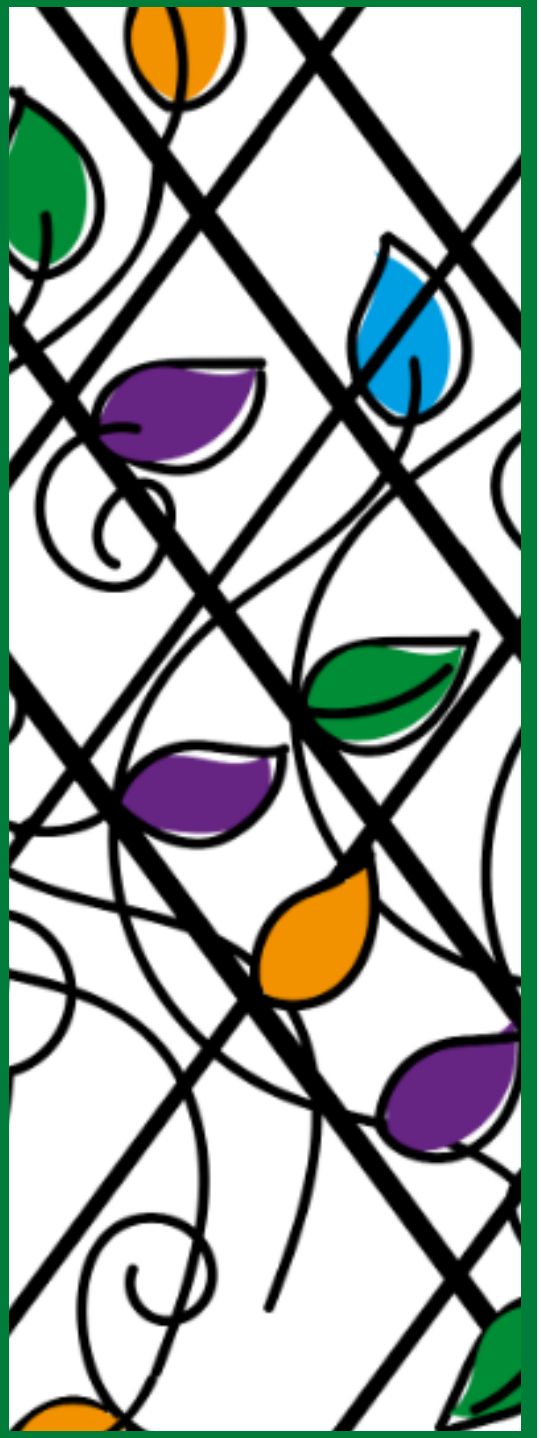


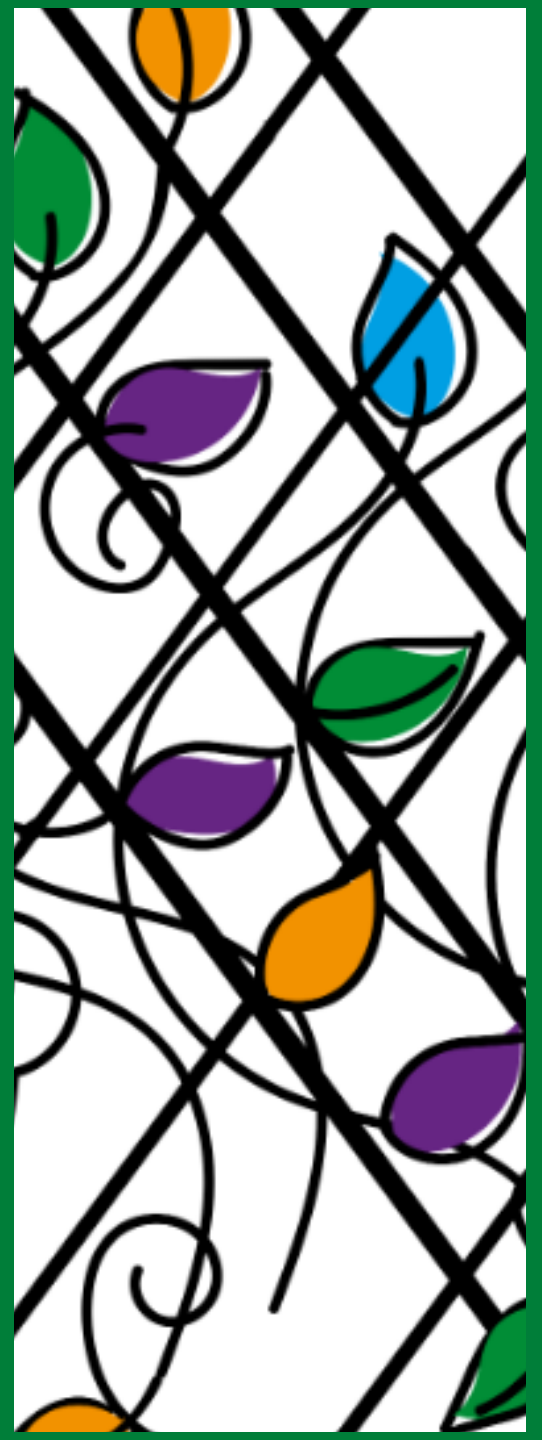
CWA: October 22, 2026

Fostering community-based climate change resiliency: Vine Trellises

Conor McGuire, Lauren Casper, and Jimmy Kern
Network 49 Environmental Justice Committee

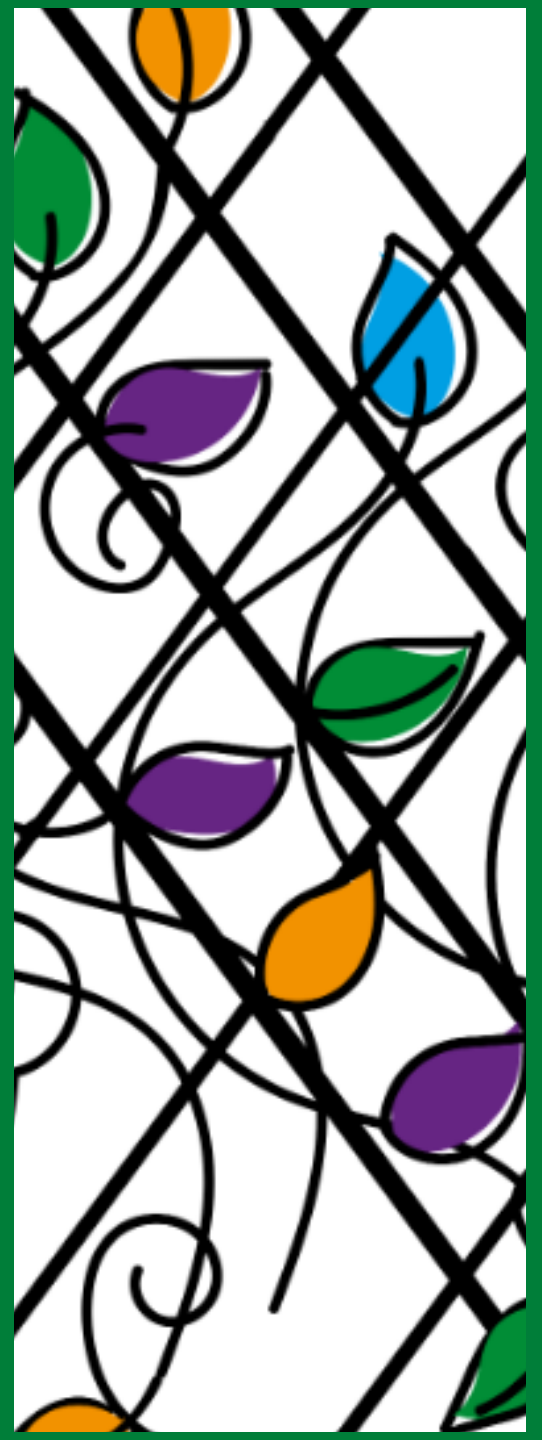
Network 49 Environmental Justice Committee





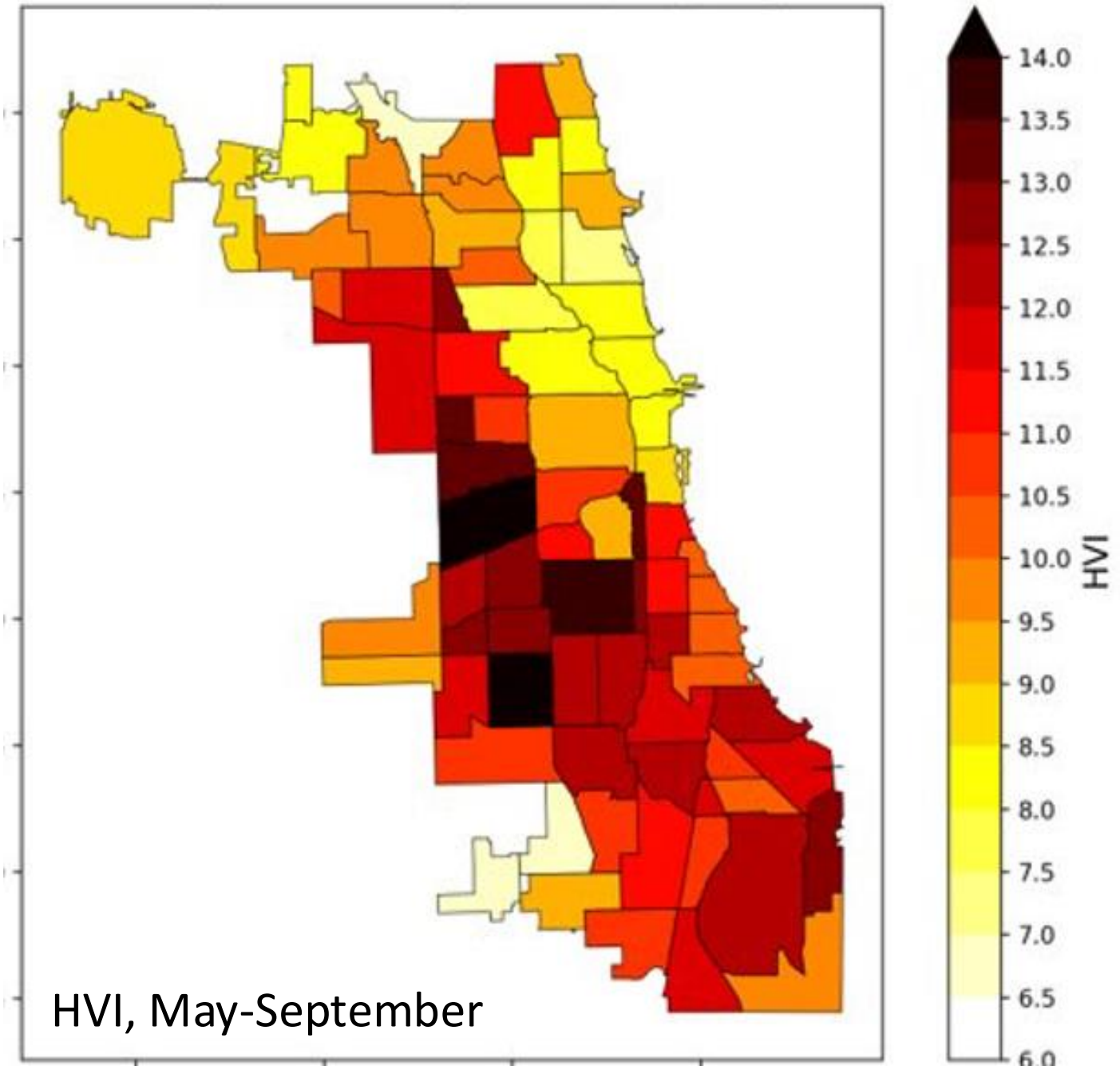
1. *Boosting climate change resiliency.*

- Boosting *resiliency* to rising urban temperatures
- Reducing *vulnerability* to rising urban temperatures



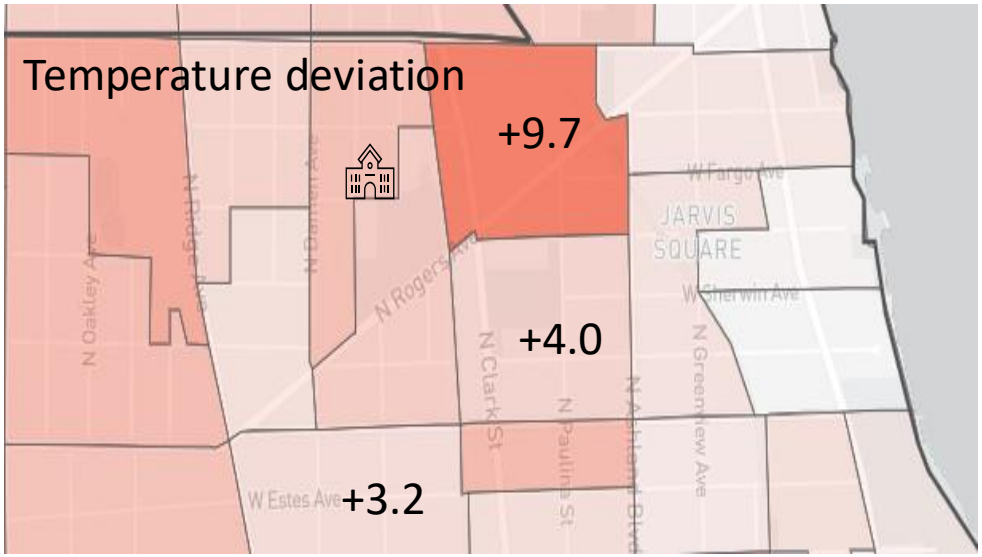
Heat Vulnerability Index (HVI)

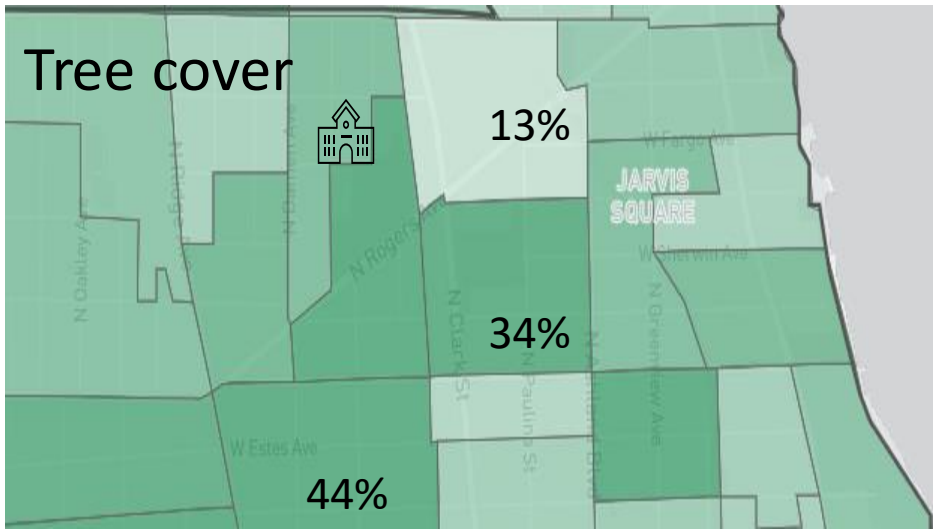
- HVI is a composite number that indicates heat-related health risks in a given location.
- Factors that determine HVI include demographic and social factors, and large- and small-scale environmental factors.

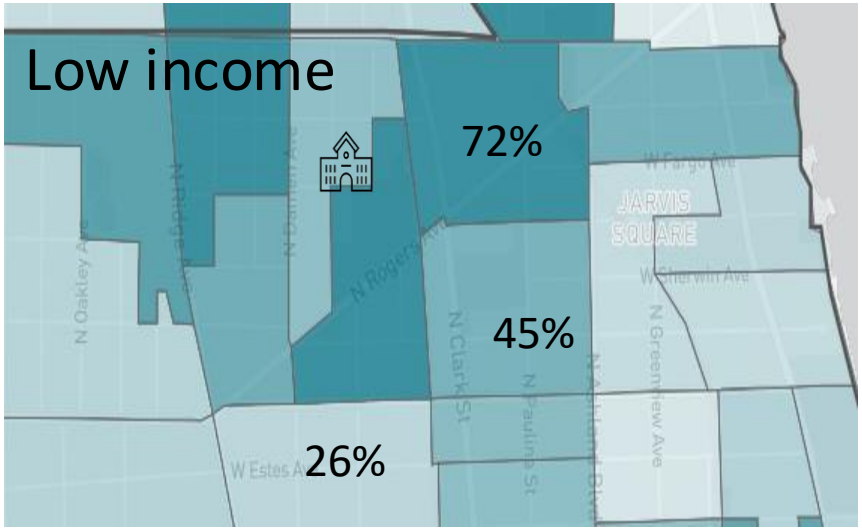

14.0
13.5
13.0
12.5
12.0
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
HVI
HVI, May-September

Mapping HVI factors: temperature deviation from city average, tree cover, and families living below the poverty line in one area of the 49th Ward

Jordan School



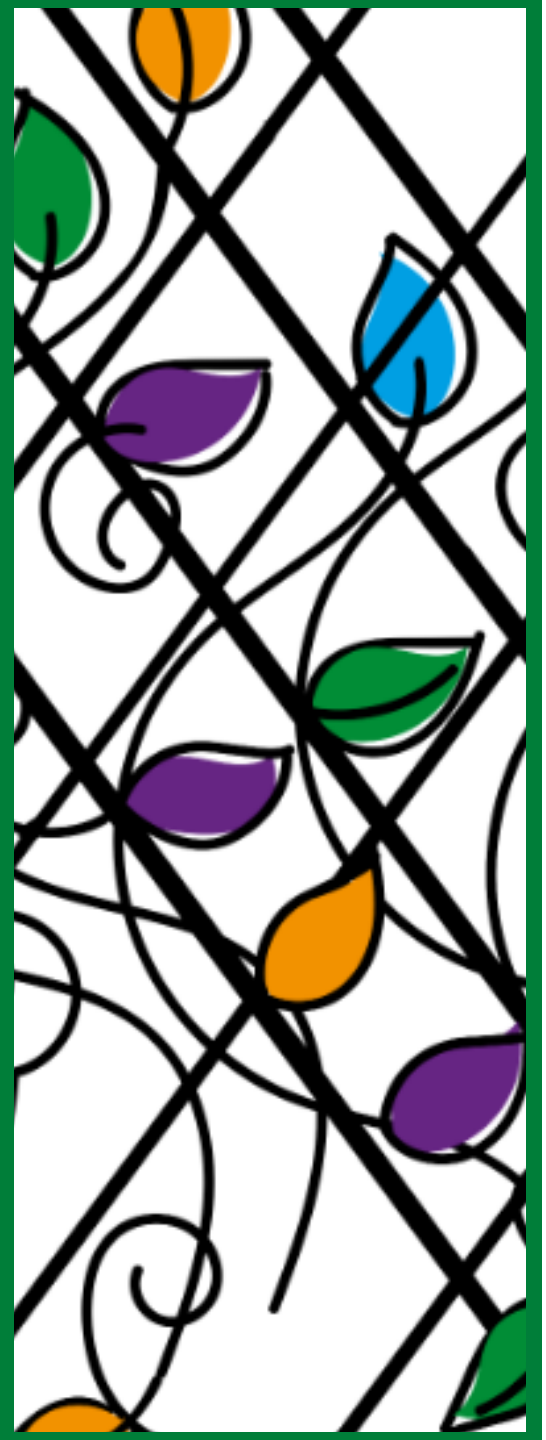




Two nearby streets in Rogers Park







2. Using greenspace to boost climate resiliency: short-strategies.

- Short-term: 1-3 years

- Green walls are an effective short-term strategy
- They cool buildings and streetscapes in 1 to 3 years.



Green wall, London

- Vine trellises are another effective short-term strategy.



Vine trellis project at Jordan School



3. Vine trellises: the Network 49 Vine Trellis Project

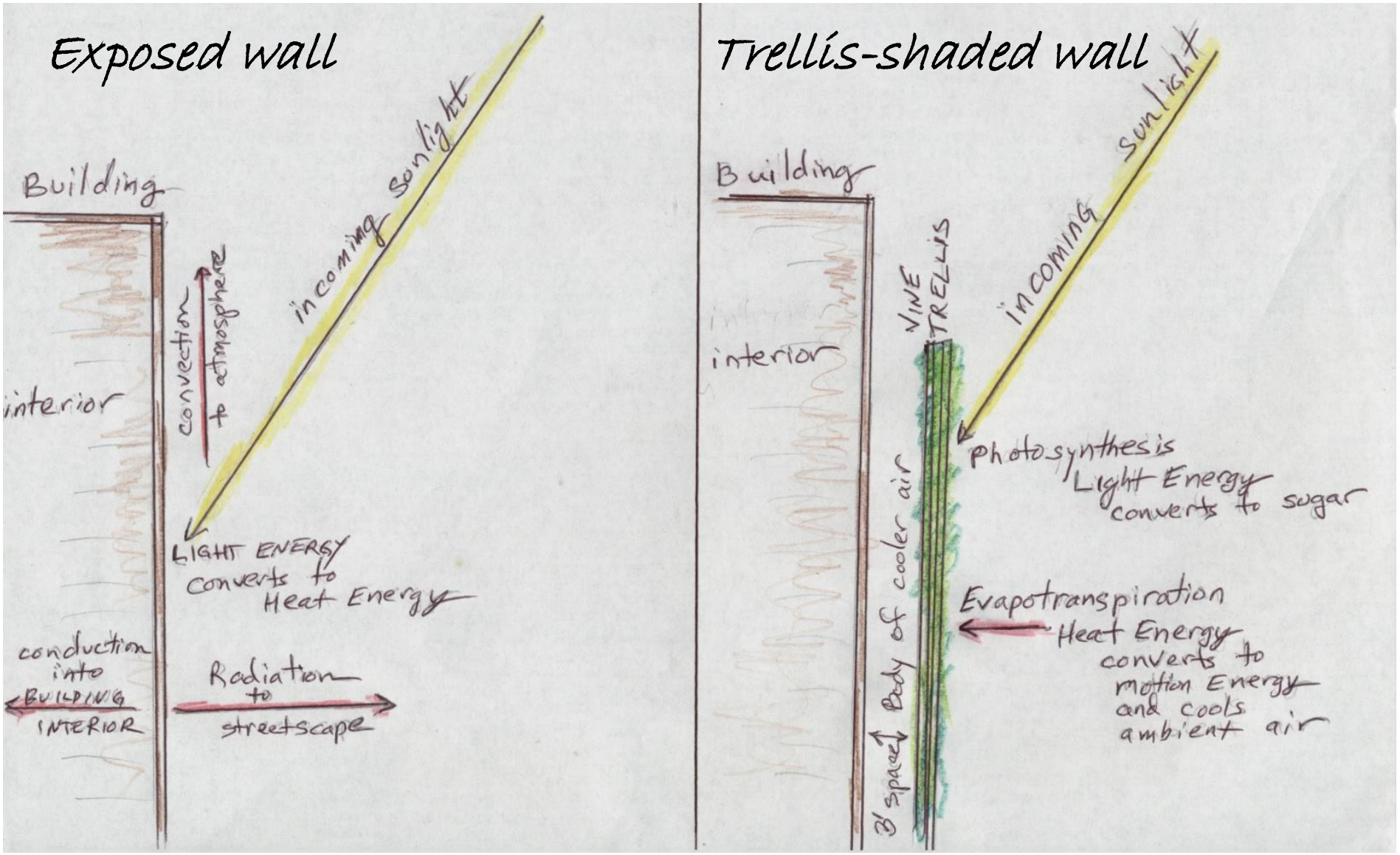
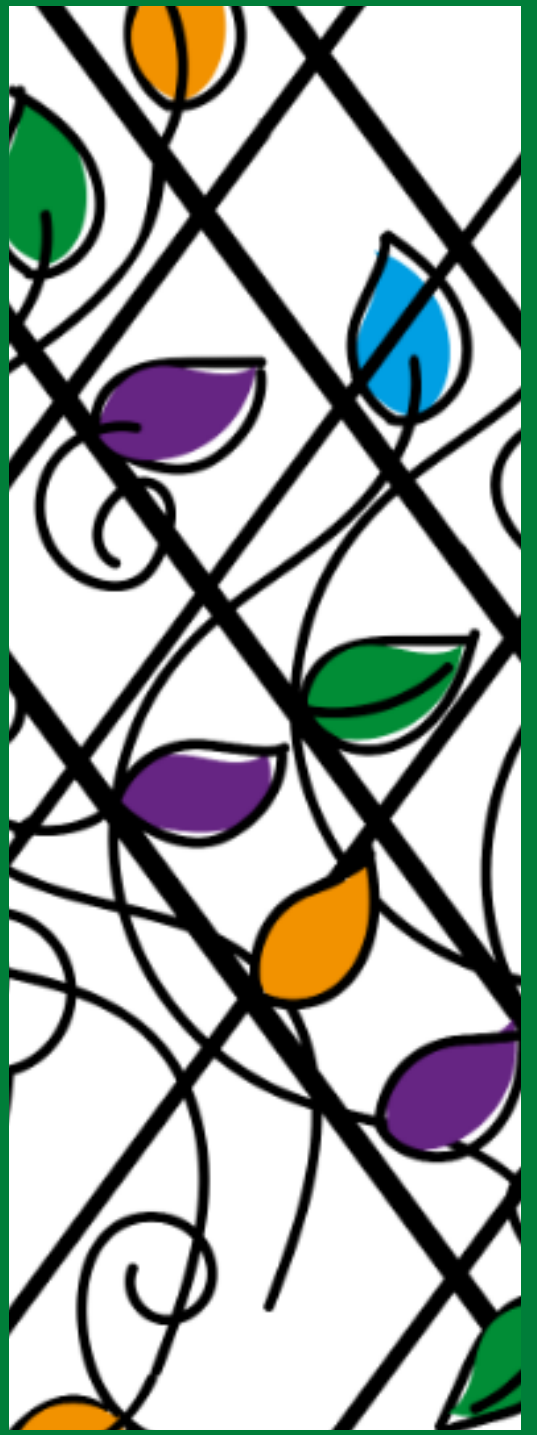


Diagram of the basic processes by which vine trellises cool a streetscape (shade, photosynthesis and evapotranspiration, buffer zone of cooler air between trellis and building)


Vines Keep Us Cooler!
Welcome To The Vine Trellises
Established By Network49
And Community Partners
Vine trellises keep buildings and outdoor spaces cooler during hot weather. They make neighborhoods cooler, healthier, and greener. They combat higher temperatures brought by climate change.
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Real-time temperature readings throughout the summer give a detailed picture of how effectively the vines cool our environment.
Please visit all our vine trellis sites
Scan for more information
Network49's
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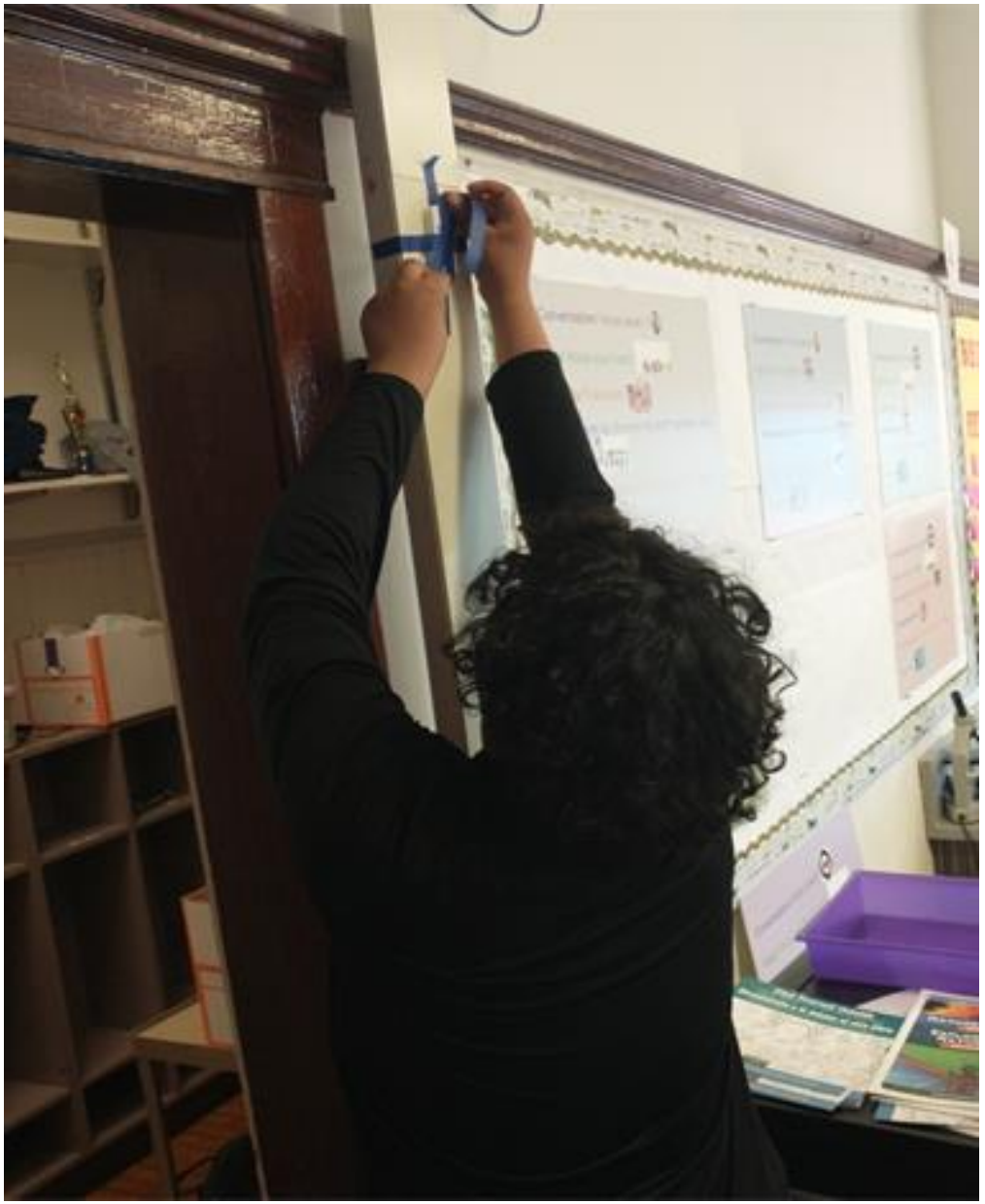
Exposed and shaded locations at the south-facing wall at Jordan School



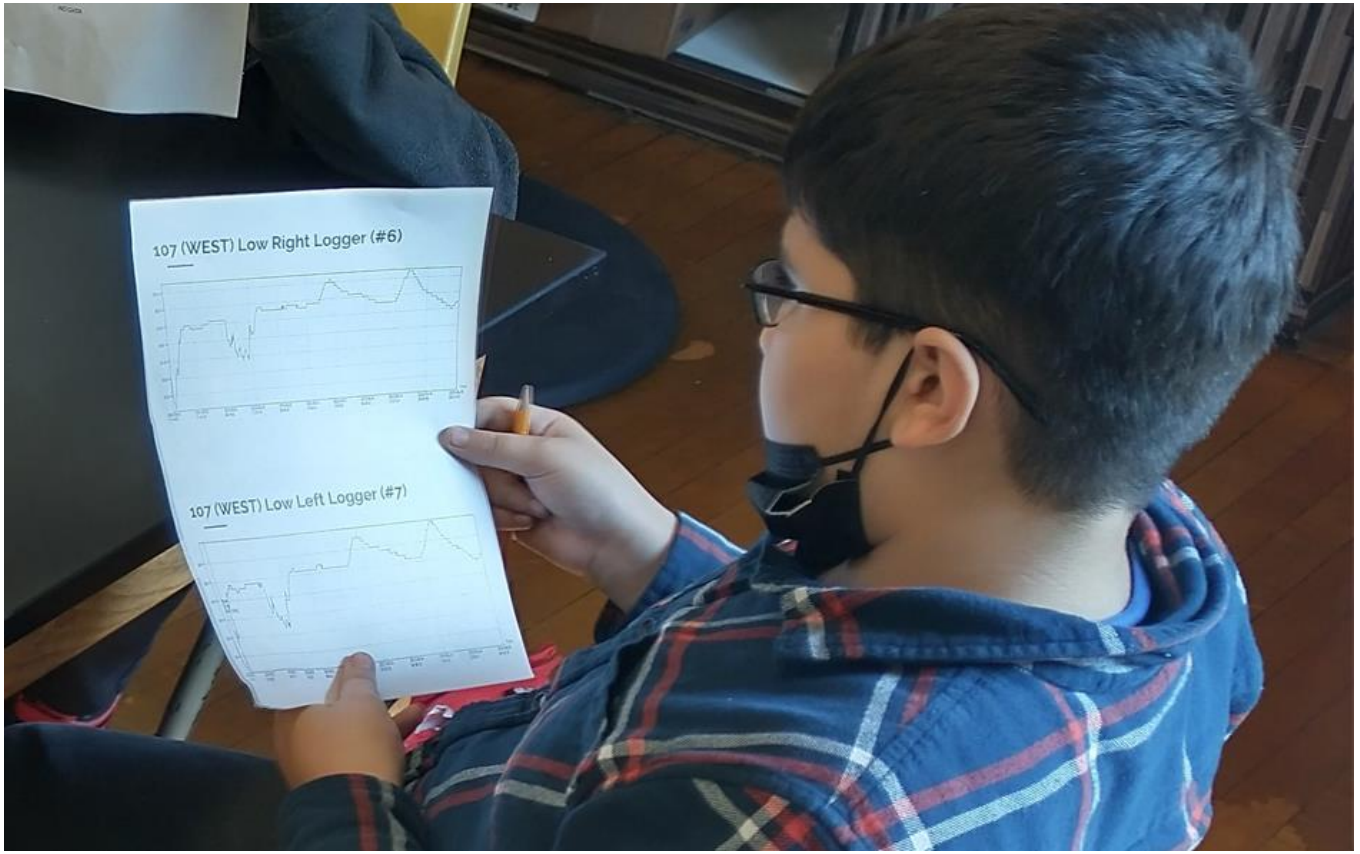
Installing lightweight trellises at Eugene Field Elementary School



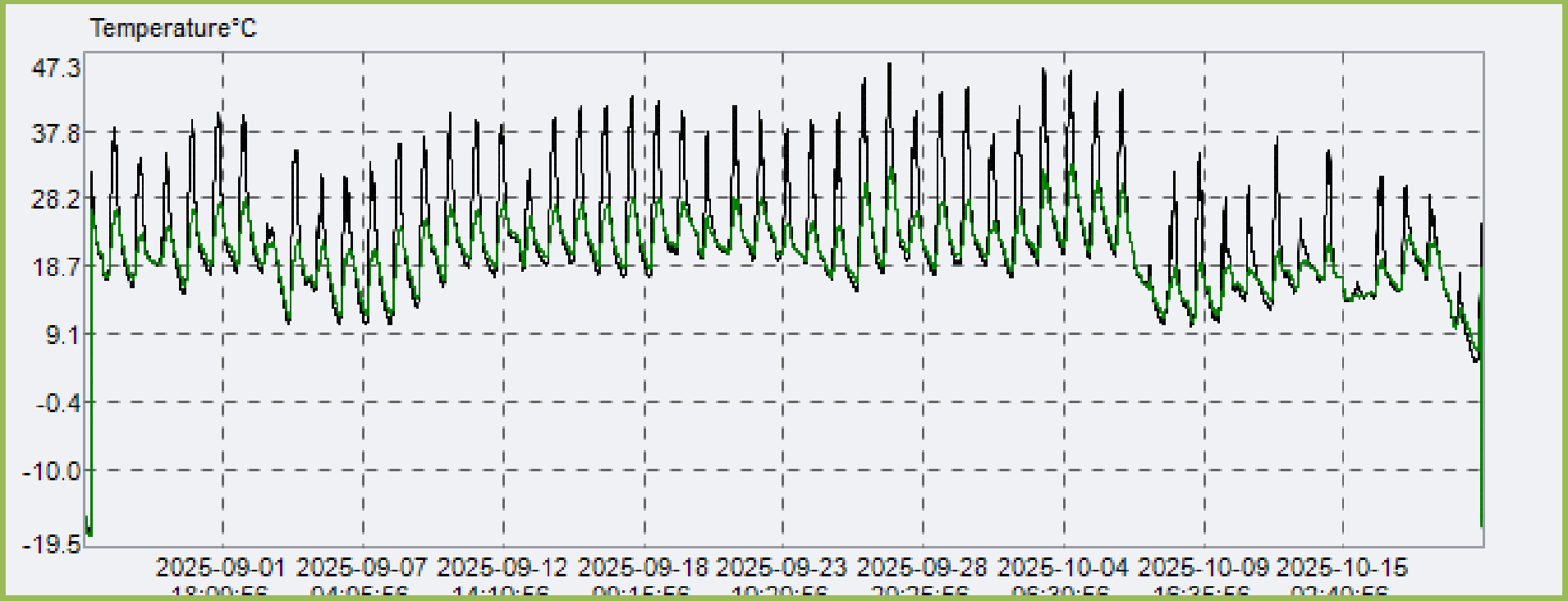
Installing a heavy gauge trellis at Loyola Park



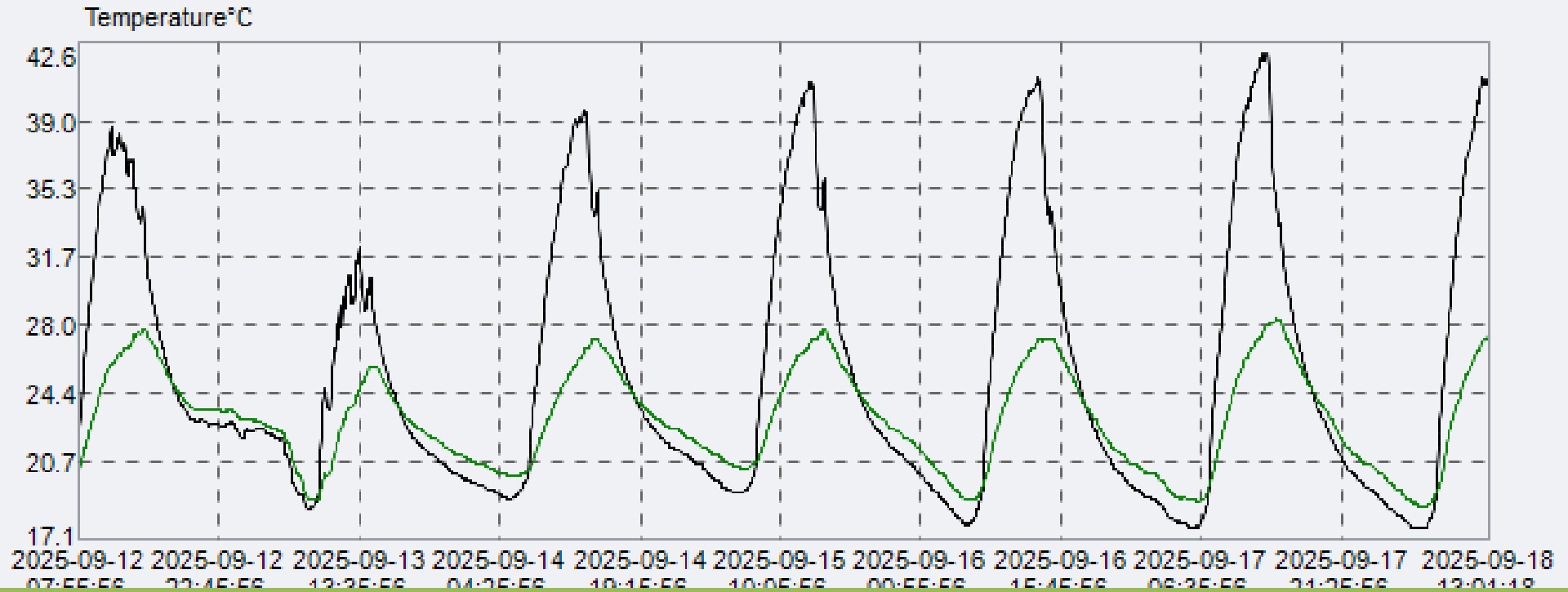
Seventh-grader experimenting with temperature recorders before researching on vine trellises



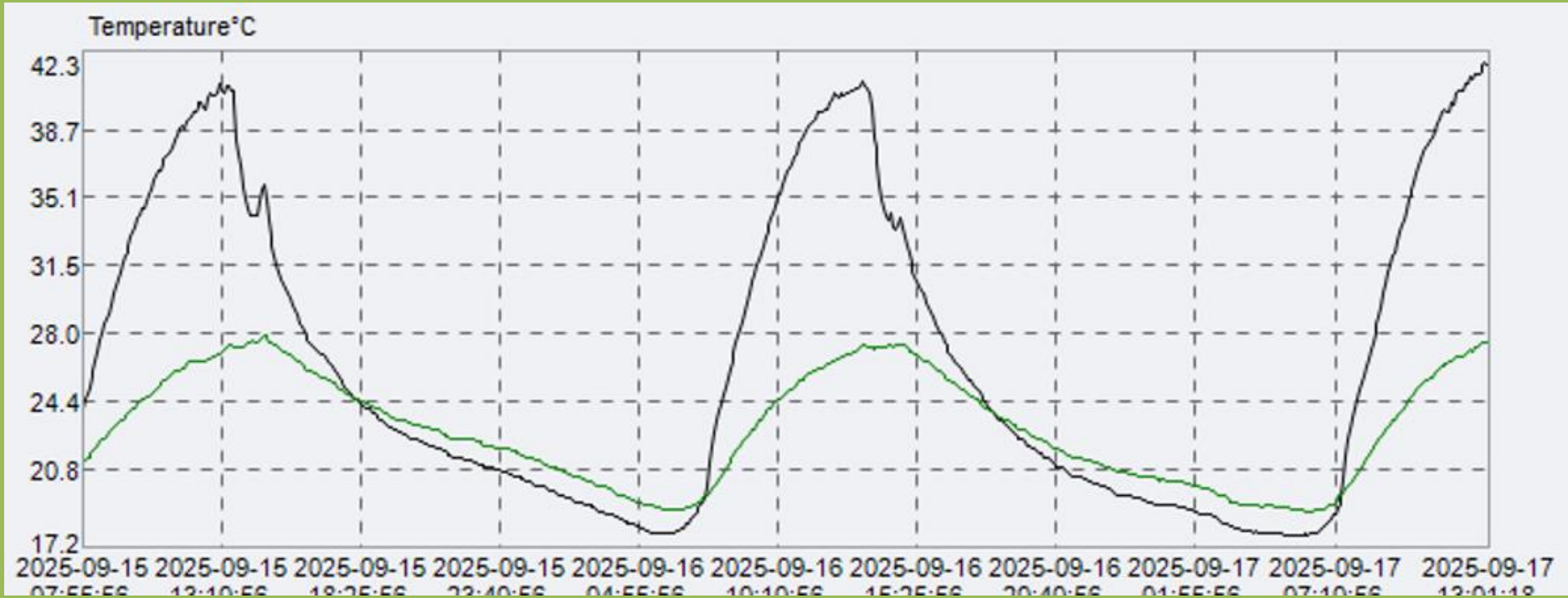
Seventh-grader analyzing a temperature graph



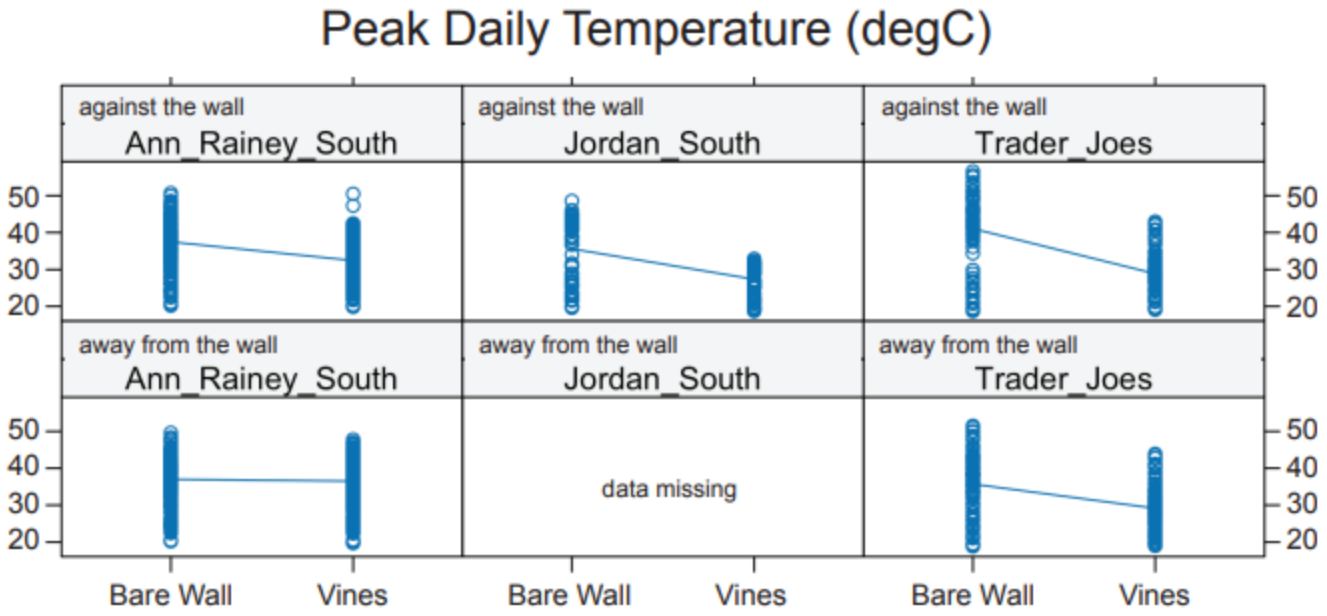
Temperature Graphs of Exposed and Shaded South-Facing Wall at Jordan School, Aug 27, 2025 to Oct 20, 2025

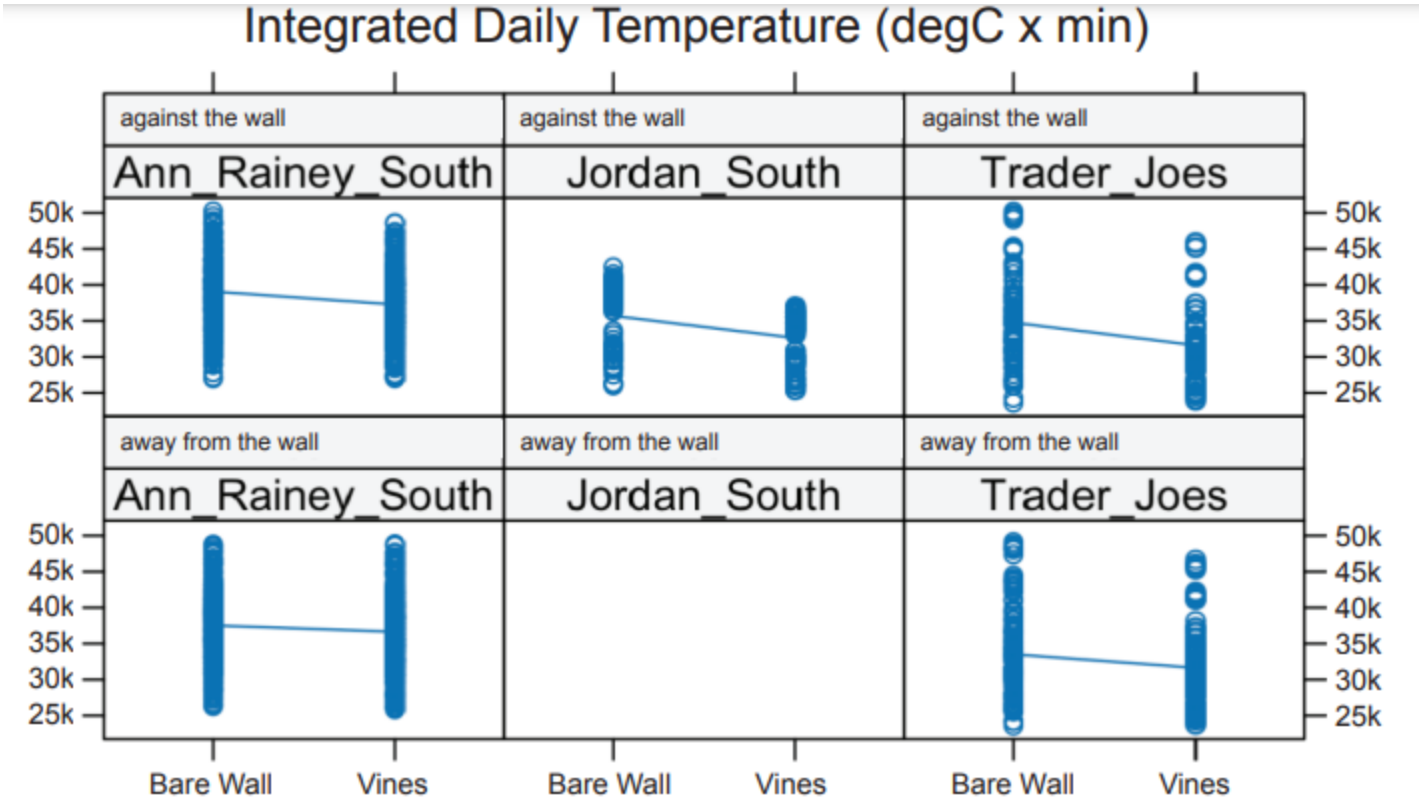


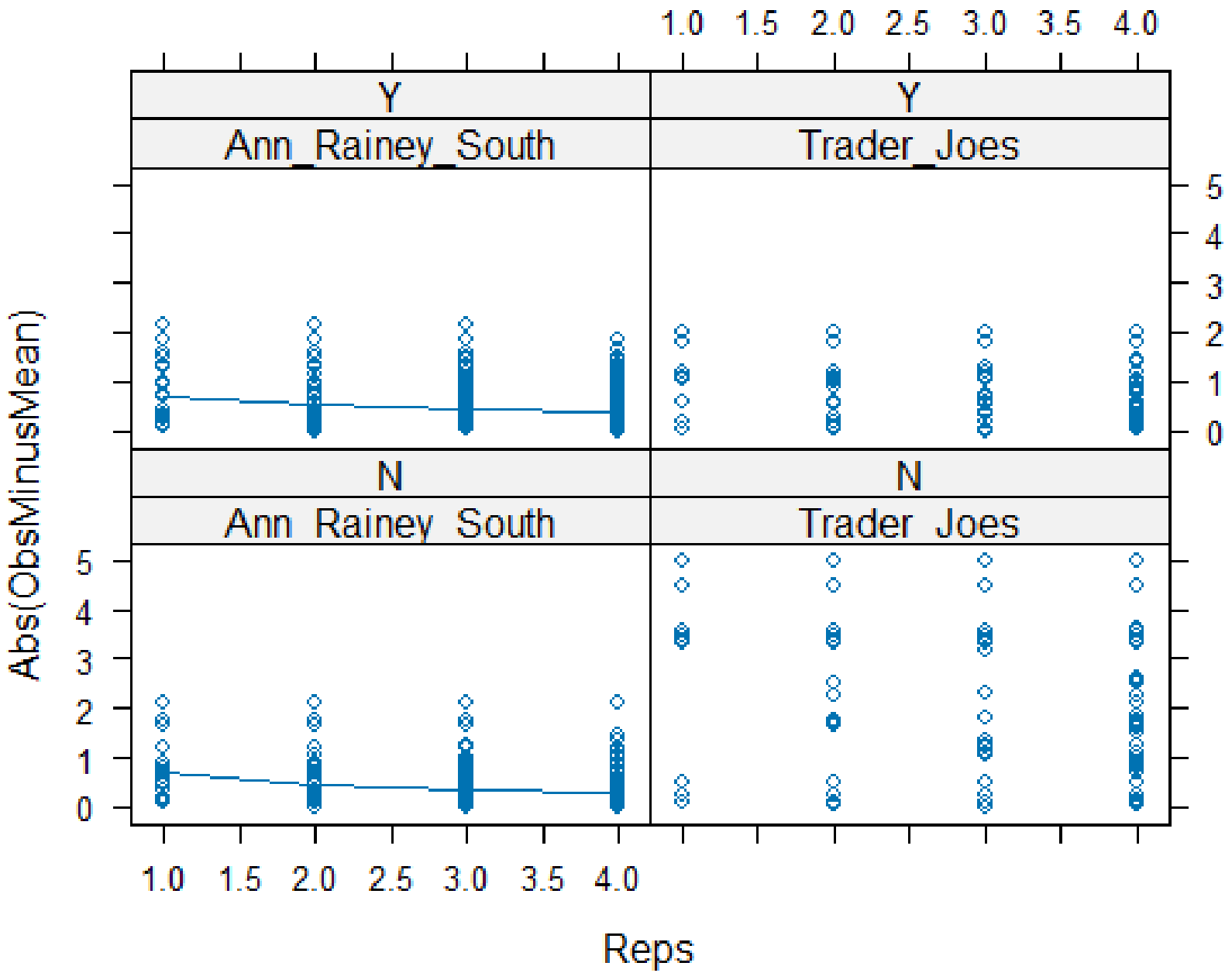
Temperature Graphs of Exposed and Shaded South-Facing Wall at Jordan School, September 12 to 18, 2025



Temperature Graphs of Exposed and Shaded South-Facing Wall at Jordan School, September 15 to 17, 2025


Peak Daily Temperature (degC)
against the wall
Ann_Rainey_South
against the wall
Jordan_South
against the wall
Trader_Joes
away from the wall
Ann_Rainey_South
away from the wall
Jordan_South
data missing
away from the wall
Trader_Joes
50
40
30
20
Bare Wall
Vines


Integrated Daily Temperature (degC x min)
against the wall
Ann_Rainey_South
against the wall
Jordan_South
against the wall
Trader_Joes
away from the wall
Ann_Rainey_South
away from the wall
Jordan_South
away from the wall
Trader_Joes
50k
45k
40k
35k
30k
25k
Bare Wall
Vines


September Surface = N
Y
Ann_Rainey_South
Y
Trader_Joes
N
Ann_Rainey_South
N
Trader_Joes
Abs(ObsMinusMean)
Reps
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
1
2
3
4
5

4. How do we build a community-based response?



A bilingual tree walk at Independence Park, led by TreeKeepers.



- *What strategies can raise public awareness of and support for improved climate resiliency?*



Our approach in the 49th ward includes:

- *Providing teachers with short, hand-on activities that reinforce CPS grade seven science goals and objectives in the heat transfer unit*



Our approach in the 49th ward includes:

- *Providing teachers with short, hand-on activities that reinforce CPS grade seven science goals and objectives in the heat transfer unit*
- *Collaborating with parks and non-profits to install heat resiliency project sites*



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https://bit.ly/N49Vines