

05

ASSIGNMENT AND ACCOMODATION



## 5 ASSIGNMENT AND ACCOMODATION

### 5.1 Calculations

#### Theatre

The proposed theatre accommodates a population of 150 people. This is sufficient to host a large event and ideal for daily community use. 0,5m<sup>2</sup> is the minimum area occupied by each individual in a theatre, and 0.65m<sup>2</sup> is comfortable. It is analyzed and concluded that stage layout dimensions are as follows according to Neufert :

Stage 1 (Performance stage) – Not less than 100m<sup>2</sup>

Stage 2 ( Rehearsal stage) – Not more than 100m<sup>2</sup>

This dissertation follows these guidelines to determine the area for the Theatre.

#### Calculations:

Audience space – 150 people x 0.65m<sup>2</sup>  
= 97.5m<sup>2</sup>

Stage 1 = 150m<sup>2</sup>

Stage 2 =80m<sup>2</sup> ( Will perform a dual function as a Nursery school)

Change rooms = 50m<sup>2</sup>

**Total Area = 377.5m<sup>2</sup>**

Ablutions ( as per S.A.B.S); assuming that at anytime there are 60% males or 60% females (at 1person for every 5m<sup>2</sup>: inclusive of the stage)

= 377.5 / 5

= 76 Males & 76 Females

Therefore, Males need 6 Urinals, 5 W.C's, 6 W.H.B and 3 Showers

Females need 8 W.C's, 6W.H.B and 3 Showers

## 5.1 Calculations

### Music Studios

The proposed music studio is used for, amongst others, recording music and dance. It is designed to accommodate a total population of 50 people. It has the dual function of hosting small community meetings. Neufert (2000:122) states that in multipurpose speech and music space, each individual requires  $5\text{m}^3$  of volume with a maximum volume of  $8000\text{m}^3$ .

The following assumption is taken : The height of the space is 3.5m

Therefore Area person –  $5\text{m}^3 / 3.5\text{m}$

$$= 1.42\text{m}^2$$

Total Area of space -  $8000\text{m}^3 / 3.5$

$$= 2285\text{m}^2$$

This dissertation follows these guidelines to determine the area for music studion.

Calculations:

Studio space – 50 people x  $1.42\text{m}^2$

$$= 71\text{m}^2$$

Recording space =  $25\text{m}^2$  ( Assumed)

Change rooms( Sharing with Theatre) =  **$50\text{m}^2$**

**Total Area =  $96\text{m}^2$**

Ablutions ( as per S.A.B.S); assuming that at anytime there are 60% males or 60% females (at 1person for every  $2\text{m}^2$ : inclusive of the recording studio)

$$= 96 / 2$$

$$= 48 \text{ Males \& } 48 \text{ Females}$$

Therefore, Males need 3 Urinals, 2 W.C's, 3 W.H.B

Females need 4 W.C's, 4W.H.B

## 5.1 Calculations

Other programme

The listed programmes below do not have area limitations. The areas are determined by desired spatial qualities, therefore the areas listed below are per the spatial experience proposed by the dissertation:

Admin Office = **80m<sup>2</sup>**( 15people/m<sup>2</sup>)

Ablutions = 80m<sup>2</sup>/15

= 6

Therefore, Males need 2 Urinals, 1 W.C and 2 W.H.B's

Female need 2 W.C'S and 2 W.H.B's

Gallery and Art Studios = **350m<sup>2</sup>** ( Excluding ramp area): Dual Function as community Hall (10people/m<sup>2</sup>)

Ablutions = 350m<sup>2</sup>/10

= 35

Therefore, Males need 3 Urinals, 2 W.C's and 3 W.H.B.'s

Females need 4W.C's and 4 W.H.B's

Jazz Club = **250m<sup>2</sup>** ( Use common ablutions)

Retail = 150m<sup>2</sup> ( Use common ablutions)

Restaurant = 300m<sup>2</sup> ( Including Kitchen) (10people/m<sup>2</sup>)

Ablutions = 300m<sup>2</sup>/10

= 30

Therefore, Males need 3 Urinals, 2 W.C's and 3 W.H.B's

Females need 4W.C's and 4 W.H.B's

## 5.2 Accommodation Schedule

### Ground Floor

#### **Retail**

Unit 1	= 23.02m <sup>2</sup>
Unit 2	= 171.25m <sup>2</sup>
Unit 3	= 108.54m <sup>2</sup>
Unit 4	= 71.90m <sup>2</sup>
Unit 5	= 61.29m <sup>2</sup>
Unit 6	= 39.45m <sup>2</sup>
Unit 7	= 46.20m <sup>2</sup>
<b>Total Area</b>	<b>= 521.65m<sup>2</sup></b>

#### **Fast food outlet 1**

Sitting Area 1	= 52.65m <sup>2</sup>
Kitchen	= 52.65m <sup>2</sup>
Sitting area 2	= 72.80m <sup>2</sup>
<b>Total Area</b>	<b>= 178.10m<sup>2</sup></b>

#### **Fast food outlet 2**

Sitting Area	= 79.06m <sup>2</sup>
Kitchen	= 79.06m <sup>2</sup>
<b>Total Area</b>	<b>= 158.12m<sup>2</sup></b>

#### **Restaurant**

Sitting Area	= 123.05m <sup>2</sup>
Kitchen	= 52.00m <sup>2</sup>
<b>Total Area</b>	<b>= 175.05m<sup>2</sup></b>

#### **Café**

Sitting Area	= 56.65m <sup>2</sup>
<b>Total Area</b>	<b>= 56.65m<sup>2</sup></b>

#### **Coffee and Book shop**

	= 70.16m <sup>2</sup>
<b>Total Area</b>	<b>= 70.16m<sup>2</sup></b>

### Ground Floor

#### **Sports and Jazz Club**

	= 239.25m <sup>2</sup>
Stage Area	= 30.50m <sup>2</sup>
<b>Total Area</b>	<b>= 269.75m<sup>2</sup></b>

#### **Community Club**

	= 147.10m <sup>2</sup>
Reception	= 34.72m <sup>2</sup>
<b>Total Area</b>	<b>= 181.82m<sup>2</sup></b>

#### **Exhibition**

	= 168.86m <sup>2</sup>
<b>Total Area</b>	<b>= 168.86m<sup>2</sup></b>

#### **Children play area**

	= 87.48m <sup>2</sup>
<b>Total Area</b>	<b>= 87.48m<sup>2</sup></b>

#### **Informal traders**

	= 348.16m <sup>2</sup>
Storage	= 3.60m <sup>2</sup>
<b>Total Area</b>	<b>= 351.76m<sup>2</sup></b>

#### **Atrium**

	= 119.04m <sup>2</sup>
<b>Total Area</b>	<b>= 119.04m<sup>2</sup></b>

### First Floor

#### **Café**

Sitting Area	= 116.09m <sup>2</sup>
Kitchen	= 25.56m <sup>2</sup>
<b>Total area</b>	<b>= 141.65m<sup>2</sup></b>

#### **Offices**

Rentable space	= 179.02m <sup>2</sup>
Reception	= 43.16m <sup>2</sup>
Boardroom	= 25.74m <sup>2</sup>
<b>Total Area</b>	<b>= 247.92m<sup>2</sup></b>

### First Floor

<b>Exhibition</b>	= 197.20m <sup>2</sup>
Storage	= 22.95m <sup>2</sup>
<b>Total Area</b>	= <b>220.15m<sup>2</sup></b>

<b>Auditorium</b>	= 215.78m <sup>2</sup>
Stage	= 89.10m <sup>2</sup>
Storage	= 14.50m <sup>2</sup>
Dance Studios	= 159.96m <sup>2</sup>
Pose Area	= 30.55m <sup>2</sup>
Performers lounge	= 72.05m <sup>2</sup>
Choral and instrument room	= 89.08m <sup>2</sup>
<b>Total Area</b>	= <b>886.80m<sup>2</sup></b>

<b>Viewing deck 1</b>	= 40.74m <sup>2</sup>
Viewing deck 2	= 93.58m <sup>2</sup>
<b>Total Area</b>	= <b>134.32m<sup>2</sup></b>

<b>Flea market</b>	= 285.10m <sup>2</sup>
Storage	= 84.00m <sup>2</sup>
<b>Total Area</b>	= <b>369.10m<sup>2</sup></b>

<b>Gym</b>	= 174.26m <sup>2</sup>
Gym reception	= 17.64m <sup>2</sup>
<b>Total Area</b>	= <b>191.90m<sup>2</sup></b>

<b>Nursery</b>	
Reception	= 27.50m <sup>2</sup>
Classrooms	= 40.15m <sup>2</sup>
Dining	= 12.88m <sup>2</sup>
Kitchen	= 21.16m <sup>2</sup>
Play area	= 40.74m <sup>2</sup>
Balcony	= 9.00m <sup>2</sup>
<b>Total Area</b>	= <b>151.43m<sup>2</sup></b>

### First Floor

Bridge link	= 36.66m <sup>2</sup>
<b>Total Area</b>	= <b>36.66m<sup>2</sup></b>

Information Box	= 1.20m <sup>2</sup>
<b>Total Area</b>	= <b>1.20m<sup>2</sup></b>

### Second Floor

<b>Offices</b>	
Rentable space	= 612.64m <sup>2</sup>
Reception	= 43.16m <sup>2</sup>
Kitchen	= 28.08m <sup>2</sup>
Staff lounge	= 37.62m <sup>2</sup>
Boardroom	= 25.95m <sup>2</sup>
Storage	= 22.95m <sup>2</sup>
<b>Total Area</b>	= <b>1 383.04m<sup>2</sup></b>