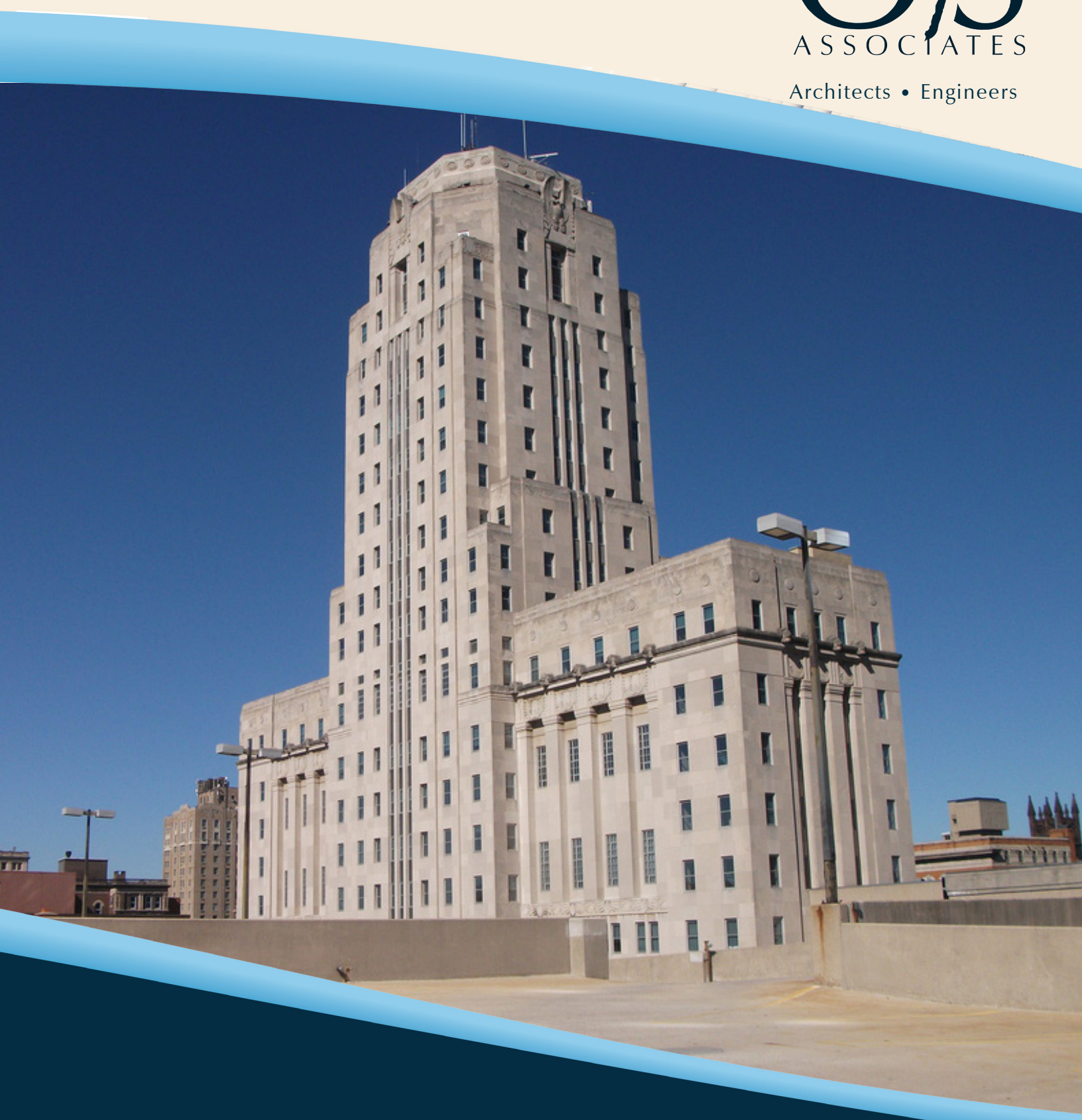




Architects • Engineers



PENNSYLVANIA PUBLIC PURCHASING ASSOCIATION

REPRESENTATIVE EXPERIENCE

County of Montgomery - Norristown Parking Garage – Norristown, PA



O&S Associates was retained by Montgomery County to continue an assessment on the pre-cast, double tee parking structure and prepare a rehabilitation plan for the structure. The structure has 5 supported levels, 2 stair towers and 2 major elevators. The condition assessment was based on a review of the existing plans and testing reports, visual observations of the site, and exploratory work and material testing. These tests included chain drag and hammer sounding as well as exploratory openings of the structure.

Due to lack of maintenance, the garage had deteriorated extensively and required extensive repairs. Work included full and partial depth repairs, replacement of expansion joints, repair of pre-cast tee-to-tee connections, replacement of connections between parapet sections, and installing of a new traffic bearing membrane and joint sealants. O & S Associates prepared drawings and specifications for the structural repair and waterproofing of the garage and provided bidding and construction administration services.





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Berks County Courthouse (1931) – Reading, PA

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O&S Associates was retained to troubleshoot an exterior wall repair project that was being completed under a Guaranteed Energy Savings Agreement. The project was budgeted at \$6.0M however an additional \$2.3M was being proposed by the project team. The County Commissioners retained O&S Associates to perform a 3<sup>rd</sup> party peer review of the project in order to assess the condition of the walls and opine on the value of remaining work. O&S was later retained to take over the project based on our success to reduce the value of additional work by properly assessing the condition of the exterior walls.



***O&S increased the scope of repairs and reduced the change order amount by \$700K.***

Reading School District – Plaza, Exterior Wall, and Parking Garage Repairs and Waterproofing



The Reading School District had two school courtyards or plazas over occupied space that had leaked for decades despite repeated attempts at repairs. The first was the Reading High School Esplanade. The second was the Reading Middle School Courtyard. The key to the success of the projects was a careful assessment that required invasive exploratory openings since the structures had many unknowns surrounding their 1926 and 1924 construction, respectively and repeated repair attempts.



O&S Associates was also hired to triage the Reading School District's 18 schools after emergency repairs were made to the Northeast Middle School Elevator Bulkhead due to collapsing sheaves, and the partial collapse of the precast adornments at the Glenside Elementary School. O&S Associates prioritized and designed a hazard mitigation program for 9 of the schools, which were built between 1924 and 1935. O&S Associates recommended a hazard mitigation program with a budget of \$3.0M that was ultimately completed for \$1.9M.

**The iconic success of the project is demonstrated by a water test that was held for several days to prove to the doubtful BOE and public that these old buildings could be saved.**



O&S Associates was then tasked with the design of the long term exterior wall repairs for 18 of about 25 schools. 8 of the schools were also provided with the design of window replacements. The following spreadsheets comprise a case study for our work with the exterior wall repairs for the schools.



Citadel - Before & After



Reading School District Citadel Garage

The Reading School District knew O&S for our building envelope services and our success in solving difficult projects. When the Citadel project ran into problems, Reading contacted us for help. The garage repair project, designed and managed by others, was originally contracted for \$600K. There were already \$2million+ change orders, and neither the Construction Manager nor the Architect could tell the school district what the final cost would be.



O&S reviewed the scope and realized it was inappropriate for the school district's long-term ownership and recommended a scope of work that would cost between \$2.0 to \$3.0 Million dollars. Reading authorized us to re-design of the garage reconstruction and publically bid the work to see if our conclusions were correct. The results were successful so the Reading School District terminated the Architect, Contractor, and Construction Manager for this portion of the project, and awarded the work to O&S and the successful low bidder. O&S was retained as both the engineer of record and the Construction Manager because it was the most cost-effective means to implement the work.

Our strategies included providing more accurate details and a restructured unit price contract commensurate with industry standards.

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### New York City Housing Authority – Exterior Wall Repairs

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In 2011, the New York City Housing Authority (NYCHA) engaged O&S Associates to provide Architectural & Engineering and Construction services for 2 (two) 5-year IDIQ contracts. O&S Associates has already provided design and construction services for more than 300 NYCHA buildings. Our first Task Order was to provide comprehensive structural evaluations of the facades, windows, and roofing of 80 buildings and then recommend required repairs, estimate construction costs, produce specifications and construction drawings, and provide construction administration. O&S also filed all required documents with the NYC Department of Buildings. Project funding was provided by the Department of Housing and Urban Development (HUD) and thus was subject to very strict A/E and construction requirements. It was also highly time-sensitive and O&S Associates was immediately responsive to any changes or revisions that were required to complete the project.



For our second Task Order, O&S Associates was engaged to perform Local Law 11 Inspections for 220 buildings throughout New York. New York City law requires that all buildings over 6 stories be inspected by an A/E professional every 5 years. Our services will include a complete visual inspection of the entire façade and roofs of these buildings including a close-up inspection using a suspended scaffold (swing stage). We will also provide repair designs, cost estimates, and construction drawings and specifications to rectify unsafe structural conditions

**Special Features:** The Scope of Work for this contract is extremely large with many buildings requiring service concurrently. The design schedule was compressed to meet HUD funding and Bond Requirements. The initial 90% set including the multi-discipline design for more than \$125M was performed in 3 months. 220 building inspections subject to NYC Local Law 11 were provided in 12 months. In order to manage the huge volume of work successfully, O&S Associates developed and implemented new and more efficient inspection, design, and quality control procedures. NYCHA staggered the schedule for inspection, design, and construction of each development, so we utilized multiple teams to meet the deliverable schedule.

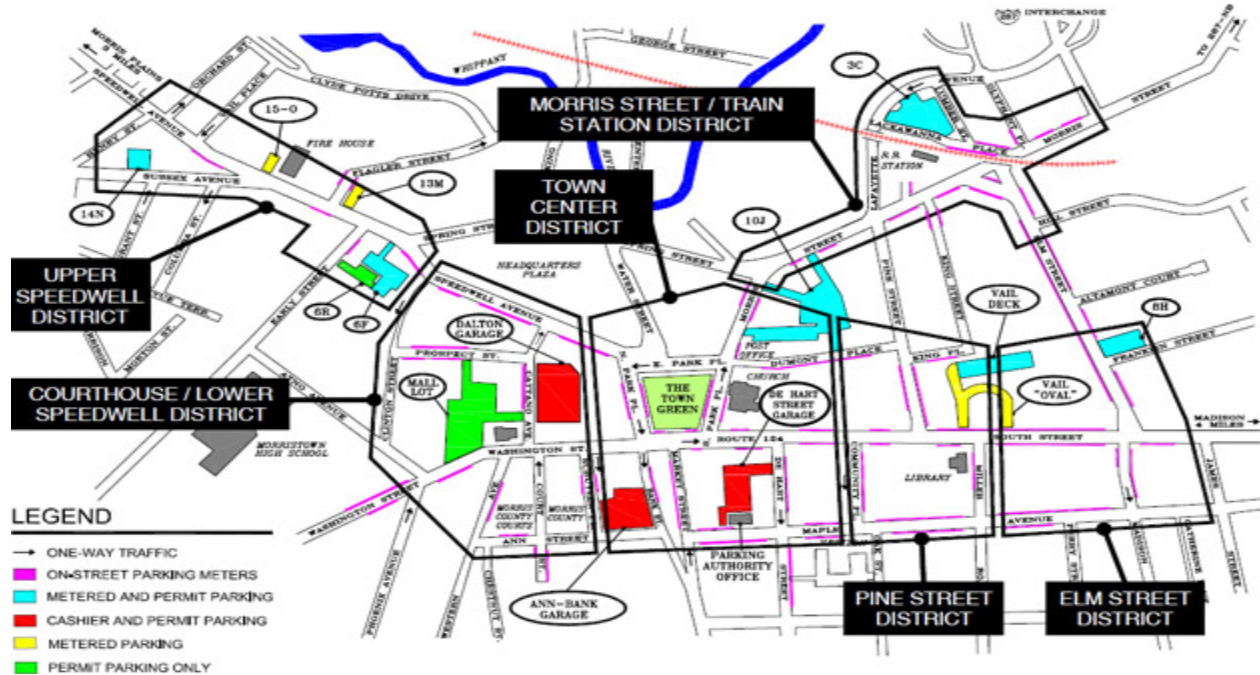


**Hazardous Materials:** The presence of hazardous materials was also a significant consideration in this project. Due to the age of the buildings, the existing building materials included asbestos and lead-containing roofing and flashing materials. As per NYC rules, O&S Associates tested for hazardous materials at each building under contract. We then utilized certified hazardous material specialists to develop a remediation plan for safely removing and disposing of hazardous materials during construction.



Morristown Parking Authority – Morristown, NJ

O&S Associates performed an examination of three parking garages and thirteen surface lots for the



Morristown Parking Authority to determine their conformance with the current and applicable provisions of the Americans with Disabilities Act (ADA). Areas of ADA that were being reviewed included:

- |   |                                       |
|---|---------------------------------------|
| Total number of handicap parking stalls | Types of handicap parking stalls      |
| Placement of handicap parking stalls    | Handicap parking access aisles        |
| Access Routes                           | Curbs, ramps, and appropriate signage |

O&S Associates identified non-conforming areas and determined whether changes to comply with ADA were achievable or “not readily achievable.” For areas where changes were “not readily achievable” alternate strategies were developed for improved ADA compliance.

City of Trenton – HVAC System & Control Replacement at Fire Headquarters & Fire House #9

O&S was hired by Trenton, NJ to replace the obsolete Staeffa HVAC control system for the city’s Fire Headquarters and Fire House #9. The City also needed the new system be intergrated with the monitoring/control system located within the City Hall building. O&S performed an assessment of the existing system and controls and prepared engineering plans and specifications for the modification, removal and replacement of systems and controls.



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Public Agency Experience:

**Federal**

- United States Government Office of Thrift Supervision/Department of Treasury Reagan Building Commerce Building EPA West Building
- US Army – West Point
- US Airforce Cannon Air Force Base (NM) & Tinker Air Force Base (Oklahoma City, OK)
- US Department of Veterans Affairs
- National Institute of Health
- Danbury Prison & Correctional Institute (Danbury, CT)

**State**

- New Jersey Performing Arts Center (NJPAC)
- Rowan University (Glassboro Township, NJ)
- New York/New Jersey Port Authority

**Municipal**

- New York City Housing Authority (NYCHA)
- City of Yonkers (NY)
- City of New Rochelle (NY)
- City of Dayton (OH)
- Philadelphia Parking Authority (PA)

**County**

- Montgomery County (Norristown, PA)
- Reading School District 18 Schools (Reading, PA)
- Berks County, PA Courthouse
- McAllen Independent School District (McAllen, TX)
- Maple Heights City School District (Maple Heights, OH)
- Georgetown College (Lexington, KY)
- Seneca County Museum (Tiffin, OH)
- Morristown Parking Authority (NJ)
- Morris County (2015 IDIQ Elevator Consulting)



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**Structural • MEP • Architecture**

**Energy • Exterior Envelope • Studies Parking • Restoration**