



CHRISTIANA CARE HEALTH SERVICES WILMINGTON AND NEWARK, DELAWARE

Christiana Care Health System, a Level 1 trauma center, maintains several hospitals and medical centers throughout the Delaware Valley. As a progressive and growing medical service provider, Christiana Care constantly upgrades and adds on to their facilities to meet the dynamic industry requirements. As a result, these efforts have resulted in the ongoing construction of new facilities including a 400,000 s.f. hospital tower, an 800 space parking garage, medical office buildings, an outpatient surgery center, an operating room addition and many other improvements throughout the facilities. Its main hospital campus has expanded from 1.4 million s.f to 2.7 million s.f. over a 10 year period.

Many of the projects require flexibility in the timing and methods to minimize disruption of hospital users and operations. Duffield Associates has a long working relationship with Christiana Care as a result of satisfying the pressing needs of this growing health provider. Duffield Associates has provided services including:

- Environmental consulting regarding regulatory compliance for above and underground storage tanks,
- Geotechnical and construction review services for numerous building expansion and new building projects
- Civil engineering services including land development, rezoning, and managing civil/site design in accordance with local development code.
- CCTV inspection and rehabilitation of sewers,
- Storm sewer improvements,
- Assessment of on-site groundwater as back-up water supply and hydrogeologic consulting services
- Redesign of hospital playgrounds
- Consultation on landscaping issues
- Assessment of traffic/pedestrian flow issues
- Wetlands delineation and jurisdictional determinations
- Budgeting
- Assessing/implementing annual pavement maintenance programs and design/construction review of pavement expansions for several of their facilities

Duffield Associates also conceptualized and managed the design, permitting and construction of an almost 700 car surface relief parking lot. A circulation road and lighting and landscaping beautification were all included in this project.

Our successful working relationship with Christiana Care Health System allows us to develop design solutions that satisfy their corporate goals. Additionally, we are often requested to provide input on facility improvements with frequent interaction assisting other design professionals with these projects.

Projects