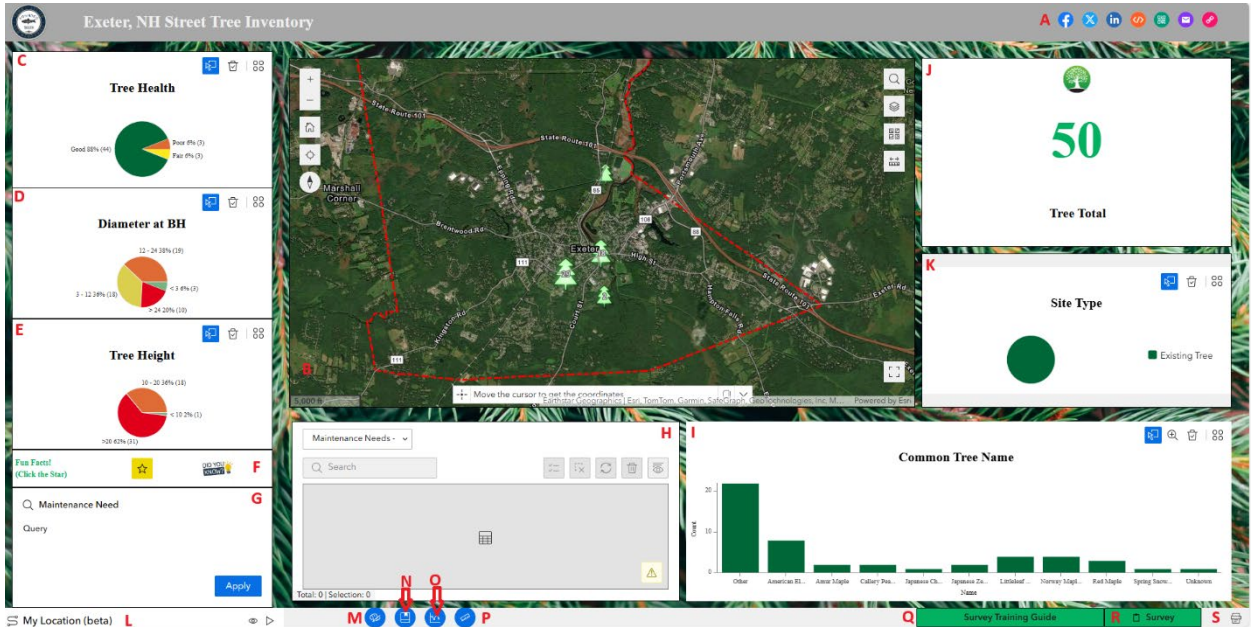1. Entry Screen

A.

Contact Information:

- Email Links to users' default email account and creates an email draft when clicked.
- When using mobile device or apps like Teams or Zoom on Desktop/Laptop, clicking phone number will ask the user if they'd like to call.
- When the address is clicked, a Google Maps directions request will populate showing the most direct route between the user and the address.

B. A user can check this box if they no longer want to see this opening screen when they open the application.
C. Click "Continue" to proceed to the application interface.
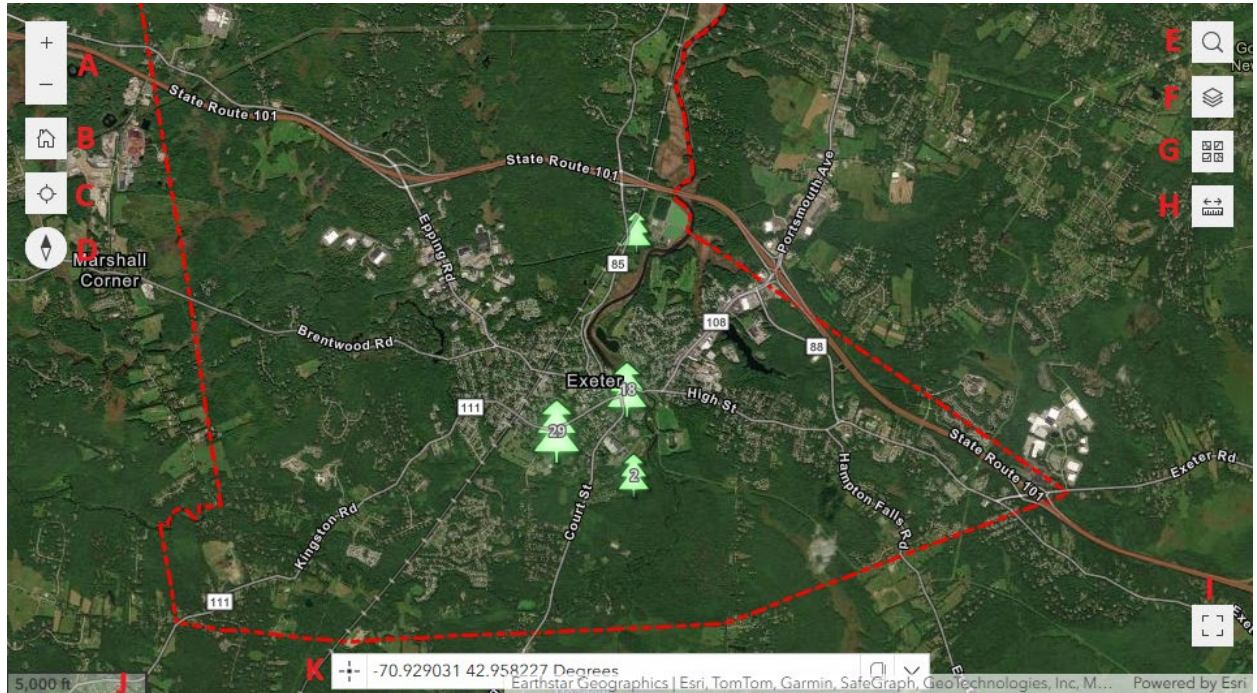
2. Interface

A. Sharing Options:
   a. Facebook
   b. Twitter/X
   c. LinkedIn
   d. Embed html
   e. QR Code
   f. Email
   g. Link

- ***Note:*** Anytime a pie chart slice, bar chart column, or maintenance need record is selected all other infographic and map features will be filtered based on that selection.
- To clear selection hit the clear selection button 🗑

B. Map:

a. Zoom-in/out
b. Return to default view extent
c. Find user location
d. Compass
e. Search address/places/trees
f. Layers/Legends – View layer symbology
g. Basemap Options
h. Measure Tool – Measure distance and area
i. Expand map to Fullscreen
j. Scalebar – Equates distance of the scale bar to distance on the ground.
k. Coordinate locator

C. Tree Health Pie Chart
D. Diameter at Breast Height in Inches Pie Chart
E. Tree Height in Feet Pie Chart
F. Fun Facts:

Click the Star

Fun Facts!

- **Dendrochronology:** *Using growth rings on a tree to find out how old it is.*
- *Mature birch trees can produce up to **1 million** seeds a year.*
- *A large oak can drop **10,000** acorns in **1 year.***
- *It takes **40** gallons of maple sap to make **1** gallon of syrup.*
- *The cumulative value provided by Exeter's public trees is approximately **$175** per tree, grossing a **total** of **$145,637** annually! These values come from **energy savings** ($78/tree in energy savings through heat absorption and cooling), **increased property value** (~$59/tree), **stormwater runoff mitigation** (~$21/tree), **air quality improvement** (~$15/tree annually), carbon dioxide absorption ($2/tree).*
- *Explanation of **Benefits.***
- *Find More **Fun Facts** in the informational pop-ups of individual tree features!*

- Fun Facts as outlined by the Town of Exeter
- "Benefits" hyperlinks to additional benefits of street trees video: https://youtu.be/uoRsVdIyhUM?si=MZSYbTtqqr8QR7Sz

G. Maintenance Needs Query:

🔍 Maintenance Need

Query

Apply

- Hit "Apply" to populate "H" (Maintenance Needs Table) with all sites with a maintenance need value.

H. Maintenance Needs Table:

a. Search for a specific site/maintenance issue.
b. Select a specific record and show only that selection.
c. Clear selection.
d. Refresh
e. Show/hide specific columns.
f.

- Filter to a specific Maintenance Issue or by characteristics
- Calculate statistics
- Zoom to a site
- Pan to a site
- Export to CSV

g. Maintenance issue records.
h. Total maintenance issues.

I. Common Tree Name Bar Graph: Total count by common tree name.
J. Total trees visible in the map interface.
K. Pie chart by Site type
L. Track user location as they move, can enable user to retrace their steps.
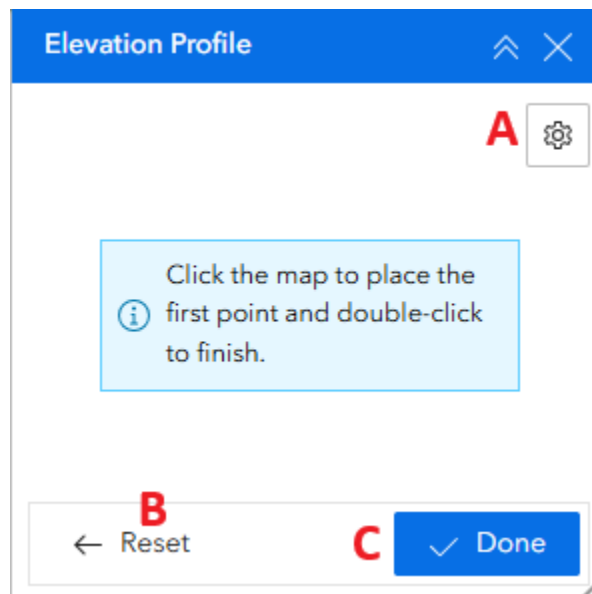
M. Draw/Annotation Tool:

a. Select features
b. Select by drawing a rectangle
c. Select by drawing a lasso
d. Draw Point
e. Draw Line
f. Draw Polygon
g. Draw Rectangle
h. Draw Circle
i. Undo/Redo
j. Clear Drawing

N. Bookmark:

• Users can click the + button to create bookmarks unique to them.

O. Elevation Profile:

     a. Change distance and elevation units.

     b. Reset the elevation drawing.

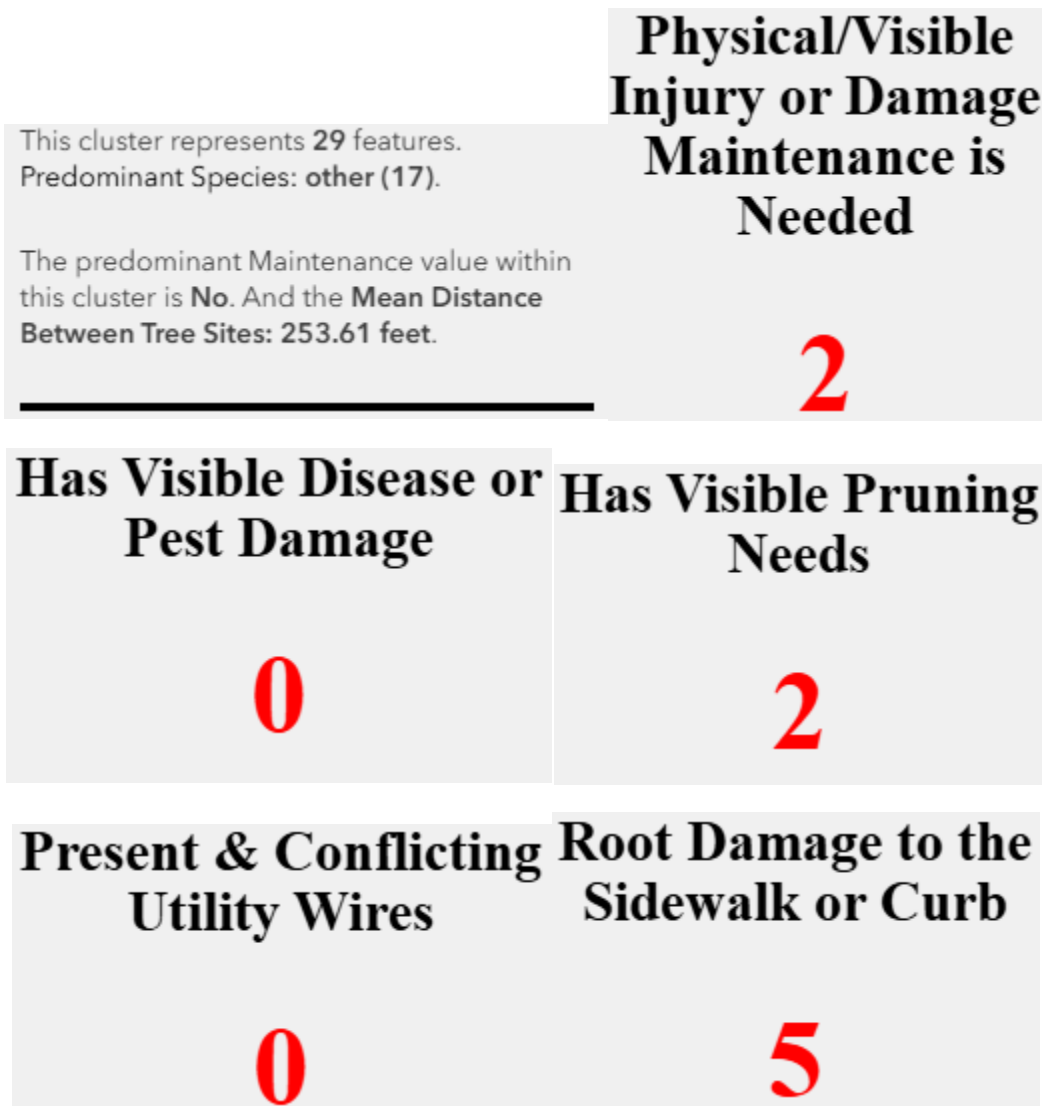   c. Done – will calculate elevation profile

a. Stats

b. Reverse profile direction
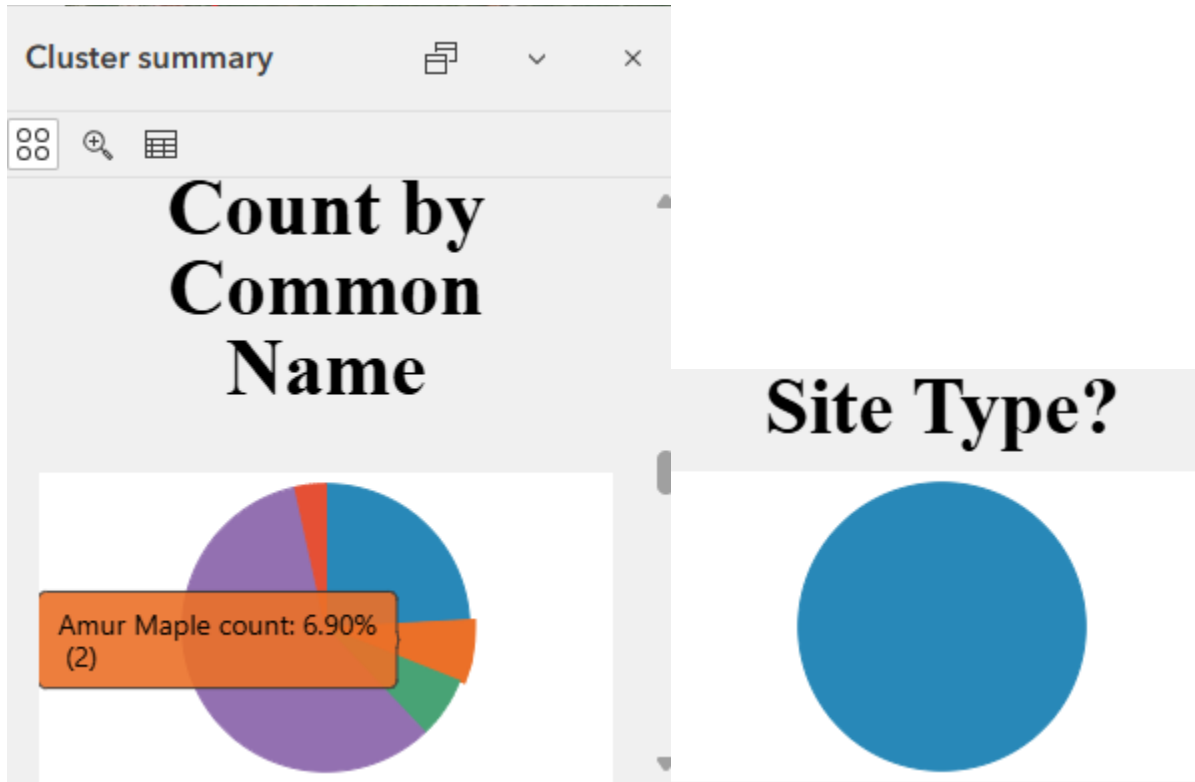
c. Export profile

d. Change units

e. Zoom out on profile

P. Measure distance/area.

Q. Link to the Survey Training Guide.

R. Link to the Survey for collecting tree data.

S. Print map interface.

Pop-ups:

A. Group Pop-ups:

- Groups proximate features into count-based size gradients.
- Calculates stats on these groupings

This cluster represents **29** features.
Predominant Species: **other (17)**.

The predominant Maintenance value within this cluster is **No**. And the **Mean Distance Between Tree Sites: 253.61 feet.**

Physical/Visible Injury or Damage Maintenance is Needed

2

Has Visible Disease or Pest Damage

0

Has Visible Pruning Needs

2

Present & Conflicting Utility Wires

0

Root Damage to the Sidewalk or Curb

5

Cluster summary

Count by Common Name

Amur Maple count: 6.90% (2)
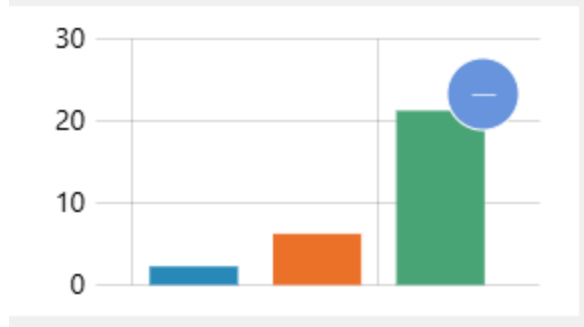
Site Type?

Overall Tree Health

Diameter

Height

Collector Name

B. Individual Site Pop-ups:

Tree ID: 60

Collector Name: Kristen Murphy

Survey Date: 8/19/2024, 1:09 PM

Street Name: Water St

What Type of Site is this?: Existing Tree

Tree Diameter at breast height (Inches): 12 - 24

Tree Height (Feet): 10 - 20

Is there a memorial or honor plaque or marker?: No

Common Tree Name: Littleleaf Linden - Tilia cordata - Fun Facts!

Overall, Tree Health: Good

Maintenance Needs:

1. Is there any visible injury or physical damage?

   No

2. Is there any visible disease or pest damage?

   No

3. Are there visible pruning Needs?

   No

4. Are there utility wires above or in the tree?

   Present not conflicting

5. Is there root damage to the sidewalk or curb?

- Common Tree Name link brings the user to an external resource with information on that type of tree.

- Positive values are colored green, negative red, and intermediary values yellow to orange.

Solar Radiation:

Daily Incoming Solar Radiation: 0.001 kWh/in²
Total Annual Incoming Solar Radiation: 0.303 kWh/in²
Total Annual Outgoing Solar Radiation: 0.091 kWh/in²
Net Annual Solar Radiation: 0.212 kWh/in²

Google Streetview

Google Earth

Google Directions

Natural Hazards/Weather

- Google Streetview links to a google streetview of the tree site.
- Google Earth links to a google earth depiction of the site.
- Google directions provides directions from the users location to the site.
- Natural hazards/weather link you click on the photo, and it links to an external application.

Data Layers:

- Trees: Green = No maintenance needed; Red = Needs Maintenance
- Exeter Town Boundary: Red hashed Boundary
- Parcels: Orange solid lines (Labeled with ID and street address); Only appear when zoomed in to street level.