

Project Background

City Hospital campus of southeast Pennsylvania has a 30-year development master plan which included approximately one (1) million square feet of research space, one (1) million square feet of ambulatory care and clinical office space, and one (1) million square feet of parking and support services.

City Hospital campus development Phase 1 (P1) is the first phase of this multiphase campus development, and it was completed in March, 2008. P1 in essence consisted of three individual buildings, a three-level sub grade vivarium, a three-level sub grade Central Utility Plant (CUP), and a Support Services on street level. The vivarium contained 176,300 square feet of laboratory spaces and animal suites to promote advancement in medical research. The three-level, 59,500 square feet CUP is constructed adjacent to the vivarium, contained mechanical, electrical, and plumbing (MEP) infrastructures to support P1 and future phases. Future phases will be constructed above and adjacent to P1.

Phase 2 (P2) will be constructed above P1 vivarium. P2 contained 249,500 square feet of laboratory spaces and research offices on seven (7) levels. Future phases will be constructed above P2 and adjacent to P1.

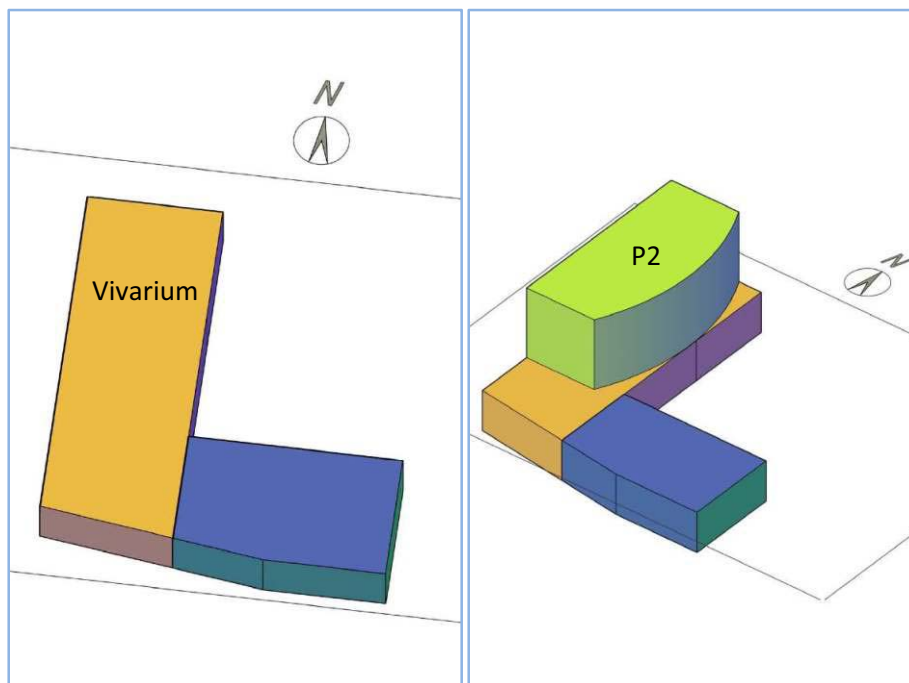


Figure 1: P 1&2 Conceptual

Note: Previous reports prepared for this thesis was written on Phase 1 only since it was the only information available at the time. Phase 2 information was included as it become available to increase accuracy. This thesis will suggest alternate solutions(s) to the building system design of City Hospital campus. Modifications and changes are for academic purposes, and do not imply errors or flaws in original design.