



## **IEC Project Highlight**

### **Indoor Air Quality Controls during Construction**

### **Prosper ISD - Rock Hill High School**



Indoor Environmental Consultants, Inc. (IEC) provided on-site observation visits and pre-occupancy testing for the new Prosper ISD Rock Hill High School located in **Frisco, Texas**. The second high school in Prosper ISD consists of approximately 500,000 square feet, including a 1000 seat auditorium, and a 2500 capacity multi-athletic center. The air sampling was conducted during two site visits as building areas were completed and available for testing. The air sampling included the collection of ambient air samples at forty (40) sample locations. Sample locations generally include 20% of the classrooms and five main areas (library, cafeteria, gym, auditorium, and administration area).

The collegiate campus style architecture was designed by **Huckabee Architects, Inc.** and **Pogue Construction Company, LP** served as the construction manager.

IEC successfully completed the sampling of the campus buildings prior to the occupancy deadline according to guidelines within specification 01-5721 Indoor Air Quality Controls, a specification that was jointly developed by IEC and Huckabee Architects. The specification has been incorporated and successfully implemented in over **250** school projects in **40** school districts across Texas .



Three on-site observations visits to the site during the construction phase were included based on the bid specifications to observe and document materials storage, vapor barriers, weather-proofing, water intrusion issues, HVAC component hygiene, and other building conditions that might cause future degradation to indoor air quality. Narrative reports of observations including photo-documentation were submitted after each visit, and included any necessary corrective actions to ensure acceptable indoor air quality.

Post-occupancy sampling will include two visits to the site, one at 5 months and one at 11 months post-occupancy, based on the bid specifications to complete the testing at the school building. Sample locations will be identical to the pre-occupancy sampling locations, if feasible. Post-occupancy sampling should be performed while the school is fully occupied to obtain accurate results as to ventilation effectiveness, thermal comfort, and indoor air quality conditions under actual operational conditions.

Samples were collected for total fungal bioaerosols, formaldehyde, and general ambient air screen for total volatile organic compounds (TVOCs), methane, carbon dioxide, and carbon monoxide. Additionally, real-time monitoring was conducted for temperature, relative humidity, carbon monoxide, total volatile organic compounds (TVOCs), ozone, and airborne particles (small <2.5 microns and large 2.5 to 10 microns).