Part II: Making it Happen

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Mortality status

- Key variable for calculating mortality/survival
- Separating mortality from vigor / condition
  - “Condition” rating: good, fair, poor, dead & dying
  - Need to separate standing dead vs. unhealthy trees and standing dead vs. removed trees

Mortality status

Alive



Standing Dead


Stump

Mortality status

Alive



Standing Dead

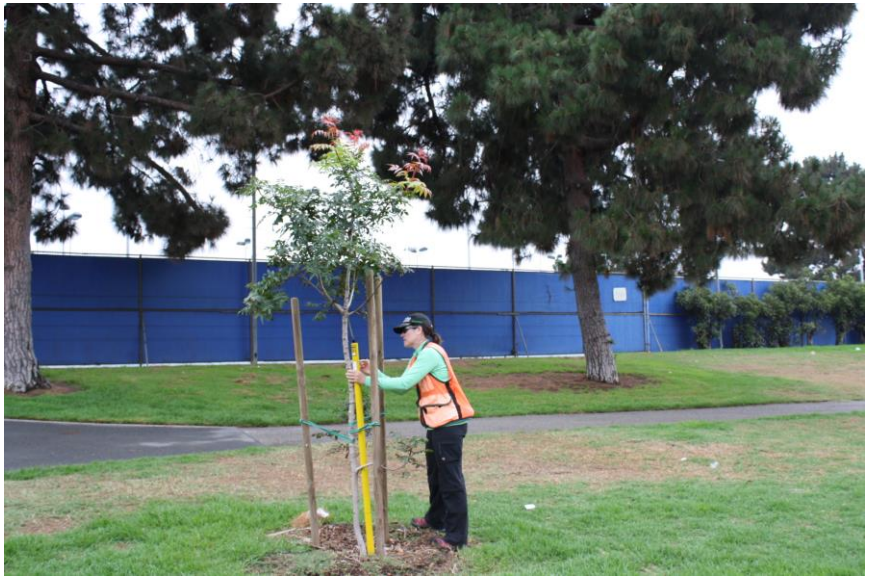

Stump

Removed

Never Planted?

Trunk diameter

- Repeat measure
  - growth rate
  - proxy for health
- Requires measuring at the same location on the trunk



Pg. 31 of *Field Guide*

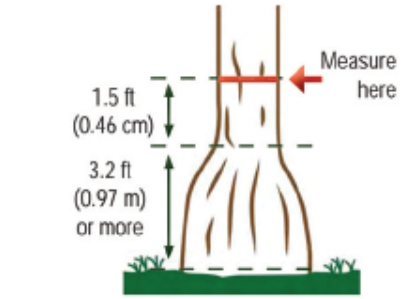
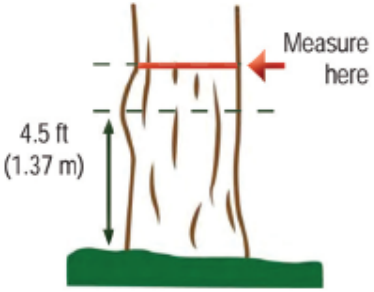
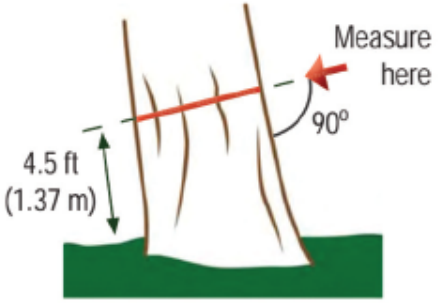
Trunk diameter

Guidance:

- Height to measuring point
- Record to nearest mm or 1/10 inch
- Special considerations

Pg. 78 of *Resource Guide*

Trunk diameter

Situation	Instruction	Example
Tree with buttswell or bottleneck	Measure trees 1.5 ft (0.46 m) above the end of the swell or bottleneck if the swell or bottleneck extends 3.0 ft (0.91 m) or more above the ground.	
Tree with irregularities at d.b.h.	On trees with swellings, bumps, depressions, or branches at 4.5 ft, measure immediately above the irregularity at the place the irregularity ceases to affect normal stem form.	
Leaning tree	Measure diameter at 4.5 ft from the ground. The 4.5 ft distance is measured along the underside face of the trunk. Measure diameter perpendicular to the trunk.	

Trunk diameter

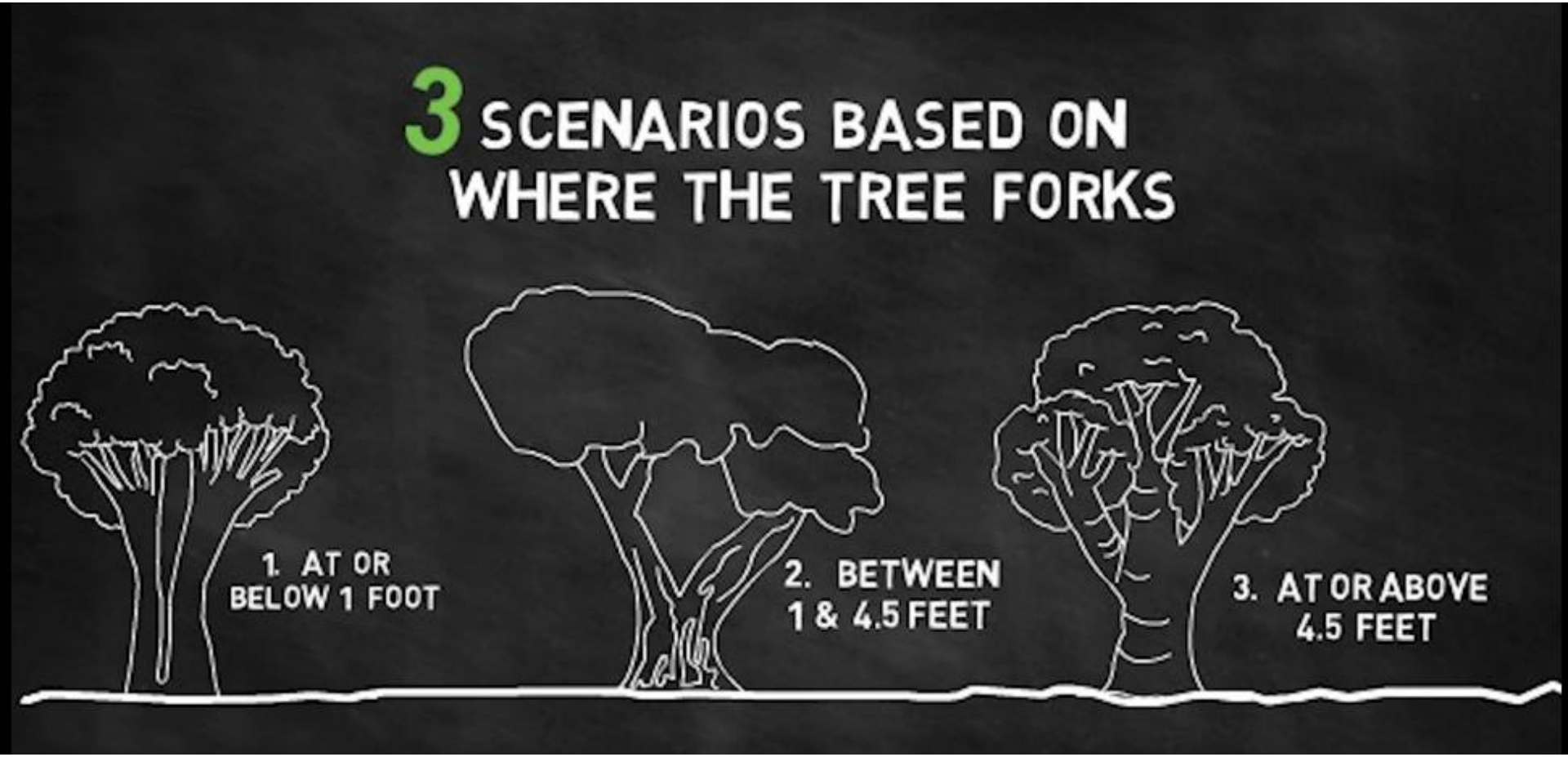


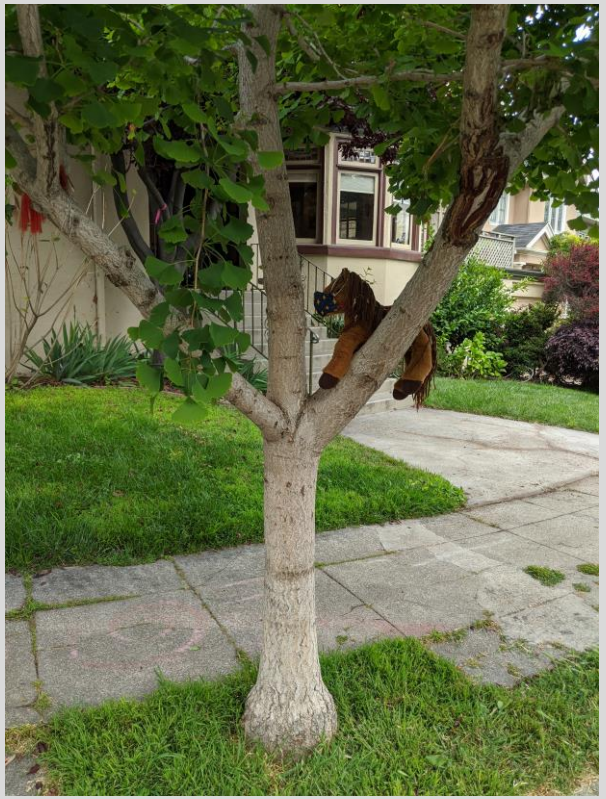
Image created by A. Dunsky

Trunk diameter

Forks below 1 ft

Record as separate stems, above fork

Forks between 1 ft and 4.5 ft



Record as single trunk, below fork

Trunk diameter

Forks above 4.5 ft

Measure at 4.5 ft

Location

Essential variable for monitoring

-enables field crews to reliably find the same tree again

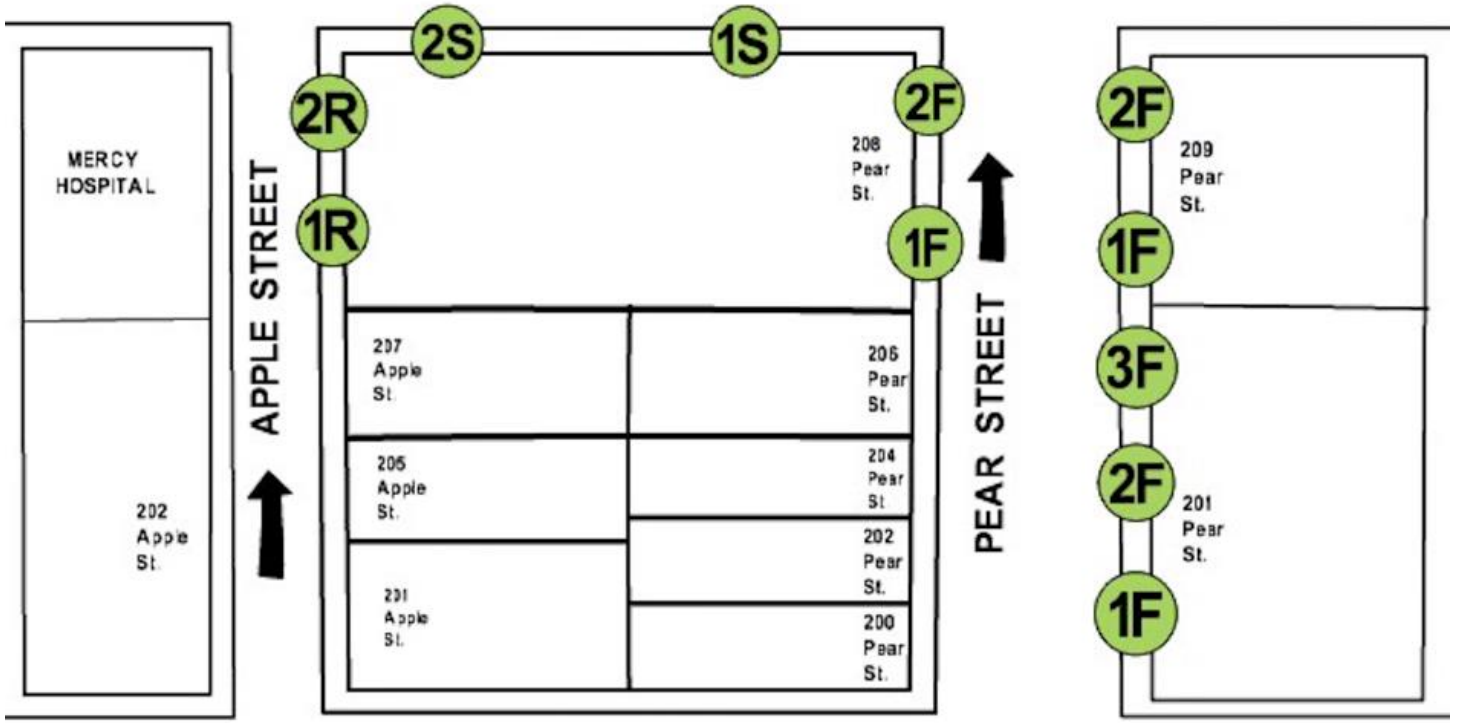
-can connect tree data to other geospatial datasets

1. Address & site code
2. Block edge distance
3. Digitizing location on satellite imagery
4. Identification tag
5. GPS coordinates
6. Landscape site map
7. On, from, and to streets
8. Photos
9. Reference objects

Pg. 8 of *Field Guide*
Pg. 30 of *Resource Guide*

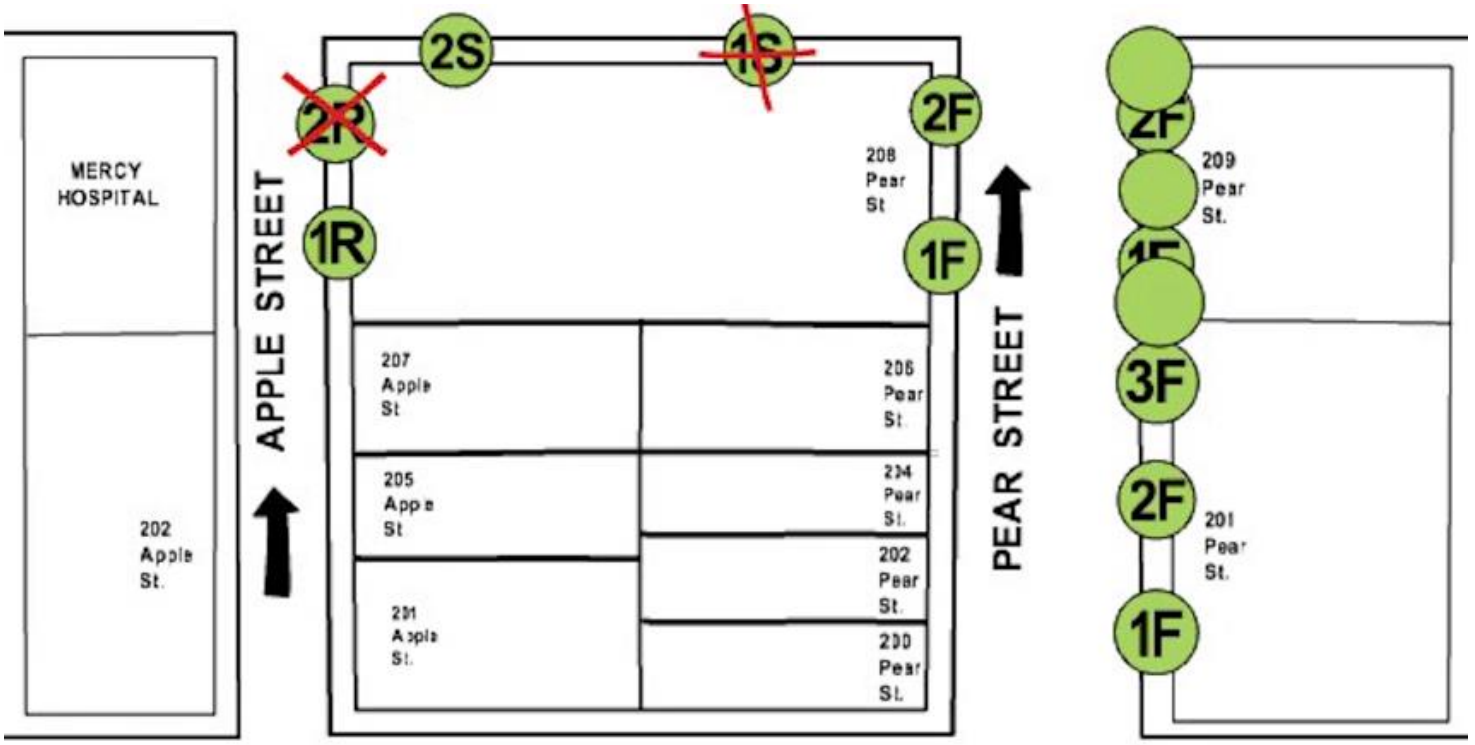
Location

2. Address & site code



Location

2. Address & site code



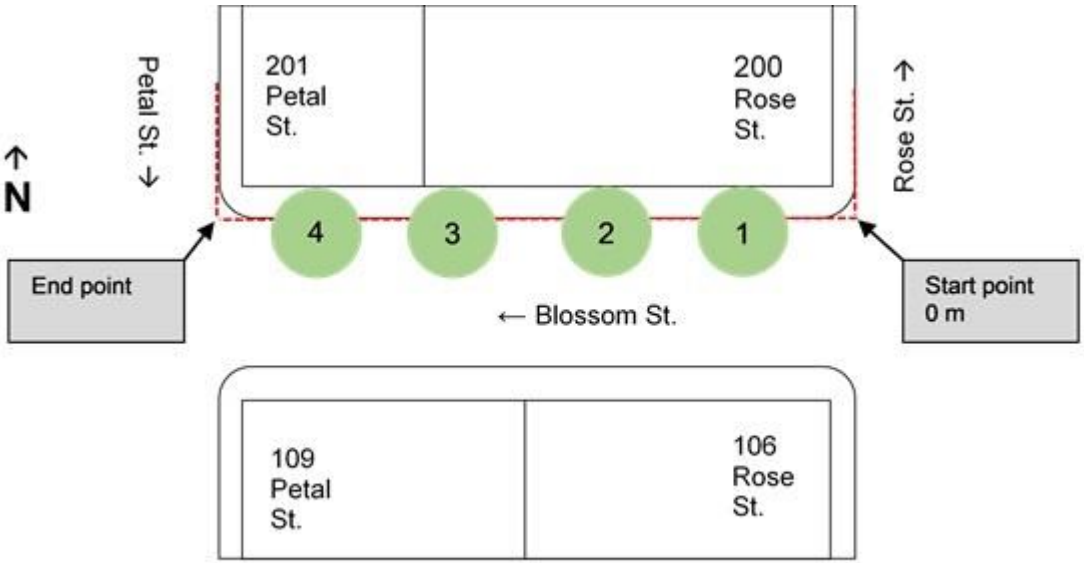
Location

2. Address & site code

Tree Number	Site Code	Address # and Street Name	Block Information			
			On Street	From Street	To Street	Side of Street
1	1F	201 Pear St.	Pear St.	Maple St.	Juniper St.	E
22	2F	201 Pear St.	Pear St.	Maple St.	Juniper St.	E
23	1F	209 Pear St.	Pear St.	Maple St.	Juniper St.	E
24	2F	209 Pear St.	Pear St.	Maple St.	Juniper St.	E
25	3F	209 Pear St.	Pear St.	Maple St.	Juniper St.	E

Location

2. Block edge distance



Location

2. Block edge distance

Tree Number	Distance from Start (m)	Address # and Street Name	Block Information				
			On Street	From Street	To Street	Side of Street	Side of Centerline
1	12	200 Rose St.	Blossom St.	Rose St.	Petal St.	N	right
2	23	200 Rose St.	Blossom St.	Rose St.	Petal St.	N	right
3	55	200 Rose St.	Blossom St.	Rose St.	Petal St.	N	right
4	73	201 Petal St.	Blossom St.	Rose St.	Petal St.	N	right

Location

Take-home:

use at least 2 complementary location methods

Sub-meter accuracy GPS

Strategic photos

Managing Field Work

Training and supervising field crews is not a side job!
Allocate time & resources.

- Training
  - indoor & outdoor
    - practice measurements
    - sources of error
    - call and response
    - safety

Pg. 55 of *Resource Guide*

Managing Field Work

Training and supervising field crews is not a side job!
Allocate time & resources.

- Training
  - indoor & outdoor
    - practice measurements
    - sources of error
    - call and response
    - safety
- Plan day-to-day routes
- Make regular data back-ups
- Develop quality control protocol