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How To Stakeout on Topcon Pocket 3D

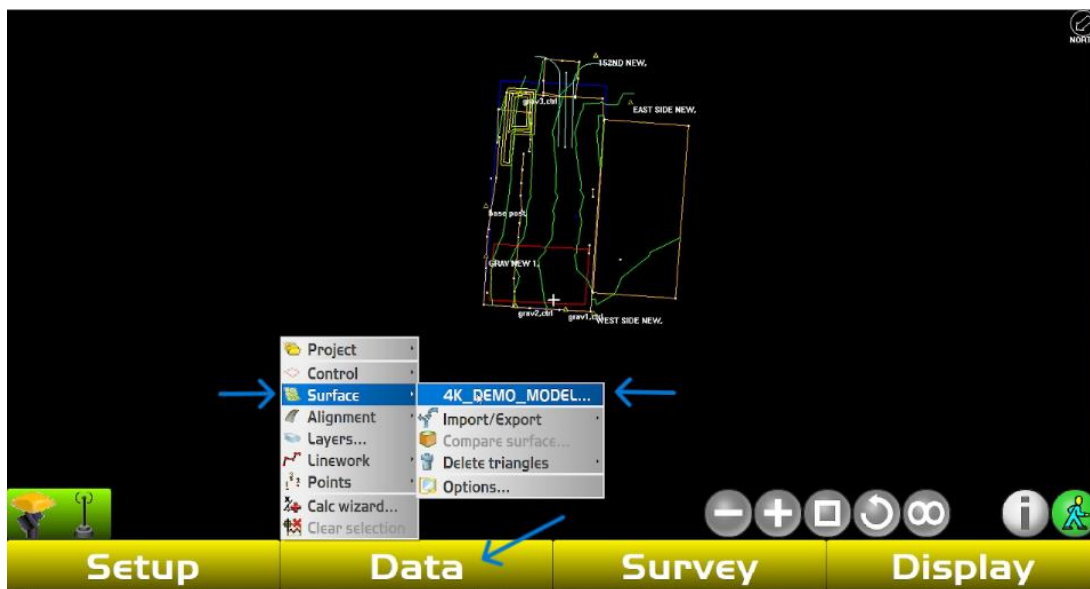
Selecting a Surface

What is a Surface?

- A **surface** in Topcon Pocket 3D is a 3D model that represents the ground or designed elevations of a job site. It is used to guide grading, excavation, and construction by providing accurate elevation data and showing where to cut or fill material to match the project design.

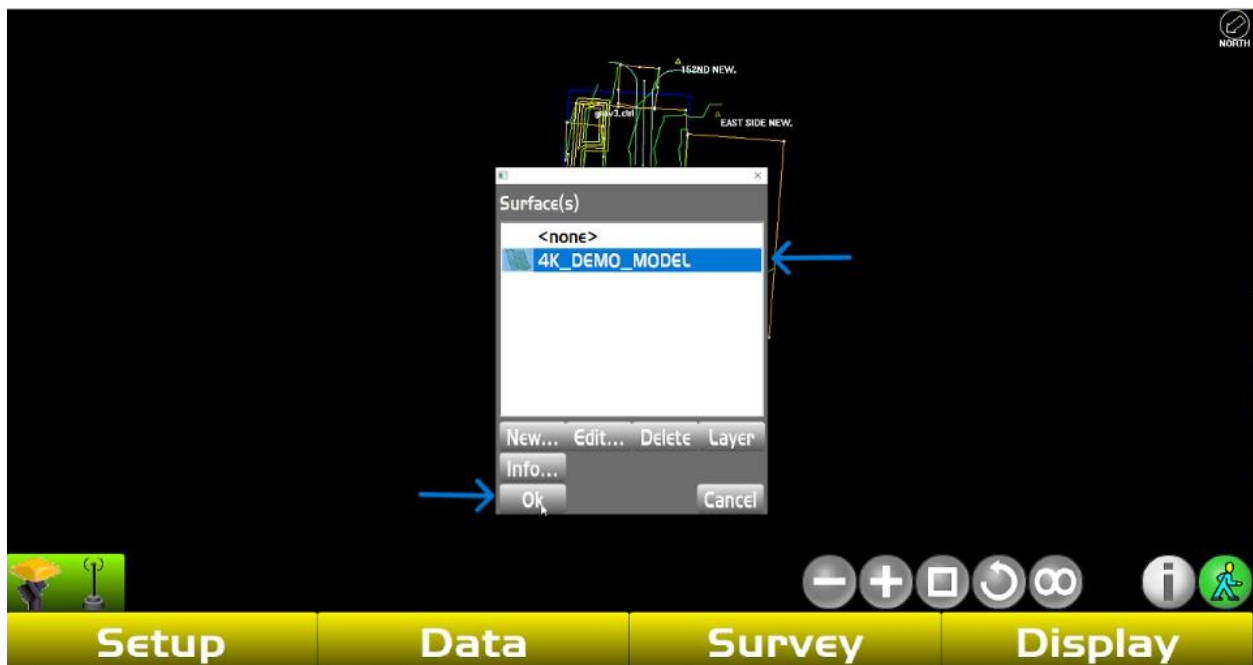
Step 1: Locate The Data Menu

1. Tap the “**Data**” menu on the main screen.
2. Select “**Surface**” from the list of options.
3. Tap the top bar where it says “<none>” to choose your desired surface.



Step 2: Select a Surface

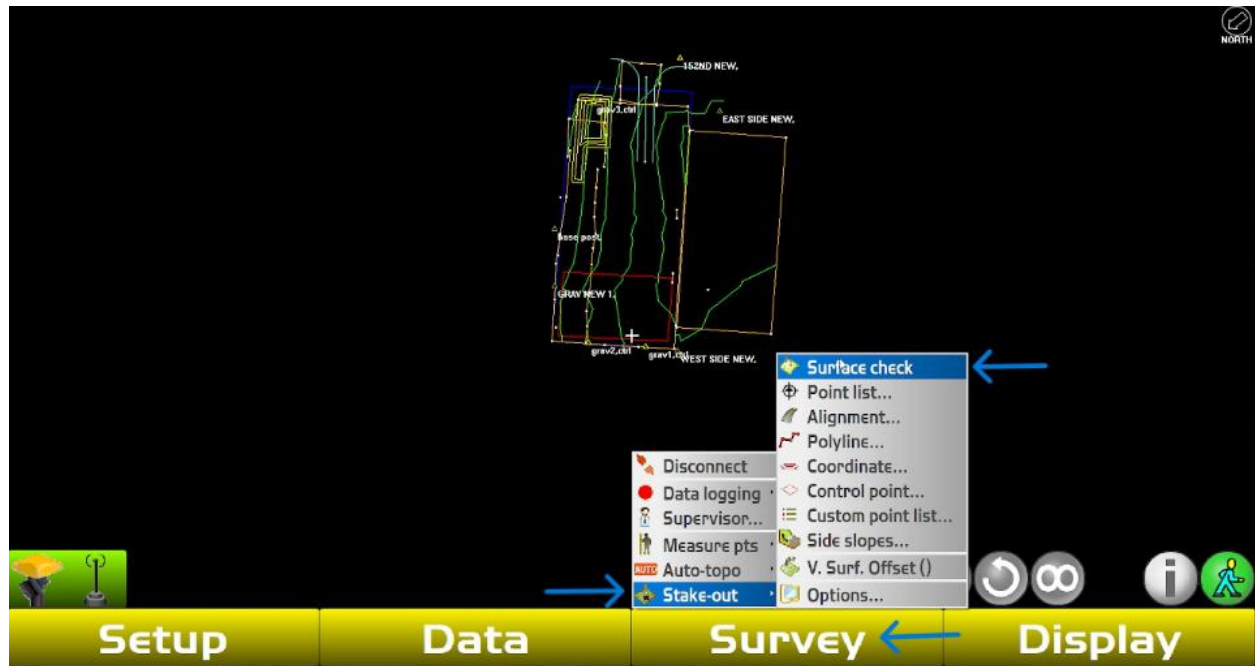
1. Highlight the surface you're going to be using then tap "OK"



Staking Out a Surface

Step 1: Access the Survey Menu

1. Tap “Survey”
2. Select “Stakeout”
3. then “Surface Check”



Step 2: Interpret Cut and Fill Guidance

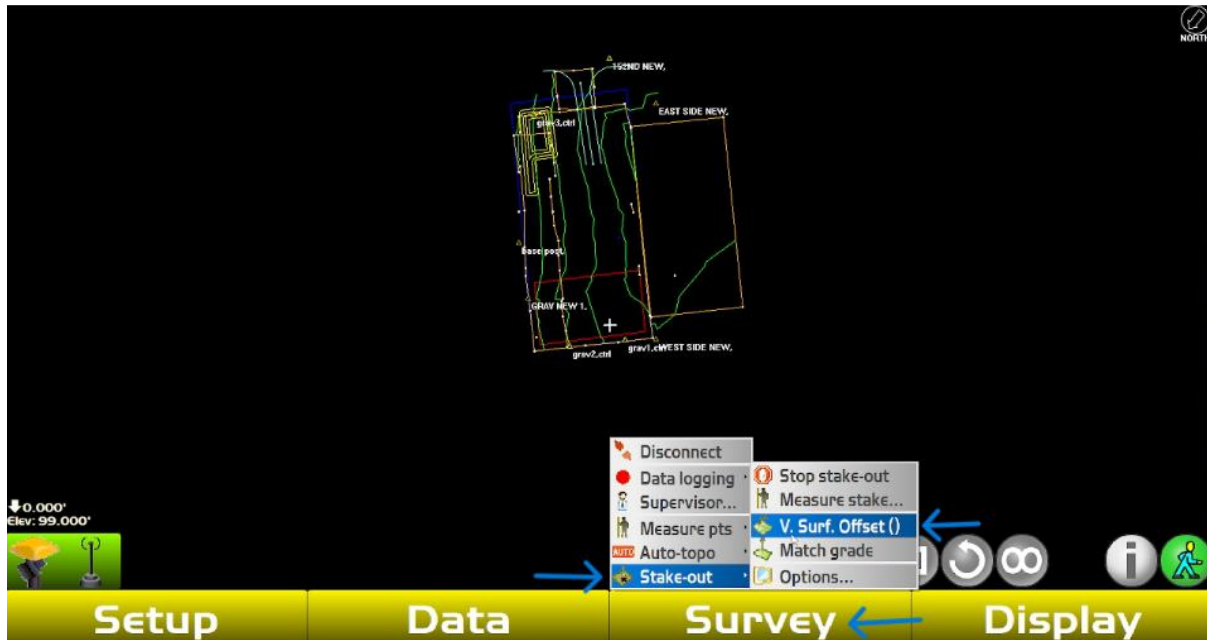
- In the bottom left corner of the screen, you'll see a **directional arrow** and an **Elevation (Elev:)** reading.
- Directional Arrow:
 - Down Arrow (↓):** Indicates you need to **cut** material (lower the ground).
 - Up Arrow (↑):** Indicates you need to **fill** material (raise the ground).
 - The number next to the arrow shows **how much material** needs to be cut or filled (in feet or meters).
 - Elevation (Elev:):
 - Displays your **exact current elevation** at your current location.
 - Use this value to compare your position to the design surface for precise adjustments.

By following the **cut/fill indicators** and monitoring the **elevation reading**, you can accurately bring the surface to the correct design grade.

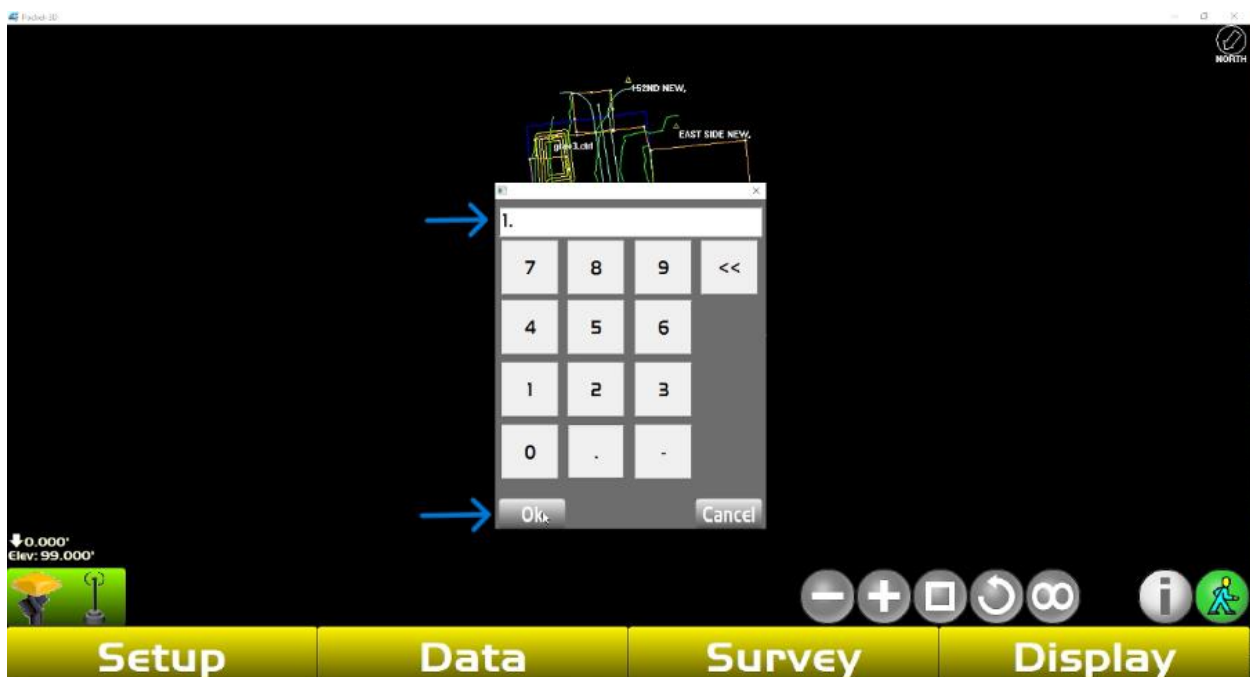


Step 3: Adding a Vertical Offset to a Surface

1. On the bottom menu tap on "Survey"
2. Select "Stake-out"
3. Then tap on "V.Surf. Offset ()"



1. In the top box, add a **positive or negative offset**, then tap "Ok."

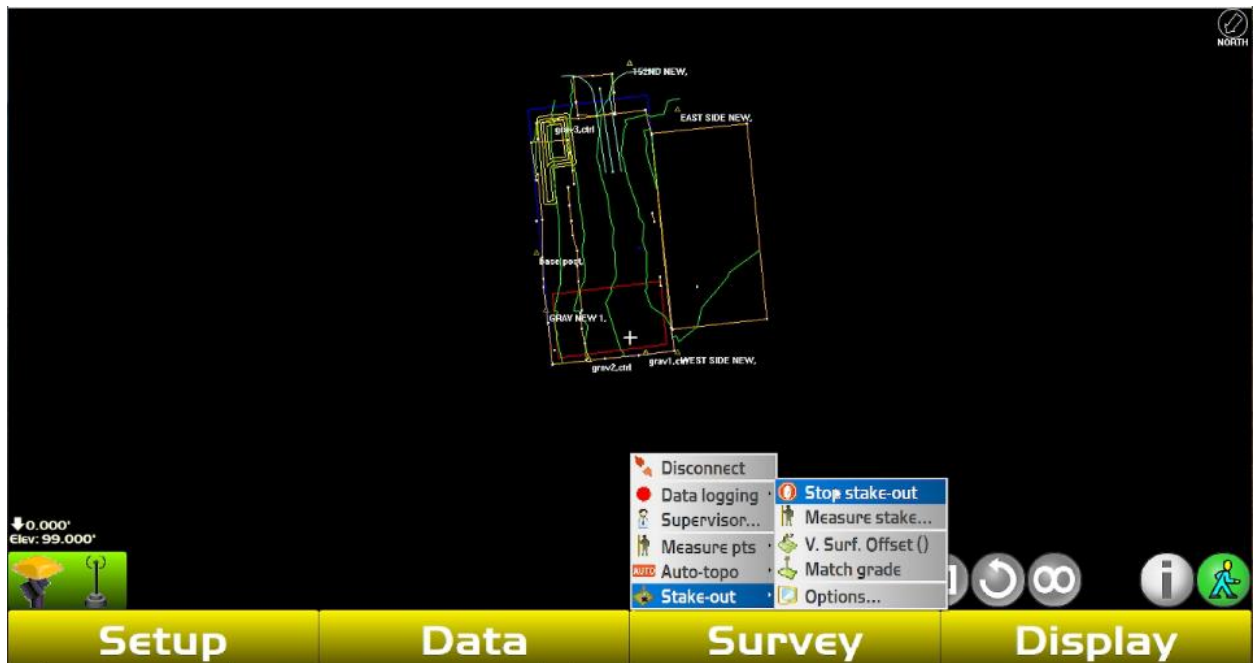


2. To see your offset, look at the **bottom-left corner** of your screen.



Step 4: Stop-Stakeout

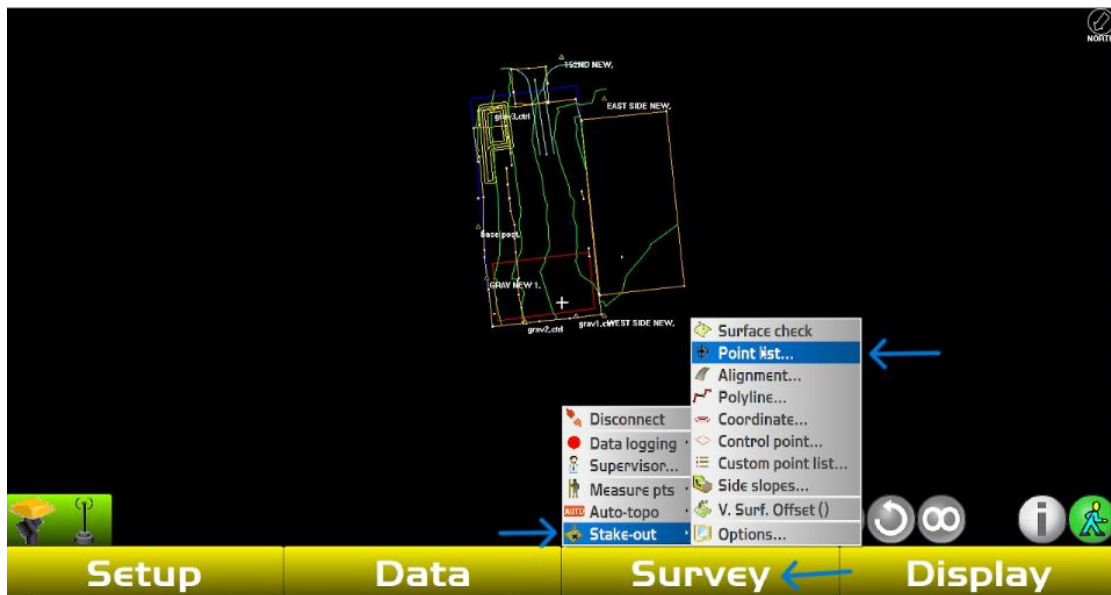
1. Tap "Survey."
2. Select "Stake-out."
3. Tap on "Stop stake-out" to end the session.



Staking Out Point List

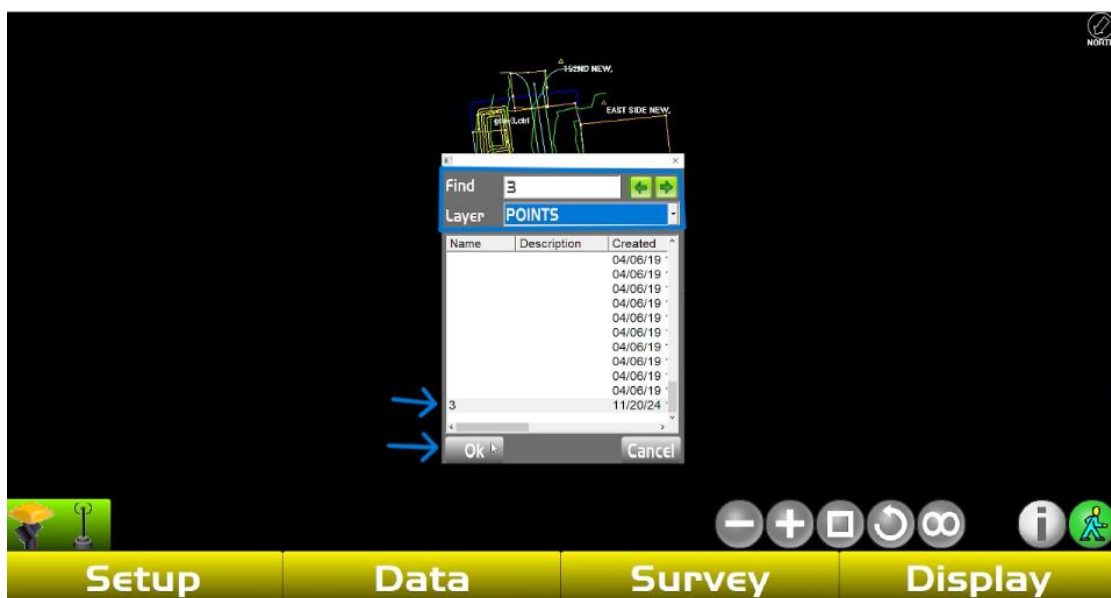
Step 1: Locate the Survey Menu

1. Tap "Survey."
2. Select "Stake-out."
3. Tap on "Point list..."



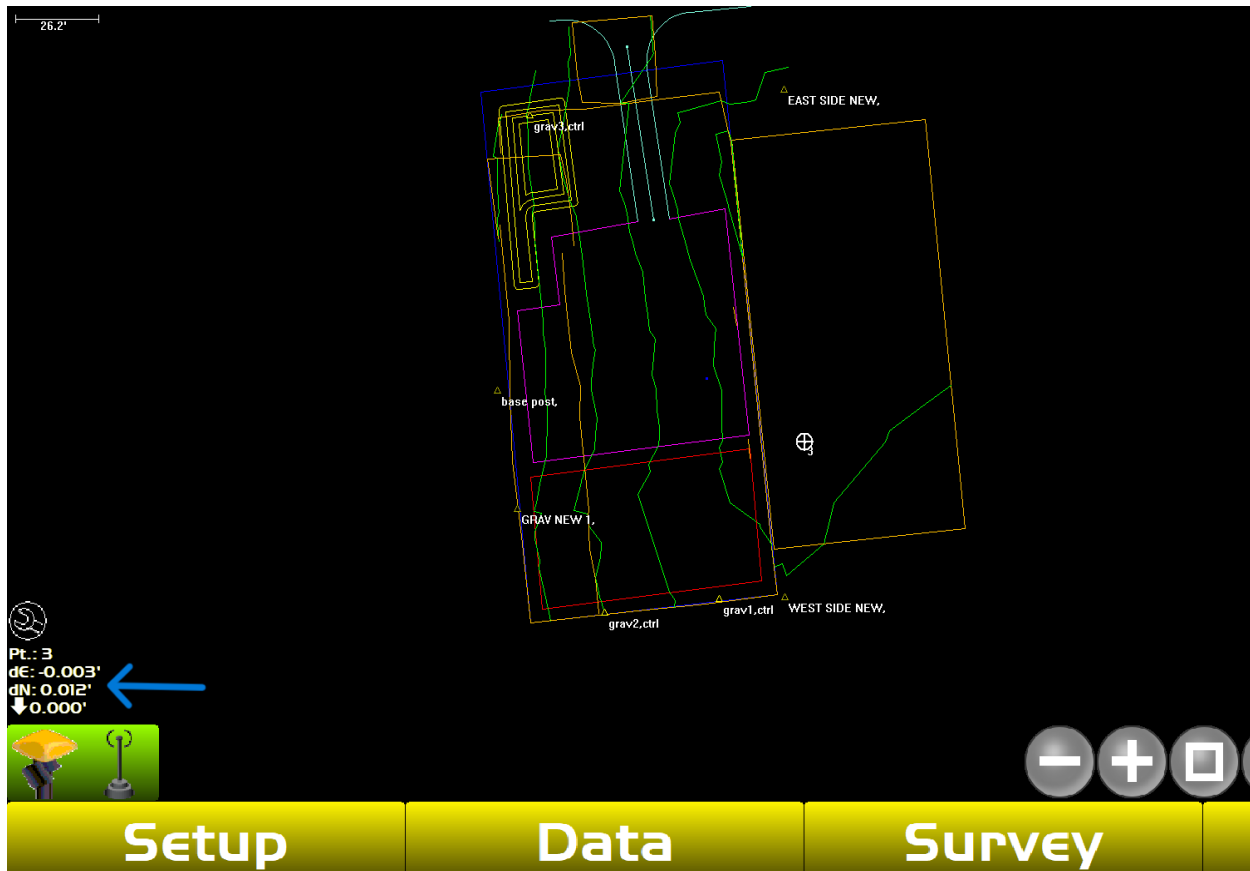
Step 2: Locate your point

1. In the "Find" Box type in your point and highlight it, or find it by layer in the "Layer" Box.
2. After your point is selected / highlighted the point tap "Ok".



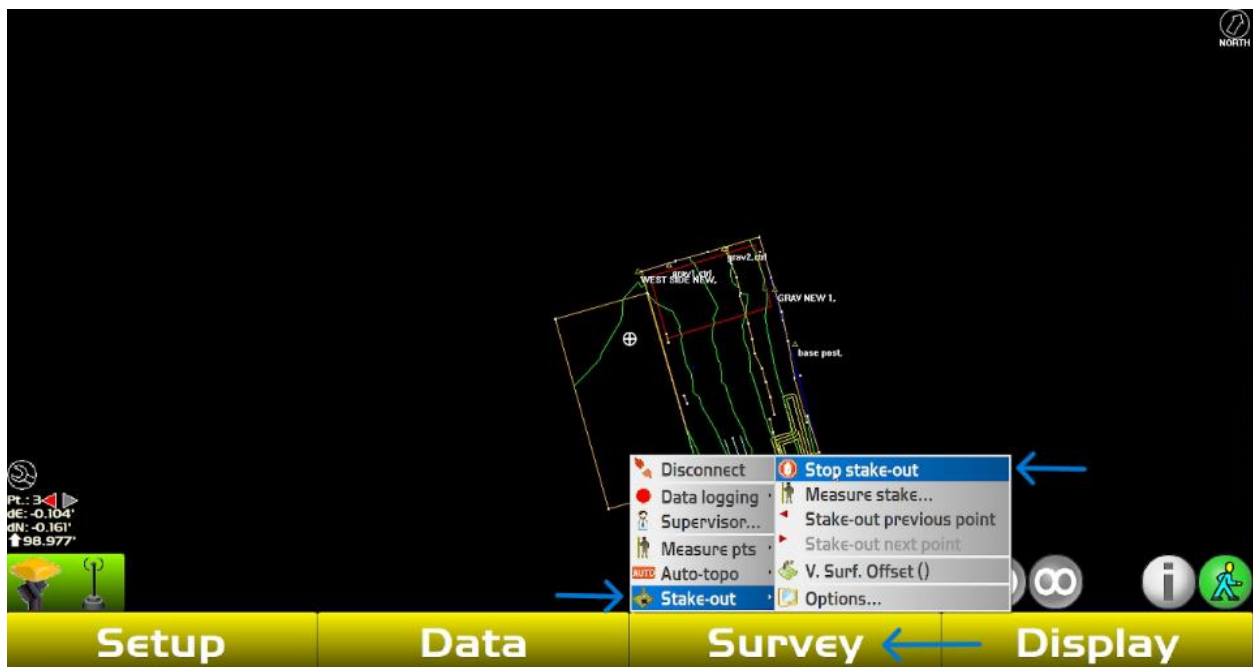
Step 3: Stake the point out

1. On the **bottom-left corner** of your screen, you'll see two values:
 - “**dE**”: Represents Easting.
 - “**dN**”: Represents Northing.
 - When staking out, aim to get these numbers as close to **0.000** as possible.
2. Under “**dN**,” you'll also see the elevation value. Use this to ensure vertical accuracy.
3. Repeat **Steps 1-2** to stake out additional points as needed.



Step 4: Stop Stake-out

1. Tap "Survey" > "Stake-out" > "Stop stake-out."



Staking Out a Line

Step 1: Select the line selector

In the **bottom-right corner**, select the line selector tool (symbol shown in the example).

- This tool allows you to choose the line you want to stake out.

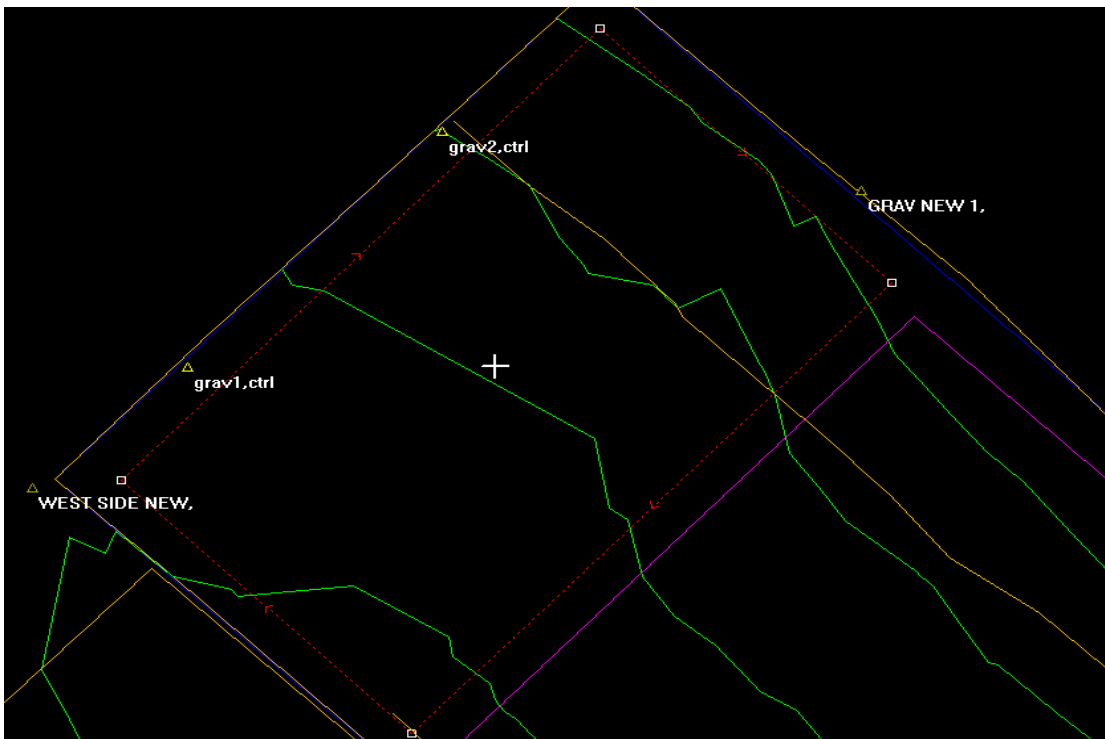


Step 2: Select a Line

1. Choose the line you want to stake out using one of two methods:
 - Tap directly on the line.
 - Tap slightly above the line and drag your finger down below it.

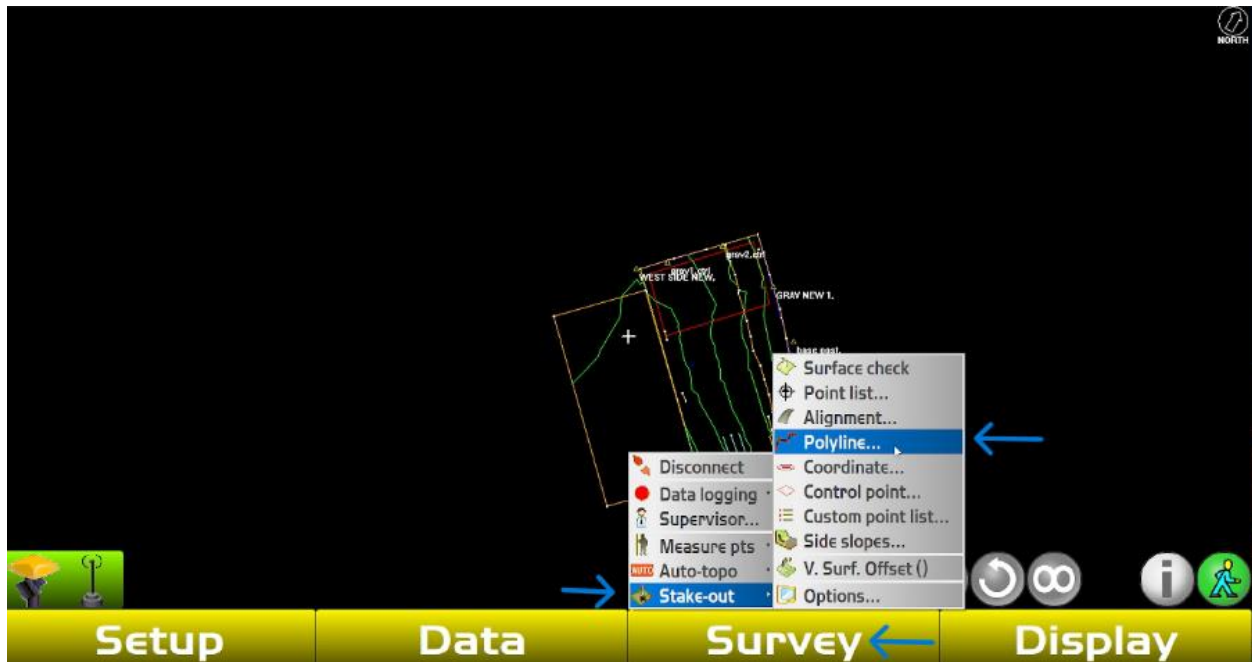


2. Once selected, the line will appear **dotted with arrows**, as shown in the example.



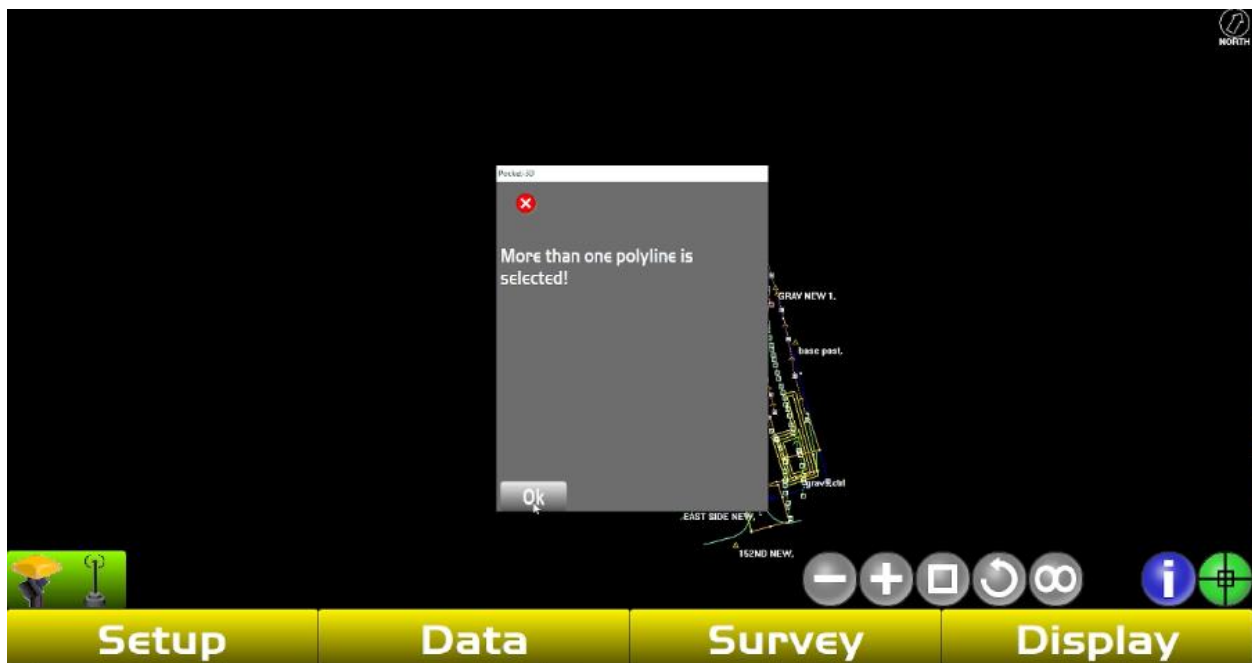
To stake out the line:

- Tap “Survey” > “Stake-out” > “Polyline...”



3. If more than one line is selected, a message will appear:

- “More than one polyline is selected.” Tap “Ok” and clear the extra lines.



4. To **unselect all lines**:

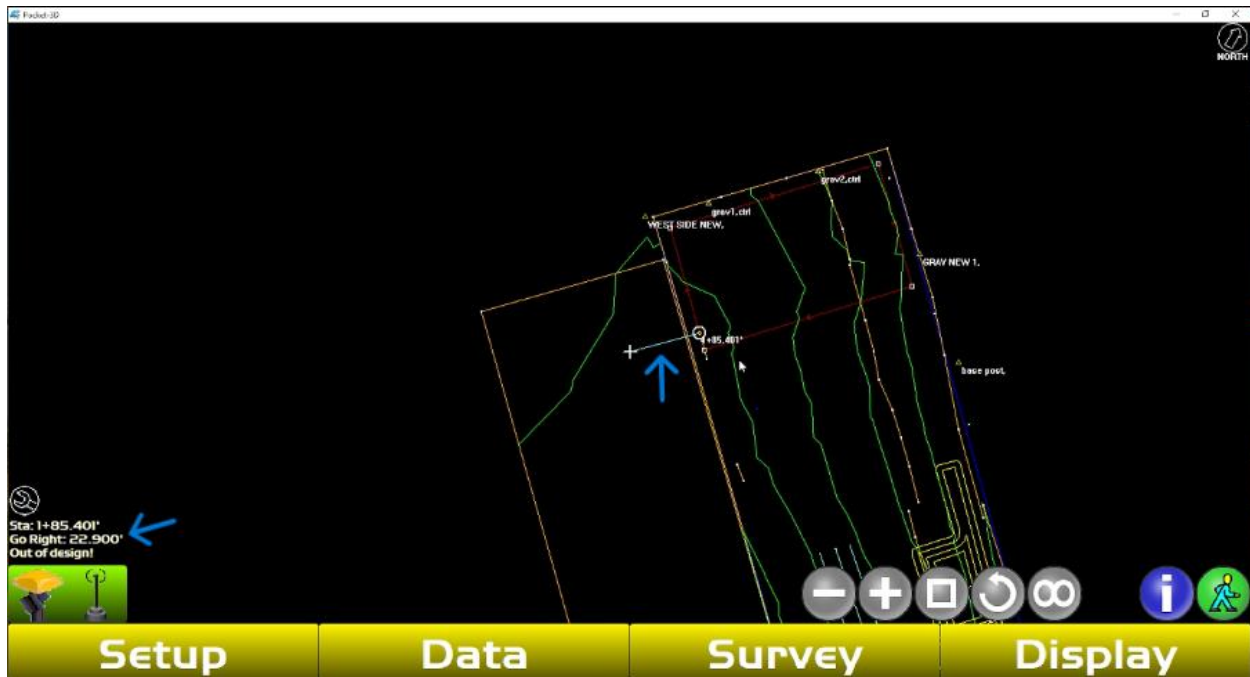
- Hold your finger on a blank spot on the screen and select **“Clear Selection.”**



5. Reselect your line and stake it out via the **Survey menu**.

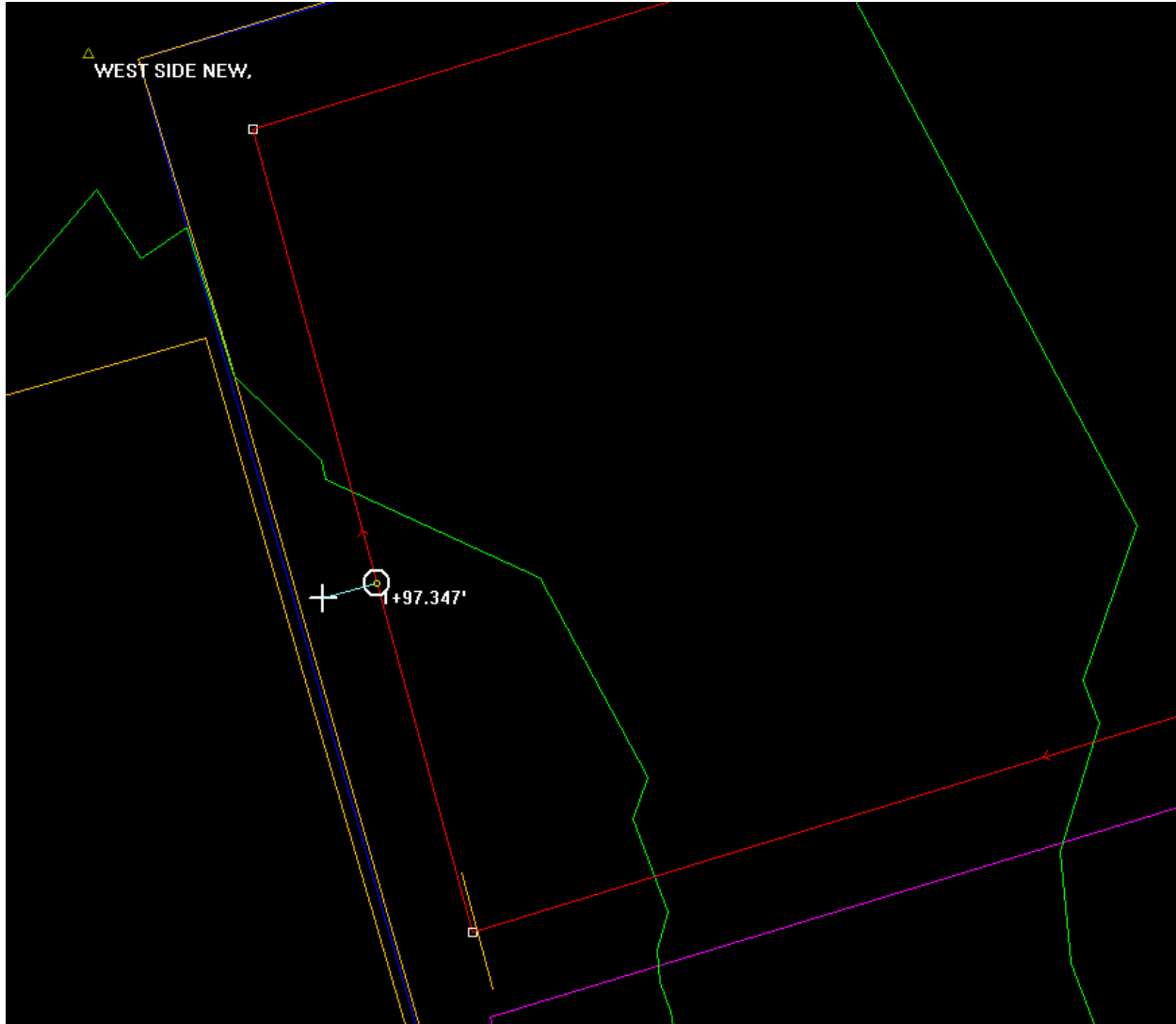
Step 3: Walk to Your Line

1. After staking the line, a guide line will appear from your current location to the staked line.
 - The **bottom-left corner** of your screen shows how far you need to move:
 - If it says **go right**, walk to the right.
 - If it says **go left**, walk to the left.

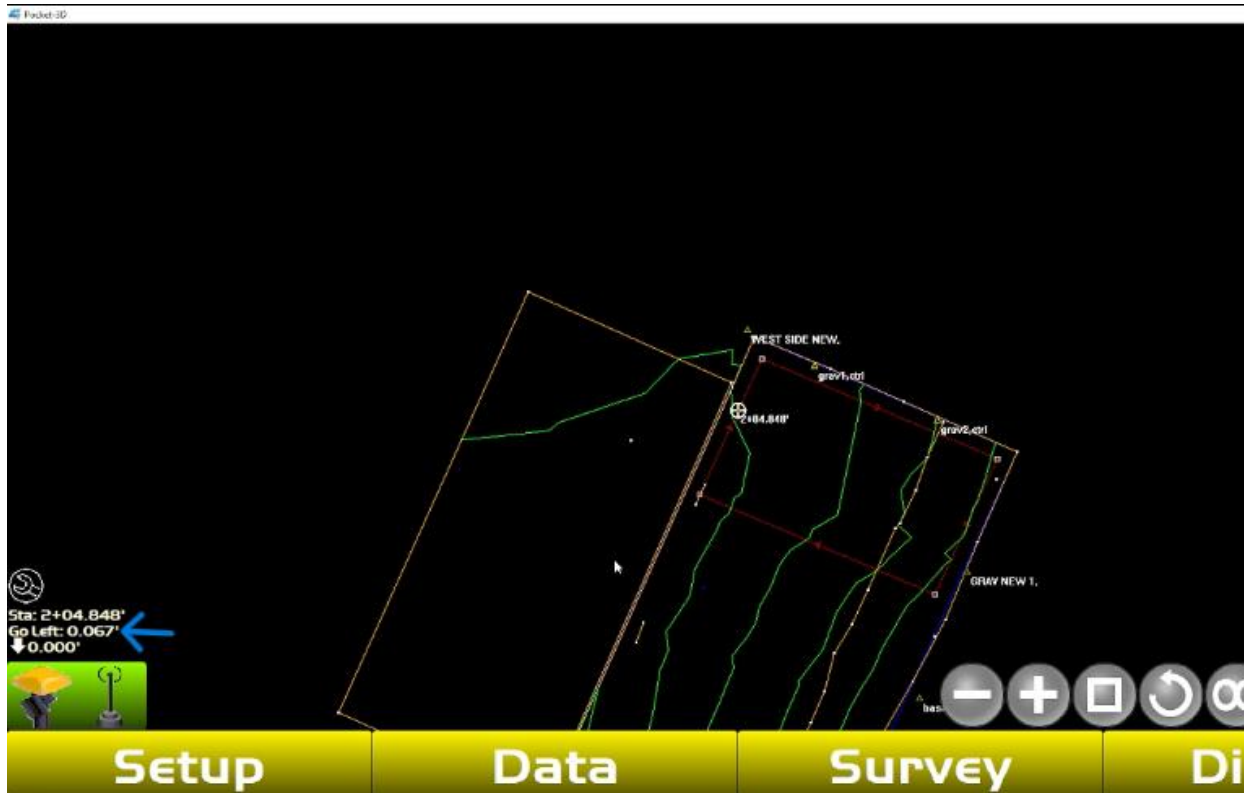


2. Follow the direction of the **arrows on the staked line**.

- If you move in the wrong direction (opposite to the arrows), the directions will be reversed, causing confusion (e.g., it may say **go left** when you actually need to go right).

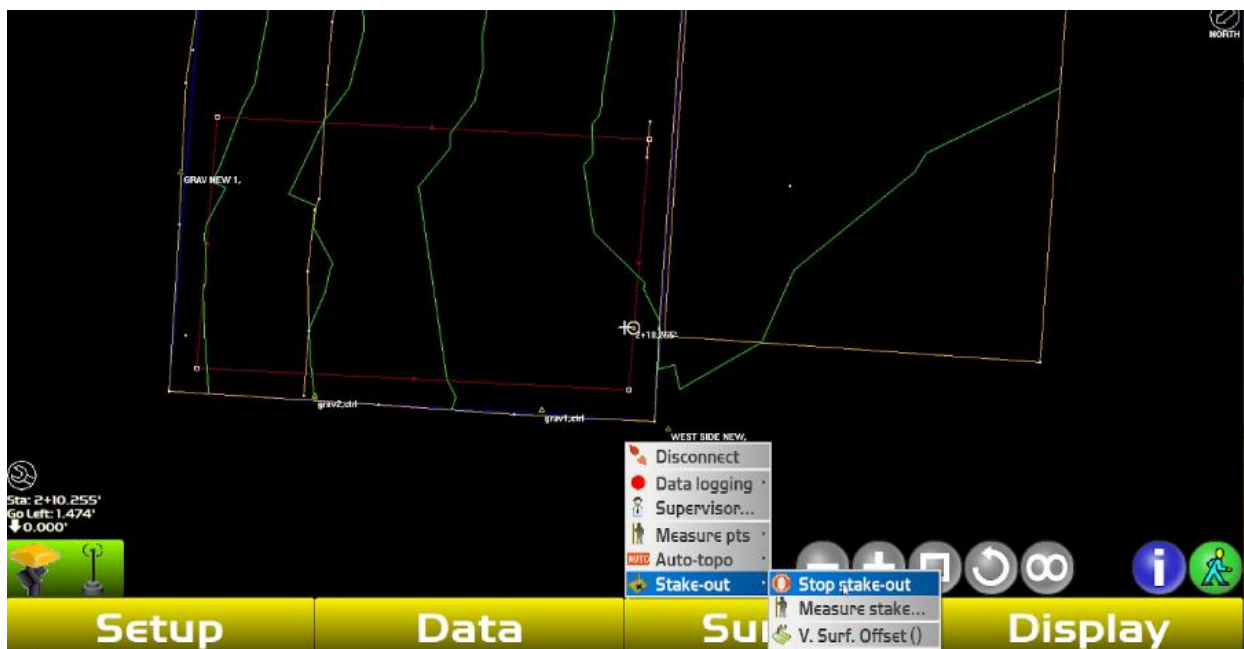


3. Aim to get as close as possible to the staked line by checking the values in the **bottom-left corner**.



Step 4: Stop the Stakeout

- Tap "Survey" > "Stake-out" > "Stop Stake-out."



Staking Out a Specific Coordinate

You would use the Stakeout “**Coordinate**” option in Topcon Pocket 3D when you need to mark a specific location that isn’t already in your project file. By manually entering a **northing, easting, and elevation**, you can stake out a custom point.

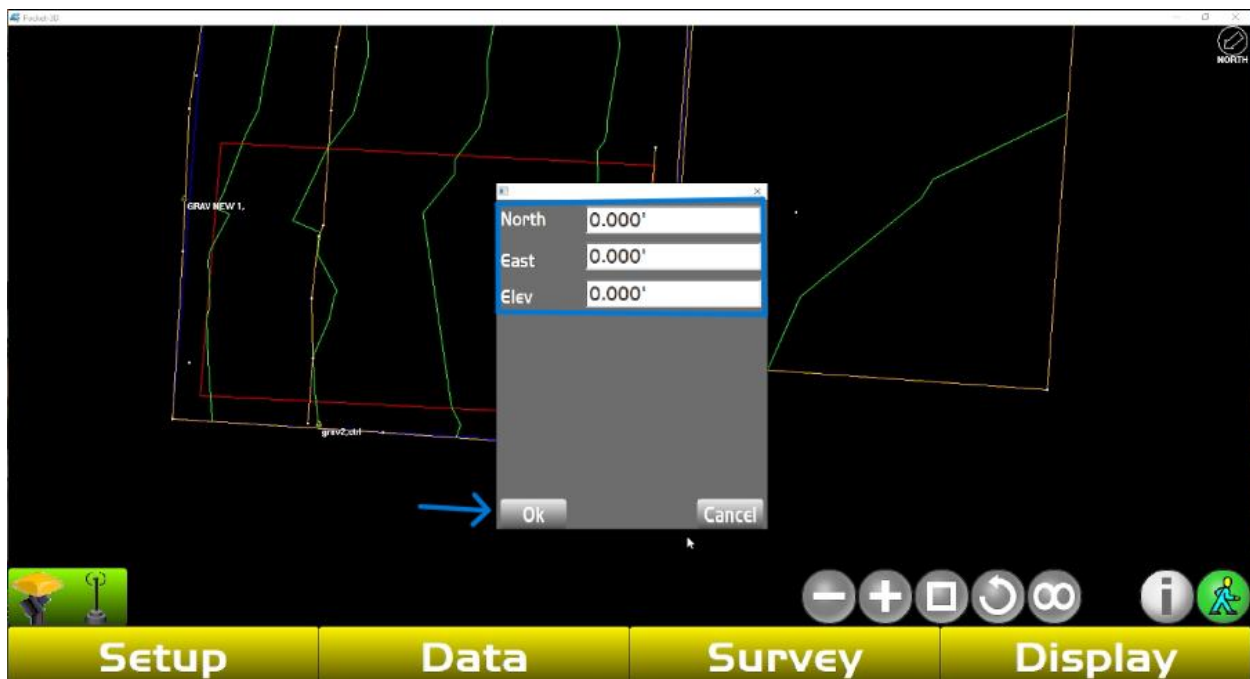
Step 1: Locate the Survey Menu

1. Tap “Survey” < “Stake-out” < “Coordinate”



Step 2: Enter Coordinates

2. Enter the “North”, “East”, and “Elev” of the point you want to stakeout. Then tap “Ok”

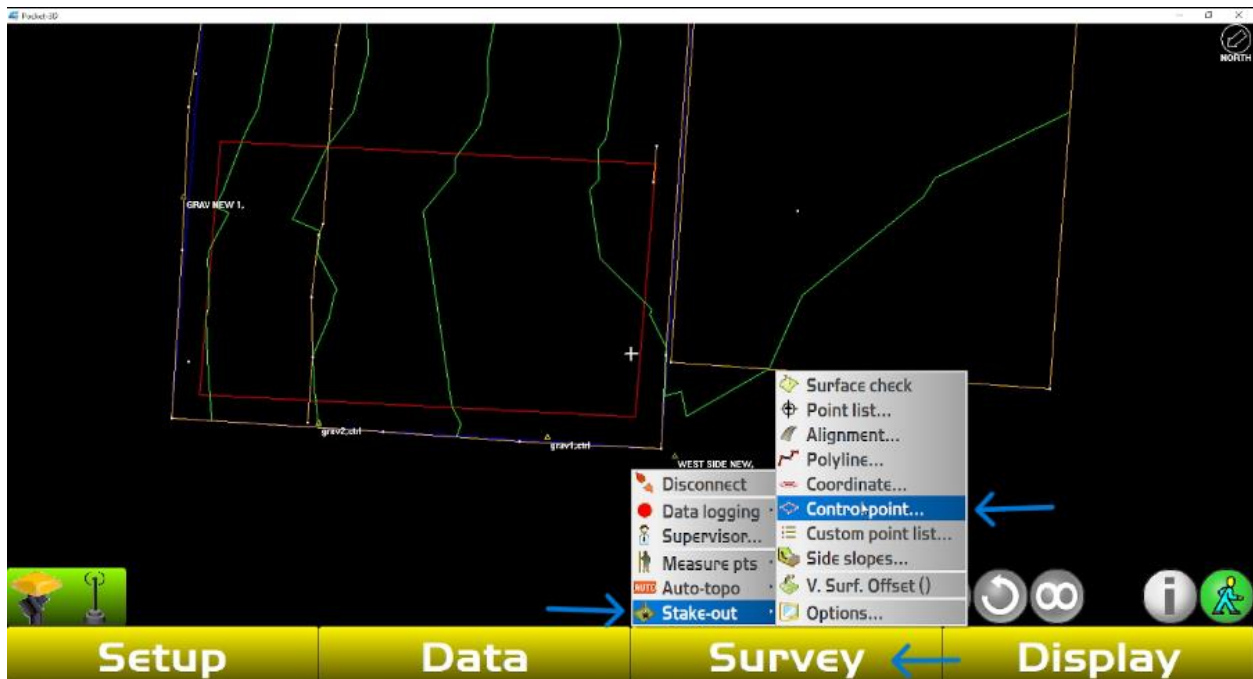


Staking Out a Control Point

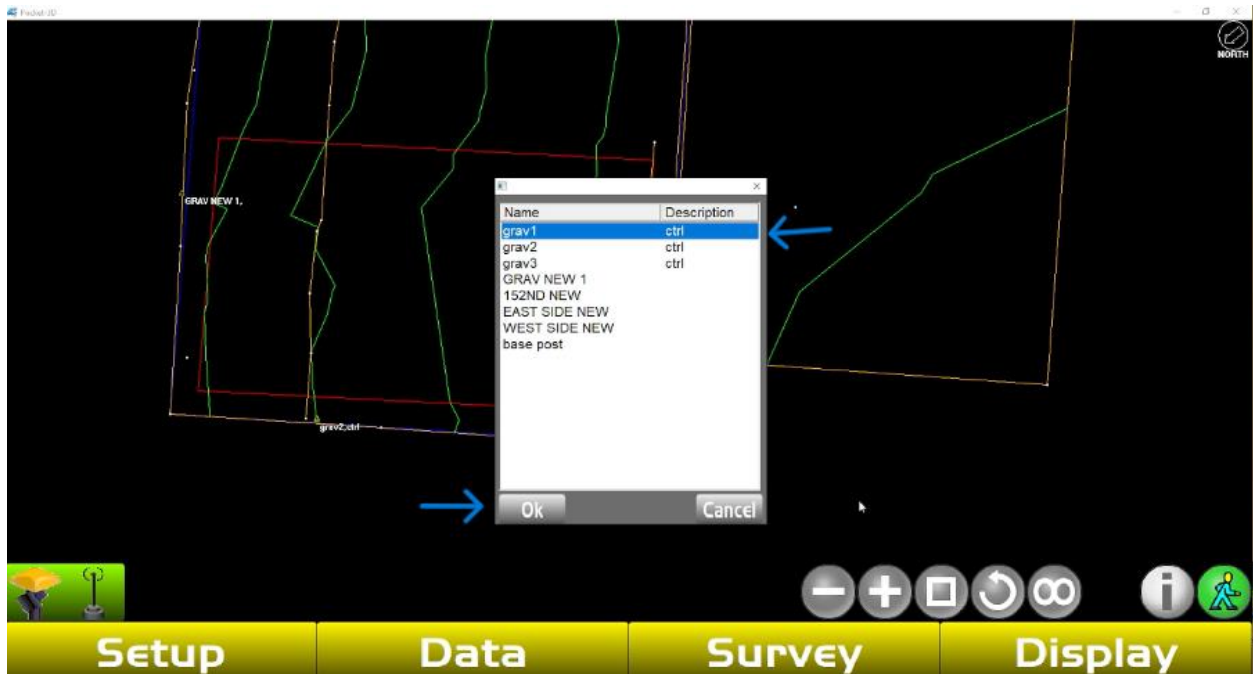
This process is used to **verify control points each morning** to ensure your job site remains accurate and within tolerance. If the **Horizontal (dE, dN) and Vertical (elevation) values** are close to **0.000**, then your site setup is correct.

Step 1: Access the Survey Menu

1. Tap "Survey" > "Stake-out" > "Control point..."



2. Select the control point you want to stake out, then tap “Ok.”



Step 2: Navigate to the Control Point

1. Walk toward the selected control point. Use the **Easting (dE)** and **Northing (dN)** values displayed in the **bottom-left corner** of the screen to guide you.



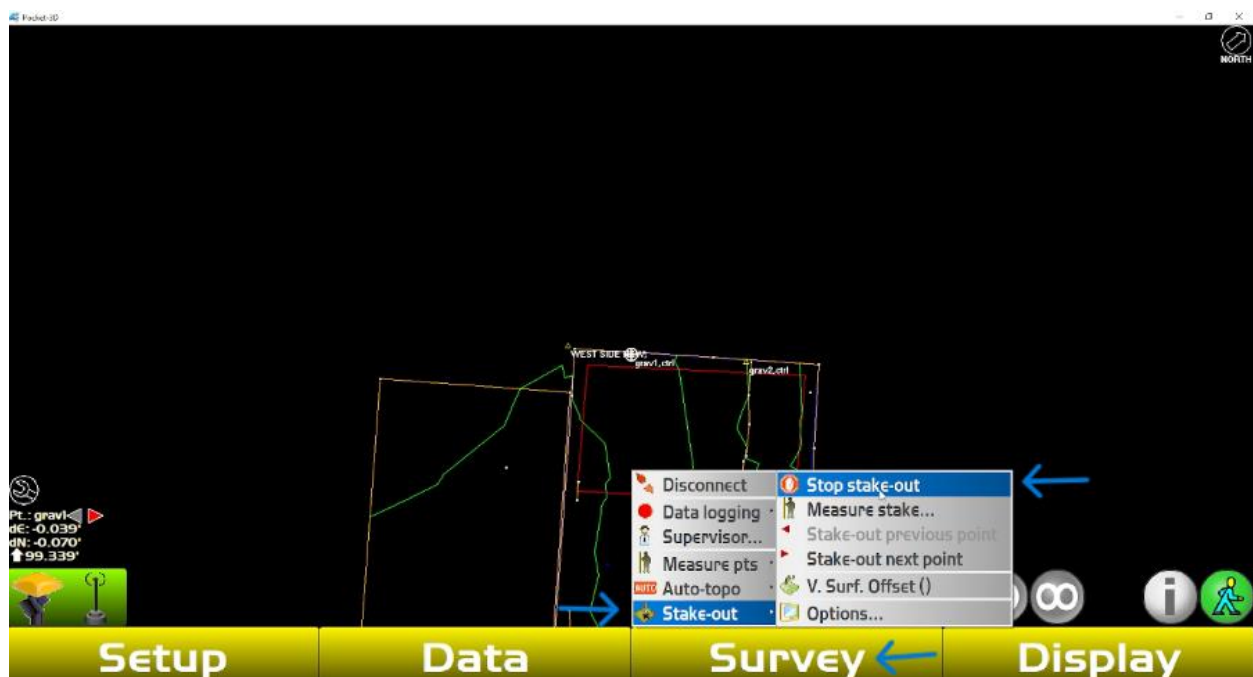
Step 3: Verify the Control Point

2. Once you reach the control point, **level up** your rover rod.
3. Ensure that your **Easting, Northing, and Elevation values** are as close to **0.000** as possible.



Step 4: Stop the Stakeout

1. Tap "Survey" > "Stake-out" > "Stop stake-out."

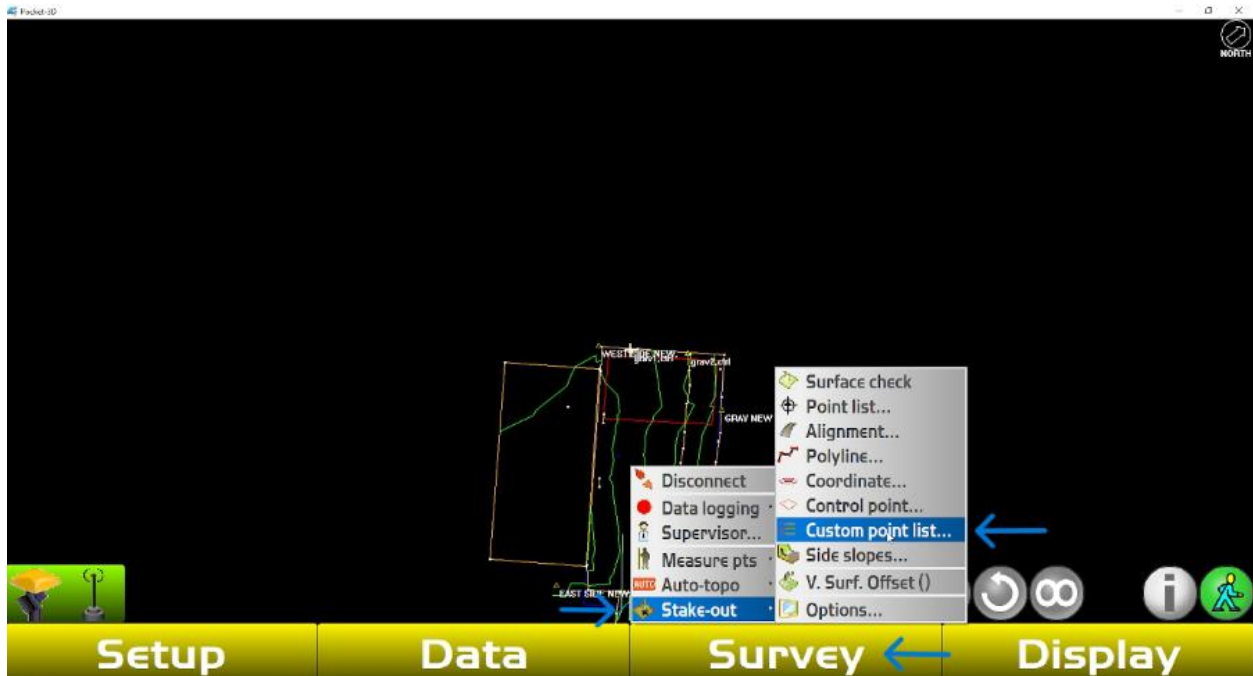


Staking Custom Point List

Use this method to stake out specific points from a custom list in Pocket 3D.

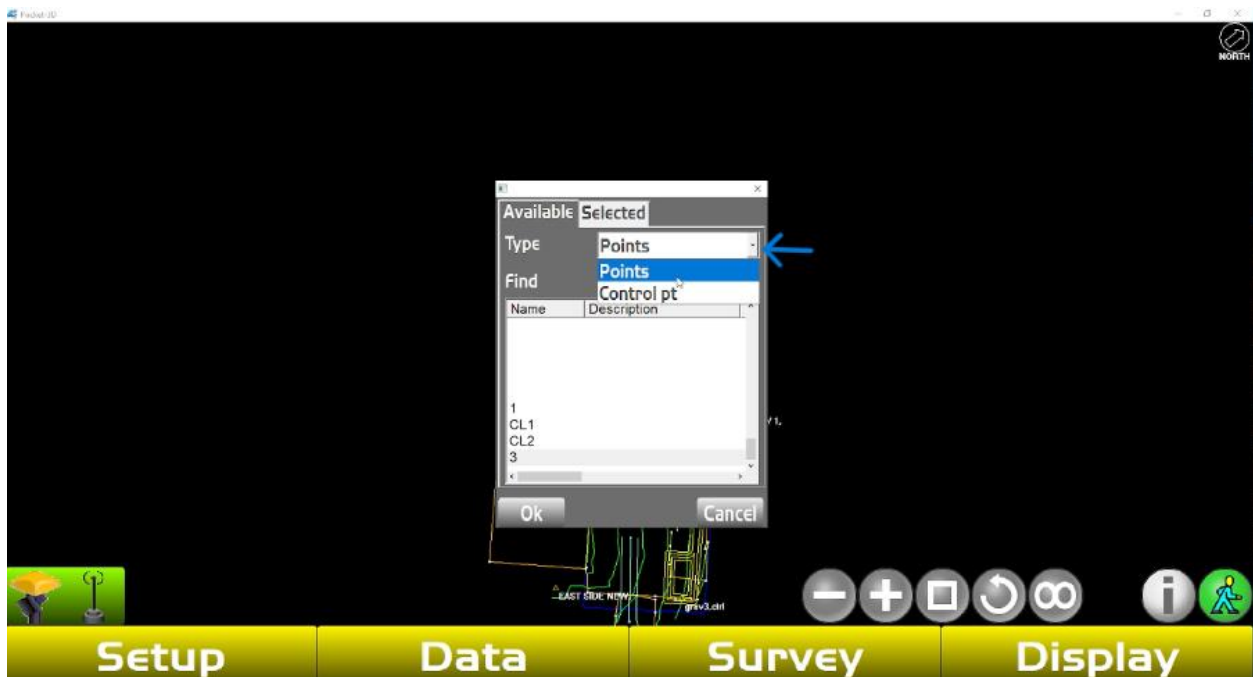
Step 1: Tap on the Survey Menu

1. Tap **“Survey”** from the main menu
2. Select **“Stake-out”**
3. Tap on **“Custom point list...”**

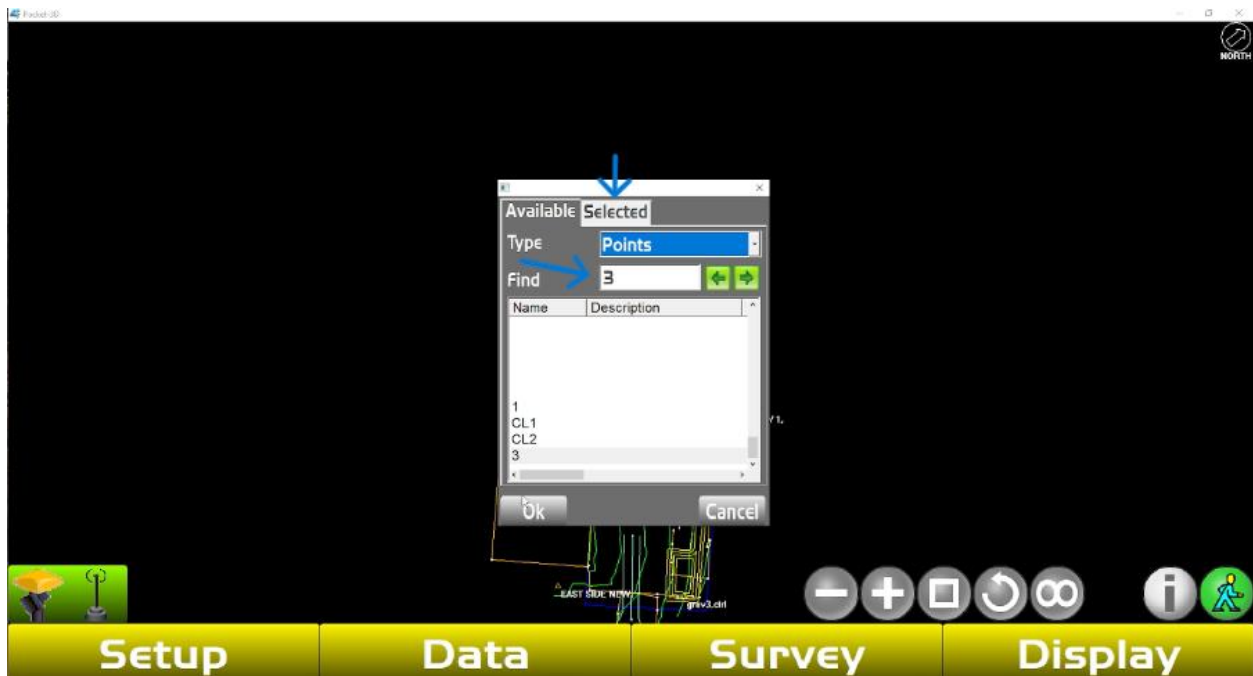


Step 2: Select point

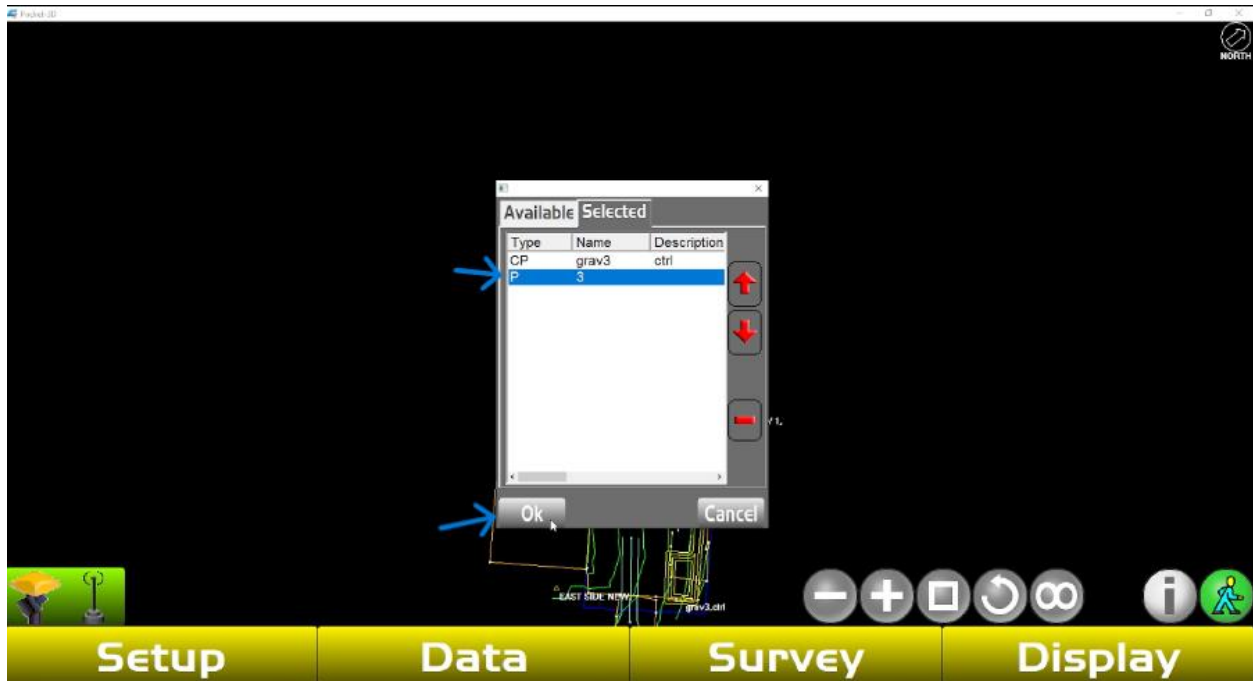
1. Under "**Type**," select whether you are searching for a "**Point**" or a "**Control Point**."



2. Select your point and tap "**Selected**" in the top menu



3. Highlight the point (it will turn blue), then tap "Ok."



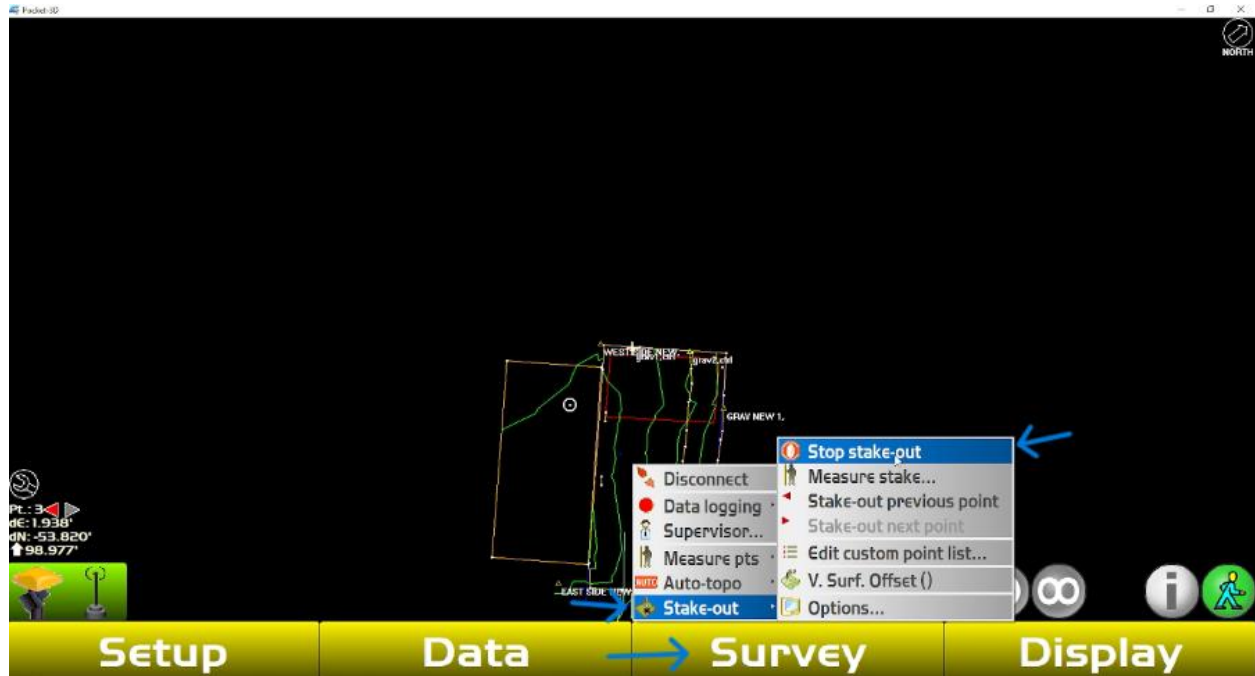
Step 3: Stake Out the Point

1. Use the stake-out screen to guide yourself to the point using the Easting, Northing, and Elevation values.



Step 4: Stop Stake out

1. tap "Survey" > "Stake-out" > "Stop stake-out"

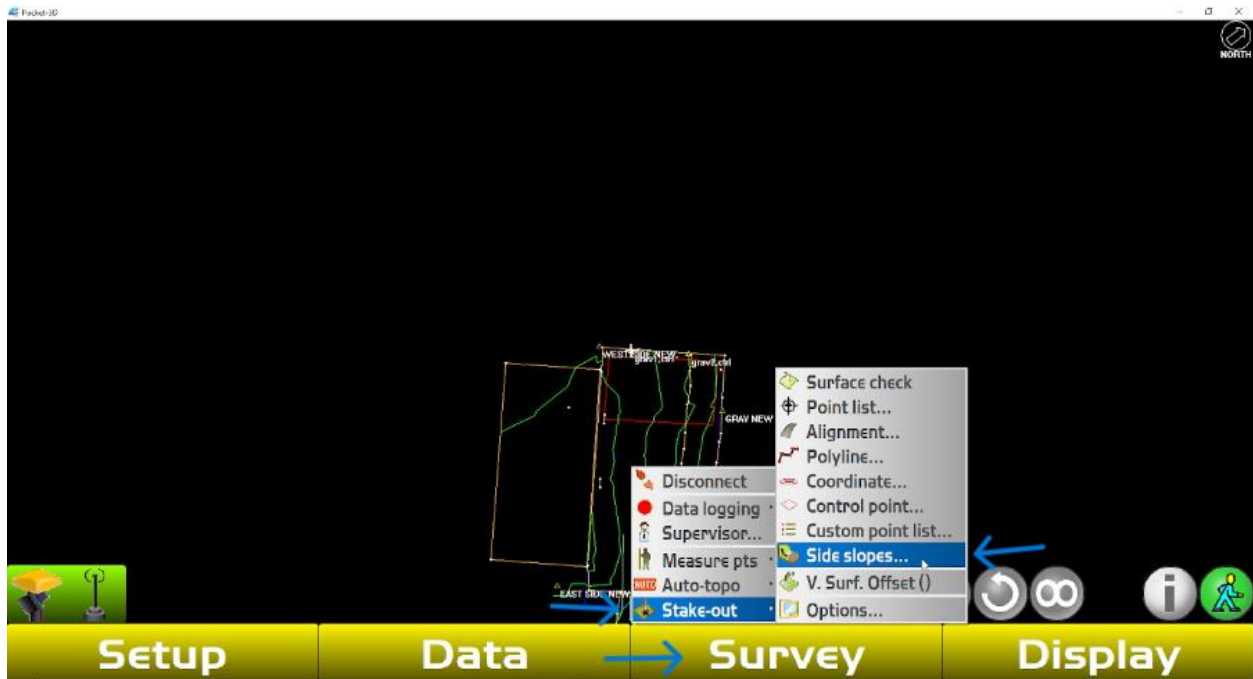


Staking Side Slopes

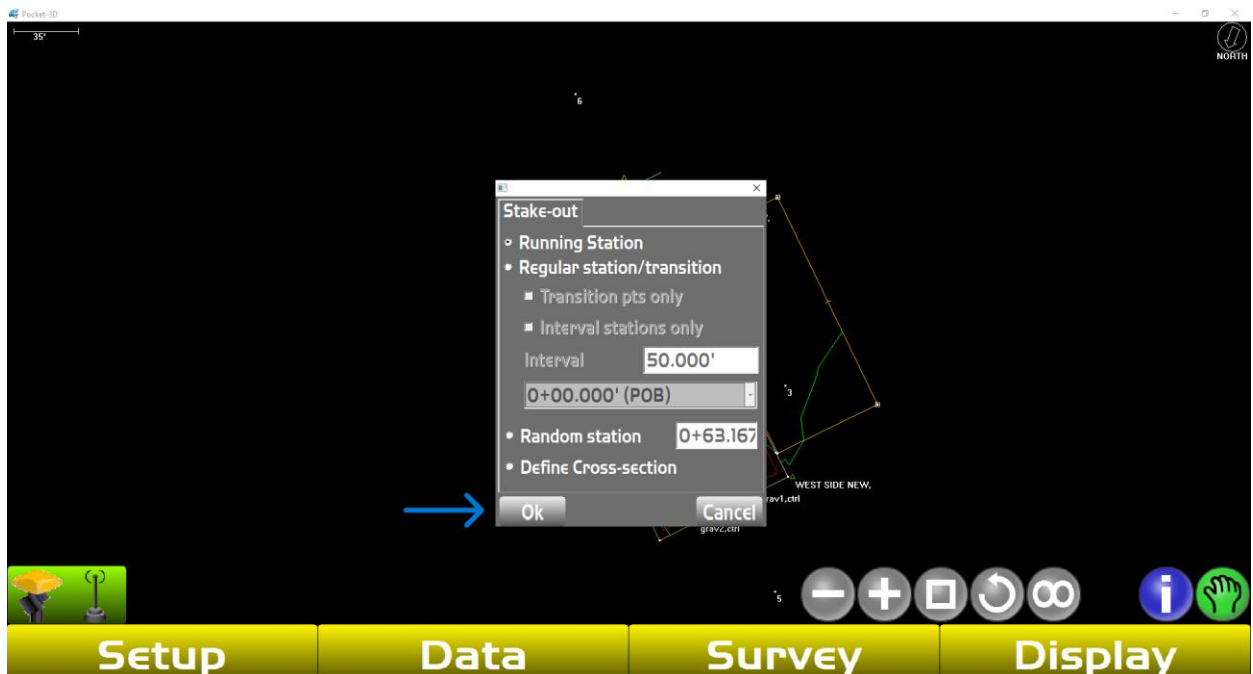
Use this function to stake out slopes for grading, embankments, or road construction.

Step 1: Access the Survey Menu

1. Tap “Survey” > “Stake-out” > “Side slopes...”



2. Select the appropriate **stakeout method** for your project. Tap “Ok” to confirm



Step 2: Stop The Stake Out

To stop stakeout, tap **“Survey”** > **“Stake-out”** > **“Stop Stakeout”**

Need Assistance?

- For any questions, contact us.

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