
# BOREPLAN User Guide

Vermeer

APPLICATION VERSION 2.0.4 (EFF 09/25)

# INTRODUCTION

This User Guide explains the proper operation of the Vermeer BorePlan application. Study and understand these instructions thoroughly before using this product. Consult your Vermeer dealer if you do not understand the instructions in this User Guide or need additional information.

The instructions, illustrations, and specifications in this User Guide are based on the latest information available at time of publication.

Vermeer BorePlan may have product improvements and features not yet contained in this User Guide. Vermeer Corporation reserves the right to make changes at any time without notice or obligation.

**Trademarks**

# MAIN MENU

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# Safety

The information provided is dependent upon the accuracy and quality of user-supplied data. The information is “as-is” and Vermeer Corporation does not guarantee or warrant the accuracy, reliability, or completeness of this information or its usefulness in achieving any purpose. The accuracy of any information is dependent upon accurate data gathering, data input, and proper use of the software.

You are responsible for using your own judgment when using this information and for following all applicable laws and industry best practices. Vermeer Corporation shall not be liable for any loss, damage, or cost incurred by your reliance on this information.

**Note:** All latitude and longitude coordinates in this User Guide are obscured for security purposes.

**WARNING:**

The accuracy of the data obtained by the Vermeer BorePlan application is highly dependent upon accurate data gathering, data input, and proper use of the software. The data is not intended to replace the need for future onsite utility locating, measuring, and verification procedures, which are essential for accurate placement of new underground installations and avoidance of existing utilities.

**WARNING:**
Always contact your local One-Call system before the start of your digging project. The Vermeer BorePlan application is intended to be used with other utility locating methods, such as the use of the One-Call system and the exposing of existing utilities by potholing.

Locate utilities before drilling. Call 811 (U.S. only) or 1-888-258-0808 (U.S. or Canada) or local utility companies or national regulating authority.

Before you start any digging project, call the local One-Call system in your area and any utility company that does not subscribe to the One-Call system. For areas not represented by One-Call Systems International, contact the appropriate utility companies or national regulating authority to locate and mark the underground installations. If you do not call, you may have an accident or suffer injuries, cause interruption of services, damage the environment, or experience job delays.

The One-Call representative will notify participating utility companies of your proposed digging activities. Utilities will then mark their underground facilities by using the following international marking codes:

| | |
|---|---|
| Red | Electric |
| Green/Brown | Sewer |
| Yellow | Gas, oil, or petroleum |
| White | Proposed excavation |
| Orange | Communication, telephone, TV |
| Pink | Surveying |
| Blue | Potable water |
| Light Blue | Generic |
| Purple | Reclaimed water |
| Black | Unknown |

**OSHA 29 CFR 1926.651** requires that the estimated location of underground utilities be determined before beginning the excavation or underground drilling operation. When the actual excavation or bore approaches an estimated utility location, the exact location of the underground installation must be determined by a safe, acceptable, and dependable method. If the utility cannot be precisely located, it must be shut off by the utility company.

**WARNING:**

Failure to follow any of the preceding safety instructions, or those that follow within this User Guide, could result in death or serious injury. This system is to be used only for those purposes for which it was intended, as explained in this User Guide.

# Intended Use

Vermeer BorePlan application is a resource tool intended to assist experienced HDD contractors, engineering consultants, and project owners in pre-bore planning and design. It is intended to incorporate known characteristics and traits of key project components, together with their calculated relationships with the subsurface and bore path to provide the experienced user with a powerful stream of planning information. It is not intended to replace onsite utility locating, measuring, and verification procedures, which are essential for accurate placement of new underground installations and avoidance of existing utilities.

To obtain best results:

- Follow instructions included with Vermeer BorePlan.
- Confirm bore data entered in Vermeer BorePlan application is accurate.
- Upgrades to the Vermeer BorePlan free and paid versions will be available with future application releases. See page 11 for details regarding features by version.

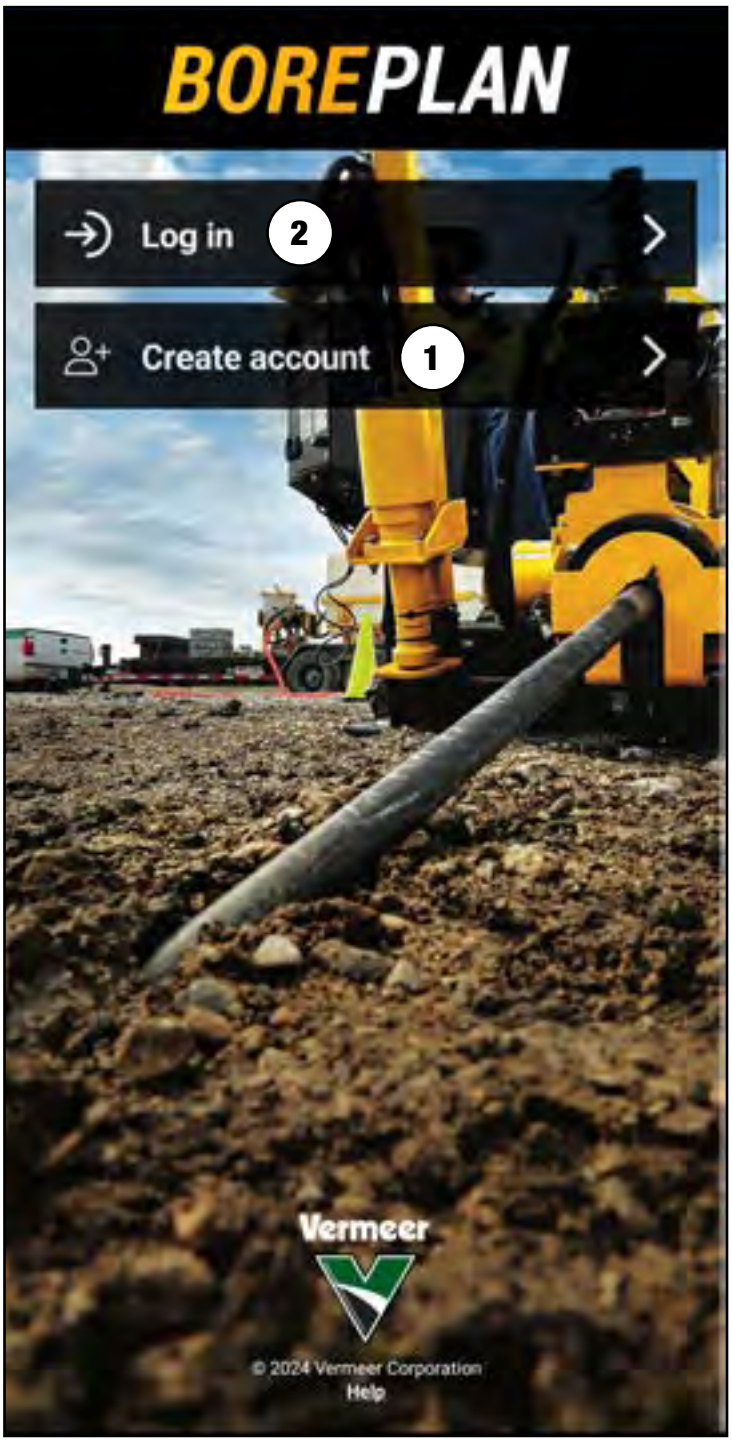
**Note:** A "$" symbol will be used throughout this User Guide to indicate all features that are in the paid version only.

| FEATURES | FREE VERSION | $ PAID VERSION |
|---|---|---|
| Aerial Report | | X |
| As-Built Line | | X |
| As-Built Report | | X |
| Bore Line | X | X |
| Bore Setup Report | | X |
| Custom Topography | | X |
| DXF Export | | X |
| High Accuracy GPS Device Connection | X | X |
| Job Details Report | | X |
| Job Management | X | X |
| Left/Right Calculations | | X |
| Map Layers | X | |
| Measurement Lines | X | X |
| Notes | X | X |
| Obstacles | X | X |
| Profile Report | X | X |
| Rod By Rod Report | X | X |
| Save Files to Device | X | X |
| Setback Calculator | | X |
| Settings | X | X |
| Target Point Report | | X |
| Topography Report | | X |
| Utility Crossing Report | | X |
| Utility Intersection Detection | X | X |
| Utility Lines | X | X |

# Getting Started

## CREATING AN ACCOUNT

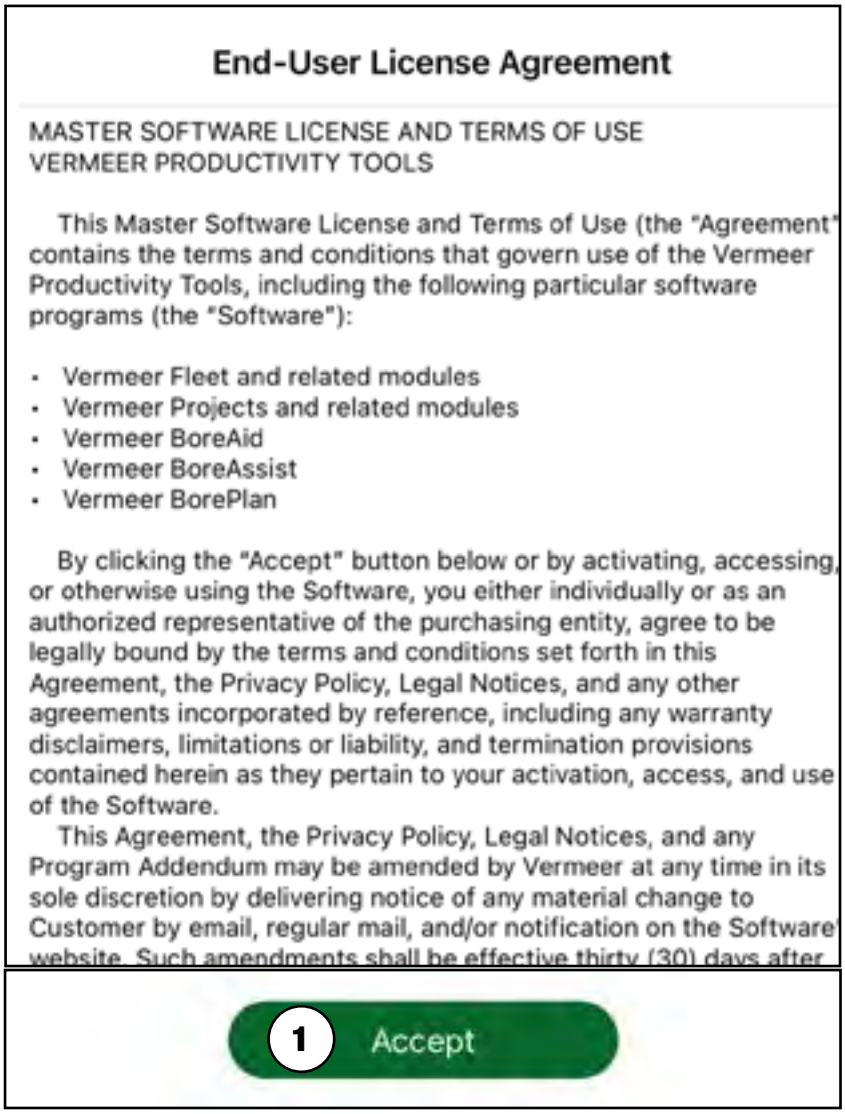
1. Open BorePlan app and tap *Create account* **(1)** on the log in page.
2. Browser will open to **one.vermeer.com** to enter information.
3. Account verification and next steps are sent to user's email address.
4. User will have access to **one.vermeer.com**. Manually go back to the BorePlan app and tap *Log in* **(2)** on the log in page.
5. Enter account credentials when prompted.



## END-USER LICENSE AGREEMENT

ALERT: Before the use of BorePlan is permitted, the user needs to tap "Accept" **(1)** to indicate the End-User License Agreement (EULA) has been read and approved.

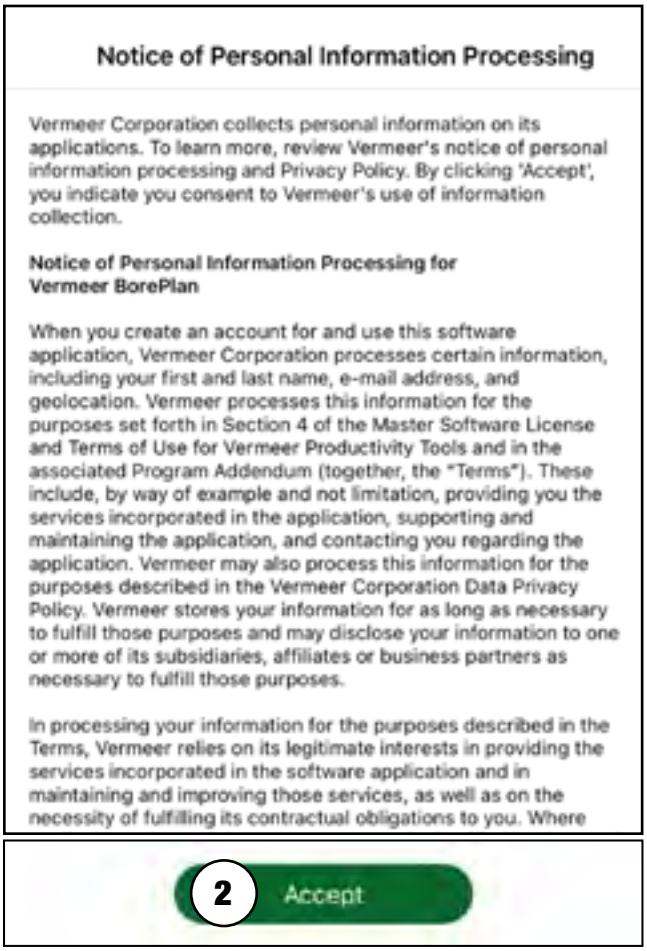
The EULA will be displayed once for new users, or if there are updates to the EULA.



## NOTICE OF PERSONAL INFORMATION PROCESSING

ALERT: Before the use of BorePlan is permitted, the user needs to tap "Accept" **(2)** to indicate the Notice of Personal Information Processing (NPIP) has been read and approved.

The NPIP will be displayed once for new users or if there are updates to the NPIP.




## DISCLAIMER

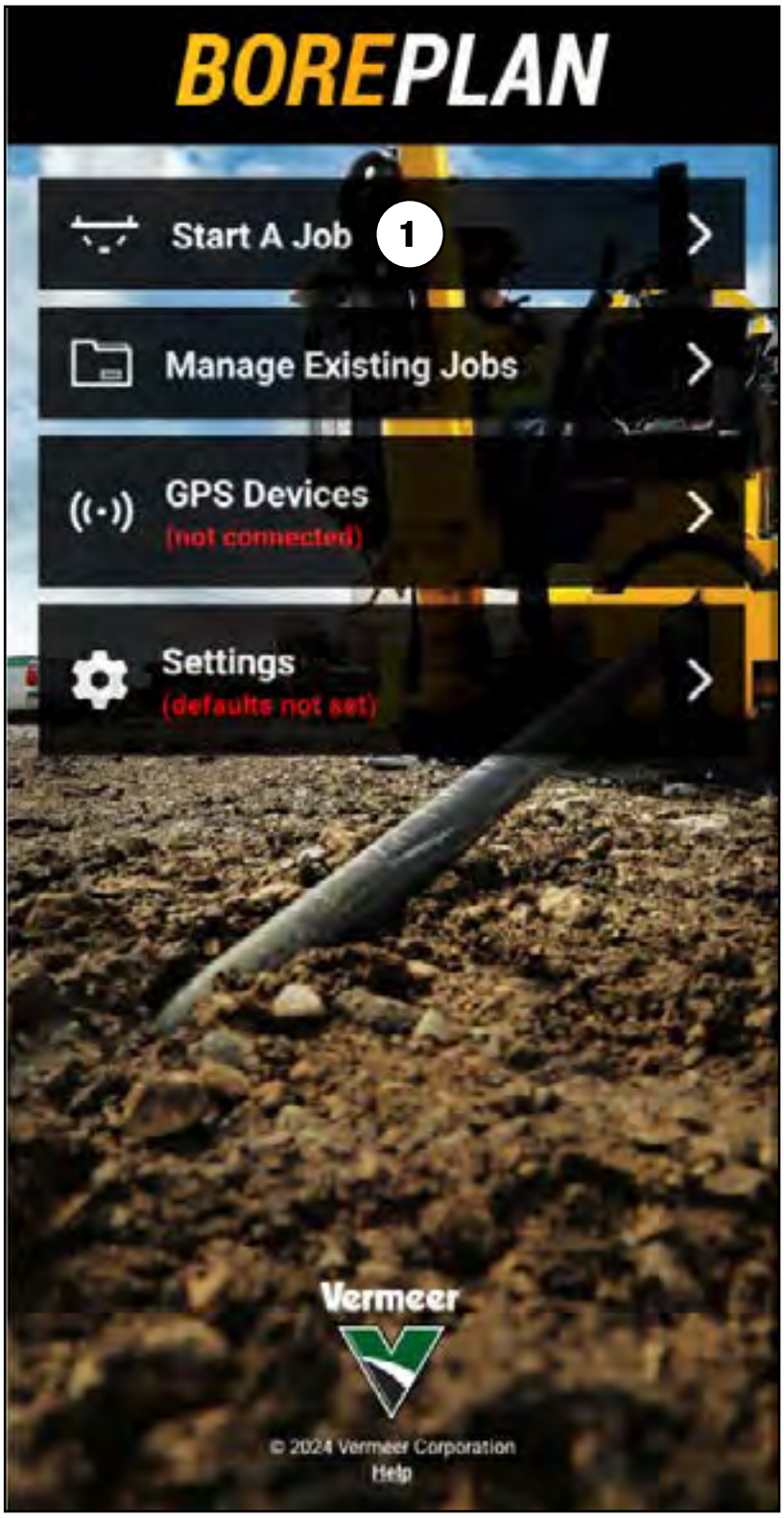
ALERT: Before the use of BorePlan is permitted, the user needs to tap "Accept" ***(3)*** to indicate the Disclaimer has been read and approved.

This Disclaimer will be displayed each time the user enters the application.

# Landing Page

## START A JOB

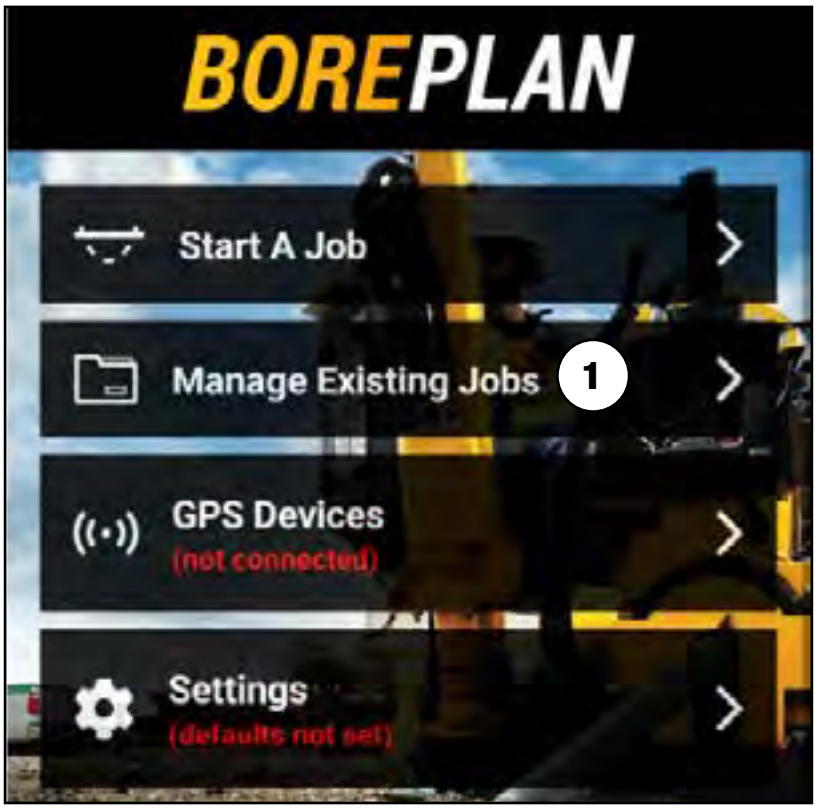
To start a new job, tap *Start A Job* **(1)** to enter "Aerial" view.



## MANAGE EXISTING JOBS

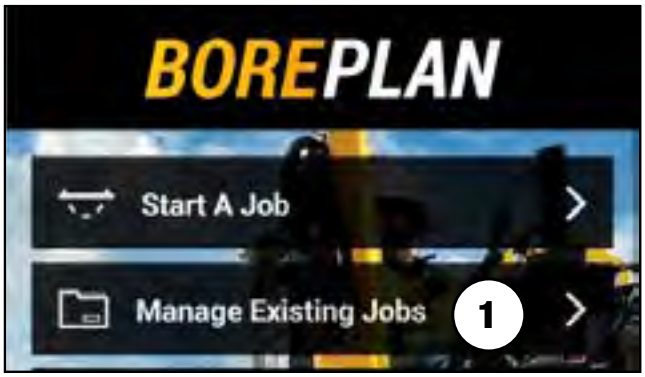
### Opening an Existing Job

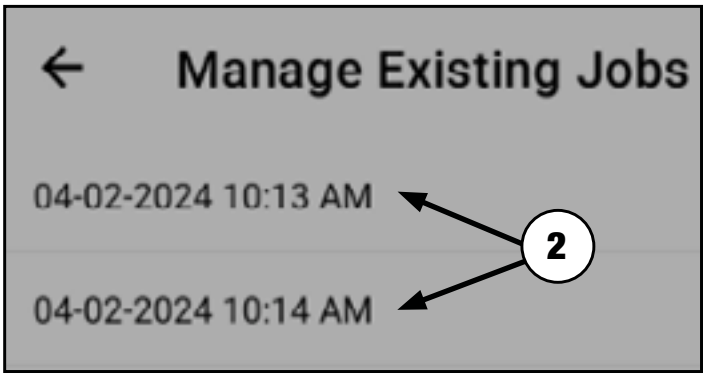
1. To open a list of existing Bore Plans, tap *Manage Existing Jobs* **(1)**.
2. Tap the title of a job **(2)** to display the "Aerial" view of the job.

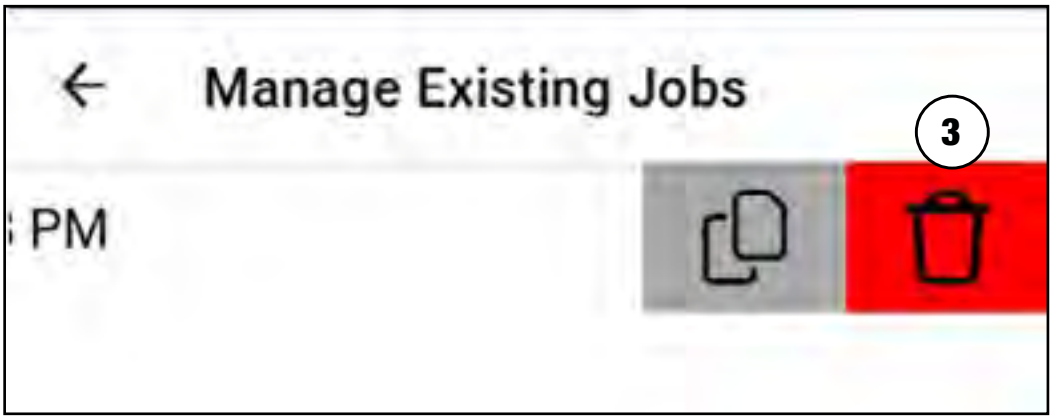


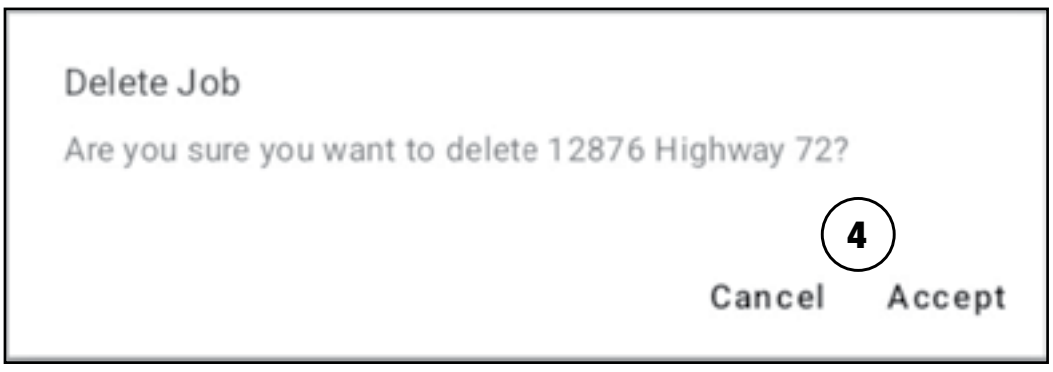

## Deleting an Existing Job

1. Tap *Manage Existing Jobs* **(1)**.
2. Find the job to delete **(2)**, swipe left on the job name and tap the trash can icon **(3)**.
3. When the message, “Are you sure you want to delete (job name)?” appears, tap *Cancel* to keep the job or "Accept" **(4)** to delete the job.



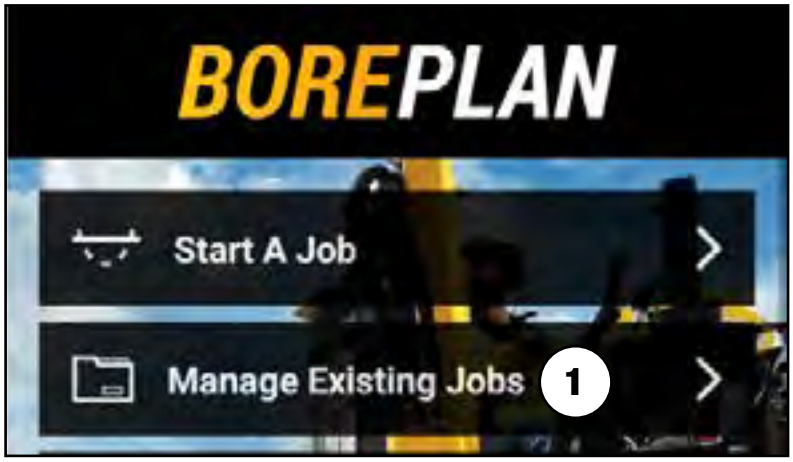



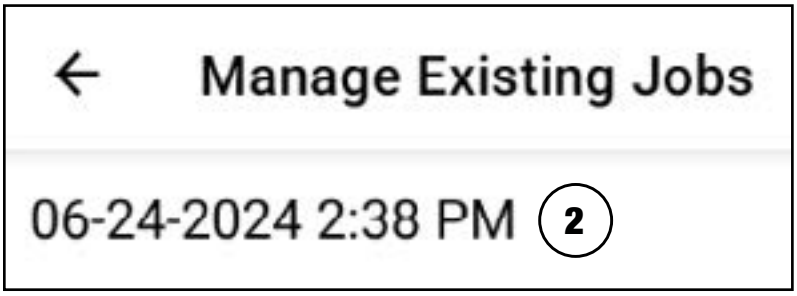



## Copy an Existing Job

**Note:** Images may appear differently per device and OS.

1. Tap *Manage Existing Jobs* **(1)**.
2. Find the job to copy **(2)**, swipe left on the job name, and tap the *copy icon* **(3)**.
3. When the message, “Duplicate (job name)?” appears, enter in a new job name, tap *Cancel* to exit out of the copy or *OK* **(4)** to make a file copy.





## GPS DEVICES

**NOTE**: If desired, a third-party high accuracy GPS device can be linked to the BorePlan app. If a high accuracy GPS device is not used, standard mobile device GPS location will be used.

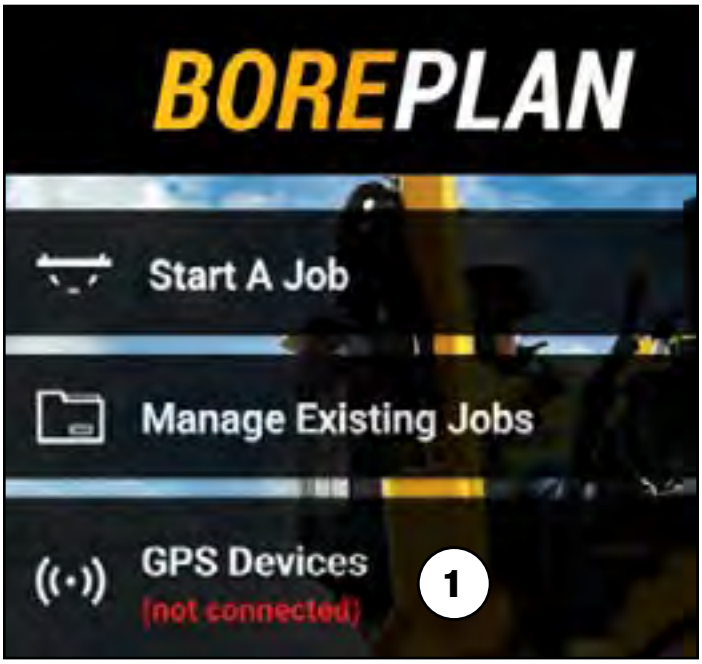
Basic instructions for connecting the high accuracy device to the mobile device are listed below. For further clarification on setting up the high accuracy GPS device and external apps, consult with your Vermeer dealer.

### Third-Party App Setup:

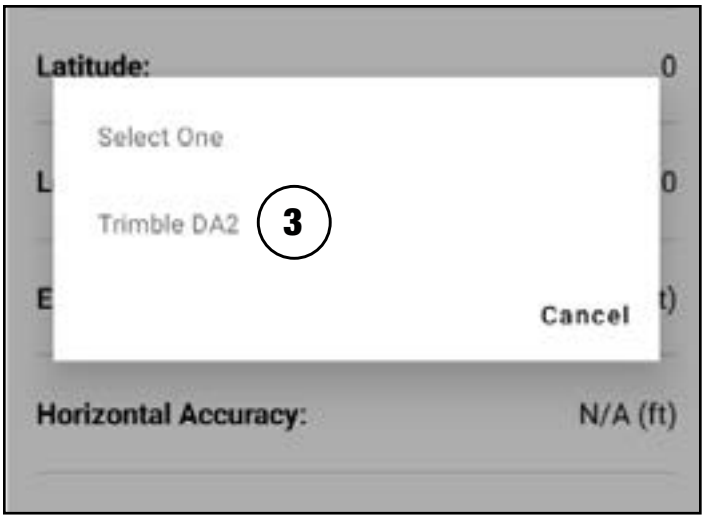
1. On the mobile device, turn on Bluetooth through device settings.
2. Turn the high accuracy GPS device on.
3. On the mobile device, open the third-party GPS companion app (same manufacturer as the high accuracy GPS device) and connect the high accuracy GPS device according to the manufacturer's instructions.
4. On the mobile device, find the list of available Bluetooth devices and choose the high accuracy GPS device to pair with.

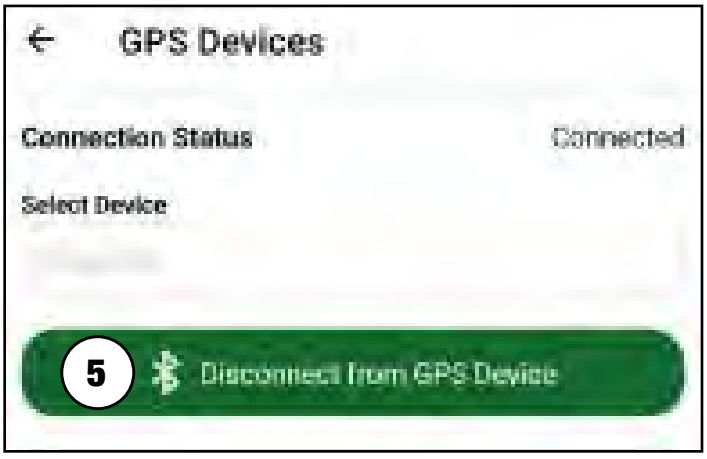
**Connect to BorePlan:**

1. Tap *GPS Devices* **(1)**.
2. Tap *Select Device* **(2)** dropdown to display the device list.
3. Tap the name of the device **(3)**.
4. Tap *Connect to GPS Device* **(4)** when the *button* changes to green.
5. To disconnect the high accuracy GPS Device, tap the *Disconnect from GPS Device button* **(5)**.



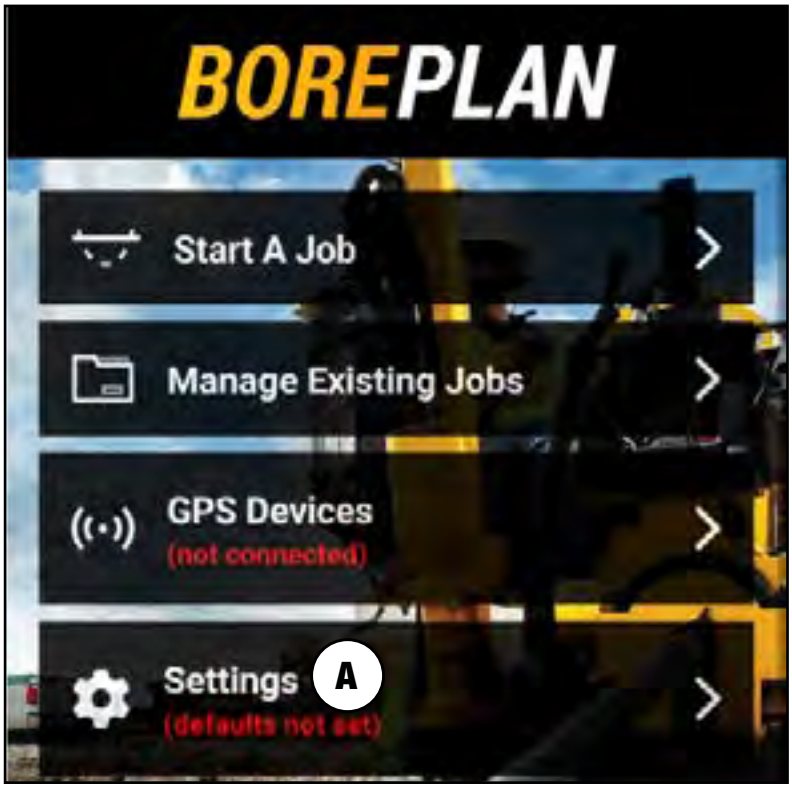


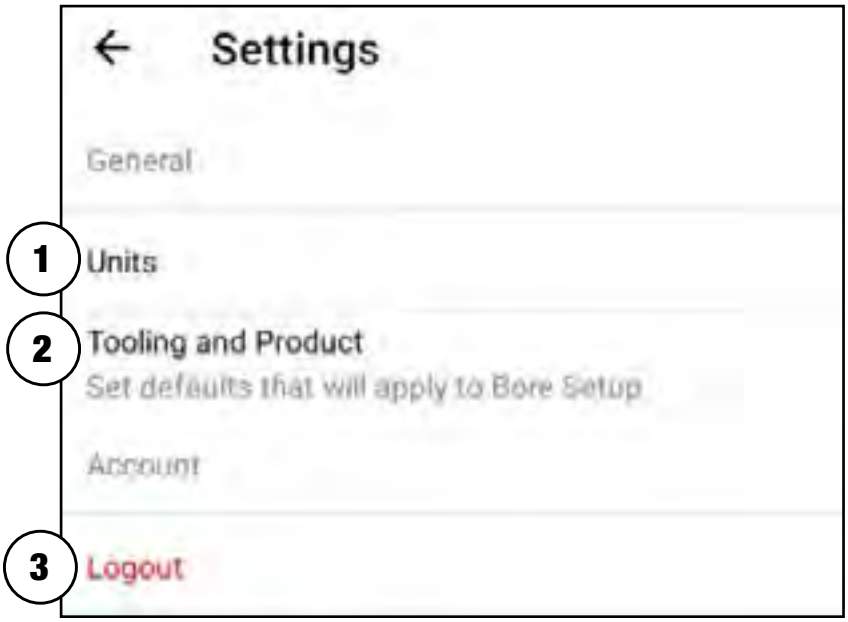
## SETTINGS

Tap *Settings* **(A)** on the landing page.



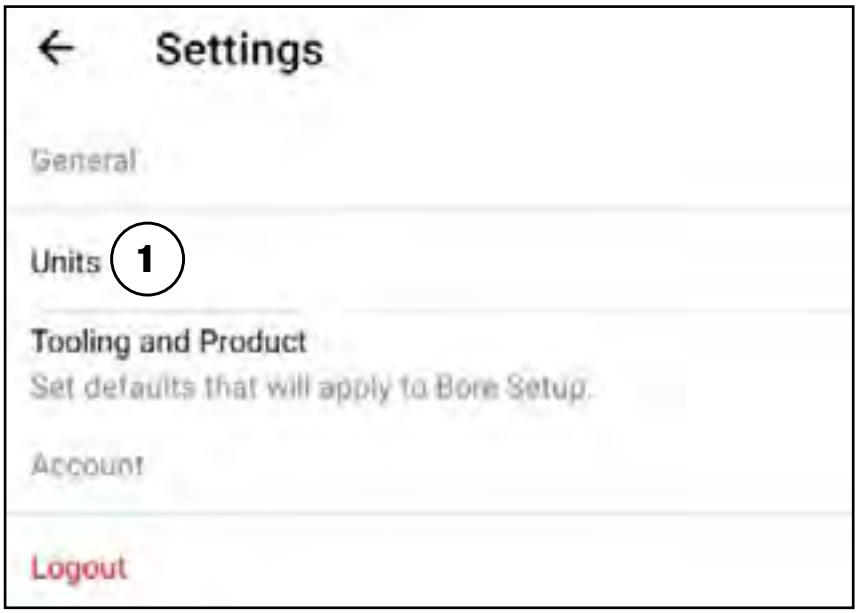

### Settings Options

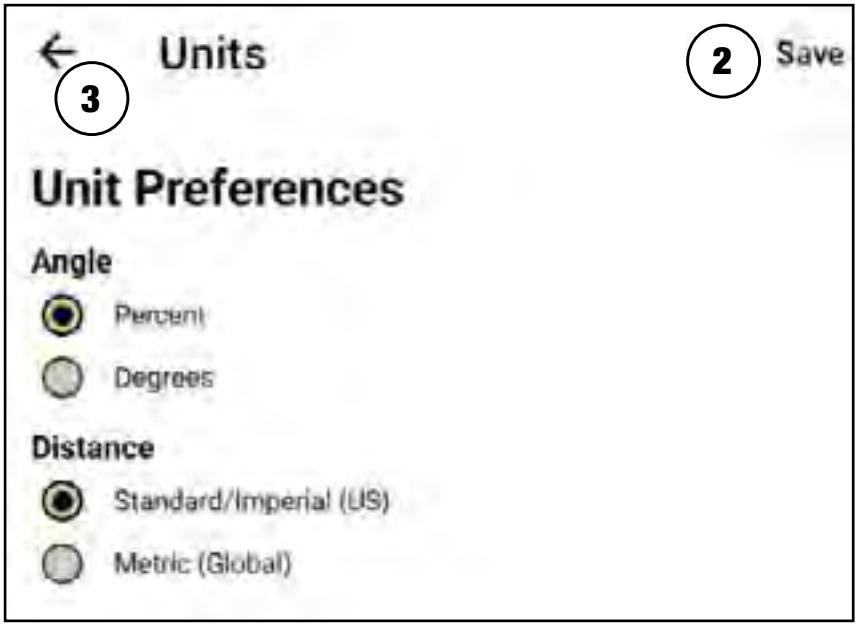
1. "Units"
2. "Tooling and Product"
3. "Logout"



## Units

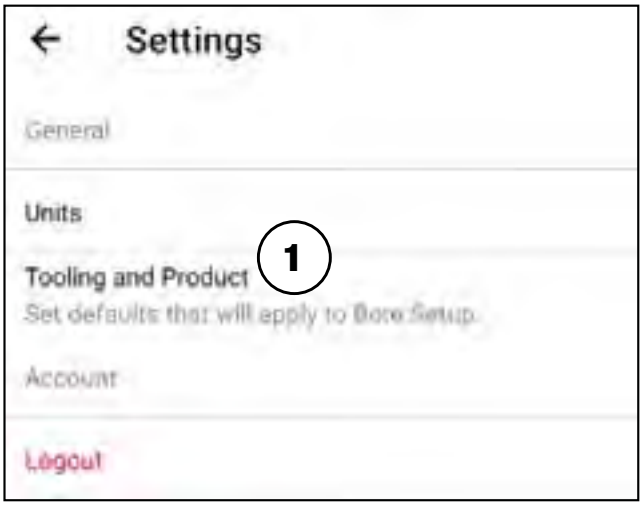
1. Tap *Units* **(1)** to change to preferred unit preferences.
2. Tap *Save* **(2)** to save preferences and return to the *Settings* page, or tap the back arrow **(3)** to return to the previous menu without saving changes.



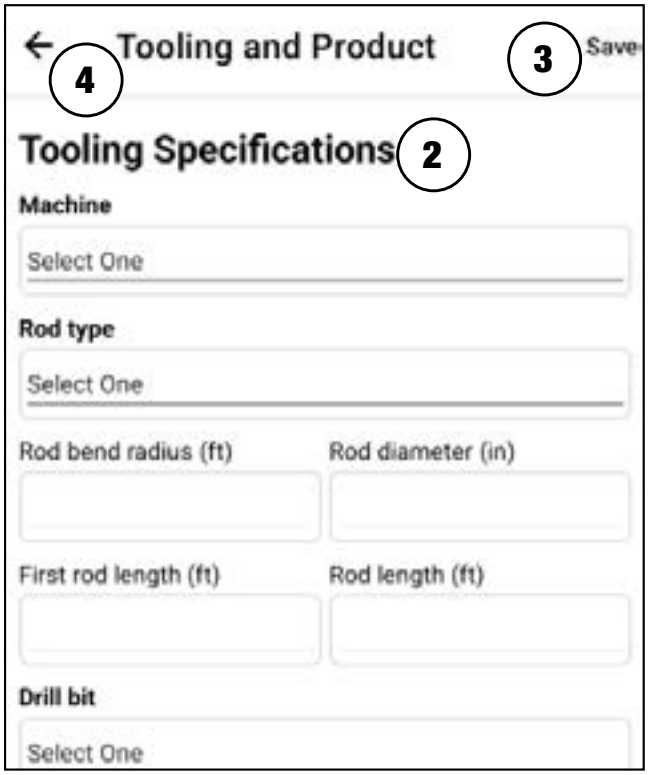
## Tooling and Product

1. Tap *Tooling and Product* **(1)** to access "Tooling Specifications" **(2)**.
2. Tap *Save* **(3)** to save preferences and return to the "Settings" page, or tap the back arrow **(4)** to return to the previous menu without saving changes.




**Note:**

- All required fields will turn red if attempting to save without an input or invalid value.
- Selecting a specific rod type, drill bit, and/or reamer will auto populate the fields associated with those items.



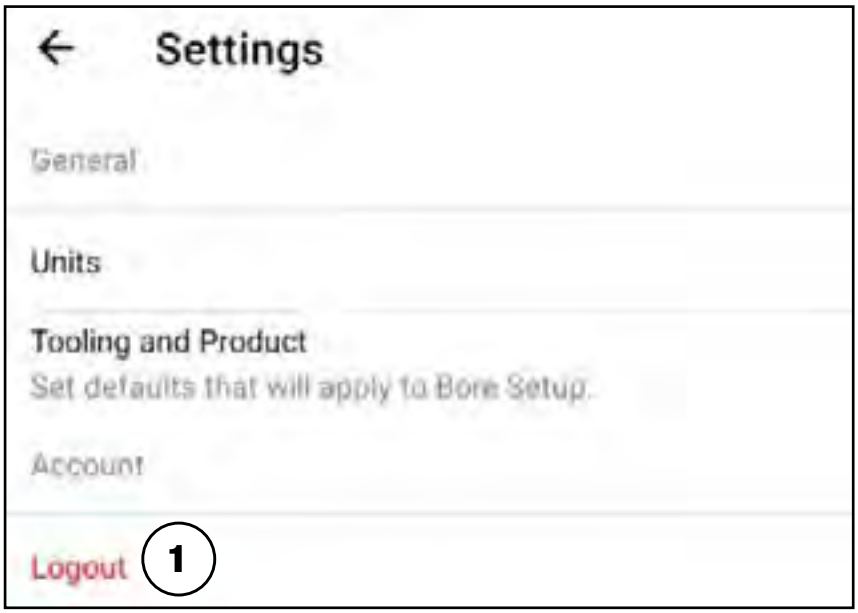
## Tooling and Product Specifications

**Note:** Tapping *Tooling and Product* provides the option to set preferences relating to the Bore Line. Once these values are set, these values will be used as the default in all future Bore Lines the user creates. The options are:

- Machine: Drop-down list of all Vermeer Horizontal Directional Drills.
- Rod Type: Drop-down list of all rods associating to the selected drill.
- Rod Bend Radius: The limit allowed for the rod to bend. BorePlan does not allow Bore Lines to be created with a rod bent over this limit.
- Rod Diameter: Diameter of the rod selected.
- First Rod Length: Length of the first rod entering the ground; this is defaulted to 70% of the rod length.
- Rod Length: Length of the rod selected.
- Drill Bit: Drop-down list of all drill bits available to the user via the Vermeer Bore Store.
- Drill Bit Diameter: Diameter of the drill bit selected in the drill bit field.
- Reamer: Drop-down list of all reamers available to the user via the Vermeer Bore Store.
- Product Type: Drop-down list of all product types.
- Product Diameter: Diameter of the product being installed.
- Product Thickness: Thickness of the product being installed.
- Product Bend Radius Limit: The limit allowed for the product being installed to bend.

## Logout

Tap *Logout* **(1)** to logout of BorePlan and return to the log in Page.



# Views

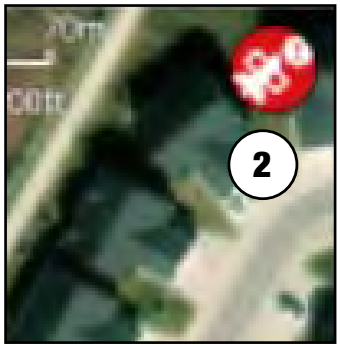
There are two main views available: "Aerial" view **(A)** and "Profile" view **(B)**. Bore plans need to be created in "Aerial" view

## AERIAL VIEW

### Data Indicator

This indicator will switch between a *mobile icon* **(1)** and *satellite icon* **(2)**. A mobile icon will display when using phone location only. A satellite icon will display when connected to a high accuracy GPS device. Tapping the icon will provide location data **(3)**. Tap the icon again to hide the location data.



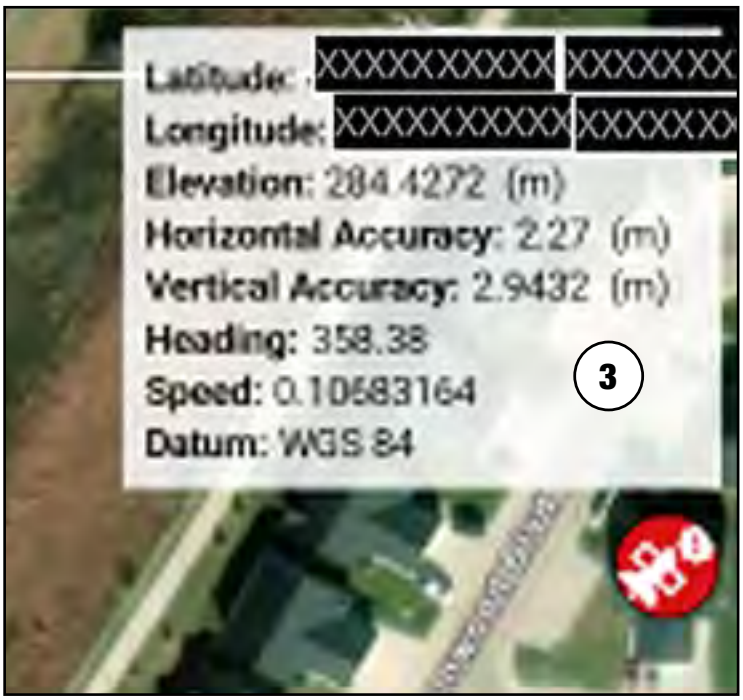



### Color Variations – Data Indicator

**Green:**
Less than or equal to 15 cm accuracy

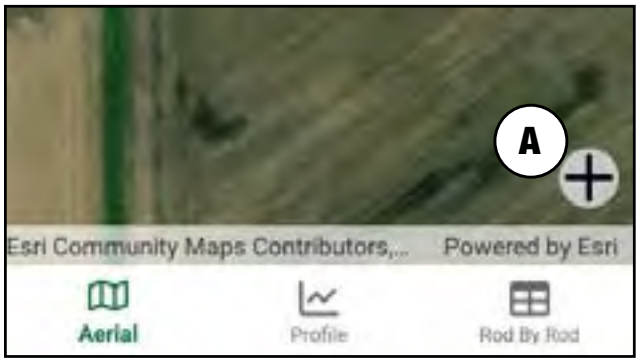
**Yellow:**
Between 16 – 60 cm accuracy

**Red:**
Greater than 60 cm accuracy



## Aerial View Map Functions

Tap "+" **(A)** to open the map functions.




## Map Functions:

1. "Bore Line": This refers to the map of the planned bore path. Bore plan reports can be created and used to direct the drill onsite.
2. "Custom Topography": This allows a custom topography point to be added anywhere on the map.
3. "As-Built": This is a record of the actual bore path, as documented by the user. This will often differ from an original bore line and will have its own line.
4. "Utility": This can be used to indicate different utility types within the ground.

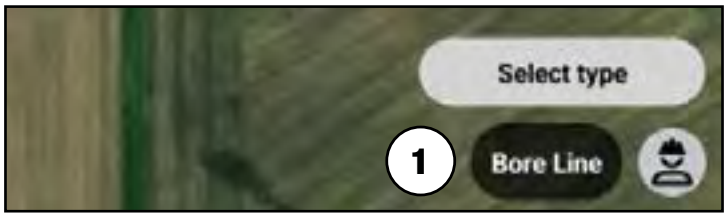

5. "Note": This allows text notes to be added anywhere on the map. Notes are limited to 50 characters.
6. "Obstacle": This allows a 3-point shape to be added to the map to indicate an obstacle to the bore path. Obstacles can be above ground, below ground or a mixture of both.
7. "Measurement": This will measure distances on the map. Measurement units will be shown based on the preferences chosen in the Units Settings page. The level of accuracy depends on the imagery provided from ESRI.

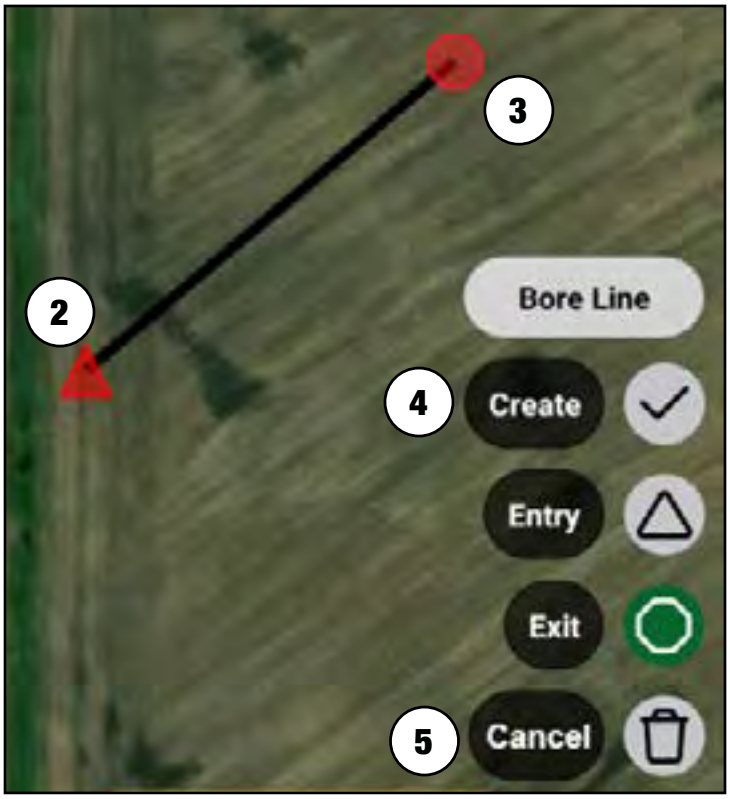
## BORE LINES

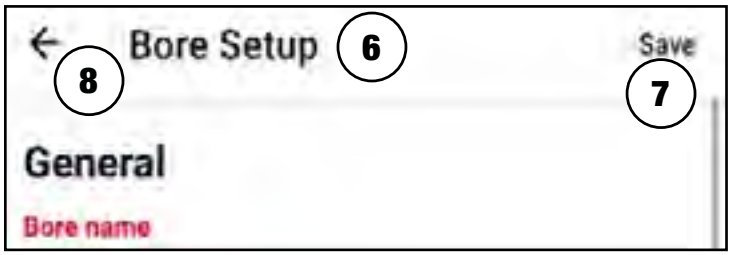
### Adding New Bore Line

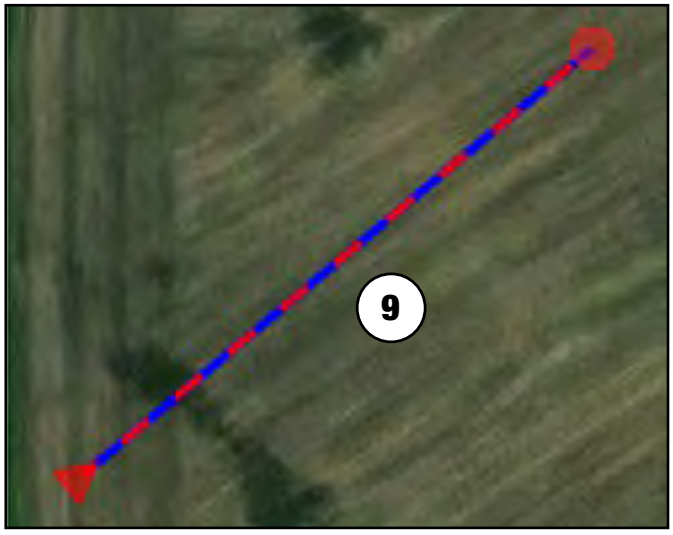
1. Tap *Bore Line* **(1)**.
2. Tap on the map to mark the start of the line **(2)**.
3. Tap on the map again to mark the end of the line **(3)**.
4. Tap *Create* **(4)** to show the "Bore Setup" **(6)** page or tap *Cancel* **(5)** to remove the bore line.
5. On the "Bore Setup" **(6)** page, enter in bore line details and tap *Save* **(7)** to go back to "Aerial" view with the created bore line **(9)** or click the back arrow **(8)** to cancel out of bore line generation.

**Note:** Bore line creation can start with entry or exit. If entry and/or exit are already placed, tapping entry or exit again will allow the user to change the placement.



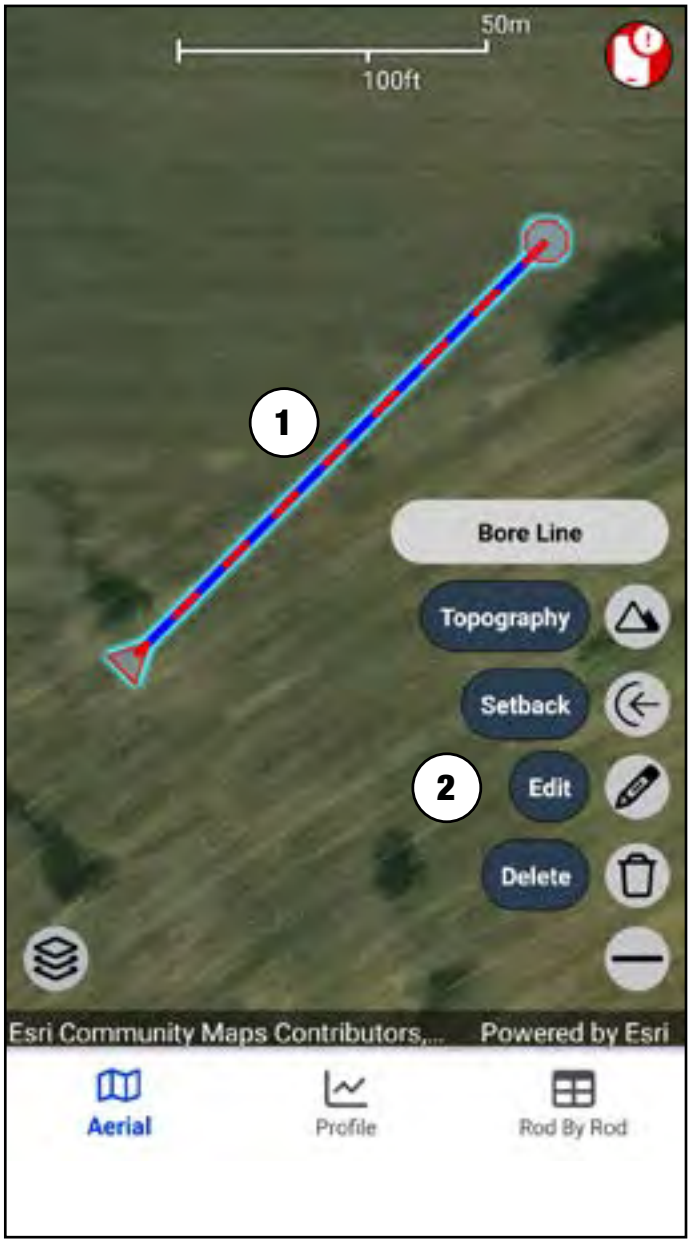



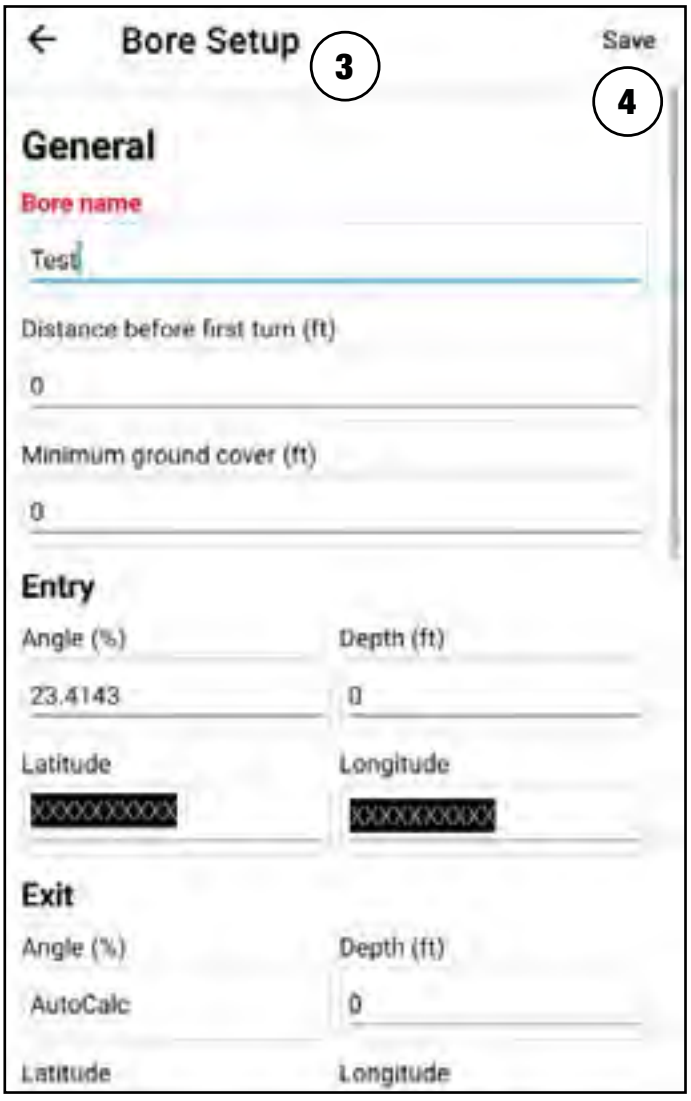



## Editing a Bore Line

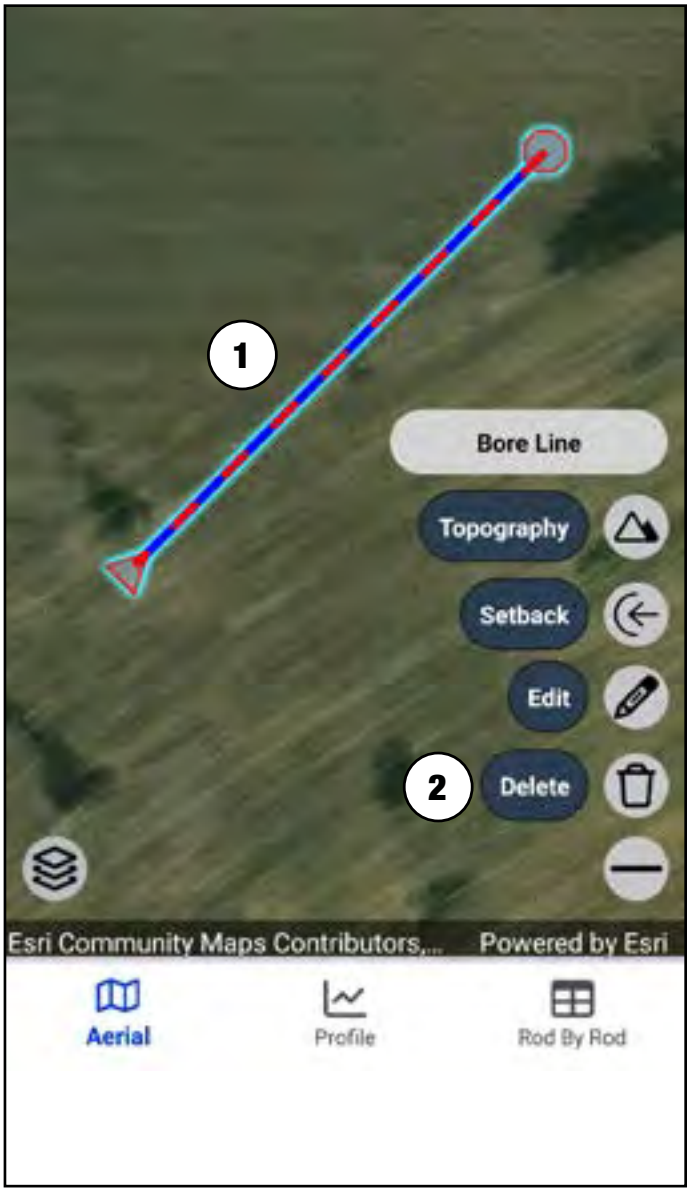
1. Tap the bore line **(1)** on "Aerial" view.
2. Tap *Edit* **(2)** to bring up the "Bore Setup" page **(3)**.
3. Make changes to the "Bore Setup" page and tap *Save* **(4)** to go back to "Aerial" view with the saved changes.



## Deleting Bore Line

1. Tap the bore line **(1)** on "Aerial" view.
2. Tap *Delete* **(2)** to remove the bore line.

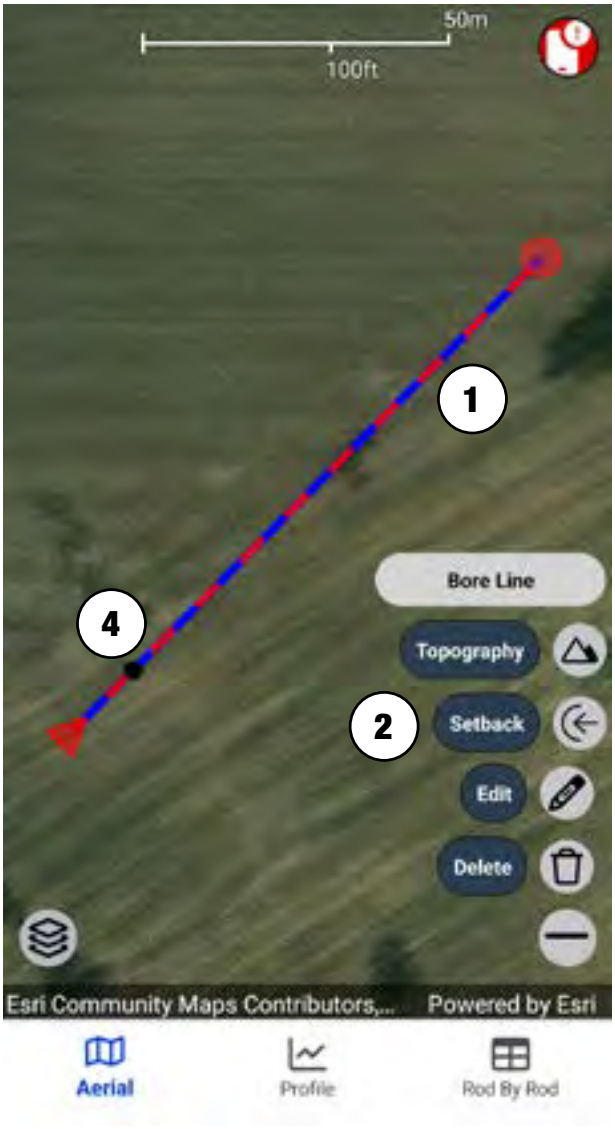


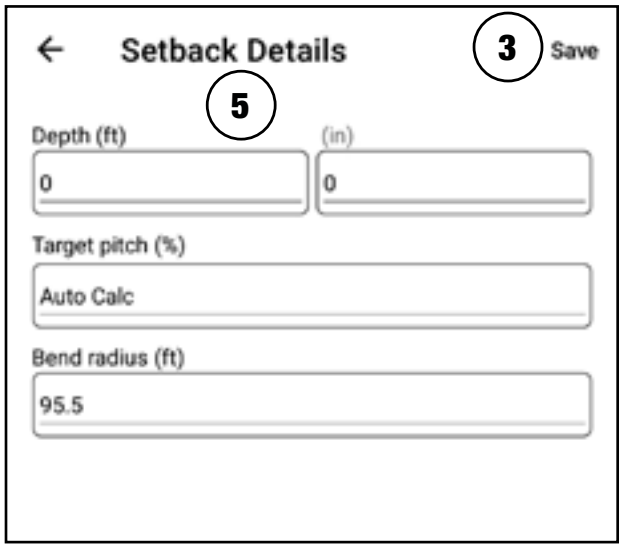
## Setback Calculator $

Setback allows a user to calculate the nearest position for the entry point while still achieving a target depth as quickly as possible, without overbending the drill rod. This can help avoid obstacles when working on a tight job site.

1. Tap an existing bore line **(1)** on "Aerial" view.
2. Tap *Setback* **(2)**.
3. Enter the target depth in "Setback Details" **(5)** and tap *Save* **(3)**.

The initial entry point will change to a target point at a specified depth, represented by a black dot **(4)** on the bore line. A new entry point will be placed in the nearest location that allows the target point to be hit.

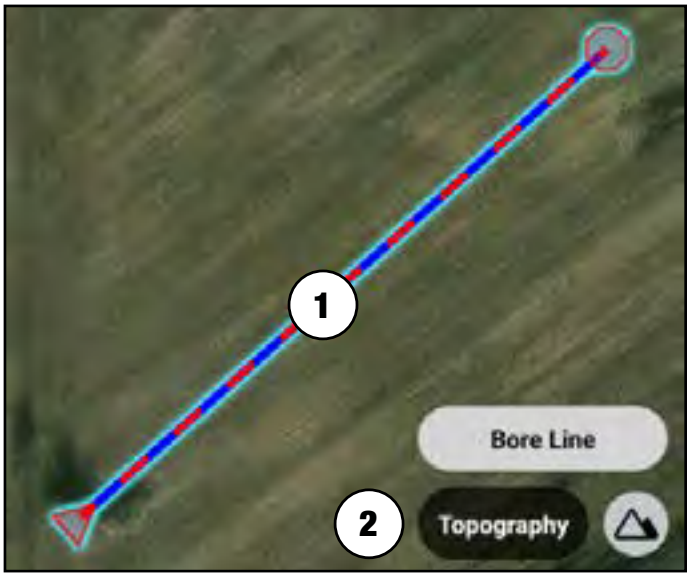


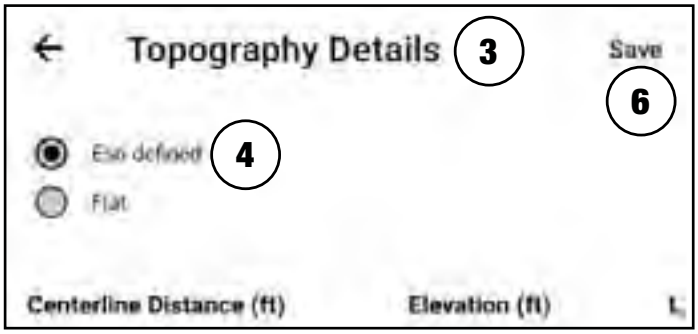



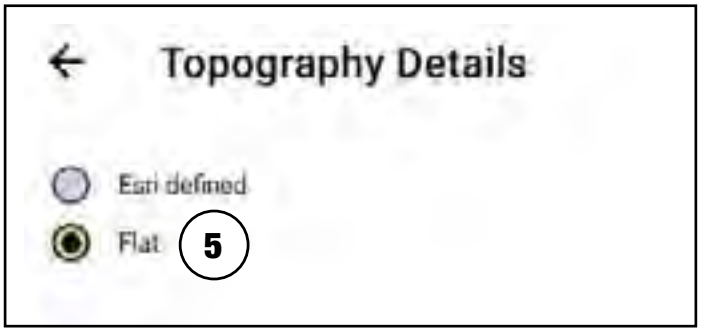
## Topography

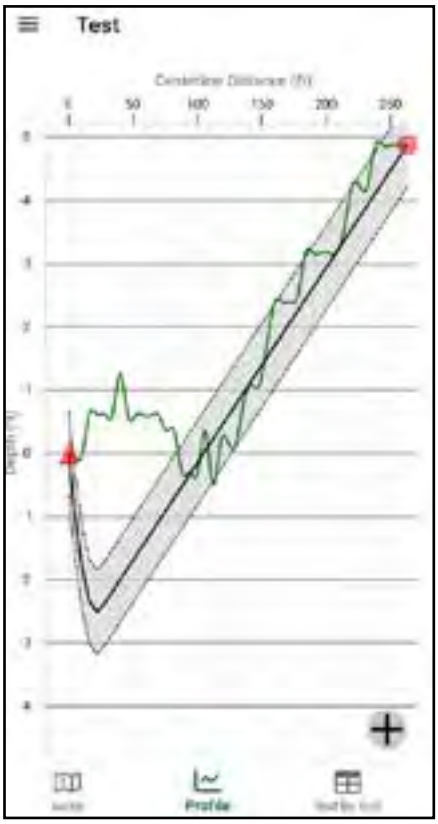
1. Tap an existing bore line **(1)** on "Aerial" view.
2. Tap *Topography* **(2)** to display "Topography Details" **(3)**.
3. Change topography type to "ESRI Defined" **(4)** or "Flat" **(5)**, and tap *Save* **(6)**.

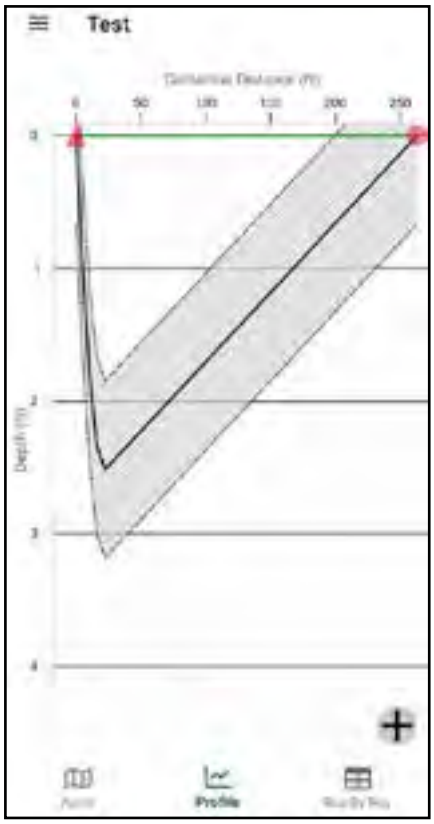
**Note:** Changing topography will affect "Profile" view.



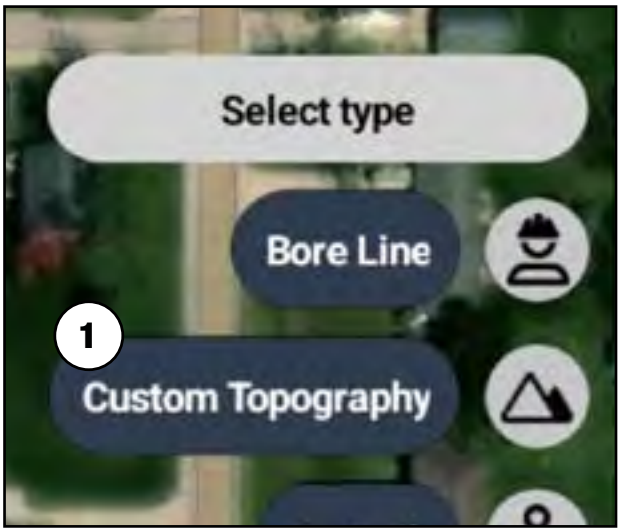



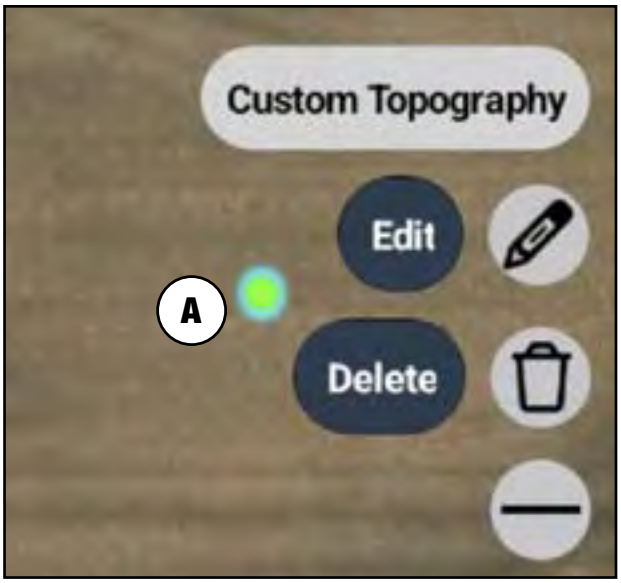
## CUSTOM TOPOGRAPHY $

### Adding Custom Topography

1. Tap *Custom Topography* **(1)**.
2. Tap on the map to mark a custom topography point **(A)**, which opens "Custom Topography Details" **(2)**.
3. Keep the ESRI elevation provided or change it to the desired value and tap *Save* **(3)**.

**Note:** Custom topography points must be less than two meters from the bore line to be applied



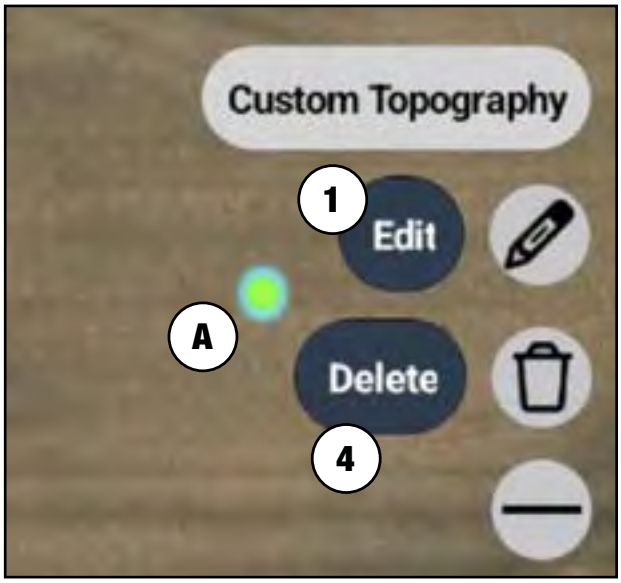



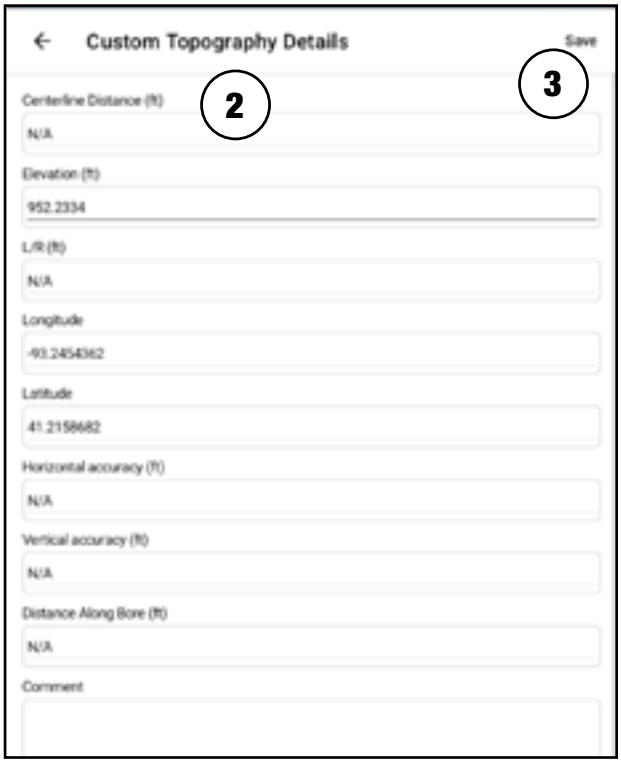

## Editing Custom Topography

1. Tap custom topography point on the map **(A)**.
2. Tap *Edit* **(1)** to open "Custom Topography Details" **(2)**.
3. Enter or edit information and tap *Save* **(3)**.

## Deleting Custom Topography

1. Tap Custom Topography point on the map **(A)**.
2. Tap *Delete* **(4)**.



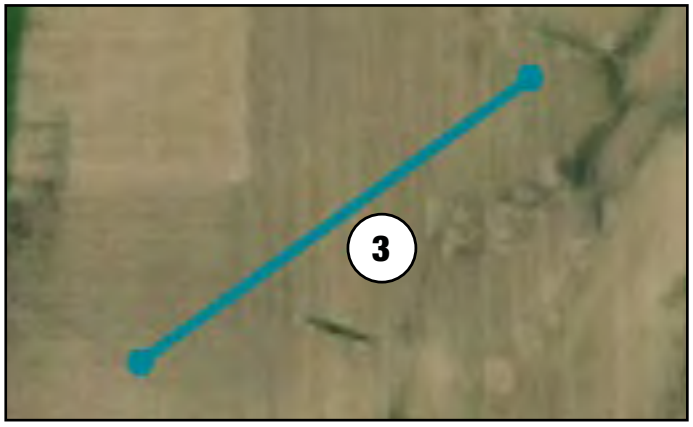



## AS-BUILT $

### Adding New As-Built

1. Tap *As-Built* **(1)**.
2. Tap on the map to mark an as-built point.
3. Enter information for "As-Built Point Details" and tap *Save* **(2)**.
4. To create a line follow Steps 5 – 8.
5. Tap "+" **(A)** to open the map functions again.
6. Tap *As-Built* **(1)**.
7. Tap on the map to mark another as-built point. **Note: Points cannot be on top of one another.**
8. Enter information for "As-Built Point Details" and tap *Save* **(2)** to create a line **(3)**.



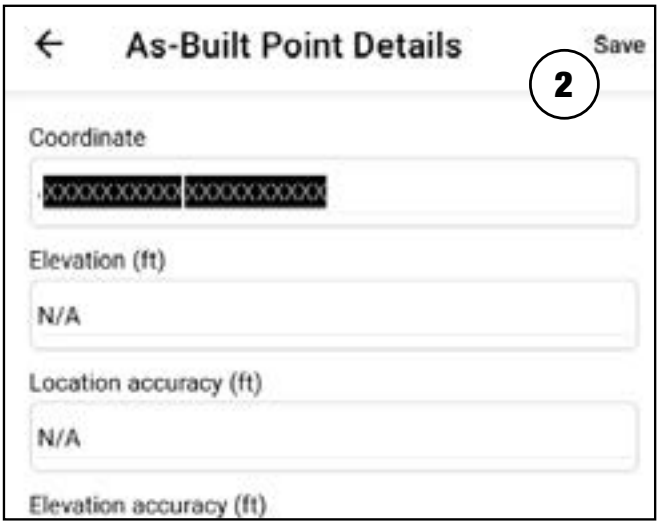



## Editing As-Built

1. Tap as-built point on the map **(A)**.
2. Tap *Edit* **(1)**.
3. Enter information for "As-Built Point Details" and tap *Save* **(2)**.


## Deleting As-Built

1. Tap as-built point on the map **(A)**.
2. Tap *Delete* **(3)**.

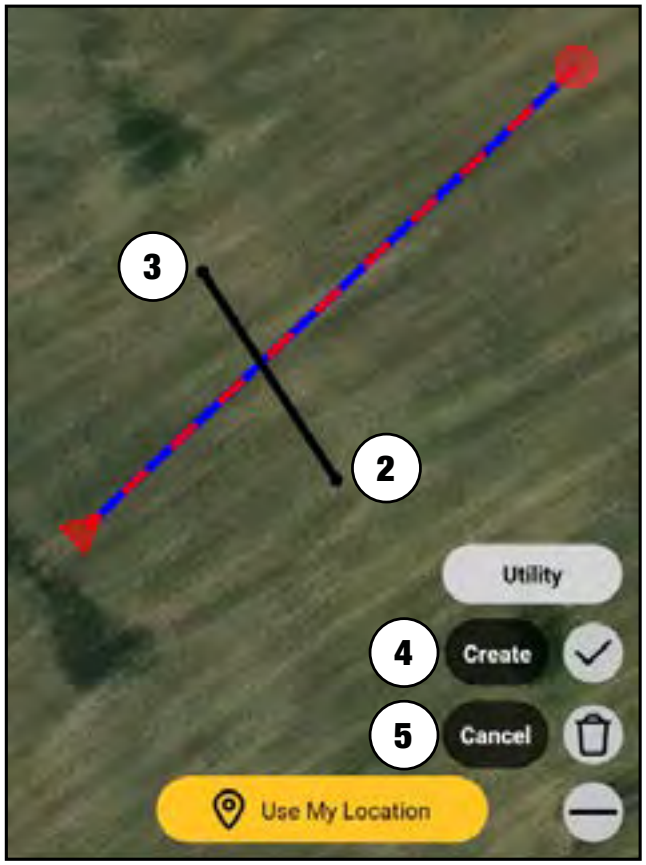


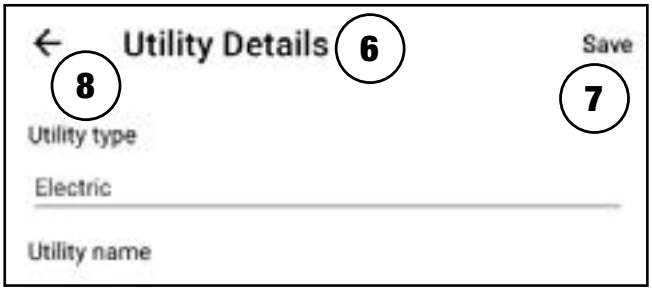
## UTILITIES

**ALERT:** Refer to page 9 for Utility Color Definitions and Utility Safety Protocols before beginning excavation or underground drilling operations.

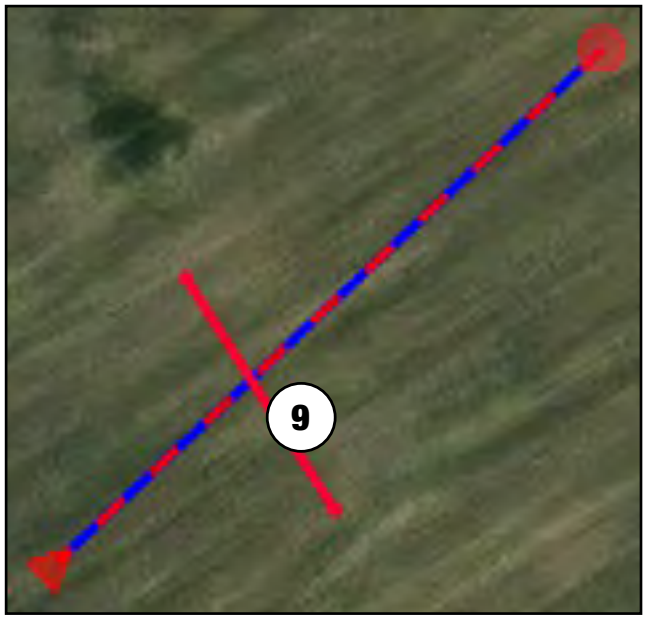
### Adding New Utilities

1. Tap *Utility* **(1)**.
2. Tap on the map to mark the start of the utility line **(2)**.
3. Tap on the map again to mark the end of the utility line **(3)**.
4. Tap *Create* **(4)** to display "Utility Details" **(6)** page or tap *Cancel* **(5)** to remove the utility.
5. Enter information for "Utility Details" and tap *Save* **(7)** to go back to "Aerial" view with the created utility **(9)** or click the *back arrow* **(8)** to cancel out of utility generation.



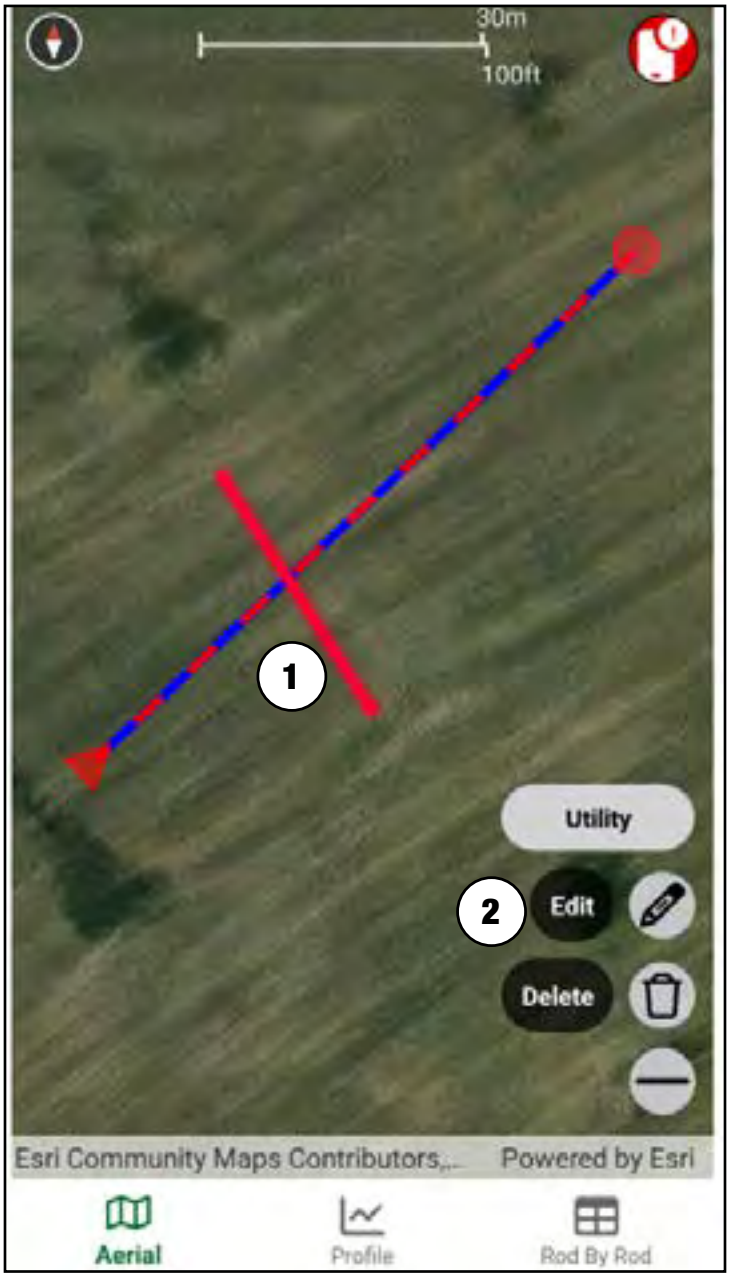



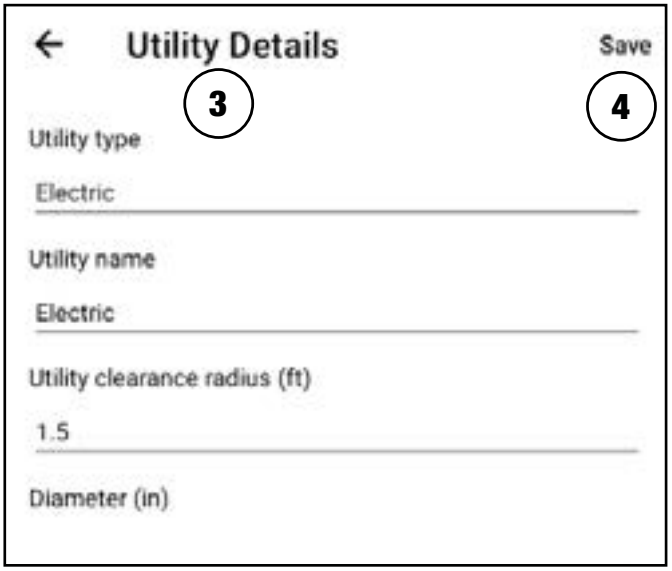




## Editing Utility

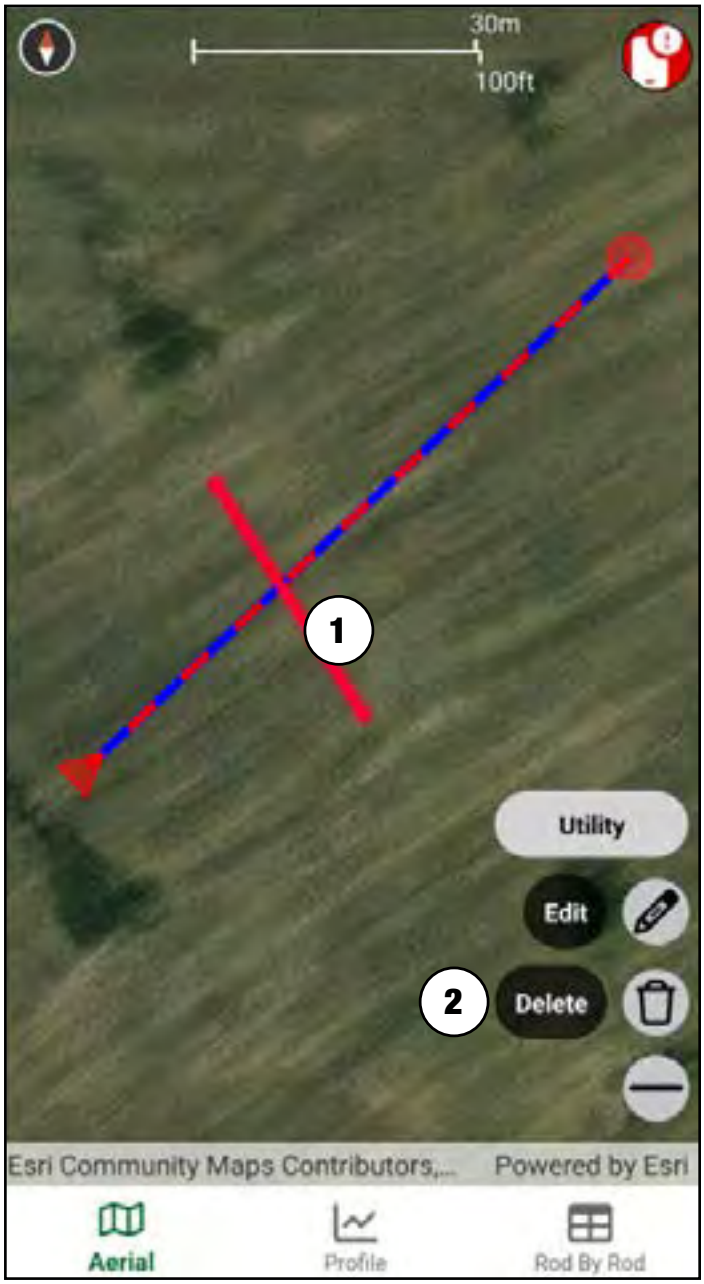
1. Tap the drawn utility line **(1)** on "Aerial" view.
2. Tap *Edit* **(2)** to bring up the "Utility Details" **(3)** page.
3. Enter information for "Utility Details" and tap *Save* **(4)** to go back to "Aerial" view with the saved changes.



## Deleting Utility

1. Tap the drawn utility line **(1)** on "Aerial" view.
2. Tap *Delete* **(2)** to remove the utility.

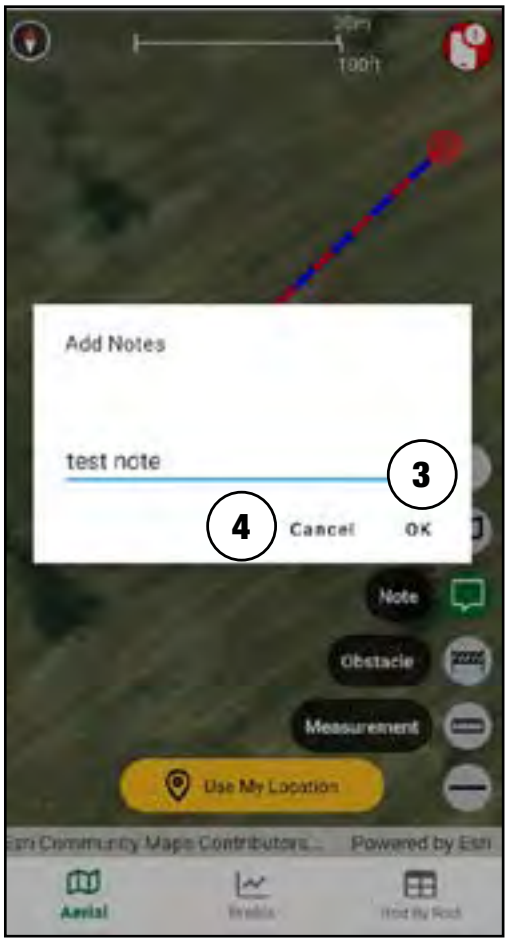


## NOTE

### Placing New Note

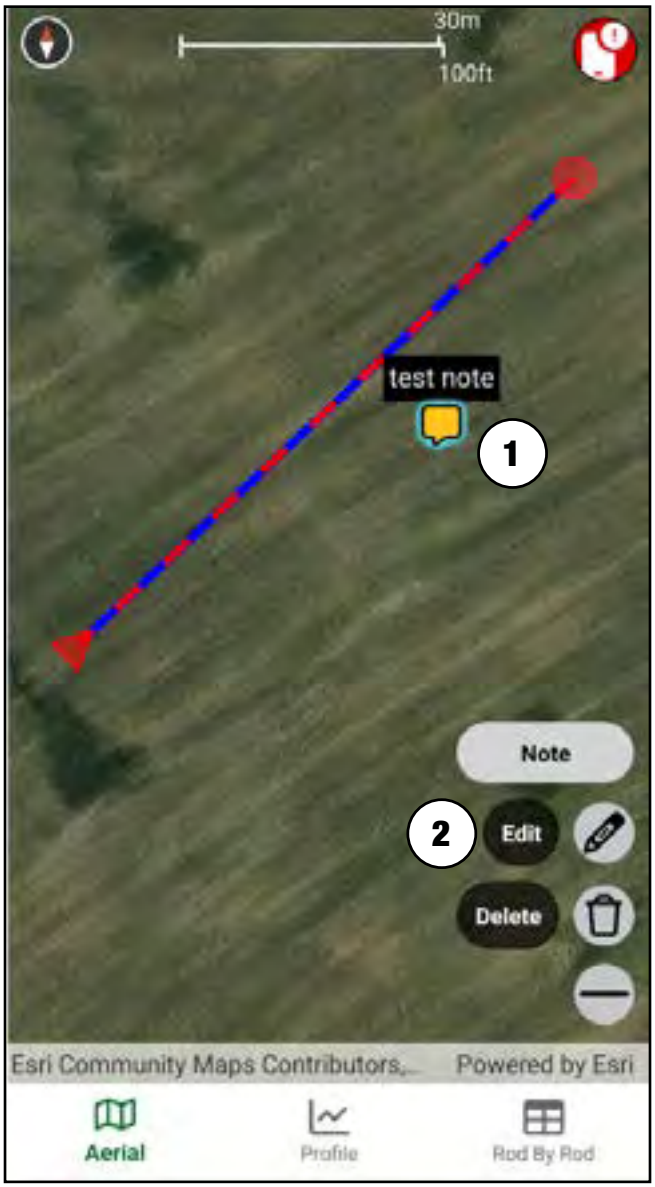
1. Tap *Note* **(1)** and tap on "Aerial" view to place the note **(2)**.
2. Enter in text and tap *OK* **(3)** to save changes or tap *Cancel* **(4)** to remove the note.

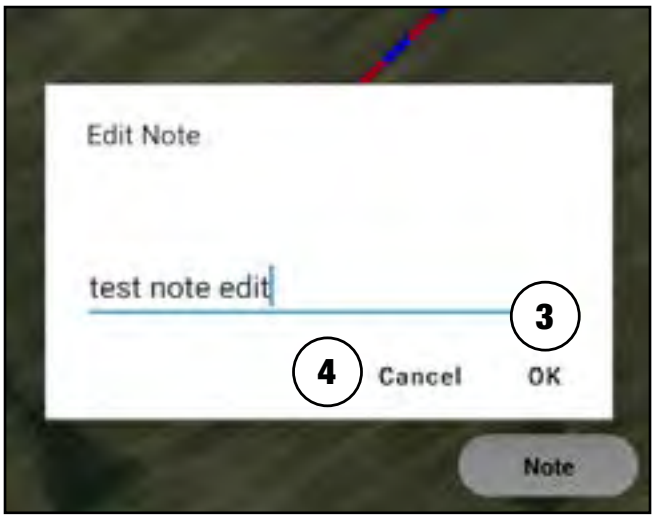




## Edit Existing Note

1. Tap the *Note* **(1)** you want to edit and tap *Edit* **(2)**.
2. Enter in the changes and tap *OK* **(3)** to save changes, or tap *Cancel* **(4)** to undo changes.



## Delete Existing Note

1. Tap the *Note* **(1)** you want to remove.
2. Tap *Delete* **(2)**.

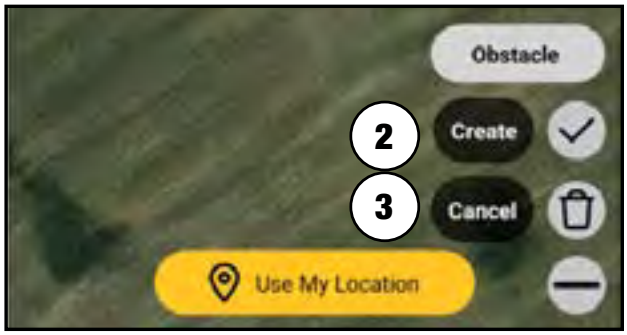
# OBSTACLE

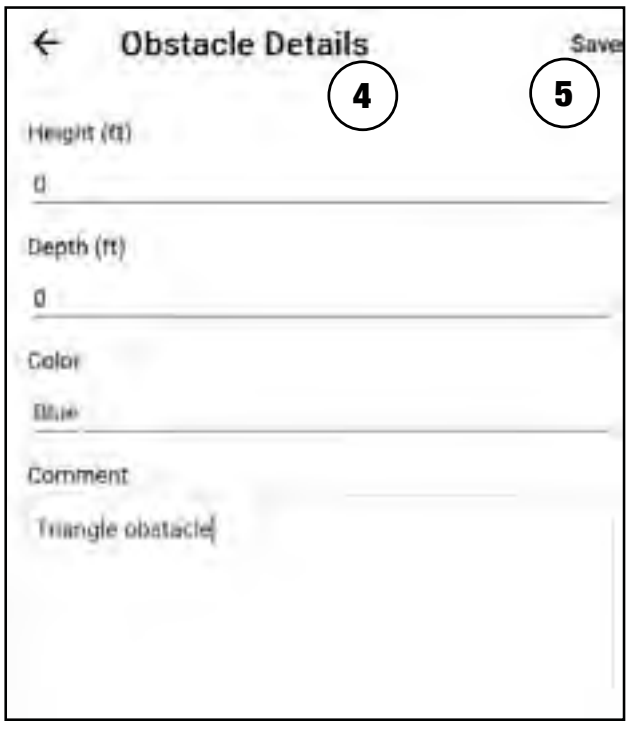
## Placing New Obstacle

1. In "Aerial" view, tap *Obstacle* **(1)** then tap in three locations to create an obstacle with three points.
2. Tap *Create* **(2)** to display "Obstacle Details" **(4)** or tap *Cancel* **(3)** to remove the obstacle.
3. Enter information for "Obstacle Details," then tap *Save* **(5)** to go back to "Aerial" view with new obstacle.


## Obstacle Details

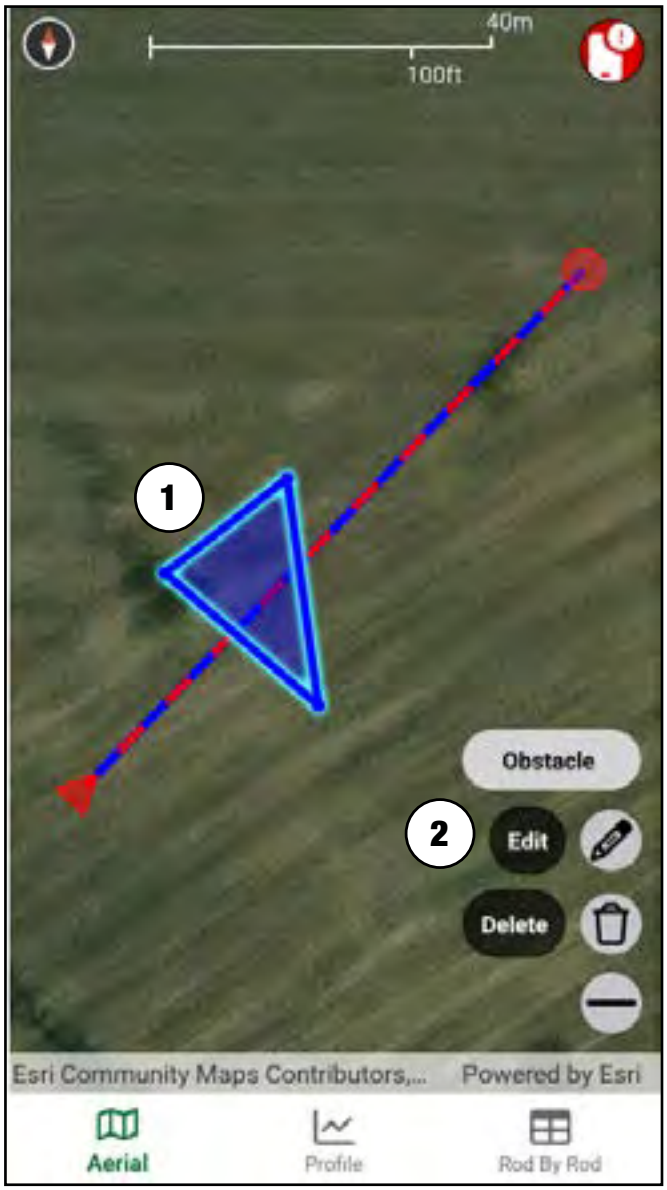
- "Height:" This indicates the vertical dimension of the obstacle. Obstacles may be above ground, below ground, or a mixture of both.
- "Depth:" This indicates the bottom of the obstacle, relative to ground level.
- "Color:" Drop-down list of available colors to display the obstacle.
- "Comments:" Text box to include any additional information needed about the current obstacle. Comments are limited to 500 characters.

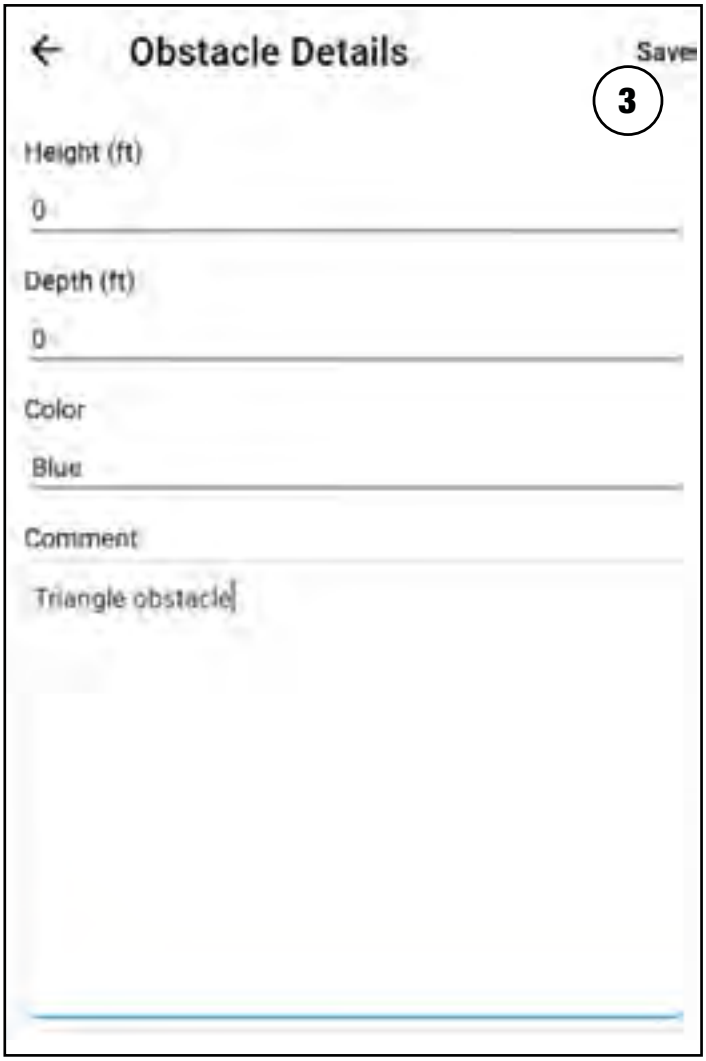


## Editing Existing Obstacle

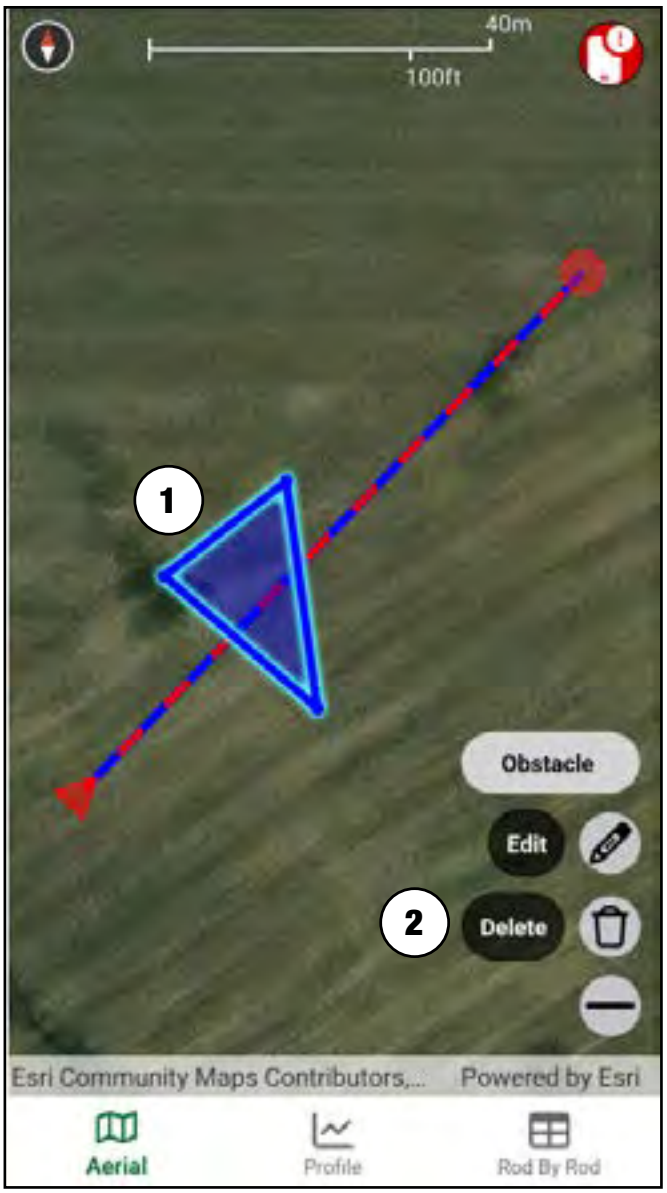
1. Tap obstacle **(1)** on "Aerial" view to edit.
2. Tap *Edit* **(2)**, make changes in "Obstacle Details," and tap *Save* **(3)** to go back to "Aerial" view with new changes.



## Deleting Existing Obstacle

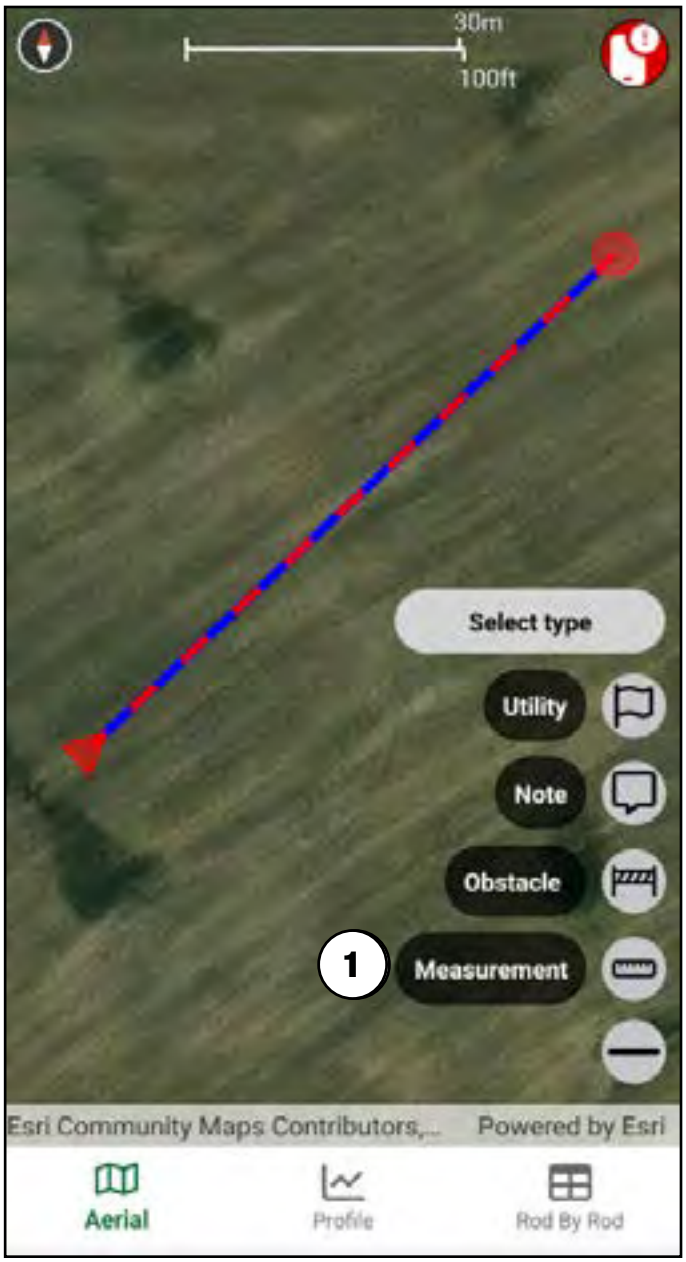
1. Tap obstacle that needs removed **(1)** on "Aerial" view.
2. Tap *Delete* **(2)** to remove obstacle.

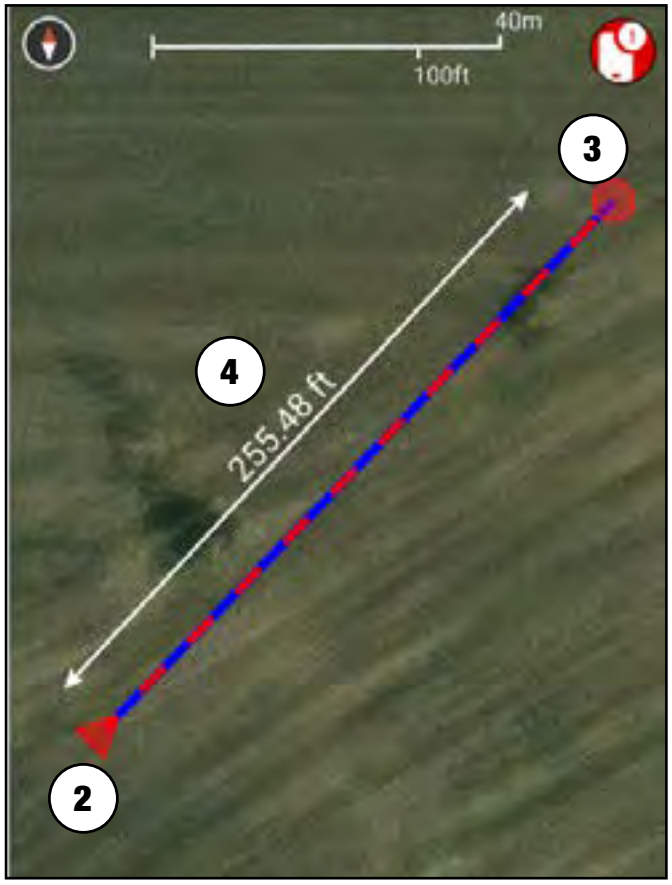


## MEASUREMENT

### Placing New Measurement

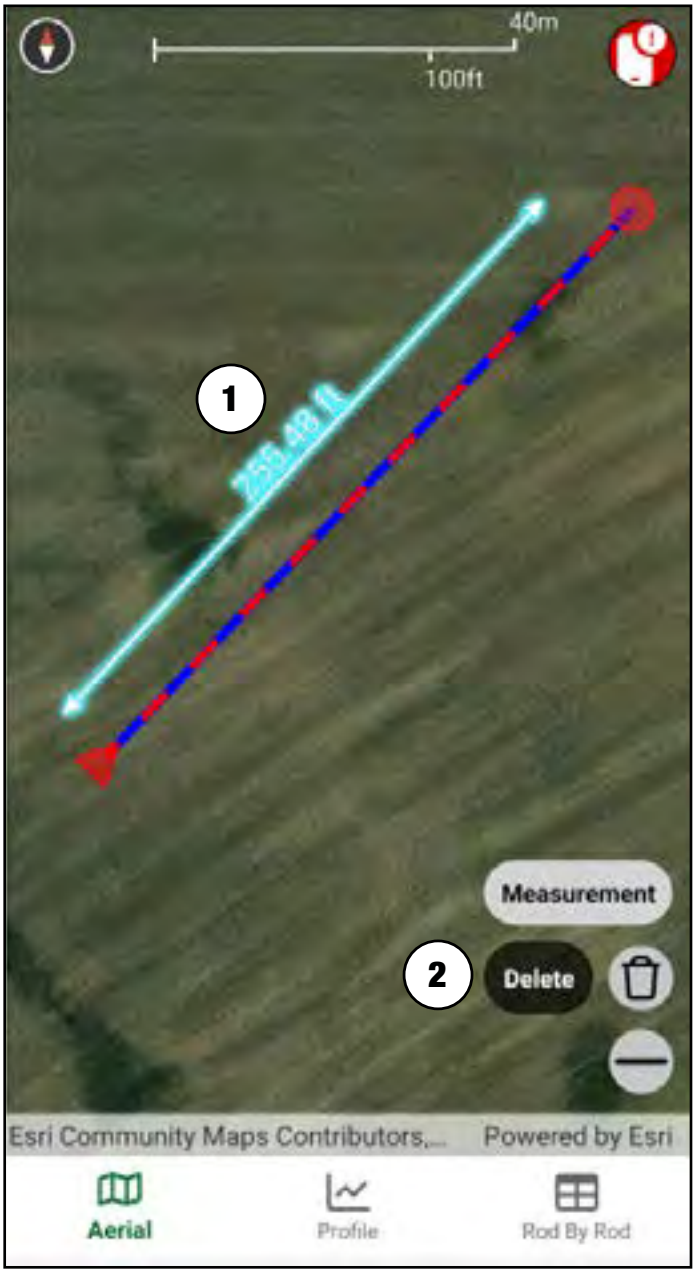
1. Tap *Measurement* **(1)**.
2. Tap on "Aerial" view to mark the start **(2)** of the measurement line.
3. Tap on "Aerial" view to mark the end **(3)** of the measurement line.
4. A measurement line **(4)** will be generated.



## Delete Existing Measurement

1. Tap measurement line **(1)** to remove.
2. Tap *Delete* **(2)**.



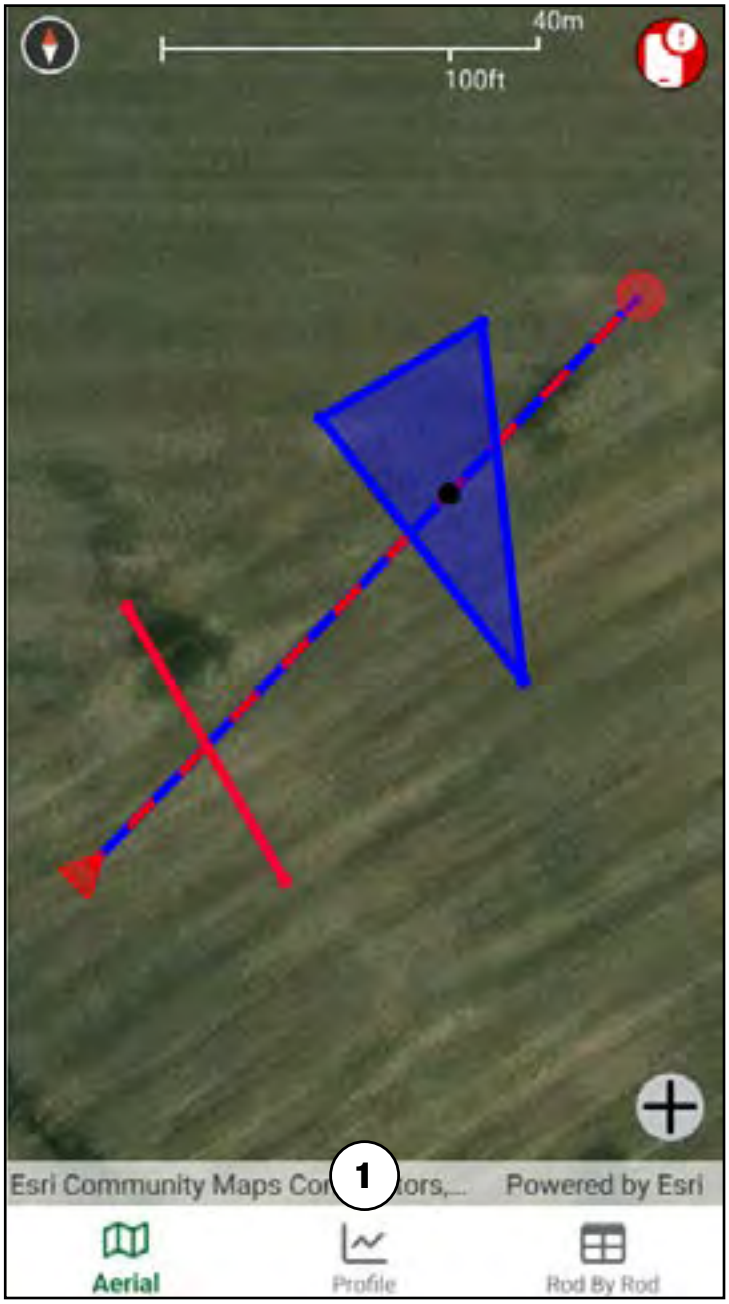
## MAP LAYERS

Map layers enables or disables the visibility of the map drawing items on "Aerial" view.

1. Tap *Map Layers icon* **(1)**.
2. Use checkboxes to select which items **(2)** will be displayed on the "Aerial" view.
3. Tap *Save* **(3)** to save "Map Layers" changes.


## PROFILE VIEW

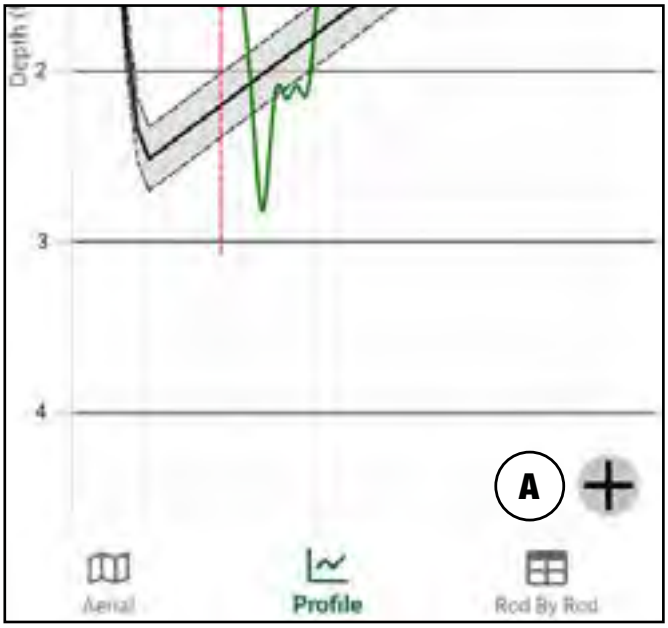
1. Draw a bore line using "Aerial" view or open an existing job that has a bore line.
2. Tap *Profile* **(1)** for "Profile" view.



## Profile View Functions

Tap the + **(A)** to open "Profile" view functions.

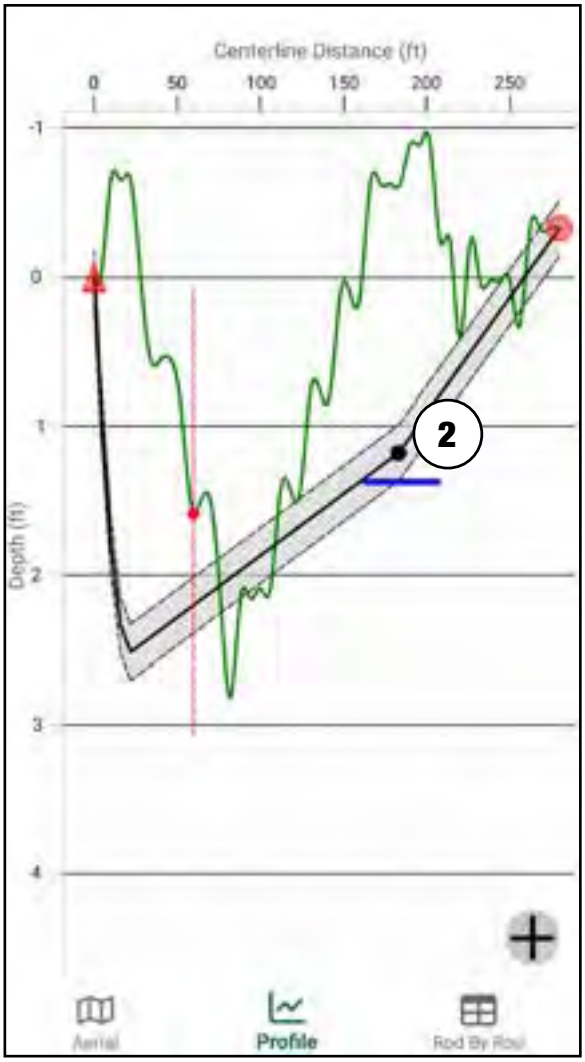
1. "Target": This indicates a desired intermediate point on a Bore Line.
2. "Note": This allows text notes to be added anywhere on the "Profile" view. Notes are limited to 50 characters.

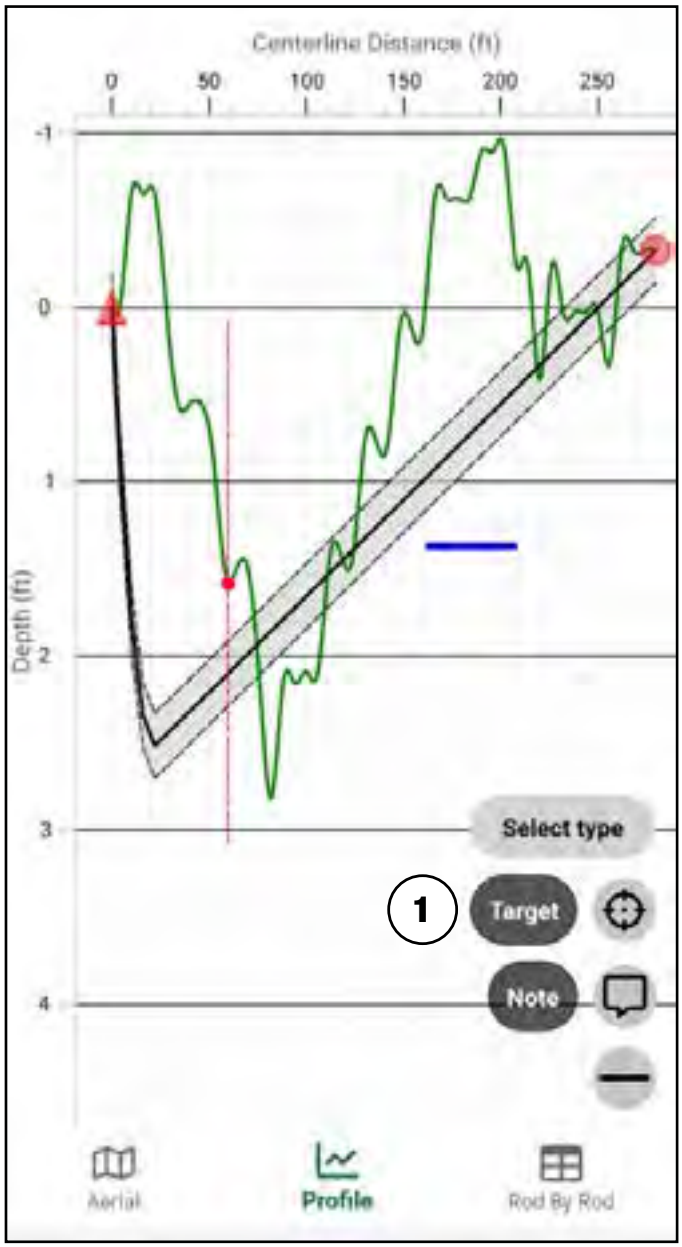



# TARGET

## Placing New Target Point

Tap *Target* **(1)** and tap on the "Profile" view graph to place the target point **(2)**.



## Edit Existing Target Point

1. Tap the target point **(1)** you want to edit and tap *Edit* **(2).**
2. Enter in the changes for the target point and tap *Save* **(3)** to return to "Profile" view with the new changes.

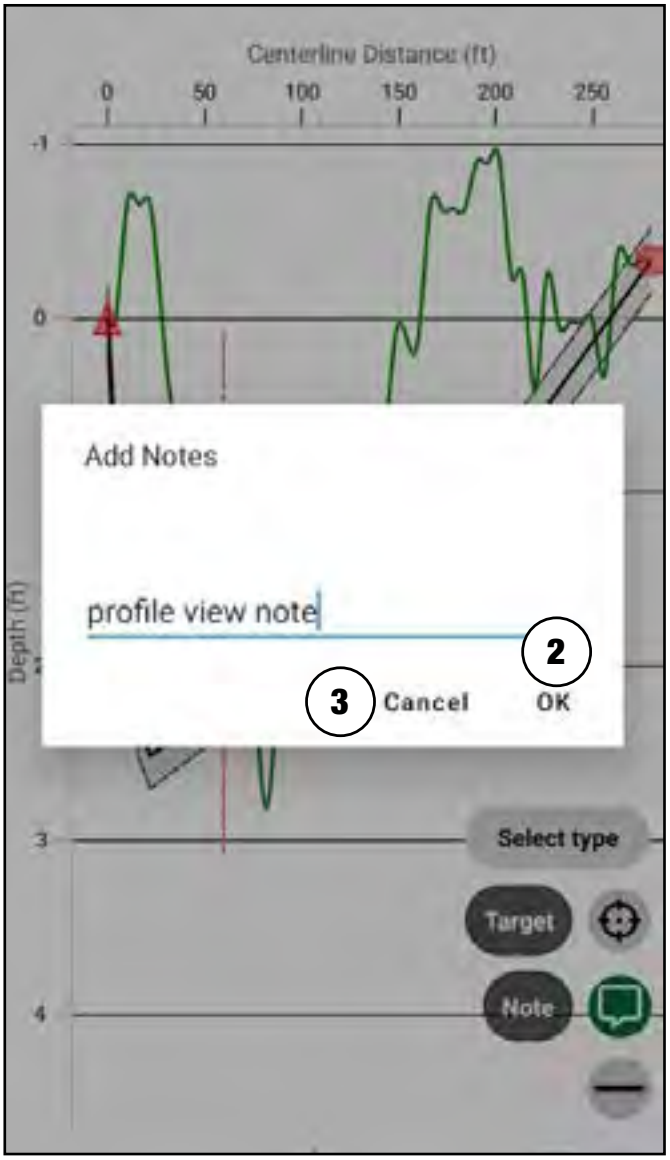

## Delete Existing Target Point

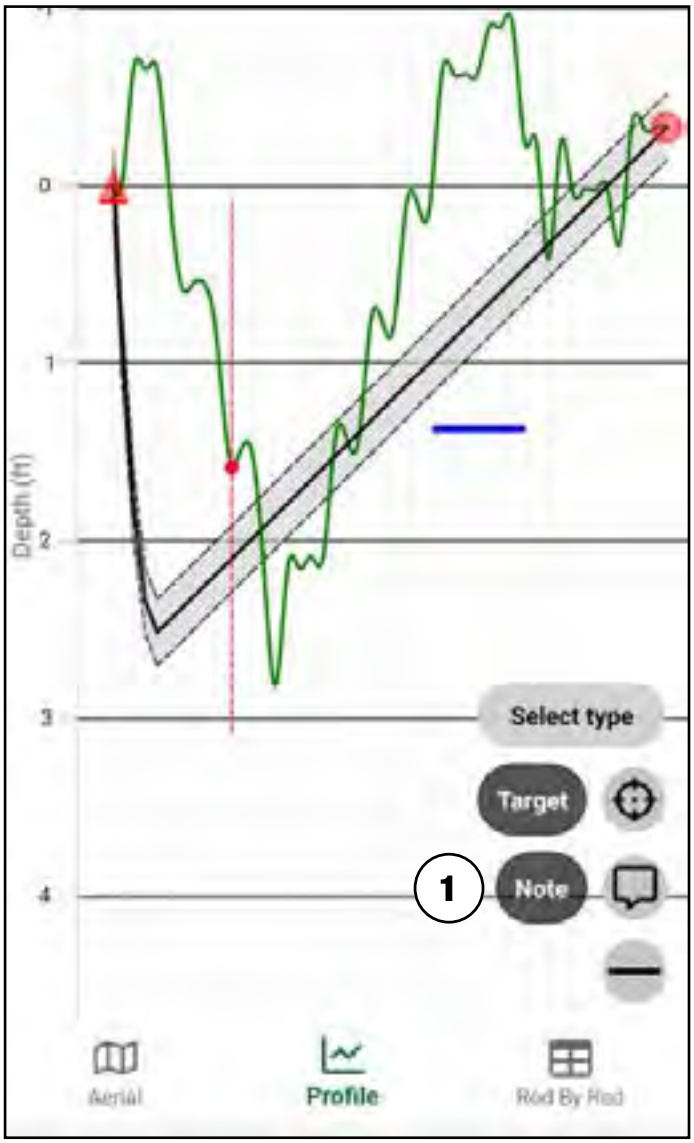
1. Tap the target point **(1)** you want to remove.
2. Tap *Delete* **(2)**.

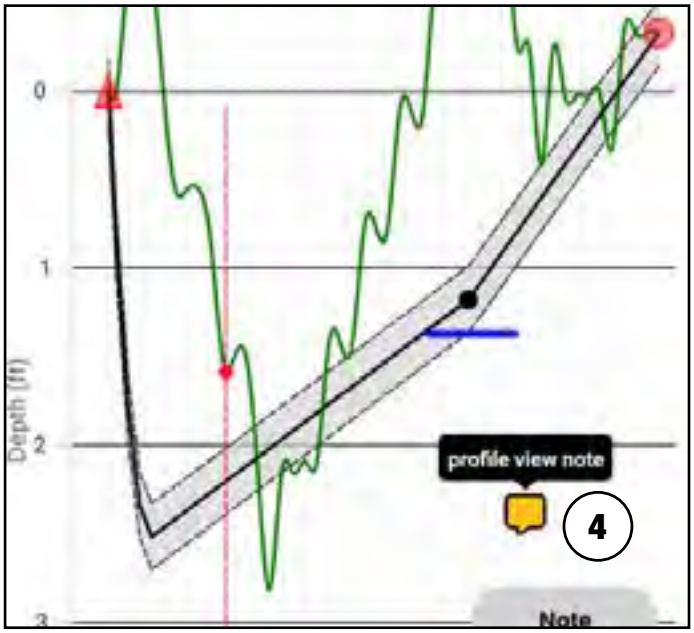
## NOTE

### Placing New Note

1. Tap *Note* **(1)** and tap on the "Profile" view graph to place the note **(4)**.
2. Enter in text and tap *OK* **(2)** to save changes, or tap *Cancel* **(3)** to remove the note.

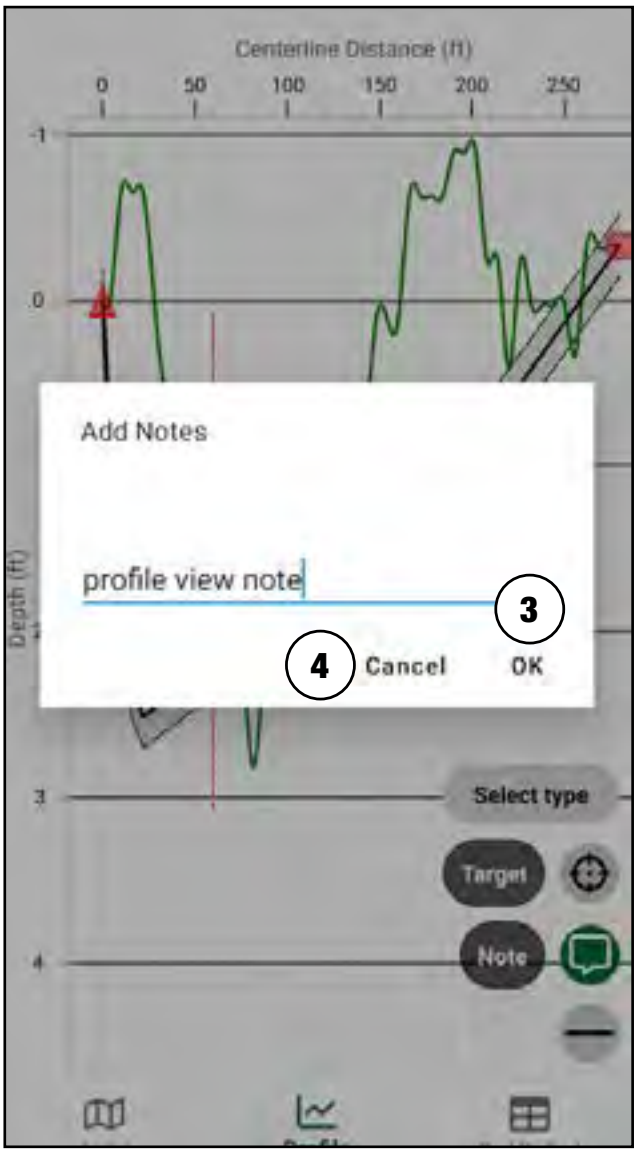


## Edit Existing Note

1. Tap the note you want to edit **(1)** and tap *Edit* **(2)**.
2. Enter in the changes and tap *OK* **(3)** to save changes, or tap *Cancel* **(4)** to undo changes.

## Delete Existing Note

Tap the note **(1)** you want to remove, and tap *Delete* **(2)**.

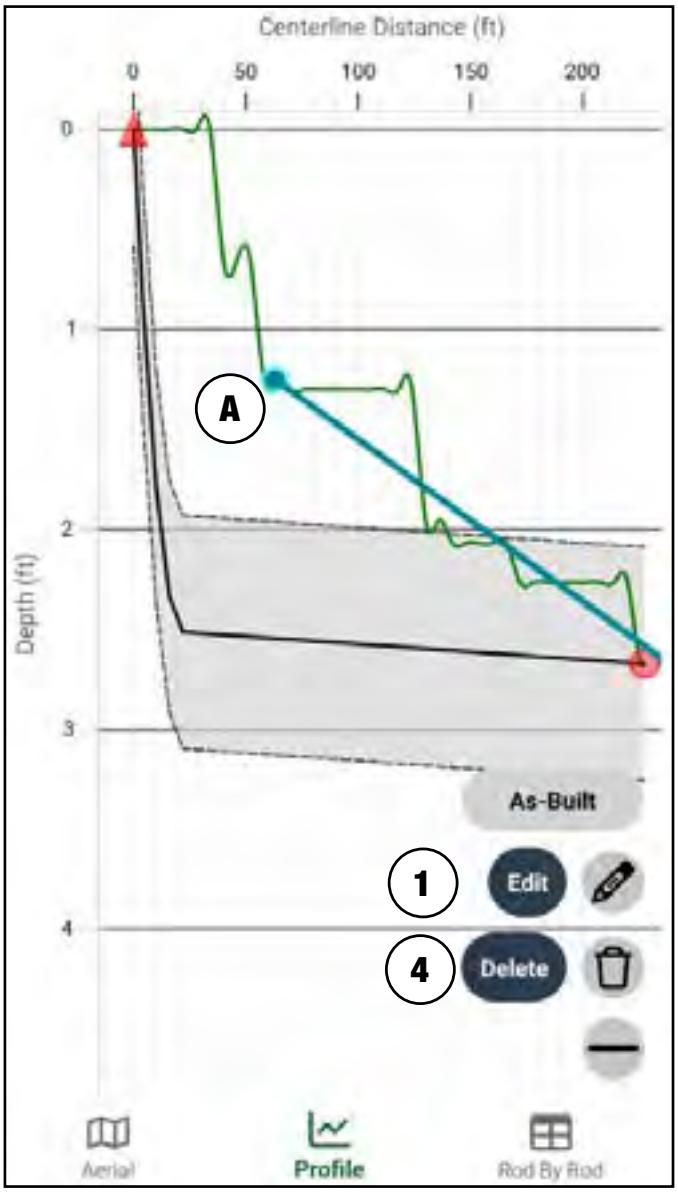
## EDITING WITHIN PROFILE VIEW

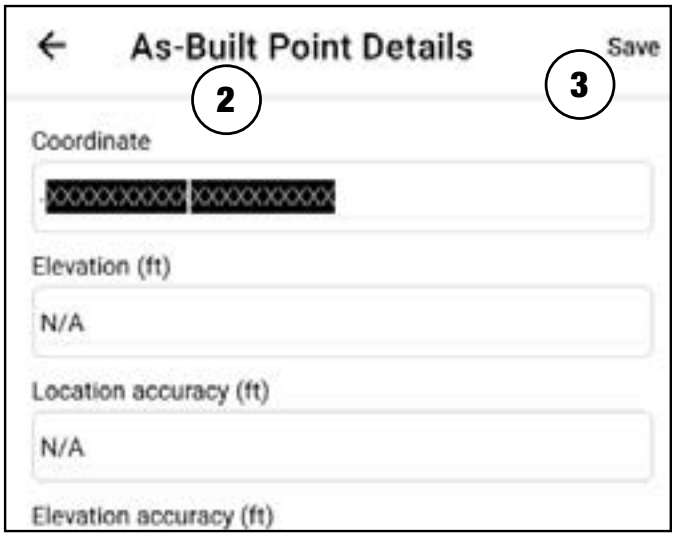
### Editing As-Built

1. Tap as-built point on the map **(A)**.
2. Tap *Edit* **(1)**.
3. Enter information for "As-Built Point Details" **(2)** and tap *Save* **(3)**.

### Deleting As-Built

1. Tap as-built point on the map **(A)**.
2. Tap *Delete* **(4)**.



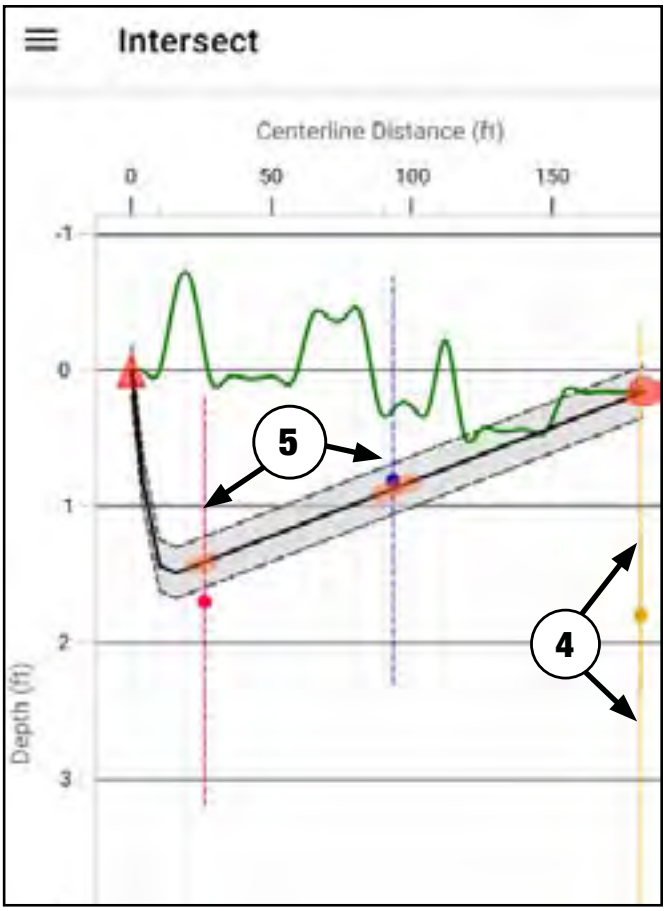
## Editing Utility

1. Tap utility point on the graph **(A)**.
2. Tap *Edit* **(1)**.
3. Enter information for "Utility Details" and tap *Save* **(2)**.


## Deleting Utility

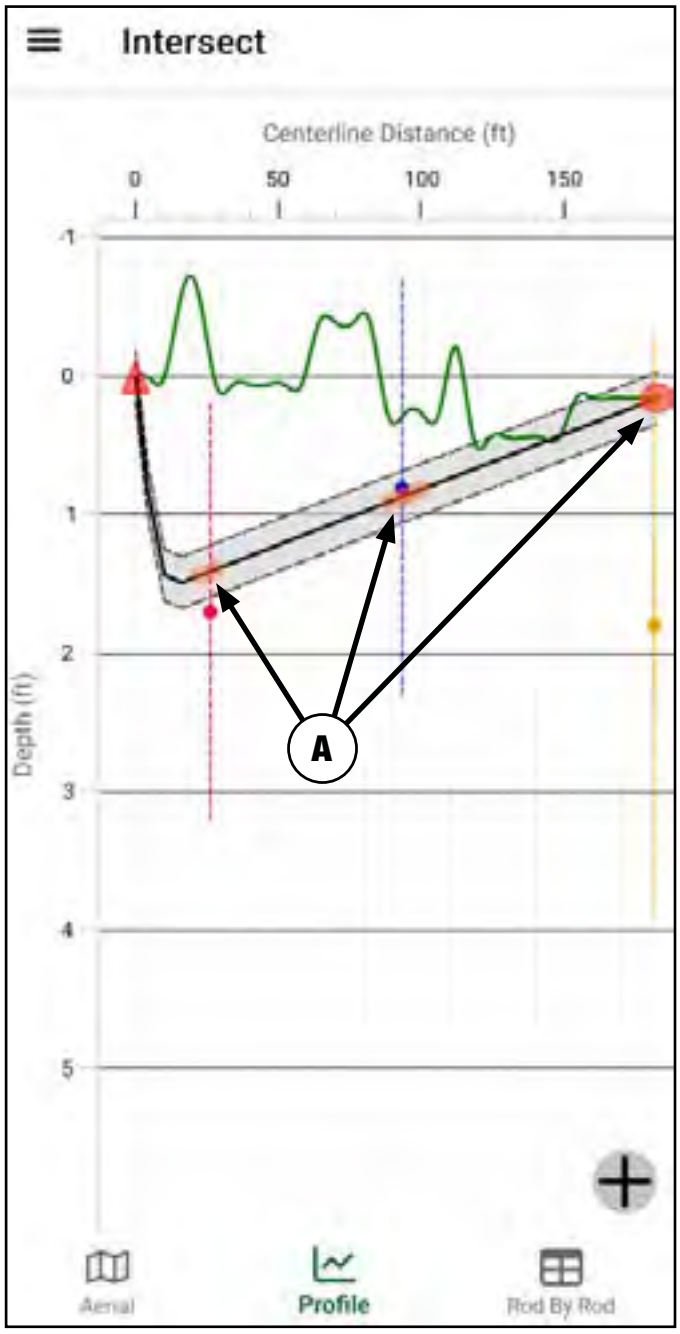
1. Tap utility point on the graph **(A)**.
2. Tap *Delete* **(3)**.


The size of the vertical utility line in "Profile" view is determined by the utility diameter and utility clearance radius. The utility diameter is displayed as solid vertical line **(4)**. The utility clearance radius is displayed as a dashed line **(5)**.



## Intersections

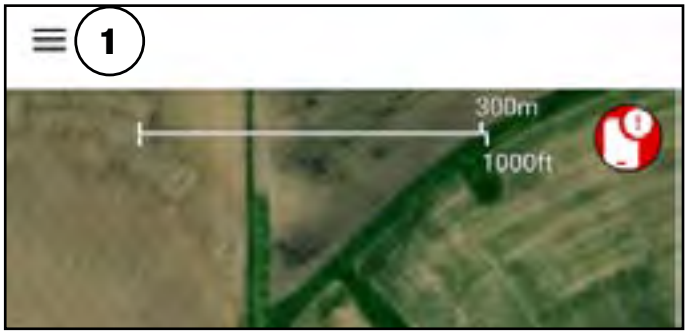
When a bore line intersects a utility clearance radius or utility diameter, the area where the utility crosses the bore line will be highlighted in the "Profile" view. It is depicted as orange ovals **(A)** on the bore line. In order to avoid intersections, redirect the bore path using target points in the "Profile" view, or edit the bore path in "Aerial" view.



# Menu

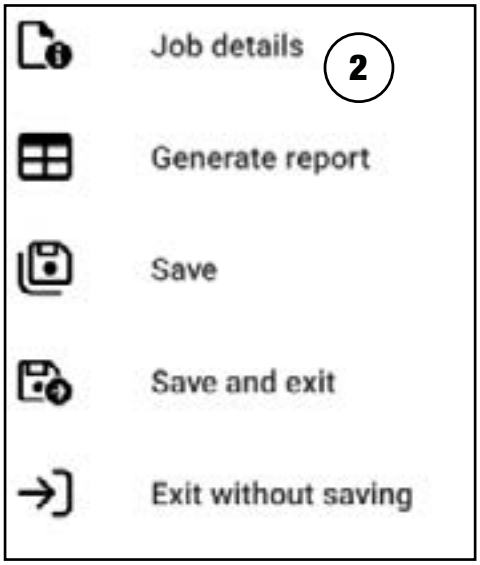
**MENU**

Tap the *menu icon* **(1)** to open the menu.




**Job Details**

1. Tap *Job details* **(2)**.
2. Enter in details of the job and tap *Save* **(3)**.




## Generate Report

**Note:**

- A bore line or as-built must be added to the job before reports can be generated.
- Report generation creates all available reports.

1. Tap *Generate report* **(1)**.
2. Choose how to send or open the report on the device when prompted. This step will appear differently per device.


**Note:** Report generation creates a landscape view of the following reports:

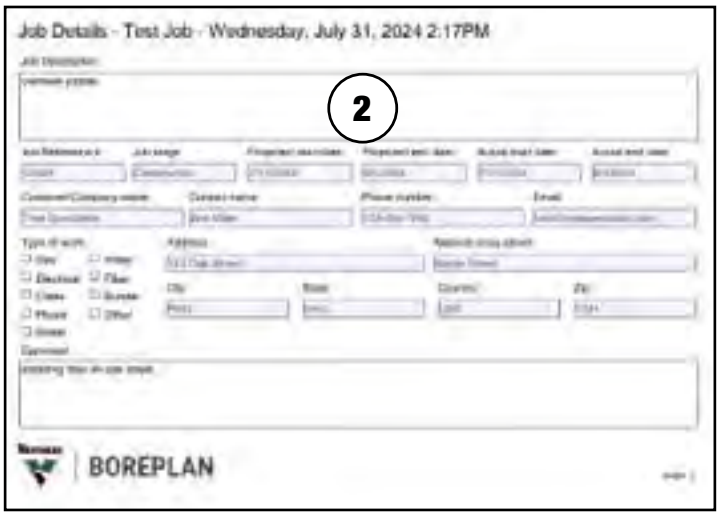
- Cover Page
- Job Details $
- Bore Setup $
- Aerial $
- Profile
- Utility Crossings $
- Topography Points $
- Target Points $
- Rod By Rod
- As-Built $

## Cover Page

**(1)** This report contains the Vermeer and BorePlan logo along with the report disclaimer.

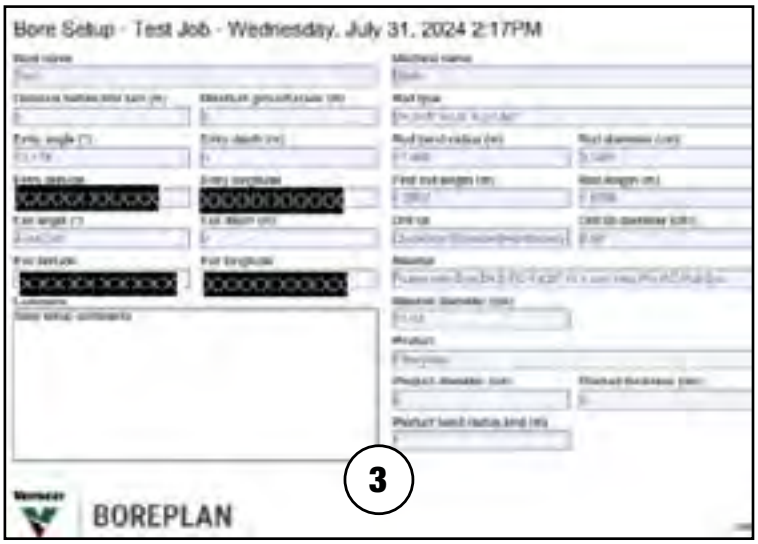

## Job Details

**(2)** This report contains all job information from the "Job details" page. It includes the following information: Job Description, Job Reference #, Job Stage, Projected Start Date, Projected End Date, Actual Start Date, Actual End Date, Customer/Company Name, Contact Name, Phone Number, Email, Type of Work, Address, Nearest Cross Street, City, State, Country, Zip, and Comments.



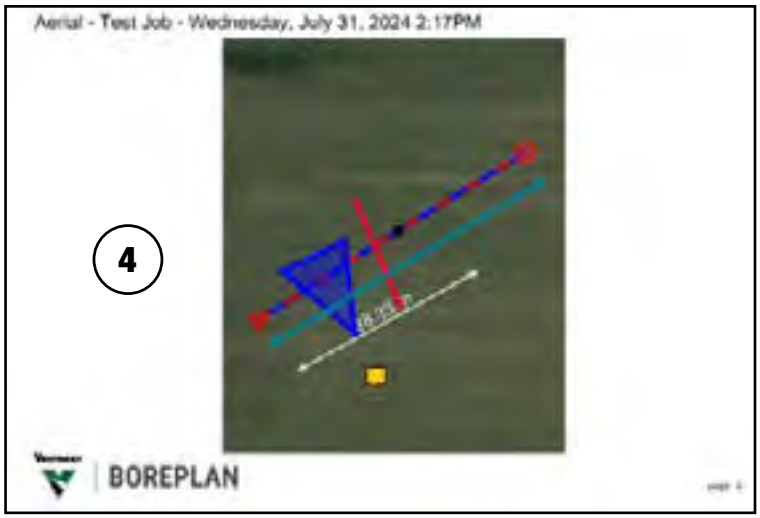
## Bore Setup

**(3)** This report contains all bore line information from the bore setup page. It includes the following information: Bore Name, Machine Name, Distance Before First Turn, Minimum Ground Cover, Rod Type, Entry Angle, Entry Depth, Entry Latitude, Entry Longitude, Exit Angle, Exit Depth, Exit Latitude, Exit Longitude, Rod Type, Rod Bend Radius, Rod Diameter, First Rod Length, Rod Length, Drill Bit, Dill Bit Diameter, Reamer, Reamer Diameter, Product, Product Diameter, Product Thickness and Product Bend Radius Limit.



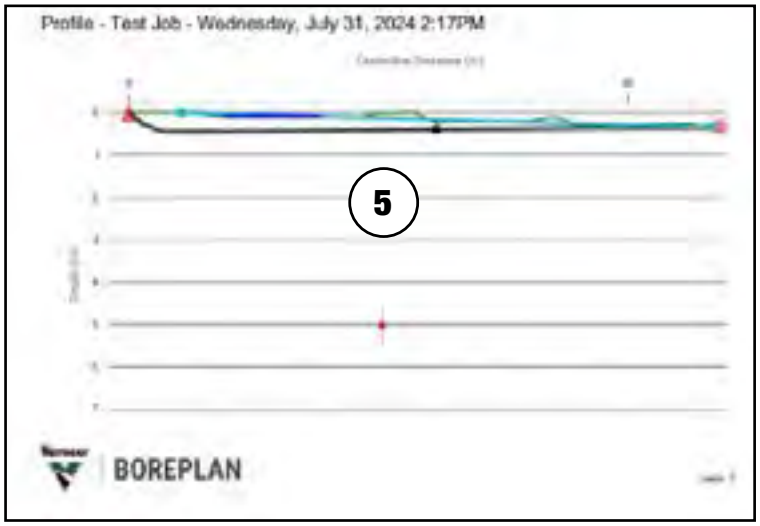

## Aerial

**(4)** This report contains an image of the "Aerial" view. This image will be centered on the bore line.



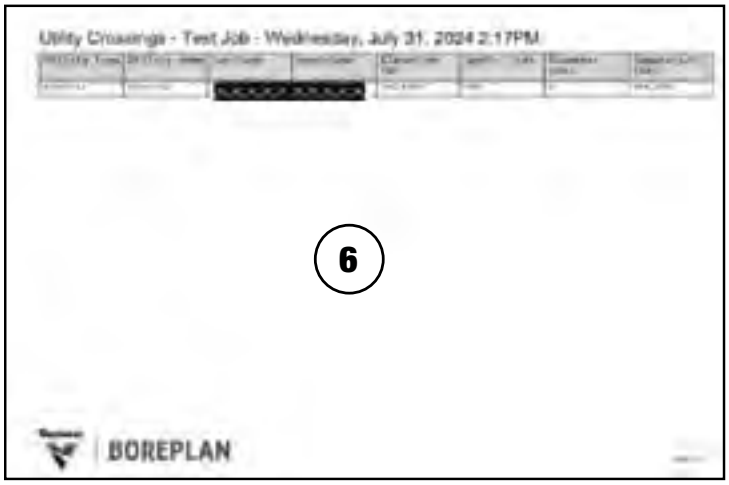

## Profile

**(5)** This report contains an image of the "Profile" view. This image can contain a light blue as-built line, black and red bore line, a green topography line, utilities (utility type color) and obstacles (color that was chosen in "Obstacle Details").

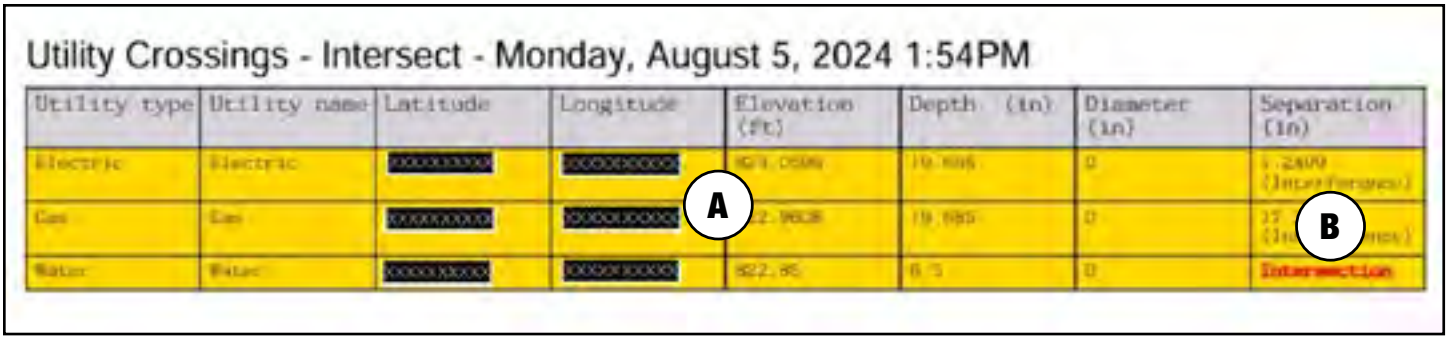


## Utility Crossings

**(6)** This report contains a table to show every utility that the user has added which affects the bore plan. It includes the following information: Utility Type, Utility Name, Latitude, Longitude, Elevation, Depth, Diameter, and Separation.

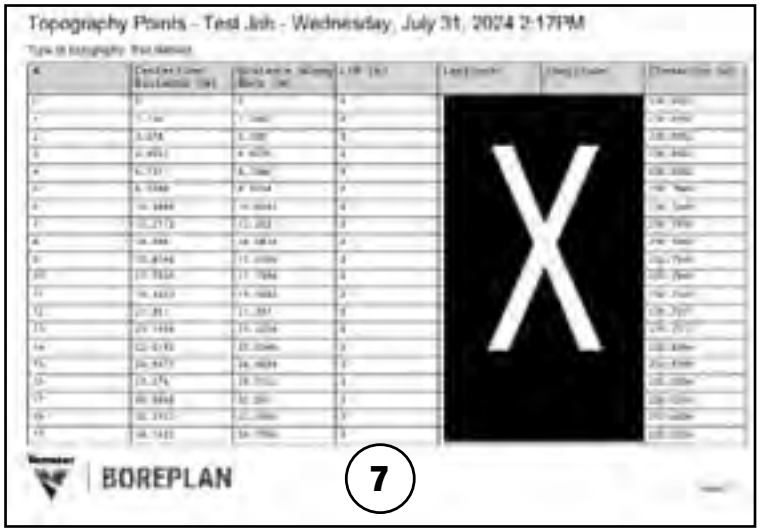



If a bore line intersects a utility clearance radius or utility diameter, the "Utility Crossings" report highlights the rows yellow **(A)**. A utility clearance radius intersection will display "Interference" in black type under the "Separation" column. A utility diameter intersection will display "Intersection" **(B)** in red type under the "Separation" column.



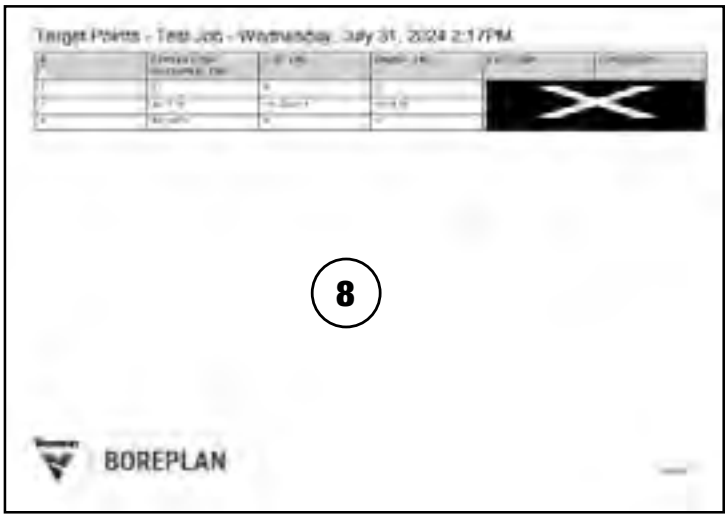

## Topography Points

**(7)** This report contains a table with topography information on the bore line. It includes the following information: # (Order of Points), Centerline Distance, Distance Along Bore, L/R, Latitude, Longitude, and Elevation.



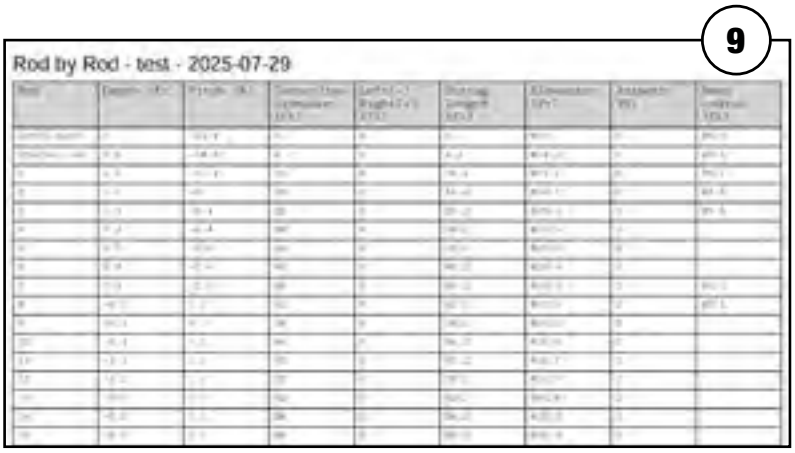
## Target Points

**(8)** This report contains a table with all target points on the bore line. It includes the following information: # (Order of Points), Centerline Distance, L/R, Depth, Latitude, and Longitude.

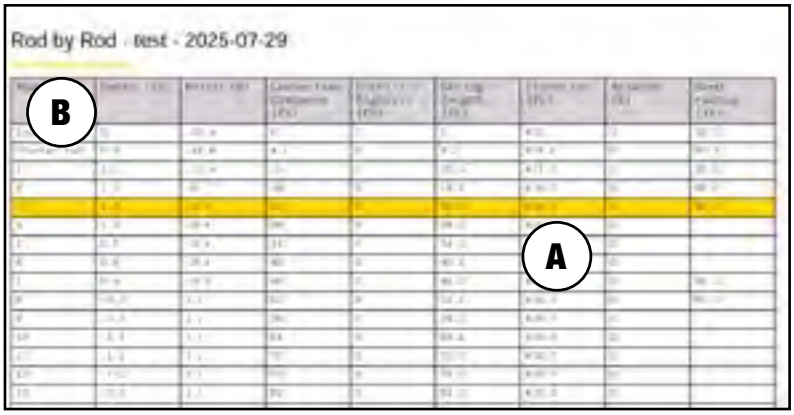



## Rod By Rod

**(9)** This report contains a table for each rod on the bore line. It includes the following information: Rod, Centerline Distance, L/R, String Length, Elevation, Depth, Pitch, Azimuth, and Bend Radius.



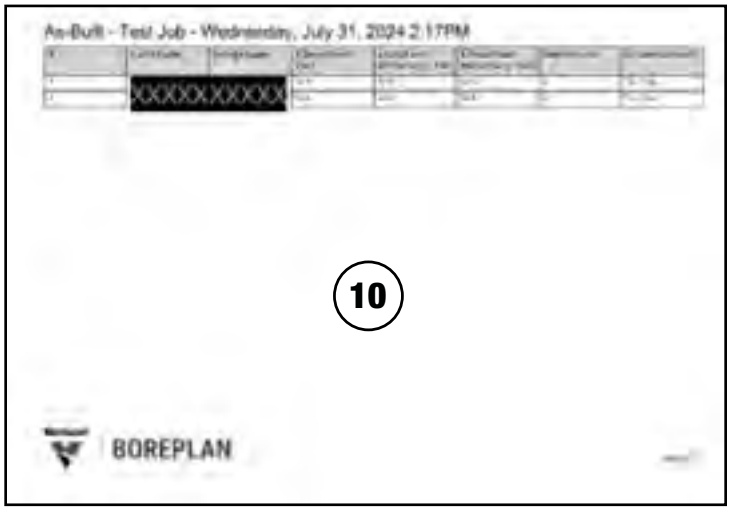

If a bore line intersects a utility clearance radius or utility diameter, the "Rod by Rod" report highlights the intersecting rods yellow **(A)**. If a bore line intersects a utility diameter, the text "Rod collides with utility" is displayed in yellow **(B)** above the table.



## As-Built

**(10)** This report contains a table with as-built information. It includes the following information: # (Order of Points), Latitude, Longitude, Elevation, Location Accuracy, Elevation Accuracy, Depth, Orientation.

If a high accuracy device was not connected when the as-built points were created, location accuracy and elevation accuracy will display as N/A.



## SAVING WORKFLOW

**Note:**

- Saving only saves files to your physical device.
- All saved files can be managed through the “Manage Existing Jobs” menu.
- **It is recommended to save often.**


### Save

**Note:** This will save the file, and user will stay within the current view.

1. Tap *Save* **(1)**.

### Save and Exit

**Note:** This will save the file and return to the landing page.

1. Tap *Save and Exit* **(2)**.

### Exit Without Saving

**Note:** This will not save the file and return to landing page.

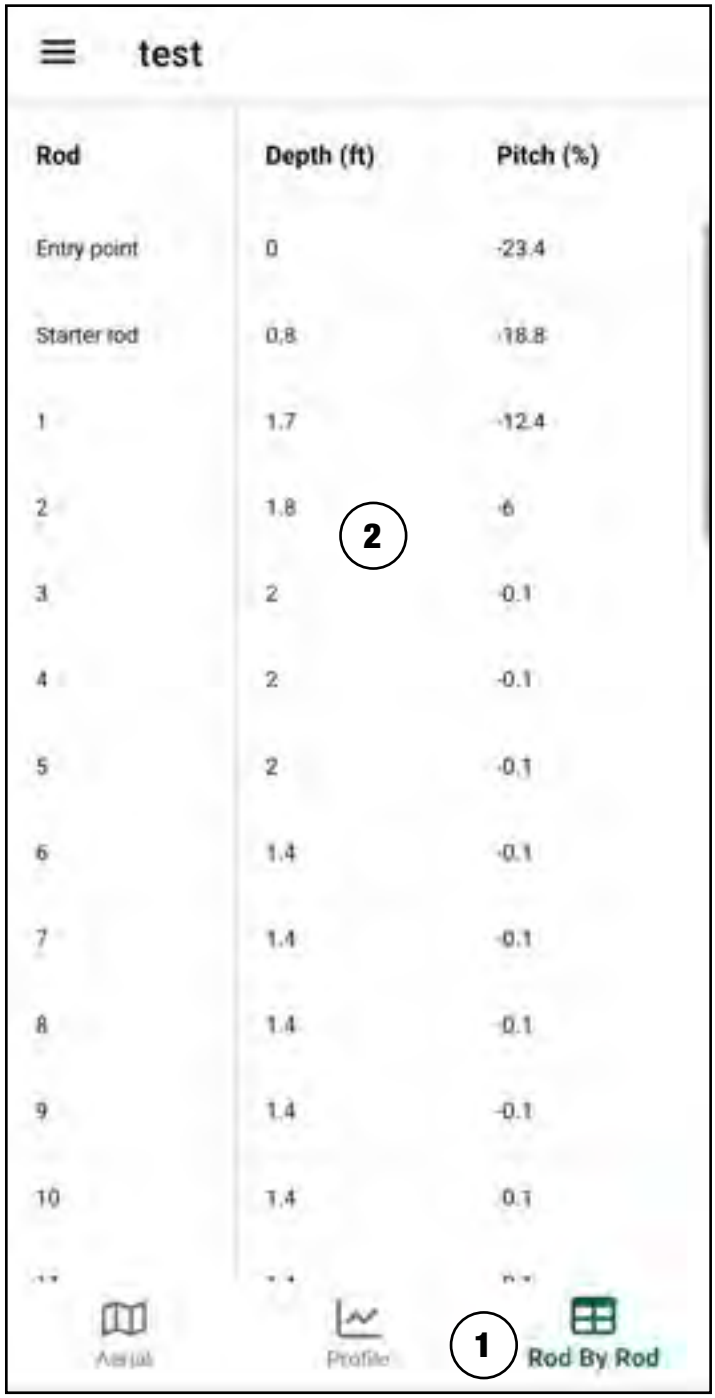
1. Tap *Exit without Saving* **(3)**.

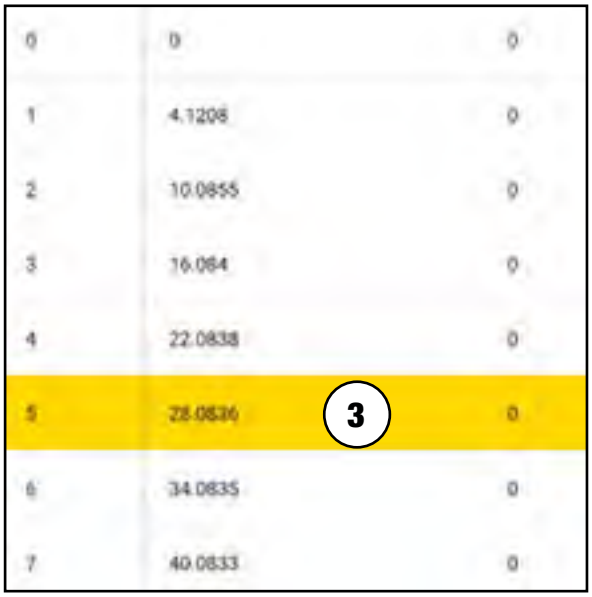
# Rod By Rod Plan

## ROD BY ROD TABLE

Tap "Rod By Rod" **(1)** to view the rod by rod table **(2)**, which displays a line for each rod on the selected bore line. The table includes information for: Rod number, Entry Point, Starter rod, Centerline Distance, L/R, String Length, Elevation, Depth, Pitch, Azimuth, and Bend Radius.

If the bore line intersects a utility line, a rod by rod report shows intersecting rods with a yellow background **(3)**.



# Vermeer BorePlan

Located at the bottom of the log  in and landing pages is a "**Help**" link to Vermeer Corporation.

1. Local Vermeer Dealer
   - Link to your local Vermeer Dealer.
2. AppSupport@Vermeer.com
   - Link to send an email to Application Support Services.
3. End-User License Agreement
   - Link to the End User License Agreement.
4. Online User Guide
   - Link to the Online User Guide, instructions on application use.
5. Privacy Policy
   - Link to the Vermeer Privacy Policy.
6. Notice of Personal Information Processing
   - Link to Notice of Personal Information Processing
7. Disclaimer
   - Link to Disclaimer
8. Delete Account
   - Link to the Vermeer contact.
9. Tap the left pointing arrow in the top left corner to return to the program landing page.

# Revision History

| REVISION | DATE | PAGE(S) | DESCRIPTION |
|---|---|---|---|
| o1_00 | 09/19 | All | First Edition User's Guide Released. Applies to software version 1.0 |
| o1_01 | 03/20 | Section 30: 5-11; Section 40: 1-7; Section 50: 4-14 | Added first time users info including access to app, create an account, email account, establishing password. Added accessing the app for existing users, updated the EULA. Updated the landing page screen, BorePlan options, added bore specifics, tooling specifics, enter product specifics. Added existing bore plans. Added utility - profile view, topography - profile view, aerial view. |
| ug2_01 | 04/24 | All | New design for entire book. Section contents were streamlined to be an online-only help guide. |
| ug2_02 | 09/24 | All | App Version: 2.0.4; Edits/additions to entire book. |
| ug2_03 | 01/25 | 11, 17, 26, 32-33, 66 | Added: custom topography. Updated: features table, job deletion, color variation tolerances, rod-by-rod table. |
| ug2_04 | 09/25 | 11, 26, 27, 29, 31, 48, 65 | Added to features list. Added custom topography to map functions.. Updated "editing a bore images." Updated aerial view color variations. Added setback information. Added map layers information. Updated Rod by Rod images. |

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# BOREPLAN User Guide

APPLICATION VERSION 2.0.4 (EFF 09/25)