



*DEL-010 – DRAFT TWO*  
*NEWS RELEASE*



### **Grammar school complex benefits from energy-efficient BMS**

Building controls expert, BG Controls has provided full integration and electrical installation of the Building Management System (BMS) at Leicester Grammar School (LGS) in South Leicestershire. The school recently relocated to a £33million, purpose-built complex, which provides first-class educational facilities for 1077 pupils, aged 3 to 18.

BG Controls installed a state-of-the-art BMS for the new development, which incorporates a number of sustainable technologies to minimise environmental impact and limit energy usage.

The building controllers were provided by leading developer of native BACnet automation systems, Delta Controls Inc of Canada. The integration of BACnet technology to the building's windows and natural vent systems has enabled sustainable ventilation to the school. The windows and natural vents are also connected to an energy-efficient under floor heating system via BACnet. Room sensors send signals to the heating controllers to ensure that the heating is not activated in areas where windows or vents are open.

The BMS also enables an energy-efficient Combined Heat and Power (CHP) unit. The CHP uses a gas supply to generate electricity to the school. Unlike traditional power generators, the 'waste' heat which is produced by the generator engine is captured and then used to supply heating demand to the school and its Domestic Hot Water System (DHWS). A Delta ORCAweb server provides a web-based front end to connect the automated controllers to the Local Area Network (LAN). This allows facilities staff at the school to connect to these web pages, view the current status of the BMS and make modifications when needed.

"The Delta equipment will help to generate significant energy and cost savings for the school, as it has eliminated the need to power a mechanically operated ventilation system," says BG director, Duncan Biggins. "As a result, the environmental impact is minimal as the new building utilises resources through this and other eco-friendly solutions."

Alison Shakespeare, Leicester Grammar School's business director, comments: "It is appropriate that a forward thinking school should occupy a state-of-the-art building which is supported by a management system that provides the best possible learning environment for the pupils and staff."