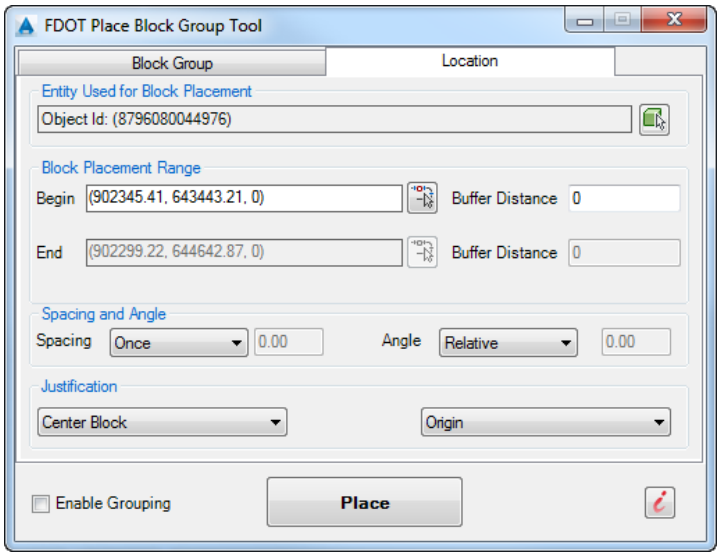
- Draw Stripes. Drawing should look like diagram below



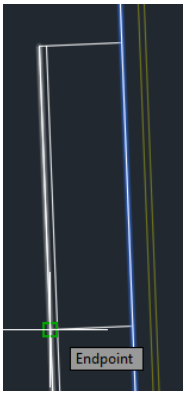
4. Using Place Block Group to place Pavement Messages

- From the FDOT Ribbon launch Place Block Group
- Pan in the file to the 2 construction lines near the end of the 2-4 dotted striping near the intersection
- Using the default middle block also select the top block toggle to make it active. Make selections as shown below. Select the Red Looking glass button to browse appropriate pay item categories

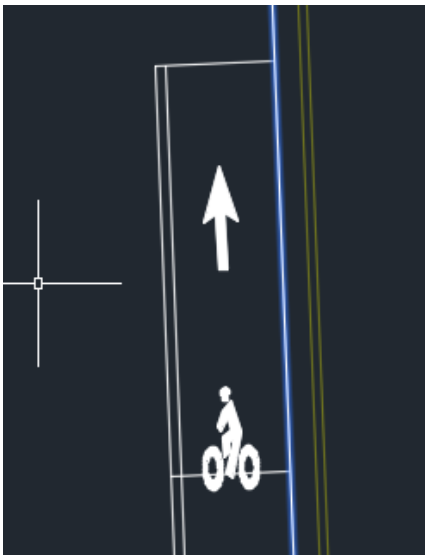




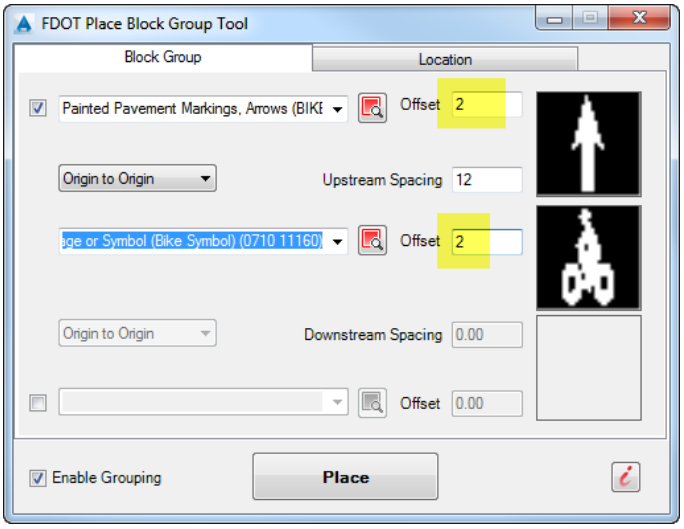
- Pick the end point of the southernmost construction line as shown below

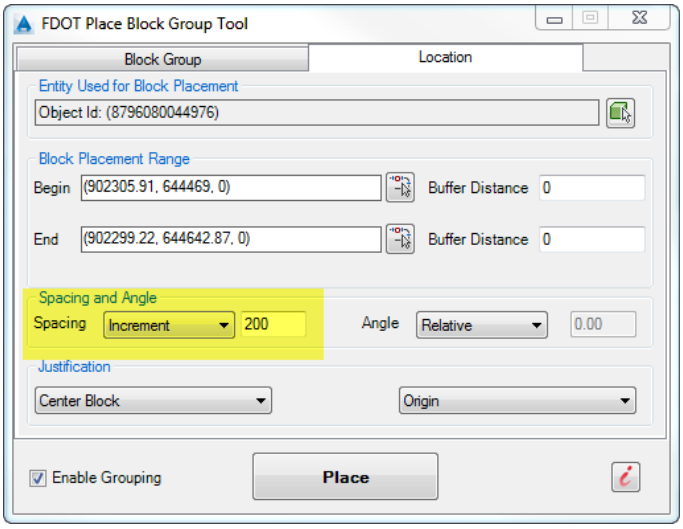


- Select PLACE and look at the command line to pick which side of reference entity you want. Drawing should reflect below

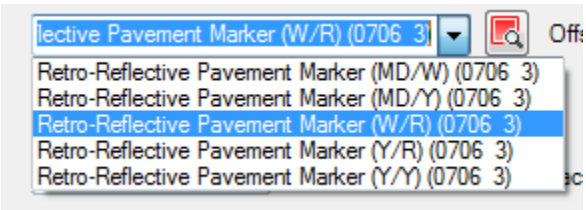


- Keeping PBG open and with the same blocks selected, pan down to the parking/bike lane portion of the file
- Change options to match below

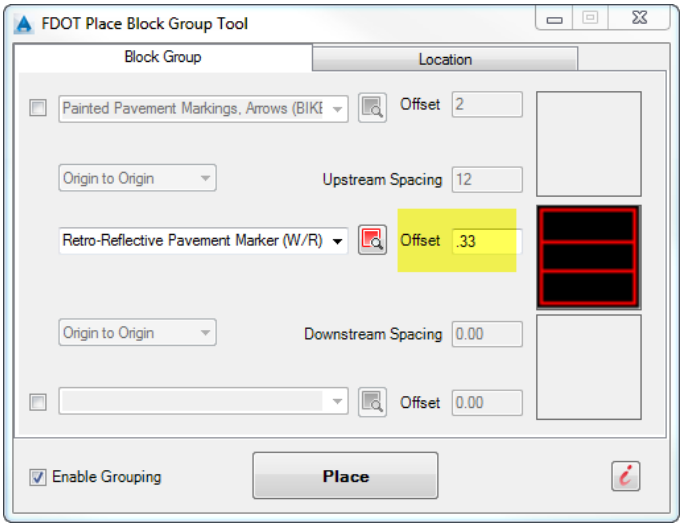


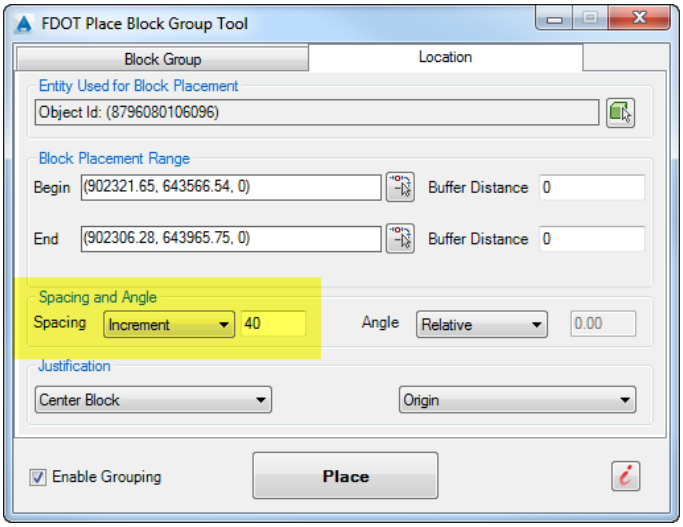


- Select Outside Striping as the Entity for placement
- Select PLACE and select the inside of the striping as the side
- Your drawing should now have 2 sets of the selected blocks 200’ apart
- On PBG switch to the Block Group tab and de-activate the top block window
- Browse to the Pavement Reflectors and select the following



- Working in the same section make the following changes to the options and select the same outside striping < Select PLACE < pick inside the striping for the offset side

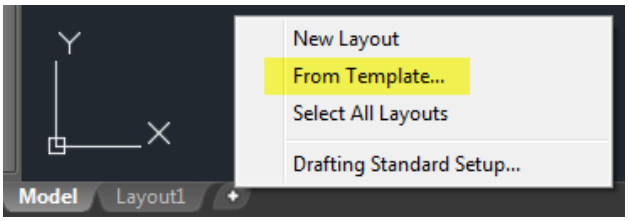




- You should now see Red Markers 4” inside the bike lane spaced at 40’ O.C.

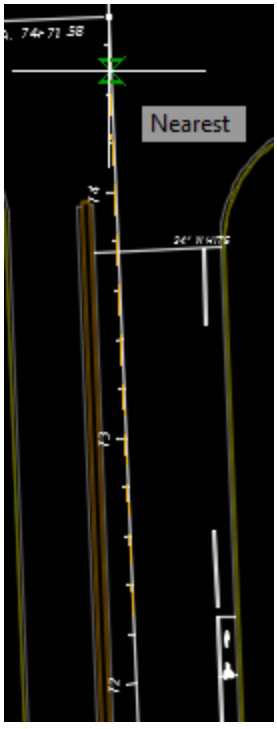
5. Creating Sheet Layouts

- Right Click the + symbol on the layout tabs and select from template

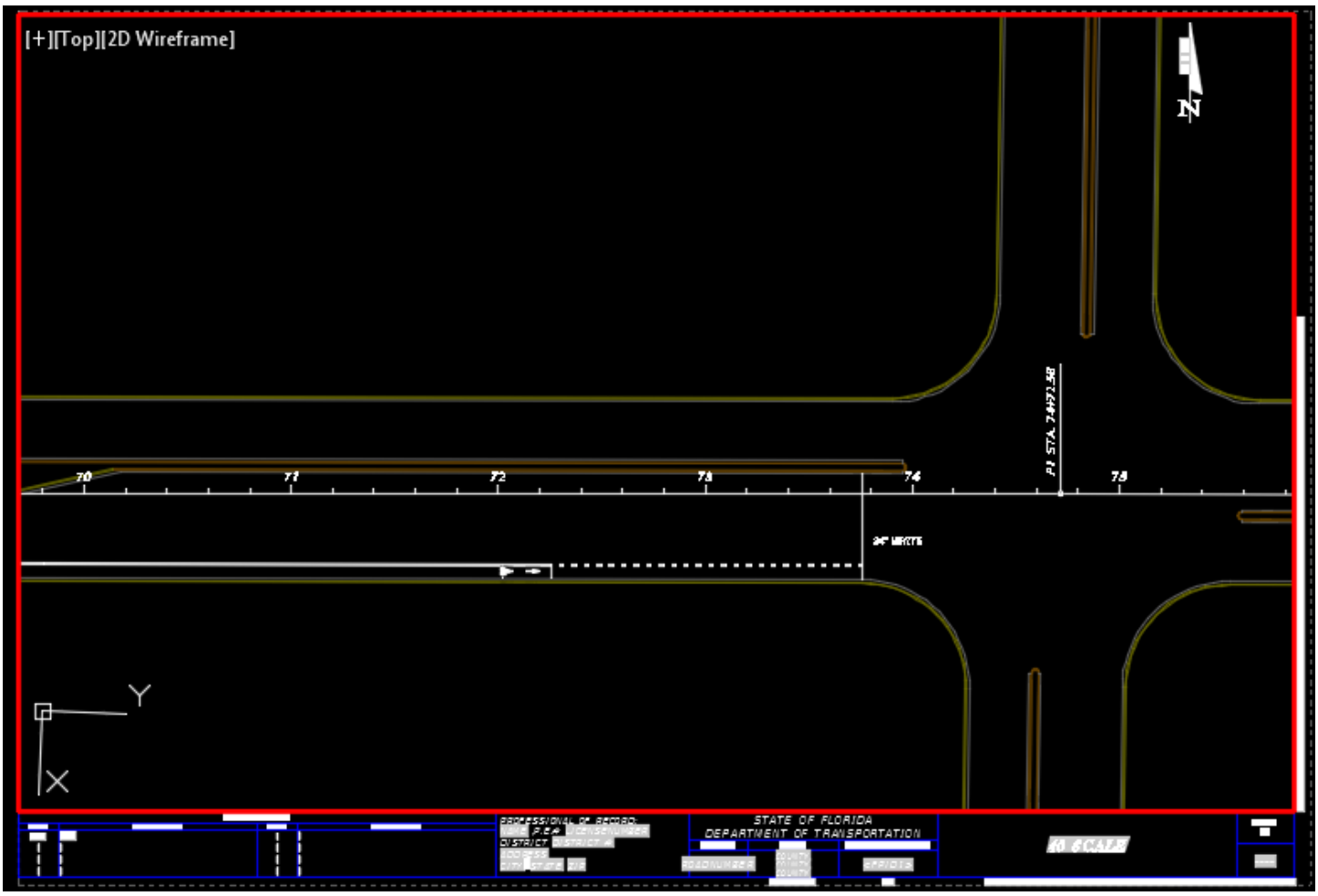


- Browse to the Sheets\Roadway folder and select the SHPLAN.dwt < then select 40 scale from the list
- Switch to the new 40 Scale layout tab < unlock the view port < zoom extents < zoom into intersection < make the scale 1”=40’ Drawing at this point should reflect below

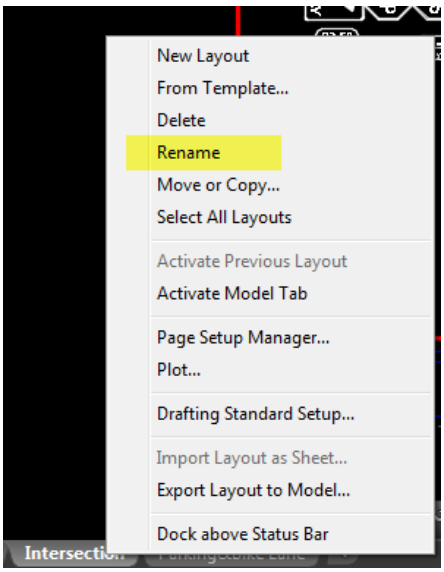
- From the FDOT Ribbon select 2 Point Twist and using NEArest osnap select a point on the southern end along the alignment < then pick a point along the northern part as shown below.



- Make sure the scale is still set to 1”=40’ and lock the view port. Drawing should look like below

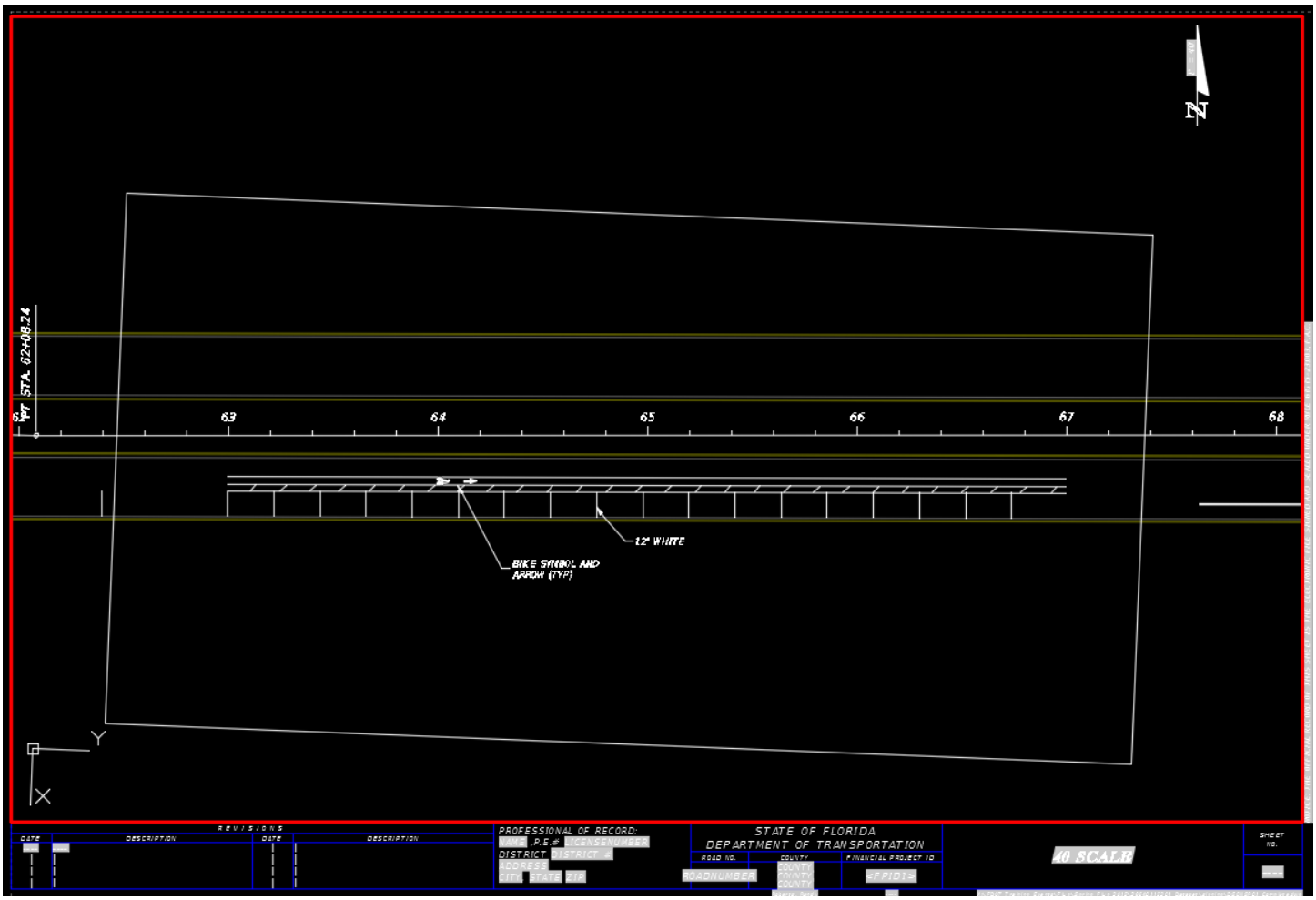


- Right Click on top of the 40 Scale Layout name and select rename the layout to Intersection < then Right Click and select Move or Copy and toggle make a copy and place at end.



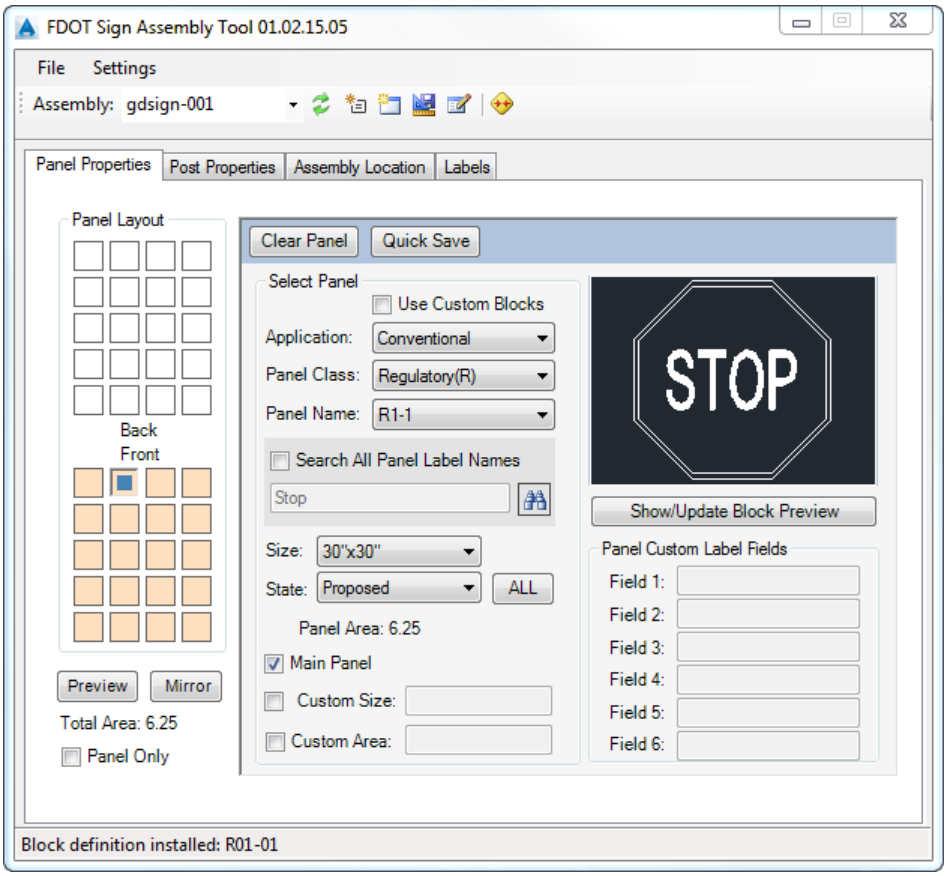
- Rename the Copied layout Parking&Bike Lane

- Unlock the view port and pan from right to left making sure you keep the scale at 1”=40’. If you accidently change it you can reselect 40 scale. Pan down until the white rectangle is in the sheet extents < Lock the view port. New layout should look like below.

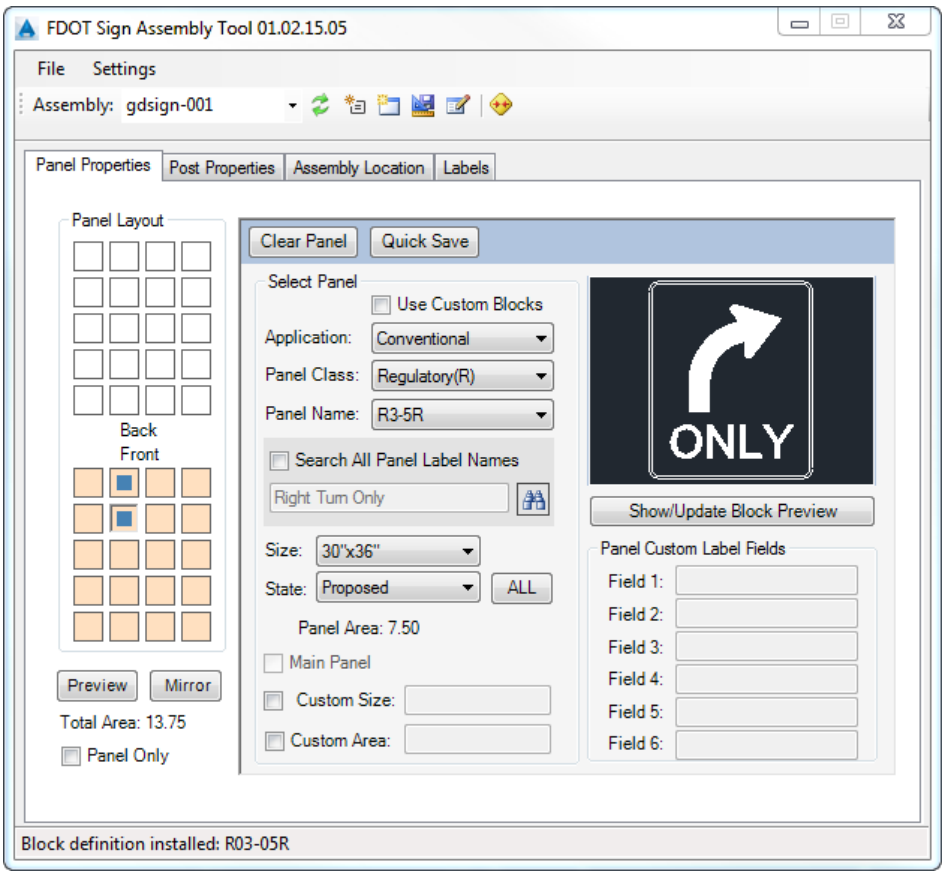


6. FDOT Signs Application

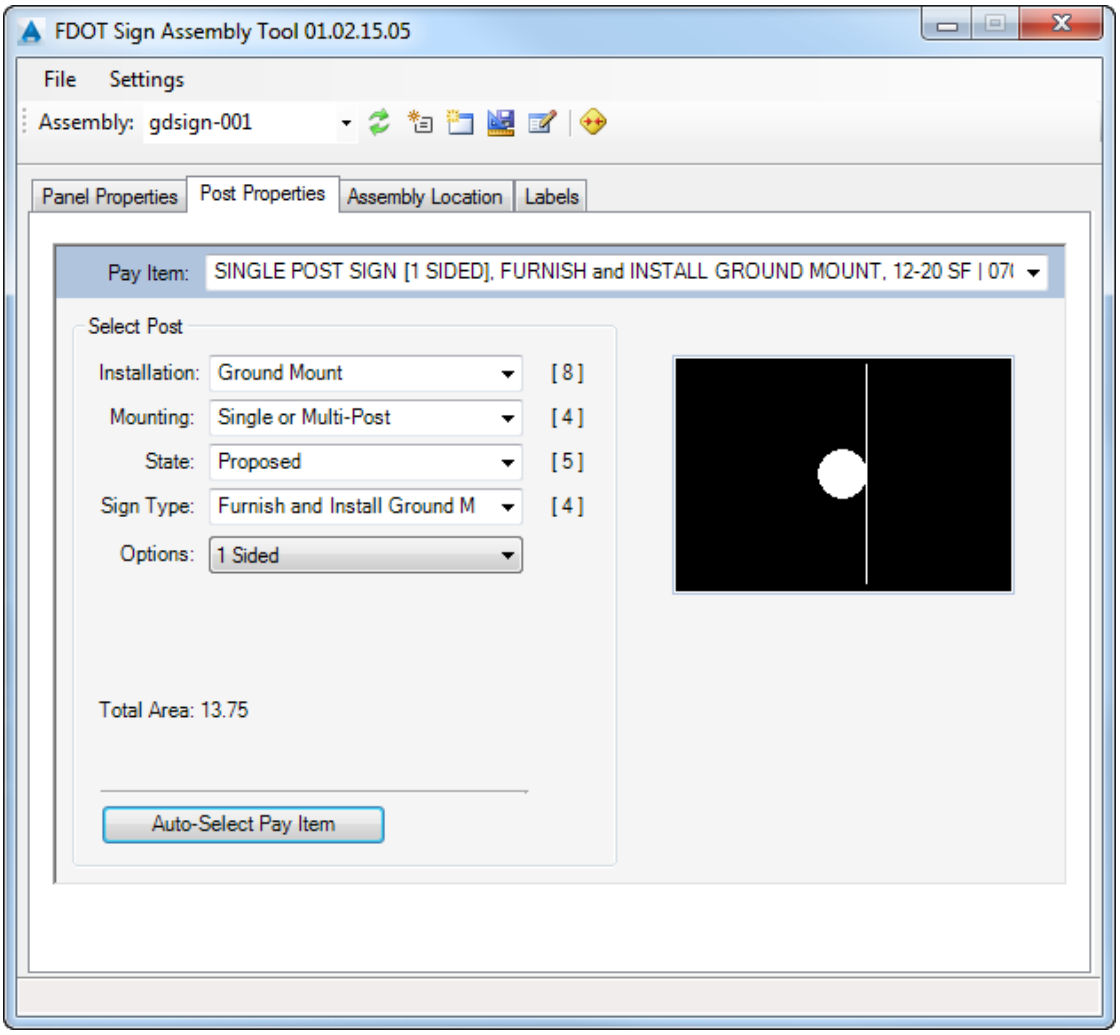
- From the FDOT Ribbon launch the FDOT Signs Tool
- Start a new Auto-Name Assembly
- Set Panel and from top to bottom fill Information in as seen below – Make sure the first panel entered is selected as the Main Panel



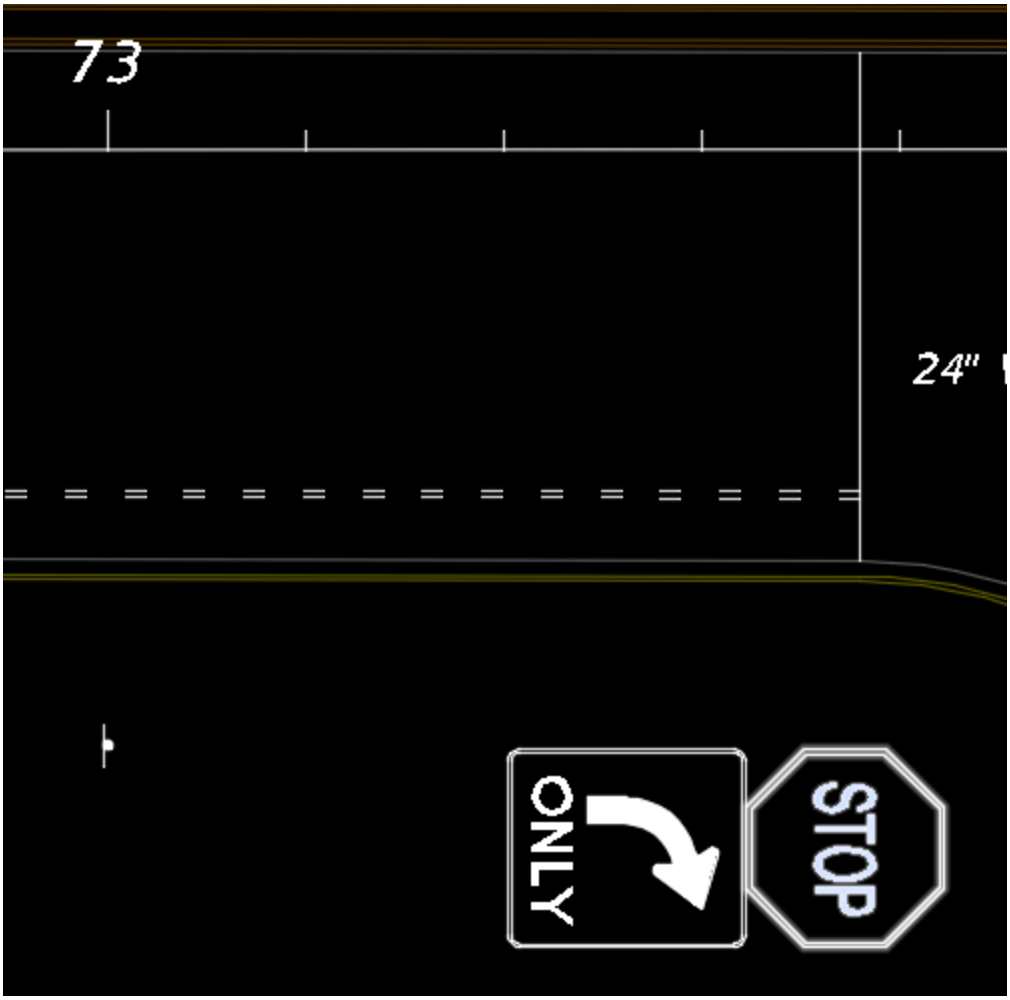
- Create second panel as shown below



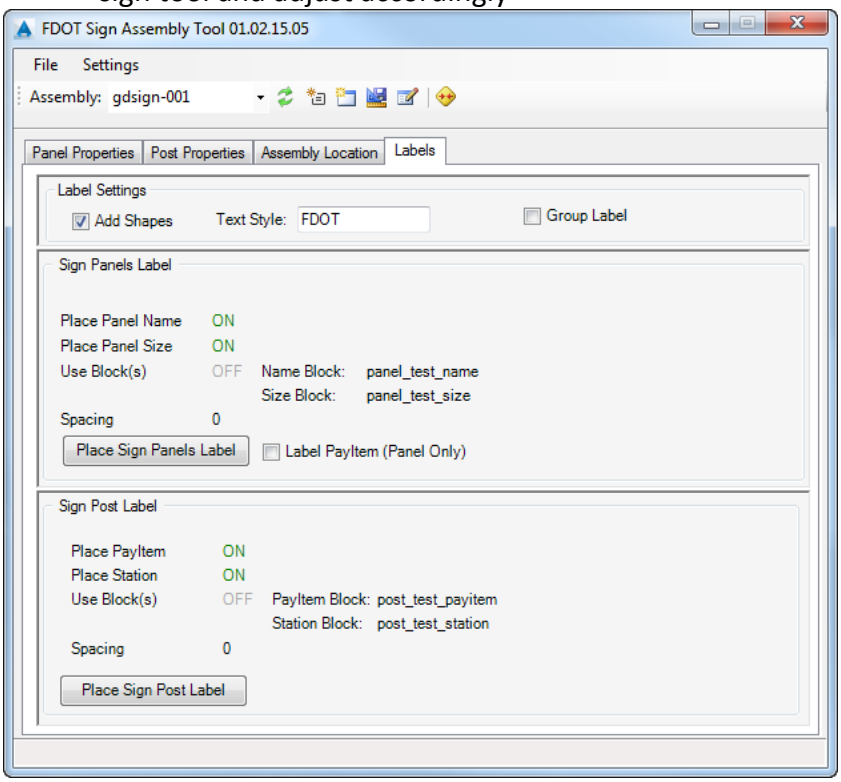
- Switch to the “Post Properties” Tab
- Starting in the **Select Post** section make the selections as shown below making sure to click the Auto-Select Pay Item button last.



- Switch to the **“Assembly Location”** tab
- Make sure you double click in the view port to make model active
- With Rotation set to “Relative” Select **Place Panels (Entity)**
- Select the alignment as the command line is asking select object
- Looking at the Jig on the screen roughly place the panels at station 73+40
- Select the **Place Post (Entity)**
- Select Alignment < click on Station/Offset  from the Transparent command menu bar on the right side of your screen < Re-select Alignment < Command line is asking for station, enter 7300 press enter < for offset enter 60. Drawing should look like below.

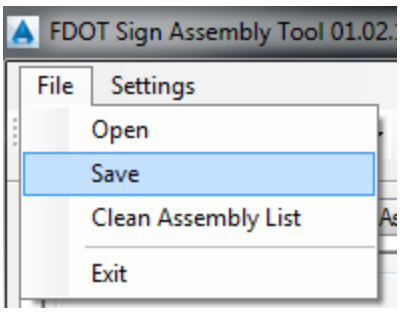


- Switch to the **“Labels”** tab
- Make sure settings match below, if not go to the Settings < user preferences on the top menu of the sign tool and adjust accordingly

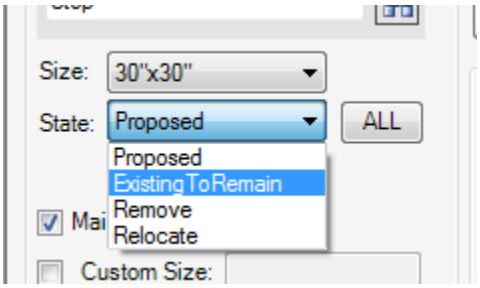


- Select **Place Sign Panels Label** button < select panel < Left click below panel for placement < Repeat for other panel < press enter to exit panel label command.
- Select **Place Sign Post Label** button < select post < Left click below post for placement < press enter to exit label command. Drawing should look like below.

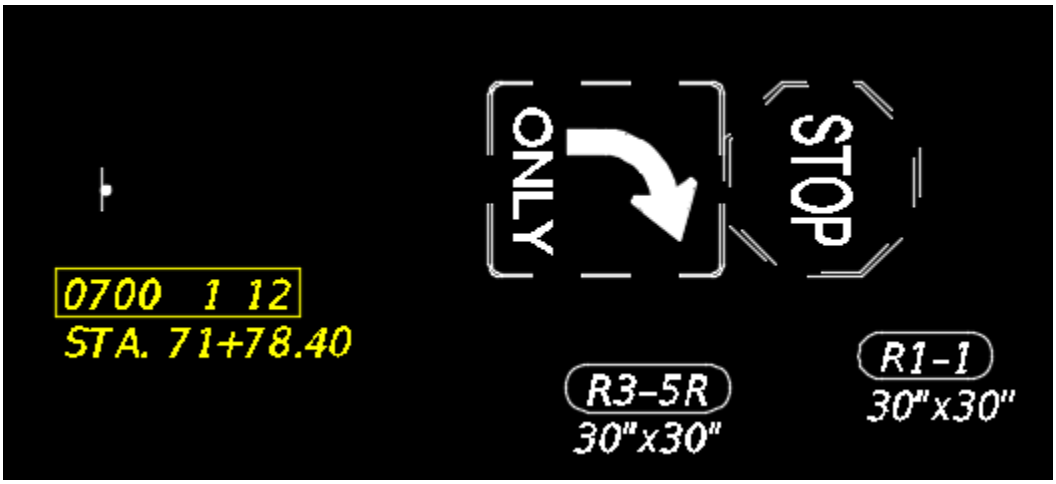
- Save Sign Assembly as StopOnly.xml



- Now let's open the StopOnly sign assembly and place it as an existing to remain state
- Select the Auto-Name Assembly < File < Open < expand or browse to your StopOnly.xml location < Open
- Make the following change to the state and select **ALL** to force the change to all panels. Notice the linetype change in the preview. You may have to click in the panel to get the linetype change to preview



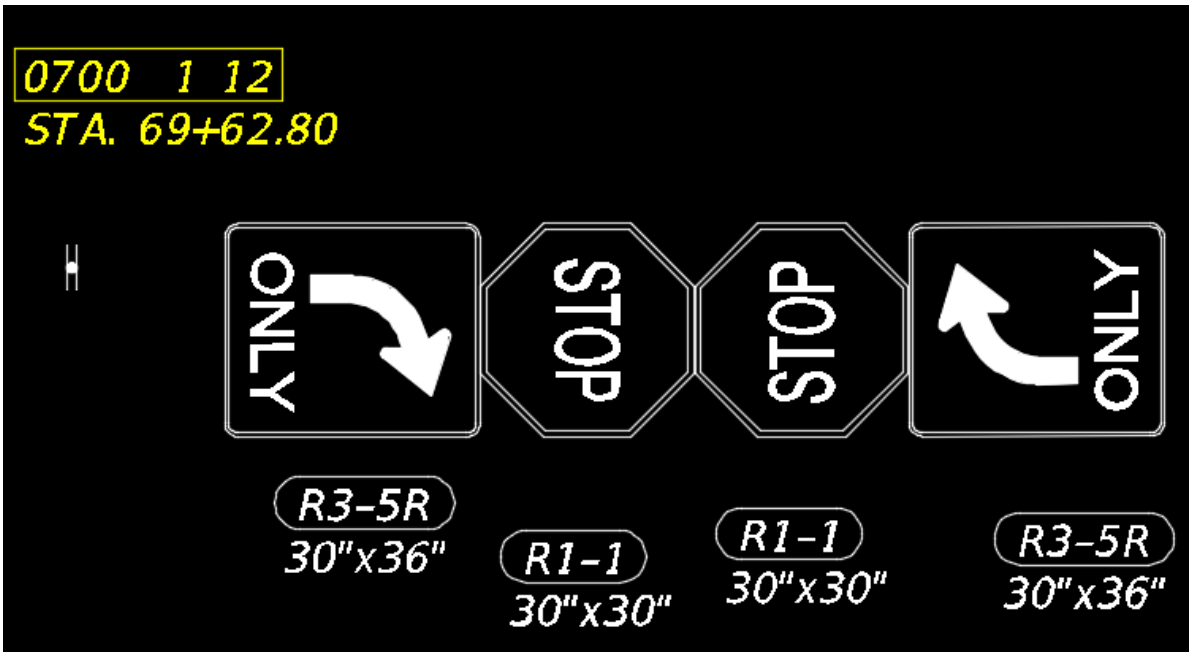
- All of your selections should fill in automatically. Scan your Panel and Post Properties tab to verify and go to your Assembly Location tab and place your panels and post in your drawing. Don't worry about precision placement. Label also. Should resemble below.



Exercise

- One additional sign needs to be placed. Using what you know and reference the above if you need guidance open the same StopOnly.xml sign and this time make it mirror to be double sided. Notice how the backside panels populate.

- Make sure you select 2 sided as opposed to 1 sided. Your drawing should now look like below



It's always a good practice to run the QC Quick Check from the FDOT Ribbon when construction lines have been used for your design. Run it now to see if any non-standard errors are present. You should see 2 errors concerning lines that don't make your design file 100% compliant. Right Click on one of the lines and

Zoom To. Erase both of the construction lines used to place the pavement message. Re-run the QC to verify you are 100%.