



**Project Name:** The Mark  
**Architect:** CNNA Architects  
**Structural Engineer:** Stanley D. Lindsey and Associates, LTD

## BIM Came in Handy for Construction of “THE MARK AT ATLANTA”

Georgia 30309, USA

### ❖ About the Project

The Mark at Atlanta is a Mixed-Used Student Housing for City Life Development Partners & Landmark Development. The land is currently home to a Domino's Pizza and a parking lot. At 425,000 square feet, The Mark at Atlanta will feature over 780 beds, 281 apartments and more than 7,000 square feet of commercial space. Estimated Completion Date - August, 2020

Landmark Properties entered the Atlanta market for the first time in 2017 when the developer announced The Standard at Atlanta, a 19-story, 765-bed mixed-use development bounded by Spring, 3rd and 4th streets. Pre-leasing for the Standard was scheduled for completion by 2018 fall.

Amenities at The Mark will include an on-site parking garage, a rooftop pool and hot tub, fitness center, yoga room, bike storage center, clubhouse, study lounges, computer lab, golf simulator, sky lounge with adjoining outdoor terrace, sauna and tanning beds.

The fully-furnished apartments will feature 1, 2, 3, 4, 5 and 6-bedroom floor plan options, quartz counter tops in the kitchen and bathrooms, stainless steel appliances, washers and dryers, high-speed internet and secure controlled access.

### ❖ Facts at-a-Glance

Project Type: Mixed-Used  
Trades Covered: Concrete (Model & Shop Drawings)  
LOD: 400  
Software Used: Revit 2018  
Project Area: 470,000 Sq. Ft.  
Average Team Size: 6 Engineers  
Concrete Client: American Structural Concrete

## BIM Scope of Work

Pinnacle used Revit 2018 for creating the 3D Concrete BIM Model (LOD 400) to meet the project objectives like:

- 3D Concrete Model Creation for Coordination and Concrete Shop Drawings
- Constructability Review (Model Update to reflect changes resulting from Design Changes, RFI Generation & Update)
- Concrete Lift drawing Creation (Slab Drawings, Slab Soffit Drawings, Wall & Column Layout Plan, Embed Layout Plan, Detail Drawings, Wall Elevation, Pouring Sequence Plan, etc.)

## Challenges and Solutions

### ❖ Aggressive Project Deadline

Challenge 1 - In this project, more than 5 engineers were involved in various segments to execute the model. As a result, it was difficult to progress smoothly in the same platform. Owing to large area, we faced several issues that were tough to resolve within stipulated time frame.

Solution - We engaged a team of BIM engineers so that they were able to deliver the files on time. Every engineer had his own responsibility of completing the task. Moreover, Pinnacle Ad-ins helped us save time for shop drawing and model creation.

### ❖ Detailing Work for Slab on Grade Area

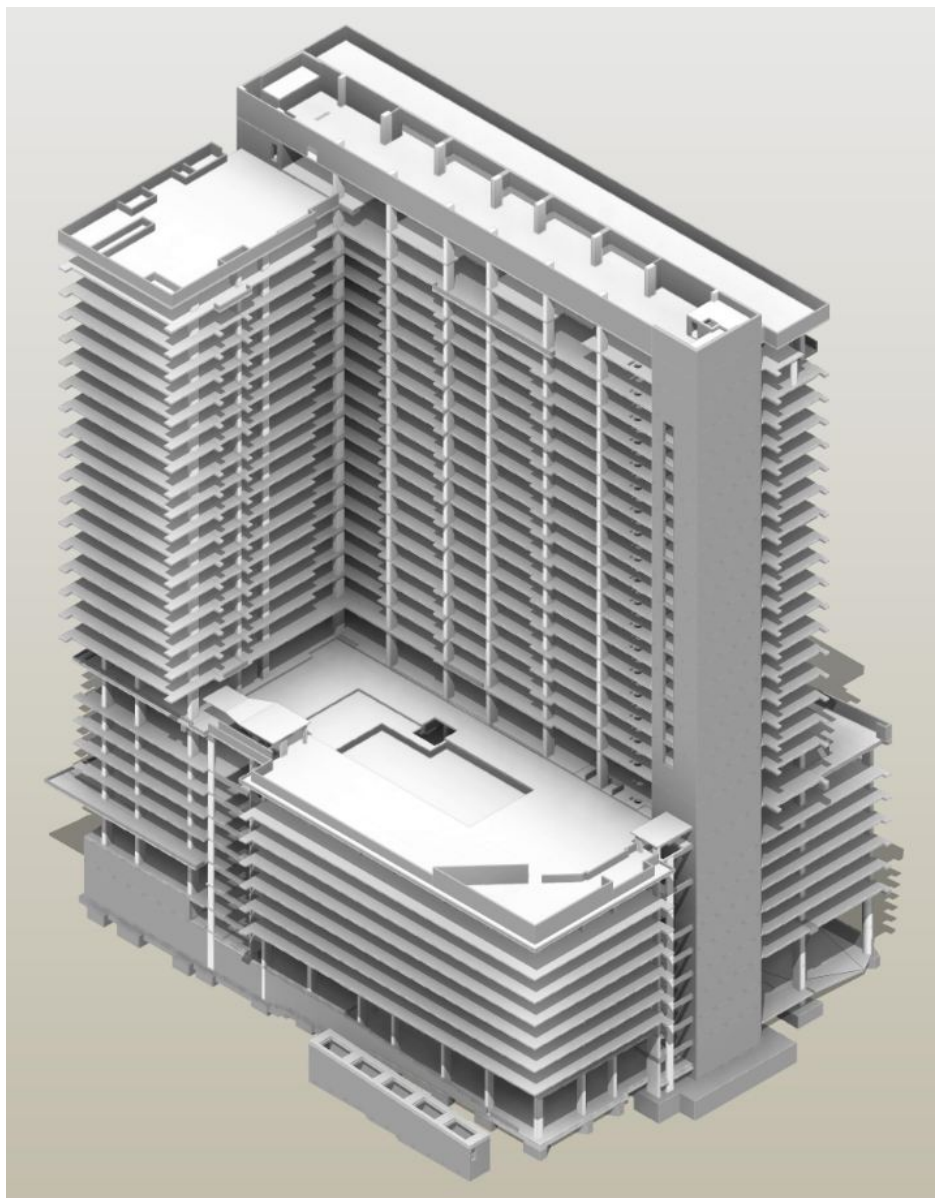
Challenge 2 - We had to incorporate several detailing for model and shop drawing.

Solution - We created various types of detailing work like slab edge, thickened slab, sloped slabs, etc with the help of Revit Family. Since we generated the families of slab edge type and thickened slab earlier, the hour consumption was reduced and we could resolve the problems smoothly. We also arranged internal training for guiding our team properly.

### ❖ Difficulty in Handling Structural Elements

Challenge 3 - There were several items for structural elements like beams and ramps. Elevations were different and tough to adjust the beams, ramps, etc throughout the floor.

Solution - Revit Tools helped us create



Beam Systems where we could easily create several beams at the same time. However, due to various specifications, we had to create manually. It was a bit time-consuming to adjust point slope for the ramp area connecting floors but we executed the work successfully.

### ❖ Inadequate Drawing Information

Challenge 4 - At times, we were unable to get the information from the input drawings. We often required more info and reference for project execution.

Solution - We raised a total of 48 RFIs and 7 RFCs to the client and continued basic communication via email. We also arranged web meeting directly for project discussion.

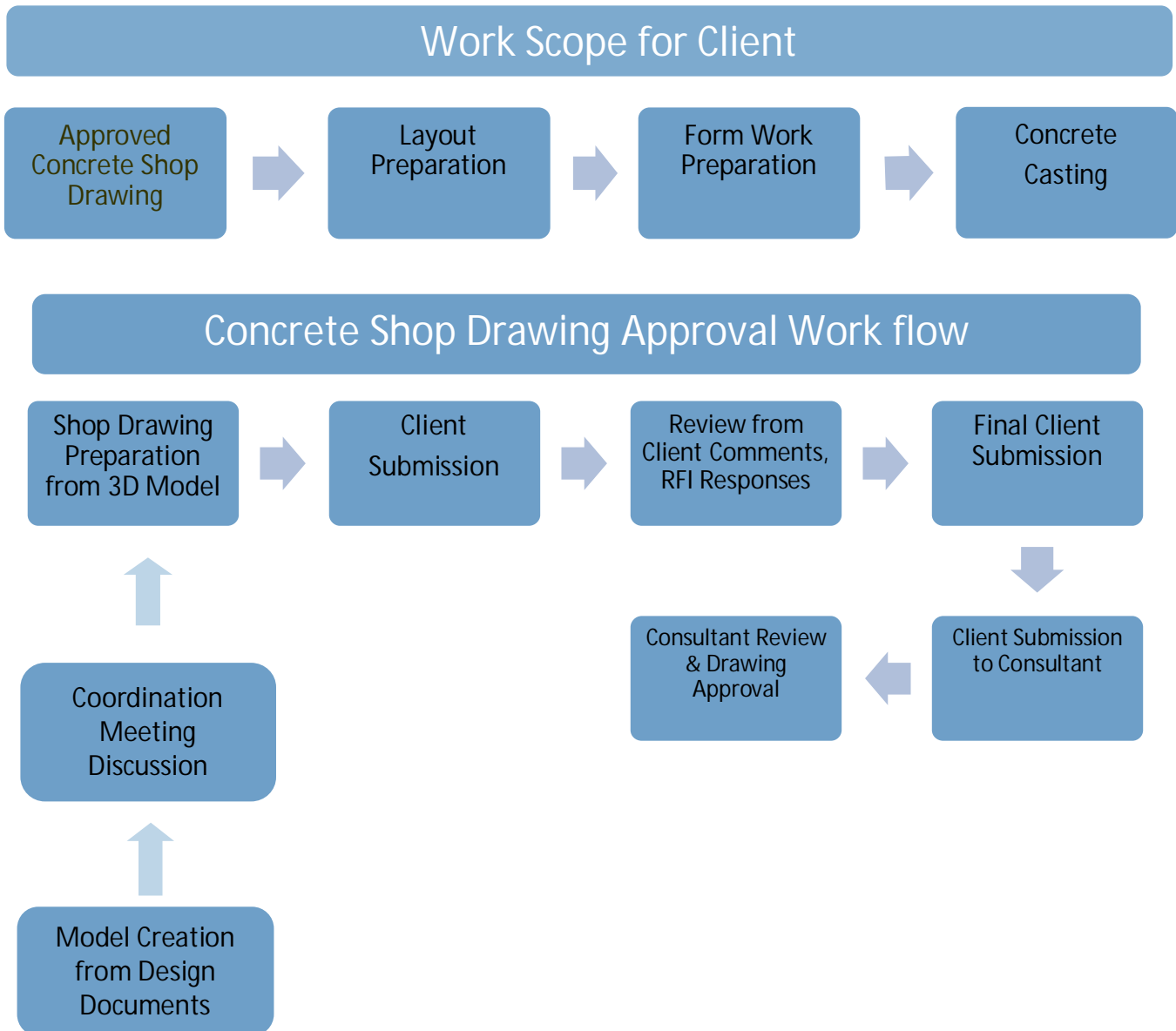
The client had always responded quickly, helping us submit the project successfully.

### ❖ Fixing Shop Drawing Standard

Challenge 5 - We found the shop drawing standard difficult, compared to the client's requirement (during project onset).

Solution - We created a sample for a particular level and had shown client for general comments. After getting the feedback we started creating other sheets. We used color in the drawings for identifying elements, elevations and footings in our output, which helped client in quick segregation.

## Work Process



## ❖ Testimonials from Pinnacle Team Members

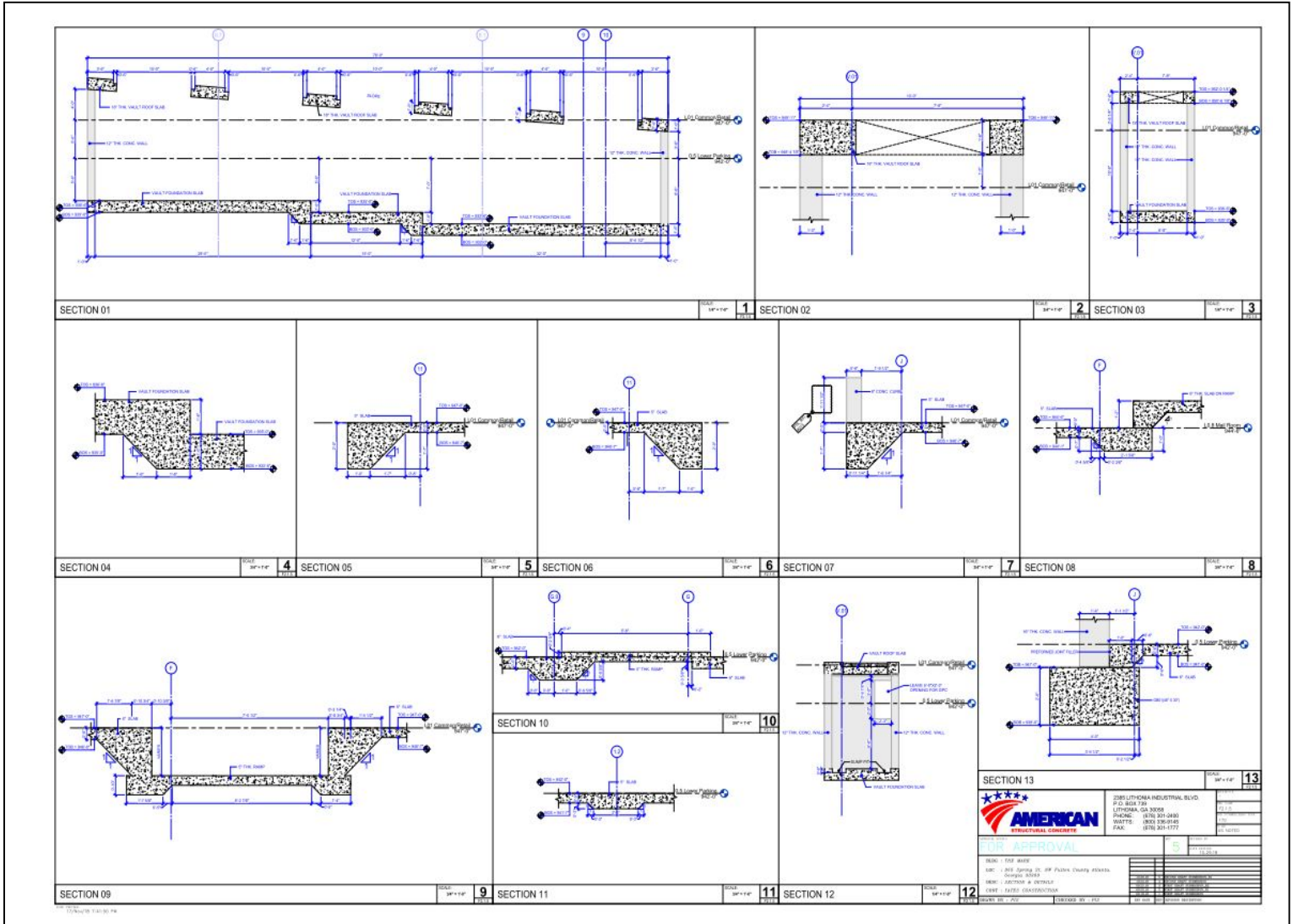
"Revit BIM helped to plan using intelligent models and allowed us anticipate, plan and coordinate every aspect of project design and detailing. It helped to identify constructability issues prior to construction, detecting clashes, thus avoiding work stoppage, rework and wastage of time, material and manpower. I am satisfied that by managing the project through Revit, we can focus more on better engineering and client satisfaction."

– Goutam Das, AGM, Pinnacle Infotech

"BIM Software has automated our workflow pertaining to RFIs, submittals, mark-ups, document approvals and general communication and has made our team productive. It has slashed the time consumed and helped the project move forward." – Matindra Bera, Senior BIM Engineer, Pinnacle Infotech



## ❖ Section & Details



## ❖ 3D View - Foundation Plan



### ❖ Result:

- ✓ Using Revit, we easily produced quality output with less effort
- ✓ Enhanced Quantity of Production at lesser time
- ✓ Ensured ease of access for maintenance provisions and facility management

### ❖ Road Ahead:

Revit will help to simplify BIM adoption, streamlining project operations in public, private & government sectors. Revit integrates with BIM to provide effective project solutions & collaborations. Revit BIM streamlines project information management processes - document control, resolution of design problems by RFI management & more. So Revit-BIM collaboration platform will be used for model & information aggregation.

❖ **Happy Client - Feedback** – “Great communications and great quality of drawings.” Dennis Davila, Engineering Manager, American Structural Concrete, Time Stamp - 26.9.2018

❖ **Client Rating** – 5 on 5 for Communication, Execution Process, Team Competency, Scope of Work, Quality, Overall Owing to successful project delivery, Pinnacle was awarded three more projects from clients - Modera Prominence (264,000 SQ.FT), The Interlock (717,162 SQ.FT) and 1105 West Peachtree (10,02,660 SQ.FT)