

Park in the Sky - Retrofitting Parking Deck in South Downtown, Atlanta

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This project is seeking to change the monotonous scenario of Big-Box urbanism in South Downtown, Atlanta. Due to the trend of increasing suburbanization and disinvestment in downtown area in the last several decades, South Downtown has become a place where no public life and activities ever happen but only low-density development with large area of lifeless parking lot. Currently parking lot makes up near half of total land use and daily parking lot vacancy is more than 30%.

At present, South Downtown is facing three main challenges: 1. Urban Heat Island. Due to the excessive use of impervious surface and the lack of tree canopy and waterbody, the average temperature in South Downtown is 1-2 degrees Celsius higher than other Atlanta metro areas. 2. Stormwater Management. Atlanta's average sewage fee is one of the highest among all American cities and the percentage of surface runoff is much higher in South Downtown than others. According to topography analysis our site is located in the lowest point of South Downtown so it is ecologically vulnerable in light of stormwater; 3. Defensive Architecture and Segregated Landscape. All buildings and structures are independent from each other with a sense of "self-protection" which results in the isolation of South Downtown's urban landscape.

Our site is a government parking deck to the south of Atlanta City Hall and this project is sponsored by Department of Planning, City of Atlanta. Our objective is to bring the space which is previously taken over by parking deck back to public life along with the mitigation of UHI effect and stormwater challenge. The rooftop of this parking deck is replaced by a roof garden and we create a cross-shape axis on the ground to strengthen the accessibility and create connection to the surrounding area. Also, we introduce the notion of urban agriculture and stormwater management to this project in order to mitigate the ecological footprint and create an environmentally friendly public space. Instead of flowing to the pipe, rainwater

will either be collected by the living machine on the roof and the bioswale on the ground or directly infiltrate into the soil. After filtration, water can be reused for irrigation, flushing and condensation. When there is high amount of precipitation, excessive rainwater will be directed to the retention pond through constructed bioswale or watercourse and be stored temporarily. In the future, we can also build underground cisterns to enlarge the capacity of stormwater storage.

Meanwhile, this project encourages diversified public activities in South Downtown. On the rooftop there are four main theme gardens: beer garden, farmer's market, living machine park and family playground and all of them are connected by a loop trail. The most fantastic scene is that due to the difference of elevation the main entrance of this parking deck is on fourth floor which means if you go straight from City Hall to this parking deck, walk uphill through the ramp, the cityscape is all in front of your eyes.

