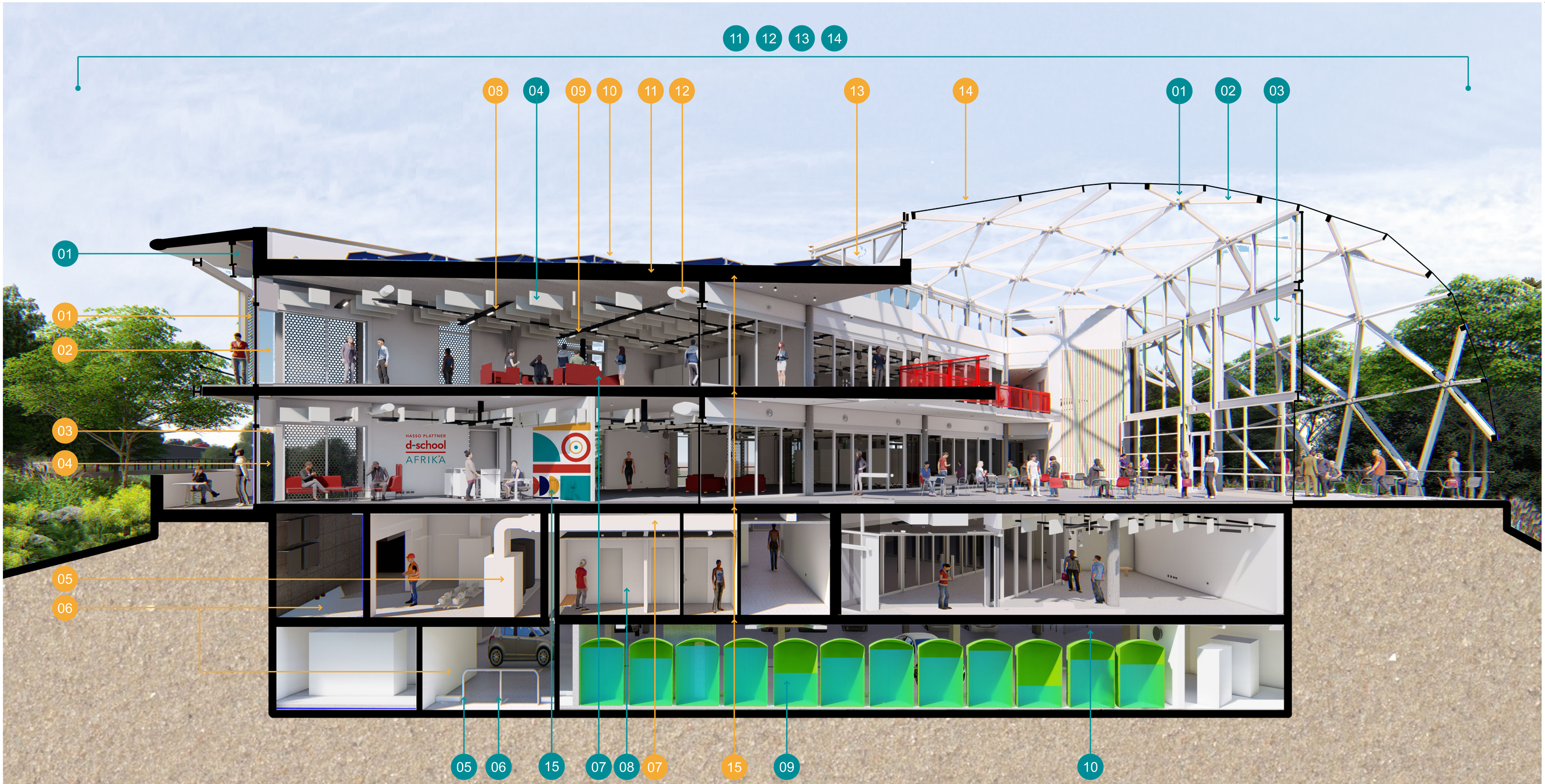

High Comfort + Low Energy

01 External shading screens and overhangs to limit sun into the spaces in summer

02 Performance glass to mitigate solar heat gain in summer to lower energy consumption of the air-conditioning system

03 Blinds provided to building users to manage any potential glare

04 Openable windows and doors to occupants for comfort and ventilation

05 Energy and water efficient air-conditioning plant

06 Naturally ventilated basement to eliminate the use of energy-intensive fans

07 Chilled water piping embedded into the concrete slabs to provide a stable comfortable environment throughout the year inside the building

08 Energy efficient and digitally-controlled lighting to ensure that lighting energy consumption is minimised while maintaining adequate levels of light quality

09 Temperature sensors to monitor the thermal comfort in the spaces

10 Rooftop solar PV array generates electricity to reduce reliance on mains electricity

11 Insulation in roof concrete slab to prevent solar heat gain in summer and limit heat losses in winter

12 Ducting supplying 100% tempered fresh air and carbon dioxide sensors to counteract the build up of indoor pollutants

13 Actuated windows at high level in atrium to flush the building at night to remove indoor pollutants and build up of heat in the day.

14 Fritted glass on atrium roof for solar heat gain and glare management

15 Exposed concrete floors and ceilings to allow for maximum exposure to thermal mass for comfort

Wellness + Green

01 Site and building designed to not have any light that is directed into the night sky to avoid negative impact on nocturnal animals and improve visibility of the stars

02 Efficient structural support system designed and implemented for the atrium roof when compared to a conventional steel atrium roof to reduce the overall embodied carbon of the atrium roof

03 External views for building occupants to have a visual connection to the external environment

04 Acoustic baffles installed to ensure that people hear and understand each other

05 Parking spaces for motorcycles and scooters to promote the uptake of more fuel-efficient transportation

06 Electric vehicles parking spaces and charging points

07 Interior finishes selected to avoid indoor pollutants from materials that are often present in paints, adhesives and sealants

08 Water efficient taps, showers and toilets installed that use less water

09 Rainwater capture and storage for re-use for toilet flushing and irrigation

10 Cyclist facilities provided with bicycle parking stations for staff, students and visitors to reduce carbon emissions by motor vehicles

11 Reinforcing steel with recycled content used in the construction of the building to reduce its carbon footprint

12 Reduced cement content in the concrete used during construction without reducing the strength of the concrete to reduce the carbon footprint of the building

13 Waste management during construction to divert construction waste from landfills

14 Designed to minimise greenhouse gas emissions from operational energy consumption by being more than 75% more efficient than the government national standard for energy efficiency

15 Built-in wooden furniture made with composite wood products with low formaldehyde emissions levels for a better indoor environmental quality

GREEN BUILDING COUNCIL SOUTH AFRICA

Targeting a 6 Star Green Star Rating

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HASSO PLATTNER d-school AFRIKA

Green Features

PJC +PARTNERS Sustainability | Performance | Comfort

KMH ARCHITECTS