

Block 185 – Austin, TX, U.S.A.

Grayson Story

The newest addition to Austin's beautiful skyline is Block 185 which will be leased out to tech giant Google following its estimated completion in May 2022. This building is situated in Austin's downtown district, right along the edge of Lady Bird Lake and Shoal Creek. Given its proximity to the lake, the design architects at Pelli Clarke Pelli Architects designed the building's signature sail.

This now iconic sail design began due to Austin City regulations regarding setback requirements due to the proximity to both bodies of water². These regulations help maintain the beautiful atmosphere of Austin's downtown area by not limiting the view of the water. This massive curtain-wall structure gives the building its unique aesthetic, but such complications require effective solutions. The design of the sail also included a solution to a problem that they didn't know the building would require. The edges of the curtain wall have built in steel pipes that act as the tracks for the window washing units that will inevitably be required to maintain the glassy look of this sail².

This project relied heavily on the use of VDC (Virtual Design and Construction)³, in order to effectively communicate information between all involved parties. The collaboration between executive architects at STG Design and the contractors at DPR Construction, allowed for a more streamlined approach to building construction. Which involved the prefabrication of many structural and mechanical elements given the lack of usable space in the surrounding downtown area. Alongside this prefabrication, came the effective use of project management to the full extent as delivery windows were crucial to completing the project on time. As there was no space in the neighboring areas to store anything, such as the three 900-ton water cooled chillers that provide the entire building with chilled water in order to run its HVAC systems on every floor.

Due to the very close proximity to Lady Bird Lake, there were many challenges involved with protecting the building against the intruding water¹. First involved excavating roughly 145,000yd³ of dirt to clear out the subgrade before moving on to the foundation. Following the excavation, a massive diaphragm wall was constructed to prevent the water from eroding the soil underneath the foundation. This diaphragm wall also functions as the below grade foundation wall given that it encompasses the entire building. This emphasis on the subgrade allows for the building to sit in such close proximity to both Shoal Creek and Lady Bird Lake.

Sources:

1. <https://www.dpr.com/projects/block-185>
2. <https://austin.towers.net/googles-new-home-at-block-185-is-downtown-austins-next-signature-tower/>
3. <https://www.contractormag.com/plumbing/commercial-plumbing/article/21212161/tdis-block-185-work-will-invite-occupants-to-sail-away>