

---

# DAVIDSON & ASSOCIATES

CONSTRUCTION ANALYSTS, INC.

---

## Francis Scott Key Middle School Construction Document Review & Quality Assurance during Construction



Demolition of the existing facilities and replacement with a new 149,000 square foot middle school, associated athletic fields, parking and bus lanes. Due to size/code restrictions, steel frame structure is divided into three, interconnected buildings. Building 1 is a two-story classroom wing; Building 2, a single-story structure containing the gymnasium, cafeteria, administrative office & support facilities; and Building 3, contains auxiliary gymnasium & mechanical spaces. Exterior walls consist of brick and cast stone veneer with continuous insulation & CMU backup. Fenestration consists of aluminum frame windows, curtain wall & hollow metal frames. The school is located in Silver Spring, MD.

**Challenge:** Provide overall technical review of the construction documents related to waterproofing, building envelope (weather barriers, cladding, fenestration and roofing) at critical design phases while emphasizing constructability and economy. Implement construction phase quality assurance program to address building envelope components and systems installations.

**Value Added:** Davidson & Assoc. assisted the project team by identifying several opportunities to enhance building performance and reduce costs for both initial construction and long-term maintenance. In particular, more economical steel frame detailing was recommended that enhanced thermal performance while simplifying installation.

**Service performed:** Technical review of construction documents (drawings and specifications); quality assurance during construction.

**Owner:** Montgomery County Public Schools  
**Architect:** The Lukmire Partnership

**Contractor:** Hess Construction Company  
**Duration:** 2007 - 2009