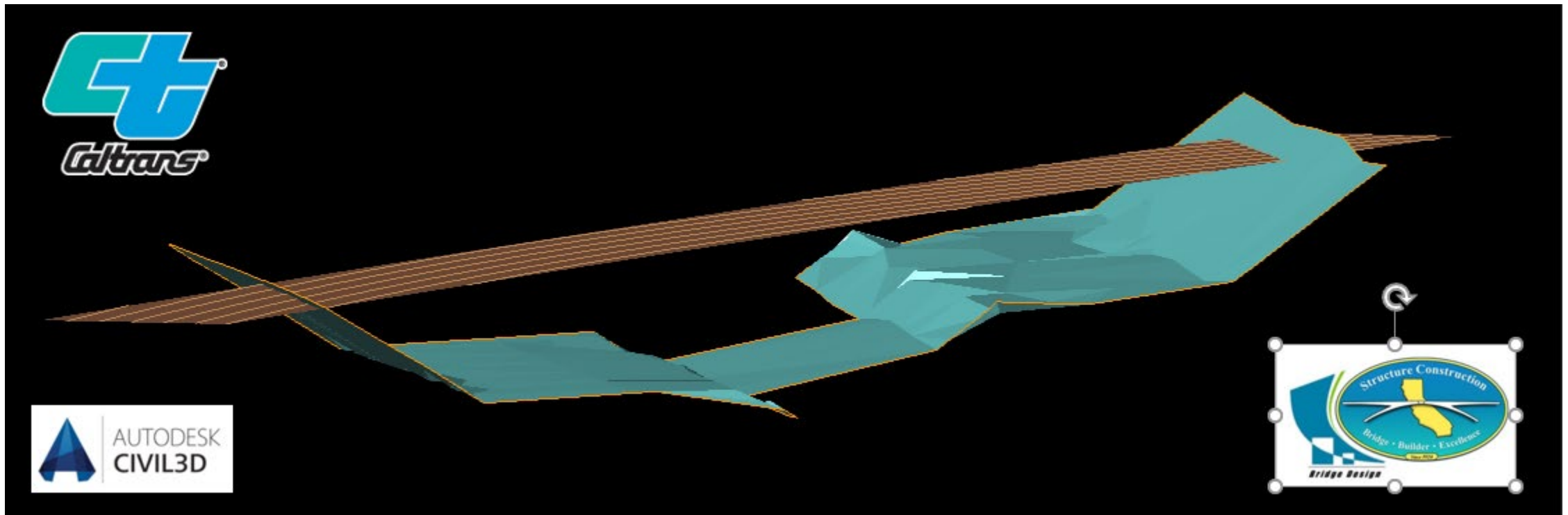




Civil 3D

Create Deck Elevation Points



How to get Grades from a Deck Surface

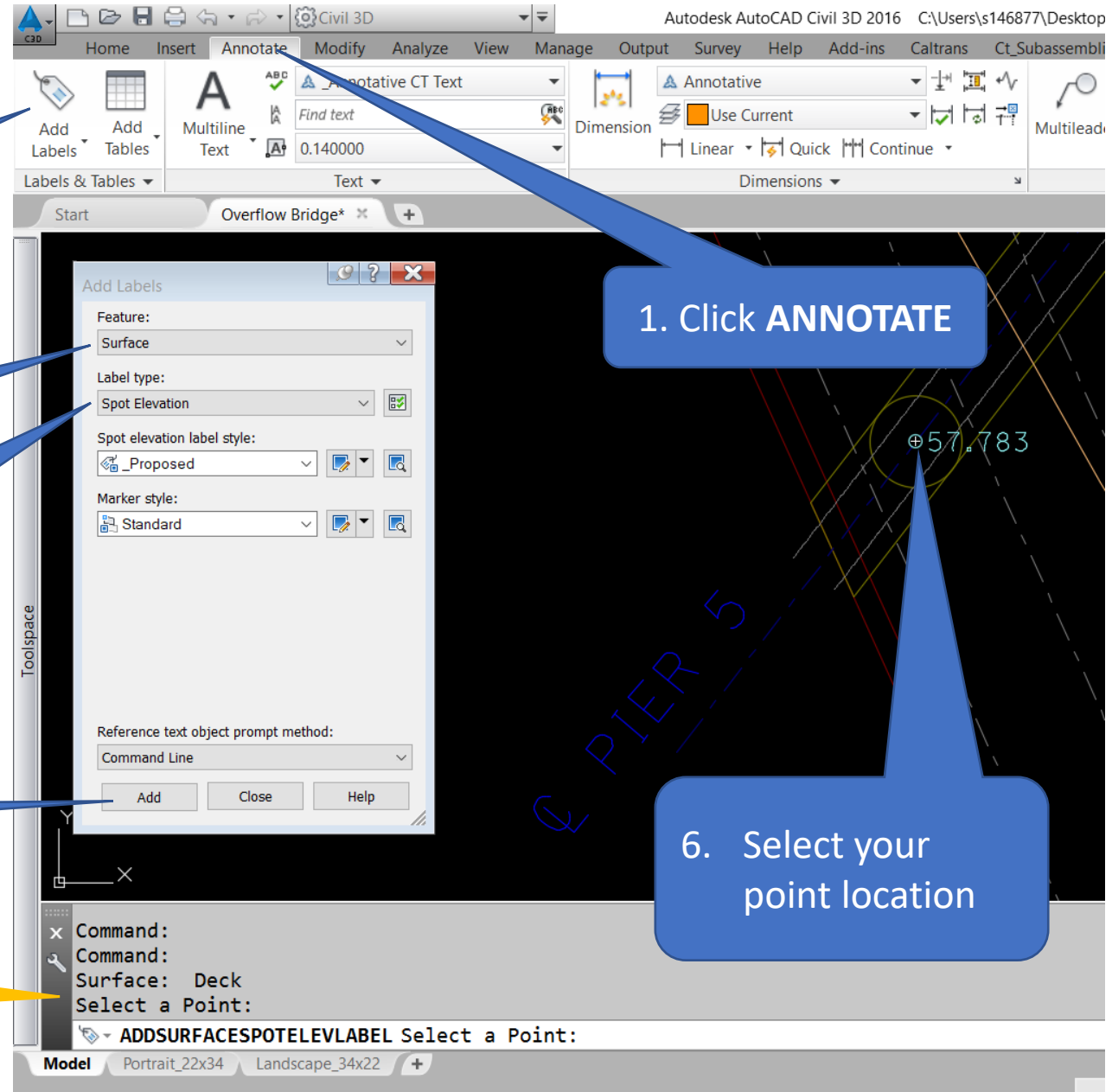
1. What Files You Need
2. How to Create Spot Elevation
3. Create Multiple Elevation Points to Export
4. Exporting Points to Excel
5. Delete Multiple Points

What Files You Need

1. The Bridge Alignment .xml file
2. The Bridge Deck Surface .xml file
3. A .dwg file of the 2D Bridge Layout in Real World Coordinates, (including but limited to):
 - Abutment layout
 - Abutment centerlines
 - Bent/Pier layout
 - Bent/pier centerlines
 - Column layout
 - Girder centerlines
 - Edge of Deck
 - BB & EB
 - Wingwalls
 - Bearing locations

Consult your Structures Designer for assistance in obtaining these files and combining them into a single .dwg file for you to use.

Spot Elevations



2. Click **ADD LABELS**

3. Select **Surface**

4. Select **Spot Elevation**

5. Click **ADD**

If your surface is not already selected you will need to click on your surface after **ADD**

1. Click **ANNOTATE**

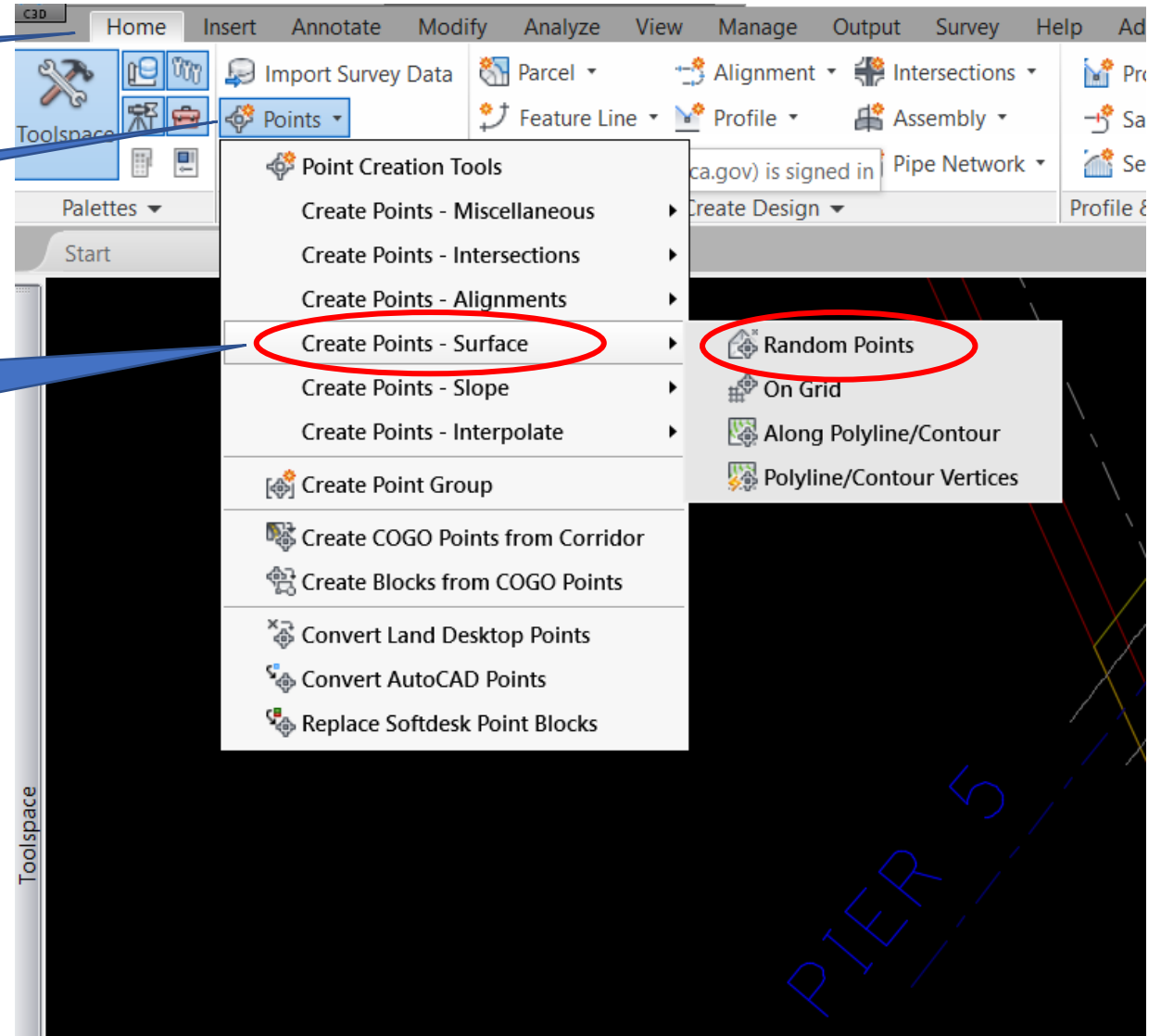
6. Select your point location

Creating Multiple Spot Elevations for Export

1. Click **HOME** tab

2. Click **POINTS**

3. Select **Create Point – Surface**
4. Select **Random Points**



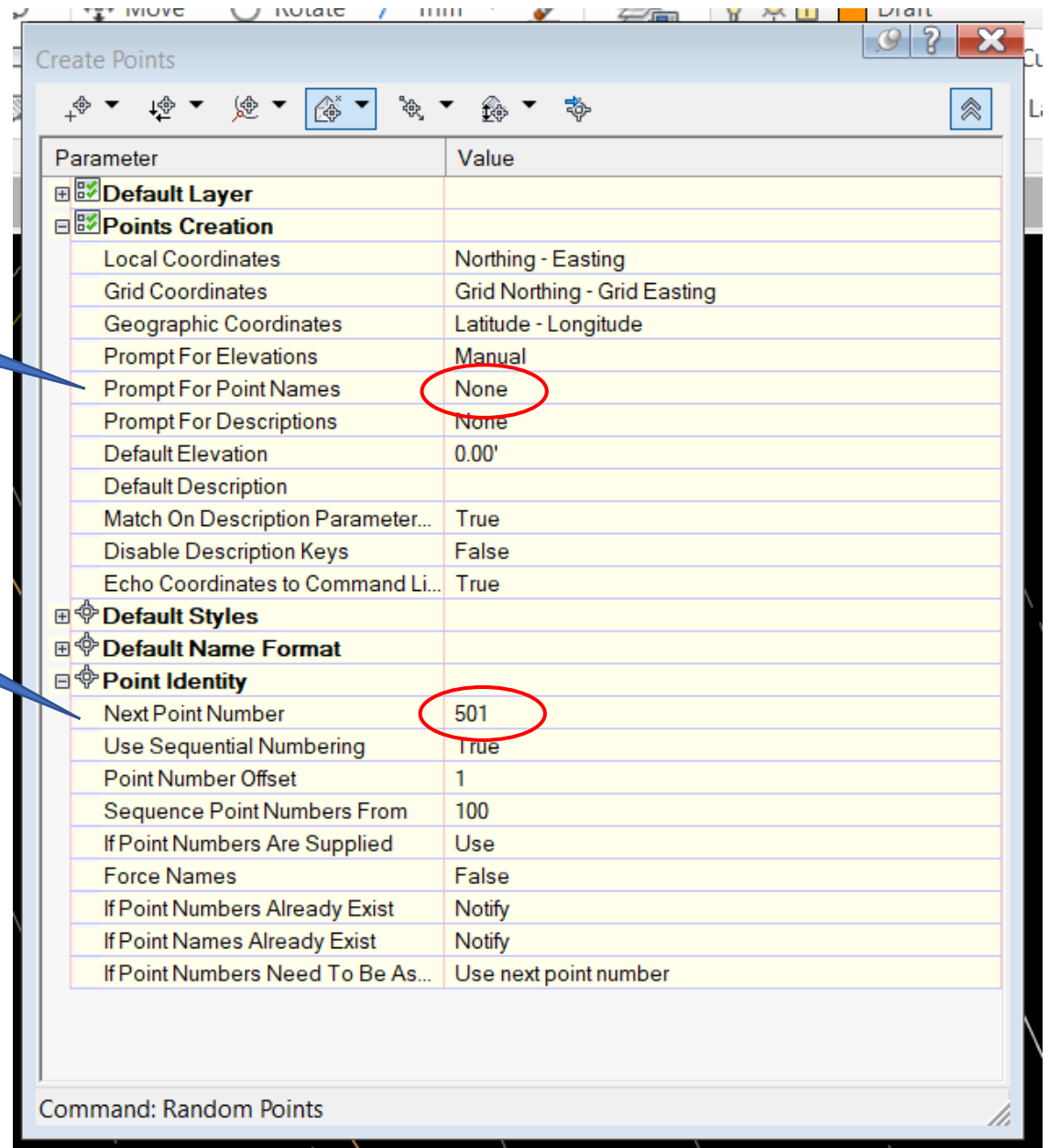
5. Expand Point Creation and change the “Prompt For Point Name” to read “NONE”

6. Expand Point Identity and change the “Next Point Number”

7. Begin laying out your points

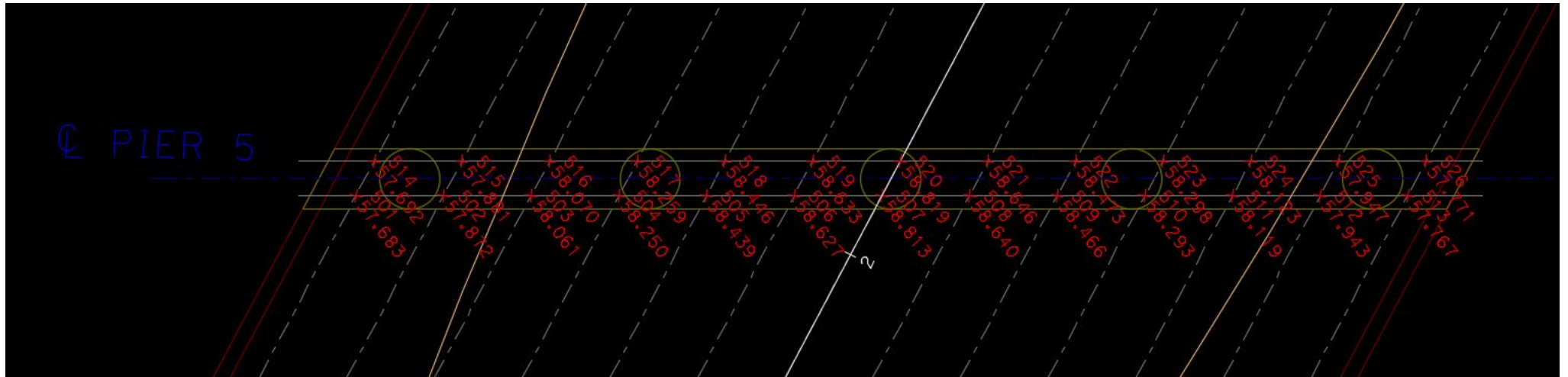
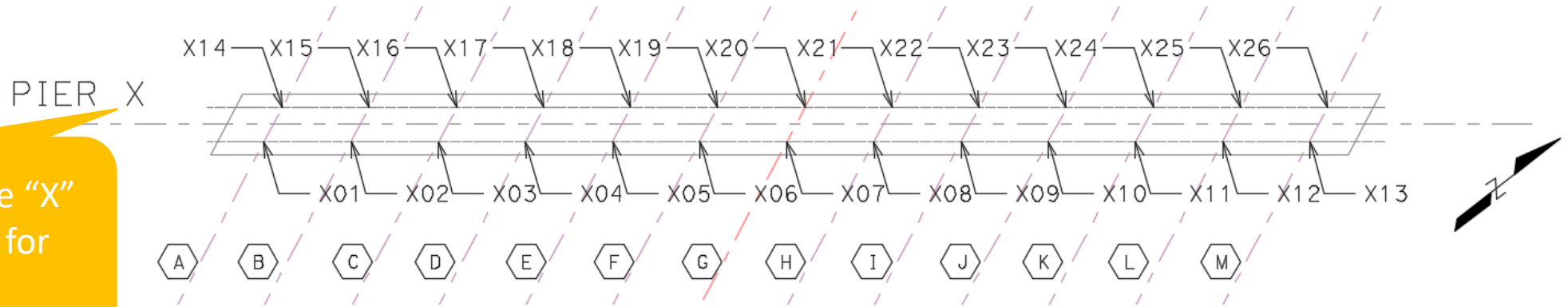
You may need to select your surface if its not already selected for you.

If you select the wrong location by accident, **DELETE** the point. **DO NOT** move the point, the elevation will be wrong.



Point Layout Example – (precast girder bearing seat)

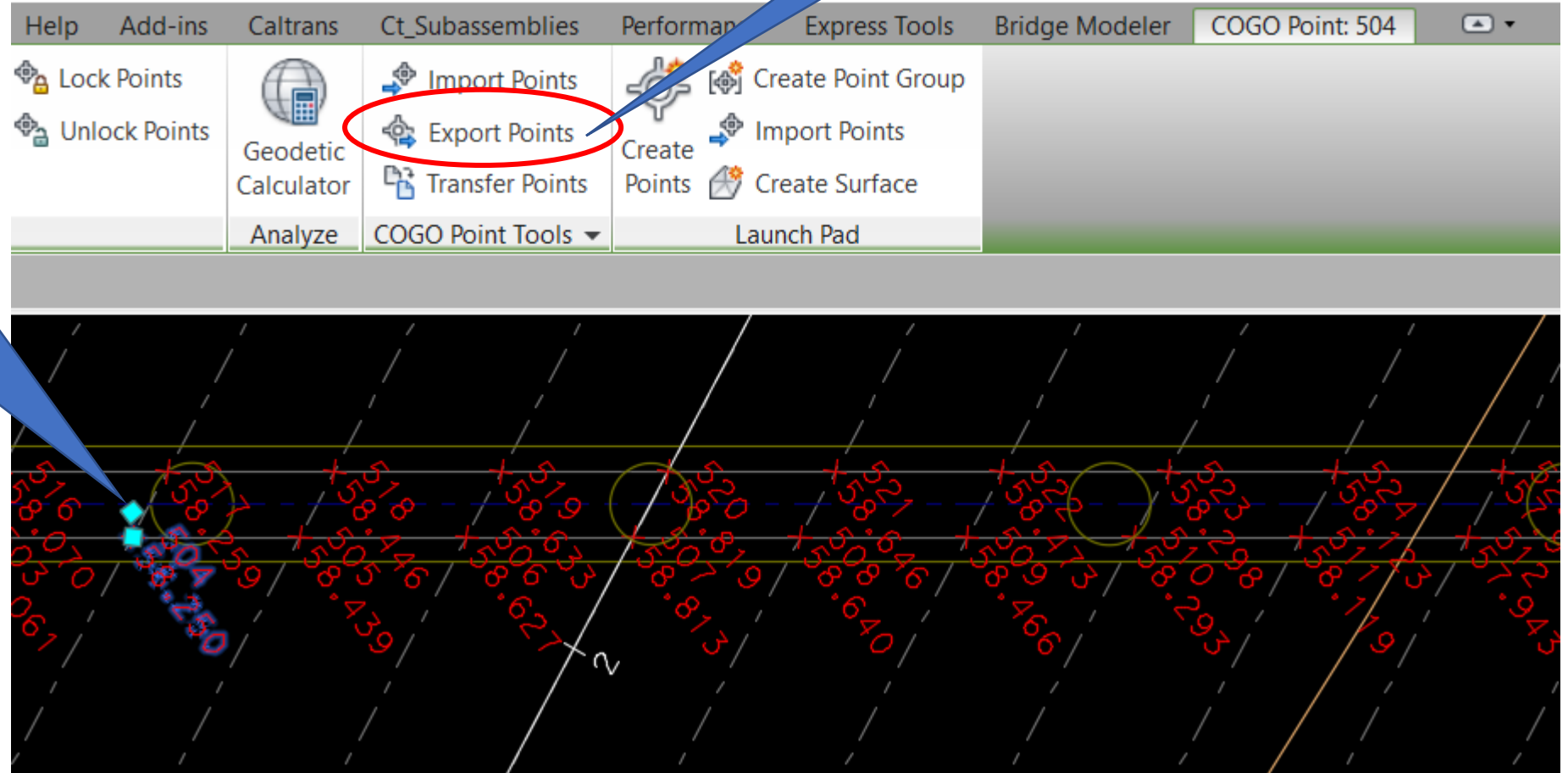
In this example the “X” is the placeholder for the pier number.



Exporting Points to Excel

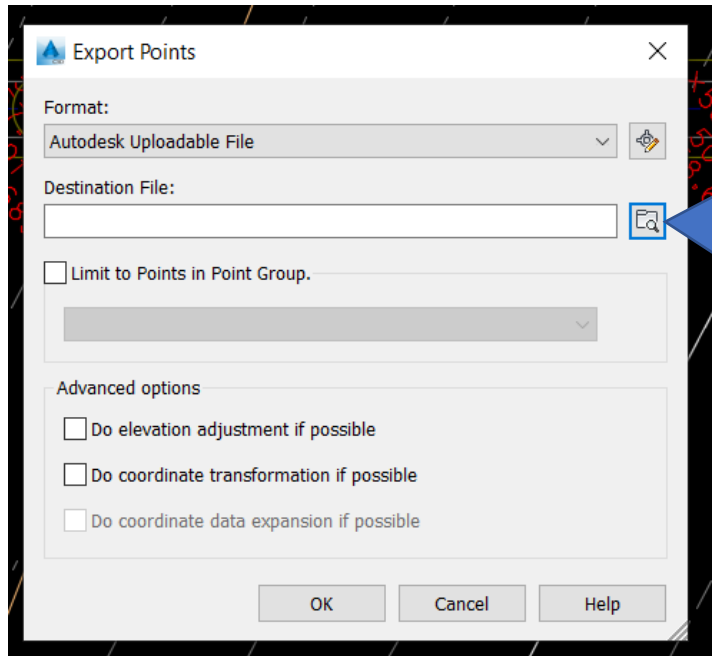
2. Click **EXPORT POINTS**

1. Select one of your points. **COGO POINTS** will automatically popup



Exporting Points to Excel

The .csv file will automatically export as:
Point # / Northing / Easting / Elevation

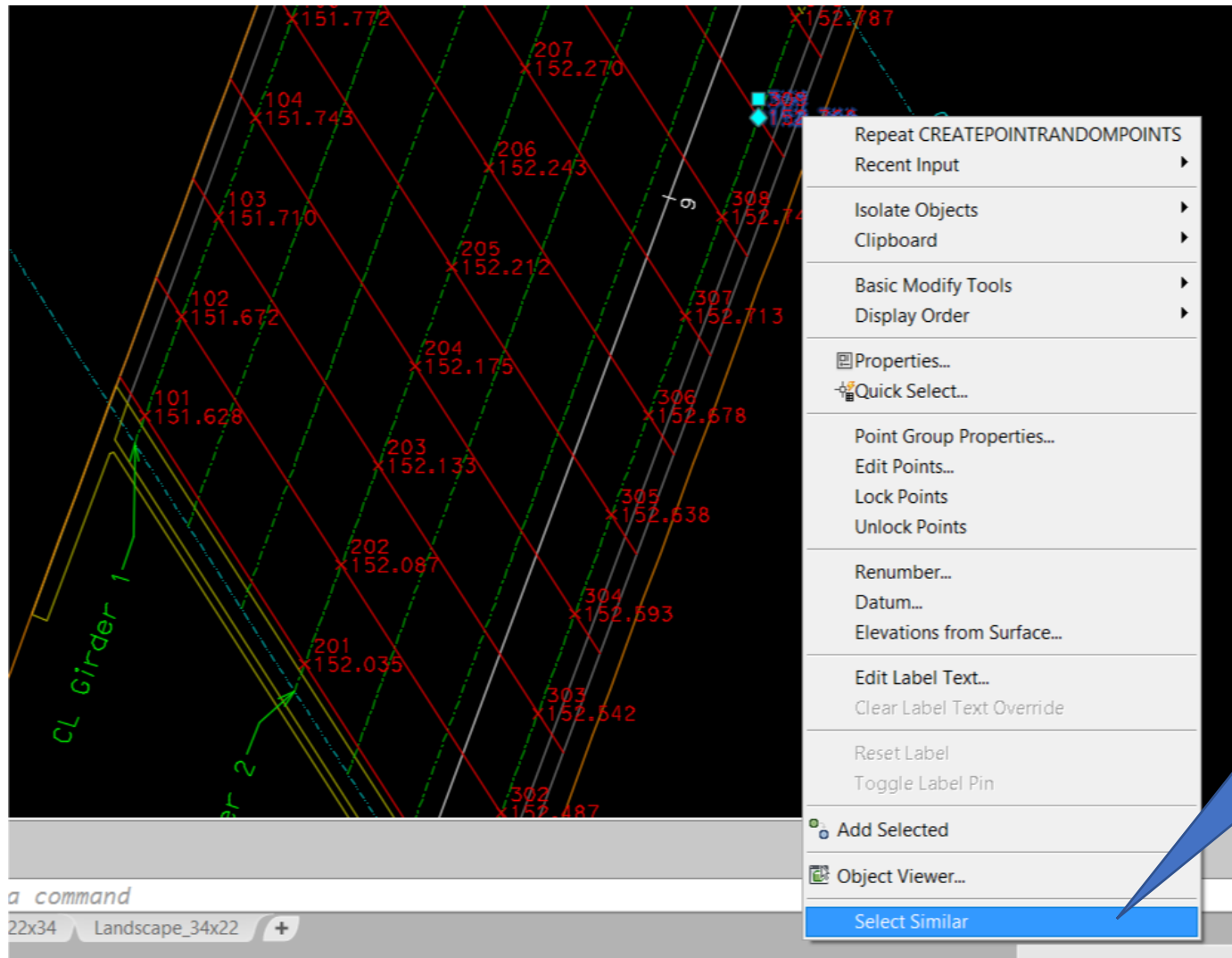


3. Click to direct where to save the file
4. Save as “.csv” file

	A	B	C	D	E
1	501	1890692	6750793	57.6834	
2	502	1890700	6750799	57.6834	
3	503	1890708	6750805	58.0697	
4	504	1890716	6750812	58.2502	
5	505	1890724	6750818	58.4391	
6	506	1890732	6750824	58.6266	
7	507	1890740	6750830	58.8131	
8	508	1890748	6750836	58.6397	
9	509	1890756	6750843	58.4663	
10	510	1890764	6750849	58.2929	
11	511	1890772	6750855	58.1185	
12	512	1890780	6750861	57.9428	
13	513	1890788	6750868	57.767	
14	514	1890696	6750791	57.6918	
15	515	1890704	6750797	57.8808	
16	516	1890712	6750803	58.0697	
17	517	1890720	6750810	58.2586	
18	518	1890728	6750816	58.4462	
19	519	1890736	6750822	58.6328	
20	520	1890744	6750828	58.8194	
21	521	1890752	6750835	58.6459	
22	522	1890760	6750841	58.4725	
23	523	1890768	6750847	58.2983	
24	524	1890776	6750853	58.1226	
25	525	1890784	6750859	57.9468	
26	526	1890793	6750866	57.7711	
27					
28					

5. Delete the Nothing & Easting columns
6. Save file as “.xlsx”

Delete Multiple Points



If you need to **START OVER** over a quick way to delete all the points at once.

1. Select a point
2. **Right** click, select “**Select Similar**”
3. Hit the **DELETE** key