

## WILSON COUNTY SCHOOLS, LEBANON, TN

TCA 12-4-110 Guaranteed Energy Savings Performance Contract



## WILSON COUNTY SCHOOLS

Excellence in all we do!



### Project Success

The project presented many problems from timelines to complete the initial phase of RTU installs to meet the start of school in 2020. Our region has experienced an unprecedented amount of rain which has affected the roof installation. In addition, this was accomplished during the global pandemic in which supply chains were severely disrupted. In spite of this, we were able to leverage our supplier partnerships to make sure the initial RTU phase was completed prior to the start of school.

### CHALLENGES

The county school district wanted to replace 70+ aging Rooftop HVAC units on one high school, replace the roof and install a new roof and complete there LED conversion throughout the county school system.

### SOLUTIONS & IMPROVEMENTS

The project covered upgrades to 5 facilities and all exterior lighting. Energy conservation measures that were incorporated consisted of the following:

- ▶ Lighting retrofits at 4 schools and all exterior lighting to complete the LED conversion on all campuses.
- ▶ Installation of 70 new RTU's, Economizers and DOAS units on Wilson Central HS. Engineering of addition of unitary DOAS conditioning systems. Critical issue was installation before school started so facility had adequate conditioning
- ▶ Installed 73 new PTAC HVAC units in classrooms for space conditioning.
- ▶ Install new 3-ply roofing system with additional insulation to meet current building codes and achieve a 30 year warranty.
- ▶ Re-configured smoke alarm system on new HVAC units installed for proper alarming functions.
- ▶ Installed new electrical disconnects on all units and reconnected wiring to existing BAS controls.

## PROJECT SUMMARY

**LOCATION:** Lebanon, TN  
**PROJECT DATES:** June 2020 – January 2021  
**PROJECT SIZE:** Wilson Central HS and Facility/Exterior Lighting.  
Total Square Footage: 135,000.  
**PROJECT COST:** \$6,290,000  
**SOURCE OF FUNDS:** County G.O. Bond  
**CONTRACT TERMS:** Guaranteed Savings  
**FINANCING ARRANGEMENT:** Bond Issue 15 Year Term  
**DESIGN TEAM:** Perfection Group, Inc. Engineering Team  
**PROJECT SCHEDULE:** On Schedule  
**GUARANTEED ANNUAL ENERGY SAVINGS:** \$100,125  
**ANNUAL OPERATIONAL SAVINGS:** \$65,000  
**CAPITAL AVOIDANCE SAVINGS:** \$4,544,040