



# Prince Frederic Hall Tech One

Lauren Kandt

PSU AE

Construction

Sowers

College Park, MD

9/16/2013

# Executive Summary

Prince Frederic Hall is a 7-story dormitory building with mixed use floors. It is a fairly typical dorm with security, campus needs, and a sustainable focus. The total cost is \$59,392,361.00 and the building is expected to be ready for occupancy on 13 May 2014.

The owner of Prince Frederick Hall is the University of Maryland, a public research university in College Park, Maryland. The university is building Prince Frederic Hall to provide more living space for on campus students and campers. The building will have offices, classrooms and a computer lab for the technology camps that the University hosts along with four types of dormitory room.

The University has fairly strict regulations for building appearance on campus. They are well known for red-brick Georgian buildings and intend to keep it that way. The University also wants to cultivate a studious environment for its students. To that end addressing sexual harassment and other potential culture clashes are the responsibility of the CM and contractors. Noise pollution is extensively addressed as well as no work days surrounding exam periods and commencement days.

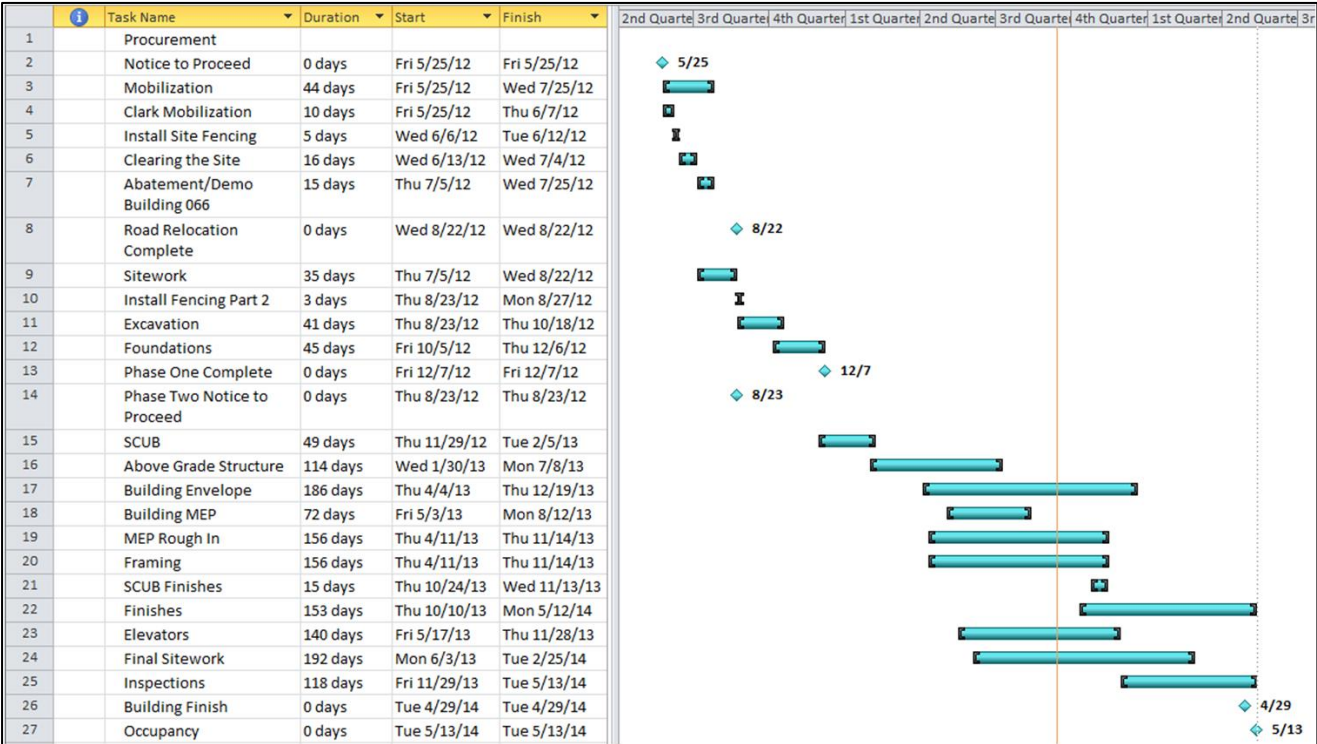


Figure 1: Overall Schedule

Notice to Proceed arrived May 5, 2012. Clark Construction immediately began working this project. They placed the target for occupancy on May 11<sup>th</sup>, 2014. This provides two years to prepare the site and construct Prince Frederick Hall. Due to the project being located in a residential part of campus there are many concerns surrounding the student population. To address this the contract included clauses to limit or forbid construction during finals weeks and on commencement days. The university expects construction to respect the academic calendar and the schedule was created to reflect this desire. Once the building is enclosed construction speeds up due to the cookie cutter nature of the higher dormitory floors.

The University reserves the right to occupy and install equipment in completed areas of the project before substantial completion. It also has full occupancy in the buildings surrounding the worksite.

Due to the technology camps and desire to provide students with good living spaces Prince Frederic Hall is fairly advanced. Telecommunications and security will be managed by Lenel On Guard system. They will assist with the programing behind the security devices, however Davis is expected to install most of the actual equipment. The electrical system was designed to be able to handle high loads without being interrupted. The concrete, masonry, and curtain wall construction is fairly typical. The excavation however, is worth noting. The site needed to be cleared of Building 066 and a parking lot. Once cleared erosion became a concern due to the sandy nature of the Coastal Plains soil. Storm water management and reinforced excavation walls seem to solve this adequately.

Prince Frederick Hall was contracted to be a Silver LEED building. This was part of the green initiative present in the campus Master Plan. However, Clark Construction was able to reach a Gold level of 63 LEED points by using smart construction techniques like waste management, atmosphere during construction and having a sustainable site.

The project has a total cost of Prince Frederick Hall is \$59,392,361.00 or \$550.09 per square foot. This is more than the RS Means estimate of 25,447,748.80. This could be explained by the mixed use estimate being divided differently. This estimate divided the top 6 floors as residential, while the lower 2

floors were estimated as office space. It is also explained by the lack of accounting for the telecommunications materials and the ‘classroom like’ environments.

The project is located in the south section of campus. It is going to go in place of an existing parking and is surrounded on all sides by other dormitory buildings. Unfortunately this means that not only will an entire road be redirected but large masses of pedestrians will also need to be redirected. Fortunately the pedestrian paths are conducive to guiding students around the site. Needless to say, safety is heavily emphasized in scheduling and site layout.

The project is contracted as Design-Build to Clark Construction Group LLC. From there all the other contracts are run through the University. However Clark Construction is ultimately responsible for coordinating all other contractors on site.

In conclusion, Prince Frederic Hall is a sustainable residential hall with construction plans that meet the varied needs of the University of Maryland and the student population.

Cost	
Construction Cost	\$ 45,734,105.00
CC/SF	\$ 423.59
Total Cost	\$ 59,392,361.00
TC/SF	\$ 550.09
Major Building Cost	\$ 26,156,872.00
General Conditions	\$ 2,689,825.00
Mechanical	\$ 8,429,887.00
Electrical	\$ 4,404,000.00
Telecommunications	\$ 331,799.00
Subguard	\$ 567,151.00
Concrete / Masonry	\$ 9,734,210.00
MBC/SF	\$ 242.26
RS Means	\$ 25,447,748.80
College Dorm (4-7)	\$ 12,346,663.60
Office (2-4)	\$ 13,101,085.20
RS Means/SF	\$ 235.69

Figure 2: General Estimate

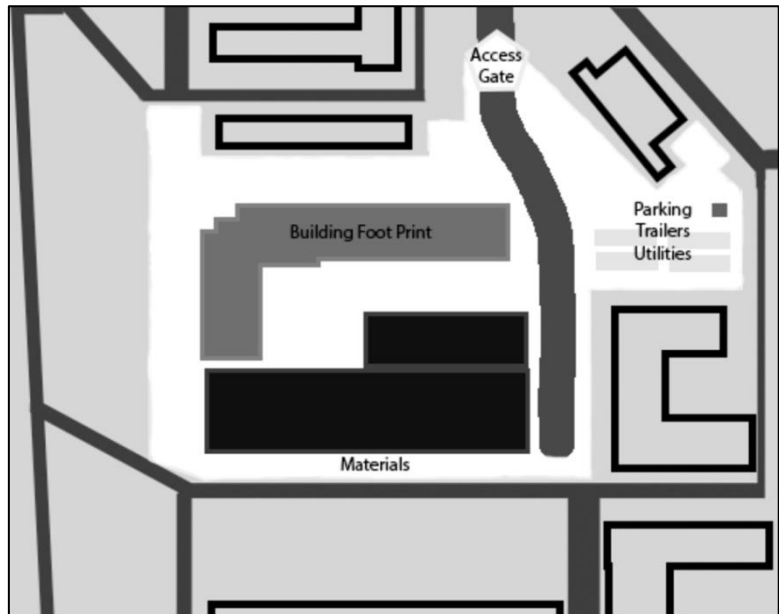


Figure 3: Site Plan

.

.