



# ACORN SPECIAL NEEDS SCHOOL & TRAINING CENTRE

RIBA STAGE 04 - TECHNICAL DESIGN REPORT: ACORN SPECIAL NEEDS SCHOOL

[www.cave.co.ke](http://www.cave.co.ke)

**Client:** Salama Trust & Acorn Tutorials

**Project:** Special Needs School

**Location:** Uthiru, Nairobi, Kenya

**Project Stage:** RIBA Stage 04 - Technical Design

## Design Team

**Architect:** Cave

**Quantity Surveying:** Mavencraft

**Mechanical & Electrical Engineering:** Elemental Engineering

**Structural & Civil Engineering:** Strutec Engineering



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**SALAMA CHARITIES**  
Offering a Helping Hand

Website: <http://salamacharities.org/>

*Cave has been approached by Salama Charities to develop a concept and vision, and design of a special needs school, Acorn Special Tutorials - a program for students with intellectual disabilities located in Dagoretti, Nairobi, Kenya.*

*Salama Charities is currently fund raising for building of the school. The current facility has, over the years, been sparsely built. The student's specialized needs have grown without a comprehensive overall plan for the growth of the entire program. There is an urgent need to accommodate the growing number of students in the Dagoretti area. COVID 19 pandemic, resulted in schools and therapy services having had to shut down, leaving students with intellectual disabilities, their parents and caregivers with no specialised assistance at all. - This highlights the need to have effective measures in place as many students seriously regressed in all their learning areas and developmental milestones due to lack of support and appropriate intervention.*

*Acorn has identified and appreciated the need for creating a training facility where parents, caregivers and teachers will be trained and equipped with skills to manage and teach their children at home during a pandemic. Teachers from various schools country-wide will also have the opportunity to train on how to include students with neurodiversity in their local schools. This will remove the need for the students to travel across the country for school placement and thereby reducing their risks in contracting any viruses.*

*The training facility will be housed in a beautiful compound where the trainees will be exposed to international best practices and will also have the chance to have practical hands-on experience at the school. It can also be used as a team building and conference centre to generate income to enable it to not only be self-sustaining but to also provide assistance to those students at Acorn Special School who need financial support.*

*Follow this LINK for the project details*

### *Phase 1*

*The Training Centre will include the following*

- 1. An Administration office.*
- 2. Lecture rooms:  
Different sizes fitted with training features*
- 3. Kitchen:  
This will also be used by the students at Acorn Special School for income generating activities such as baking.*
- 4. Washrooms with fitted showers.*
- 5. Dining room.*
- 6. Recreational ground.*

### *Phase 2*

*The School will include the following*

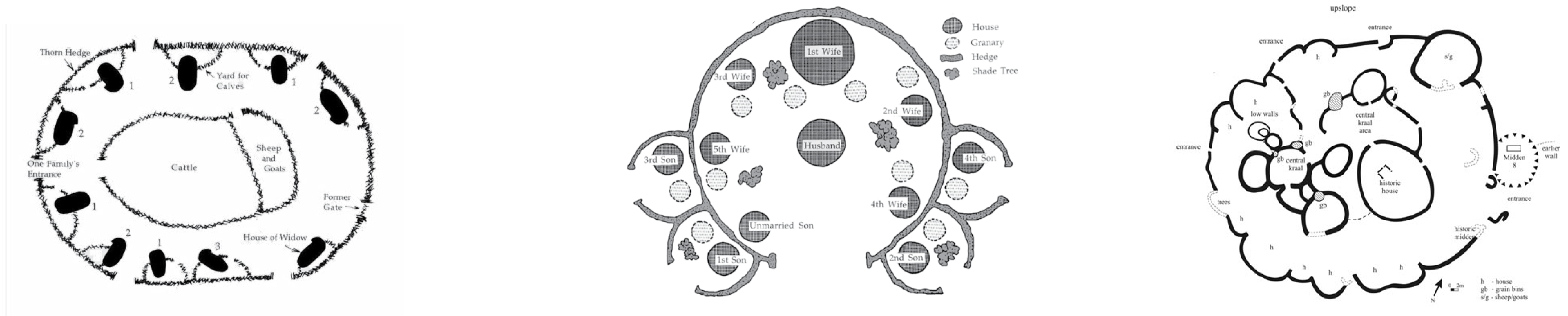
- 1. Class Rooms (4):  
For the three age groups, accommodating a maximum of 12-15 students per class.*
- 2. Occupation & Physical Therapy Room:  
Accommodating approximately 8 people including staff.*
- 3. Sensory Motor & Speech Therapy Room:  
Accommodating approximately 5 students including staff.*
- 4. Arts & Media Room:  
Accommodating approximately 5 students including staff.*
- 6. Training & Staff Room:  
Accommodating approximately 10 people.*
- 7. Administration Block:  
Accommodating approximately 5 people, at the reception desk and Head office.*



We chose to develop the overall vision for the project by referencing the origin, and more specifically here the common ground found in many traditional Africa homesteads, in Swahili referred to as the Boma (See drawings below of some typical Boma setups).

We tap into this heritage specifically to explore ways we can integrate the built structures of the school within the natural environment to create a conducive environment to stimulate learning through play and discovery. Typical boma setups have a number of independent earthen structures planned around a central heart, which in different communities can vary significantly, here we use the boma as a flexible and contextual way to orchestrate planning of the school as an adaptive whole.

Our exploration also delves into material adaptations as depicted in the images below.



Varying formations & adaptations of the setup



Protective boundary of twigs & logs

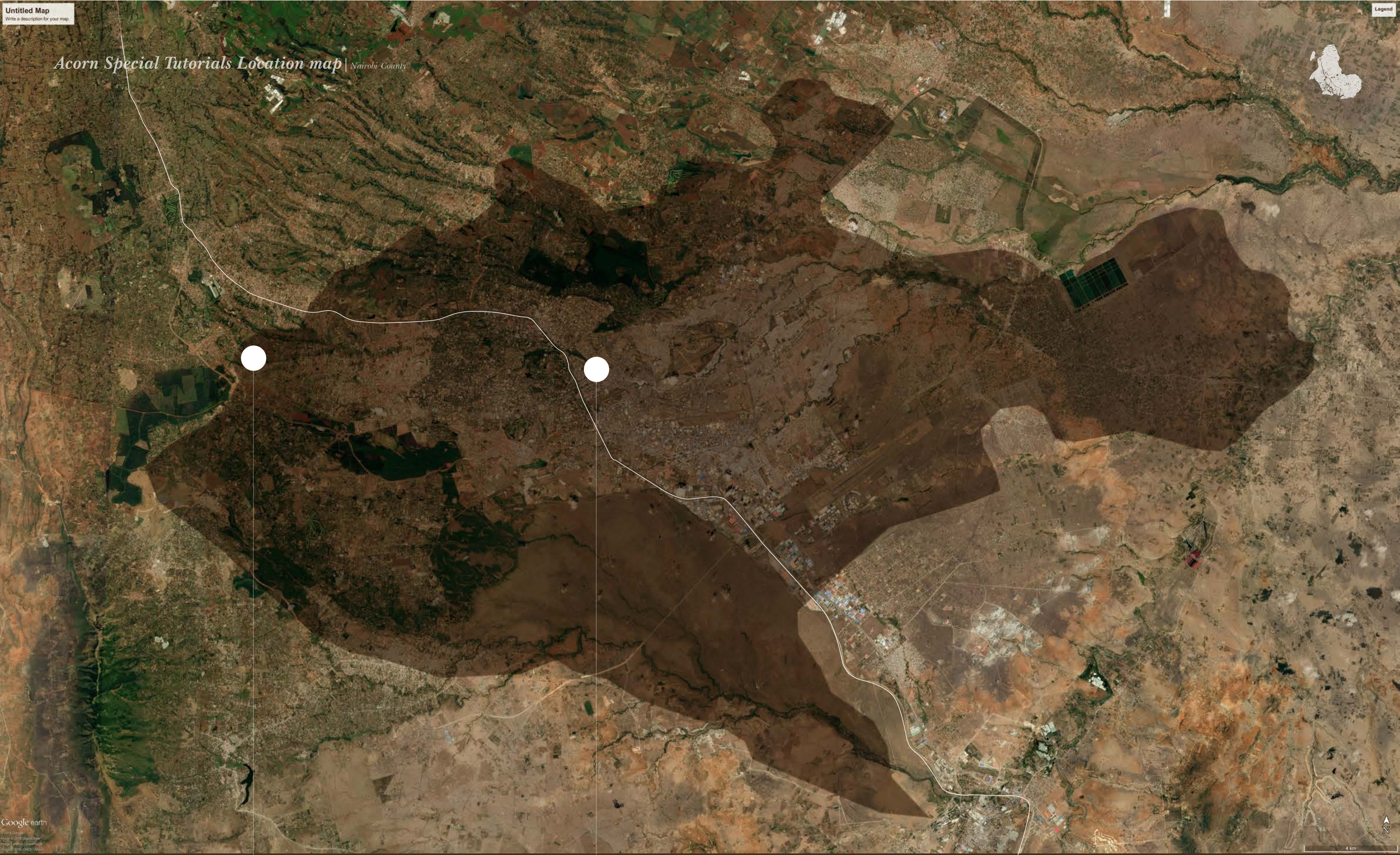


Using a mixture of earth and cement as the body





*Acorn Special Tutorials Location map* | Nairobi County



*Acorn Tutorials Special School Site (18km)*

*CBD - Nairobi Central Business District*













PHASE 1 - Acorn Tutorials  
Training Centre

PHASE 2 - Acorn Tutorials  
School Campus







Arts & Media

Sensory Integration & Speech Therapy

Occupational Therapy

Administration offices

Children's Washrooms

Staff Toilets

Open Courtyard

Main classes 1 & 2

Main classes 3 & 4

Staff Space

Entry & Exit

MUHURI ROAD

School Campus Plan | Parking for seven cars approximately





Open Garden

Back of house

Open Garden

Flexible Training Centre  
30 trainees max

Training Centre Administration Office

Canteen & Relaxation  
30 students

Washrooms  
2 fitted showers each

Training Space  
15 trainees max.

Flexible Training Space  
30 trainees max.



*Artist's impression of the Open Courtyard* | *Outdoor class room under a tree*





**ACORN TRAINING CENTRE - Phase 1**



	ACCOMMODATION TYPE	TOTAL AREA	APPROXIMATE BUDGET
1	Training Rooms	143 SQM	USD 75,201
2	Training Administration Offices	15 SQM	USD 8,847
3	Training Washrooms	38 SQM	USD 23,381
4	Dining	56 SQM	USD 16,746
5	Kitchen	19 SQM	USD 8,847
6	Professional Fees		USD 5,000

→ USD 138,023  
**Phase 1**



**ACORN SCHOOL - Phase 2**

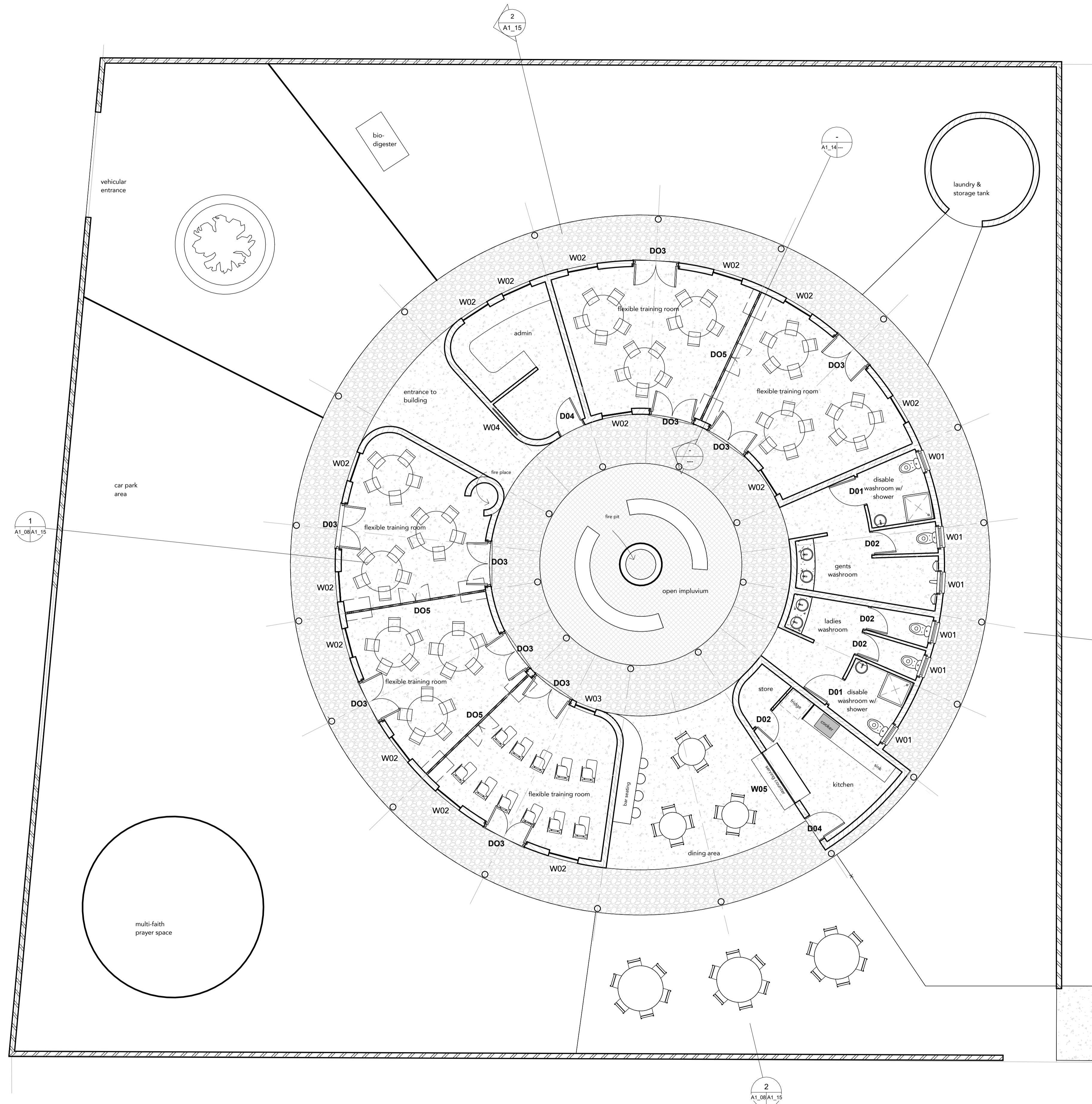
	ACCOMMODATION TYPE	TOTAL AREA	APPROXIMATE BUDGET
1	Class Rooms (1-4)	112 SQM	USD 79,981
2	Occupation & Physical Therapy Structure	36 SQM	USD 25,708
3	Sensory Integration and Speech Therapy	31 SQM	USD 22,137
4	Arts and Media Structure	22 SQM	USD 17,218
5	Children Toilet	25 SQM	USD 17,853
6	Administration Offices Structure	49 SQM	USD 38,349
7	Staff Space Structure	23 SQM	USD 18,000
8	Staff Toilets Structure	10 SQM	USD 7,826
9	Professional Fees		USD 5,000

→ **Phase 2**  
USD 232,072

**Approx. Budget**  
> USD 370,095

579 SQM (TOTAL BUILT UP AREA)





1. This drawing is copyright
2. Do not scale off this drawing
3. All levels and dimensions to be checked on site before any building work commences.
4. Any discrepancies to be reported to the office of the consultant
5. All work to be strictly in accordance with the standard specifications and notes
6. This drawing is to be read in conjunction with specifications and all other relevant drawings
7. Walls below 200mm thick to be reinforced with hoop iron at every alternate course
8. Depth of foundations to be decided on site
9. pv denotes permanent air vents over doors and windows as shown on drawings
10. A single layer of 3-ply bituminous felt to be provided between masonry and r.c. work
11. Drain pipes passing under tarmac, driveways, and buildings to be encased in 150mm thick concrete surround
12. All reinforced concrete work to Structural Engineer's drawings
13. All sanitary works to the entire satisfaction of MoH
14. All roads, storm water drainage and foul sewerage to Civil Engineer's drawings

Area

STAGE	DESIGN STAGE
3	Design Development

ARCHITECT



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PROJECT

Special Needs School

Drawing Name  
**PHASE 1  
Training Centre - Floor Plan**

CLIENT  
**Salama Trust & Acorn Tutorials**

DRAWN BY S.C	CHECKED BY K.K.	DATE 12/03/2024 11:18:58
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SCALE (@ A1) 1 : 75	PROJECT NUMBER
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DRAWING NUMBER <b>A1_18 Training Centre - Floor Plan</b>	REV
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architecture | interior | furniture | landscape

