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INTRODUCTION

Preamble

502251	510 .1.00	Maternity/Obstetrics is the branch of health care which provides services for the management of pregnancy, birth and the postnatal period, and care of the newborn. It encompasses the total needs of the pregnant woman and her family, including the physical, educational and psycho-social requirements, irrespective of the care setting. (Note that home birthing is not addressed in this Guideline).
502252	510 .2.00	Maternity is a Core Service under Maternal and Child Health in the NSW Guide to the Role Delineation of Health Services (Third Edition 2003). It defines 6 levels of service from 1 to 6 and also defines the level of neonatal care necessary for each level of Maternity Services. Appendix II of the Guide also defines risk factors for maternity patients.

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Planners should use the Role Delineation to assist in determining facility needs in conjunction with the approved Service Plan, staff establishment and in accordance with the Process of Facility Planning.

It is essential to be aware of the impact on the Unit itself and associated facilities in other units of:

- Operational Policy
- the various models of maternity care available.

In addition, facility design, must, where appropriate, meet all necessary criteria to reach accreditation standards with regard to design and equipment.

Introduction

502253 510 .3.00 This Health Planning Unit is a resource to assist in the planning, design and construction of a Maternity Unit. It should be read in conjunction with generic planning requirements and Standard Components described in Parts A, B, C, D & E of these Guidelines.

This Guideline may be used for the planning and design of birthing facilities at all levels of service but - as per the original HBG DS-18 – Obstetric Unit - the Schedule of Accommodation assumes a Level 4 service comprising a 24 Bed Inpatient Unit, 4 room Birthing Unit and Special Care Nursery to create an integrated unit.

However, bed, birthing room and cot numbers are purely nominal in order to create a logical schedule of accommodation and planners will need to modify the schedule to suit their own particular circumstances in accordance with the Service Plan. In Level 5 and 6 Units, there may be dedicated antenatal and postnatal wards.

Details are given for a Level 3 Birthing Unit but assumes that general ward beds will be used for antenatal and postnatal care.

Details for nurseries are omitted at Levels 5 & 6 as these can be found in the Guideline for Neonatal / Special Care Nurseries.

The Guideline also provides a suggested Schedule of Accommodation for a Maternity Outpatient Clinic.

Policy Statement

502254 510 .4.00 Before embarking on a project, planners and project staff are encouraged to familiarise themselves with the following NSW Health reports.

Models of Maternity Service Provision across NSW - Progressing Implementation of the NSW Framework for Maternity Services, NSW Health, April 2003, and

The NSW Framework for Maternity Services (2000) that states:

“... NSW Health adopt the following philosophy statement for developing maternity services:

NSW Health recognises pregnancy, labour, birth and parenting as significant and meaningful life events and acknowledges the right of consumers to access safe maternity care and quality maternity services.

Continuity of care and consistent information is essential to the provision of care that is culturally sensitive and appropriate.”

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The policy framework recognises the multiplicity of the community and the fact that special groups within that community require special consideration of their needs to enhance the effectiveness of any services provided.

In the context of Maternity Services these groups include all women of child-bearing age :

- in rural and remote communities and particularly Aboriginal & Torres Strait Islanders;
- with physical and sensory disabilities;
- from culturally diverse backgrounds
- who are of non-English speaking background (NESB)
- with underlying medical conditions;
- with drug dependencies
- who are socially and psychologically disadvantaged
- experiencing fertility problems;
- who are undergoing terminations for foetal abnormalities (note that "social" terminations usually performed in the private sector)
- experiencing stillbirths, deaths in utero
- who are relinquishing babies for adoption.

Pregnancy in young women creates its own special needs.

Also refer to:

Homebirth Policy Statement – NSW Health, PD2005_176 (To be updated)

At time of writing, NSW Health has no specific policy stance on the following:

- LDRP Rooms versus LDR Rooms
- Water birthing.

Description of the Unit

502255 510 .5.00

DEFINITION OF HEALTH PLANNING UNIT (HPU)

The Maternity Unit is a discrete unit providing facilities for the safe antenatal, birthing and postnatal care of mothers and their babies.

This Guideline at Level 4 provides for a nominal 24-bed unit plus birthing rooms capable of accommodating approximately 1000 deliveries per year. The accommodation is appropriate for the provision of care for mothers and babies with low to moderate risk factors and related complications.

It is anticipated that the unit will be managed as one entity including the Nursery.

Sub-zones within the unit will provide for the care of mothers with antenatal or postnatal complications requiring acute maternity care, healthy mothers having normal deliveries, healthy newborns requiring minimal care, babies requiring care for complications arising from moderate risk factors and babies with severe complications awaiting transfer to a Neonatal Unit of higher delineation.

The Birthing Unit includes a number of self-contained rooms that accommodate the birthing process of:

- Labour
- Delivery / Birthing
- Recovery
- Postnatal (or Post-Partum)

The model combining Labour, Delivery and Recovery in one room is referred to as LDR. The model combining all four processes is referred to as LDRP. If the LDRP option is selected it will impact on the number of postnatal beds required.

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502256 510 .6.00 ASSESSMENT OF NUMBER OF BIRTHING ROOMS & BEDROOMS

The level of service and anticipated number of births as determined in the Service Plan, average lengths of stay, number of elective Caesarean sections and model of care will all affect:

- the number of birthing rooms required
- number of postnatal inpatient beds required.

The anticipated number of elective Caesarean sections booked directly into the operating suite thus bypassing the delivery suite should be deducted from total births when assessing the number of birthing rooms.

The following is based on the LDR model and assumes approximately 1 delivery per room per 24 hours although this may vary from unit to unit:

1000 births - 3 birthing rooms plus 1 assessment
1500 births - 4 birthing rooms plus 1 assessment
2000 births - 5 birthing rooms plus 1 assessment
3000 births - 8 birthing rooms plus 1 or 2 assessment rooms.

Hospitals adopting the LDRP model will need to reassess these figures depending on Operational Policy and average lengths of stay.

502257 510 .7.00 FACTORS AFFECTING PLANNING & DESIGN

The following are not traditional priorities but are a reflection of our changing society and may have an increasing impact on design:

- increasing concerns about infant safety and possible abduction
- prevalence of domestic violence
- prevalence of theft
- continuing change in the composition of the maternity population with a higher percentage of older women and / or women with complex pregnancies – particularly multiple births and prematurity
- early discharge and community care programmes (that may transfer facilities from the hospital to the community setting)
- increase in elective Caesarean sections as a birthing option
- increasing emphasis on mental health and well-being.

PLANNING

Operational Models

502258 510 .8.00 HOURS OF OPERATION

The Maternity Unit will provide a 24 hour, seven day per week service with admissions occurring around the clock.

502259 510 .9.00 MATERNITY OUTPATIENT SERVICES

Maternity outpatient care encompasses antenatal and postnatal care including education, counselling and support services for mothers, partners and families to ensure preparation for, and understanding of pregnancy, birth, parenting and mother care. One of the main objectives of antenatal care is the early detection of risk factors and referral to the appropriate level of care.

Increasingly, services are expanding and diversifying to include management of early pregnancy (e.g threatened miscarriage) and follow-up perinatal bereavement counselling. Also used for multidisciplinary team review of infant postmortem results -with the parents when indicated. Related clinics such as

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fertility services and uro-gynaecology are also often part of outpatient services.

Planners must determine the model of care to be adopted by the facility to determine:

- the location of outpatient facilities – hospital or community setting
- the range of services and the number of clinic rooms required and
- whether there is enough throughput to justify dedicated clinic rooms or shared with a general outpatients

Midwives operating a midwifery-led/birth centre model would/may prefer that their women are seen within the Unit.

502260 510 .10.00 DAY ONLY MATERNITY & PERINATAL SERVICES & FACILITIES

In addition to routine clinic attendances, it may be necessary for some antenatal women to attend hospital on a day or half-day basis for foetal assessment monitoring (CTG), ultrasound, blood tests etc. In small hospitals the Ambulatory Care Ward may be utilised.

Large regional centres will have a dedicated unit that will/may include ultrasound (depending on the proximity of the Medical Imaging Department and Operational Policy) and will be collocated with the Maternity Outpatient Clinics.

502261 510 .11.00 PROVISION OF OPERATING ROOM/S

it is assumed that all elective Caesarean sections will be performed on a booked basis in the general Operating Unit.

When an urgent Caesarean section is deemed necessary, the distance from the Birthing Unit to the main Operating Unit should not exceed three minutes of travel time. Such travel should take into consideration:

- 1 metre per second travel speed
- Lifts (if any) able to be key-operated by Unit staff
- Lift delay and travel included in the time
- Distance measured from Birthing Room to Operating Room.

If these times cannot be achieved, planners will need to give consideration to a one room emergency Operating Room within the Birthing Unit, but every effort should be made to avoid this scenario with its resultant staffing implications for anaesthesia and recovery, and maternal and foetal/infant safety.

Models of Care/Work Practices

502262 510 .12.00 GENERAL

Planners and project staff are referred to the NSW Framework for Maternity services (NSW Health 2000) for description of the various models of care and will need to determine the impact of them on facility needs. In particular, location - metropolitan, rural or remote, and client profiles and culture will/may affect the type of unit required.

502263 510 .13.00 "BIRTH CENTRE"

The term generally used to describe facilities for midwife-led services for women with normal pregnancies. It allows for antenatal and postnatal care and continuity of carer during labour and birthing within a family/home like environment. May be a dedicated suite of rooms within the Maternity Unit, an integral component of the

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main Birthing Unit or a free-standing unit for low risk women.

502264 510 .14.00 MIDWIFERY SERVICES

Midwifery care may be accessed via midwives' clinics or team midwifery or caseload models located at hospitals, community health centres or GP practices.

Postnatal community midwifery services are now offered by most units. They are not just about early discharge but are provided according to the woman's need; it may be for "early" discharge and/or may be provided to women who require further supervision after hospitalisation. It will need to be ascertained whether the midwives are accommodated in the Maternity Unit or in the community so that in the former instance appropriate office space and storage can be provided.

502265 510 .15.00 SHARED CARE

GP and locals Maternity Hospital

502266 510 .16.00 MULTIDISCIPLINARY TEAM APPROACH

Within a tertiary or regional hospital, the pregnant woman will be assessed for risk factors on first presentation and allocated to a multidisciplinary team that will supervise her care for the duration of pregnancy, labour and delivery, and possibly but not necessarily - postnatal care. The team may comprise obstetricians, midwives, general practitioners, allied health staff, paediatricians, geneticists etc.

This model of care may also impact of facility design as wards and birthing rooms may be collocated in clusters.

502267 510 .17.00 SPECIALIST OBSTETRIC CARE

To be available where required, but especially for women with special care needs, medium to high risk pregnancy or complicated medical history, multiple births or previous history of complications during pregnancy. This care is provided by a specialist obstetrician, usually within a tertiary care or regional/general hospital facility with access to emergency support services for both mother and baby.

There are also emerging models where midwives skilled in management of high risk women work with the specialists.

Operational Policies

502268 510 .18.00 ROOMING-IN

Postnatal accommodation assumes rooming-in, but there will/may be circumstances resulting from the mother or baby's health status where this is not possible. A small holding nursery may be incorporated into the ward for babies who do not require the level of care provided by a special care nursery – and who are not "inpatients" (i.e. qualified births).

502269 510 .19.00 BIRTHING ROOM BATHS

Baths are generally requested and installed for pain management but there are

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issues of safety to be considered with regard to getting a labouring woman, not so much into, but out of the bath, particularly in an emergency.

If installed, must be "jetless" for Infection Control reasons and ceiling hoists or lifters should be considered.

502270 510 .20.00 WATER BIRTHS

If water birthing is included in the Operational Policy, the Unit will require access to a dedicated Bathroom. The Bathroom will require a large peninsular bath, with access to both sides. The Bathroom shall have a minimum area of 15 m². and comply with all other requirements noted in Standard Components - Bathroom.

Note: These Guidelines do not imply endorsement of Water Birthing as a safe or appropriate operational model.

502271 510 .21.00 MEDICAL RECORDS

Assuming files are still hard copy, antenatal clinic and booking files are ideally stored in the Birthing Unit Reception area so as to be immediately accessible when woman present in labour (unless 24 hour medical record service).

Locked secure storage area is required and must be accessible after hours.

502272 510 .22.00 PARENTCRAFT

Multipurpose rooms should be available for parent education – feeding, bathing etc.

502273 510 .23.00 ANTENATAL CLASSES

Assuming that antenatal classes are not conducted in a community setting, there must be a space available within the Hospital with storage for mats and the capacity to show videos. In the past classes have been conducted by physiotherapists but most education is now provided by midwives and childbirth educators. A room in the Physiotherapy Unit may an option; however, if numbers are small, classes may be conducted in a unit-based Multidisciplinary Room. After-hours access will be required.

502274 510 .24.00 MANAGEMENT OF SPECIAL CIRCUMSTANCES

Women who have suffered perinatal loss (stillbirths, neonatal deaths, terminations for foetal abnormalities and miscarriages) or who are relinquishing a baby for adoption need special consideration in terms of privacy and isolation from the sound and sight of live babies. Ideally they should be able to stay in the Birthing Room until ready for discharge but if transfer to a ward bed is necessary, it should not be in a ward with other mothers and babies; continuing access to midwifery / obstetric care is required.

A separate quiet room with appropriate décor and – especially - artwork may be appropriate for grieving, bonding, laying out etc. This room may be formally designated a SANDS room (Stillbirth and Neonatal Death Support).

Care should also be taken that these women are not collocated with women

undergoing termination of pregnancy.

502275 510 .25.00 NEONATAL RESUSCITATION

All birthing rooms and nurseries will need facilities for infant resuscitation and stabilisation and holding if retrieval is necessary. And occasionally emergency delivery occurs on the antenatal ward where access to resuscitation equipment is also vital especially for premature babies and if the ward is not in the immediate vicinity of the Nursery.

502291 510 .25.05 BABY BATHING

Depending on Infection Control policies, if users wish to allow baby bathing in the mother's bedroom, there are specially-designed basins that can be bench-set that can also serve as the clinical handwash basin. Care must be taken with bench heights and the basin set as close to the front of the bench as possible.

Use of a standard clinical basin for baby bathing is not safe practice and there have also been attempts to use the empty bassinet by filling from clinical basins. This is also not recommended.

Mothers in two bed rooms will have access to a separate Baby Bathing Area unless budget allows for 2 bathing units in each room. This however impacts on bedroom sizes and 28m² instead of 25m² will be required.

503053 510 .25.06 FORMULA PREPARATION, MANAGEMENT OF BOTTLES AND TEATS

The Nursery will require a room for formula preparation and storage of expressed breast milk. And unless the Hospital's Sterile Supply Unit provides the service, the room will also require space and equipment for cleaning and sterilizing bottles and teats.

If the Hospital also has a paediatric service, it may be appropriate for a single room to service the needs of all infants with regard to bottle and teat processing.

503054 510 .25.07 BABY FRIENDLY HOSPITAL INITIATIVE (BFHI)

This initiative was launched in 1991 by UNICEF and the World Health Organisation to encourage the use of breast milk either by breast feeding or expressing. Details may be found on the UNICEF web site - www.unicef.org/programme/breastfeeding and in the NSW Public Health Bulletin 2005; 16(3-4) 63-66 that describes a case study at the Royal Hospital for Women..

Hospitals who wish to gain BFHI status will need to consider the resources necessary such as

- Lactation Consultant/s (workstations, storage)
- Comfortable, quiet room in Nurseries for feeding & expressing with assistance and supervision from staff if necessary (In the postnatal ward, this may be done in bedrooms but women may gain support from their peers if such a space is available away from the bedside.
- Follow-up clinics for women experiencing problems after discharge (some Women's Centres provide specific facilities for this purpose).
- Fridges/freezers for expressed milk.

Planning Models

502276 510 .26.00 LOCATION

In order to provide easy access for ambulances or private vehicles, a ground floor position is the location of choice for the Unit if this can be achieved. Such a location would additionally facilitate access to hospital grounds and verandas for the mothers and their supporters. If this cannot be achieved, access to a secure courtyard is desirable.

Units should be located to avoid:

- disturbing sounds, both on-site and off-site such as ambulance sirens traffic, trains etc
- disturbing views such as cemeteries, mortuaries or their entries etc
- problems associated with prevailing weather conditions. It is preferable for patient accommodation to have a north-east aspect.

The functional needs of the unit however must take priority over other locational needs.

502277 510 .27.00 CONFIGURATION

In small centres, if an LDR model, Birthing Rooms and inpatient beds may be combined as an integrated unit.

In larger centres, there will be dedicated maternity inpatient beds/units separate from the Birthing Suite.

Where a Hospital has no dedicated Special Care Nursery or Neonatal Intensive Care Unit, a small Level 1 nursery will/may be part of the Maternity Ward.

Functional Areas

502278 510 .28.00 FUNCTIONAL ZONES

The Maternity Unit at Level 4 comprises the following functional zones:

- Reception and arrival area including provisions for visitors and administrative activities
- Birthing Rooms
- Inpatient Areas – Acute Care (Antenatal & sick post-natal) & Mother Care
- General & Special Care Nursery
- Support & Staff areas including facilities that can be shared between zones and other units

502279 510 .29.00 RECEPTION

This zone provides an area where mothers, their supporter/s, visitors and other members of the public are initially received and directed to the appropriate part of the Unit. There needs to be convenient access to public telephone and toilet facilities particularly for supporters. It may be the preferred location for a Visitors' Lounge that could include Child Play Space.

The office/s for nursing administration and midwifery educators may be located in this vicinity.

The area may be used as a booking facility for expectant mothers or this may occur in the Maternity Ambulatory Care Area.

When designing the Reception, particular consideration needs to be given to security of the area (duress alarm, controlled access etc) and also to space for

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the initial holding of frequent flower/gift deliveries.

502280 510 .30.00 BIRTHING AREAS

The entire birth process takes place in this area and involves assessment, early and established labour, vaginal delivery – with or without intervention, the bonding process of mother, partner and family with baby as well as a rest period prior to transfer to a ward bed or discharge if a community midwifery programme.

If the Facility provides LDRP rooms, the patient will occupy the same room for the entire length of stay.

Facilities comprise:

- Birthing Rooms
- One at least multi-purpose assessment room that can be used for consultations and examinations and as a back-up birthing room
- Facilities for support persons and other family members throughout the entire birthing process and period immediately following the birth

- At Level 3, a holding nursery to provide additional facilities for baby resuscitation, space for parking a transport humidicrib and additional bassinets for multiple births. The nursery should provide facilities for preparing babies for early transfer home directly from the Birthing Unit and for the laying out of stillborn babies.

502281 510 .31.00

NURSERY AREAS

Provided at Level 3 /4 Maternity as a possible adjunct to a Maternity Inpatient Unit, the General (Level 1) Nursery will provide facilities for the care of well babies away from their mother's bed area and for the following functions:

- baby weighing, bathing and changing
- Feeding of babies in comfortable chairs
- Parent and staff education
- Phototherapy
- Sleeping of babies in daytime using partial blackout curtains
- Short-term accommodation, with assisted ventilation if required, for the care of babies with unexpected severe complications while awaiting transfer to a centre with a Neonatal Intensive Care Unit.

The Nursery must have a minimum floor area of 2.8 m² per bassinet and a minimum of one metre clear and unobstructed passageway between each bassinet. Number of cot bays will depend on rooming-in policies and the number of mothers unable or reluctant to do so.

The Special Care (Level 2) Nursery will in addition to the above have sick and recovering premature infants requiring care in humidicribs and bassinets due to problems related to their prematurity and/or low weight.

502282 510 .32.00

INPATIENT ACCOMMODATION

The Inpatient Area provides suitable accommodation for antenatal and postnatal mothers.

The Schedule of Accommodation assumes a 24 bed unit comprising a mix of one and two bed rooms for acute care mothers and for mothercare but bed numbers are nominal only and will need to be adjusted to suit the specific project - and

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geography and patient demographics. The bed mix should be designed for use by a variable mix of mothers e.g. a higher than normal antenatal population..

Acute care may include antenatal patients and mothers recovering from Caesarean sections etc. Mothercare areas are for well mothers and well babies.

The bedrooms should be arranged in functional groups according to degree of dependency. Acute care rooms should be well positioned in relation to the staff station and utility areas to facilitate effective patient observation by staff. The bedrooms for the mothercare group may be located towards the periphery of the unit and should convey a relaxed domestic environment.

Four bedded rooms are not recommended for Maternity Units due to the rooming-in policy in many hospitals, as four babies in one room can cause excessive disruption to mothers requiring rest.

It is suggested that at least 1 pair of adjoining one bed rooms be designated for standard isolation with a handwash and PPE bays outside. Provision of Class N Isolation Rooms (negative pressure plus ante room) will depend on level of service and even geographical location with regard to likelihood of diseases such as TB.

502283 510 .33.00 SHARED AREAS

The opportunity to share space, equipment and staffing should be maximised, both between the various zones of the unit and between the Maternity Unit and other units where appropriate. Within the unit it will be possible to share areas such as staff station, utilities, waiting and lounge space between zones. By judicious planning it should be feasible to share areas such as tutorial and toilet facilities with adjacent units. The size of shared spaces may need to be larger than "standard" to accommodate the greater number of staff or visitors occupying them.

502284 510 .34.00 OFFICE ACCOMMODATION

With the exception of the office for the NUM that is included in the Schedule of Accommodation, the staff establishment will determine the number of offices/workstations required and users of this Guideline are referred to the NSW Health Policy Directive PD2005-576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service for sizes.

Functional Relationships

502285 510 .35.00 EXTERNAL

The Unit should be located to maximise or provide quietness and an outlook and access to the outside during long periods of labour. This latter is of particular importance for units in rural areas with high aboriginal populations who are not used to being confined indoors. However, privacy must be maintained.

The Maternity Unit, and in particular the Birthing module, should be located with easy access to the Operating Suite.

502286 510 .36.00 INTERNAL

The Maternity Unit shall be designed to prohibit non-related traffic through the unit.

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Within the Unit, the Reception should be located at the entrance to the unit and should provide direct access to each of the Birthing, Inpatient and Nursery areas. The area should accommodate waiting space and provide ready access to assessment & consultation/examination facilities.

Refer Functional Relationship Chart

DESIGN

Access

502287 510 .37.00 EXTERNAL

The Unit requires 24 hour access. If the Unit does not have its dedicated entry, specific arrangements will need to be made for after-hours access.

Access during normal hours will be via the Reception Area. After hours access for expectant mothers and their supporters will be via the Birthing Area. After hours policy may allow restricted access to partners/support persons of mothers in the In-patient Area and parents of neonates in the Neonatal Special Care Area.

The unit should be located close to:

- ambulance transport bay – particularly for the NETS retrieval team
- helipad if provided - also for retrieval teams
- short-term car parking for partners bringing women to the Birthing Unit and for flower deliveries although the latter must not obstruct the patient drop-off area
- hospital car park
- public transport facilities

Car Parking Requirements

502288 510 .38.00 Drop-off parking for women in labour – private vehicles and taxis

General visitor parking

Nearby parking for visiting obstetricians

Refer to Part C, Clause 790.59 for further information.

Disaster Planning

502289 510 .39.00 Particular attention must be paid to means of evacuation of mothers in advanced labour, and evacuation of babies to avoid separation from their mothers.

Refer to Part B (Clause 80.51) and Part C of these Guidelines for further information.

Infection Control

502290 510 .40.00 HANDWASHING

There will be a scrub basin Type A (Refer Standard Component) in each Birthing Room.

Handbasin in each bedroom and outside each pair of designated Isolation Rooms if provided.

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At entry to Nursery for parents & staff.

At least one handbasin per 6 cots in the Nursery. Staff to be no further than 6 metres from a basin.

502292 510 .42.00 PLACENTA DISPOSAL

Placental material will usually be considered contaminated waste and dealt with as per the individual hospital/Area Health Service Waste Management policies. The use of placental macerators is not recommended.

Units may need to consider providing dedicated refrigerator or freezer for storage whilst awaiting disposal or collection by families for cultural reasons.

Environmental Considerations

502293 510 .43.00 GENERAL

The Birthing Rooms should have individually-controlled air-conditioning systems. If the thermostats are located inside the Birthing Room, the controls should be located out of the reach of children and under the control of staff only. The rooms need to be able to quickly obtain a temperature range of 25-27 degrees Celcius when the baby is born. The Nursery also requires similar temperature control.

502294 510 .44.00 ACOUSTICS

Acoustic treatment is essential in the Birthing Rooms to allow the mother to vocalise as desired during labour without disturbing other mothers in labour.

Babies crying at night are a major source of noise and for those mothers recovering from surgery or other conditions eg. pre-eclampsia, noise may be detrimental to their condition.

One of the prime considerations in the Nursery is the amount of noise created by babies crying, monitors, suction pumps, ventilators, etc. Methods of sound dampening should be carefully considered, but should not interfere with observation and ease of access between the Nursery and staff/support areas.

Refer to Part C of these Guidelines for further information.

502295 510 .45.00 LIGHTING

Colour-corrected dimmable lighting is essential in all patient areas where high dependency care is provided – birthing/assessment rooms and birthing room en suites and bathrooms, all nurseries and baby bathing/examination/resuscitation areas.

502296 510 .46.00 NATURAL LIGHT

Essential in all bedrooms, birthing rooms and nursery.

502297 510 .47.00 PRIVACY

The design of the Assessment and Birthing Rooms should ensure that the foot of the bed does not face the door. Viewing panels in the Birthing Room door should be avoided.

502298 510 .48.00 INTERIOR DESIGN

Particular care needs to be given to the Nursery and to the Birthing Rooms to achieve a non-clinical ambience. Medical services may be encased in joinery panels and equipment stored in an adjoining area or behind folding doors or screens

Care must be taken with the reflective quality of colours e.g. the effect of yellow on jaundiced babies.

Refer to Part C of these Guidelines for further information.

Space Standards and Components

502299 510 .49.00 ERGONOMICS

Refer to Part C of these Guidelines for information.

502300 510 .50.00 .HUMAN ENGINEERING

Refer to Part C of these Guidelines for information.

502301 510 .51.00 ACCESS AND MOBILITY

Refer to Part C of these Guidelines for information.

502302 510 .52.00 DOORS, WINDOWS AND CORRIDORS

Refer to Part C of these Guidelines for information.

Safety and Security

502303 510 .53.00 SAFETY

Compliance with Occupational Health & Safety Requirements. Refer to Part C, Section 790 of these Guidelines for further information.

Special consideration needs to be given to lifting techniques and equipment if baths are provided in Birthing Rooms.

502304 510 .54.00 SECURITY

Security issues are of major importance in design of what is a highly emotional environment due to the prevalence of domestic violence, theft and the seemingly increase in infant abduction or other illegal acts by estranged parents or disturbed members of the public.

Fridges and freezers used for storage of breast milk should either be locked or the Formula Room restricted to Staff access only or mothers under staff supervision to ensure that the correct milk is issued to the right infant.

Minimising entry and exit points, incorporating an Access Control System, by means of a reed switch, electric strike and card readers to all Unit perimeter doors, can avoid the use of an unsophisticated – and costly - infant tagging

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system. Card readers need to be provided on the internal as well as the external approach to all egress doors, including fire egress doors. No unsecured exit from the Maternity Unit should be available, except in a fire or other emergency situation.

Provision of one entrance for patients and visitors to enter the Birthing Area will aid security. To maximise control by the staff there should be direct observation of all persons entering the unit including video intercoms for after-hours remote access.

502310 510 .54.05 ELECTRONIC INFANT TAGGING

Electronic infant tagging involves a tag being put around a baby's ankle which responds to sensor panels located at unit / hospital exits. If the baby is taken through the sensor an alarm goes off and the hospital's security team is alerted. Infant tagging is costly and has proved problematic where it has been implemented as neonates lose weight in the first days of life; the tag bracelets therefore become too large and slip off easily.

Finishes

502305 510 .55.00 WALL PROTECTION

Refer to Part C of these Guidelines

502306 510 .56.00 FLOOR FINISHES

Refer to Part C of these Guidelines

502307 510 .57.00 CEILING FINISHES

Refer to Part C of these Guidelines

Fixtures & Fittings

502308 510 .58.00 Leaning/squatting rails for active birth in Birthing Rooms

Refer to part C of these Guidelines and to the Room Data Sheets (RDS) and Room Layout Sheets (RLS) for further detailed information

Building Service Requirements

502309 510 .59.00 INFORMATION TECHNOLOGY / COMMUNICATIONS

Communication systems – phone, data etc – must be compatible with existing or planned overall hospital systems including staff and emergency call systems.

Annunciator panels should be clearly visible in corridors and of the non-scrolling type so that all rooms can be seen. However, the ability to control audibility at night should be a criterion when selecting systems.

502311 510 .61.00 DURESS ALARM SYSTEM

Locate at Reception and Staff Stations.

COMPONENTS OF THE UNIT

Standard Components

- 502312 510 .62.00 Standard Components identified in the Schedule of Accommodation must comply with details in the Standard Components described in these Guidelines. Also refer to Standard Component Room Data Sheets (RDS) and Room Layout Sheets (RLS).

Non-Standard Components

- 502313 510 .63.00 Provide the Non-Standard Components as identified in this section and in the Schedule of Accommodation, according to Operational Policy and Functional Brief.

- 502314 510 .64.00 STORE – BIRTHING ROOM

DESCRIPTION & FUNCTION

Area where clinical supplies and equipment (bowls, trolleys etc) and birthing equipment (bean bags, mats, balls etc) may be stored when not in use in order to maintain a domestic environment.

LOCATION AND RELATIONSHIPS

An integral part of the Birthing Room.

CONSIDERATIONS

Doors – whether sliding, standard or may just be a curtained bay.

- 502315 510 .65.00 BREASTFEEDING ROOM

DESCRIPTION AND FUNCTION

A room for demonstrations, breastfeeding or using breast pumps for expressing milk and shall be a minimum of nine m2. In small units, it may also be used to prepare and store formula/breast milk substitutes in line with Baby Friendly Hospital Initiatives.

LOCATION AND RELATIONSHIPS

The Room shall be located with convenient access to the Nursery or to the Ward.

CONSIDERATIONS

The Breast Feeding Room will require the following:

- A bench with an inset sink
- Handbasin (Type b) for mothers and staff assisting
- Comfortable chairs suitable for breastfeeding
- Refrigerator/ freezer (if required)
- Storage for pump and attachments
- General power outlets for use of a breast pump
- Access to educational material either within the room or conveniently located nearby.

The room will require visual and acoustic privacy.

- 502316 510 .66.00 BATHING / EXAMINATION ROOM

Part B - Health Facility Briefing and Planning

DESCRIPTION AND FUNCTION

A room for infant examination and demonstration to new mothers of baby bathing techniques as part of parentcraft education. Size will depend on Operational Policy re demonstration and whether bathing occurs in mothers' bedrooms. It is recommended that purpose-built baby baths and sinks are used for safety and OH&S reasons rather than portable baths or bassinets.

LOCATION AND RELATIONSHIPS

May be part of a Nursery or part of a Maternity Inpatient Unit

CONSIDERATIONS

Storage for baby scales

Attention to height of benches and mounting of baby baths.

APPENDICES

Schedule of Accommodation

502317 510 .67.00 A Generic Schedule of Accommodation for a Maternity Unit at Level 3, 4, 5, and 6 follows.

Note: (o) in Qty/xm2 column = Optional

BIRTHING UNIT

ROOM/SPACE	Standard Component		Level 3 Qty x m2	Level 4 Qty x m2	Level 5 Qty x m2	Level 6 Qty x m2	Remarks
BIRTHING UNIT							
ENTRY / RECEPTION			Share with Ward	May share			
RECEPTION	yes		0	1 x 10	1 x 10	1 x 10	Increase to 12 sqm if more than 1 staff
WAITING-SUB	yes		0	1 x 5	1x 8	1 x 8	
TOILET - PUBLIC	yes		0	2 x 3	2 x 3 (o)	2 x 3 (o)	Optional if not available in nearby public areas
TOILET / BABY CHANGE - ACCESS				Share	1 x 5 (o)	1 x 5 (o)	Optional if not available in nearby public areas
BAY - WHEELCHAIR PARK	yes		0	1 x 4	1 x 4	1 x 4	
LOUNGE - PATIENT/VISITOR	yes		0	1 x 12	1 x 15	1 x 15	Separate from general waiting. Includes a Beverage Bay.

502318 510 .67.10 PATIENT & SUPPORT AREAS

PATIENT & SUPPORT AREAS							
EXAMINATION / ASSESSMENT	yes		0	1 x 28	1 x 28	1 x 28	Will act as a back-up Birthing Room
BIRTHING ROOM (LDR)	yes		2 x 28	4 x 28	28	28	No. determined by no. of births
EN SUITE - BIRTHING ROOM			2 x 7	5 x 7	7	7	Double showers; 1 per Birthing Room
BATHROOM - BIRTHING ROOM	yes		0	10(o)	10(o)	10(o)	Includes peninsular bath. Replace Ensuite.

Part B - Health Facility Briefing and Planning

STORE - BIRTHING ROOM			2 x 3	4 x 3	3	3	1 per Birthing Room
STAFF STATION	yes		1 x 10	1 x 14	1 x 14	1 x 14	
OFFICE - CLINICAL / HANDOVER	yes		0	1 x 12 (o)	1 x 12	1 x 12	
CLEAN UTILITY/MEDICATIONS	yes		Share with Ward	1 x 12	1 x 12	1 x 12	Adjust size to meet requirements
DIRTY UTILITY	yes		1 x 8 (o)	1 x 12	1 x 12	1 x 12	Include placenta storage fridge or freezer
DISPOSAL ROOM	yes		Share with Ward	1 x 8	1 x 8	1 x 8	
BAY - LINEN / BLANKET WARMING	yes		1 x 3	1 x 3	2 x 3	2 x 3	
BAY - MOBILE EQUIPMENT	yes		1 x 4	1 x 4	2 x 4	2 x 4	
BAY - RESUSCITATION TROLLEY (ADULTS)	yes		Share with Ward	1 x 2	1 x 2	1 x 2	
BAY - BEVERAGE, ENCLOSED	yes		Share with Ward	1 x 4	1 x 4	1 x 4	
CLEANER'S ROOM	yes		Share with Ward	1 x 5	1 x 5	1 x 5	
STORE - EQUIPMENT	yes		1 x 14	1 x 14	1 x 14	1 x 14	
STORE - GENERAL	yes		0	1 x 9	1 x 9	1 x 9	
STORE - GENERAL (RENTAL BABY CAPSULES)	yes		0	1 x 6 (o)	1 x 9 (o)	1 x 9 (o)	

502319 510 .67.20 OPERATING UNIT (OPTIONAL)

Note:

If provided, for emergency C -SECTIONS ONLY.

Elective C-sections via Operating Unit.

OPERATING UNIT							Optional
ANAESTHETIC INDUCTION ROOM	yes				1 x 15	1 x 15	Optional
CLEAN - UP ROOM	yes				1 x 7	1 x 7	
OPERATING ROOM - MINOR	yes				1 x 36	1 x 36	Needs baby resusc capability
SCRUB-UP / GOWNING					1 x 6	1 x 6	Two stations only.
STERILE STOCK / SET-UP					1 x 12	1 x 12	
PATIENT BAY - RECOVERY	yes				2 x 9	2 x 9	
STAFF BASE / MEDICATIONS					1 x 6	1 x 6	Part of Recovery
DISCOUNTED CIRCULATION %			30%	32%	32%	32%	

502320 510 .67.30 SPECIAL CARE NURSERY

Notes:

Part B - Health Facility Briefing and Planning

Level 3 consists of 4 Cot Bays.
 Level 4, refer to Service Level for No. of Cot Bays.
 Level 5 & 6 , refer to NICU / SCN HPU - 390

SPECIAL CARE NURSERY			Level 3	Level 4	Level 5	Level 6	
STAFF STATION	yes		Share	1 x 10			
CLEAN UTILITY - SUB			Share	1 x 8			
BAY - MOBILE EQUIPMENT	yes		Share	1 x 4			
EQUIPMENT CLEAN-UP ROOM			Share	1 x12			
DISPOSAL ROOM	yes		Share	Shared with Ward			
BAY - LINEN	yes		1 x 2	1 x 2			
BAY - HANDWASH	yes		1 x 1	1 x 1			At entry
BAY - HANDWASH	yes		4 x 1	1			1 per 4-6 cots
COT BAY - SPECIAL CARE	yes		0	10			
COT BAY - RESUSCITATION/TREATMENT			0	14			
ISOLATION ROOM			0	1 x 14 (o)			Optional.
NURSERY - GENERAL CARE (4 COT BAYS)			1 x 30	see Remarks			L4 consists of 4 cots + workstation.1 bay to be designed for resuscitation, stabilisation and
STORE - EQUIPMENT	yes		Share	1 x 14			
BATHING / EXAMINATION			1 x 10	1 x 10			
BREASTFEEDING ROOM			1 x 9	1 x 12			
FORMULA PREPARATION ROOM			1 x 9	1 x 14			Reprocessing teats, bottles, preparing formula

503055 510 .67.30 SPECIAL CARE NURSERY
 Notes:
 Level 3 consists of 4 Cot Bays.
 Level 4, refer to Service Level for No. of Cot Bays.
 Level 5 & 6 , refer to NICU / SCN HPU for No. of Cot Bays.

502321 510 .67.35 STAFF OFFICES
 Notes:
 Remainder of Offices/Workstations determined by Staff Establishment. Refer NSW Health Office Policy

STAFF OFFICES							
OFFICE - SINGLE 9M2 (UNIT MANAGER)	YES		Refer Ward	1 x 9	1 x 9	1 x 9	

502322 510 .67.45 STAFF AMENITIES (For Birthing & Nursery)
 Notes:

Part B - Health Facility Briefing and Planning

Level 3 shared with Ward

STAFF AMENITIES (FOR BIRTHING & NURSERY)			Level 3	Level 4	Level 5	Level 6	
PROPERTY BAY	yes			1 x 2	1 x 2	1 x 2	Adjust size to suit establishment
STAFF ROOM	yes			1 x 15	1 x 20	1 x 25	Adjust size to suit establishment
SEMINAR ROOM				1 x 15	1 x 20	1 x 25	
MEETING ROOM	yes			1 x 15	1 x 20	1 x 25	Adjust size to suit establishment. May be shared
SHOWER - STAFF	yes			1 x 2	1 x 2	1 x 2	
TOILET - STAFF	yes			1 x 3	1 x 3	1 x 3	
OVERNIGHT STAY - BEDROOM	yes			1 x 10 (o)	1 x 10 (o)	1 x 10 (o)	
OVERNIGHT STAY - EN SUITE	yes			1 x 4 (o)	1 x 4 (o)	1 x 4 (o)	

502323 510 .67.50 INPATIENT UNIT

Notes:

+Access to general ward beds.

+Remaining Support & Staff Areas as Per General Inpatient Accommodation - HPU 340 .

ROOM/SPACE				24 Beds	30 Beds	30 Beds	Bed mix approx. 50% single rooms; number and mix may be adjusted
INPATIENT UNIT							
1 BED ROOM	yes			11 x 15	15 x 15	15 x 15	One room may be designated as a SANDS room
1 BED ROOM - SPECIAL	yes			1 x 18	1 x 18	1 x 18	Optional (multiple births etc)
2 BED ROOM	yes			6 x 25	7 x 25	7 x 25	
EN SUITE - STANDARD	yes			18 x 5	23 x 5	23 x 5	
BAY - HANDWASHING	yes			2 x 2	4 x 1	4 x 1	
LOUNGE - PATIENT	yes			1 x 15	1 x 15	1 x 15	with beverage facilities
NURSERY - GENERAL	yes			1 x 16 (o)	1 x 20 (o)	1 x 20 (o)	General care/holding only
BATHING/EXAM ROOM				1 x 12	1 x 12	1 x 12	
BATHROOM	yes			1 x 15	1 x 15	1 x 15	
DISCOUNTED CIRCULATION %				32%	35%	35%	35% to cater for the number of 1 & 2 bed rooms

Functional Relationships

502249 510 .68.00 A diagram of key functional relationships is attached.

Checklists

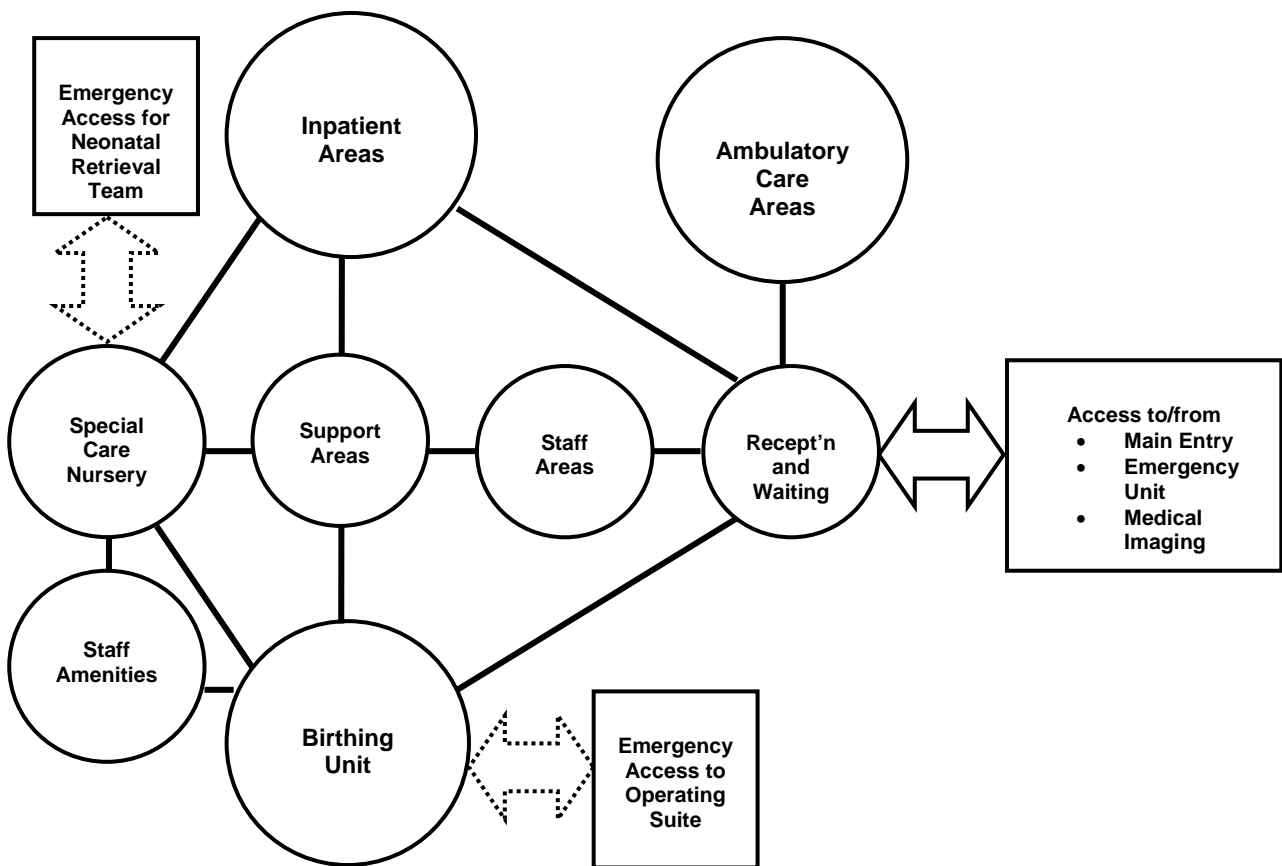
- 502343 510 .69.00 A security checklist is appended to this document. Refer also to Part C of these guidelines.

References and Further Reading

- 502344 510 .70.00 The NSW Framework for Maternity Services – 2000
- Models of Maternity Service Provision across NSW, NSW Health, April 2003.
- NSW Guide to Role Delineation of Health Care Services (Third Edition 2003)
- NSW Department of Health HBG - DS-18 - Obstetric Unit 1992
- Victorian HFG Guideline 510 – Obstetric Unit. March 2005 (Birthing Unit Only)
- Homebirth Policy Statement – NSW Health – PD2005-176
- NSW Health Policy Directive PD2005-576 – Office Accommodation Policy – Public Health Organisations and Ambulance Service.
- 502345 510 .71.00 ADDITIONAL REFERENCE MATERIAL USED IN COMPILING THIS HPU:
- National Maternity Action Plan - The Maternity Coalition Inc. – “Implementing Community Midwifery Across NSW”.
- Evidence-based project briefing experience of the following Maternity Units/Hospitals:
- The Royal Hospital for Women, Sydney 1994
 - The Women's Hospital, Brisbane 1995
 - Campbelltown & Camden Hospitals' Maternity Units 1996
 - North Shore Hospital, Auckland, NZ, Maternity Unit 2000
 - Wellington, NZ, Women's Hospital 2002
 - The Royal Women's Hospital, Melbourne 2002 & 2004.

FUNCTIONAL RELATIONSHIP DIAGRAM –MATERNITY UNIT

The following diagram sets out the relationships between zones in a Maternity Unit:



SECURITY ISSUES TO BE CONSIDERED IN MATERNITY UNIT

GENERIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Pre-natal, birthing, post natal, mothers with sick and well baby's nursery.	<ol style="list-style-type: none"> 1. Minimise entry and exit doors to all areas with newborn babies, minimising the risk of illegal removal of babies. 2. CCTV monitoring of Inpatient Unit entry and exit doorways. 3. After hours remote switch and video intercom on entry doors. 4. Use of reed switches and electric locking on external doors and entries. Swipe card readers may be required to both sides of internal doors, to allow access for authorized staff.

SPECIFIC SAFETY AND/OR SECURITY RISKS	POTENTIAL SOLUTIONS
1. Relatives / Visitors – includes risk of violence from non-custodial, alcohol or drug affected parents/visitors.	<ol style="list-style-type: none"> 1. Staff station at main entrance to allow staff to monitor access and egress. 2. Good visibility from staff station to nursery. 3. Minimise number of relatives/visitors admittance in the area by restricting number of relatives/visitors attending at any one time and/or restricting visiting hours to set times. 4. Implement appropriate specific security procedures in respect of the risk associated with illegal removal of babies. 5. If appropriate, install system in hallways to monitor visitors entering the unit. 6. Courtyards, where provided, to be securely screened/fenced and adequately monitored (from Staff Station, CCTV, etc.) 7. Reception desk security. 8. Duress alarm system.
2. Illegal removal of babies	<ol style="list-style-type: none"> 1. Minimise entry/exit doors. 2. Controlled access of entry/exit doors. 3. No external opening doors/windows. 4. All egress past staff station. 5. CCTV on entry/exit doors. 6. Baby tagging system to set off alarm if attempted unauthorized removal of baby from the unit.
3. Patient files	<ol style="list-style-type: none"> 1. Personnel working on these files must return to secure area after use or return to Medical Records Department. 2. If any electronic files are produced, locate in restricted area of hard drive.
4. Drugs storage	<ol style="list-style-type: none"> 1. Dangerous drug safe within the clean utility area.
5. Furniture fittings and equipment including Computers, Office and Medical Equipment	<ol style="list-style-type: none"> 1. Non-removable 'Asset No.' on all equipment above a predetermined value. 2. Keep equipment in lockable area.
6. Safety of Hospital personnel	<ol style="list-style-type: none"> 1. Staff working in this area to have knowledge of where the fixed duress system is located and/or use a mobile duress pendant. 2. There must be lighting of exits and staff car parks.
7. Staff personal effects	<ol style="list-style-type: none"> 1. Provision for lockers in staff areas and lockable desk drawer to keep small personal effects.

SECURITY CHECKLIST – MATERNITY UNIT

FACILITY:	DEPARTMENT: Maternity Unit	
RISK ISSUE	DESIGN RESPONSE	
1. How is 'after hours' access provided for patients and how is this access point monitored?		
2. Do staffs have access to both fixed and mobile duress systems?		
3. Is access to patient records restricted to staff entitled to that access?		
4. Is a system implemented to prevent theft of equipment, files, personal possessions, etc?		
5. Are drug safes installed in accordance with current regulations?		
6. How is after hours access provided for staff?		
7. How are the offices secured during and after hours?		
8. Are there lockable storage areas available for specialised equipment?		
9. Is lockable furniture provided for storage of staff personal effects?		
10. How does this Department address the security of babies ?		
11. What systems are utilised to monitor access to rooms/wards by patients/visitors?		
DESIGN COMMENTARY /NOTES	DESIGN SIGN-OFF	
	Name:	
	Position:	
	Signature:	
	Date:	
	Name:	
	Position:	
	Signature:	
	Date:	
	Name:	
	Position:	
	Signature:	
	Date:	