

# Bucks County Justice Center

Doylestown, PA



Image 1 — Exterior rendering of the front apex

## Project Statistics

**Occupancy:** Assembly, Business, Institutional, Storage

**Size:** 273,000 GSF

**Levels:** 7 levels above grade (with penthouse)  
2 levels below grade

**Dates of construction:** July 2011-Early 2015

**Overall Project Cost:** approximately \$84 million

## Project Team

**Owner:** County of Bucks

**General Contractor:** Ernest Bock & Sons, Inc.

**Architect:** HOK

**Civil:** Carroll Engineering Corporation

**MEP:** H. F. Lenz

**Structural:** Harman Group

**Security and Code Consulting:** Brinjac Engineers

**Telecom, A-V, and Acoustics:** Acentech Incorporated

**Elevators:** John Van Deusen

**Lighting:** Tigie Lighting

**Fall Protection:** Lerch Bates Incorporated



Image 2 — Exterior rendering of the south wing

## Architecture

This building is in the shape of a 'V' with the main entrance located at the apex facing east. (see Image 1 to the left) and is occupied by courtrooms, offices, holding cells, secure parking, and other supporting spaces. Part of a historic building on the site will be incorporated into the new structure. (see the bottom left of Image 2 below) The exterior façade is curtain wall with precast concrete panels faced with brick and terracotta. Vision, translucent, spandrel, and fritted glass are utilized based on the orientation of the window and the use of the space.

## Lighting and Electrical

A 3200A 480/277V unit substation, located in the penthouse, is supplied by a 2000kVA transformer with a 34.5kV primary. Four 480/277V vertical bus ducts distribute normal power from the penthouse to the dimmer panels, lighting and distribution transformers. 120/208V is used for receptacles and small equipment. A 1000KW/1250kVA diesel generator provides emergency power. Interior lighting is predominantly linear fluorescent fixtures with LED accent lighting. The courtroom lighting is controlled through central dimming panels located on each floor.

## Mechanical

The chilled water and hot water plants are located in the penthouse. There are seven water based variable volume air units. Pressurization fans are provided for each stair tower. Dedicated heat pumps with a water/glycol loop are provided for telecom/data closets and server rooms. CO monitoring is provided for the garage with exhaust fan control.

## Structural

The building is a steel framed structure supported by spread footings and strip footings. The columns, beams, and girders are primarily wide flange. A braced frame lateral system is utilized. The floor system is a concrete slab with welded wire reinforcing on metal deck with composite beam framing.