Updating Flared End Section to Correct Size and Rotation

This process will show how to update flared end sections to the correct size and also get them rotated properly with the pipe they are associated to. You will still code the flared end sections (707 & 708) the same as you always have in the past when you are in the field collecting the existing topo data. But then when you process that data in MicroStation, you can change the feature definition code to the correct size.

Example would be is if there is a 48" concrete flared end section, you would change the feature definition from **708** to **708.48**. A 72" metal flared end section, you would change the feature definition from **707** to **707.72**.

1. Open the **Show Details** window panel. This will allow you to easily see all the features that are in the file.



| Tasks | -¤ X | | | | | | | | |
|---|----------|----|--------------------|--------------|----------------|----------------|-----------------|--------------|----------|
| Tasks | | | | | | | | | |
| x Survey | | | | | | | | | |
| Survey Processing | | | | | | | | | |
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| Show Details | | | | | | | | | |
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| D 🌽 🗗 | | | Name | Setups | Control Points | Point Features | Linear Features | Observations | File Nar |
| Analysis & Reporting | * | ▶ | F151K12a.rec | 0 | 0 | 317 | 26 | 0 | c:\users |
| A Terrain Model | | | F151KW08.rec | 0 | 16 | 906 | 122 | 0 | c:\users |
| | | | F151KW12.rec | 0 | 0 | 389 | 66 | 0 | c:\users |
| | • | | | | | | | | |
| Horizontal Geometry | • | | | | | | | | |
| E Vertical Geometry | * | | | | | | | | |
| ✓ Drawing | * | | | | | | | | |
| Visualization | * | | | | | | | | |
| Animation | * | | | | | | | | |
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2. Go to the **Project Explorer**.

Navigate to Survey Data > Default> Field Books > "Named" Field Book > All Point Features.

You should see all the point features in the *Show Details* window pane.

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| ALL Point Features |
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| Name | Display | Feature Definition | Link Code | Zone | Description | Te |
|------|---------|--------------------|-----------|------|-------------|----|
| 741 | True | 10 | None | 1 | | De |
| 1535 | True | 10 | None | 1 | | De |
| 380 | True | 10 | None | 1 | | De |
| 174 | True | 10 | None | 1 | | De |
| 1369 | True | 10 | None | 1 | | De |
| 796 | True | 10 | None | 1 | | De |
| 853 | True | 10 | None | 1 | | De |
| 1121 | True | 10 | None | 1 | | De |
| 355 | True | 101 | None | 1 | | De |
| 1343 | True | 101 | Start | 1 | | De |
| 354 | True | 101 | None | 1 | | De |
| 1346 | True | 101 | None | 1 | | De |
| 382 | True | 101 | None | 1 | | De |
| 381 | True | 101 | Start | 1 | | De |
| 356 | True | 101 | Close | 1 | | De |
| 1344 | True | 101 | None | 1 | | De |
| 1153 | True | 101 | None | 1 | | De |
| 320 | True | 101 | End | 1 | | De |
| 316 | True | 101 | Start | 1 | | De |
| 317 | True | 101 | None | 1 | | De |

| 3. | Right click | over the | Feature | Definition | column an | nd sort by | the Sort | Ascending option. |
|----|--------------------|----------|---------|------------|-----------|------------|----------|-------------------|
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| Element List | Message Center | | | | | |
|--------------|----------------|--------------------|-------------------|------------------|--------|----|
| Name | Display | Feature Definition | A | Sort Ascendi | | De |
| 601 | True | 101 | Z V | Sort Descent | lina | |
| 600 | True | 101 | A Soft Descending | Sort Descending | | |
| 355 | True | 101 | | Custom Sort | ing | |
| 356 | True | 101 | | Rename | | |
| 1156 | True | 101 | | Show Columns 🔹 🖡 | | |
| 354 | True | 101 | | Freeze This (| Column | |
| 384 | True | 101 | | Alignment | • | |
| 1158 | True | 101 | | Edit | | |
| 353 | True | 101 | | Find | | |
| 1132 | True | 101 | A.ª | Replace | | |
| 320 | True | 101 | End | | 1 | |

4. Scroll down to the 707 and 708 codes. **Left click** on one of the flared end section to the left of the *Name* column. The location of the flared end section cell should highlight in a purplish color in the MicroStation file.

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|--------------|----------------|--------------------|-----------|------|-------------|------|
| Name | Display | Feature Definition | Link Code | Zone | Description | ler |
| 251 | True | /05 | Start | 1 | | Dete |
| 254 | True | /05 | Close | 1 | | Dete |
| 253 | True | 705 | None | 1 | | Dete |
| 1208 | Irue | /05 | None | 1 | | Dete |
| 1207 | Irue | /05 | Start | 1 | | Dete |
| 1210 | True | 705 | Close | 1 | | Dete |
| 1209 | True | 705 | None | 1 | | Dete |
| ▶ 1 0 | True | 708 | None | 1 | | Dete |
| 393 | True | 708 | None | 1 | | Dete |
| 1139 | True | 708 | None | 1 | | Dete |
| 229 | True | 720 | None | 1 | | Dete |
| 1196 | True | 720 | End | 1 | | Dete |
| 235 | True | 720 | None | 1 | ROCK | Dete |
| 1639 | True | 720 | None | 1 | | Dete |
| 349 | True | 720 | None | 1 | | Dete |
| 1306 | True | 720 | None | 1 | | Dete |
| 1307 | True | 720 | None | 1 | | Dete |
| 222 | True | 720 | None | 1 | | Dete |
| 1302 | True | 720 | None | 1 | | Dete |
| 338 | True | 720 | None | 1 | | Dete |
| • | III | | | | | • |

5. Zoom in to the flared end section. Using the Element Selection tool, **left click** on the pipe that is associated to the flared end section. Then select the **Properties** option.



Look at the Feature Definition to determine the pipe size. (15" pipe for this example)

Also highlight and select the direction of the pipe and copy that data (Ctrl+c). This data will be used when we rotate the flared end section.

| | Name | 315_26 |
|---|-------------------------|---------------------------|
| ſ | Feature Definition | 315 |
| | Zone | 1 |
| | Description | |
| | Terrain Model Attribute | Determine By Feature Defi |
| | Attributes Pair | |
| | Length | 7.4317 |
| | Data File Name | F151KW08.rec |
| | VBA Macro | |
| | Field Book Name | TEST |
| | Style Name | 315 |
| | Creation Type | GeneratedByLinkCodes |
| | Media File | - |
| | Time Stamp | N/A |
| - | | |
| Ŧ | Start | 840483.1220,1043823.36 |
| Ŧ | End | 840476.6830,1043825.144 |
| | Length | 7.4317 |
| | Direction | N74°34'48''W |
| | Elevation Angle | N63°59'55"E |
| | DeltaX | -6.4390 |
| | DeltaY | 1.7760 |
| | | |
| | DeltaZ | 3.2580 |
| | DeltaZ Total Length | 3.2580 7.4317 |

6. Using the Element Selection tool, **left click** on the flared end section. Then select the **Properties** option.



In the Properties, change the **Feature Definition** to the correct flared end section to match the pipe (708.15 for 15" concrete flared end section).

Change the **Angle** of the flared end section. Since you copied the direction from the pipe properties in the previous step, you can simply paste (Ctrl+v) in the angle field. You may need to reverse the north/south and west/east bearings if it doesn't rotate correctly.

Note: Change the *Feature Definition* first and then the *Angle*. If you change the *Angle* first and then the *Feature Definition*, the *Angle* will reset back to the default of 90 degrees NE.

