

The Sanctuary

The Design of an Early Childhood Development Centre

BTC300



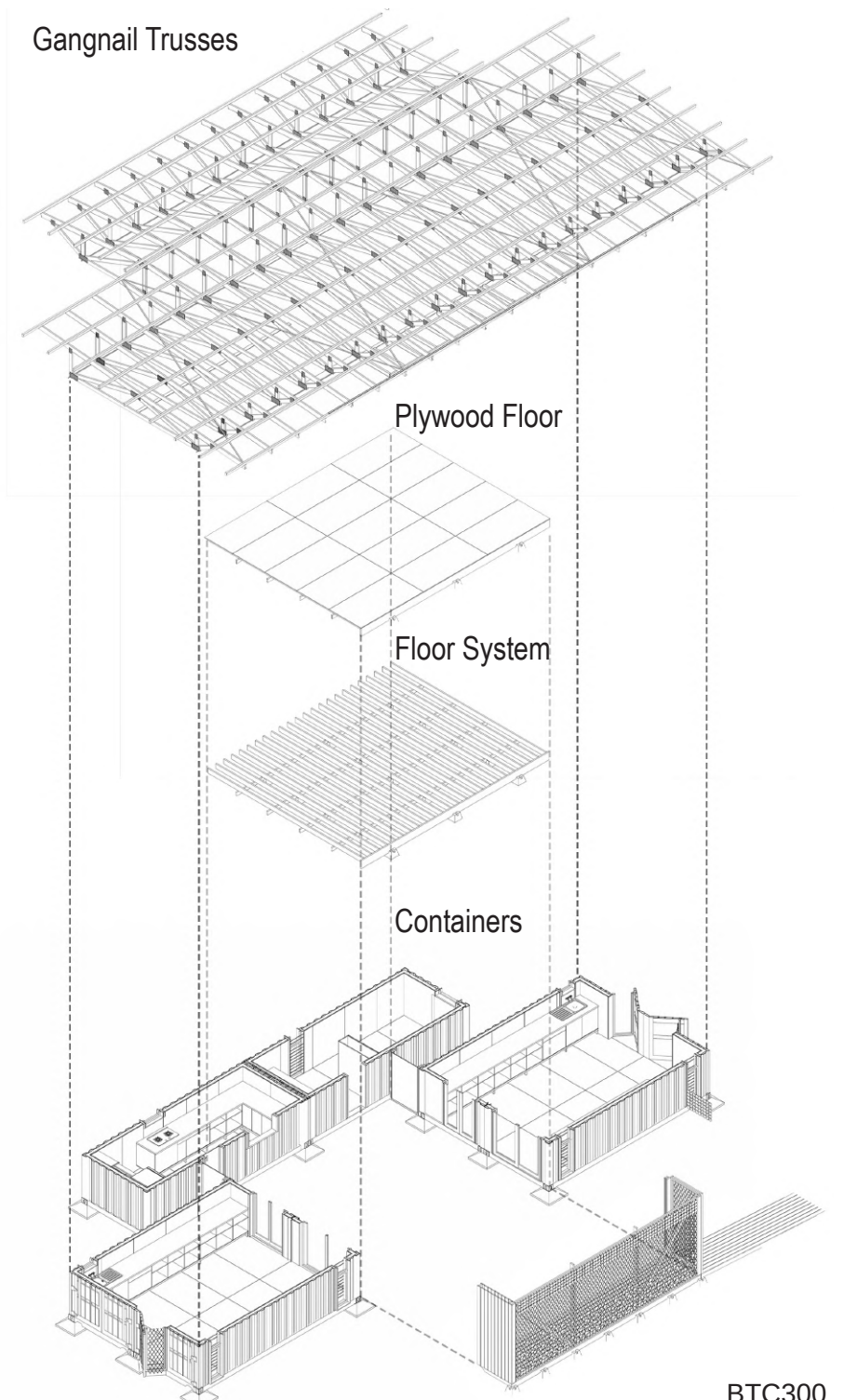
Refuge & Prosperity

This project proposes a low-tech, modular solution for early learning spaces using accessible, standardized components across South Africa. The design centers on re-purposed 6m x 2.4m shipping containers. Two containers are joined together with their dividing walls removed to create a 30sqm classroom. Cutouts and pop outs allow for natural light, ventilation and access. Containers are ideal for informal settlements due to their modularity, ease of transport, and minimal labour requirements.

A raised timber deck forms a central play area, improving ventilation and reducing flood risk. The platform sits on modular footings, requiring minimal ground preparation. Additional containers at the rear house services including a kitchen (14.4sqm), sick bay (10sqm), and office (4.4sqm), with layouts adaptable to site and user needs.

Prefabricated gang-nail trusses span across the containers, forming a roof that also harvests rainwater for classroom and kitchen use. This flexible system offers a quick, cost-effective alternative to traditional brick-and-mortar crèches, ideal for informal or under served areas.

Gangnail Trusses



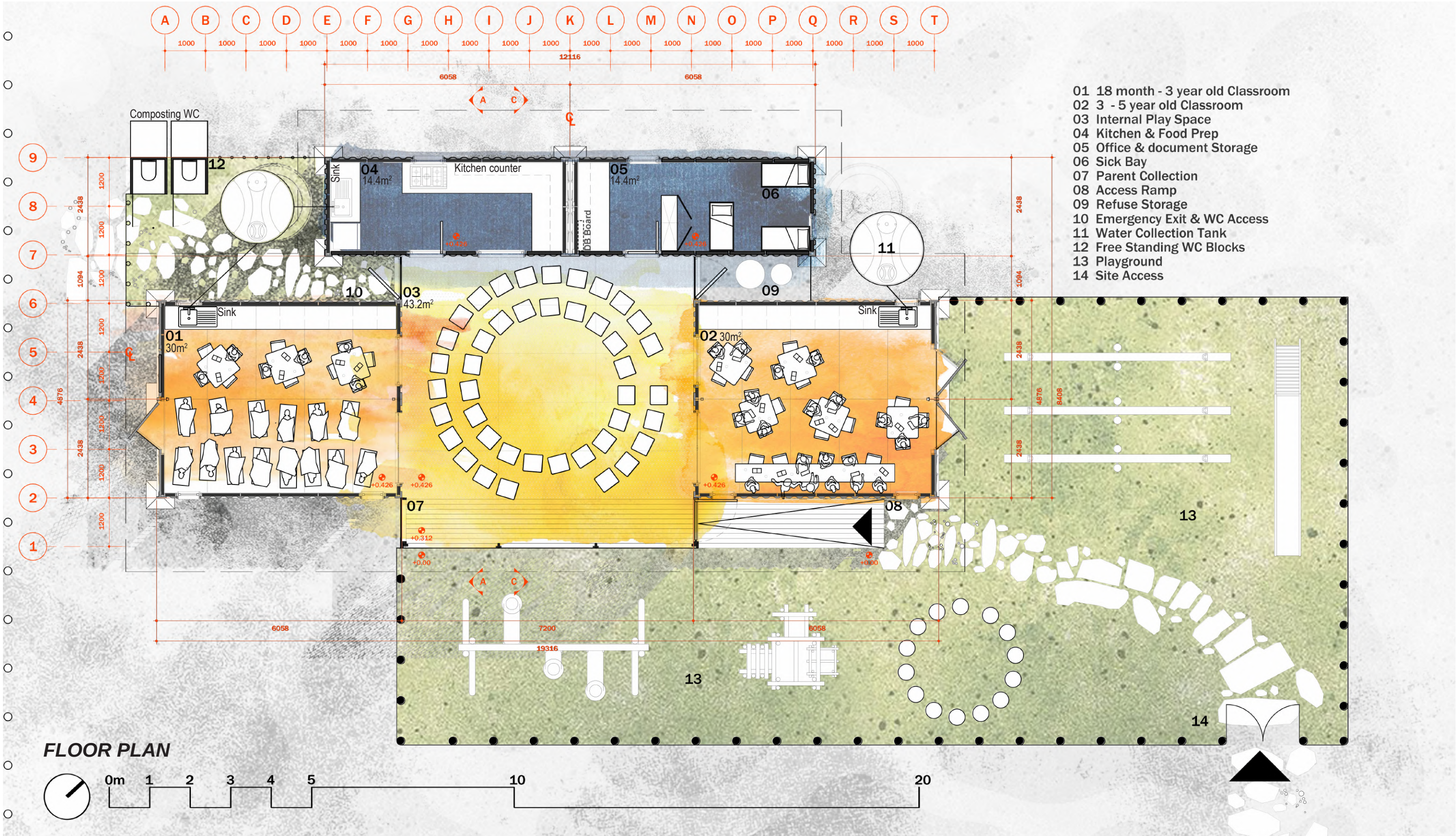
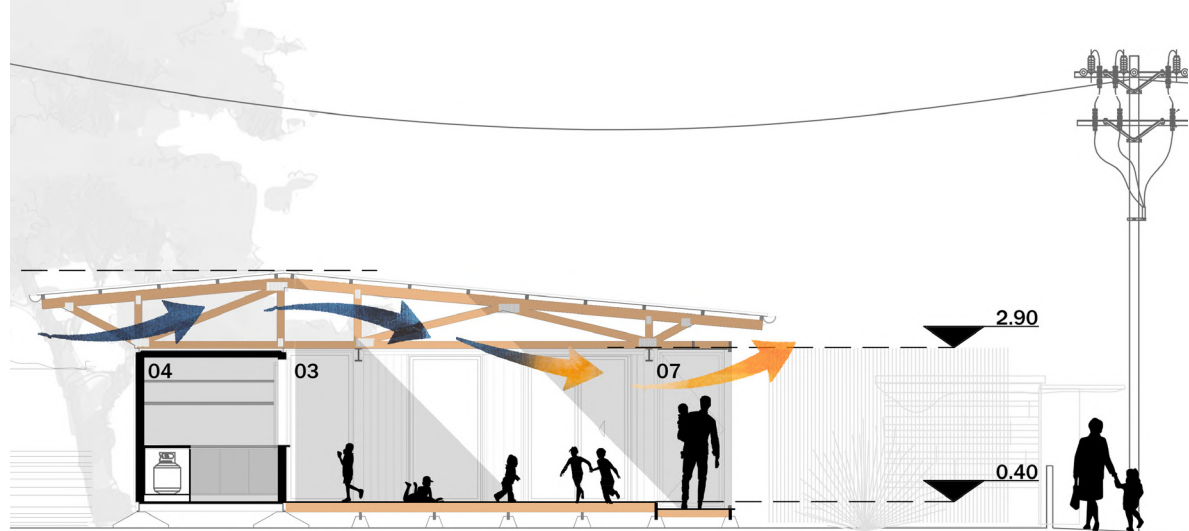
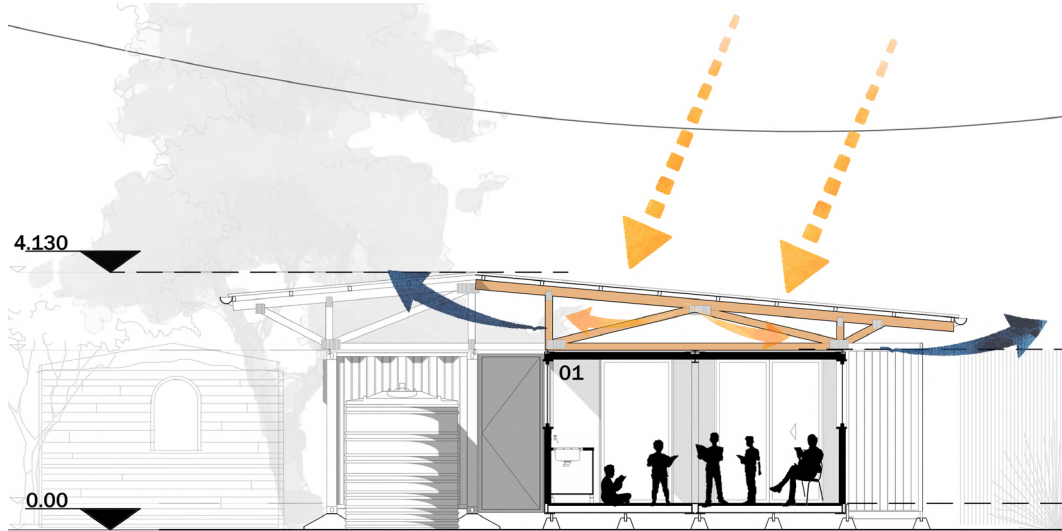
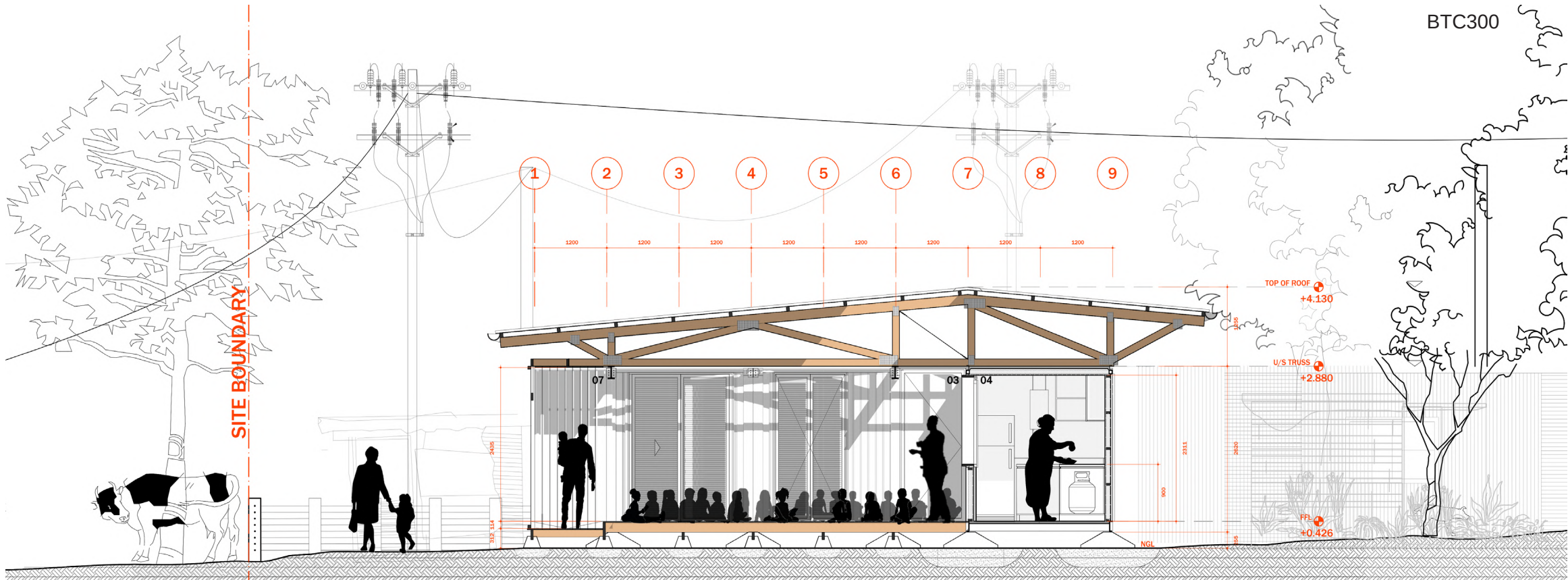
ROOF STRUCTURE :
COLOURBOND OR SIMILAR IBR ROOF SHEETING,
INCL. ALL FLASHINGS @ 5 PITCH ON 76 X 50mm
SAP PURLINS (AIR GAP) @ 850mm CC SPACING
FIXED TO PREFABRICATED 114 X 38mm GANG-
NAIL TRUSSES @1000mm CC SPACING. ALL TIM-
BER TO BE TREATED SAP. MIN S5 GRADE.
TRUSSES TO BE SECURED TO CONTAINER AND
THE 200 IPE STEEL BEAM WITH GALVANISED
STEEL LUGS.
ALL TO ENGINEER'S DESIGN & SPECIFICATION.

CONTAINERS :
ALL NEW OPENINGS IN CONTAINER TO RECEIVE
50 X 25 X 2.5mm STEEL HOLLOW SECTIONS AS
VERTICAL REVEAL STIFFENERS.
CONTAINER SURFACE RUST TO BE REMOVED
AND ETCH PRIMER APPLIED WITH NEW PAINT
APPLIED EXTERNALLY.
INTERIOR LINING IS 76 X 38mm SAP BATTENS AT
560mm cc SPACING WITH MINERAL WOOL INSULA-
TION BETWEEN. 15mm PLYWOOD BOARD TO BE
FIXED TO BATTENS. PLY-BOARD TO BE SANDED
AND VARNISHED. REPEAT CONSTRUCTION FOR
CEILING.
INTERNAL LINING: 15mm COMMERCIAL PLYWOOD
ON 76 X 38mm SAP STUDS. PLYWOOD TO BE
SANDED AND SEALED. REPEAT CONSTRUCTION
FOR CEILING. MINERAL WOOL INSULATION TO BE
STUFFED INTO CAVITY.
CONTAINER FLOOR: INSTALL NEW 22mm PLY-
WOOD FLOOR, SANDED & SEALED.

FOUNDATIONS :
CONCRETE PAD FOUNDATIONS: 700 x 700mm
FOUNDATION TO BE SET ON COMPACTED EARTH
IN LAYERS OF 150mm. SOIL UNDER CONCRETE
PAD TO BE REMOVED, MIXED WITH CEMENT AND
REESTABLISHED AS A LEVEL SURFACE.
RIKA BLOCKS FOR EXTERNAL TIMBER FLOOR:
TO BE SET ON COMPACTED EARTH IN LAYERS
OF 150mm. SOIL UNDER PAD TO BE REMOVED,
MIXED WITH CEMENT AND REESTABLISHED AS
LEVEL SURFACE.
ALL TO ENGINEER'S SPECIFICATIONS.

EXTERNAL TIMBER FLOOR :
22 X 2440 X 1220mm PLYWOOD SHEETS TO BE
BUTT JOINED, SEALED AND FIXED TO 150 x 38mm
SAP JOISTS @400mm CC FIXED TO 110 x 38mm
SAP BEARERS @1200cc SPACING. ALL STRUC-
TURAL TIMBER TO BE TREATED SAP. ALL TO
ENGINEER'S SPECIFICATION.

ENCLOSURE MESH :
GALVANISED WIRE MESH TO BE FIXED TO 38 x
38mm GALVANISED STEEL HOLLOW SECTION TO
MANUFACTURER'S SPECIFICATION.



South Elevation

