

# Where am I anyway? Map-reading & Orienting in the Field

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# Where do I start?

## Gathering Information & Resources

- What property-specific information do you already have? Deed? Easement? BDR? Survey Plan?  
  
Find a location reference.... Street address? Plat & Lot? Legal description?
- Does your town have GIS? What do you do if they don't?
- What do you do if you don't have a survey plan?

# Other Resources:

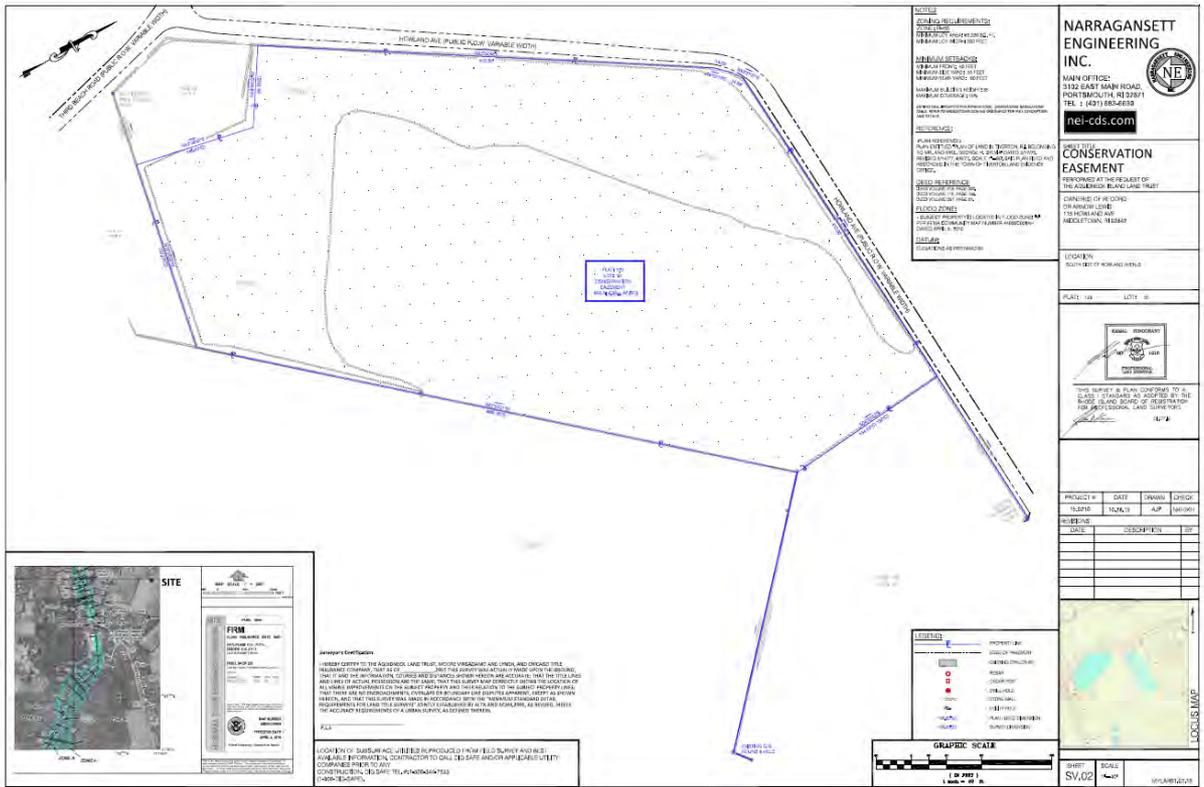
- [Google Earth Pro](#)
- [RIGIS / RI Digital Atlas](#)
- [RIDEM Resource Maps](#)
- Your Town Hall!  
Land Evidence Records, Grantor-Grantee Index,  
Plan Books

# Why Survey?

- Title/Standard Title Exceptions/Removal of Survey Exceptions
  - “Easements or claims of easements not shown by the public records.”
  - “Encroachments, overlaps, boundary line disputes, or other matters which would be disclosed by an accurate survey or inspection of the premises.”
  - Replaced with specific survey exception for matters specifically shown
- Foundation of Baseline Documentation and Due Diligence
  - Establish adequate access
  - Verify Encroachments
  - Verify Significant Natural Features



# Introduction to Survey Plan – What to Look For



**Surveyor's Certification**  
 I, the undersigned, a duly licensed Professional Engineer and Licensed Land Surveyor, certify that I have personally supervised and participated in the execution of the survey and that the data and computations shown on this plan are true and correct to the best of my knowledge and belief. I further certify that I am a duly licensed Professional Engineer and Licensed Land Surveyor in the State of Rhode Island and that I am duly qualified to perform the services herein.

**DATE:** 08/11/2011

**LOCATION OF SURVEY AREA:** BEANLAND TRUST PROPERTY AND IS SUBJECT TO A CONSERVATION EASEMENT TO THE STATE AND IS APPLICABLE TO ANY CONVEYANCE TO ANY PARTY.

# Types of Surveys

- Types and Classes of Surveys
- ALTA Survey - This is one of the most detailed surveys available, often at a greater cost than other survey types. An ALTA Survey shows the boundaries of the property, the location of improvements on the subject property, including any and all structures, fences, utility lines, roads, etc., along with the location of any/all easements.
- Comprehensive Boundary Survey to state standards – Class I measurement/accuracy standards
- Class D Survey – based on land evidence research only with no investigation in the field.



# Types of Legal Descriptions

- Metes and Bounds Description – Example:  
“Thence turning an interior angle of 181°-03’-21” and running southerly, along a stonewall, for a distance of one hundred twenty-one and twenty-one hundredths (121.21) feet to a drill hole; said last two courses bounded westerly by land now or formerly of Christopher Harkins;”
- Boundary Description - Example “Bounded Northerly by land of Samuel L. Jackson a distance of one hundred twenty and 00/100 feet”
- Platted Description - Example: Being Lot 6 on the ABC Subdivision Plat . . .
- US Government Survey System Description - Example: “The Northeast Quarter of Section 2, Township 23, Range 16, Hennepin County, Minnesota”



# Legal Description and Survey Description

The historic legal description may vary from a new survey description or even an old survey map or description. What do you do?

- If possible look to the surveyor to resolve the discrepancies
- If he/she will certify that the land as described in the survey is the same as that described in the deed than title company will issue a “Same As Survey Endorsement”.
- It is typical for linear measurements to vary from time to time or from one surveyor to the next due to magnetic deviations in true north and in measurement accuracy deviations. If descriptions are roughly the same when you run them you are probably safe.
- Most important thing is does property close.



# Legal Description and Survey Terminology (See Handout)



# Planning Your Attack

- Do your research – Use the Resources to plan your visit – What do you have?
  - Survey? Aerials? Parcel Map Overlay? BDR? Access Info?



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# Planning Your Attack

- Think about:
  - Legal Access, Route, Barriers, Neighbors, Plan if Lost, How will you navigate



# Planning Your Attack – Other Tips

- Time of Visit, Coordination, Safety



# What to Always Bring

- Maps!
- Attire/equipment that suits the property
- Documentation/Monitoring Paperwork
- Compass (go for the real thing over a phone app)
- Phone and if you are tech-savvy GPS apps



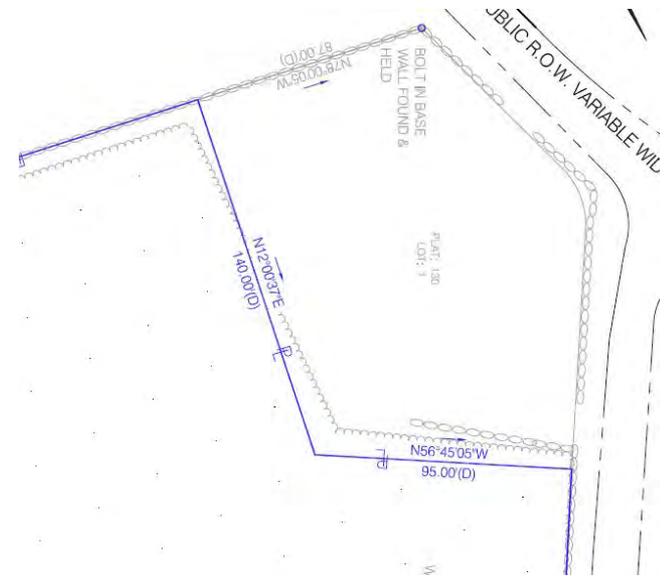
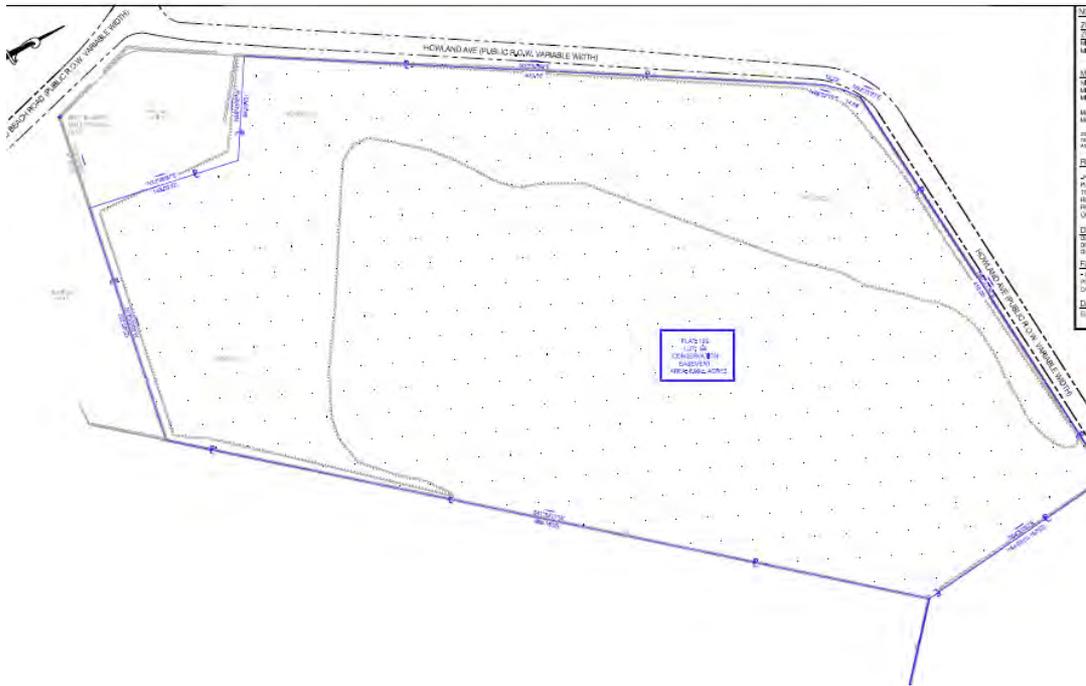
# How to Stay on Track/Navigate in the Field

- What Features will you recognize in the field?

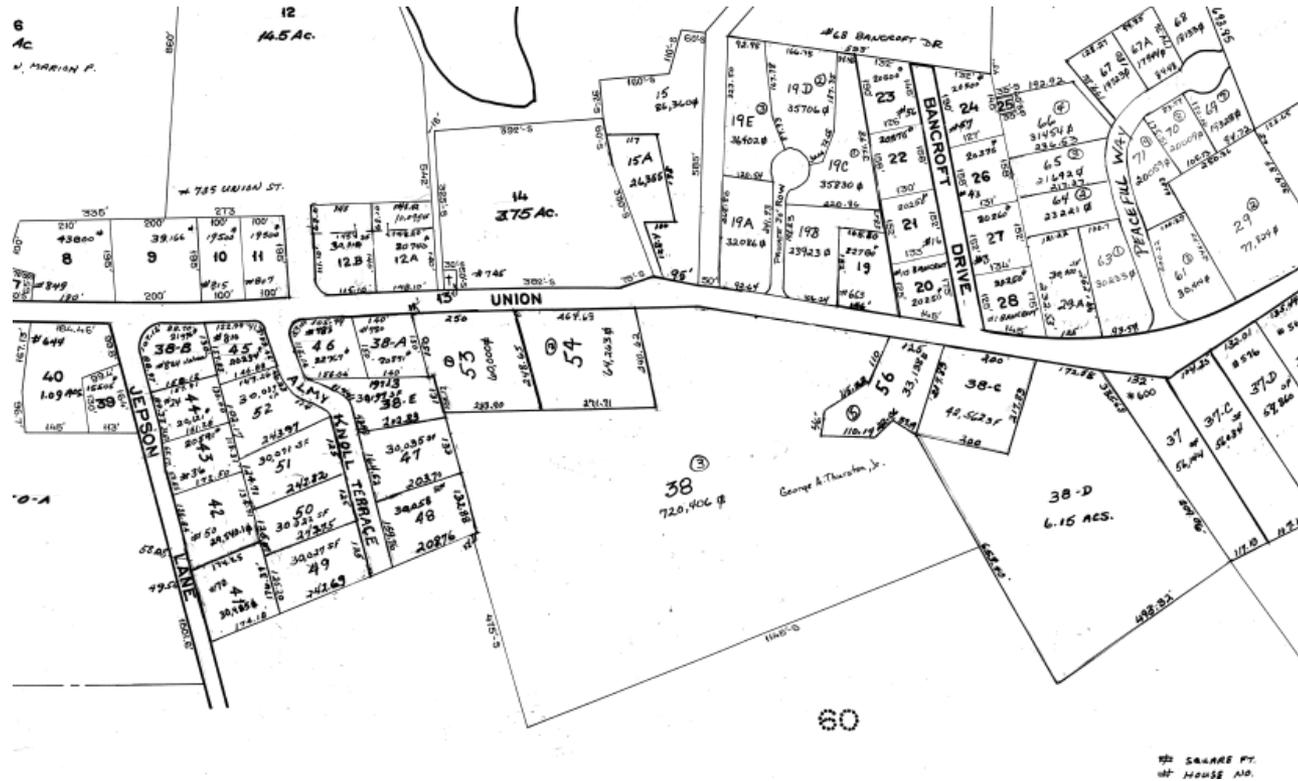
# How to Stay on Track/Navigate in the Field

- What Features will you recognize in the field?
  - Stone Walls
  - Trees
  - Land Cover Types
  - Houses/Structures on property or neighboring
  - Driveways/Farm Roads
  - Water Bodies, Streams
  - Utility Easements/Cleared Lines
  - Access Points
  - Boundary Markers from Survey

# Using Surveys and Plat Maps



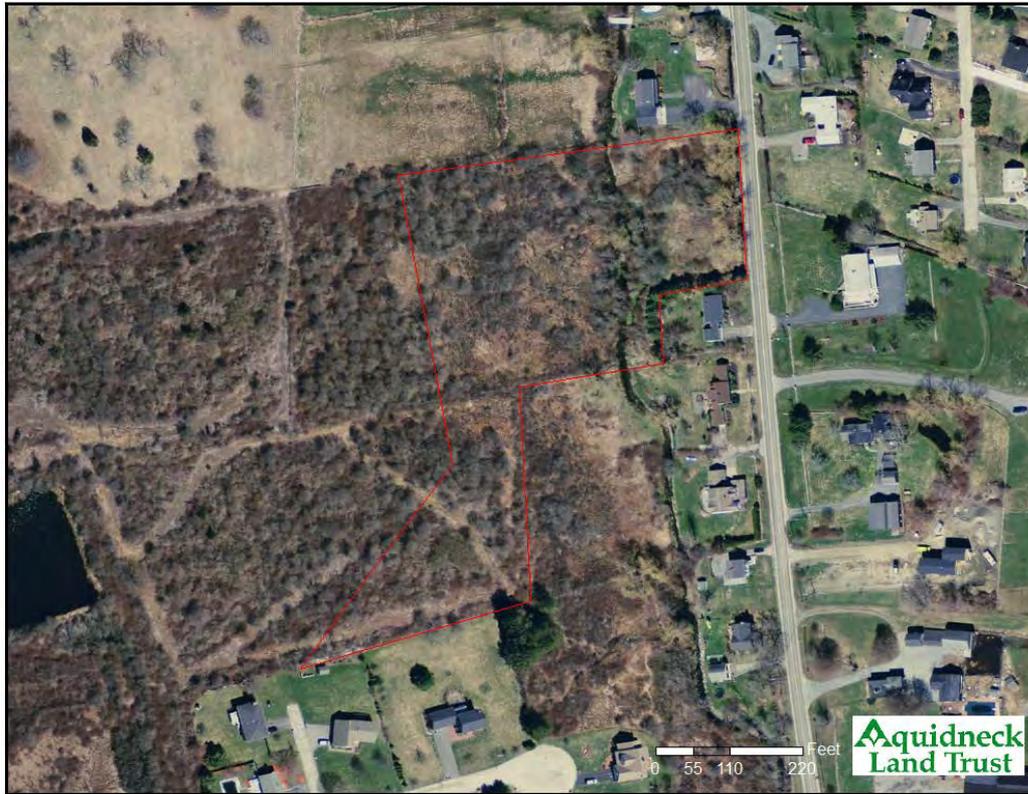
# Using Surveys and Plat Maps



# Using Aerials



# What to Look for on Aerials



# What to Look for on Aerials



# What to Look for on Aerials



# What to Look for on Aerials



# What to Look for on Aerials



# Translate Aerials to On-The-Ground



# Translate Aerials to On-The-Ground



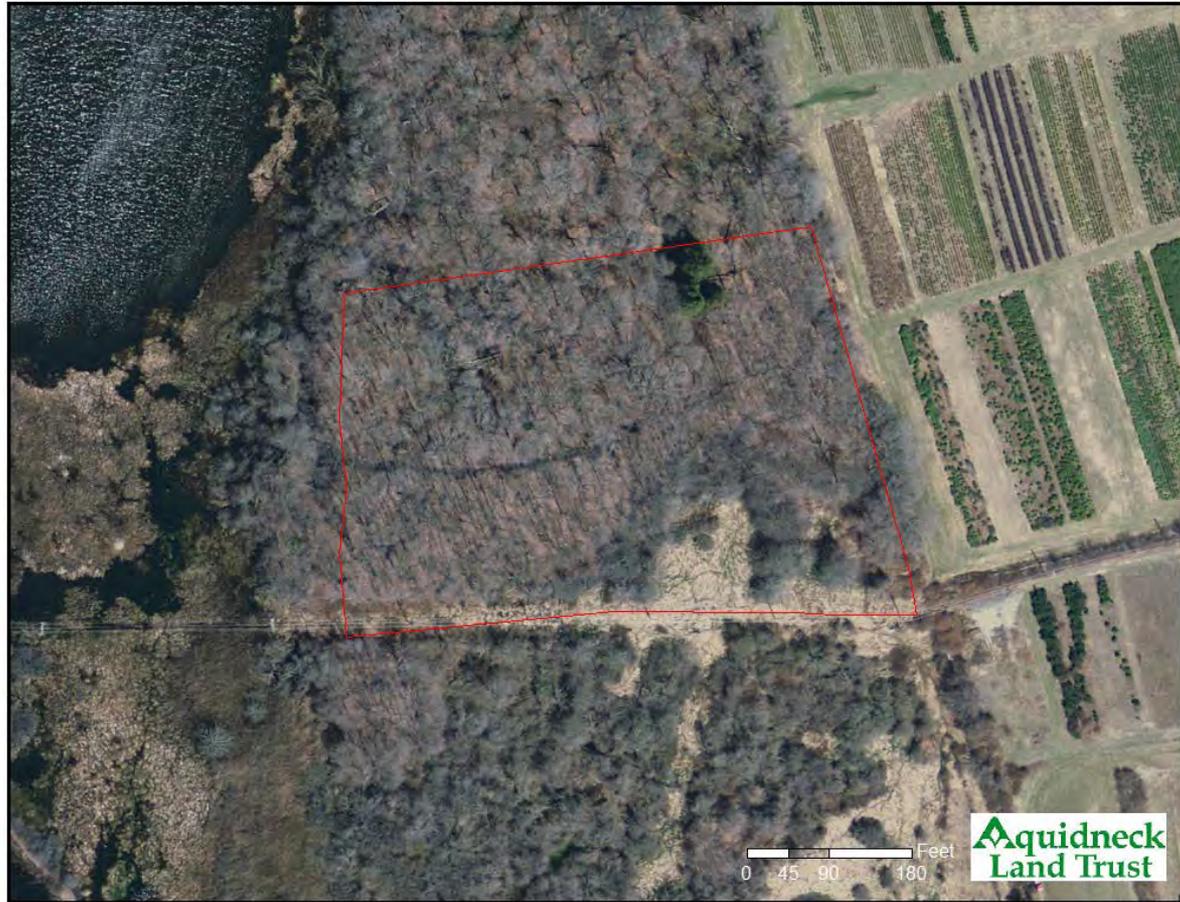
0 45 90 180 Feet

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# Translate Aerials to On-The-Ground



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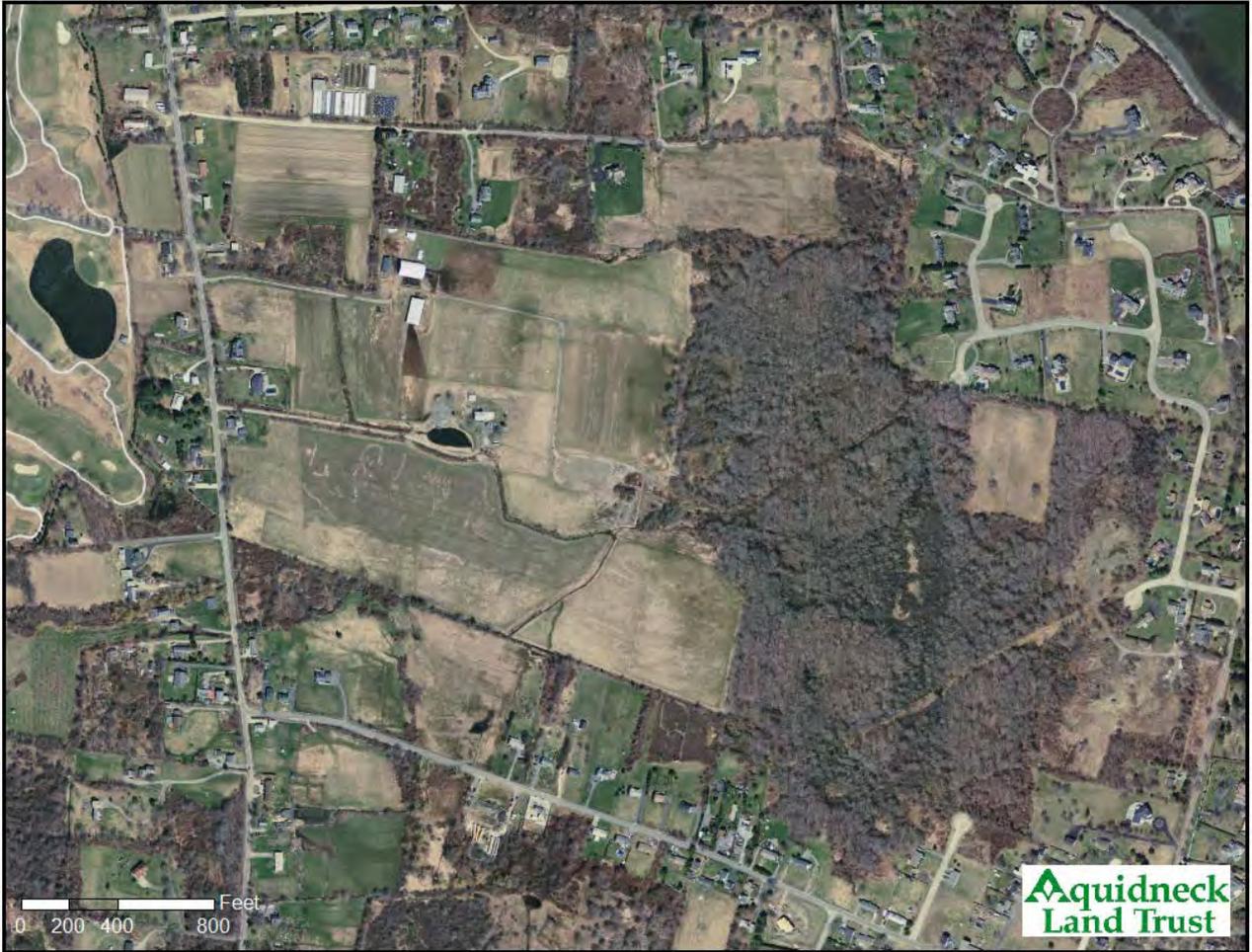
Oh no!! Despite my best plans I am lost!! What shall become of me?!

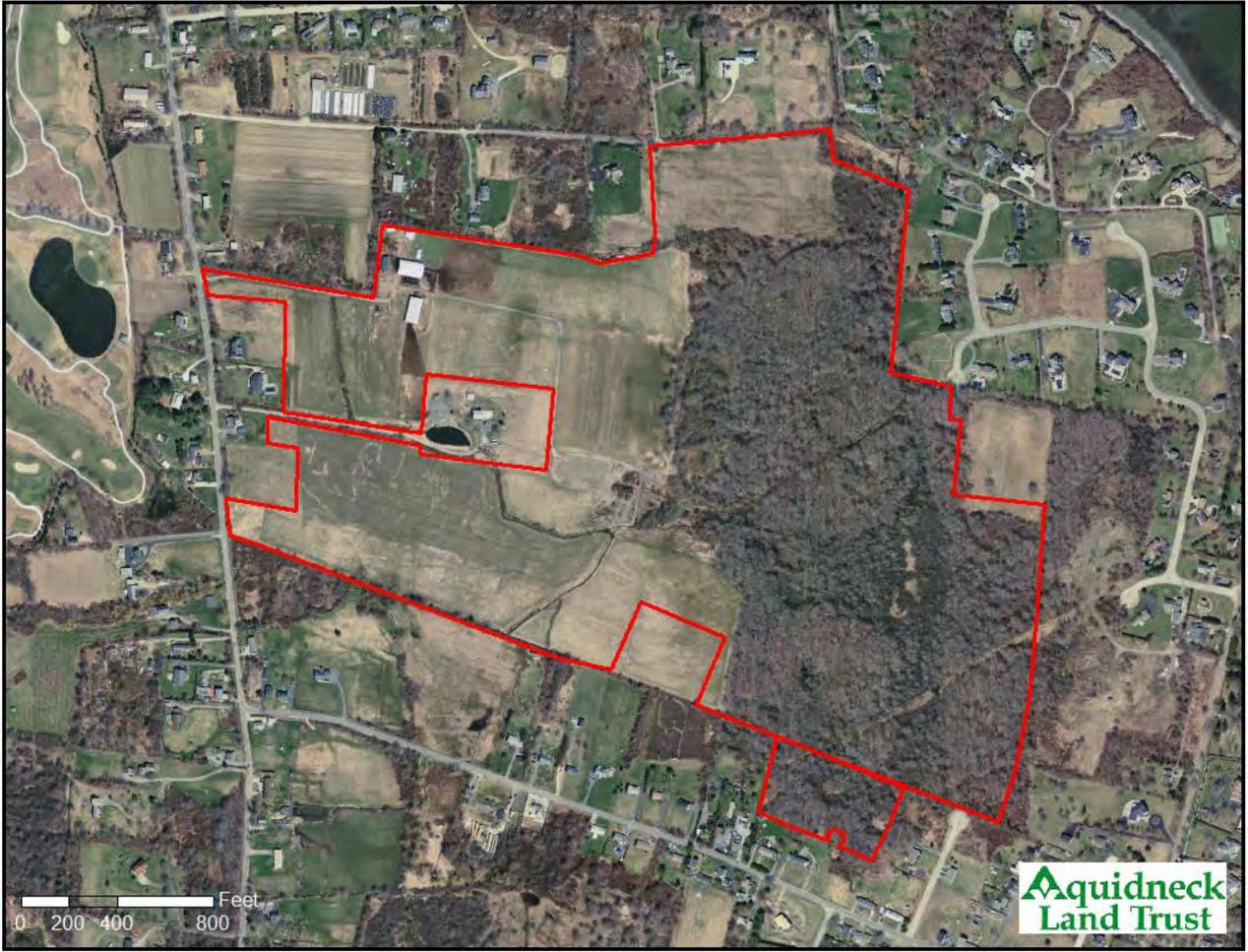


Record your route or tips for the next person!



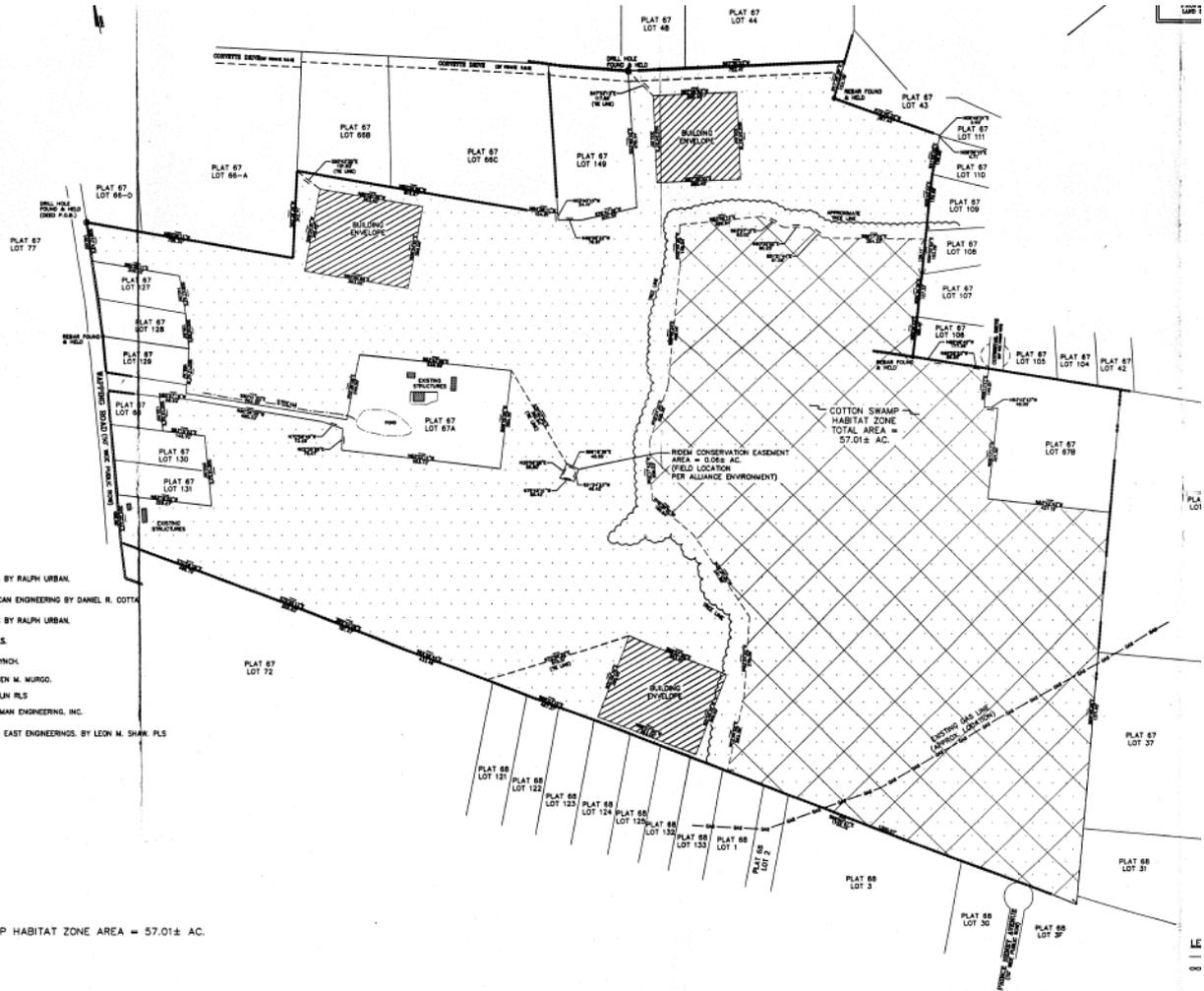
# Practical Exercise





0 200 400 800 Feet

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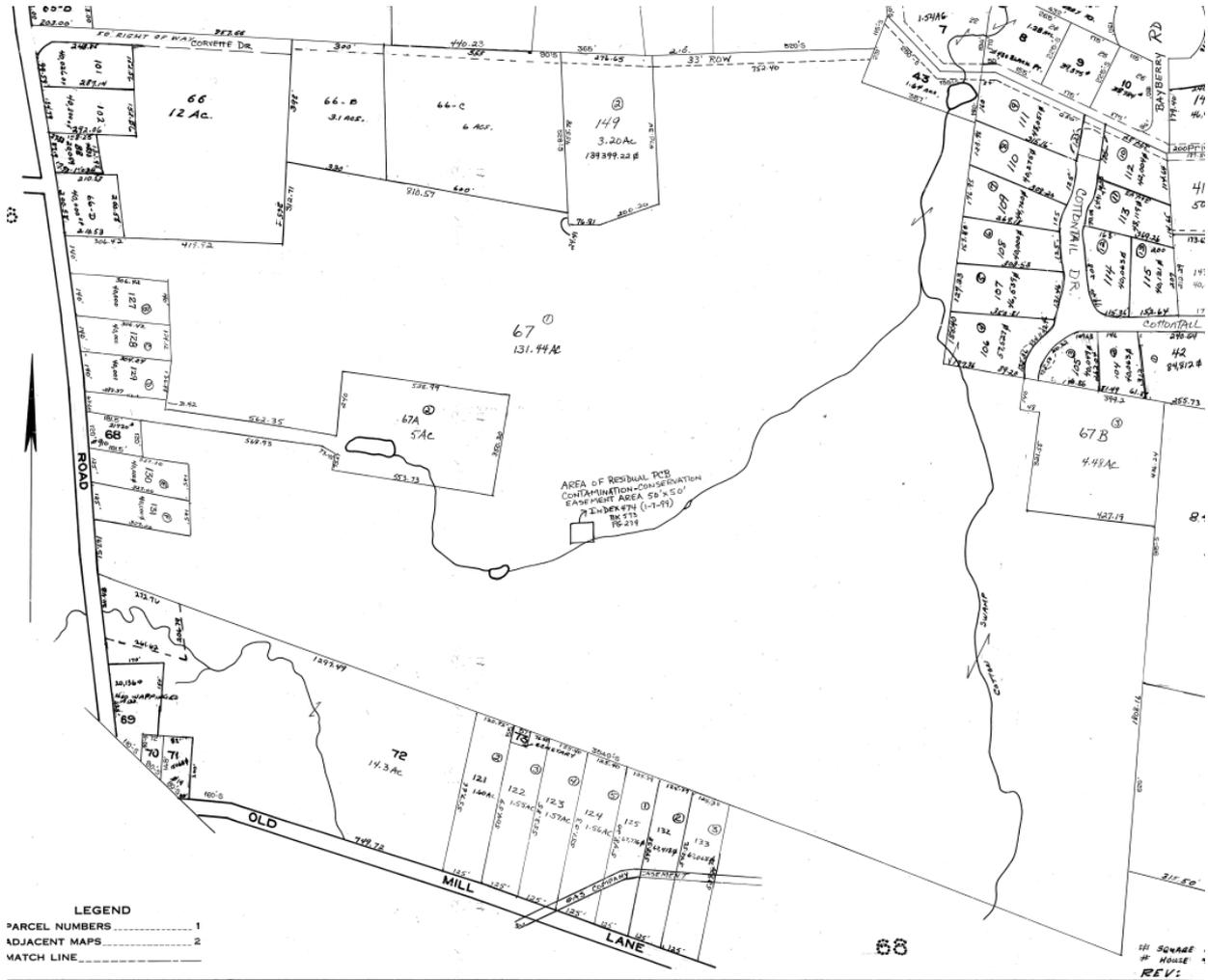
BOARDMAN ASSOCIATES BY RAULPH URBAN.  
 ST ROAD CORP.\* AMERICAN ENGINEERING BY DANIEL R. COTTA  
 INL  
 BOARDMAN ASSOCIATES BY RAULPH URBAN.  
 \* BY LEON M. SHAW RLS.  
 & 8" BY C. ROBERT LYNCH.  
 T. F. GONES\* BY STEPHEN M. WURGO.  
 BY FRANCIS J. O'DOUGHAL RLS.  
 ST ROAD CORP.\* CROSSMAN ENGINEERING, INC.  
 INL.  
 ST ROAD CORP.\* NORTH EAST ENGINEERING. BY LEON M. SHAW. PLS  
 INL.

L COTTON SWAMP HABITAT ZONE AREA = 57.01± AC.

LEAD 1

PLA LOT

LE  
—  
00



**LEGEND**  
 PARCEL NUMBERS ..... 1  
 ADJACENT MAPS ..... 2  
 MATCH LINE .....

68

151 SQUARE OF HOUSE  
REV:



# Phone Apps, Drones, and More

- Mobile Apps to Collect/Map data and Photos:
  - Ex) ArcCollector, GaiaGPS
- Specialty software like LANDSCAPE
- Tablets, Off-Line Capability
- Drone Monitoring
- ArcGIS.com





Verizon 4:20 PM 62%

Cancel Settings Map Camera Submit

Location  
Lat: 41.50936099° Long: -71.28290394°  
5 m

**Property Monitoring 2017:**

Property >

PhotoPt >

Direction >

Description >

Notes >

A mobile application form for property monitoring. The top bar includes navigation options: Cancel, Settings, Map, Camera, and Submit. The form displays the current location with latitude and longitude coordinates and a 5m scale bar. Below the title "Property Monitoring 2017:", there are five input fields: Property, PhotoPt, Direction, Description, and Notes, each with a right-pointing arrow indicating it is a text input field.

Verizon 4:22 PM 62%

Cancel Settings Map Camera Submit

Location  
Lat: 41.50936099° Long: -71.28290394°  
10 m

**Property Monitoring 2017: Brown**

Property >

**Brown**

PhotoPt >

**2b**

Direction >

**North**

Description >

**Testing for Land and Water**

Notes >

**Hello all!**

A mobile application form for property monitoring, similar to the previous one but with filled-in data. The top bar includes navigation options: Cancel, Settings, Map, Camera, and Submit. The form displays the current location with latitude and longitude coordinates and a 10m scale bar. Below the title "Property Monitoring 2017: Brown", there are five input fields: Property (filled with "Brown"), PhotoPt (filled with "2b"), Direction (filled with "North"), Description (filled with "Testing for Land and Water"), and Notes (filled with "Hello all!"). Each field has a right-pointing arrow.



19:13:33

2017/07/19 24 °C



TRAIL CAMERA