Defining Construction Terms for the Non-Builder

What is BIM?

BIM is an acronym for Building Information Modeling, or Building Information Model. It describes the process for designing a building using data assembled to create a coherent system of 3D computer models.

These models become shared knowledge resources to support decision-making about a facility from early conceptual stages, through design, demolition, construction and eventually, operational life.

Building Information Models of a project help to visualize and plan the design, as well as, simulate the construction process. This methodology allows contractors to identify and resolve conflicts, inconsistencies and mistakes early in the process.

BIM holds important uses for all stakeholders in a construction process. Some of the ways BIM is used include:

**DESIGN** (by the Architect and Engineers)

- **EXISTING CONDITIONS**: Laser scanning existing buildings and incorporating geo-tech and site condition information
- **DIGITAL MOCK-UPS**: Detailed modeling of specific areas and assemblies can improve understanding of and coordination between design details
- **DESIGN RENDERINGS & ANIMATIONS**: BIM can be used to create various animations: walk-throughs, fly-throughs, and step-by-step sequences of detailed assemblies and processes
- **CLASH DETECTION**: Software analyzes the Model for physical interferences (clashes) between building systems (eg. pipes) and components (eg. ducts)
- **QUANTITY EXTRACTION**: Quantity extractions from the Model can be used to support cost estimating
- **SCHEDULING**: Identifies critical phases of the installation sequence of complex details
- **SITE LOGISTICS**: Provides accurate planning for site safety, staging, impacts, and coordination

For questions & information, contact:
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Capital Project Internships

Opportunities are happening HERE!

At the outset of these projects, the Facilities Management Department and general contractors, Forrester Construction and Turner Construction Company, realized the importance of contributing more than bricks, mortar and new, state-of-the-art facilities to the campus community. It is also crucial that these projects provide opportunities to expand upon the college’s mission.

As an institution of higher learning, Prince George’s Community College exists to educate, train and develop students both in the classroom and through hands-on learning experiences. That is why the college and the construction teams have partnered to provide professional opportunities for students interested in architecture, engineering and construction careers. Selected students earn valuable, real-world experience in the construction industry. They are given real responsibilities learning by working along side industry professionals.

The Facilities Management Department and our construction partners are proud to bring this unique opportunity to PGCC’s students. For more information about internships and how to apply, contact the college’s Director of Planning, Design and Construction, Henry Dickson at dicksohl@pgcc.edu.

What do project interns get to do?

Internships through Forrester Construction are 12-week programs and involve responsibilities that support the project team both in the field and the office. Their primary duties are trade coordination, safety and quality inspections, and submittal and RFI review. Interns are also responsible for one or two trades which they report on weekly. Forrester’s interns also visit other job sites to get exposure to a variety of project types and attend special extracurricular events where they have the opportunity to network with other young professionals and gain valuable training. Once up to speed, interns become the teacher themselves as they lead tours of their jobsite and share what they learned.

Turner’s internship will run the duration of the Queen Anne project. The intern is an official part of the field operations team, and is assisting the Site Superintendent with daily duties and reporting, including Daily Construction Reports (DCR’s) which monitor weather conditions, physical site conditions, manpower, work complete, material and deliveries received, as well as any disruptions to safety or operations.

Each intern has the chance to work directly with seasoned construction professionals, subcontractors and college design and construction staff. By giving interns real responsibilities, they gain valuable, hands-on experience in the industry.

What are you currently studying at PGCC?
I am currently studying Urban and Regional Planning/Political Science. I have always wondered how cities and communities become a reality and how they work. What entities and what people have a say in where a building goes and what the purpose of that building will be. I am always wondering how I can make the cities run more efficiently.

How long have you been a PGCC Student?
I have been studying at PGCC for 4 semesters now.

How did you hear about the opportunity to intern at Lanham Hall?
I heard about this opportunity through the job fair that was held at PGCC last year. I came in looking for opportunities in Urban Planning initially, but saw Forrester as an excellent opportunity to learn a more specific area of Urban and Regional Planning.

What has been the best part of your internship, so far?
I am enjoying learning new things every day. Understanding the way the drawings work and how the subcontractors interact with the contracting company and project host, all culminate into a unique experience.

What is the most surprising thing about working in construction?
The speed with which things can be built. I did not think things could progress so rapidly through a construction project, but it can.

How does your internship support your career goals?
I have to keep focused on the long run and not each specific step. Understanding that each step in construction, community planning, or simply volunteering all help me to have a better-rounded understanding of my community. That way I can better serve my community in the future.

What is the best part of studying at PGCC?
PGCC has connected me to my community in ways I never thought of. It has connected me with the massive theater community that exists here. I had an interest in theater before I came to this school, but now, I absolutely love the theater. Not to mention, PGCC has helped me find the career that I most desire to put my efforts into.

Name: Cameron Issac
Role: Forrester Construction Intern
Lanham Hall Project

- Cameron Issac
- Forrester Construction Intern
- Lanham Hall Project

- What are you currently studying at PGCC?
  - Urban and Regional Planning/Political Science
- How long have you been a PGCC Student?
  - 4 semesters
- How did you hear about the opportunity to intern at Lanham Hall?
  - Job fair at PGCC
- What has been the best part of your internship, so far?
  - Learning new things every day
- What is the most surprising thing about working in construction?
  - Speed of progress
- How does your internship support your career goals?
  - Long-term focus
- What is the best part of studying at PGCC?
  - Connection to theater community
We invite the campus community to join PGCC’s Facilities Management Department and Forrester Construction for a construction tour of Lanham Hall led by Forrester’s project team. Come see what we are working on, the progress we have made and what happens behind the scenes of a college construction site.

Space is limited, so join us today! Register for the tour here: http://bit.do/lanham-hall-tour

Can’t make it this time? Look out for future tours as the transformation continues.

QUESTIONS? Henry L. Dickson at dicksohl@pgcc.edu
Lanham Hall—On its way UP!

What’s Happening Now?
Completed & 3-Month Look Ahead

- Hazardous abatement, interior and roof demolition completed
- Laid concrete foundations and slab on grade
- Elevator 1 and Stair 2 masonry towers in place
- Installed Level 1 plumbing
- Set transformer, switchgear
- Facade demolition and roof deck, screenwall and roof dunnage erection in progress
- Retrofitting existing building steel
- Energizing main switchgear
- Erecting west addition steel
What’s Happening Now?
Completed & 3-Month Look Ahead

- 95% of the Underground Utility Work has been completed
- Installation of the telecom loop around campus has been completed
- Demolition of the Existing Hallam Theatre interior has been completed and structural modifications are ongoing
- Foundation Concrete has been completed on the South and West sides
  - 50% complete on the North side and commencing on the East Side next month
- Foundation Waterproofing and Masonry will follow Foundation Concrete
- Structural Steel is 90%
  Complete on the South Side
  - Commencing on the West Side this week, and on the North side next month
Culinary Arts Center—On its way UP!

What’s Happening Now?
Completed & 3-Month Look Ahead

► Completed all perimeter CMU foundation walls & the foundation walls for the stair tower
► Completing underground cast-in-place concrete foundations
► Installing wet utility infrastructure
► Storm water management pond is ongoing
► Completing major storm water & sanitary tie-ins along Prince Place (including new 54" concrete pipes and storm structures)
► Working on underground plumbing and gas pipe within the building footprint
► Steel deliveries and crane mobilization is scheduled next month

CAST-IN-PLACE CONCRETE FOUNDATIONS
ONGOING PIPE & UTILITY FOUNDATIONS
PERIMETER FOUNDATIONS
PGCC’s Facilities
Design & Construction Team

PICTURED FROM LEFT TO RIGHT: SHAMUS BAXTER, CONSTRUCTION MANAGER; DIEDRE GIBSON, PLANNING AND DESIGN MANAGER; HENRY L. DICKSON, DIRECTOR OF PLANNING, DESIGN AND CONSTRUCTION; TIM KING, CONSTRUCTION PROJECT MANAGER.

Your Campus
Before Your Eyes...