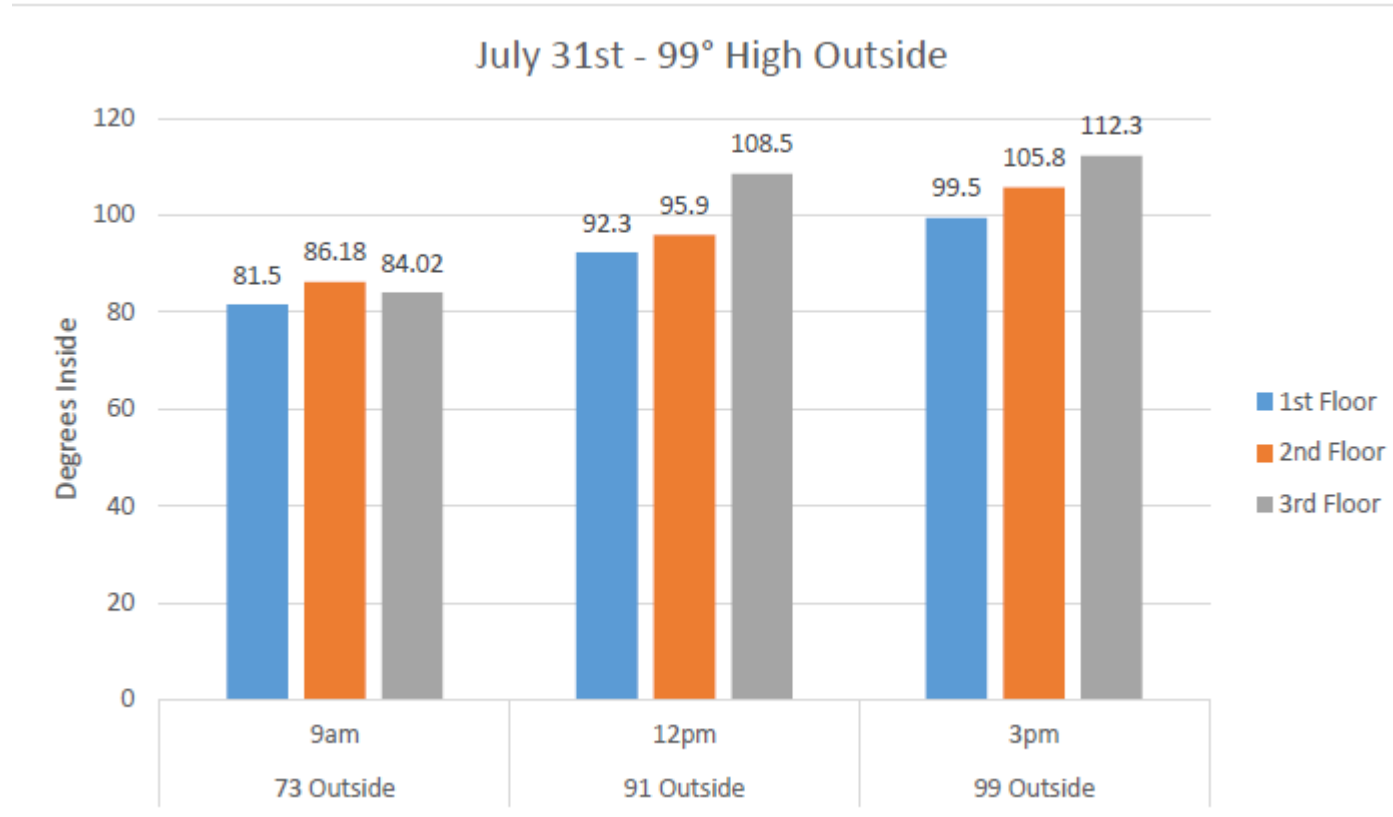


Statement of Need: Combating extreme heat within Crystal Bridge Conservatory

In the summer months, the Crystal Bridge can be very hot before it has opened to the public with temperatures rising as the day gets warmer. Without a chilled water system, temperatures exceed a comfortable visitor experience. Over time, this will lead to negative feedback that can depress attraction reputation, and decrease revenue opportunities through admissions, tours, sponsorships, memberships, gift shop engagement, and private rentals.

- **Desired Temperature Goals for Visitor Comfort:**
 - Maintain 75° or lower on the 1st floor
 - Maintain 80° or lower on the 2nd floor
 - Maintain 90° or lower on the 3rd floor
- **Collected Temperature Data:**
 - Highest recorded temperature on 1st floor: 103.6° (8/20/2023)
 - Highest recorded temperature on 2nd floor: 112.3° (8/20/2023)
 - Highest recorded temperature on 3rd floor: 125.2° (8/20/2023)

Snapshot of a day in July:



Solution: Installing a closed loop chilled water system

With 10 new AHUs already planned to replace inactive units, we will have 20 functional units that can take advantage of the chilled water system if approved. These planned improvements are expected to deliver chilled water at approximately 40° to 42° Fahrenheit, providing cool air to circulate into the Crystal Bridge Conservatory for the first time.

Engineering and Design Scope:

- Design size and location for chilled water lines to serve 20 AHUs in the lower level of Crystal Bridge
- Design chilled water lines extend 5' out of Crystal Bridge to Vicinity's lines
- Design of any necessary valves and/or pumps
- Prepare Construction Documents

Contractor/Construction Scope:

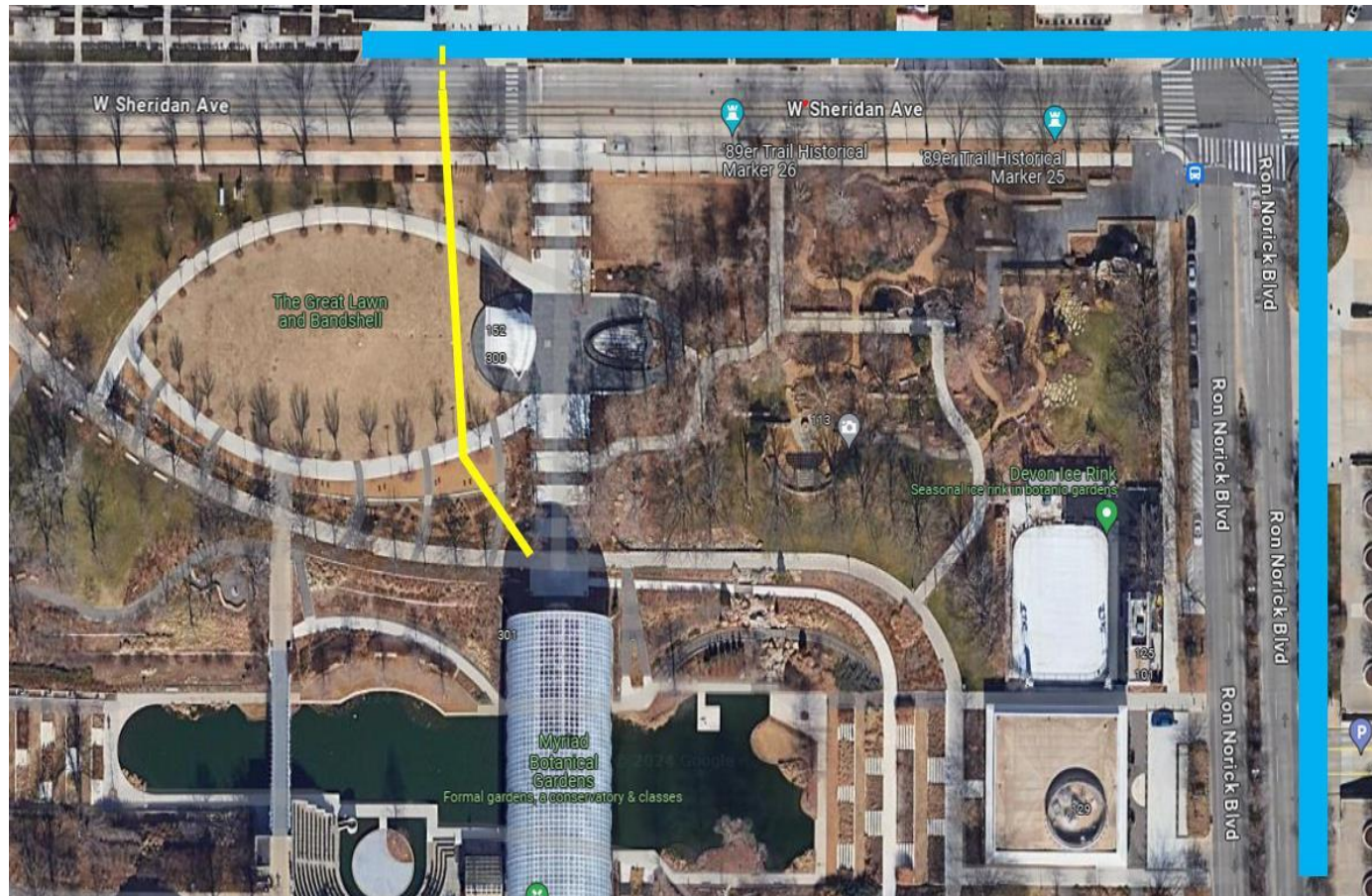
- Provide necessary insurance, permitting, bonding
- Structural coring, joint sealant, caulking
- HVAC piping, pumps, heat exchangers, rerouting of suppressions systems if needed
- Electrical connections for pumps
- Site work necessary outside Crystal Bridge to connect to Vicinity lines
- Facilities clean up

Vicinity Scope:

- Civil contractor for trenching, concrete removal, restoration, and mechanical contractor for hot tap and welding
- Material for piping
- Meter install
- Landscaping and paver repairs

Chilled Water Connection Routes:

- Blue lines are Vicinity's existing lines for chilled water in the City
- Yellow line is proposed trenching path to extend lines to the Crystal Bridge



Estimated Cost and Proposed Timeline:

Funding Request

- Not to exceed \$3,000,000 from TIF 8 – Other Public Developments budget category

Proposed Timeline

- June 2024 – August 2024: Design and engineering
- November 2024 – January 2025: Installation of piping from Sheridan to Crystal Bridge via Vicinity
- January 2025 – April 2025: Installation of connections to all AHUs and tie into Vicinity piping
- April 2025 – May 2025: Testing of controls for new system
- May 2025 – June 2025: Project completion