

The Cooling Effects of Trees in Saratoga Springs

Trees save energy, shelter visitors and residents from intense summer heat, and generally enhance the quality of pedestrian life on the streets in Saratoga Springs.

During the past few summers, Sustainable Saratoga's Urban Forestry Project has occasionally monitored the 24-hour temperature differences between paired locations, one sunny and one shady, that are close to each other.

Each of the graphs that follow show the differences between a sunny and shady spot at roughly the same location. Along the same street. In front of the same building. In the same pocket park. The graphs dramatize and quantify something we already knew. Who is surprised to learn that it is hotter in the sun than it is in the shade?

Yet seeing the stark reality of this data, the sheer size of the temperature differences, will still likely give most of us pause.

These graphs reveal that there is a roughly 8-hour period each day during which a pedestrian in an unshaded location in Saratoga, or a building façade in the sun, may average close to 20 degrees hotter than in the shade of a large-growing tree.

And during midday, the difference between a barren spot and a shaded spot may be as great as 25 or even 30 degrees.

Trees are one of the most cost-effective parts of our urban infrastructure.

Many thanks to Jesse Godine,
an intern with Sustainable Saratoga,
for his help with data collection and graphing.

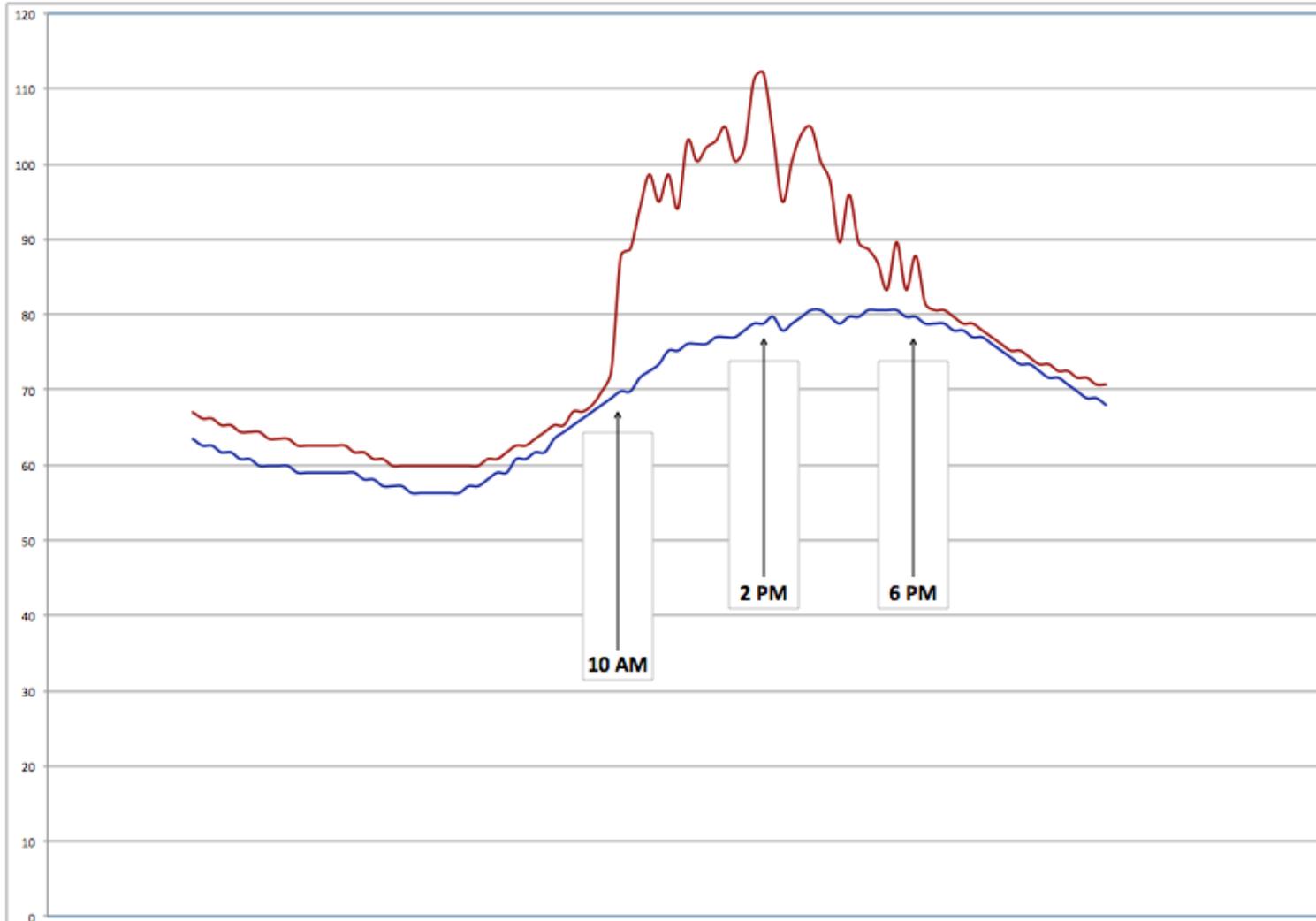
For questions or further information, please email us at trees@sustainablesaratoga.org



Temperatures on Washington St. near Universal Preservation Hall

July 19, 2016 11:01 PM to July 20, 2016 11:01 PM

RED=sun value **BLUE=shade value**



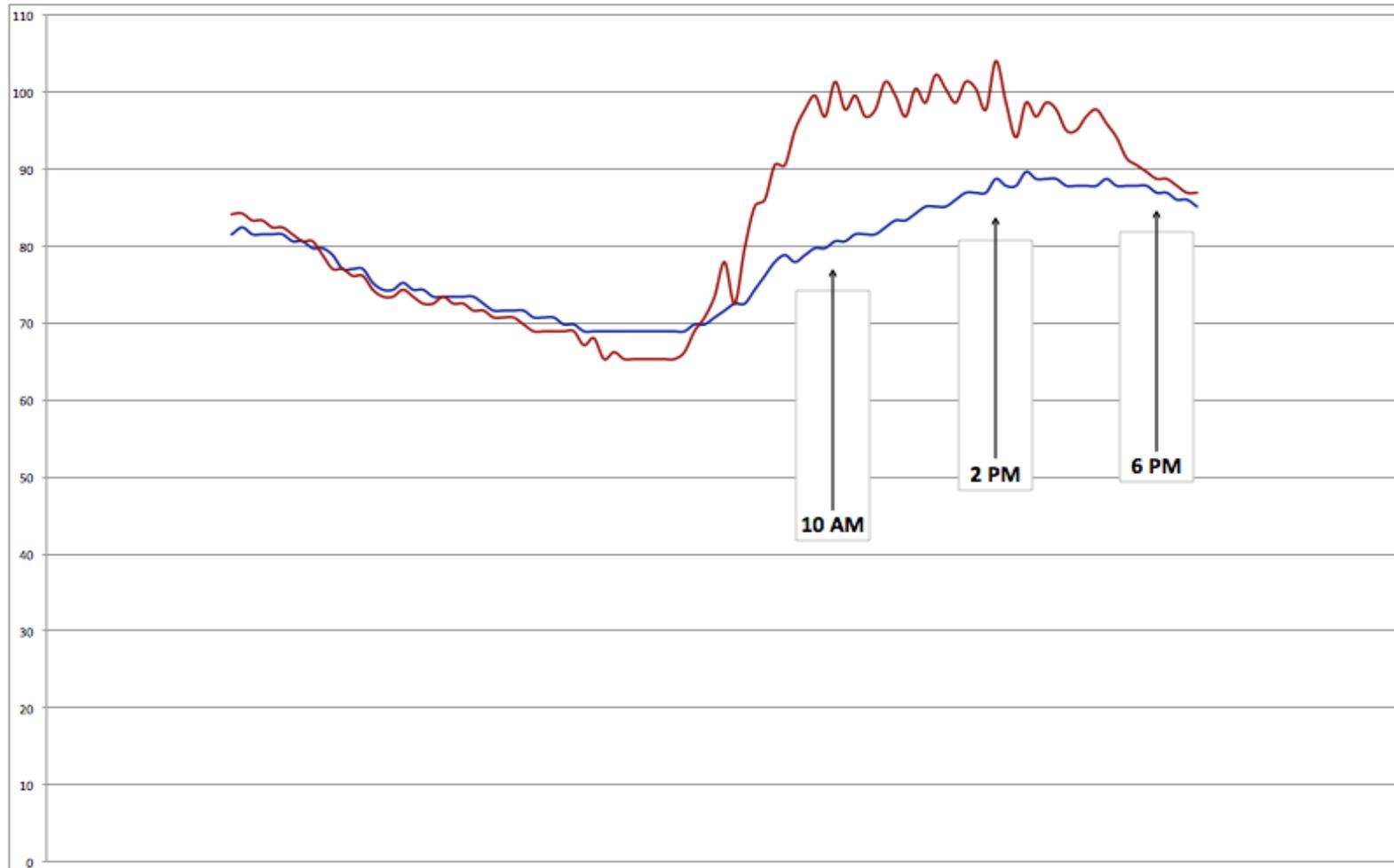
Avg. temp. difference between 10 AM & 6 PM = 19 degrees

Max. difference = 33 degrees at 2 PM

Temperatures in the Pocket Park at the corner of Woodlawn and Church

July 12, 2016 7:01 PM to July 13, 2016 7:01 PM

RED=exposed bench **BLUE**=shaded tree



Avg. temp. difference between 8 AM & 2 PM = 15 degrees
Max. difference = 21 degrees at 10 AM

Temperatures on Caroline Street between Ludlow and East Ave.

August 21, 2012 9:31 PM to August 22, 2012 9:31 PM

RED=south-facing telephone pole **BLUE=shaded tree**

