



# Thomas Dale High School—Developed New Cooling/Mechanical Building

Overcame Weather Delays to Complete Project On-time



## Project Description

80% Progress Thomas Dale High School, a school of more than 2,500 students and faculty, had an existing mechanical and cooling room that was located in the middle of the school building. The project entailed creating a whole new mechanical and cooling building located on an out-parcel piece of land on the school's property and adding two new chillers. The previous room had an old system utilizing an ice harvester and was inadequate to add additional chillers. The school wanted to utilize the existing space for students and wanted to decrease the cost of utilities. Waco was hired as the GC on the project; and Waco personnel completed all the demo, mechanical and plumbing elements.

## Unique Project Challenges

- 1 Safety of students, faculty and visitors was a significant challenge. Students were attending school during half of the project. The project required running thousands of lbs. of piping on top of the school and underground, and using heavy lifts. Access to roads had to be coordinated in order to support safe operation of personal vehicles and buses coming on and off school property.
- 2 The project schedule was very tight. Starting in May, the project had to be completed before school resumed in the fall. Most challenging was the unusual amount of rainfall during the summer period, which prevented work from being done on 25 days within a 4 month period.
- 3 The project management demands were unique. Coordinating a massive project while school was in session, battling unpredictable weather conditions, and striving to meet the customer's timing and economic requirements put to test Waco's ability to manage complex projects and achieve the desired result.

## Why Thomas Dale Chose Waco Inc.—reputation and cost...

Waco was the low bid on the project, which was the delight of the engineering firm that did the project design work. The design engineers had previous experience with Waco and knew their experience and capabilities could get the project done on time and budget. Also, Waco had a proven track record of success completing similar projects in Chesterfield County, the jurisdiction in which Thomas Dale high school is located.



### Project Scale

- 11,000 man hours over a 4 month period
- Over 4,000 man hours per month for last 2 months due to rain delays
- Installed roughly 1,000 feet of 10-inch chill water supply and return plumbing
- Installed 400 feet of pre-insulated underground piping
- Installed three 650-ton chillers each weighing 32,000 lbs.
- Utilized heavy cranes and rigging equipment
- Constructed 3,000 sf block masonry and steel building in 2 months with a 1,600 sf enclosed yard to house three cooling towers

## Summary of Results

With the mechanical/cooling building now separated from school, maintenance work can be done without interrupting school activities. Also, the two additional chillers are helping to reduce cooling costs. Even though the owner and design engineering firm had concerns about the project getting completed on time knowing rain delays would have an impact, Waco personnel and their exceptional project management capabilities made it happen before school resumed in the fall. The owner's economic requirements were met. This project was managed by Jon Coon, Project Manager at Waco.

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## Other Locations

