

# MAKING BUILDINGS BETTER

GOVERNMENT



## ELK GROVE ADMINISTRATION & PUBLIC SAFETY COMPLEX

**Owner:** Elk Grove Village

**Architect:** Sente, Rubel, Bosman & Lee

**Mechanical Engineer:** Consolidated Consulting Engineers

**Mechanical Contractor:** Oak Brook Mechanical

### Customer Challenges:

Elk Grove commissioned a professional study of their police facilities in 2001. The results of the study showed that the Police station was deficient in meeting current standards and recommended teardown/rebuild of the police station. Elk Grove wanted to enhance the operations of their police force and make them more effective at delivering municipal services. Another goal of the project was to design a facility that was geared toward environmental stewardship. Therefore, Elk Grove aimed for LEED certification.

### Trane Solutions to the Challenges of the Project:

Efficient HVAC equipment and intelligent building controls helped Elk Grove update their facilities and earn LEED certification. Trane provided M-series air handling units with fan arrays. The ventilation air flows can be accurately measured through the fan arrays. This helps ensure that the building occupants will be comfortable and productive. This also earns a LEED credit toward certification. Efficient building operation is a large component of LEED buildings. Trane's Chillers and Air Handling equipment helped the building exceed local energy codes and earn LEED points. The Trane control system allowed the supply fan to optimize the static pressure for further energy savings. The Trane chillers met the LEED requirements for Refrigerant Management as well.

The fan array design of the Trane air handler will be more reliable for the buildings 24/7 operation. There is redundancy built into this type of system, which will keep the unit on-line even if something were to go wrong. The fan array also reduced the equipment footprint to save space in the new facility.

### General Description of the Building:

The Elk Grove Administration & Public Safety Complex was constructed on the site of the existing Police station. Construction began in late 2007, and is nearing completion. The building created a new signature look to the existing campus in Elk Grove. The new building connects the existing village hall and existing fire station. The Administration and Public Safety complex is designed to meet the Village's demands for the next 40 to 50 years and has capacity for future growth. The building is home to the Police, Engineering and Community development, Health and Community Services, and Village Finance.

**Trane Equipment/Controls:** Air-Cooled Chiller, Fan-Powered VAV boxes, Trane M-series AHU with 2X2 fan array. Tracer summit building automation system and Trane programmable unit controllers (MP581).

