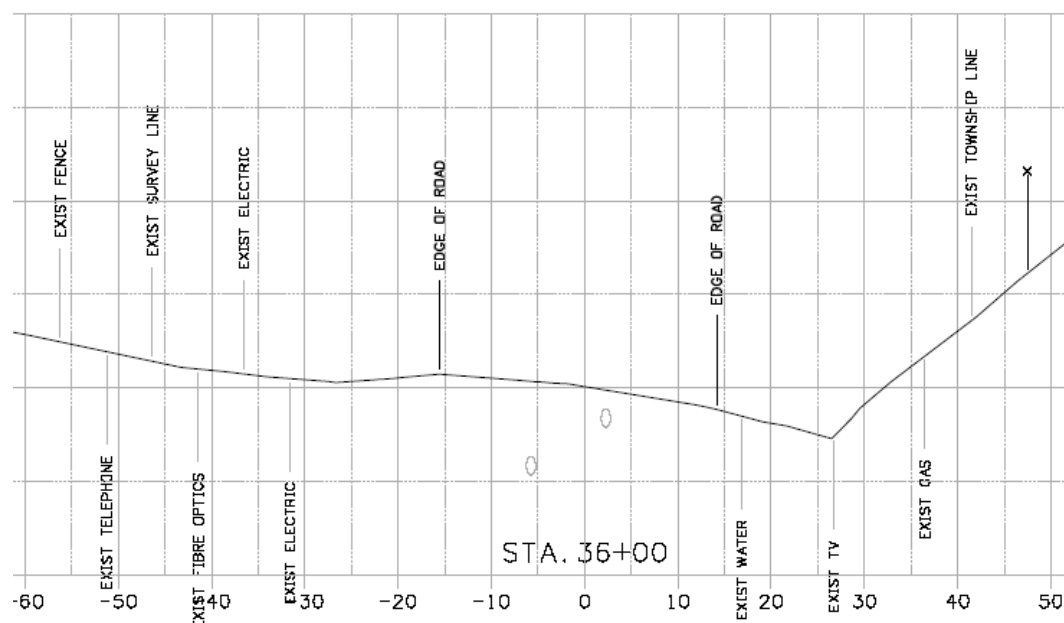


CDOT Displaying Features in Cross Section and Profile



This document is a guide for displaying features in both cross sections and profiles. Two types of cell placement will be considered in this workflow. One type is based on true scale meaning that the feature has a measurable size. For example a 24" pipe. The other type of cell is the pictorial location of a crossing feature for example overhead electric line. In order to compensate for the two types each needs to be scaled differently. Feature Filters have been developed to display them at their appropriate scale.

Displaying Features in Cross Sections



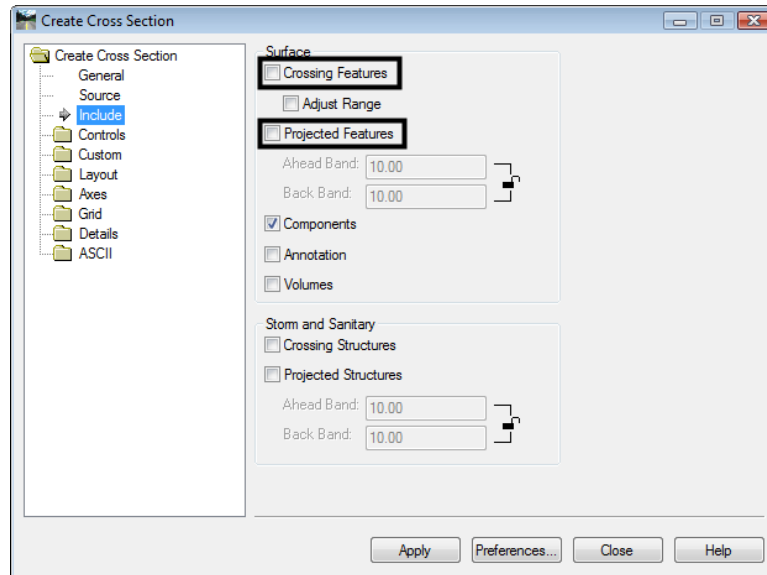
Note: Example Cross Section

The procedure for displaying features in cross sections follows.

1. From the InRoads, menu select **Evaluation > Cross Section > Create Cross Section**. The *Create Cross Section* dialog will appear. <D> Preferences to load the appropriate saved preferences. In this example the CDOT preferences will be used.

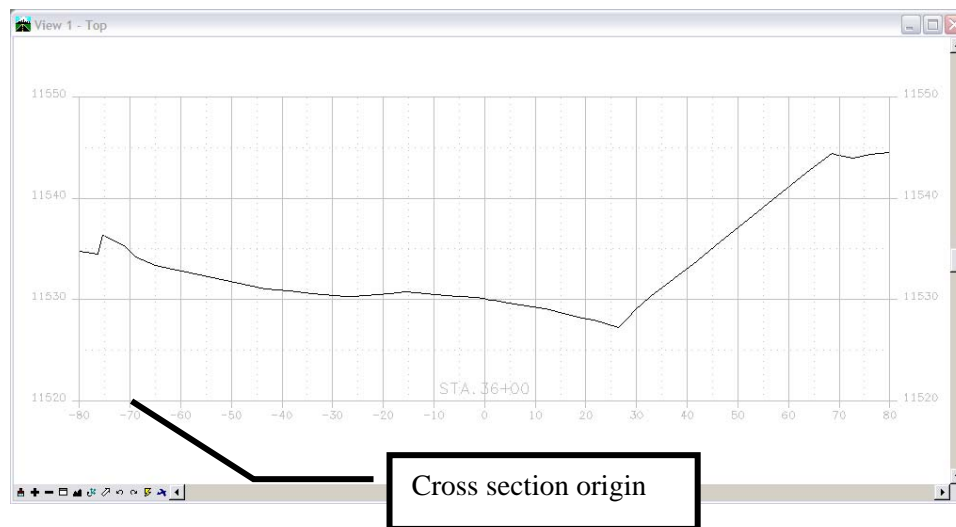
CDOT Displaying Features in Cross Section and Profile

2. Under the **Include** category in the **Create Cross Section** dialog, verify that **Crossing Features** and **Projected Features** are checked off.



Note: Verify that the **Global Scale factor** is set to the desired scale prior to creating the cross sections.

3. **<D> Apply.** The dialog will minimize allowing the selection of the origin for the cross section set with a **<D>** in a MicroStation View. After the cross sections are created select **Close**.



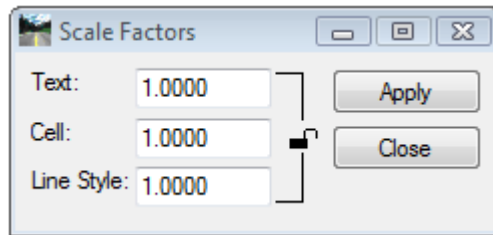
CDOT Displaying Features in Cross Section and Profile

Display True Scale Cells

1. From the InRoads menu select **Evaluation > Cross Section > Update Cross Section**. The *Update Cross Section* dialog will appear.

The first set of features to display will be the features that are defined to be true scale. These features have a defined size, such as pipes. In order to display these types of features, setting the scale factor and feature filter is required prior to displaying.

2. Change the InRoads *Global Scale Factor* to **1**.

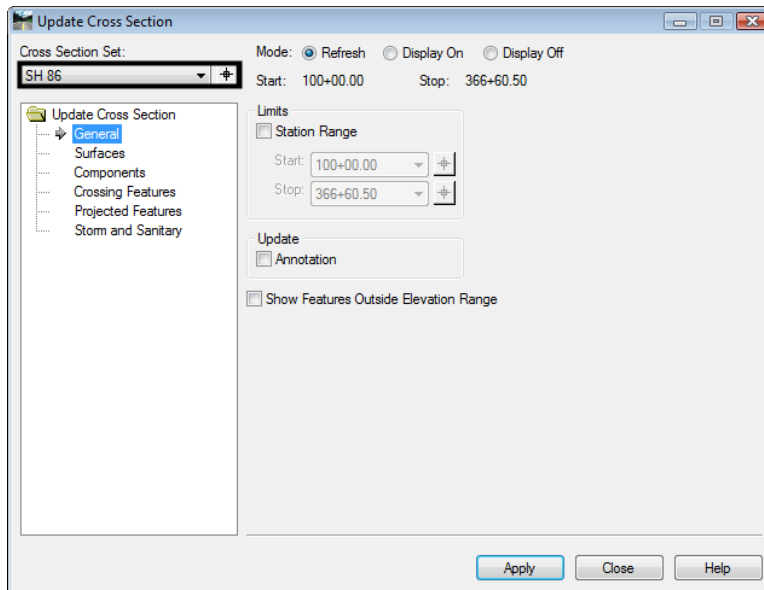


Note: The Scale Factor should be 1:1 so that cells come in at actual scale.

3. From the *Locks* toolbar Select the **CELL_True-Scale** filter from the drop-down list and toggle on the **Feature Filter** lock button.

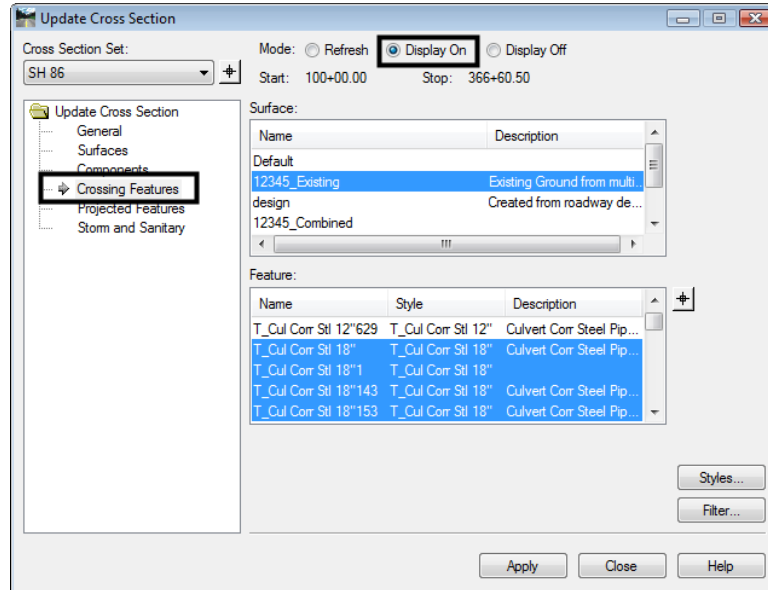


4. Select **Evaluation > Cross Section > Update Cross Section**.
5. Verify the correct *Cross Section Set* selected in the *Update Cross Section* dialog.



CDOT Displaying Features in Cross Section and Profile

6. Toggle on the **Display On** radio button. Select the **Crossing Features** category.
7. From the **Surface** list box, select the surface name or names to display. The **Feature** list box will then populate with the list of features found in the highlighted surface(s). Use the **Ctrl** or **Shift** keys to select multiple names.

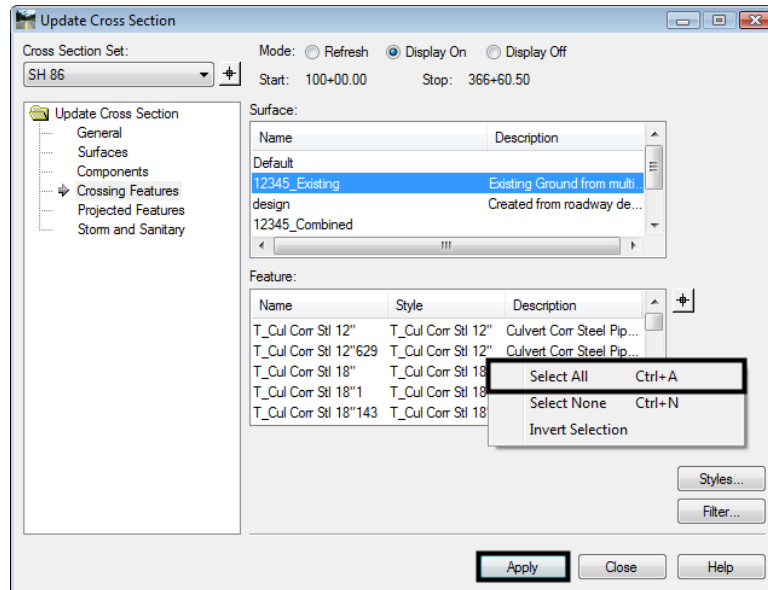


Note: The feature names in bold are Feature Styles that can be displayed in cross sections. Any names that are dithered are not configured to be displayed in a cross section view.

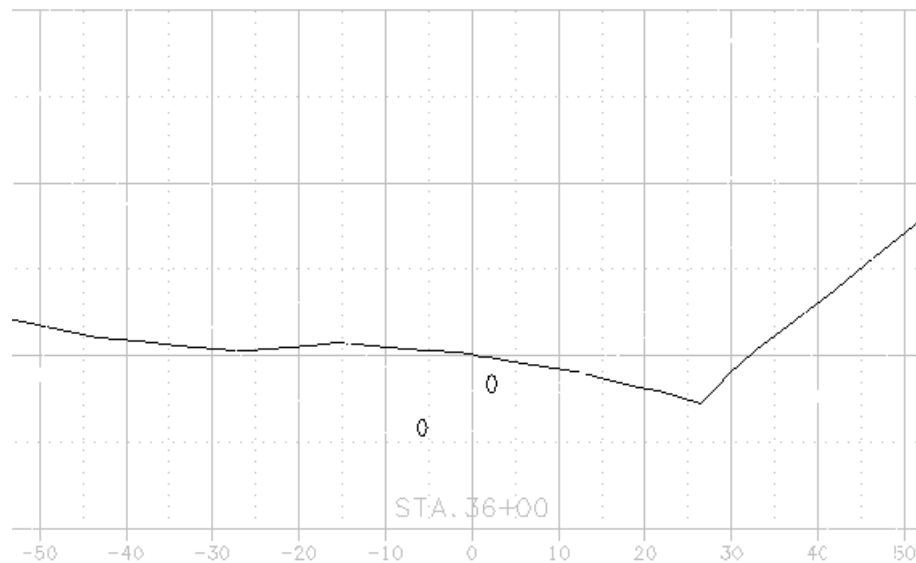
Note: If no features are shown in the feature list box, there are no features that meet the criteria for the filter selected in step 5. It may be necessary to associate the correct feature styles to the desired features if this is the case. Feature styles can be re-associated by using the **Surface > Feature > Feature Properties** command. See [CDOT Update InRoads Features.pdf](#) for more information on the process involved.

CDOT Displaying Features in Cross Section and Profile

8. <R> in the *Features* list box and choose **Select All**. The Features that can be displayed in cross section view will be highlighted.



9. <D> **Apply**. The dialog will minimize as the features are generated in the cross sections. When the process is finished, the dialog will reappear.

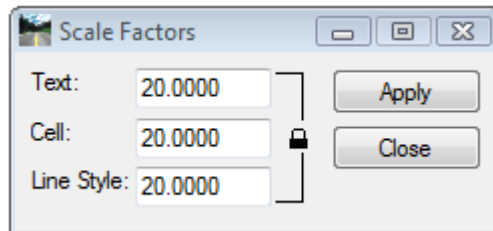


CDOT Displaying Features in Cross Section and Profile

Displaying Plot Scale Cells

The second set of features to display is those that have *location only* defined with annotation. In order to display these types of features, the scale factor and the desired feature filter must be set prior to displaying.

1. Change the InRoads **Global Scale Factor** to **20**.

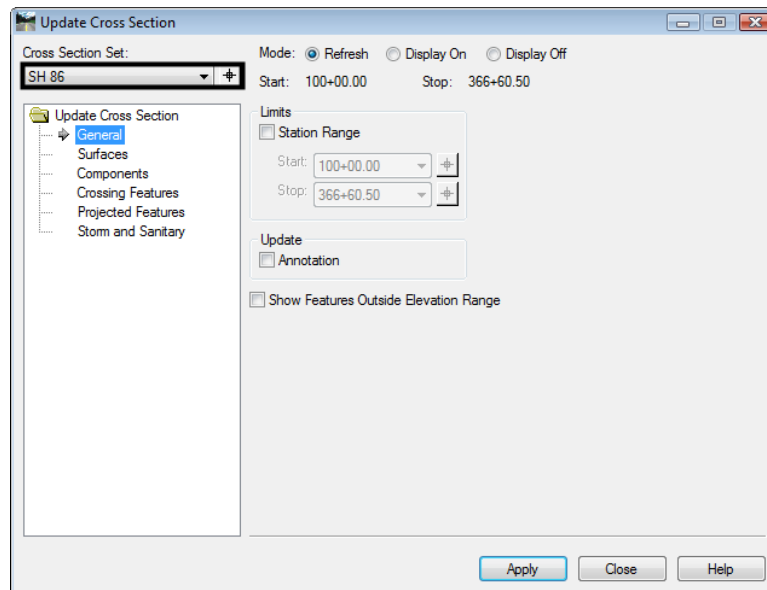


Note: This is the desired plot scale for the set of Cross Sections we are working with. The scale should be changed accordingly to match the scale of the original cross sections.

2. From the **Locks** toolbar select the **CELL_Plot-Scale** filter from the pull down list. Verify that the **Feature Filter** lock is toggled on.

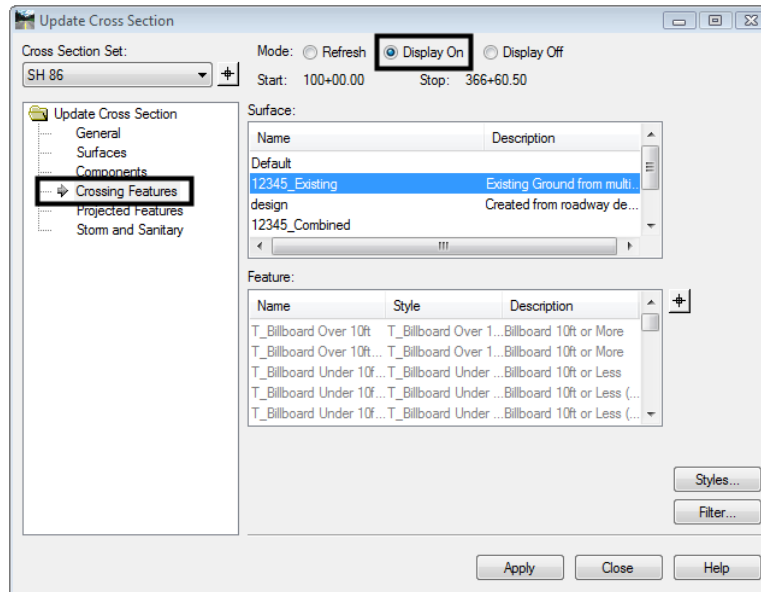


3. Verify that the correct **Cross Section Set** is selected in the **Update Cross Section** dialog.

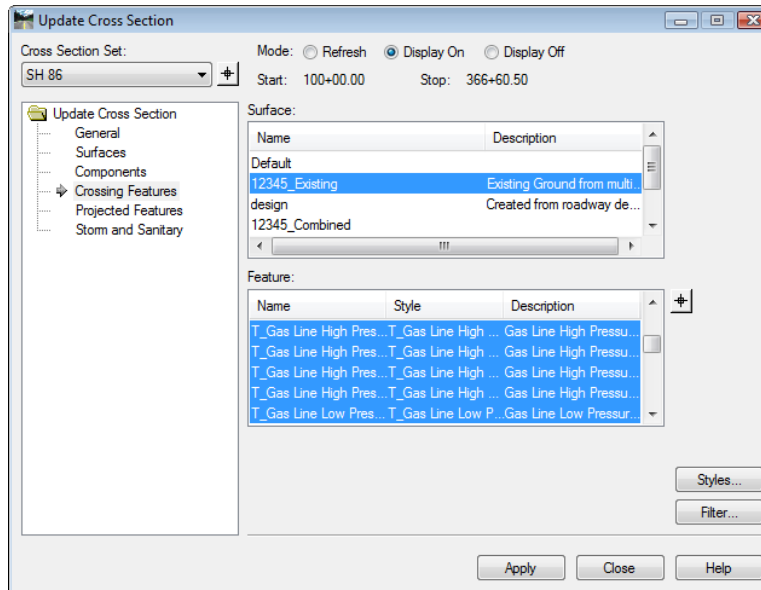


CDOT Displaying Features in Cross Section and Profile

4. Toggle on the **Display On** radio button. Select the **Crossing Features** category.



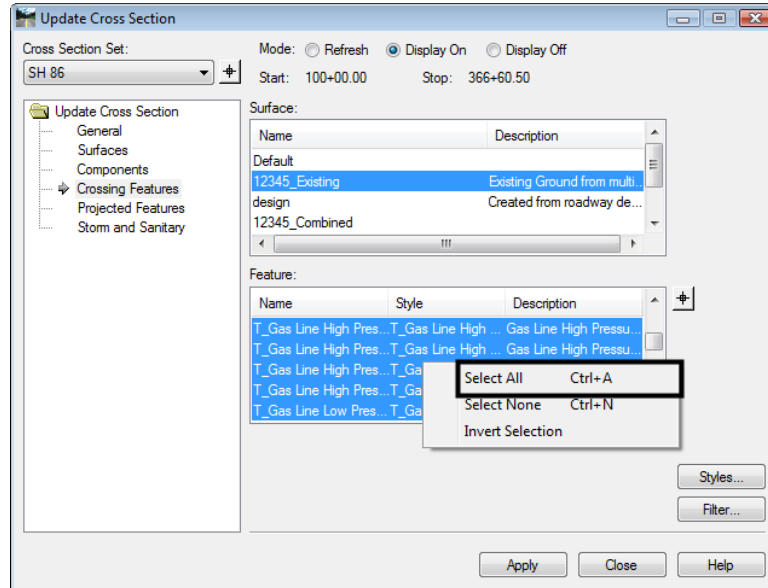
5. From the **Surface** list box, select the surface name or names to display. Once a surface or surfaces are selected, the **Feature** list box will populate with the list of features. Use the **Ctrl** and **Shift** keys to select multiple feature names.



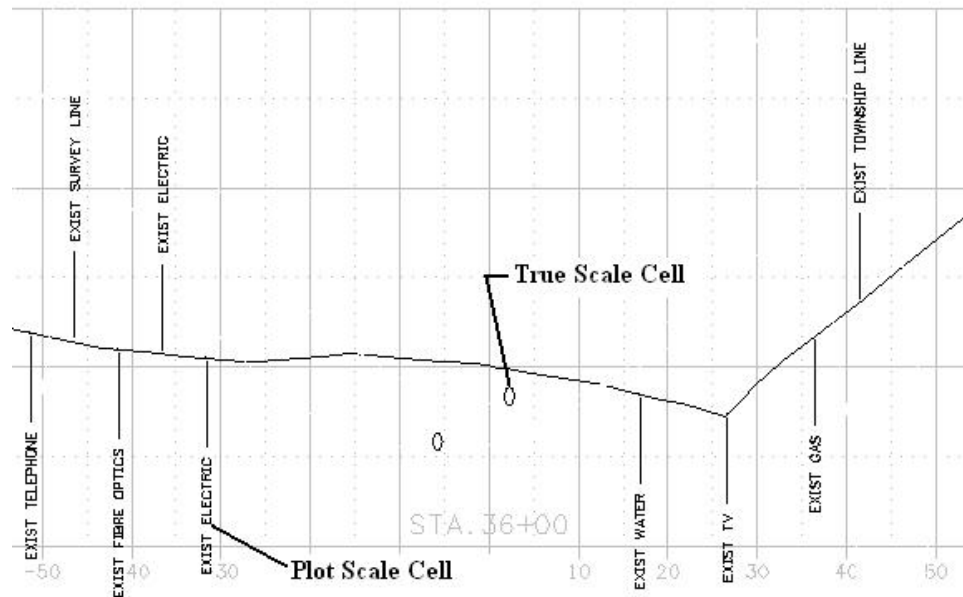
Note: The names in bold are Feature Styles that can be displayed in cross sections. Any names that are dithered are not configured to be displayed in a cross section view.

CDOT Displaying Features in Cross Section and Profile

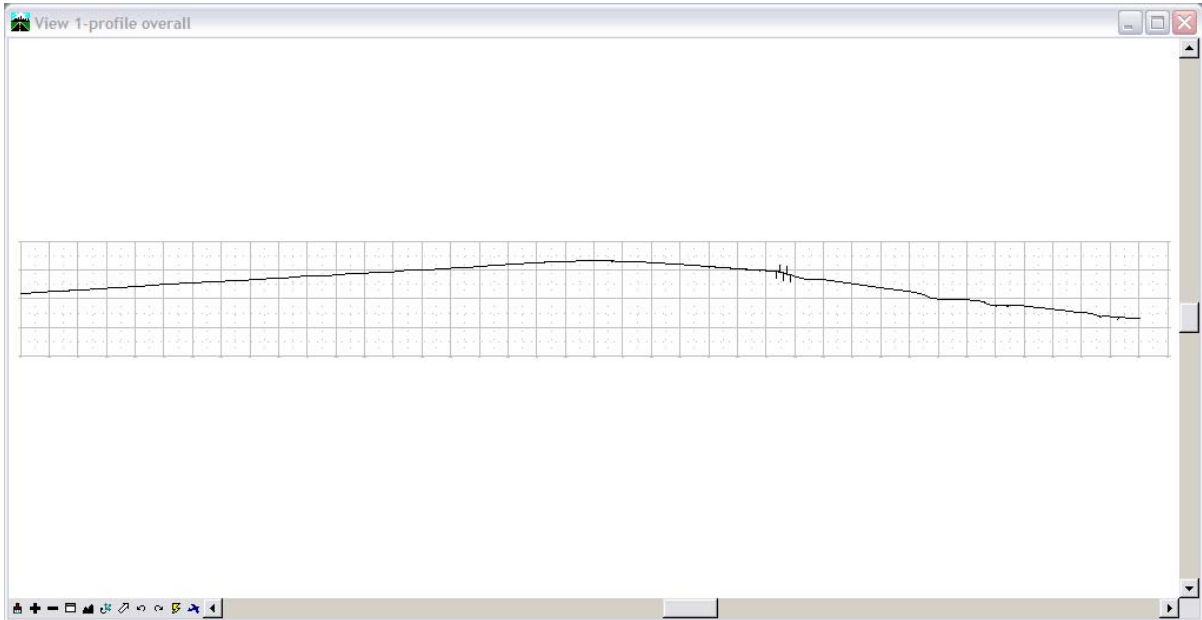
6. <R> in the *Features* list box and choose **Select All** to highlight all the Features that can be displayed in a cross section view.



7. <D> **Apply**. The *Update Cross Section* dialog will minimize as the features are generated in the cross sections. When the process is finished, the dialog will reappear.



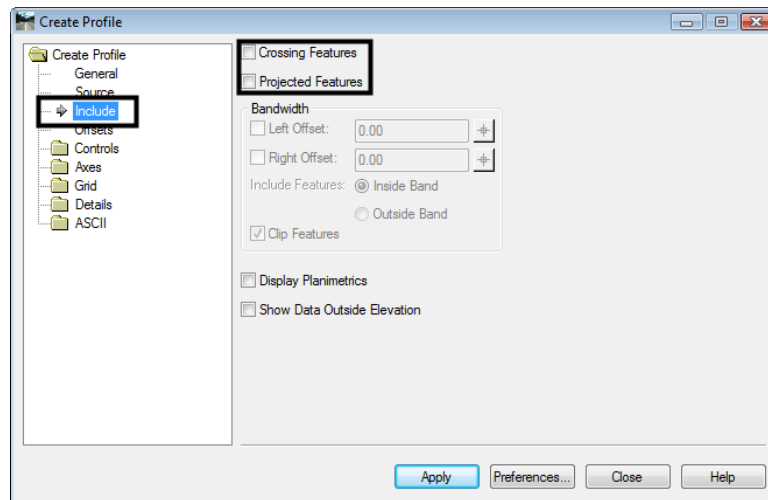
Displaying Features in Profile



Note: Example Profile

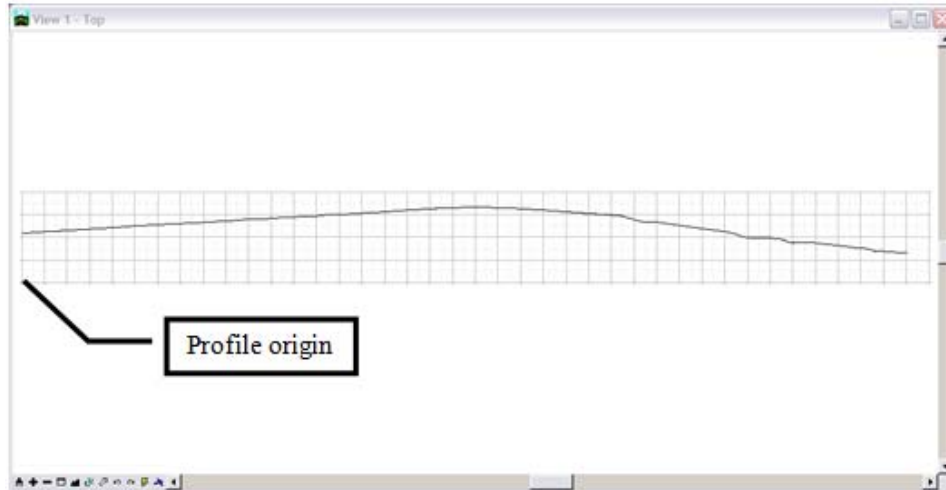
The procedure for displaying features in profiles follows.

1. From the InRoads menu, select **Evaluation > Profile > Create Profile**. The **Create Profile** dialog will appear. <D> **Preferences** to load the appropriate saved preferences. In this example the CDOT preferences will be used.



2. In the **Create Profile** dialog, verify under the **Include** category that **Crossing Features** is checked off.
3. <D> **Apply**. The **Create Profile** dialog will minimize allowing the selection of the origin for the profile set. <D> in a MicroStation View to specify this location. After the profile is created <D> **Close**.

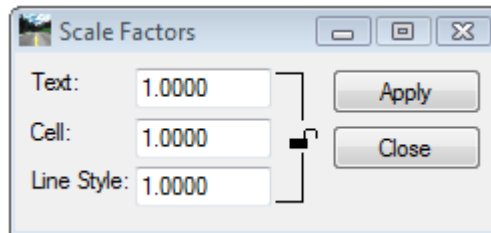
CDOT Displaying Features in Cross Section and Profile



4. From the InRoads menu select **Evaluation > Profile > Update Profile**. The *Update Profile* dialog will appear.

The first set of features to display will be the features that are defined to be true scale meaning the features have a defined size such as pipes. In order to display these types of features, set the scale factor and feature filter prior to displaying.

5. Change the InRoads *Global Scale Factor* to **1**.

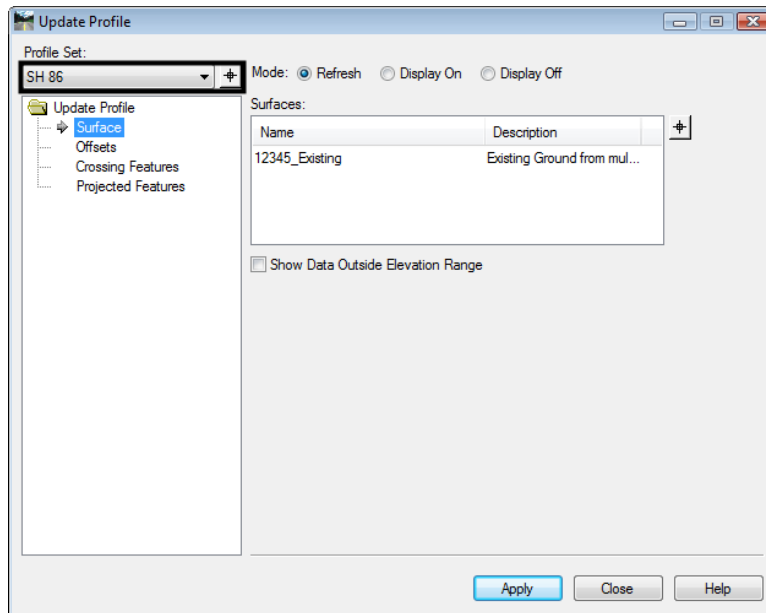


6. From the *Locks* toolbar select the **CELL_True-Scale** filter from the drop-down list and toggle on the **Feature Filter** lock.

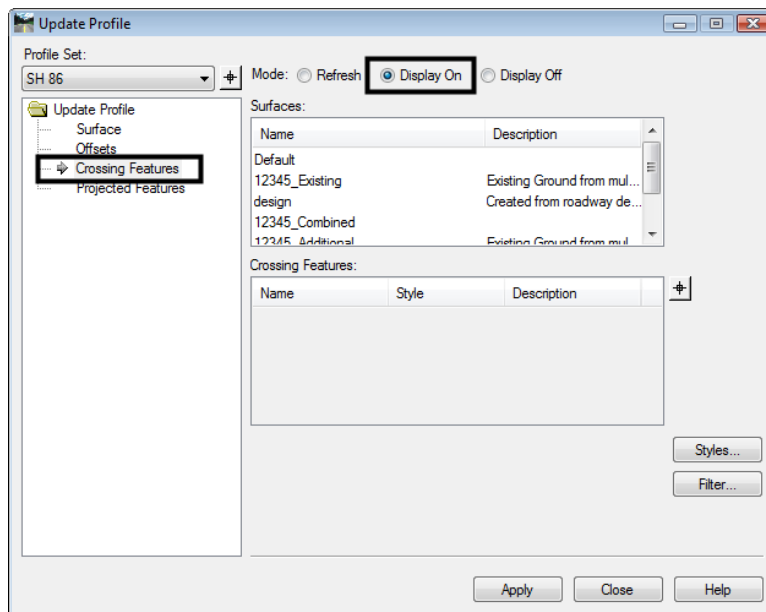


CDOT Displaying Features in Cross Section and Profile

7. Verify the correct **Profile Set** is selected in the **Update Profile** dialog.

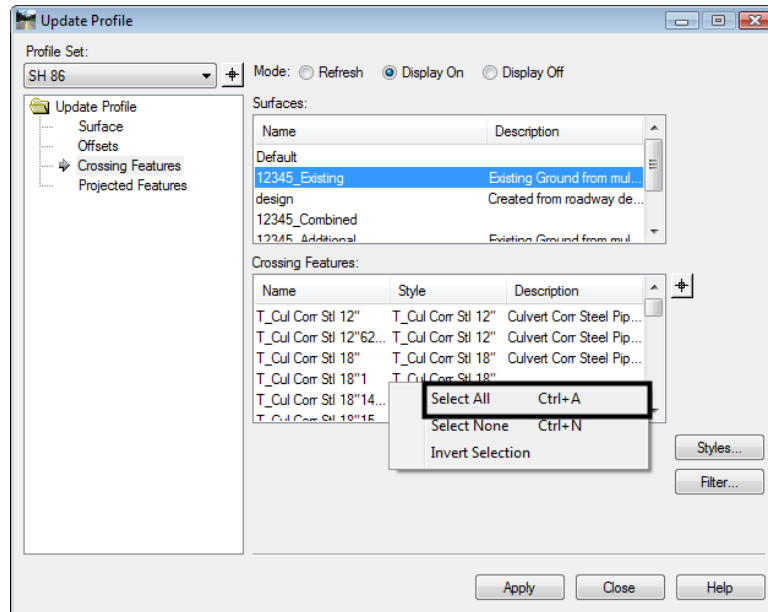


8. For the **Mode**, select the **Display On** radio button; then select the **Crossing Features** category.



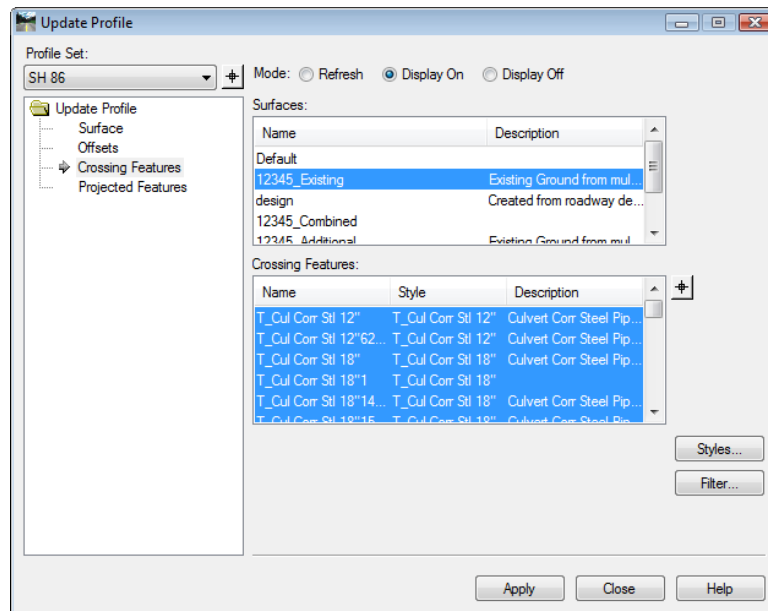
CDOT Displaying Features in Cross Section and Profile

- From the **Surfaces** list box, select the surface name or names to display. Once surfaces have been selected, the **Crossing Features** list box will populate with the list of features. Use the **Ctrl** or **Shift** keys when you want to select multiple Surface names.



Note: The names that are black are Feature Styles that can be displayed in profile. Any names that are dithered are not configured to be displayed in a profile view.

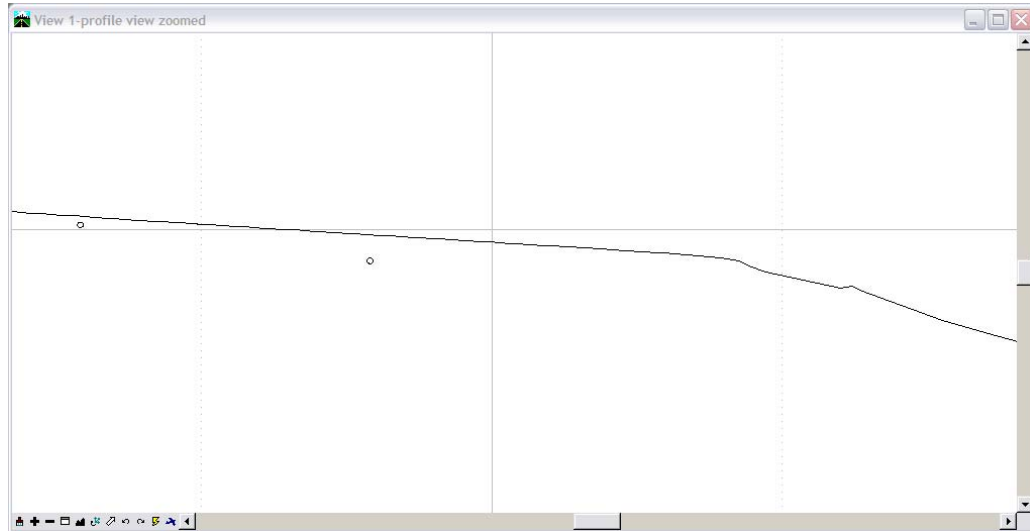
- <R> in the **Crossing Features** list box. Choose **Select All** from the menu. The Crossing Features that can be displayed in profile will be highlighted in the **Crossing Features** list box.



CDOT Displaying Features in Cross Section and Profile

Note: No Projected Features will be displayed in this example. The same procedure is used for displaying *Projected Features*, except that the *Projected Features* category is selected.

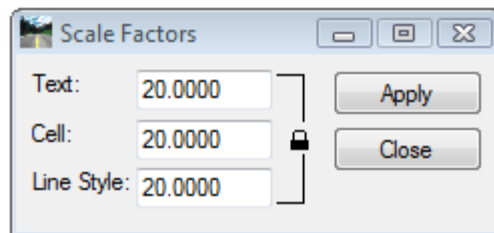
11. <D> **Apply**. The dialog will minimize as the features are drawn in the profile. When the process is finished the dialog will reappear.



Displaying Plot Scale Cells

The second set of features to be displayed is those that have *location only* defined with annotation. In order to display these types of features, set the scale factor and the desired feature filter prior to displaying.

1. Change the InRoads *Global Scale Factor* to **20**.



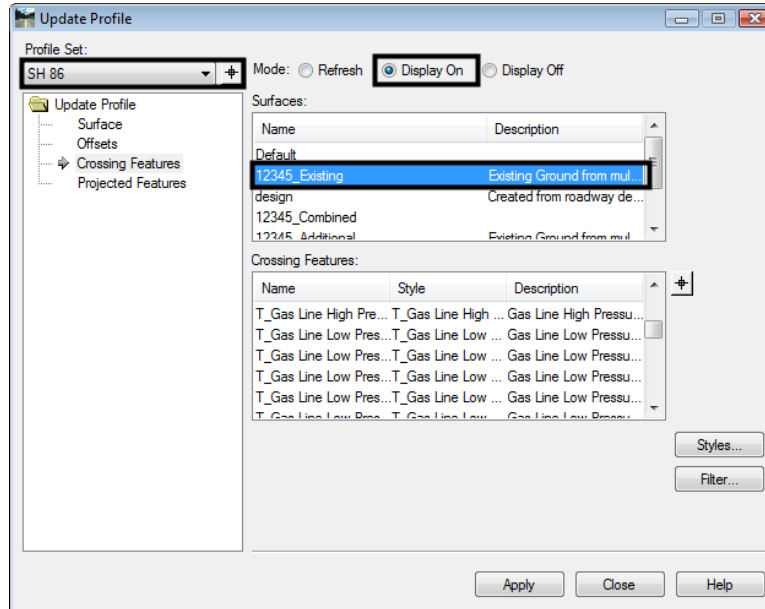
Note: This is the desired plot scale; change accordingly.

2. From the *Locks* toolbar select the **CELL_Plot-Scale** filter from the pull down list and toggle on the **Feature Filter** lock.



CDOT Displaying Features in Cross Section and Profile

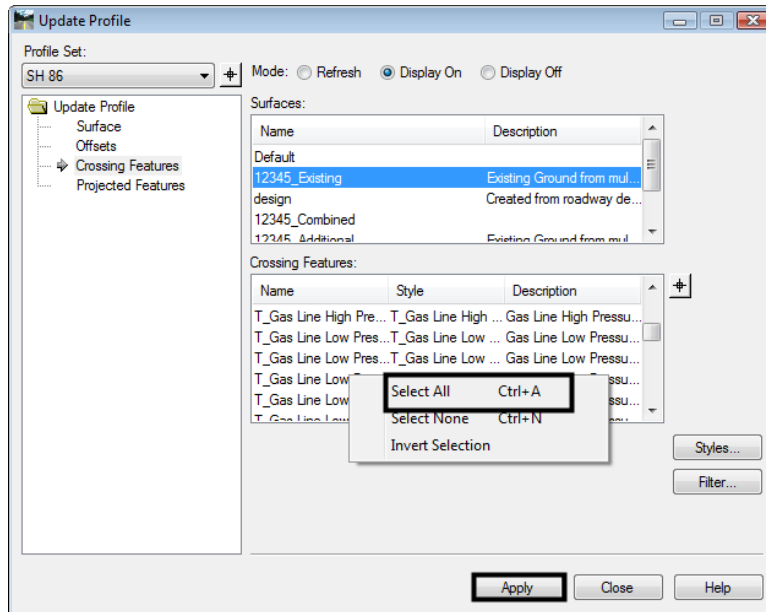
3. Verify the correct **Profile Set** is selected in the **Update Profile** dialog.
4. For the **Mode**, select the **Display On** radio button; ; then select the **Crossing Features** category.
5. From the Surfaces list box, select the surface name or names to display. Once surfaces have been selected, the **Crossing Features** list box will populate with the list of features. Use the **Ctrl** or **Shift** keys when you want to select multiple Surface names.



Note: The feature names that are black are Feature Styles that can be displayed in profile. Any names that are dithered are not configured to be displayed in a profile view.

CDOT Displaying Features in Cross Section and Profile

6. <R> in the *Crossing Features* list box. Choose **Select All** from the menu. The Crossing Features that can be displayed in profile will be highlighted in the *Crossing Features* list box.



<D> **Apply**. The *Update Profile* dialog will minimize as the features are generated in the profile. When the process has completed the dialog will reappear.

