



REPUBLIC OF KENYA

**MINISTRY OF ICT, INNOVATION AND YOUTH AFFAIRS
STATE DEPARTMENT OF ICT & INNOVATION**

**P. O. BOX 30025-00100
NAIROBI**

**ADDENDUM FOR
TENDER NO: MOICT/SDICT/ONT/003/2021-2022**

**TENDER FOR SUPPLY, INSTALLATION AND COMMISSIONING OF
NETWORK INFRASTRUCTURE
AT EMBU PGH LEVEL V HOSPITAL, EMBU COUNTY**

ISSUE DATE: 23RD AUGUST, 2021

TENDER CLOSING DATE: 8TH SEPTEMBER, 2021 AT 10.00 A.M

1.0 INTRODUCTION

The Client (Ministry of ICT, Innovation and Youth Affairs, State Department of Ict & Innovation) organized a Pre-Tender Site Survey on 19th August 2021. The was to give the Bidders an opportunity to familiarize with the ground requirements, understand the Tender drawings and identify the omission, adjustments to be considered to ensure installed solution meets the expectation of the intended work. Having gone through the site survey the following was raised and addressed as below:

2.0 ISSUES AND CLARIFICATIONS

No.	ISSUES THAT CAME UP	CLARIFICATION
1.	The following service points/blocks were not included in the Tender Document namely; <ol style="list-style-type: none"> Oncology block Blood Bank/Transfusion Block APDK/Orthopaedical Block Oxygen Plant Building Biomed-engineering 	The Bill of Materials, Price Schedule and network design drawings have been amended to reflect the requirements accordingly as specified in section 3.0, section 4.0 and section 5.0 of this Addendum.
2.	There is MCH block located outside the main hospital across the Embu Meru Road. Its currently connected to the main hospital using a wireless (p2p).	The MCH Block will still be connected to the main Hospital using the (P2P) The Bidder should ensure that the MCH Network is integrated into the new Network.
3.	There was a mix-up of network drawings in the tender document.	The network design drawings have been amended accordingly as specified in section 5.0 of this Addendum.
4.	Specifications for Self-Cooling Cabinet in the tender were not clear.	The Specifications for Self-cooling Cabinet has been amended as per the section 2.1 of this addendum

2.1 SELF-COOLING CABINET WITH A POWER SOLUTION

The bidder shall provide a self-cooling cabinet that will include power system, Main Distribution Frame (MDF), Optical Distribution Frame (ODF), battery, environment monitoring and temperature control modules.

No	Technical Specifications	Compliance (Yes/No)	REFERENCE INFORMATION TO SUPPORT COMPLIANCE (Highlighted in the bid document)
Requirements			
1.	The solution shall provide efficient power consumption		
2.	It shall easily be deployed in rugged outdoor environments with a temperature range from 41°C to 53°C including high humidity		
3.	Power to the cabinet shall be switched off from within the cabinet. Proper power socket cables to be supplied with the cabinets. The bidder shall be required to provide a 6- Way Power Distribution board		
4.	It shall meet IP55 protection ratings, allowing for installation in adverse conditions such as close to salt water		

5.	Its door shall be installed with air conditioner		
6.	It shall support remote monitoring and alarms for easier Operations and Maintenance (O&M)		
7.	It shall monitor environmental and power parameters		
8.	The cabinet shall have at least 48V LED lamps with a protective circuit breaker		
9.	The cabinet shall have an AC Distribution Unit with an input Voltage range of 220VAC-240VAC		
10.	The cabinet shall have DC Distribution Unit with an output voltage range between 42-58VDC		
11.	The cooling system shall consist of air conditioners with a cooling capacity of at least 800W, forced air exhaust, heat exchanger and thermoelectric conditioner		
12.	It shall have automatic microclimate control system, security and fire alarms which can engage locally or remote control		
13.	It shall have advanced heat dissipation system to reduce power consumption and noise		
14.	The cabinet should be made of Galvanized steel		
15.	It shall have a fire extinguisher system		
16.	The cabinet shall be at least 38U 19 “ mounting racks, which can install 4pcs lead-acid batteries and telecommunication equipment		
17.	The cabinet shall have four 100AH each with 12VDC Lead-acid battery		
18.	The cabinet shall have Temperature sensor, door sensor, water sensor, smoke sensor among others		
19.	The cable inlets should be at the bottom of the cabinet		
20.	Doors should be equipped with a locking system		
21.	It should have a 2year Warranty		

3.0 PRICE SCHEDULE

Bill of Quantities/Schedule of Rates

Below is the amended proposed bill of quantities for guidance.

1. Embu Hospital

	Description	Unit of Measure	Qty	Unit Cost	Total Cost
1.	F/UTP Category 6A Outlets Module (Data points)	No	738		
2.	Flash Mount Faceplates – F/UTP Category 6A Double	No	369		
3.	F/UTP Category 6A Wall UTP-RJ45Patch cord (1M)	No	782		
4.	F/UTP Category 6A Wall UTP-RJ45Patch cord (3M)	No	738		
5.	F/UTP Category 6A Wall UTP-RJ45Patch cord (5M)	No	10		
6.	F/UTP Category 6A 24 PATCH PANEL 1 U568A/B	No	33		
7.	Cable managers 2U	No	33		
8.	Galvanized Metallic Trunking 150mm x50mm & accessories for installing 738 Data Points and access points	Lot	Lot		

9.	F/UTP Category 6A Pure Copper Ethernet Cable for installing 738 Data Points and access points	Lot	Lot		
10.	Fiber Patch Panel (at least 8 core)	No	25		
11.	48 core OFC Patch Panel	No	4		
12.	Fiber Cable 8 Core plus Ducts to interlink all the cabinets/switches	lot	Lot		
13.	Fiber Patch Cord 1M	No	52		
14.	1G SFP transceivers	No	52		
15.	18U Network Cabinet with a 4Way Horizontal Mount Power Distribution Unit (PDU)	No	25		
16.	38U Self-Cooling, maintenance free Network Cabinet with Horizontal Mount Power Distribution Unit (PDU)	No	1		
17.	Rack mountable UPS- 1.5 KVA	No	25		
18.	Rack mountable UPS- 3 KVA	No	0		
19.	Distribution/Aggregation Switch	No	1		
20.	48 Port POE+ Switch with Stacking Modules	No	8		
21.	24 Port POE+ Switch with Stacking Modules	No	17		
22.	Wireless Access Point	No	44		
23.	Wireless Controller	No	1		
24.	Civil Works-Pulling, Termination, Labelling, Documentation and Testing of Horizontal and Backbone Cabling,	Lot	Lot		
25.	Installation of Active Devices, IP Schemes and Configuration.	Lot	Lot		
26.	Testing, Training and Handover	Lot	Lot		
27.	Provision of Project Implementation Committee transport services as specified in Section V no 17	Round Trip	5		
28.	Annual SLA Support for one Year	Year	1		
29.	SFP – single mode	No	2		
30.	Fiber Optic Pig tail -10M	No	2		
	TOTAL				

Name of Tenderer: _____

_____ Date _____

Authorized Signature of Tenderer:

4.0 BILL OF MATERIALS

NOTE: The bill of materials is just an estimate; the bidder is required to carry out a survey in order to get actual material required and provision for them in the quote. The client is not liable for any omission.

The Bill of Materials:

1. Embu Hospital

	Description	Unit of Measure	Qty
1.	F/UTP Category 6A Outlets Module (Data points)	No	738
2.	Flash Mount Faceplates – F/UTP Category 6A Double	No	369
3.	F/UTP Category 6A Wall UTP-RJ45Patch cord (1M)	No	782

4.	F/UTP Category 6A Wall UTP-RJ45Patch cord (3M)	No	738
5.	F/UTP Category 6A Wall UTP-RJ45Patch cord (5M)	No	10
6.	F/UTP Category 6A 24 PATCH PANEL 1 U568A/B	No	33
7.	Cable managers 2U	No	33
8.	Galvanized Metallic Trunking 150mm x50mm & accessories for installing 738 Data Points and access points	Lot	Lot
9.	F/UTP Category 6A Pure Copper Ethernet Cable for installing 738 Data Points and access points	Lot	Lot
10.	Fiber Patch Panel (at least 8 core)	No	25
11.	48 core OFC Patch Panel	No	4
12.	Fiber Cable 8 Core plus Ducts to interlink all the cabinets/switches	lot	Lot
13.	Fiber Patch Cord 1M	No	52
14.	1G SFP transceivers	No	52
15.	18U Network Cabinet with a 4Way Horizontal Mount Power Distribution Unit (PDU)	No	25
16.	38U Self-Cooling, maintenance free Network Cabinet with Horizontal Mount Power Distribution Unit (PDU)	No	1
17.	Rack mountable UPS- 1.5 KVA	No	25
18.	Rack mountable UPS- 3 KVA	No	0
19.	Distribution/Aggregation Switch	No	1
20.	48 Port POE+ Switch with Stacking Modules	No	8
21.	24 Port POE+ Switch with Stacking Modules	No	17
22.	Wireless Access Point	No	44
23.	Wireless Controller	No	1
24.	Civil Works-Pulling, Termination, Labelling, Documentation and Testing of Horizontal and Backbone Cabling,	Lot	Lot
25.	Installation of Active Devices, IP Schemes and Configuration.	Lot	Lot
26.	Testing, Training and Handover	Lot	Lot
27.	Provision of Project Implementation Committee transport services as specified in Section V no 17	Round Trip	5
28.	Annual SLA Support for one Year	Year	1
29.	SFP – single mode	No	2
30.	Fiber Optic Pig tail -10M	No	2
	TOTAL		

5.0 HOSPITAL BLOCKS WITH PROPOSED NETWORK DATAPOINTS

NOTE: The network drawing and position of datapoints is just proposal the final position will be determined during sign off of network design before implementation. The bidder is required to carry out a survey in order to get actual length and material required and provision for them in the quote. The client is not liable for any omission. The drawings are not to scale.

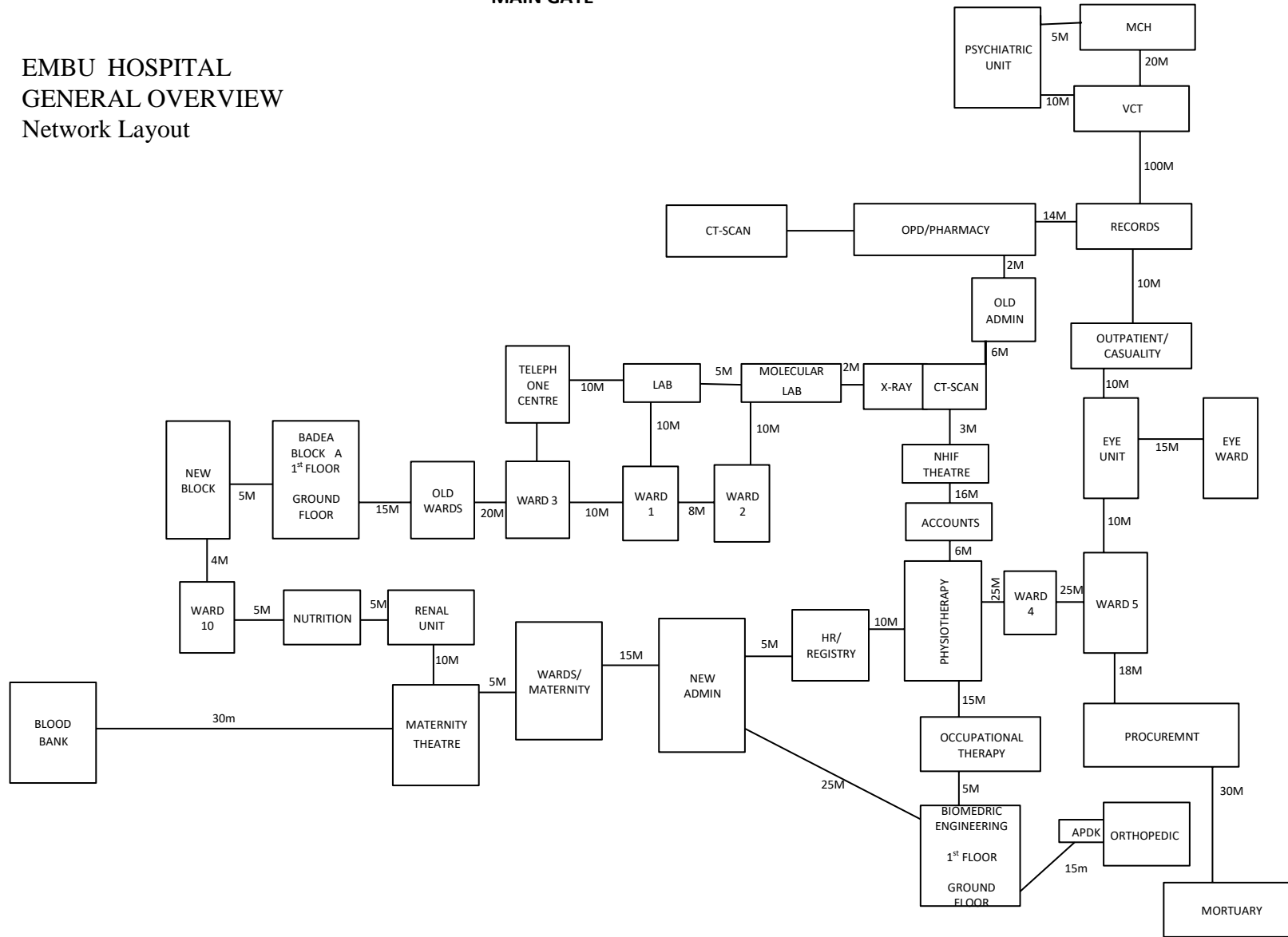
5.1 Hospital Blocks Overview

MAIN GATE

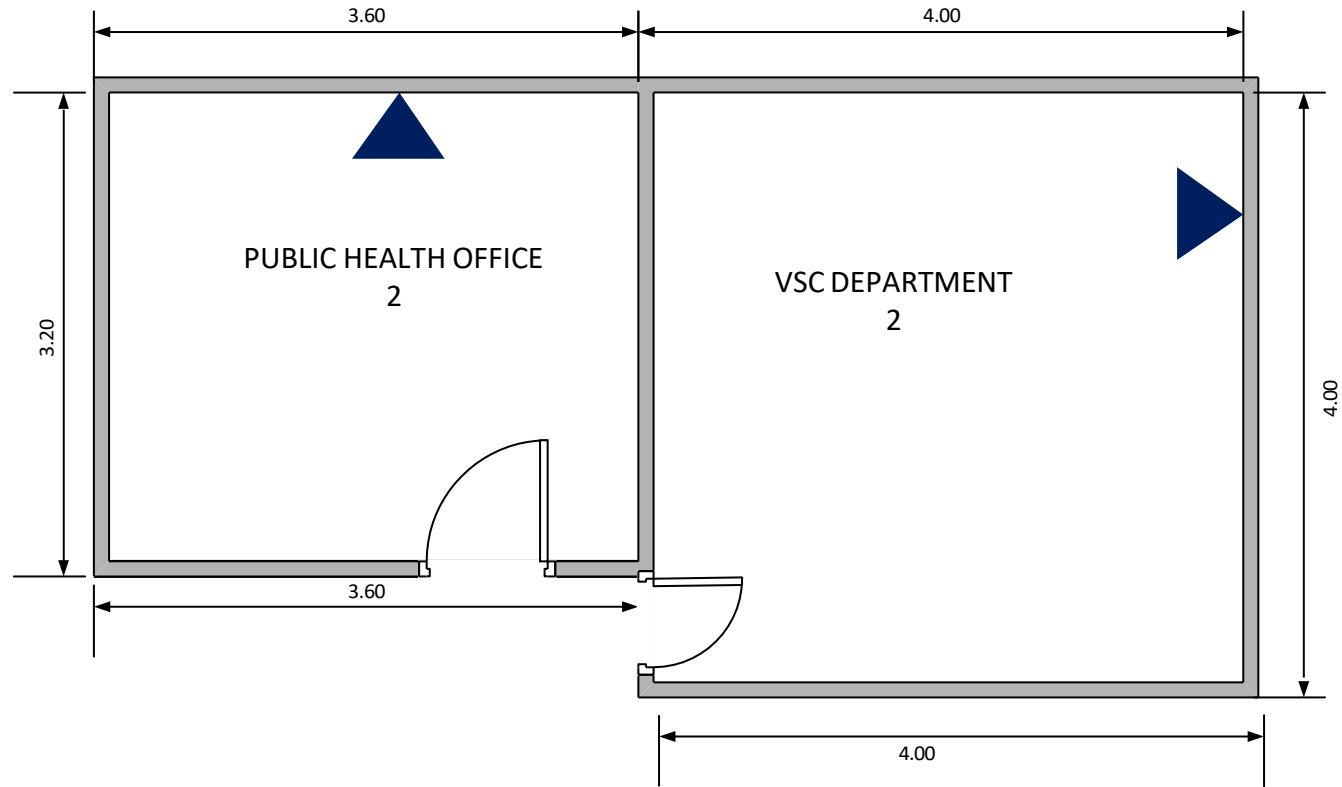
GATE B

GATE C

EMBU HOSPITAL
GENERAL OVERVIEW
Network Layout

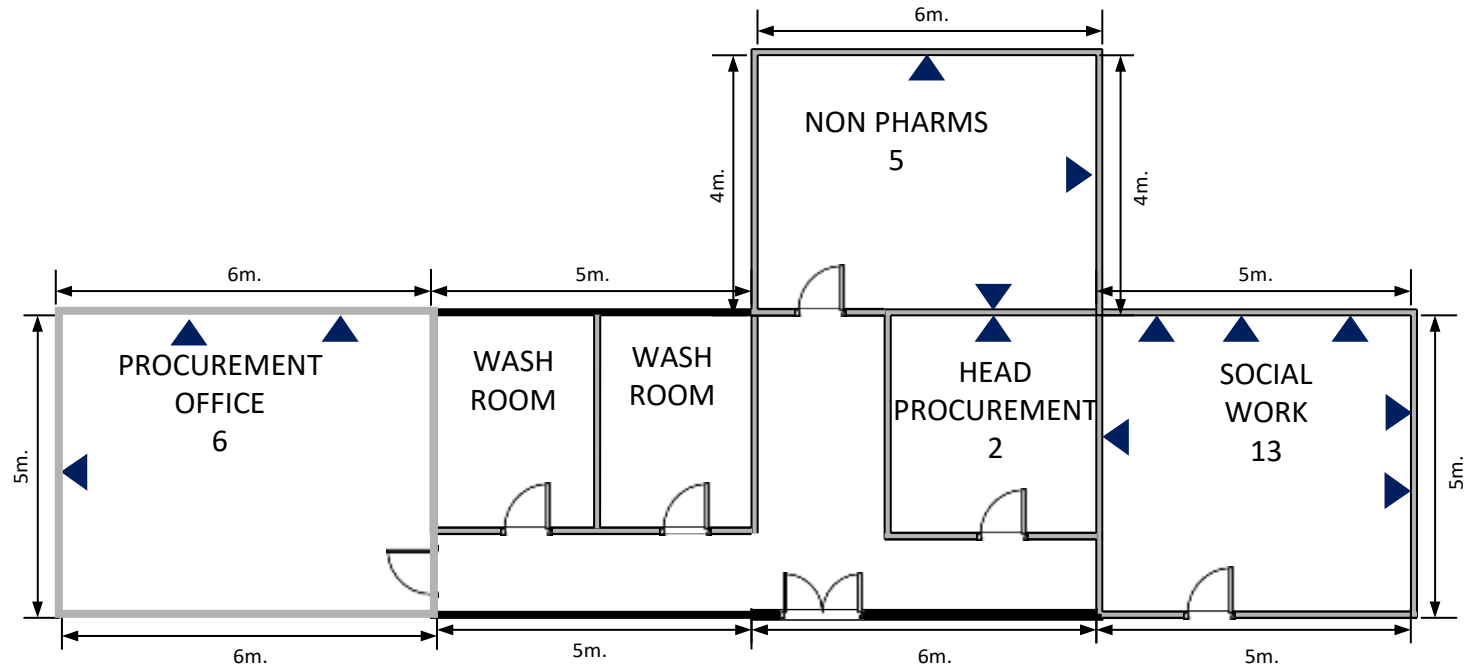


EMBU HOSPITAL
PUBLIC HEALTH OFFICE BLOCK
Proposed Network Layout



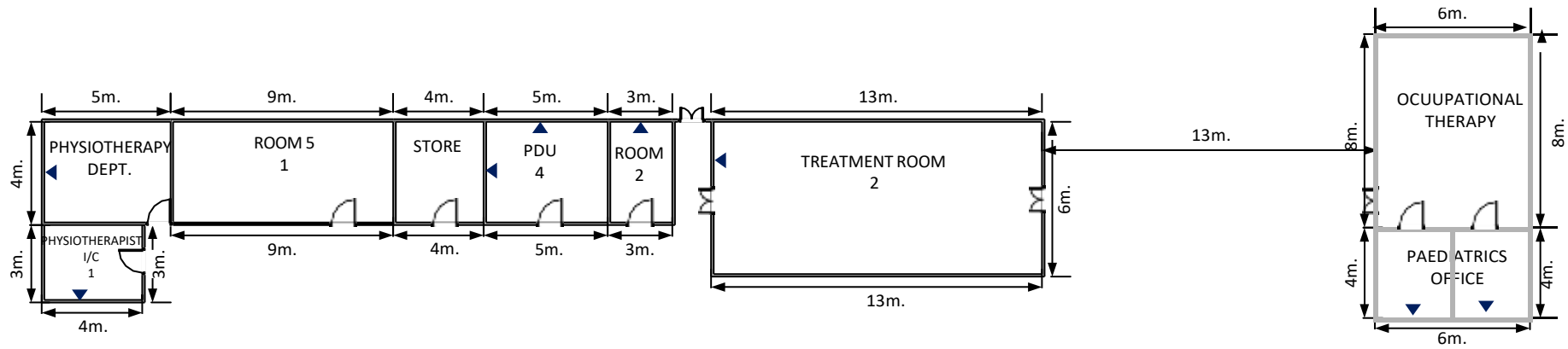
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Doubles: 2
Data Points:4

EMBU HOSPITAL
PROCUREMENT OFFICE BLOCK
Proposed Network Layout



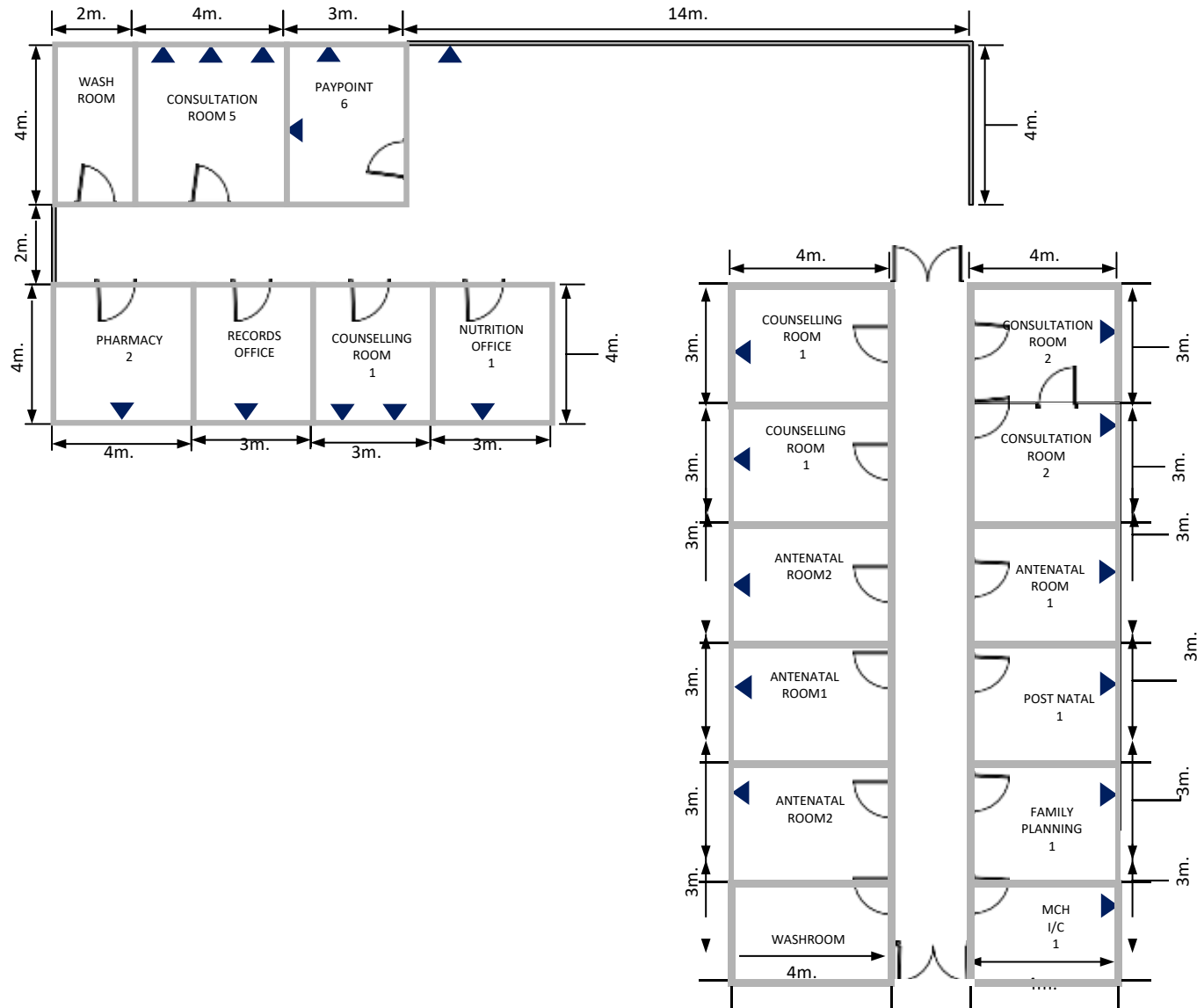
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Doubles: 13
Data Points:26

EMBU HOSPITAL
 PHYSIOTHERAPY AND OCCUPATIONAL THERAPY BLOCK
 Proposed Network Layout



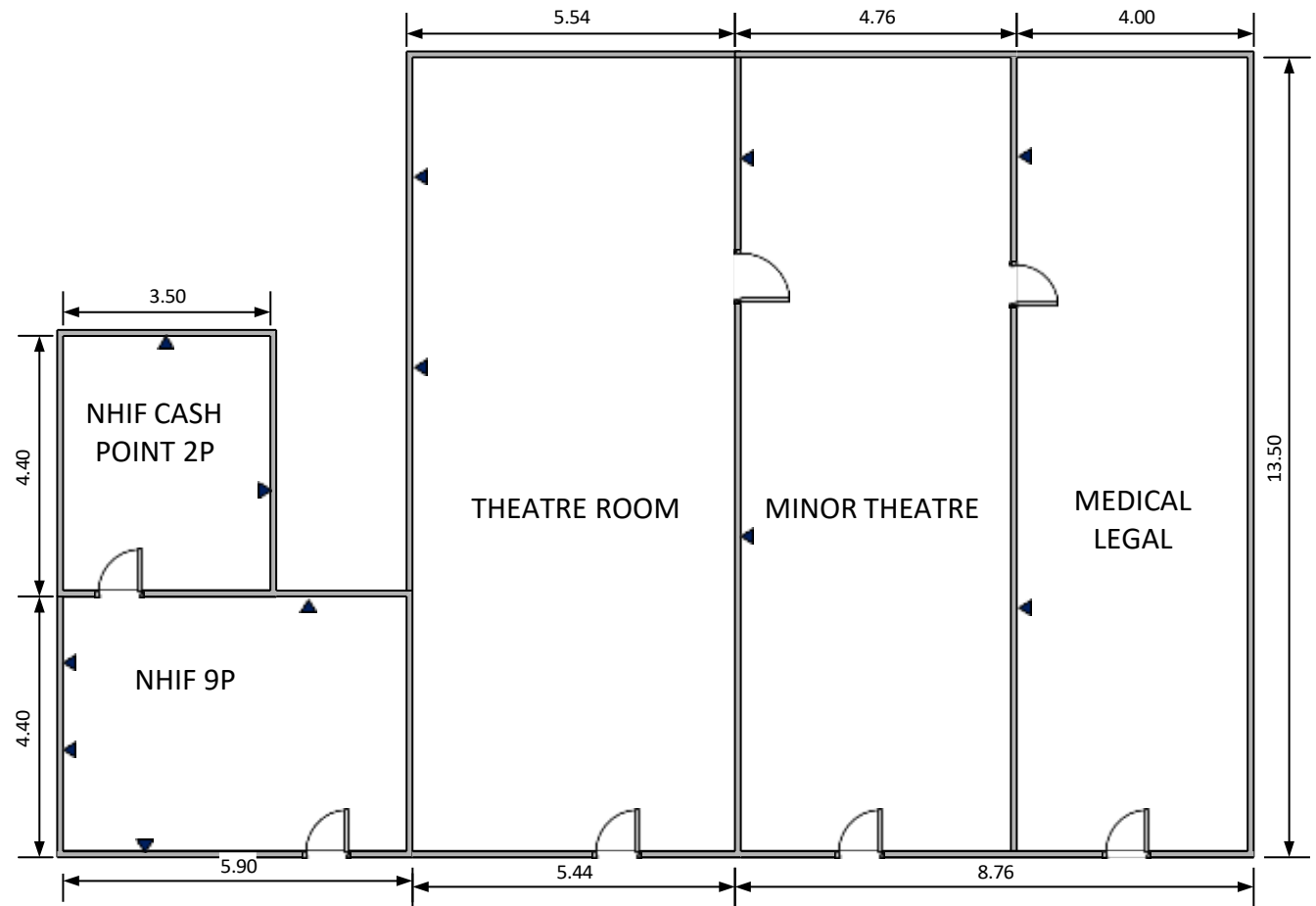
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Doubles: 8
Data Points:16

EMBU HOSPITAL
MCH BLOCK
Proposed Network Layout



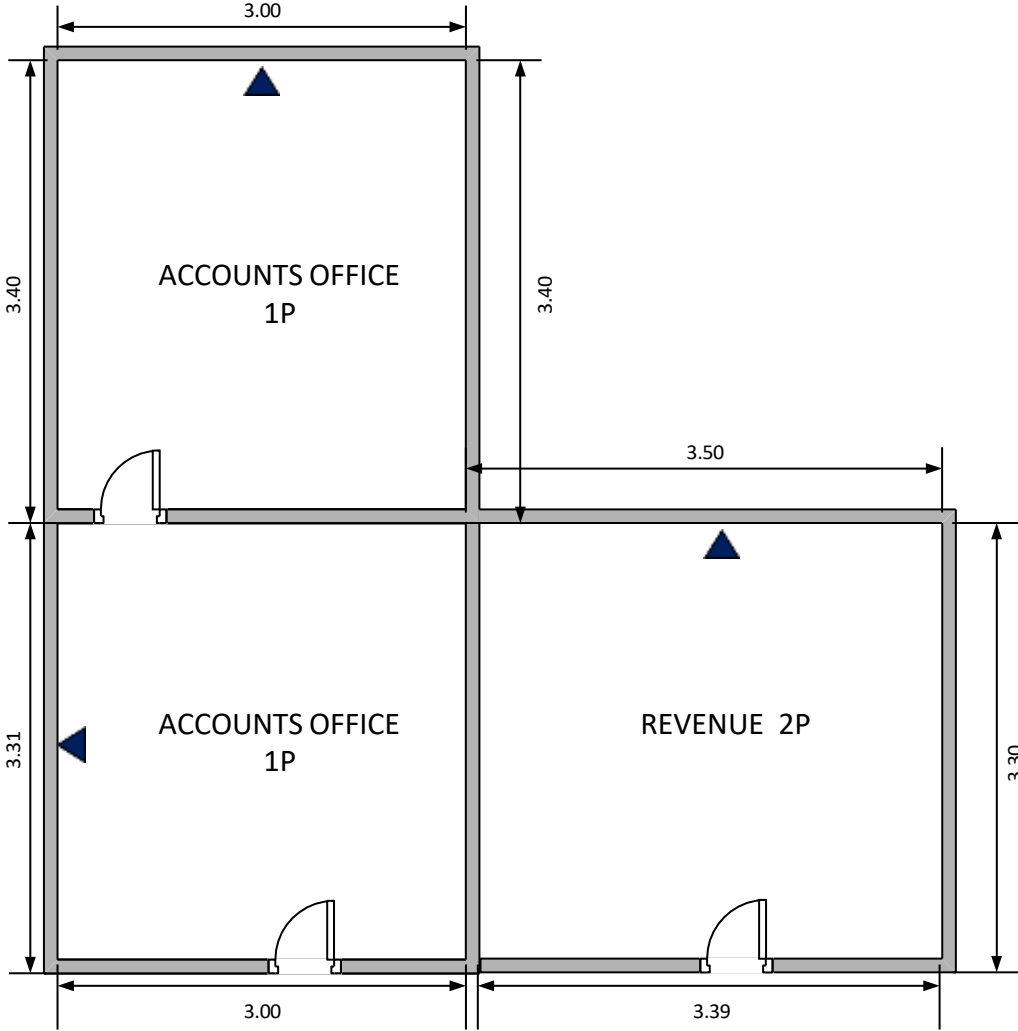
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Doubles: 22
Data Points:44

EMBU HOSPITAL
NHIF BLOCK
Proposed Network Layout



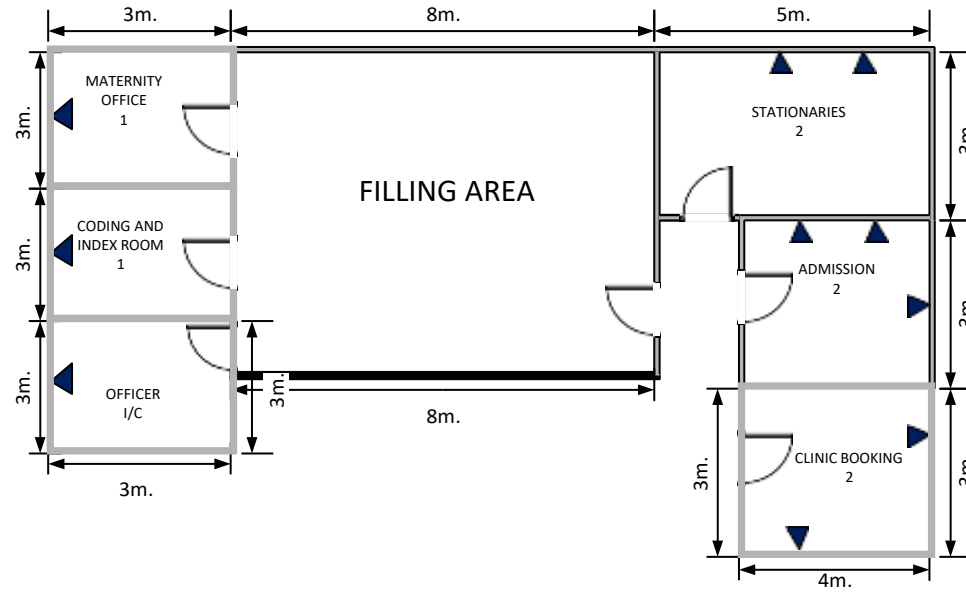
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Doubles: 12
Data Points:24

EMBU HOSPITAL
ACCOUNTS BLOCK
Proposed Network Layout



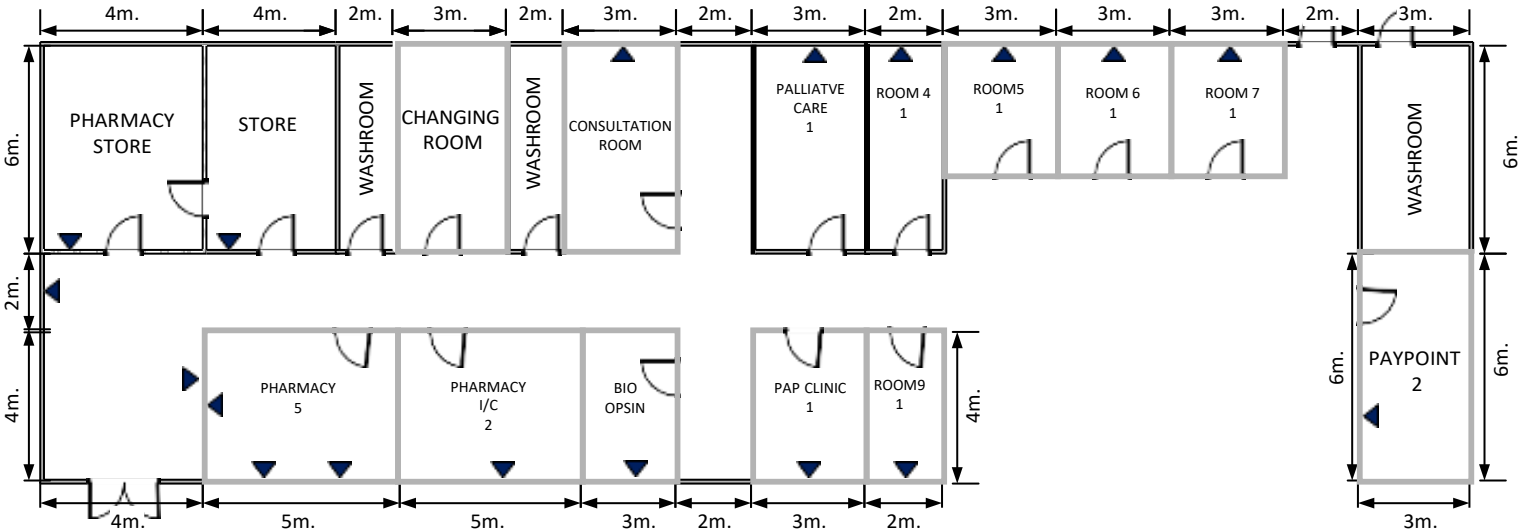
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Doubles: 3
Data Points:6

EMBU HOSPITAL
RECORDS BLOCK
Proposed Network Layout



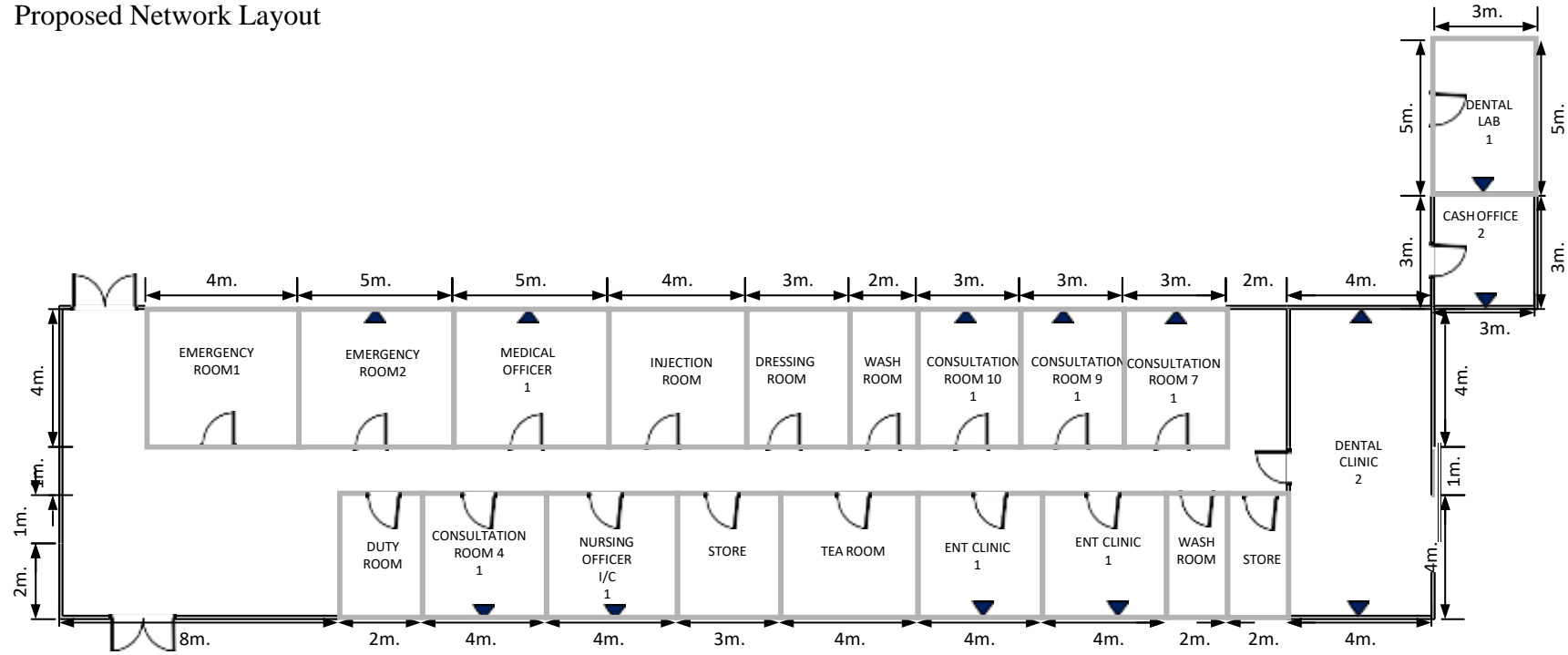
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Doubles: 10
Data Points:20

EMBU HOSPITAL
 OUTPATIENT BLOCK A
 Proposed Network Layout



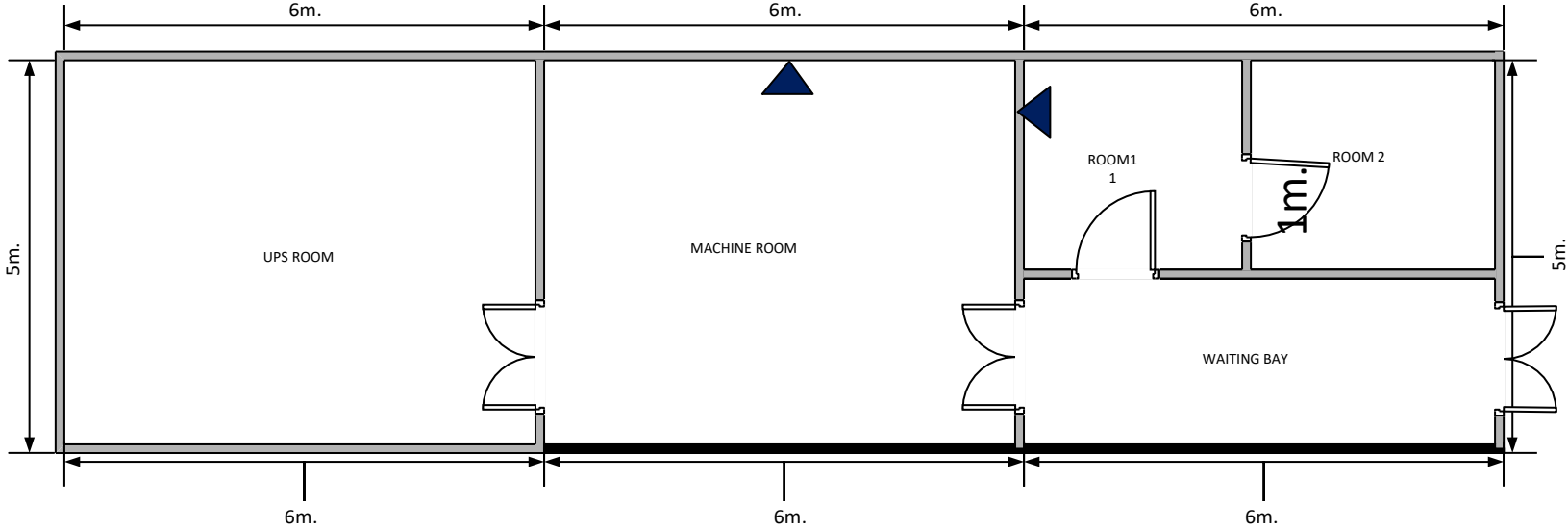
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Doubles: 18
Data Points: 36

EMBU HOSPITAL
 OUTPATIENT/CASUALTY BLOCK
 Proposed Network Layout



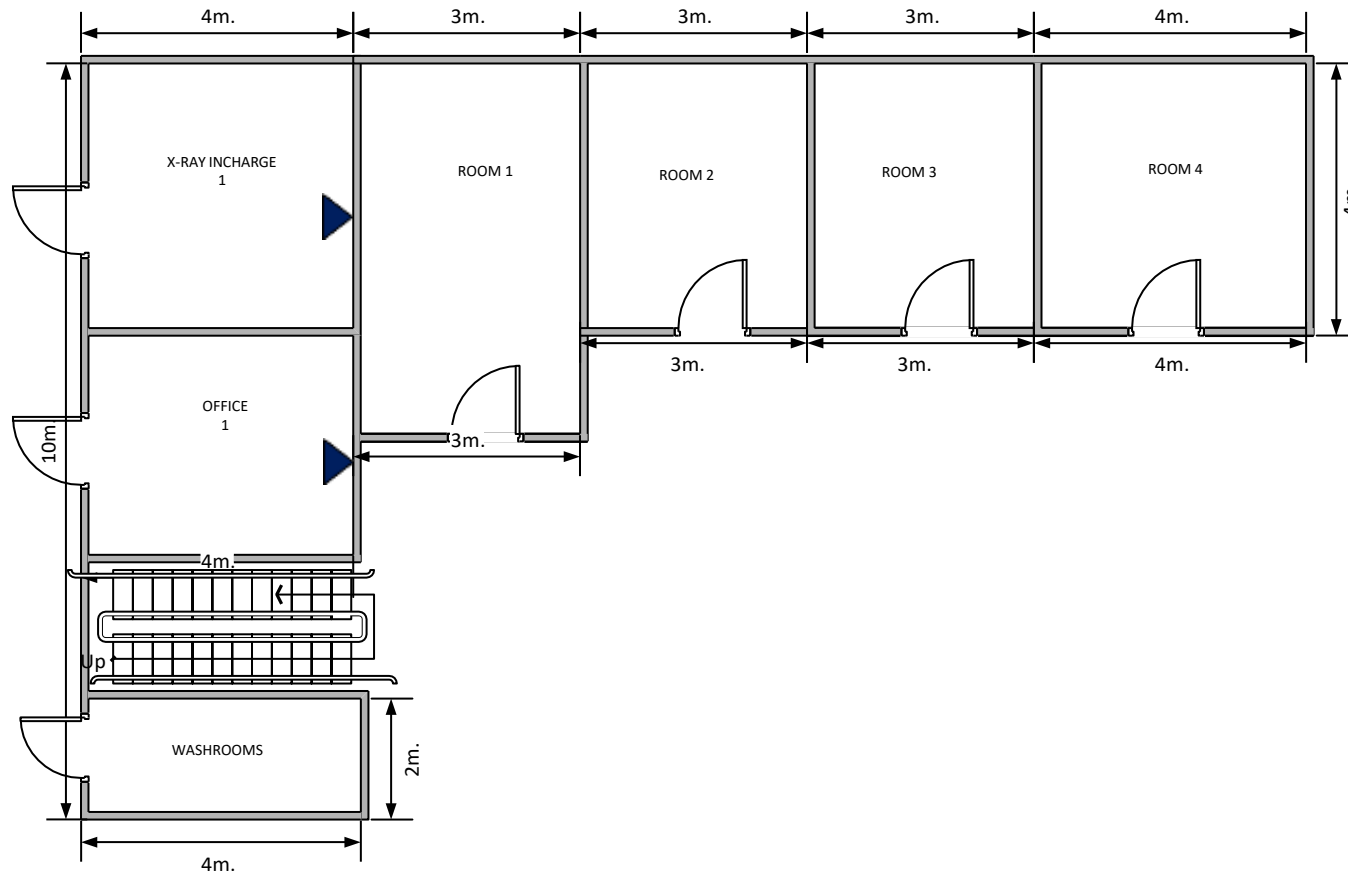
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Doubles: 13
Data Points:26

EMBU HOSPITAL
OLD CT-SCAN BLOCK
Proposed Network Layout



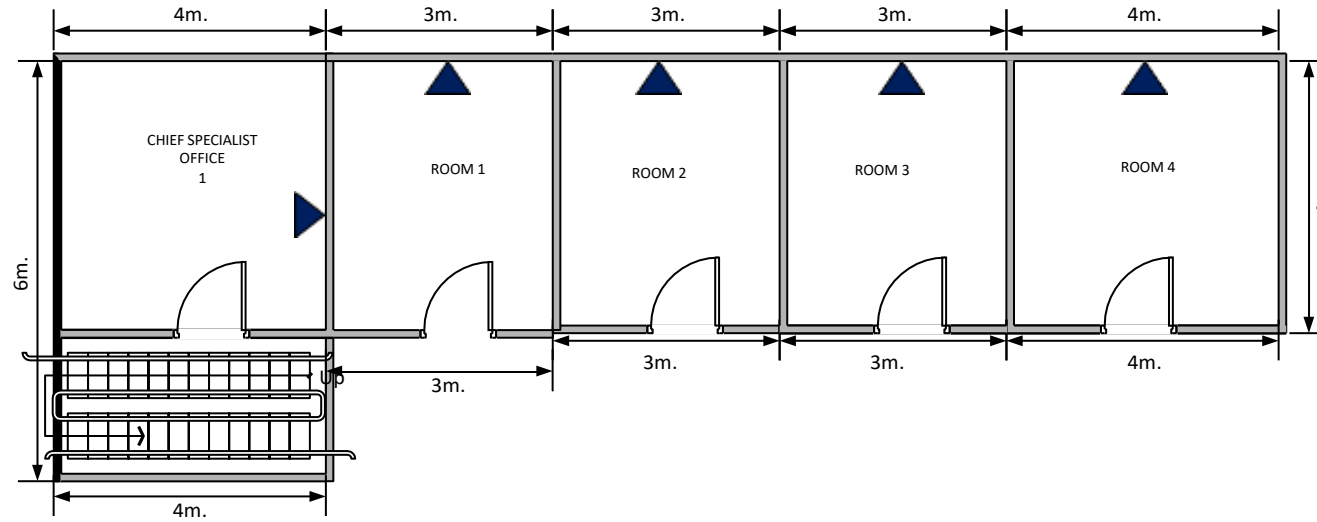
Perimeter:46M
Doubles: 2
Data Points:4

EMBU HOSPITAL
MOLECULAR LAB GROUND FLOOR BLOCK
Proposed Network Layout



Perimeter:48M
Doubles: 2
Data Points:4

EMBU HOSPITAL
MOLECULAR LAB 1ST FLOOR BLOCK
Proposed Network Layout

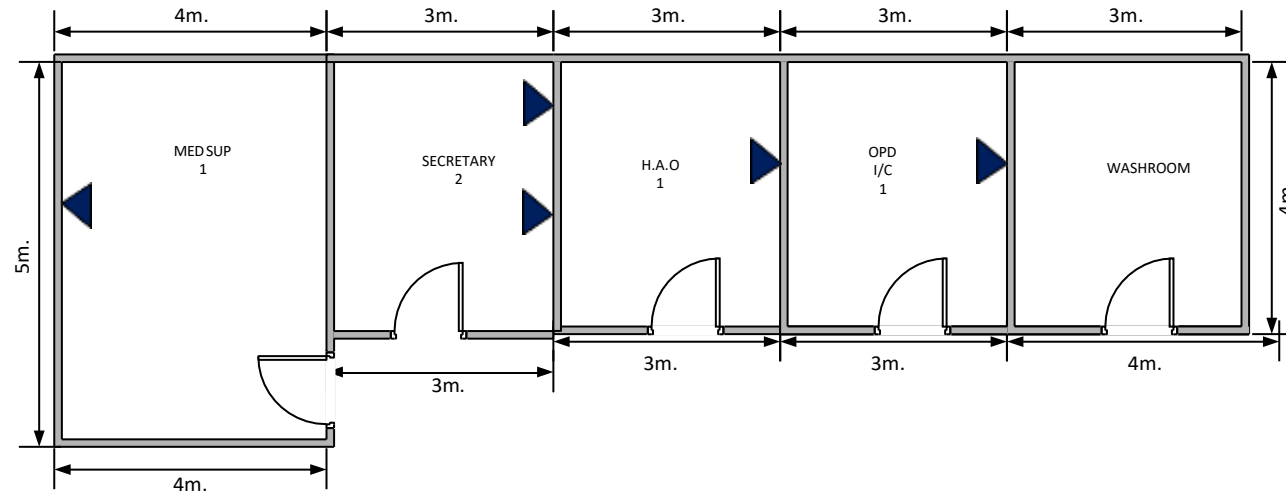


Perimeter:42M

Doubles: 5

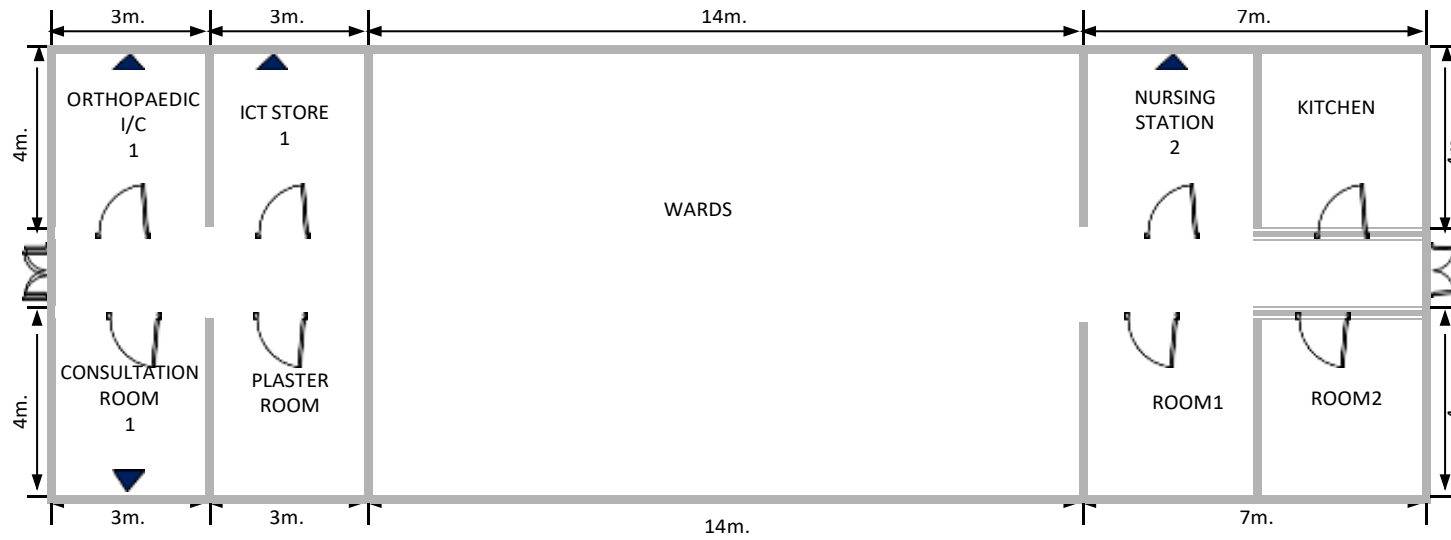
Data Points:10

EMBU HOSPITAL
OLD ADMIN BLOCK
Proposed Network Layout



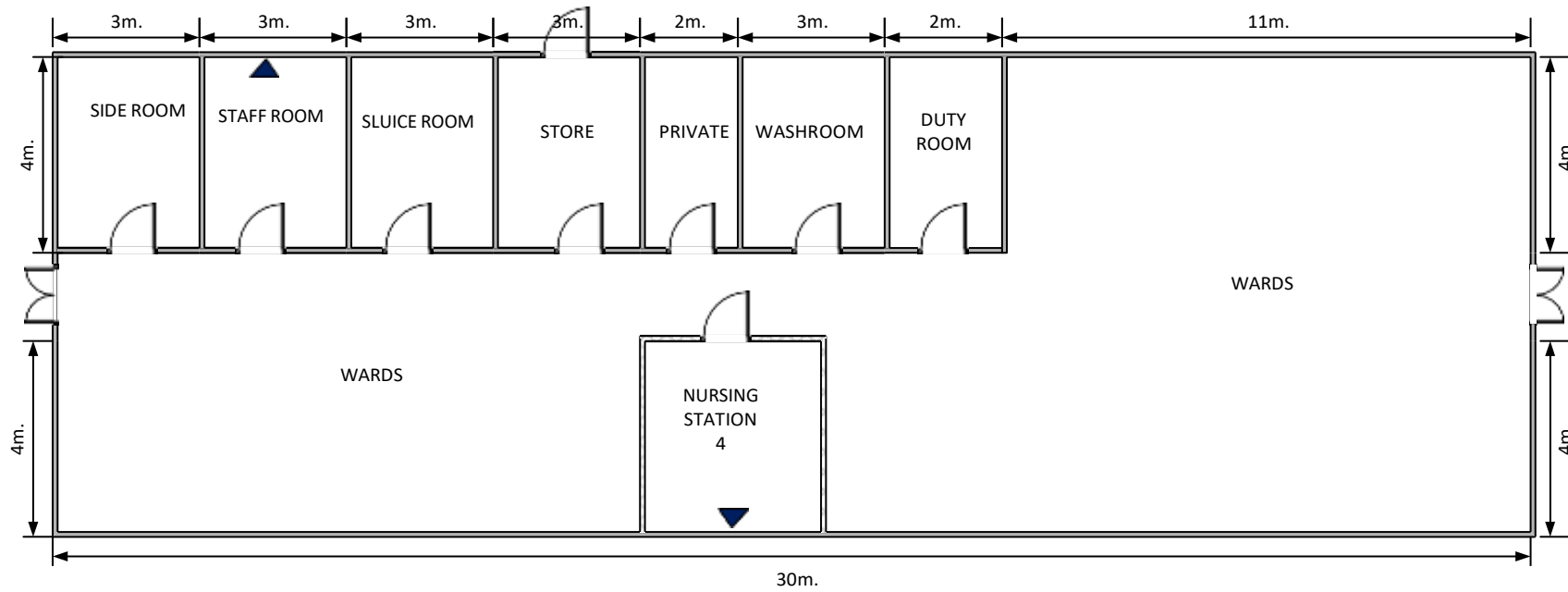
Perimeter:42M
Doubles: 5
Data Points:10

EMBU HOSPITAL
WARD 3 BLOCK
Proposed Network Layout



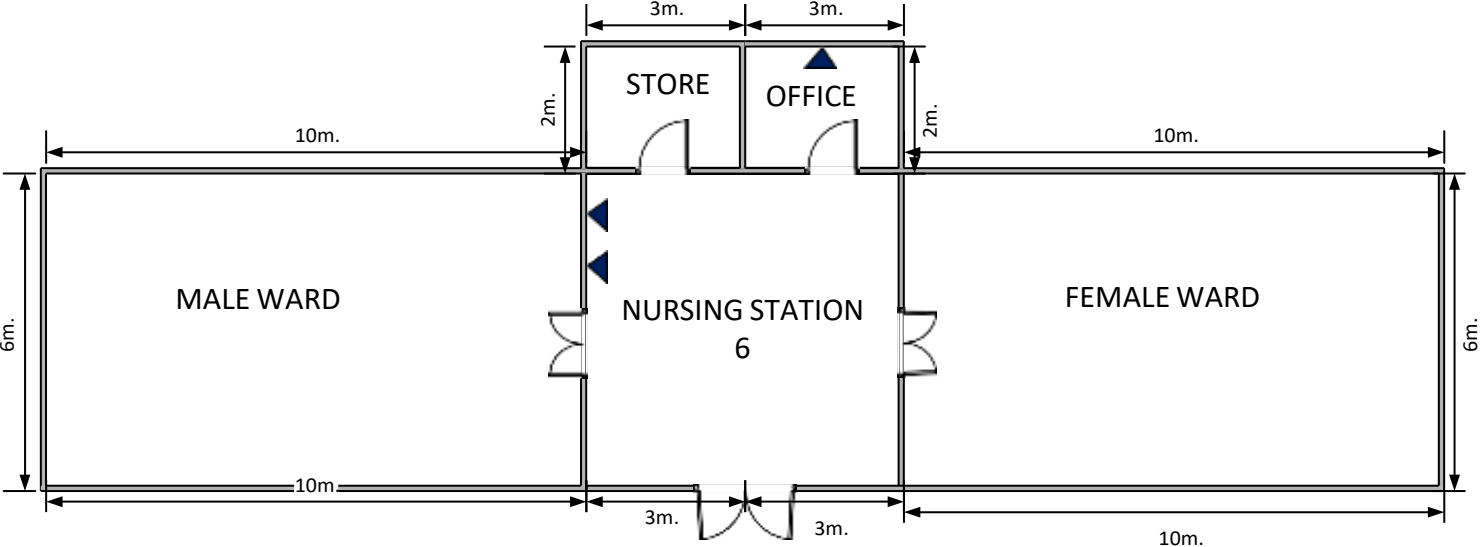
Perimeter:70M
Doubles: 4
Data Points:8

EMBU HOSPITAL
WARD 4 BLOCK
Proposed Network Layout



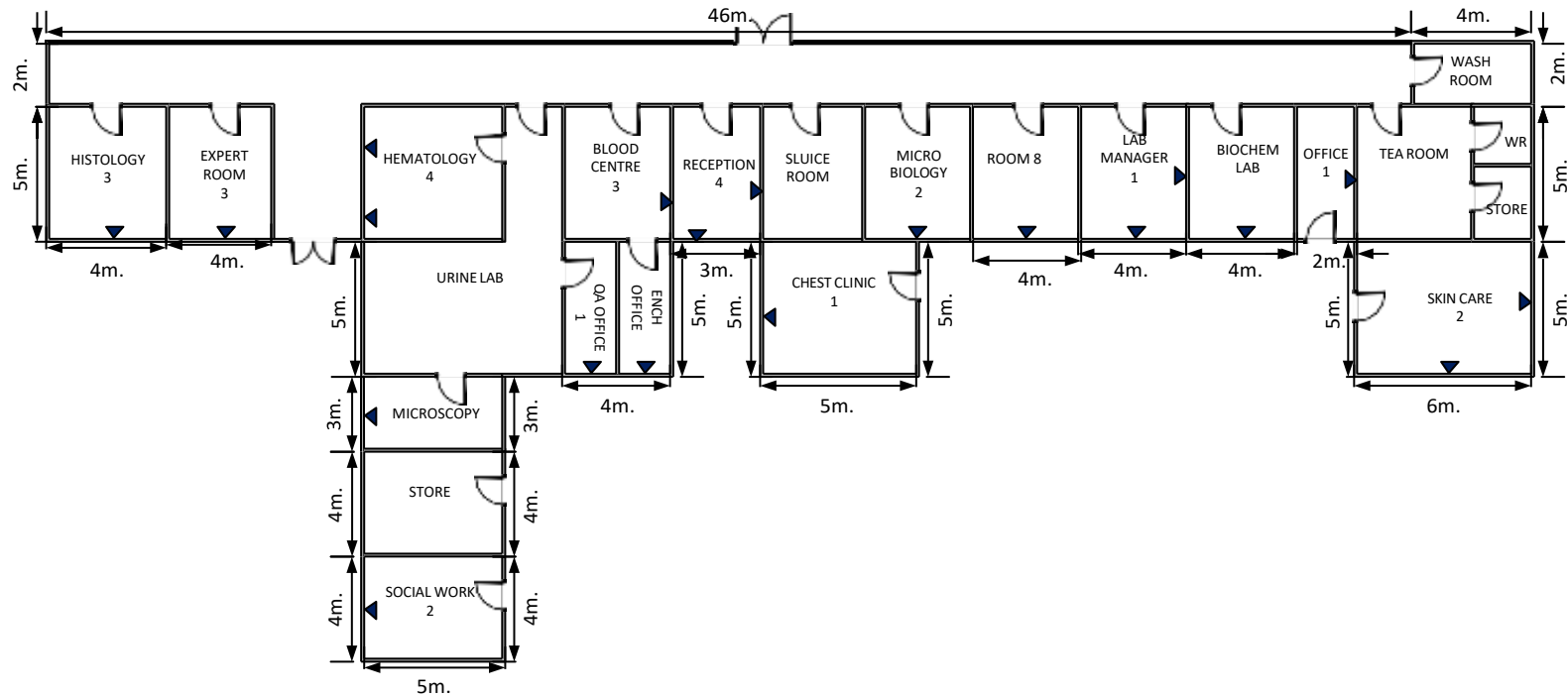
Perimeter:80M
Doubles: 2
Data Points:4

EMBU HOSPITAL
WARD 11 BLOCK
Proposed Network Layout



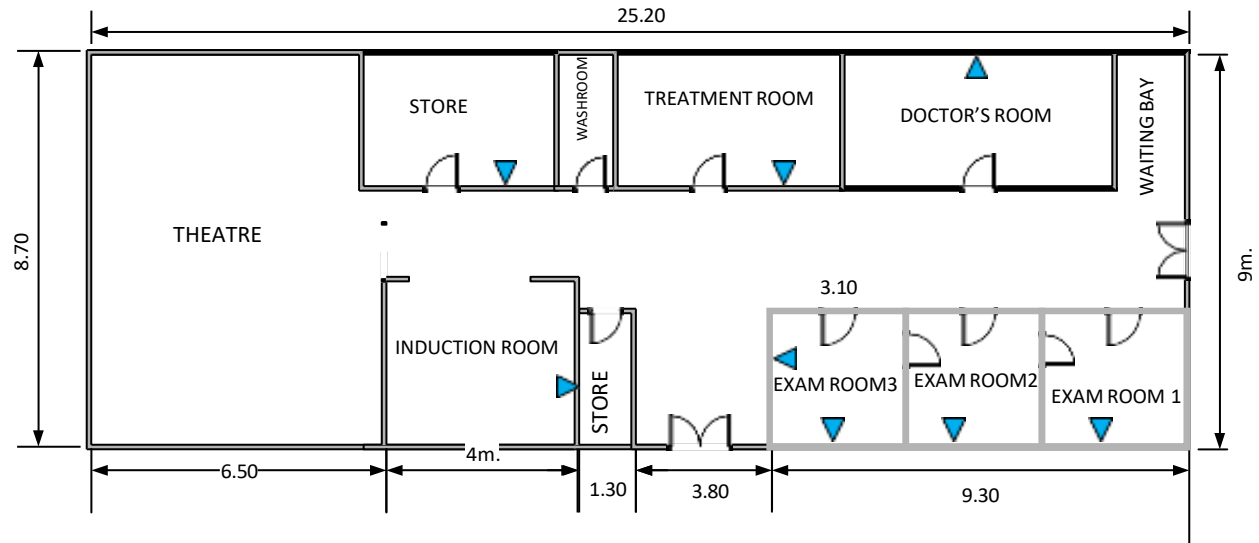
Perimeter:68M
Doubles: 3
Data Points:6

EMBU HOSPITAL
 LABORATORY BLOCK
 Proposed Network Layout



Perimeter:136M
Doubles:20
Data Points:40

EMBU HOSPITAL
EYE UNIT BLOCK
Proposed Network Layout

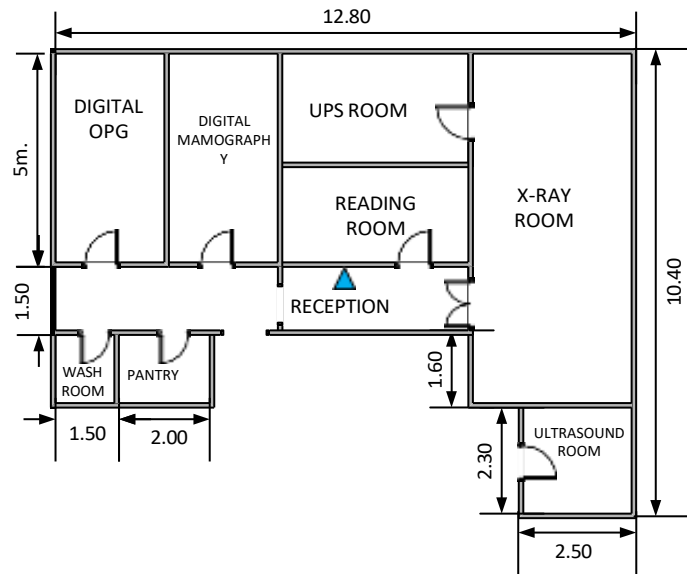


Perimeter: 67.8 M

Doubles: 8

Data Points: 16

EMBU HOSPITAL
X-RAY BLOCK
Proposed Network Layout



Perimeter:4

6.4 M

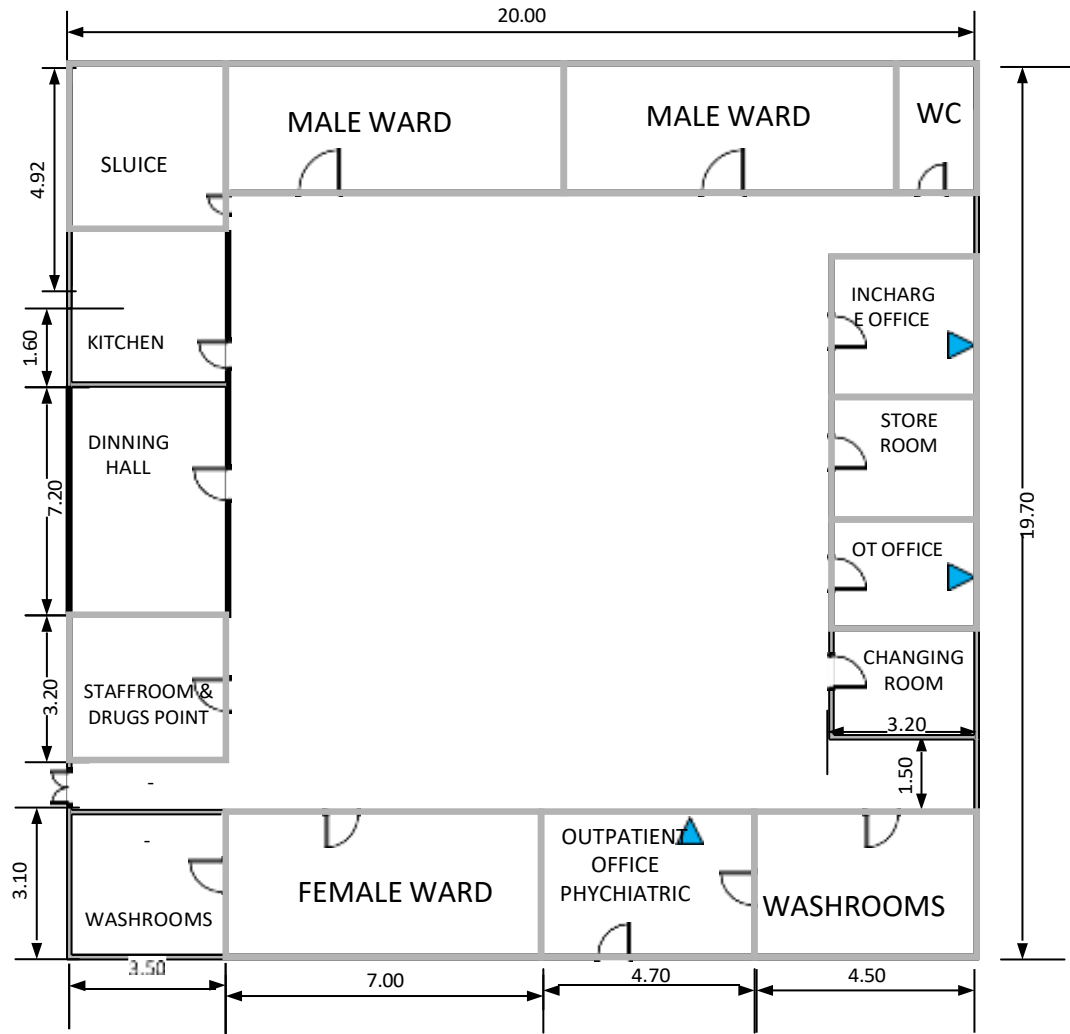
Doubles:1

Data Points:

2



EMBU HOSPITAL
PSYCHIATRIC CLINIC BLOCK
Proposed Network Layout

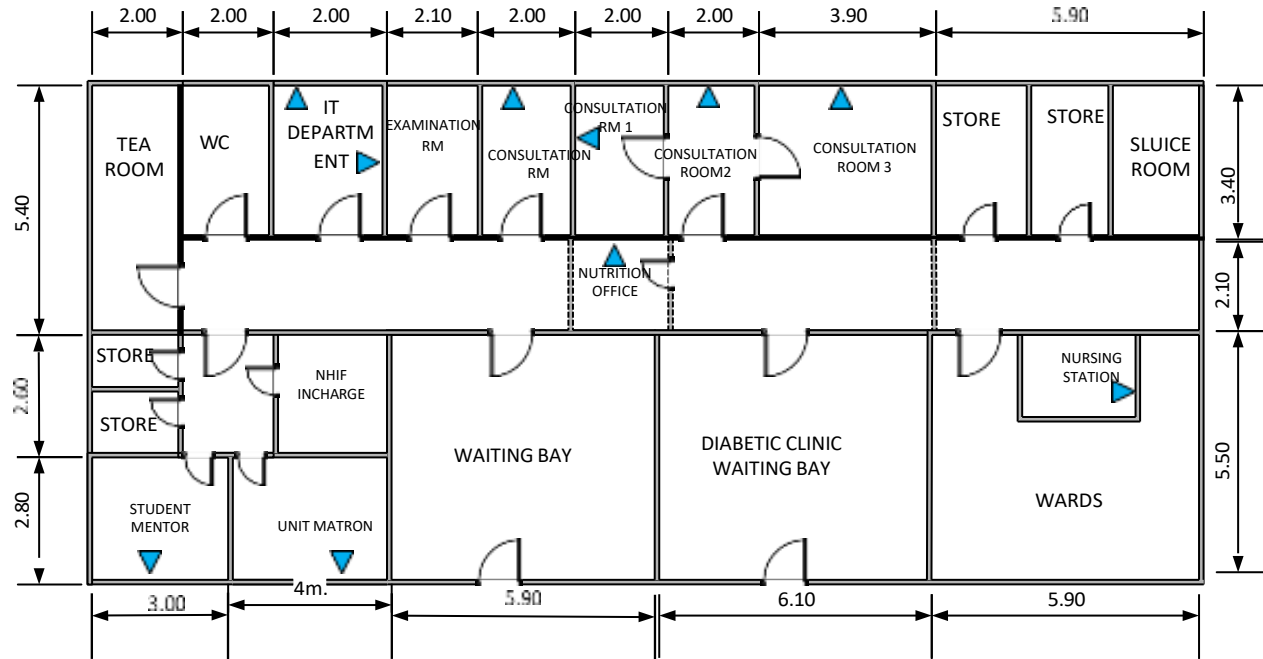


Perimeter: 79.4 M

Doubles: 3

Data Points: 6

EMBU HOSPITAL
 WARD 5
 Proposed Network Layout



Perimeter:7

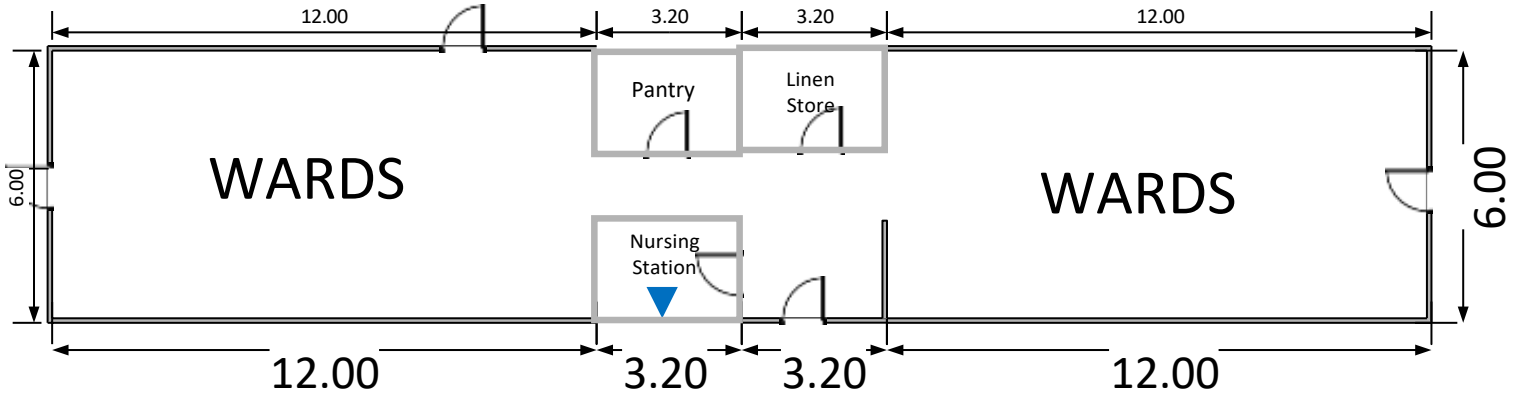
1 M

Doubles:10

Data Points:

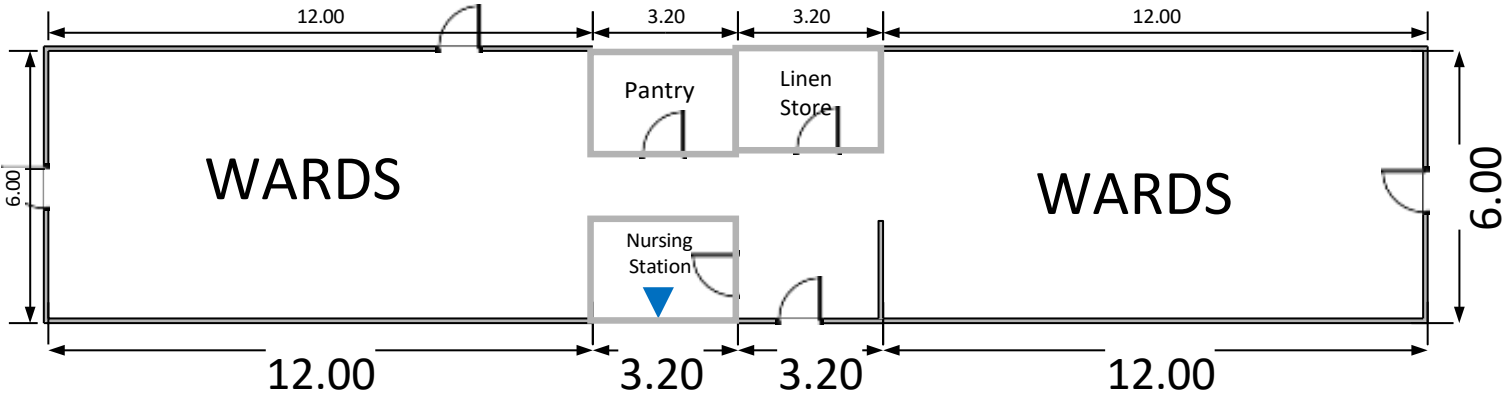
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EMBU HOSPITAL
WARD 1
Proposed Network Layout



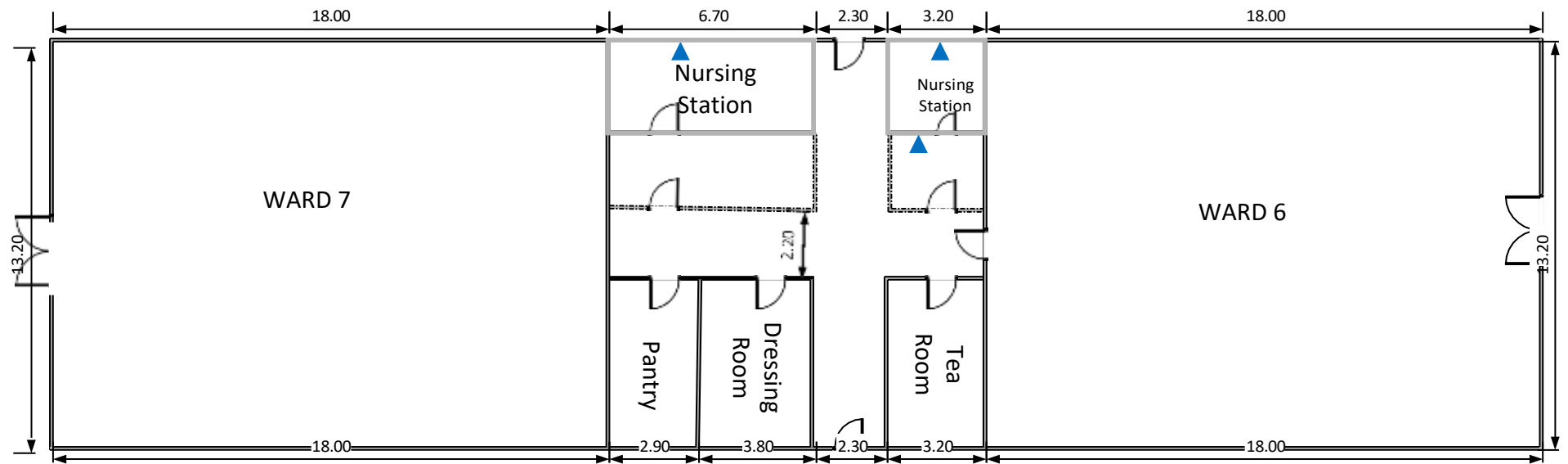
1 DOUBLE DATA PLATE
2 DATA POINTS
PERIMETER =60.8 M

EMBU HOSPITAL
WARD 2
Proposed Network Layout



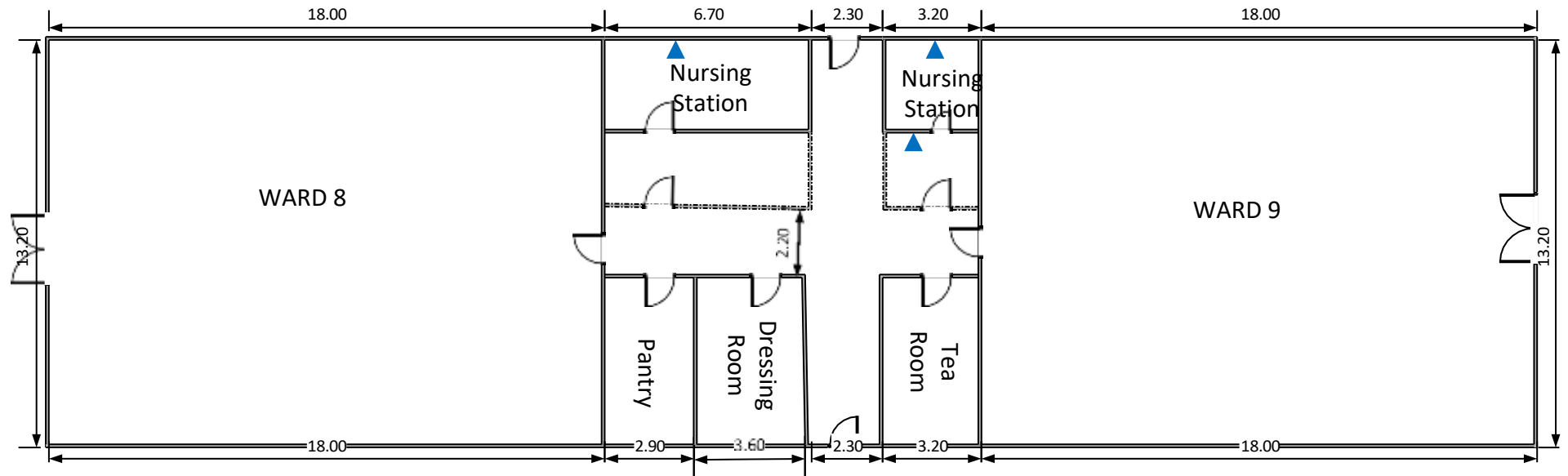
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2 DATA POINTS
PERIMETER =60.8 M

EMBU HOSPITAL
WARD 6-7
Proposed Network Layout



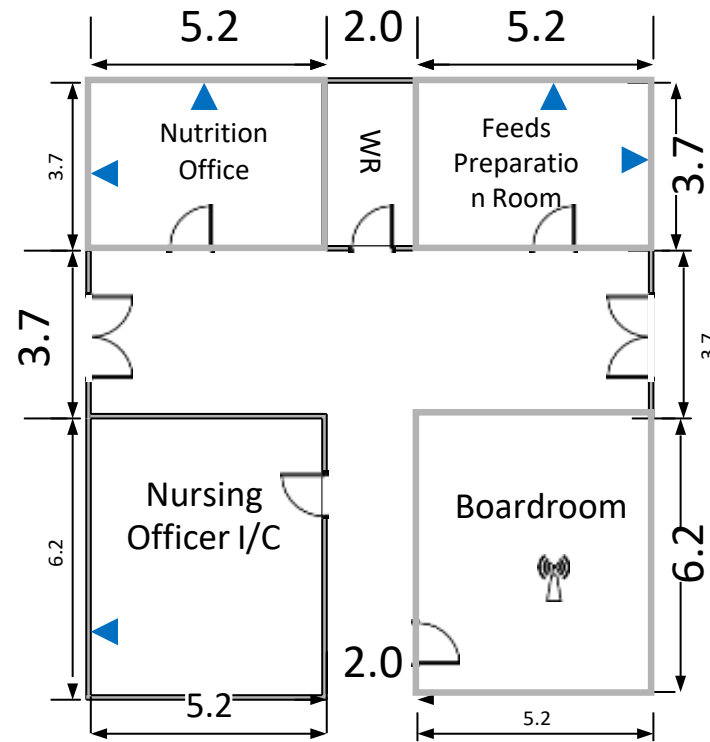
3 DOUBLE DATA PLATE
6 DATA POINTS
PERIMETER =122.8 M

EMBU HOSPITAL
WARD 8-9
Proposed Network Layout



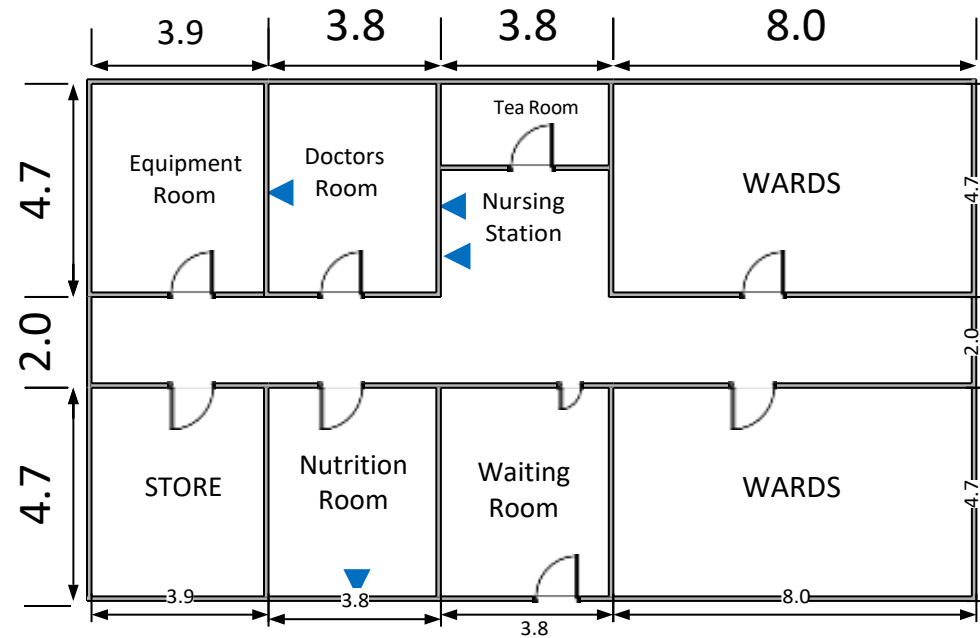
3 DOUBLE DATA PLATE
6 DATA POINTS
PERIMETER =122.8 M

EMBU HOSPITAL
NUTRITION BLOCK
Proposed Network Layout



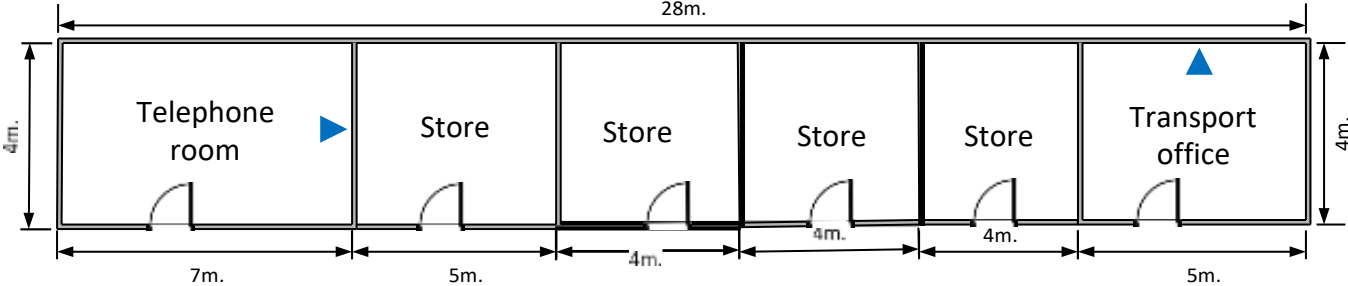
**5 DOUBLE DATA PLATE
10 DATA POINTS
PERIMETER =52 M**

EMBU HOSPITAL
RENAL UNIT
Proposed Network Layout



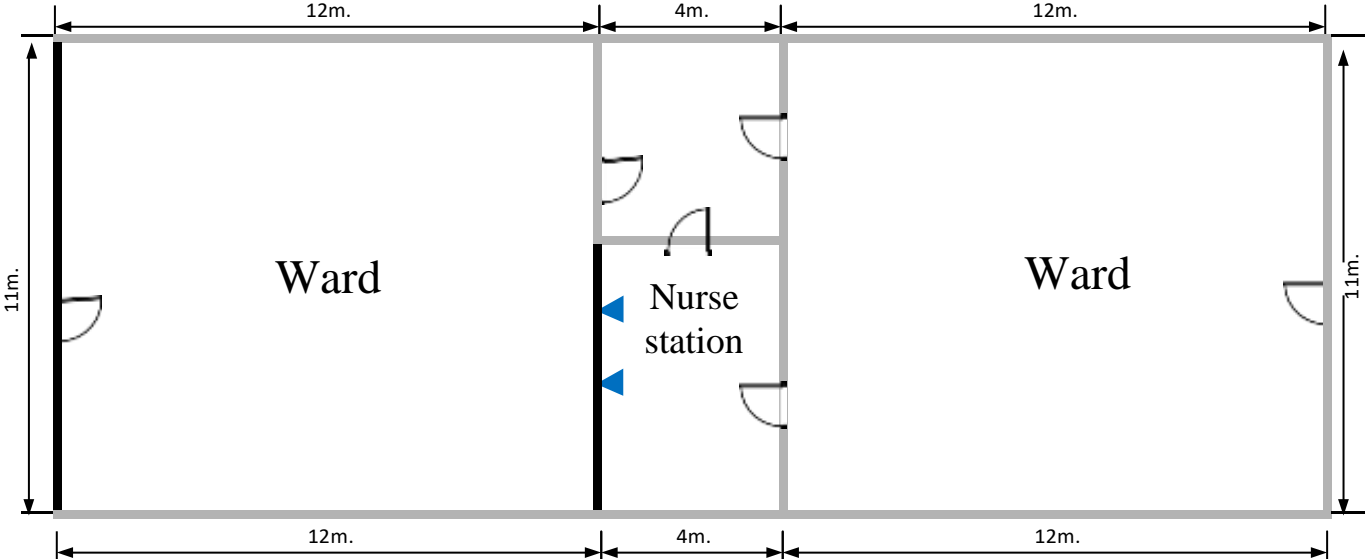
4 DOUBLE DATA PLATE
8 DATA POINTS
PERIMETER =61.8 M

EMBU HOSPITAL
TELEPHONE UNIT
Proposed Network Layout



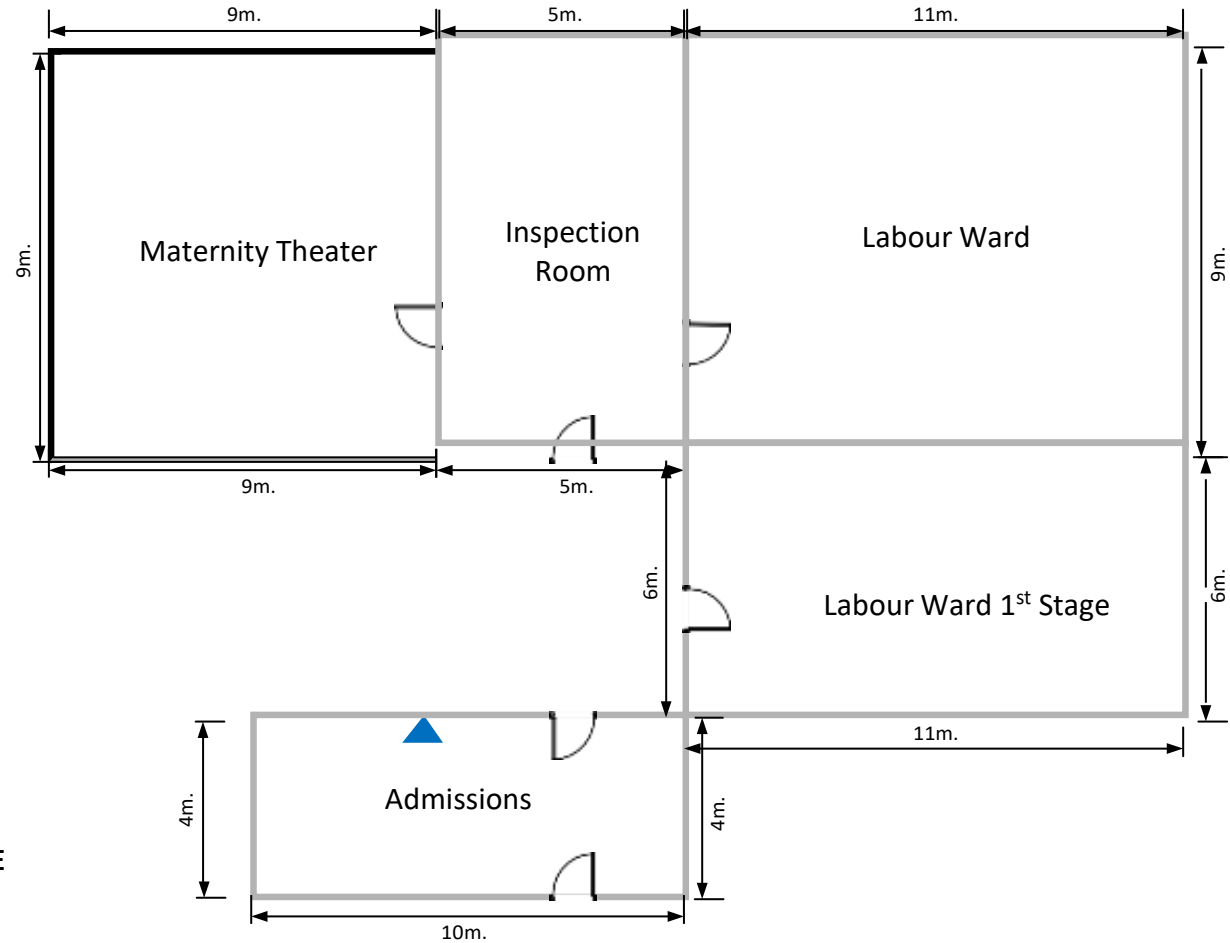
2 DOUBLE DATA PLATE
4 DATA POINTS
PERIMETER = 64M

EMBU HOSPITAL
WARD 10
Proposed Network Layout



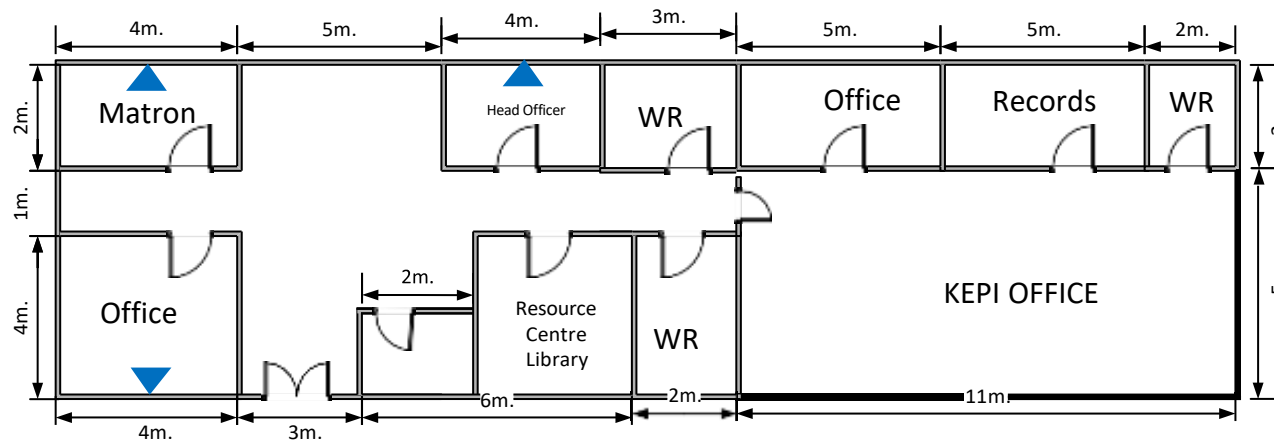
2 DOUBLE DATA PLATE
4 DATA POINTS
PERIMETER = 77.6M

EMBU HOSPITAL
MATERNITY WARD
Proposed Network Layout



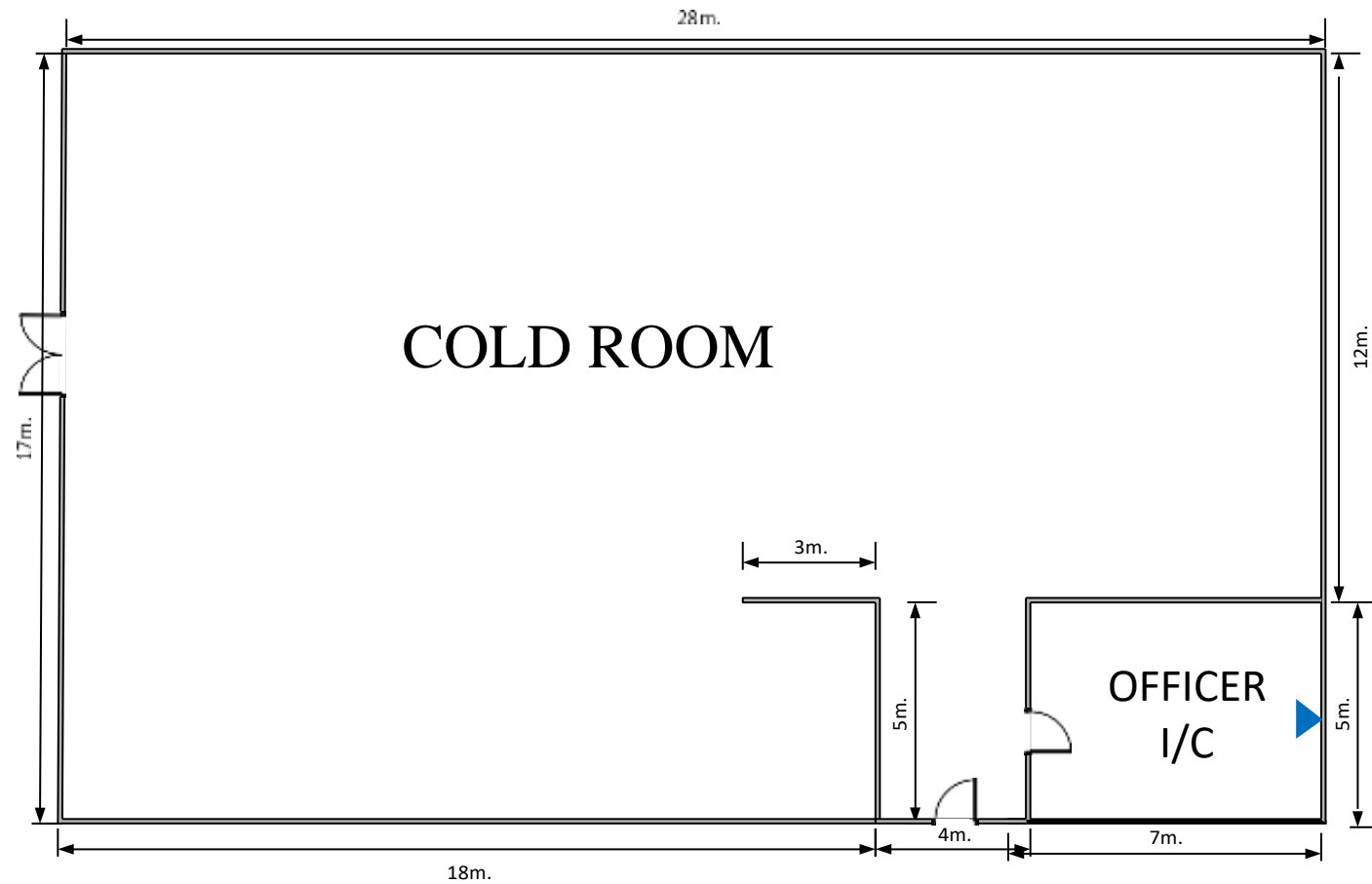
1 DOUBLE DATA PLATE
2 DATA POINTS
PERIMETER = 65.8M

EMBU HOSPITAL
RESOURCE CENTRE
Proposed Network Layout



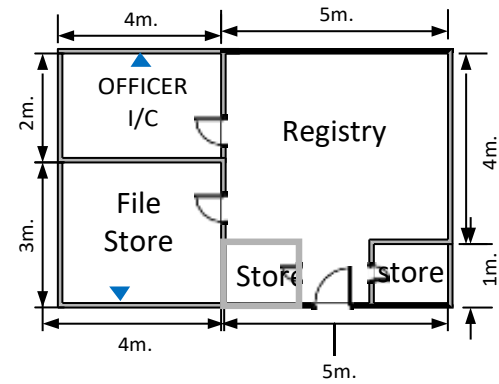
3 DOUBLE DATA PLATE
6 DATA POINTS
PERIMETER = 66.6M

EMBU HOSPITAL
MORTUARY BLOCK
Proposed Network Layout



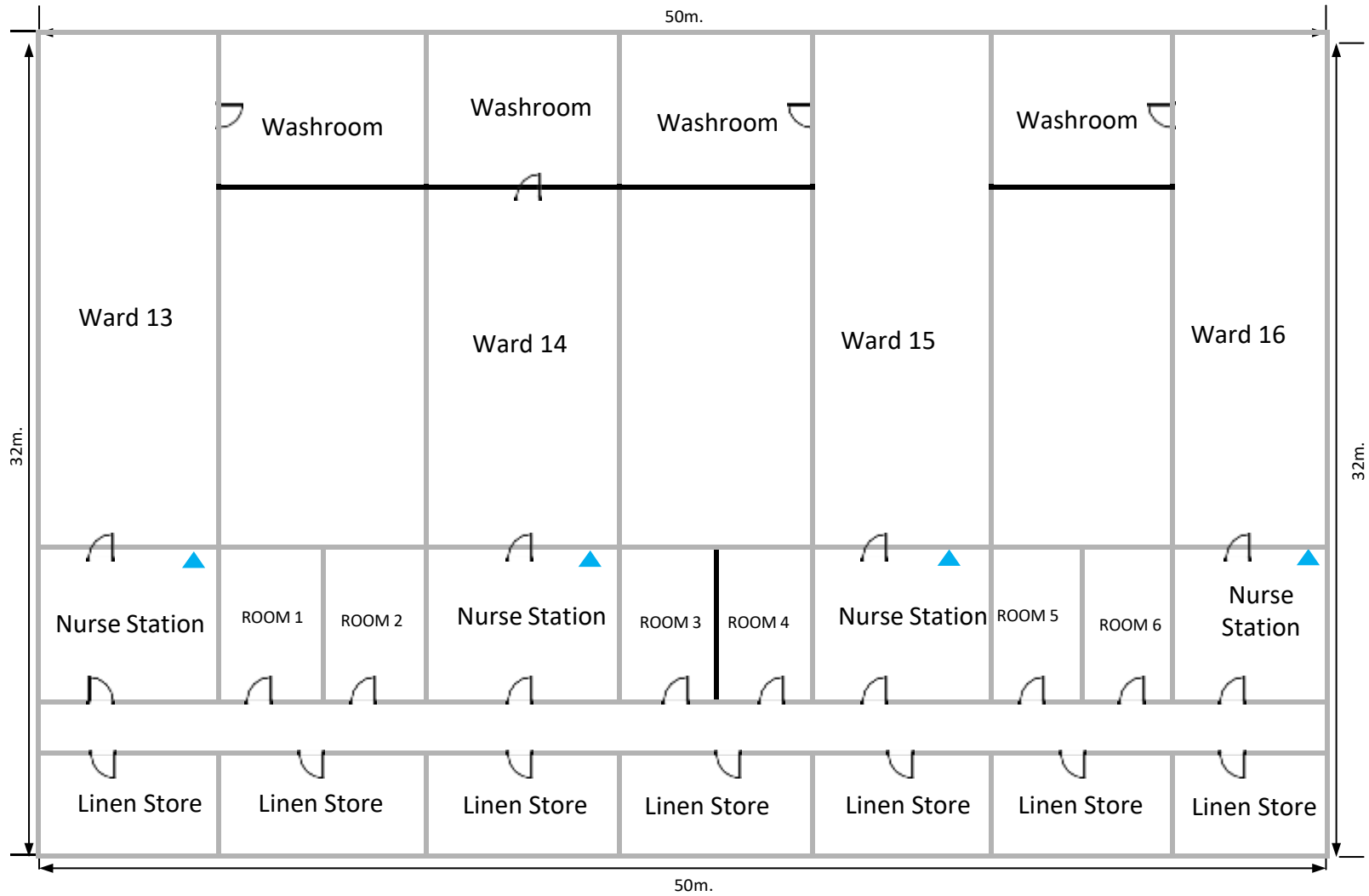
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2 DATA POINTS
PERIMETER = 100.0M

EMBU HOSPITAL
REGISTRY BLOCK
Proposed Network Layout



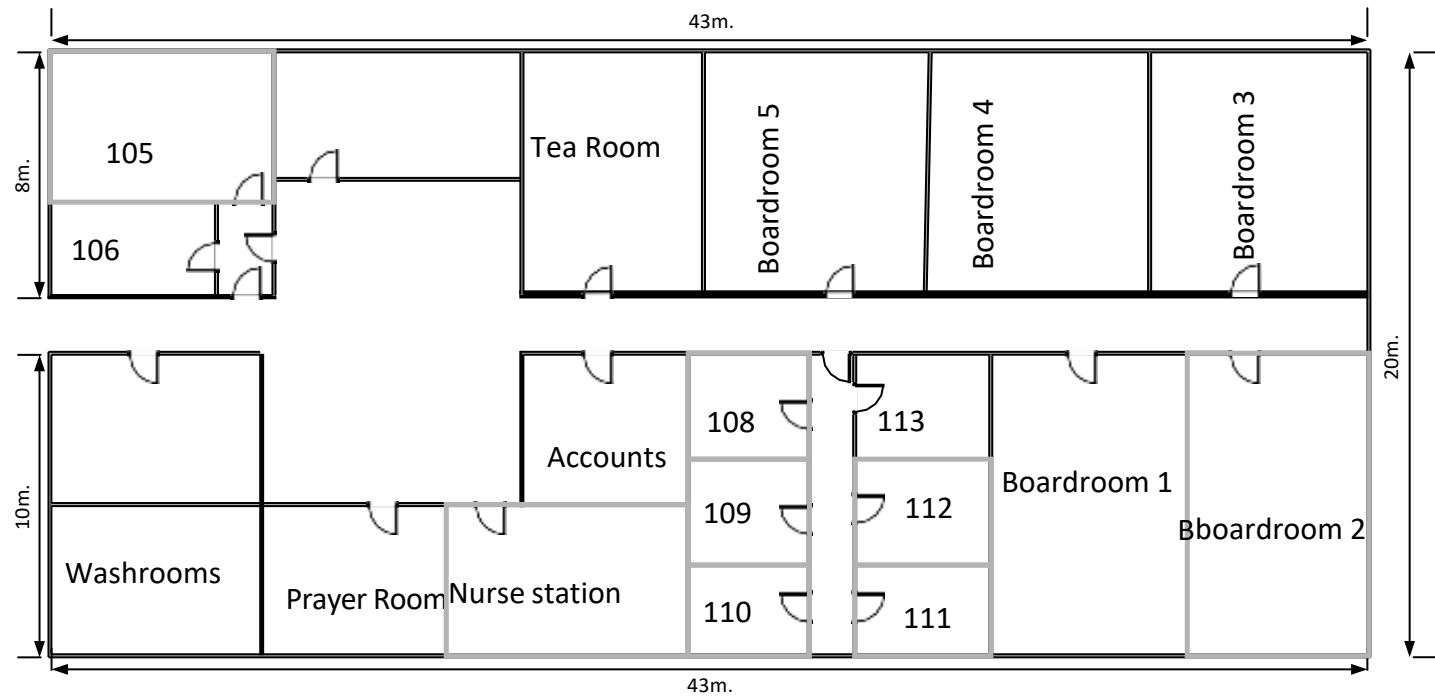
**2 DOUBLE DATA
PLATE
4 DATA POINTS
PERIMETER = 26.6 M**

EMBU HOSPITAL
 WARD 13—16 BLOCK
 Proposed Network Layout



Perimeter=
 164
 Double= 4
 Data points=8

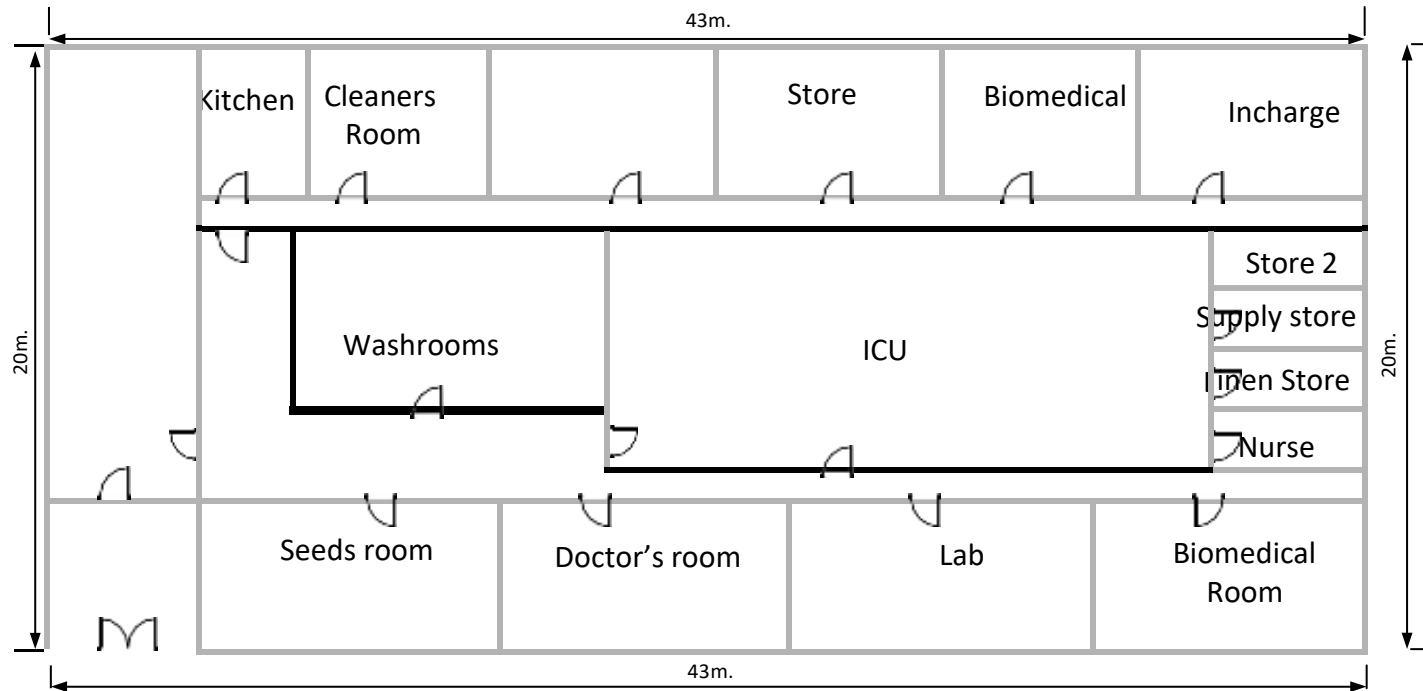
EMBU HOSPITAL
 NEW ADMIN 2ND FLOOR
 Proposed Network Layout



Perimeter=
 126

Double= 3
Data points=6

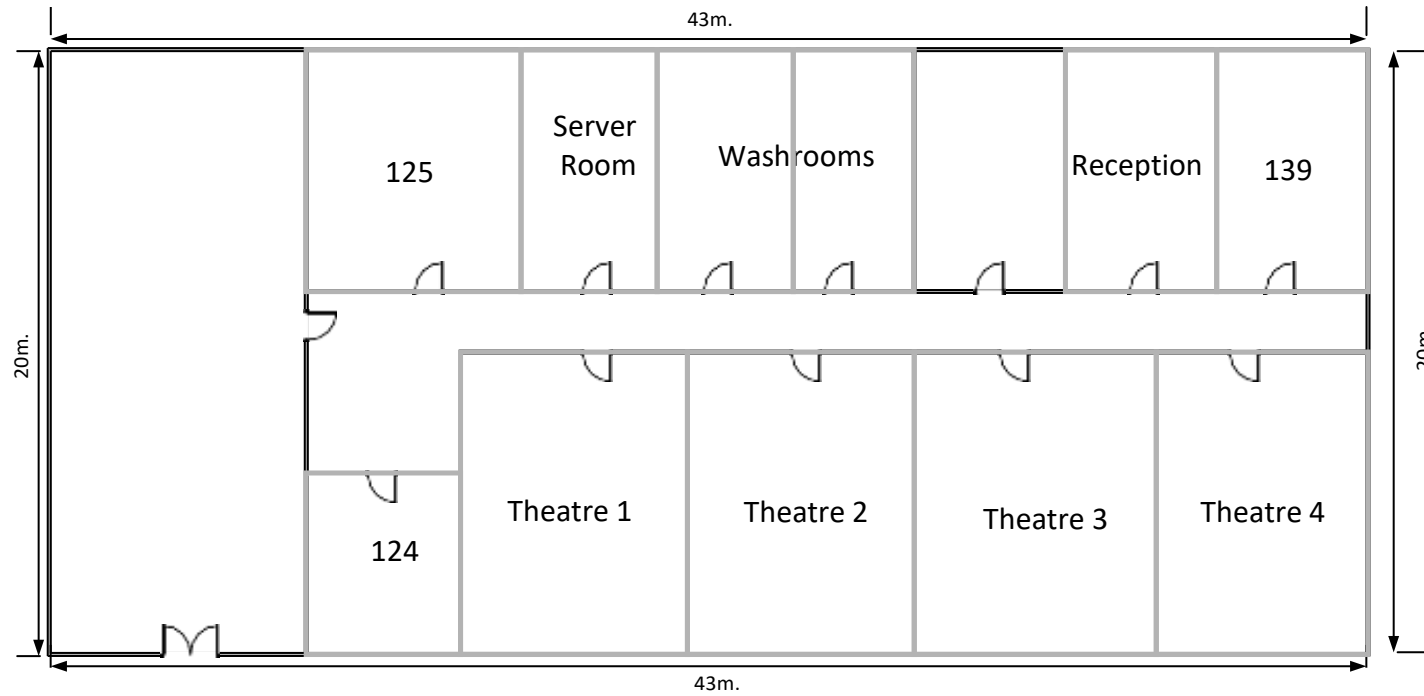
EMBU HOSPITAL
NEW ADMIN 1ST FLOOR
Proposed Network Layout



Perimeter=
126

Double= 3
Data points=6

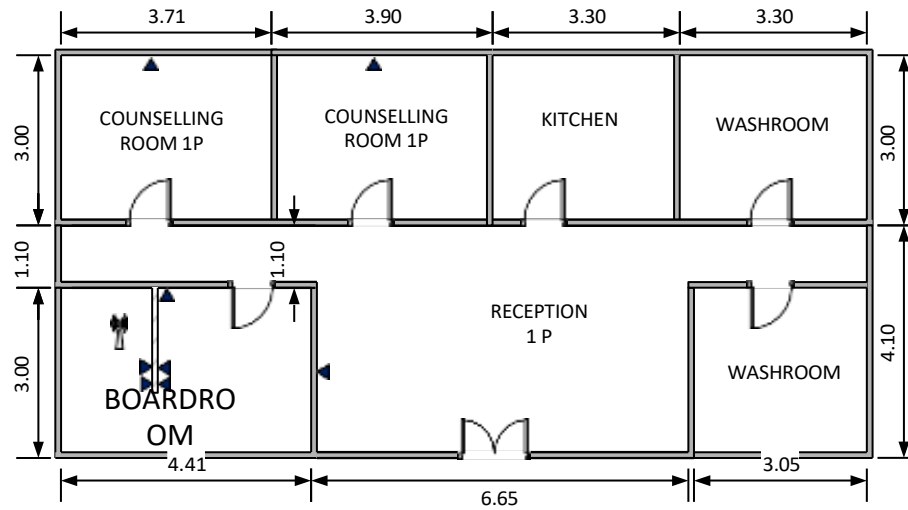
EMBU HOSPITAL
NEW ADMIN GROUND FLOOR
Proposed Network Layout



Perimeter=
126

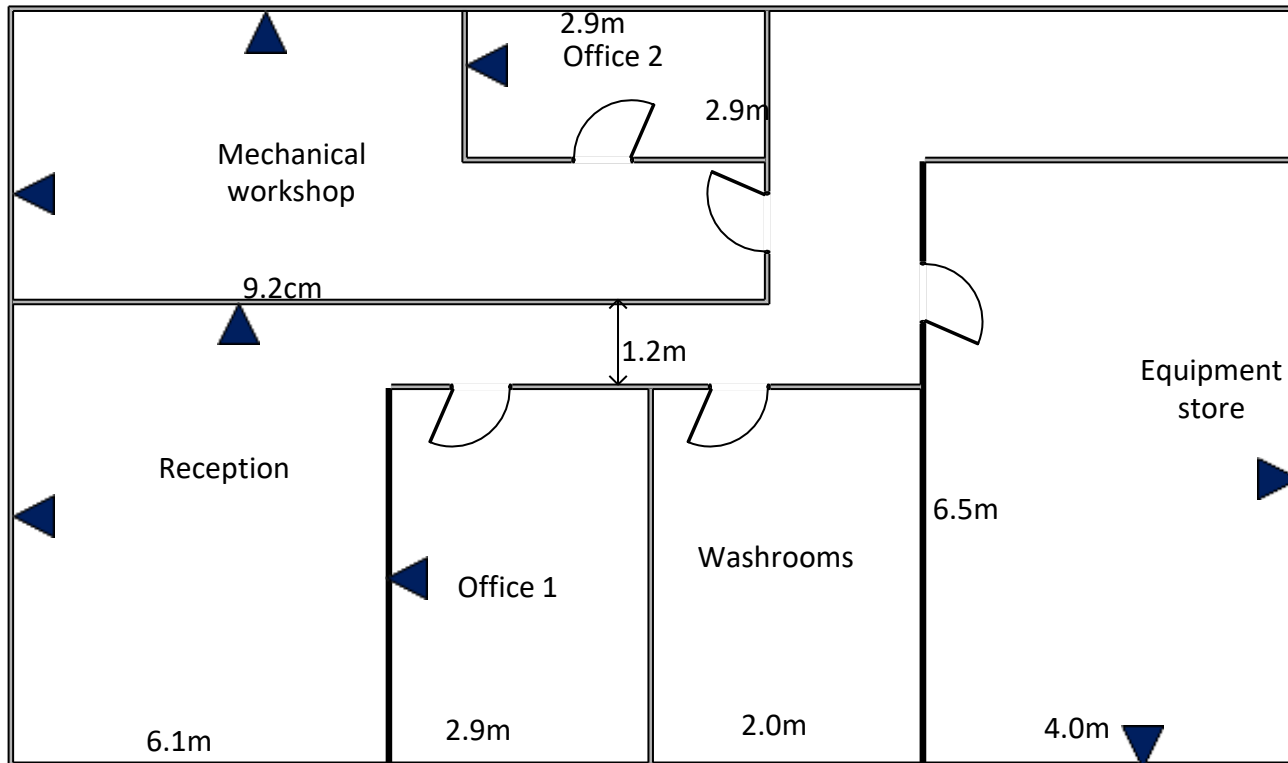
Double= 3
Data points=6

EMBU HOSPITAL
VCT BLOCK
Proposed Network Layout



8 DOUBLE DATA PLATE
16 DATA POINTS
PERIMETER =46.5M

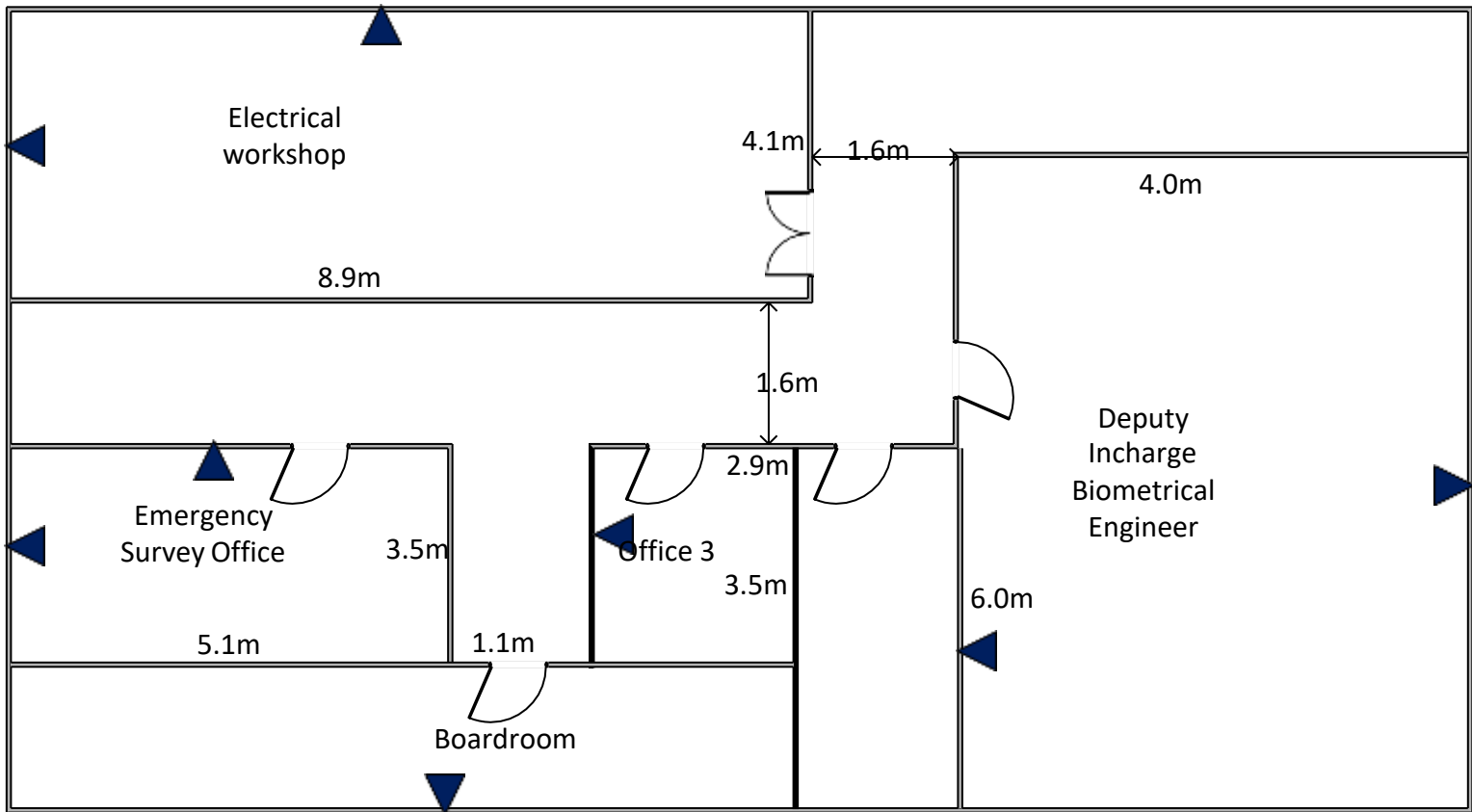
EMBU HOSPITAL
BIOMETRICAL ENGINEERING GROUND FLOOR
Proposed Network Layout



Perimeter= 48.8m
Double= 8
Data points=16

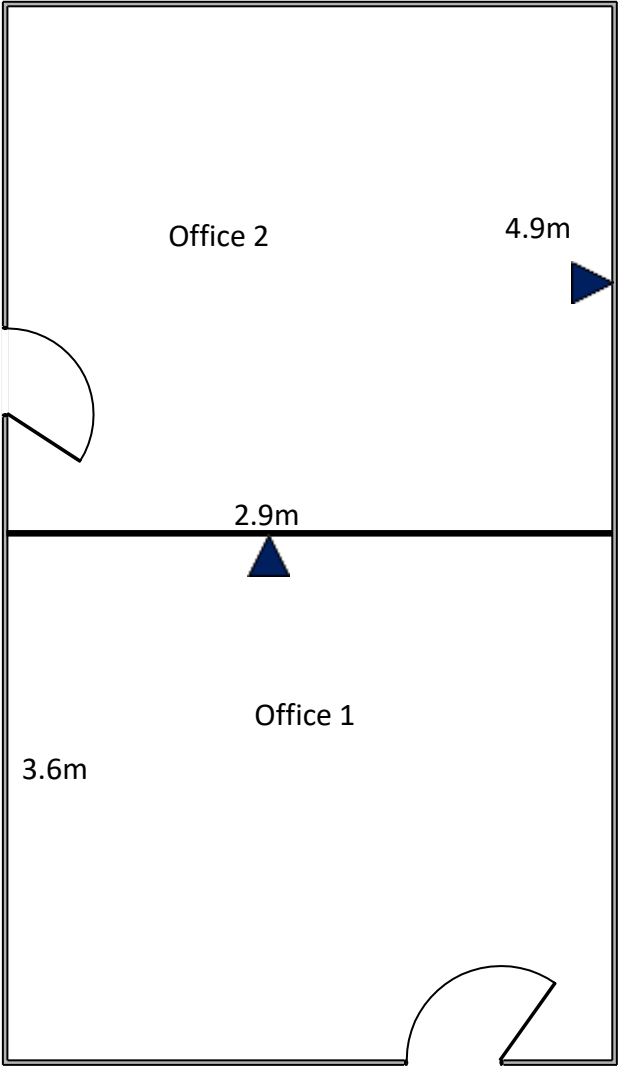
EMBU HOSPITAL
BIOMETRICAL ENGINEERING 1ST FLOOR
Proposed Network Layout

Perimeter= 44.2m
Double= 8
Data points=16

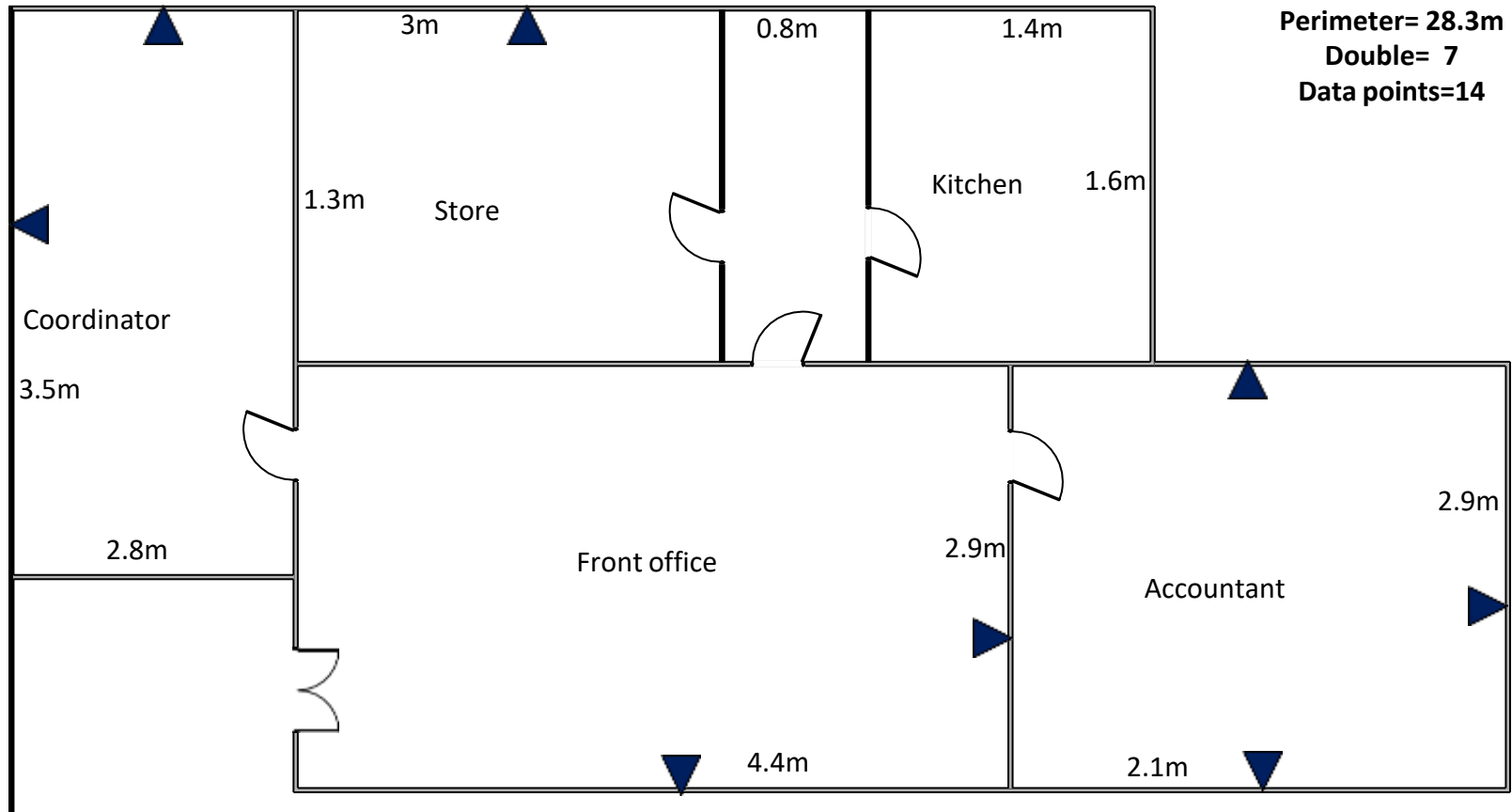


EMBU HOSPITAL
OXYGEN PLANT 1ST FLOOR
Proposed Network Layout

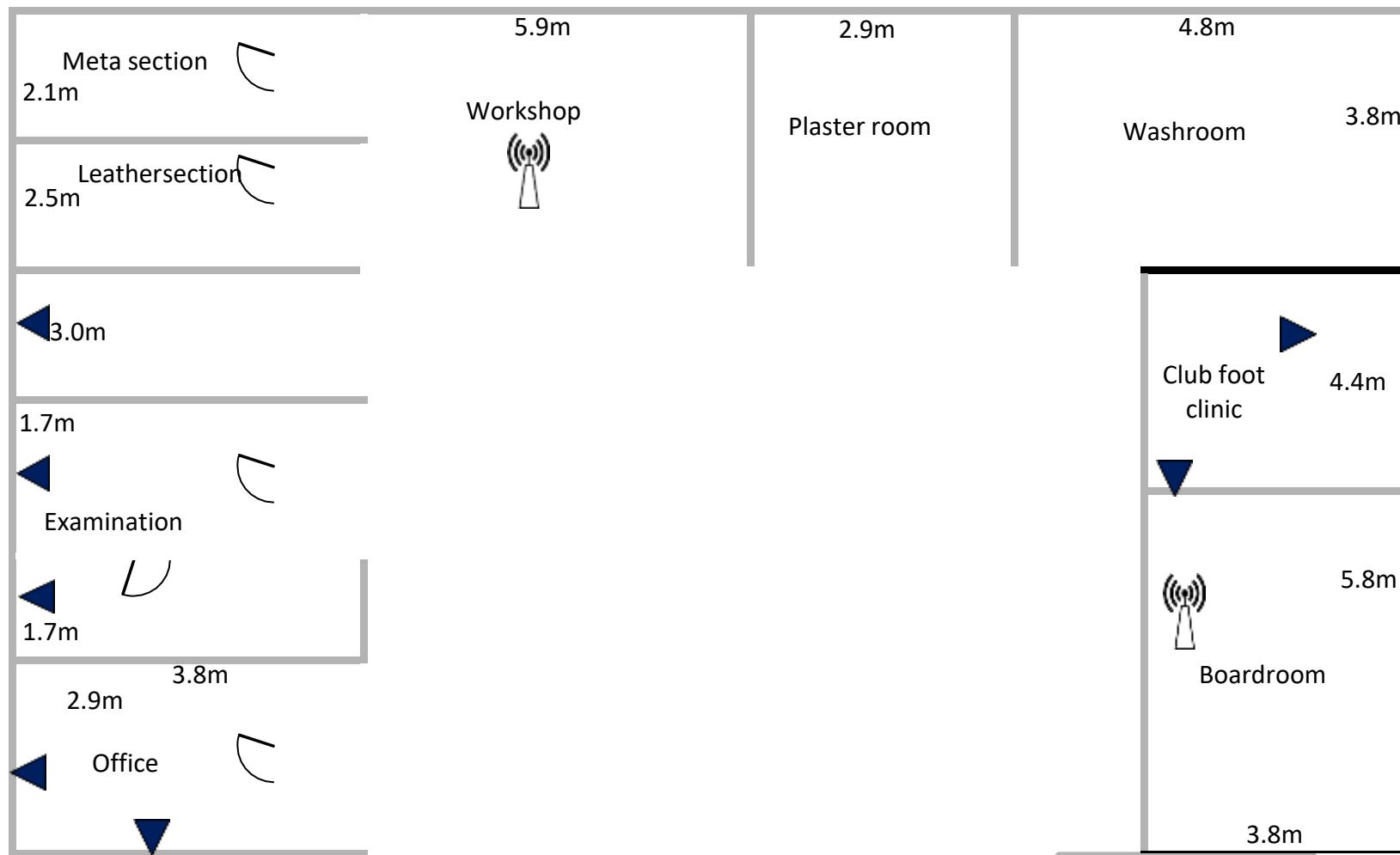
Perimeter= 22.8m
Double= 2
Data points=4



EMBU HOSPITAL
APDK
Proposed Network Layout



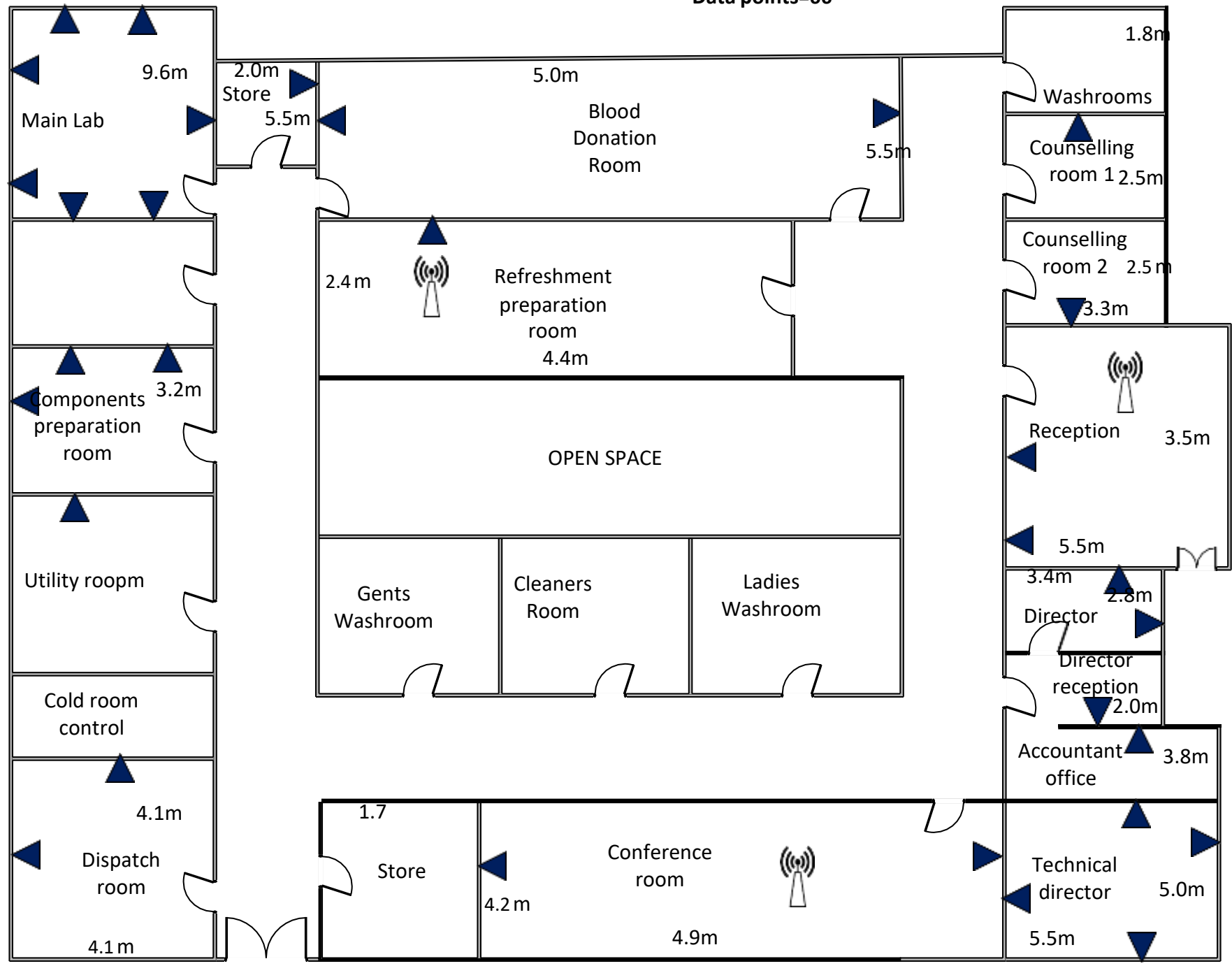
EMBU HOSPITAL
 ORTHOPAEDIC TECHNOLOGY
 Proposed Network Layout



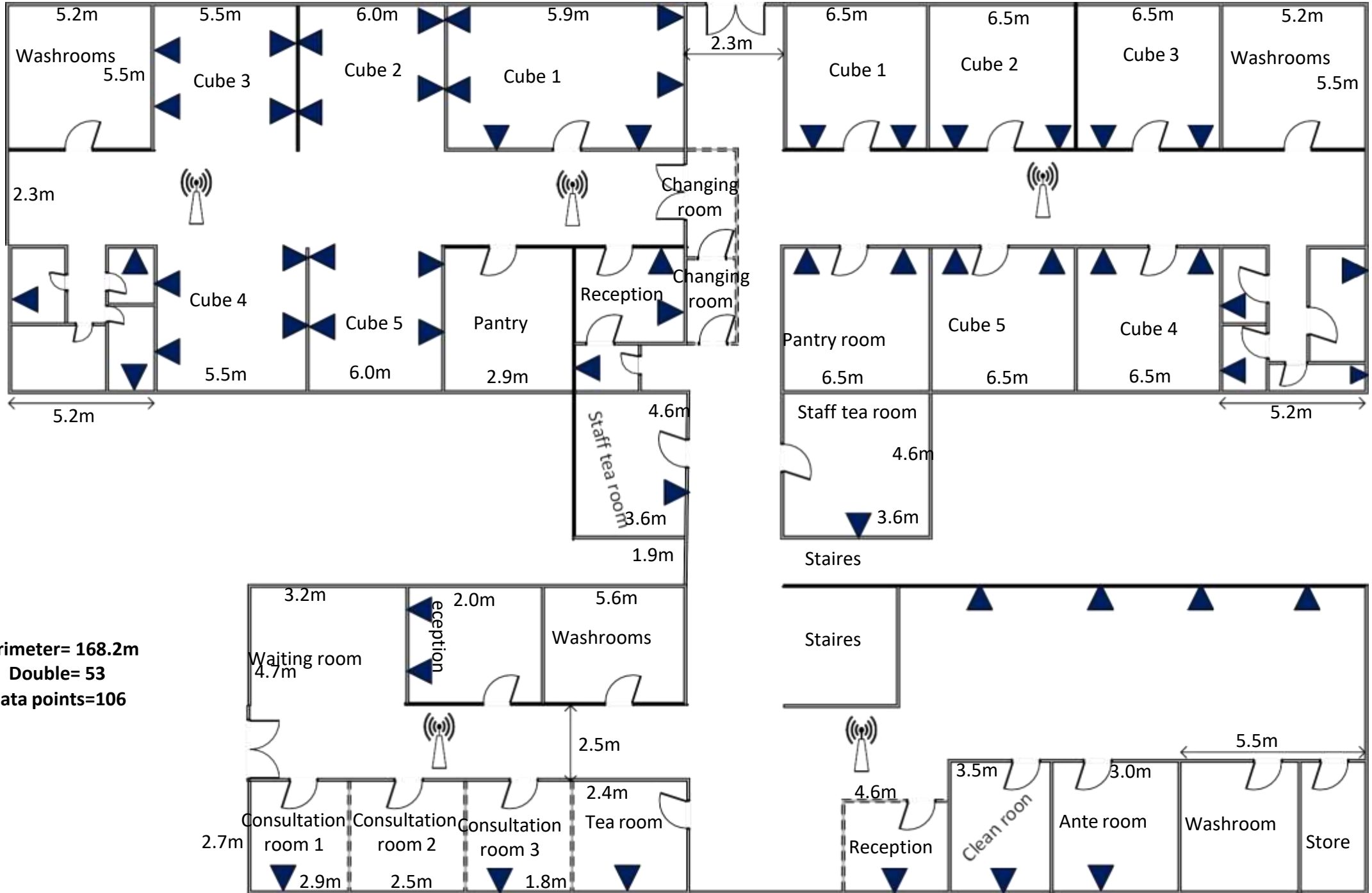
Perimeter= 86.1m
Double= 9
Data points=18

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 BLOOD BANK
 Proposed Network Layout

Perimeter= 74.2m
 Double= 33
 Data points=66

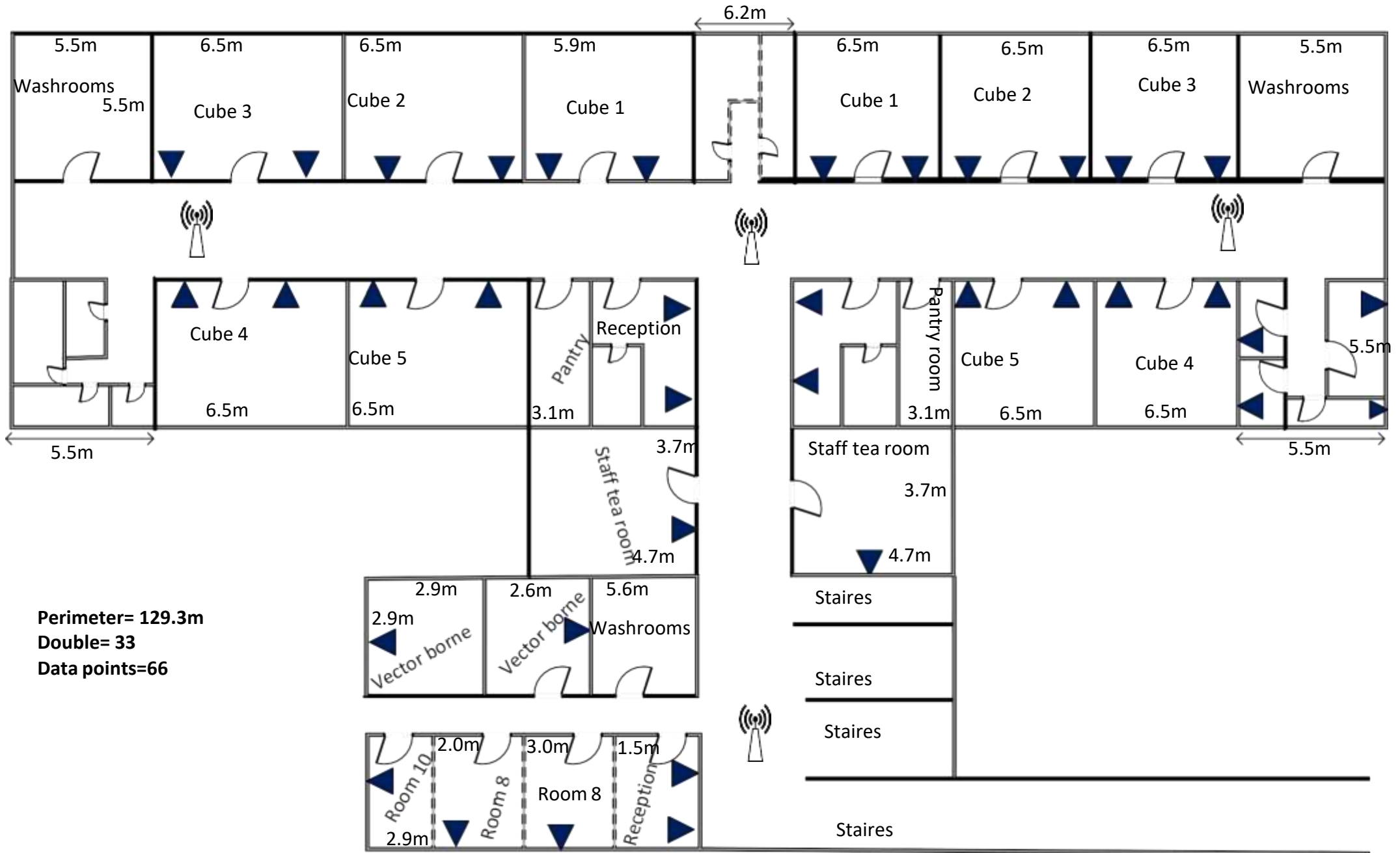


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 BADEA BLOCK A GROUND FLOOR
 Proposed Network Layout



Perimeter= 168.2m
 Double= 53
 Data points=106

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 BADEA BLOCK A 1ST FLOOR
 Proposed Network Layout



Perimeter= 129.3m
 Double= 33
 Data points=66