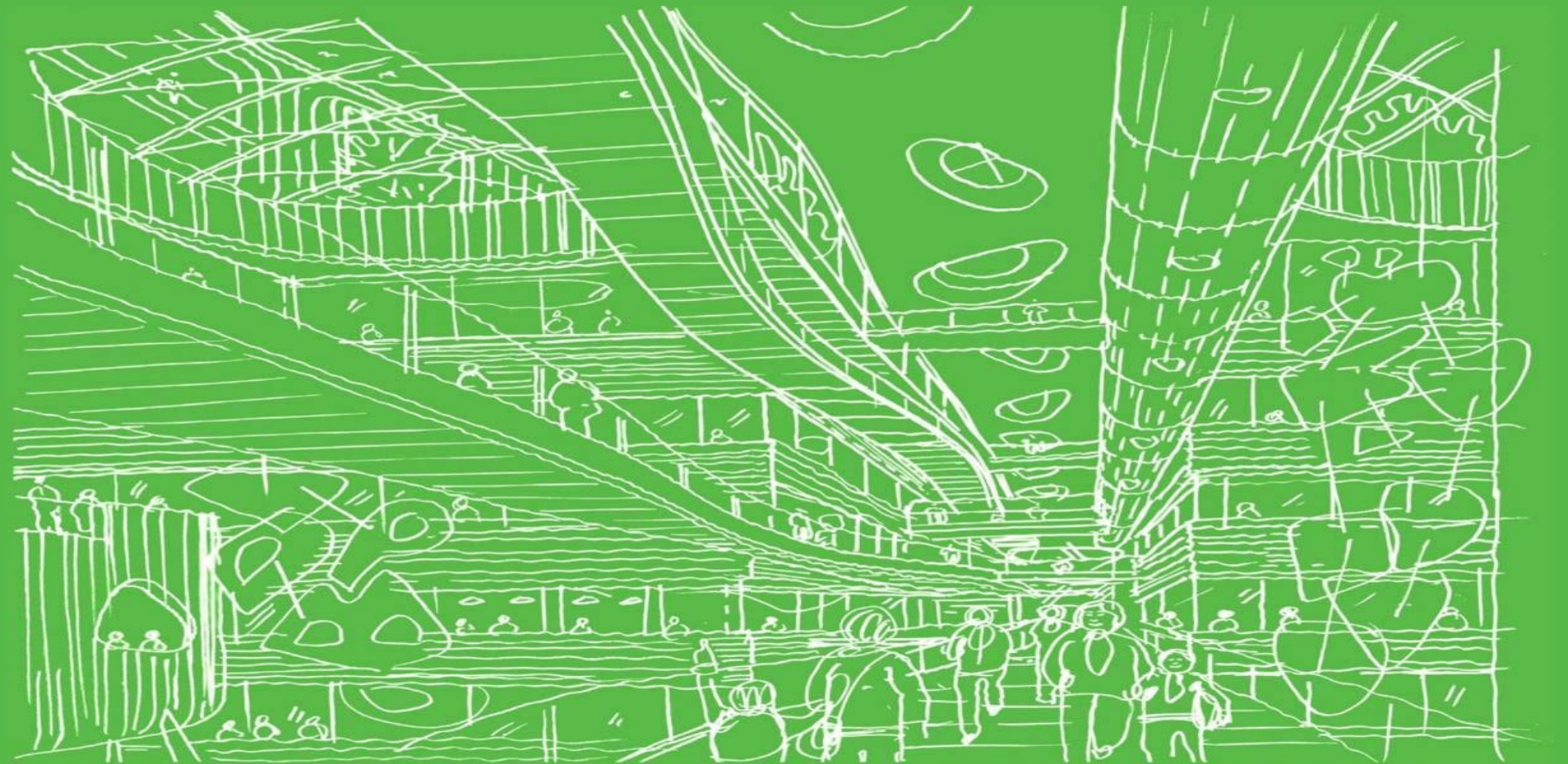


National Paediatric Hospital Project

Planning Application

An Bord Pleanála Submission Satellite Centres Architectural Report



Doc Name	New Children’s Hospital Satellite Centres, Tallaght and Connolly. Planning Report			
Doc No.	13130.06/HLM/1.20			
Revision	Date	Notes	Prepared	Checked
A	15/07/15	For Issue and Comment	MC	NO
B	28/07/15	To include comments as per client instruction	MC	NO

Contents

01 Introduction

1.1 Status and intention

1.2 Scheme Description

1.3. Members of the Design Team

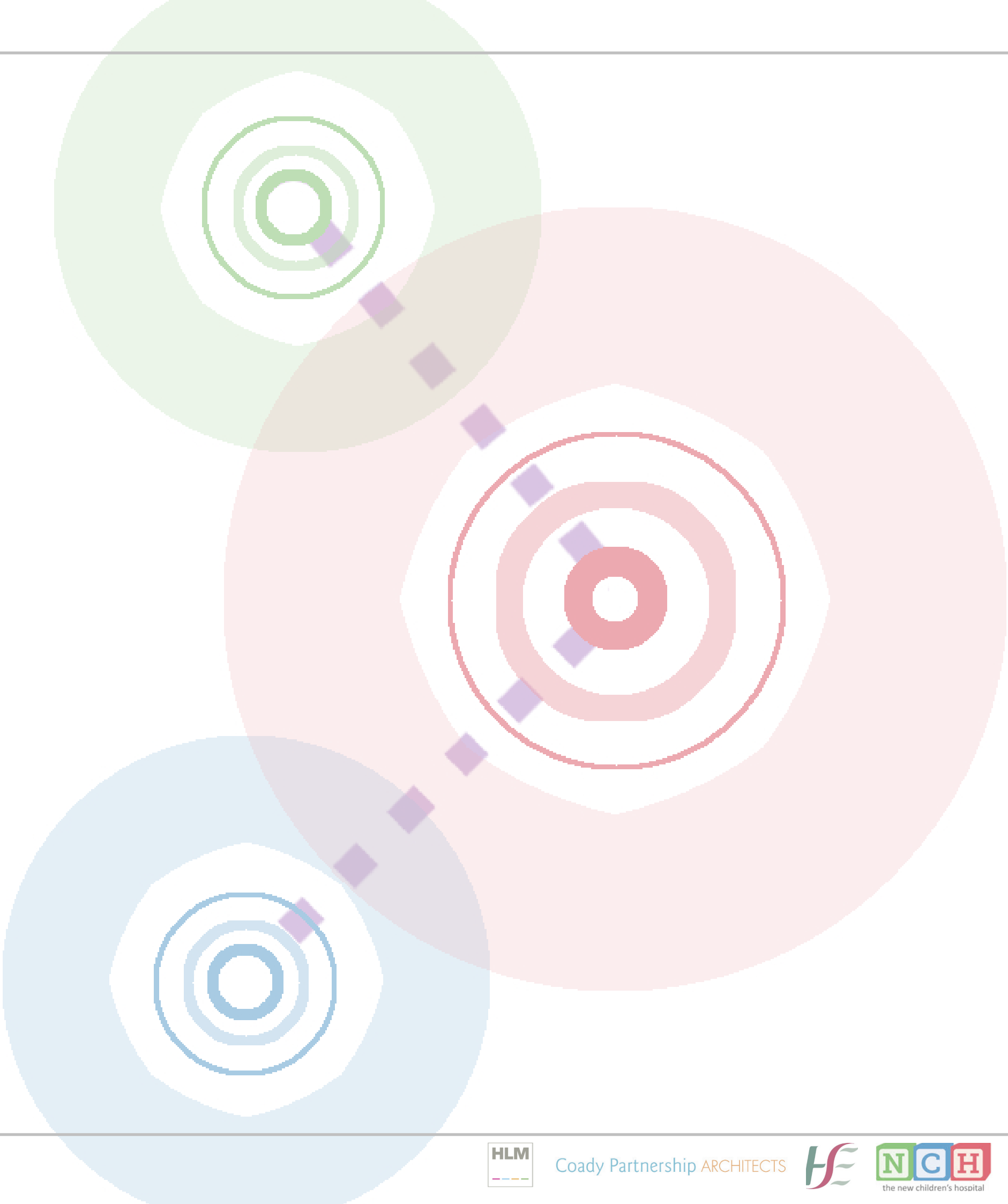
02 Architectural Design Statement

2.1 Tallaght Satellite Centre

2.2 Connolly Satellite Centre

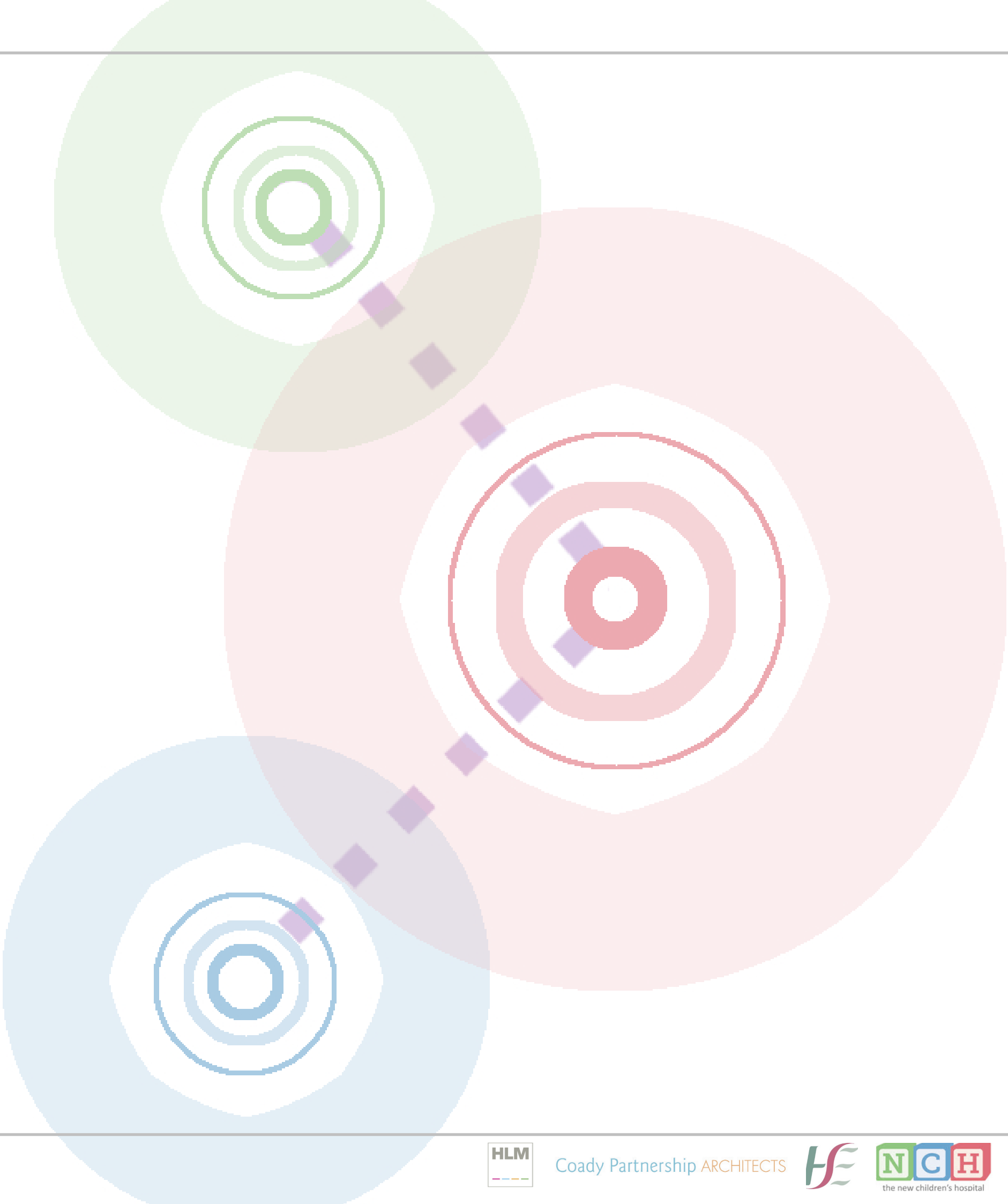
03 Interior Design Statement

04 Landscape Design Statement



01 Introduction

- 1.1 Status and intention
- 1.2 Scheme Description
- 1.3. Members of the Design Team



1.1 Status and intention

As part of the Strategic Infrastructure Development submission to An Bord Pleanála, drawings are being submitted for two satellite centres at Tallaght and Blanchardstown Hospitals, both proposals forming an integral part of the overall children’s healthcare service for Dublin and beyond

As part of the design development, meetings have been undertaken to discuss principles of the application with all relevant parties, including ABP, Fingal CC, South Dublin CC and utilities providers.

1.2 Scheme Description

Existing development control plans have been reviewed, and site locations validated as part of the first stage design development processes with proposed locations both forming an extension to the existing campus of each host hospitals. Careful consideration for existing adjacencies, as well as the new department operational requirements have informed the building footprint and extent with one of the key design principles being that of a recognizable building functionally across the two satellite centres. Staff are therefore able to work efficiently in a familiar environment, allowing more time for patient care.

Massing of both buildings has been considered in terms of enhancing the existing hospital facilities particularly to strengthen the intuitive way finding to the Main Acute Hospital Entrances but with the inclusion of a separate satellite centre entrance too, and to this end heights have been constrained to complement existing eaves and parapet heights. Proposed accommodation is therefore contained within the 3 stories, with setback screens where plant is required to roof areas.

1.3. Members of the Design Team

HLM	Lead Design & Architect
Coady Partnership	Partner Architect
Healy Kelly TTPM	Quantity Surveyor
Bruce Shaw	PSDP – H&S
Roughan & O’Donovan	Structure & Civils
Ethos Engineering	Mechanical & Electrical
GVA	Planning
Brady Shipman Martin	Environmental
Arup	Transport Planning
FCC	Fire



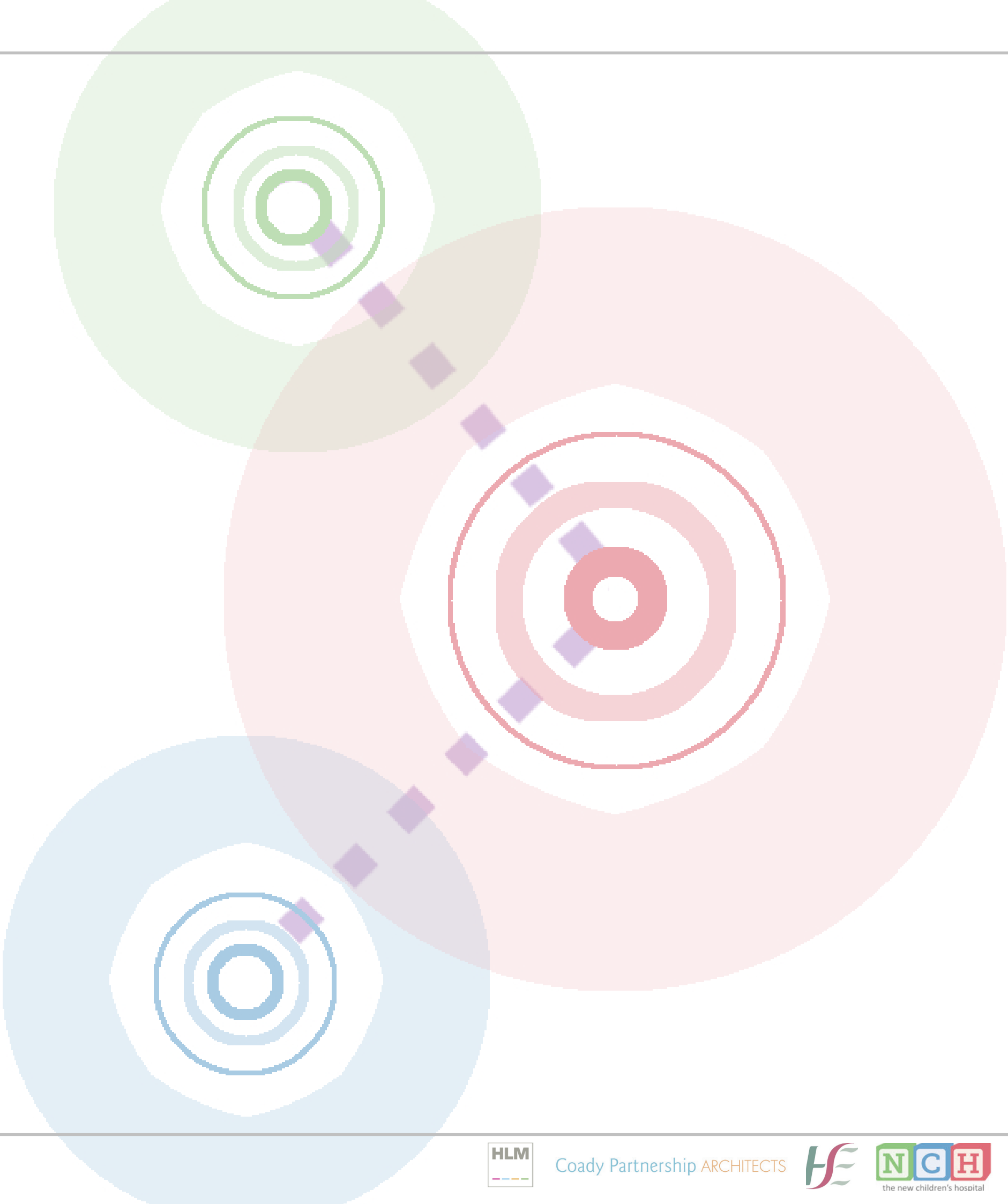
Above Tallaght Satellite Centre

Below Connolly Satellite Centre



02 Architectural Design Statement

- 2.1 Tallaght Satellite Centre
- 2.2 Connolly Satellite Centre



2.1 Tallaght Satellite Centre

Design Principles.

The proposed new satellite centre at Tallaght is located close to the main campus entrance and Main Adult Hospital Entrance. Although tight, the constraints of the proposed site have been assessed in balance with the advantages of the location within the overall Development Control Plan.

Elevations have been developed to sit within the existing campus but also have a shared aesthetic with the NCH and Satellite 2 at Connolly. Window shape, purposefully tall and relatively narrow to provide self-shading to southern elevations will allow natural light deep into rooms. The external materials have been chosen to sit comfortably with the existing hospital (predominantly a buff brick with strong feature horizontal banding) as well as sharing elements of the NCH and Connolly Satellite Centre to create a common language that helps read the Satellites as a family of buildings, enhancing the quality of the existing hospital without overshadowing it. Common elements will be the aluminium to window and door frames, coloured glass panels, perforated metal panels to screen plant using natural imagery, and rendered panels. Colours, especially the render will be chosen in conjunction with the host hospitals, potentially a cream for Tallaght to match the earlier extension to the A&E, or white/off white.

Briefed departments; although ideally located all at Ground floor, site constraints have necessitated the split of departments across floors, making strong way finding and subsequent patient flows a critically important element of the design.

Each department has an identified area for future expansion, comprising soft space and adjacent construction availability, with structure designed to accommodate an additional floor if required.

No Demolitions of existing buildings are proposed other than internal elements for refurbishment of the adjacent ground floor.

Project Specification

Tallaght Satellite Centre will be constructed over 3 floors of accommodation with a gross internal floor area of 4,466m² (excluding decant areas, lift shafts and voids) comprising the following departments (net areas):

Outpatients (Ground and First)	965 m ²
Urgent Care (Ground and First)	1176 m ²
Medical Imaging (Ground)	208 m ²
Main Entrance (Ground)	763 m ²
Retail (Ground and First)	60 m ²
Education (First)	132 m ²
Child Sexual Assault Unit (Second)	550 m ²

As an Outpatient facility there will be no inpatient beds although single bed observation rooms will be located within the Urgent care Department on the ground floor.

Parking numbers will not be affected by the relocation of the service from its existing location at Tallaght hospital and all proposed changes to the parking bays are reallocations only to retain existing numbers.

Healthcare Design

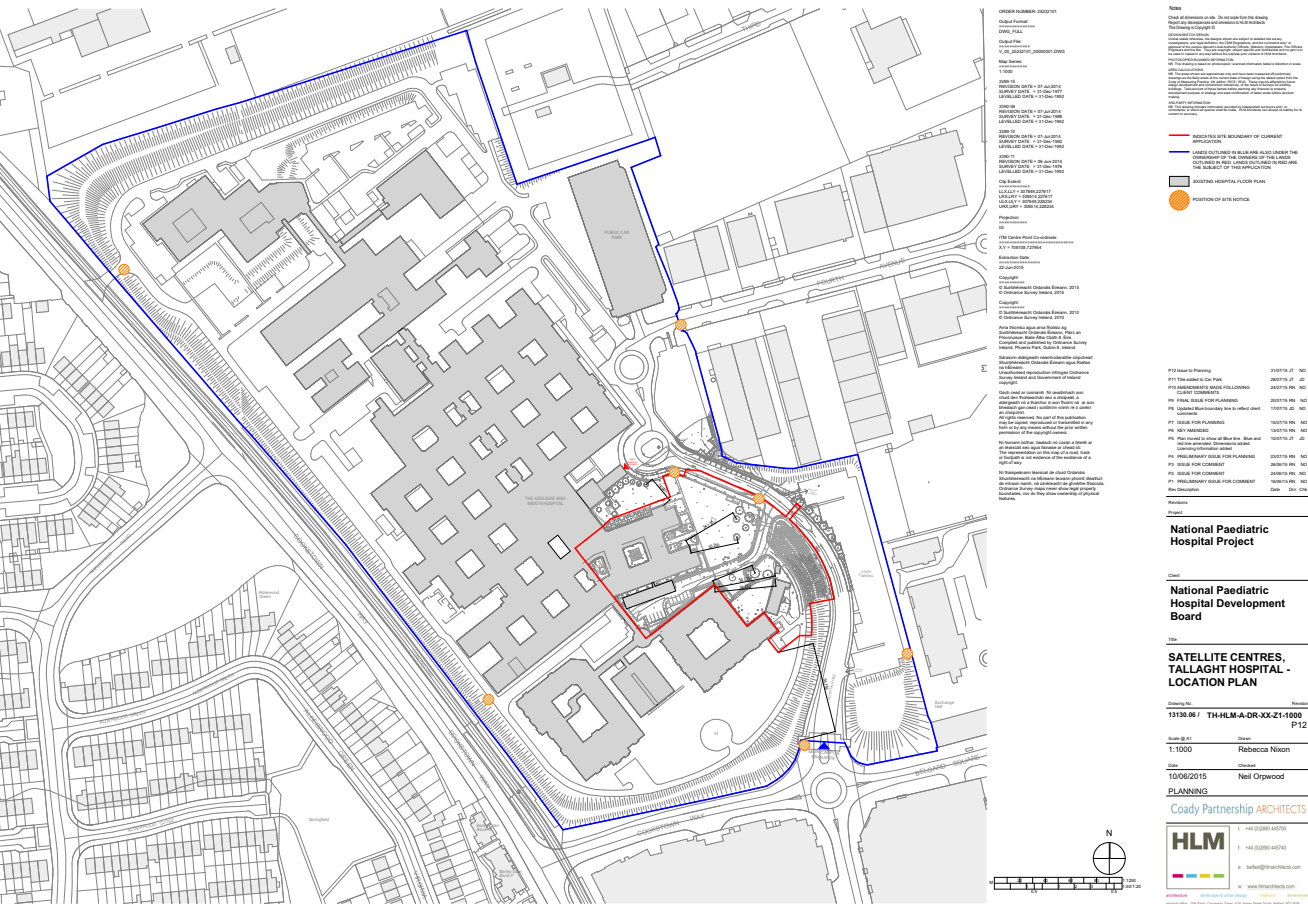
The principles of a Healing environment are even more important in a Children's Hospital, having to cope with the anxieties of parents and carers as well as the more simple concerns of the child. Positive distraction, intuitive way finding, natural light in, orientating views out and minimized 'Clinical looking spaces' all help with this and at Tallaght and Connolly this has been considered from the point of arrival of the new centres as well as internally.

At Tallaght we have tried to use the clarity of the Main Acute Hospital entrance to guide visitors to the Children's centre without providing any additional confusion. Having identified the main hospital entrance on arrival as well as from the multi-story car park, the children's centre entrance is the second clearest point identified using a simple canopy over the entrance and glazing feature surround.

Existing drop off issues stemming from taxi ranks and the drop of circle are alleviated by the work to reduce the entrance mound allowing staff and deliveries earlier access to the service road and thin out traffic numbers reducing stress for visitors. Consideration has been given to the relocation of the taxi rank to help retain a clearer visitor route.

The main entrance provides a tall space on entry with views and clear routes to all key departments via the double height atrium and open waiting area. Clear reception points for those in need of assistance, obvious lift and stair locations and onward links through minimal signage are all immediately apparent.

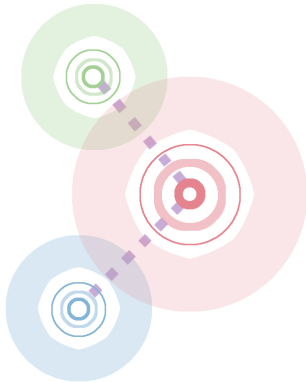
Below Tallaght, Location Plan



Below Tallaght, Elevation



Above, Precedent Metal Panels



Functional Principles

The proximity to the main entrance has been addressed both in terms of the New Satellite Centre way finding and concerns from Tallaght Hospital that the Main Acute Hospital entrance should not be detracted from.

Site development constraints have been adhered to, with the ground floor of the Urgent Care centre using the existing external colonnade as part of the new department, creating improved natural light levels.

In discussion with the engagement team, the children's Satellite centre entrance will act as the main access for ambulant urgent care cases as well as the rest of the centre and the internal arrangement has been configured to allow for this in terms of a single reception desk. However way finding will also be provided to identify the separate walk-in entrance.

Clear flows for circulation from the entrance have been identified with waiting spaces initially configured to allow for relaxed waiting with activities, linking to the main Out Patients Department.

Where ever possible, corridors have been provided with natural light with opportunities for views out to assist with orientation. Where the efficiency of the floor plate has restricted these opportunities, additional borrowed light through side screens to room doors will be provided. The main clinical space of Urgent Care is located on the Ground Floor within the existing building footprint with balance of admin/staff space located to the first floor. The Outpatients Department is split over two floors; functionally accepted during the engagement team meetings, with main consulting rooms and Therapy spaces being located on the ground floor with additional consulting rooms for more specialist appointments on the first floor located at first floor. This remains compliant with the agreed design constraints assessed during stage 1.

The Medical Imaging Department still has a central location on the ground floor adjacent to Urgent Care and the Outpatient Department allowing good flow between all three departments, as well as good links to the existing Hospital Street and the existing Radiology Department. The waiting area and corridor benefit from natural light from the existing courtyard.

The proposals show a new hospital street running through the plan from the Satellite Unit entrance area to the existing hospital street thus linking the new unit to the rest of the hospital accommodation. The only connection to the hospital will be via this new street which permits the freedom to create increased floor to floor heights in the new building compared to the very restrictive floor to floor heights in the existing building. The proposed new street and an element of Urgent Care accommodation will take up a significant portion of 2no. existing courtyards, but will provide an opportunity for some top light into the rear rooms of Urgent care and every effort has been made to transfer light into the rooms from the glazed street. Accommodation for CEO and Assistant has been shown re-configured with connections to the Admin department and direct link to the new hospital street as its proposed new route utilizes the existing rooms.

The first floor layout for the Satellite Unit presents the remaining Outpatient and Urgent Care Accommodation along with the Education Suite. The café has been located at first floor level with views through void spaces to the ground floor providing a connection with the lower floor. The Child Sexual Abuse Unit has been located on the top level which is particularly suited to the delicate and private nature of this unit and has been agreed with the Clinical engagement team as the best location.

A therapy roof terrace is proposed for the centre of the clinic area and further detail design during stage 2b will develop the edge detail as it overlooks the ground floor play courtyard. A solution such as full height coloured glass panels will help to obscure the view into the garden from below and assist in the avoidance of acoustic transfer into the main play area.

Segregation of Flows

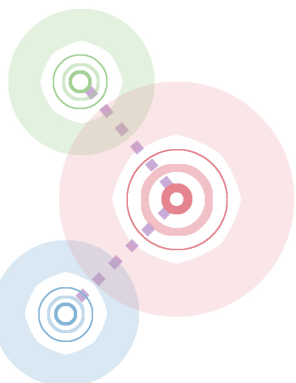
Patient and staff flows have been tested with the Clinical Engagement Teams throughout each department and level and it is proposed that FM deliveries are made from the existing hospital street.

Reception will provide clear guidance both from a physical person and/or a range of colour coded signage will advise patients which floor or direction they are to follow, with a clear view up through void spaces to the first floor accommodation.

With the new extension positioned to such a prominent location on the site we have tried to identify the most unobtrusive options for the potential waste FM and deliveries requirements, with the ideal solution being the use of the existing whole hospital strategy. Deliveries and collection via the outer service road to the main service yard and transfers internally via hospital street. Scheduled FM facilities for the new building will be located at hospital street to manage movements.



Above Tallaght, Entrance Plan



Fire Strategy

The Fire Safety review has been conducted under the general headings associated with Part B (Fire) of Building Regulations 1997-2014 i.e. Sections B1 to B5 inclusive which set out the minimum requirements which must be achieved in order to demonstrate compliance with regards to fire safety. The design has now been fully developed to ensure that travel distances, compartmentation, subcompartmentation and fire protection of hazard rooms throughout the proposed ground, first and second floor levels within the Tallaght & Connolly Satellite Centres adhere to the relevant recommendations of HTM 05:02 2014.

Since Stage 1 we have had the opportunity to review the developed design with the local Fire Authority through direct consultation. The strategies developed within this Stage 2a report and the associated fire compliance drawings has been presented to the Local Fire Authority. The design intent is to adhere to compliance with the relevant guidance documents i.e. Health Technical Memorandum 05-02: Firecode “Guidance in support of functional provisions (Fire safety in the design of healthcare premises) 2014 edition” (to satisfy Section B1 of the Building Regulations) and Technical Guidance Document B, 2006 (to satisfy Sections B2-B5 of the Building Regulations).

The proposed use of compartmentation and sub-compartmentation throughout the building and the general fire protection strategy has been accepted on basis of compliance demonstration to HTM 05- 02: 2014.

From the initial review with the Local Fire Authority there was no identifiable compliance issues which needed to be addressed. It was confirmed that where the use of an atrium space its provision would still maintain compartmentation within the building and the use of natural smoke ventilation for fire brigade ventilation purposes would be adopted where required. The general access facilities and firefighting provisions were satisfactory to the Local Fire Authority and no additional specialist provisions were deemed to be required. It was agreed and confirmed that the proposed Children’s Satellite Centres would constitute Out- Patient or Day Case activity only and would not constitute In-Patient or overnight stay. On that basis the escape stairs would be designed on the basis of normal use and not oversized evacuation standard stairs. The design has developed on that basis. The fire safety design strategy has been sufficiently developed that progression into Stage 2b Fire Safety Certificate application will require no major modification to the design proposal.

Flexibility and Adaptability

The Design team have fulfilled the briefed requirement for the design of structures to take an additional floor should the need ever arise, however this would be subject to a further planning application. The building presented within this document ties in well with ridge heights on the existing hospital.

In order to remain within cost constraints, expansion space has been omitted from the first floor and has been utilized for habitable space, but soft space has been positioned adjacent to departments to allow shared use or expansion for example, into the Education area.

Expansion

The layouts offered within this report demonstrate the potential of expansion space for the various accommodation types. All expansion space shown on the drawings added together equal at total 25% expansion capability, however as noted above, in addition to this the potential for a completely new floor on top of this has also been designed for in these proposals. Some areas will require the relocation of facilities (e.g Education) which have been included as soft space for both adaptability and expansion possibilities.

The expansion space for Urgent Care within the Tallaght proposals would be a single story extension to the side of the building towards the back of the existing Renal Parking Area. Further expansion space for the remaining accommodation will either be provided within the Building (ie. by moving departments) and/or extending accommodation onto the roof area.

Universal Access

The Design Team are committed to the principles of Universal Access and will continue to develop a building which can be used by all people, regardless of their age, size, disability or ability. We proposed to meet the requirements in a sympathetic and subtle manner which will substantiate our belief that inclusiveness for all should not result in an obviously ‘designed for disabled’ appearance.



Tallaght Satellite Centre, East Facing Elevation

2.2 Connolly Satellite Centre

Design Principles.

The proposed new satellite centre at Connolly is located directly opposite the main campus entrance and adjacent to the Main Adult Acute Hospital Entrance. The constraints of the proposed site have been assessed in balance with the advantages of the location within the overall Development Control Plan and the ground levels of the existing sloping site.

Elevations have been developed to sit within the existing campus but also have a shared aesthetic with the NCH and Satellite 1 at Tallaght. Window shape, purposefully tall and relatively narrow to provide self-shading to southern elevations will allow natural light deep into rooms.

The external materials have been chosen to sit comfortably with the existing hospital (generally a mix of render and cladding panels) as well as sharing elements of the NCH and Tallaght Satellite Centre to create a common language that helps read the Satellites as a family of buildings, enhancing the quality of the existing hospital without overshadowing it. Common elements will be the aluminium to window and door frames, coloured glass panels, perforated metal panels to screen plant using natural imagery, and rendered panels. Colours, especially the render will be chosen in conjunction with the host hospitals, potentially white / off white.

Briefed departments; although ideally located all at Ground floor, departmental efficiencies, patient flows and the need to meet the requirement for staff familiarity across sites, have agreed the split of departments across floors, making strong way finding and subsequent patient flows a critically important element of the design.

Each department has an identified area for future expansion, comprising soft space and adjacent construction availability, with structure design to accommodate an additional floor if required.

No demolition of existing buildings are proposed.

Project Specification

Connolly Satellite Centre will be constructed over 3 floors of accommodation with a gross internal floor area of 5,093m² (excluding decant areas, lift shafts and voids) comprising the following departments (net areas):

Outpatients (Ground and First)	995 m²
Urgent Care (Ground and First)	1036 m²
Medical Imaging (Ground)	190 m²
Main Entrance (Ground)	742 m²
Retail (Ground and First)	60 m²
Education (First)	118 m²
Dental (First)	666 m²
Child Sexual Assault Unit (Second)	512 m²

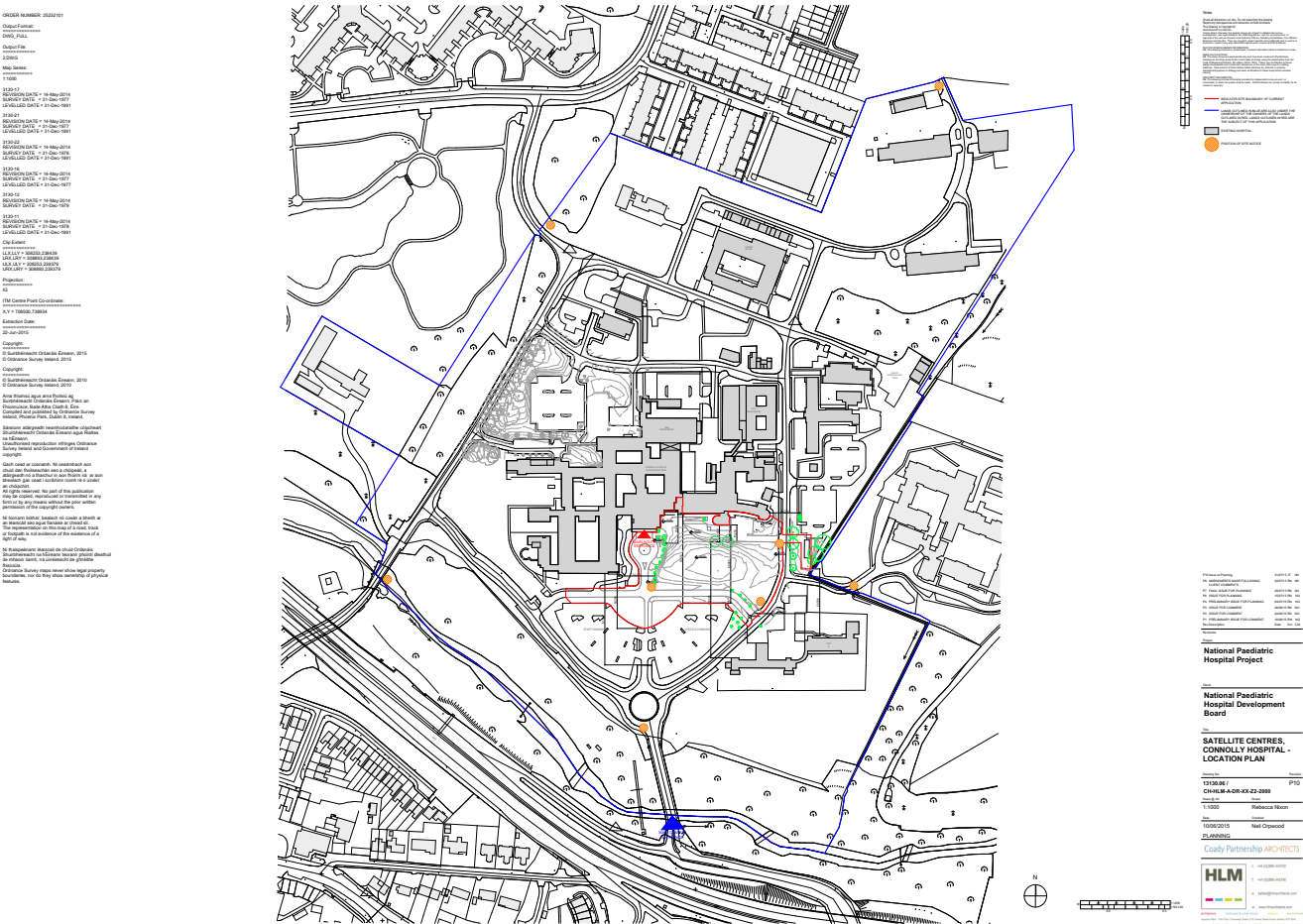
As an Outpatient facility there will be no inpatient beds although single bed observation rooms will be located within the Urgent care Department on the ground floor.

Parking will be reconfigured following the principles already identified in the Development control plan retaining clarity of way finding for patients and visitors from the main entrance. Additional parking spaces for staff being provided within the existing and affected visitor spaces relocated as identified in the site layouts.

Healthcare Design

The principles of a Healing environment are even more important in a Children's Hospital, having to cope with the anxieties of parents and carers as well as the more simple concerns of the child. Positive distraction, intuitive way finding, natural light in, orientating views out and minimized 'Clinical looking spaces' all help with this and at Tallaght and Connolly this has been considered from the arrival of the new centres. At Connolly we have tried to use the clarity of the Main Acute Hospital entrance to guide visitors to the Children's centre without providing any additional confusion. Having identified the main hospital entrance on arrival the children's centre entrance becomes obvious as the secondary cue on approach. A natural canopy is formed by the overhang of the first floor.

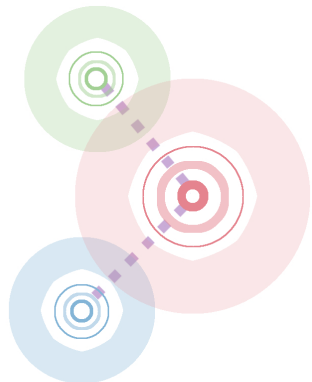
The main entrance provides an opened up area on entry with views and clear routes to all key departments via glazed stair and open waiting area. Clear reception points for those in need of assistance, obvious lift and stair locations and onward links through minimal signage are all immediately apparent.



Above Connolly, Location Plan



Above Connolly, Elevation



Functional Principles

Urgent Care will be provided on the Ground Floor with an independent pedestrian and ambulance access to the east elevation allowing for independent operation if necessary. A critical direct internal link to Medical Imaging is maintained to the north of the Urgent Care plan with the provision of a new Hospital Street.

To match adjacencies with Tallaght and comply with Clinical requirements for the Fracture Clinic to be close to Imaging, the Outpatients Department is split over two floors; functionally accepted during the engagement team meetings, with the Therapy spaces being located on the ground floor and consulting rooms for general clinics on the first floor. The Dental Suite which is unique to the Connolly brief has been located in its entirety on the First Floor. There is potential on the first floor for access onto a roof terrace (over Medical Imaging) from both the Dental and Outpatients Department.

The Child Sexual Abuse Clinic has been located on the top level which is suitable bearing in mind the delicate and private nature of this suite. There is potential for a further roof terrace external space for the clinic which has been noted on the floor layout.

The Children’s play courtyard is located on the Ground Floor in the centre of the plan. Its central location will allow for the greatest infiltration of natural light into the plan along with providing the necessary security and supervision. The courtyard will be visible as soon as an individual enters into the building and this will act as an excellent way-finding guide within the building.

Segregation of Flows

The significant majority of visitors to this building will move towards the building from the main crescent car parking from where the new unit will be visible. Signage to the Satellite Unit will be integrated into the existing site signage system and will assist in directing patients and visitors towards the correct entrance – the use of colours to the ground floor of the building will act as a signal as to the child orientated function of the building in addition to any signage.

Once inside, the visitor will be greeted by the reception from where clear guidance both from a physical person and/ or a range of colour coded signage will advise patients which floor or direction they are to follow. Each department will be accessed off the hospital street and patients will not be required to pass through departments to reach another department.

To minimize the FM flows and crossover of clean and dirty flows the FM waste collection and general deliveries has been provided via the rear courtyard with screened off access Delivery bays will be adjacent to the Ambulance drop off, sufficiently discreet to not detract from the views from the Elderly care wards but also separate enough from the ambulance flows to not disrupt blue light activity. This will be further developed within Stage 2b with further interaction with the local FM teams.

The new link corridor, primarily sited to provide a connection to Radiology, can also facilitate the provision of any shared services such as those listed in Brief section 13.6.1 with its direct connection to the existing hospital street network.

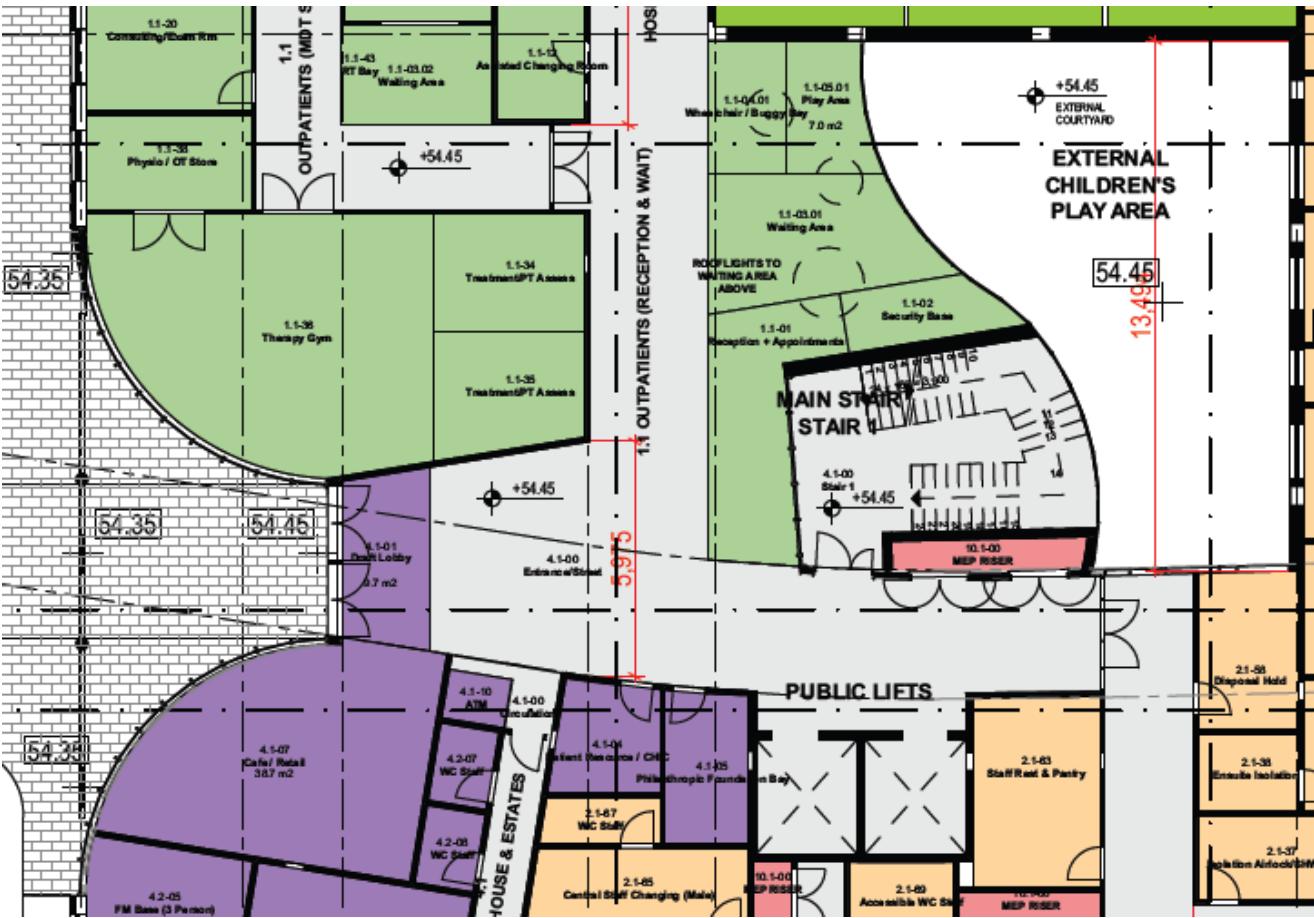
The logistics and operational policy associated with this operation is currently being reviewed by the CHG and the host hospitals.

Flexibility and Adaptability

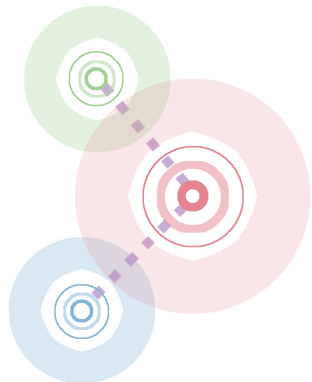
The Design team have fulfilled the briefed requirement for the design of structures to take an additional floor should the need ever arise, however this would be subject to a further planning application. The building presented within this document ties in well with parapet heights on the existing hospital and the provision of a further floor over the Satellite.

We have propose locating Admin space associated with the Dental unit as well as the Education suite beside the Outpatient Department. This is ideal ‘Soft space’ which can easily be extended into should it be required.

This will be a structurally framed building and internal walls within a department will be built from stud work which provides the maximum flexibility and least disruption should internal changes be required at a later date.



Above Connolly, Entrance Floor Plan



Expansion

The layouts offered within this report demonstrate the potential of expansion space for the various accommodation types. All expansion space shown on the drawings added together equal at total 25% expansion capability, however as noted above, in addition to this the potential for a completely new floor on top of this has also been designed for in these proposals.

The expansion space for Urgent Care would be a single story extension to the side of the building across the existing green space. An extension in this area would impact the proposed parking and Ambulance area and this would need to be re-provided in the green space to the right of the new building.

Further expansion space for the remaining accommodation will be provided by extending onto roof/terrace zones as shown on the drawings.

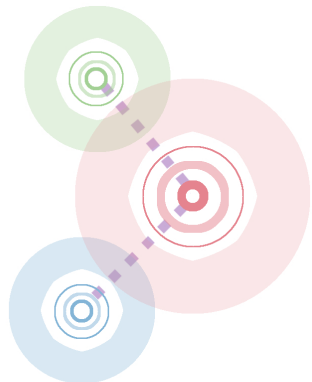
Universal Access

The Design Team are committed to the principles of Universal Access and will continue to develop a building which can be used by all people, regardless of their age, size, disability or ability. We proposed to meet the requirements in a sympathetic and subtle manner which will substantiate our belief that inclusiveness for all should not result in an obviously 'designed for disabled' appearance.

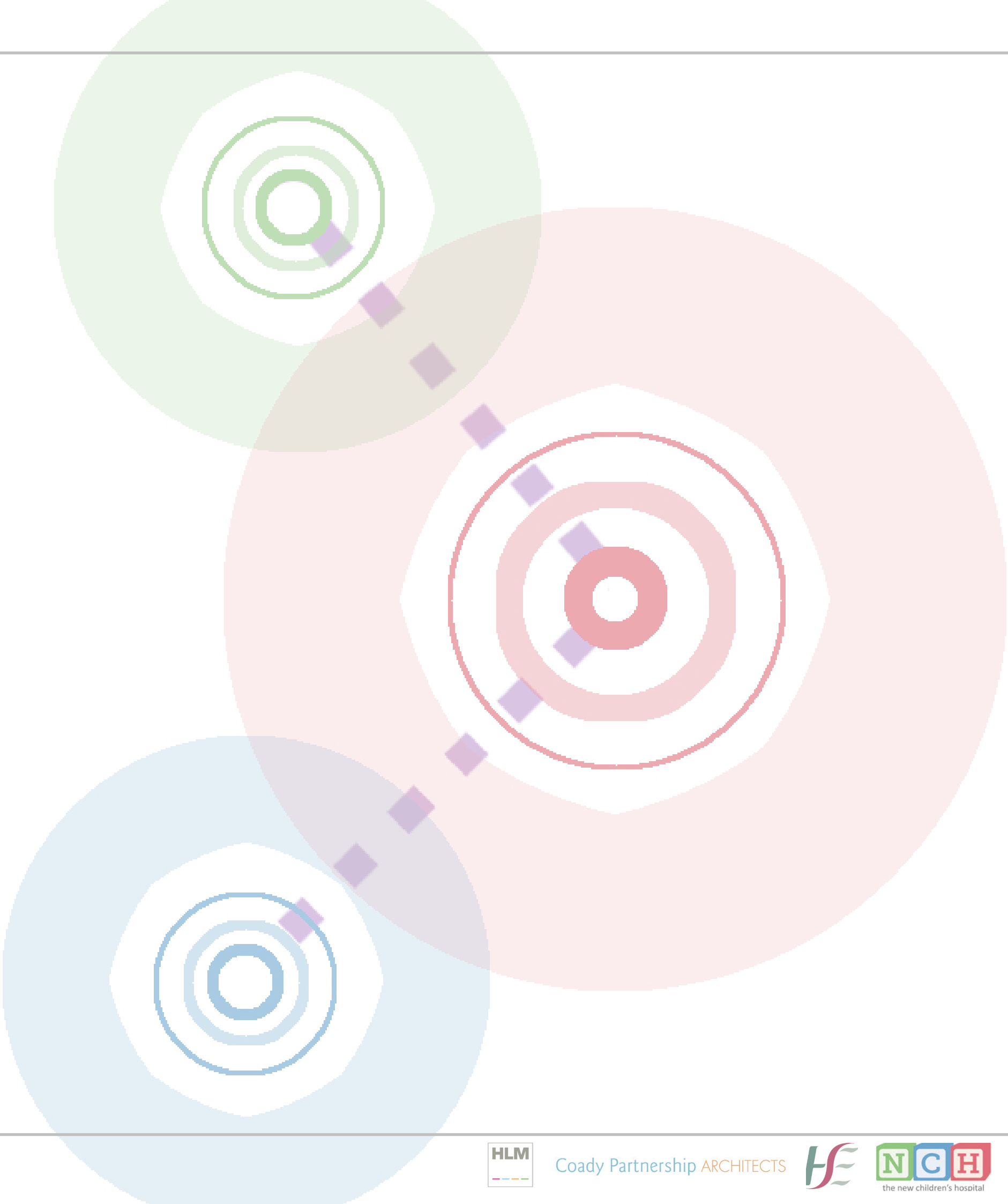
Part of the proposals within this document present a Ground Floor which is 700mm below the existing floor Level of the Hospital. Key to this proposal is the requirement to provide a balance to the number of external ramps required each maintaining the minimum required 1:20. To achieve this however we propose to introduce ramps within the link between the existing and proposed buildings - the ramps will be at a gradient of 1:20 which is fully compliant to all current regulations and recommendations for a Public Building such as this. The link between the two buildings is for the infrequent transfer of patients from the new Satellite Unit to the Main Hospital Radiology Department, as well as some potential FM operations.



Connolly Satellite Centre , South Facing Elevation



03 Interior Design Statement



Interior Design - precedent images

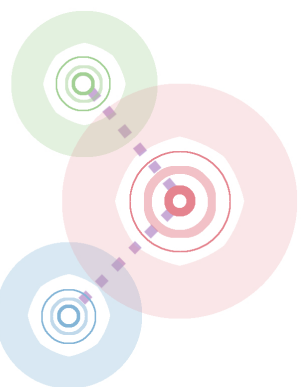
... areas of common language between projects

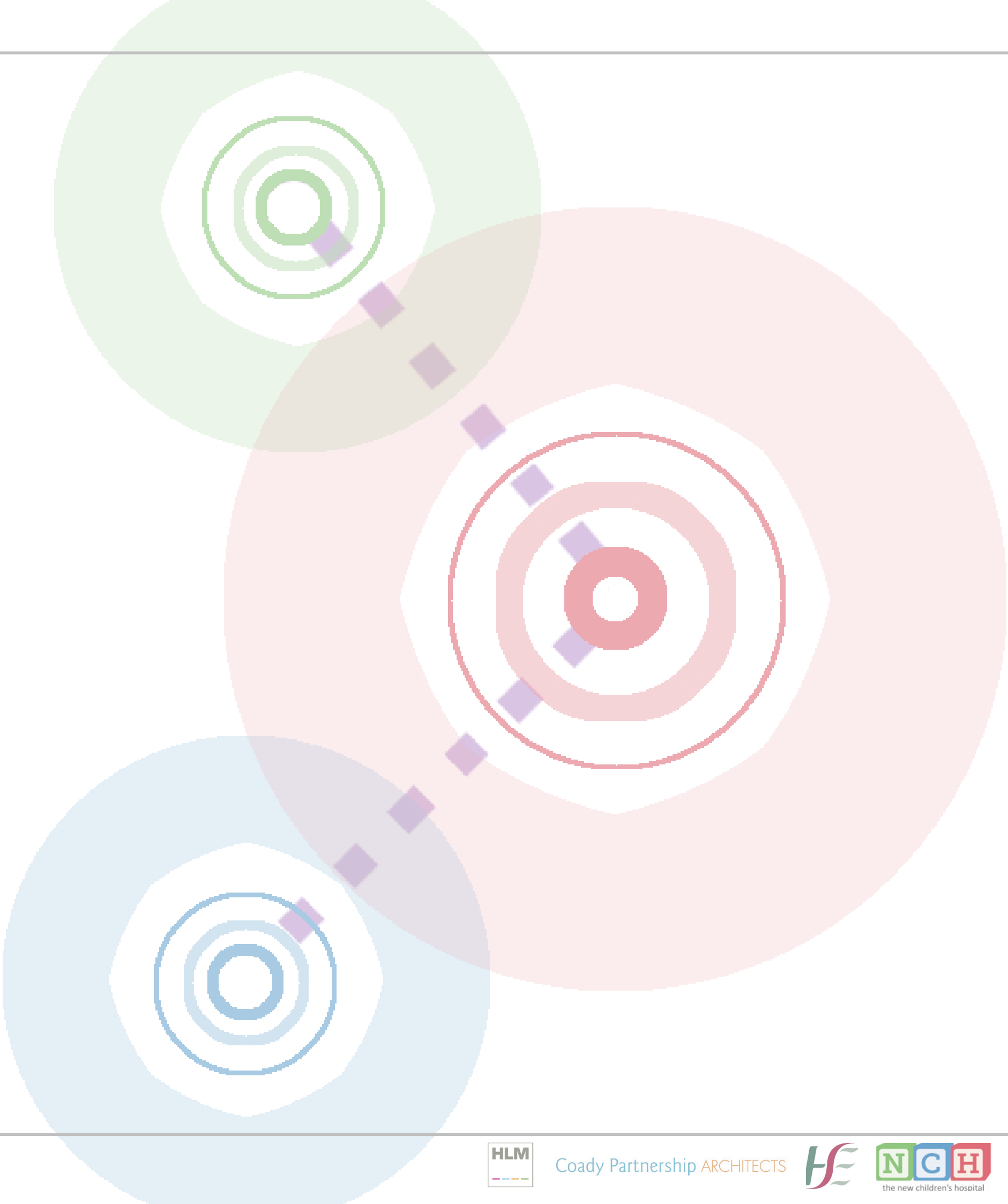
	space
	sky
land	land
fauna & fauna	fauna
	flora
	above water
pond	underwater

To achieve a level of connection between the satellites, there are areas that could be derived from the same base architectural design with the ultimate outcome of creating a common language within the new hospital extensions. Areas that could be considered are:

- Main Entrance
- Departmental Entrances
- Nurses Bases
- Circulation
- Doors
- Colours to Levels
- Typography and Signage

If there is a requirement to extend the Satellite Centres vertically with the addition of new levels, then the colour strategy can be developed to incorporate new levels and expand the colours used, in a complimentary colour palette.





National Paediatric Hospital Project

Landscape Report - Tallaght

TH-HLM-XX-Z0-RP-9001

Prepared for: National Paediatric Hospital Development Board

Prepared by: Simon Bell

29th June 2015

Existing Site Condition

The site is located within the existing hospital campus at Tallaght. The site occupies an open area of grass at the end of the existing building alongside the existing hospital access road.



Topographical Survey of Existing Site



View of site from the west



View of existing trees and canopy



View of site from the north



View of south elevation of existing building

Landscape Proposals

The new building will be located to the east of the existing main hospital entrance on an area of grass. The existing set down area will be reconfigured to create a new entrance space for the new facility.

ENTRANCE AND DROP OFF

The entrance on the northeast of the new building will be accessed from the existing main hospital set down and pick up area. A new entrance space will be created with informal seating, enhanced paving and planting. The levels have been designed to provide level access between the set down / pick up bays and the new entrance.

URGENT CARE ENTRANCE

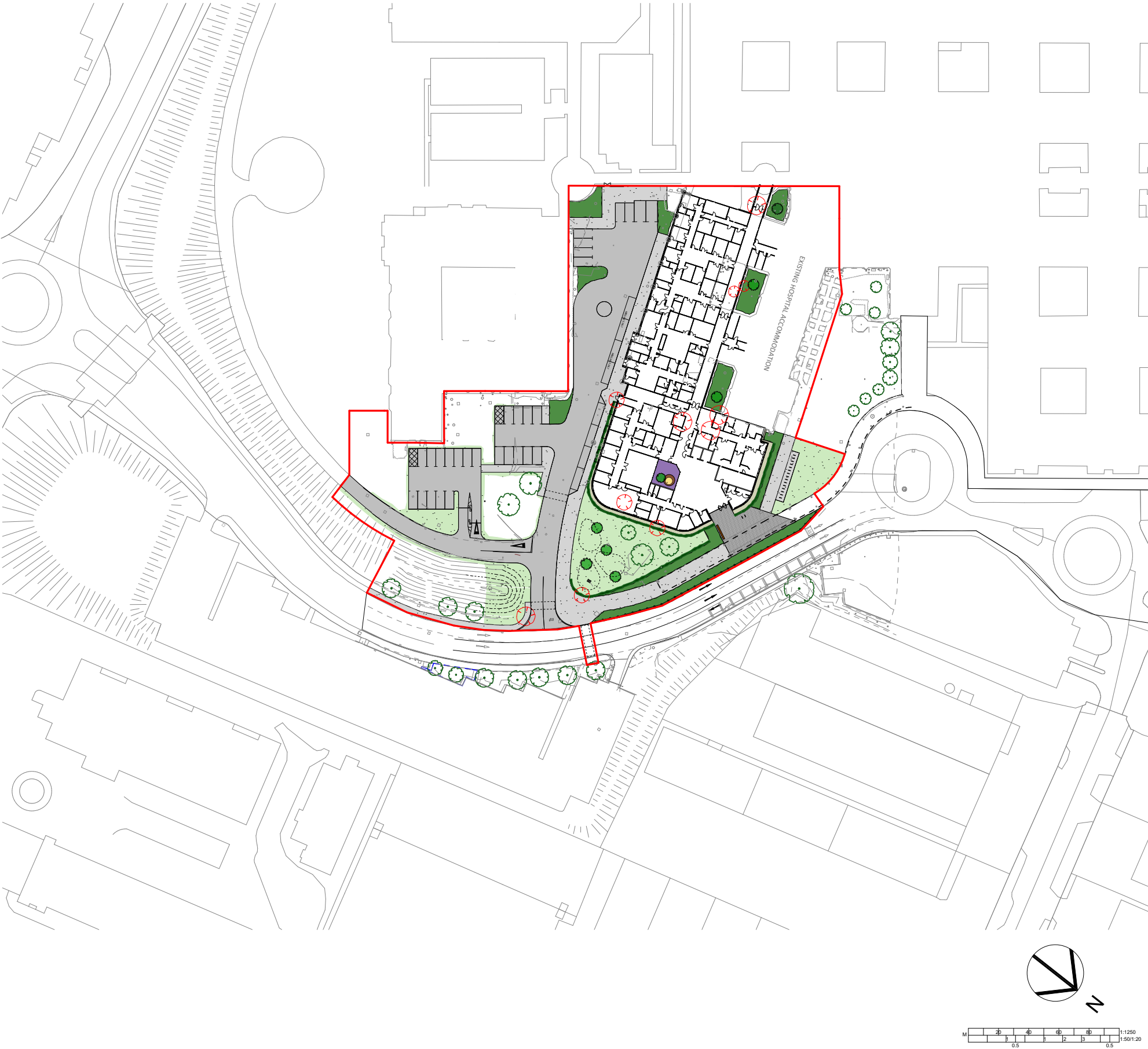
The urgent care entrance is located on the south elevation of the building adjacent to the ambulance parking area. A direct pedestrian route will be provided between the set down / pick up bays to the south of the building and this entrance.

PLAY COURTYARD

A play courtyard will be provided accessed off the waiting area. The courtyard will be surfaced in colourful wet pour rubber surfacing including undulations to provide inspiration for imaginative play. A small tree will provide a human scale as well as visual interest through the seasons. Sensory play equipment will be provided in the form of wall panels, sculptural elements and natural elements such as rocks, pebbles and sand.

THERAPY GARDEN

A horticultural therapy garden will be developed on the roof terrace at Level 02 as part of the CSAU. The garden will incorporate seating spaces, gardening spaces and opportunities to interact with the garden by growing plants, picking flowers, touching and smelling plants.



Proposed Landscape Masterplan



Hard Landscape Materials

SURFACES

The hard landscape materials have been chosen to support a hierarchy of spaces. In situ concrete footpaths will tie in with existing paths offering a robust and functional surface for general pedestrian areas. To highlight the entrances an exposed granite aggregate paving flag will be used in two colours to provide pattern and texture. These flags will also be used within the therapy gaardens at roof level supported on pedestals. The play courtyard will be surfaced in wet pour rubber surfacing in a range of colours, using mounding to create topogrpahy and a framework for imaginative play.

ENCLOSURES

New gates will be provided to the existing garden and to the FM access route along the north side of the building. These will be a louvred gate finished to match the colour of the metalwork on the building.

STREET FURNITURE

Seating will take the form of linear timber benches. They will incorporate some back and armrests to enable use by all. A pedestrian guardrail will complement the building finisies in polyester powder coated steel. The wayfinding signage will be developed to integrate with the wider campus, however at this stage we antiicpate the inclusion of finger post signage at key nodes to provide direction to the main hospital entrance, the childrens hospital entrance, the urgent care entrance and the carparking.

CSAU THERAPY GARDEN

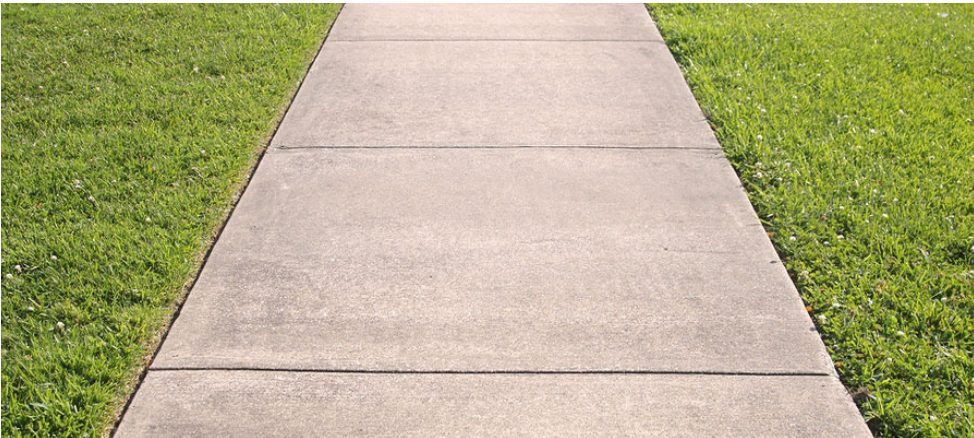
The design of the therapy garden at Level 02 is to be developed in collaboration with the departments team. It will be an intensive roof garden, incorporating paving, seating areas, raised planters, potting area, a flower cutting area and a small shelter.



Precast granite aggregate concrete paving flags in silver grey and mid grey



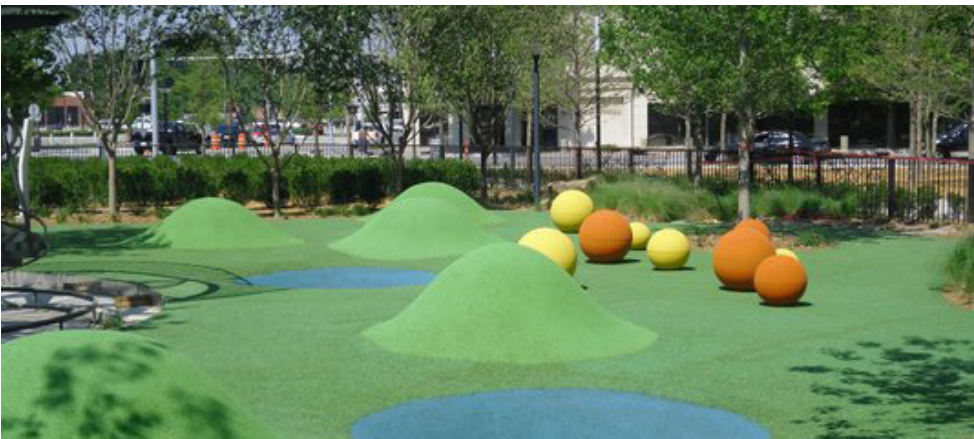
Timber seating



In situ concrete



Fingerpost signage



Wet pour rubber safety surfacing



Polyester powder coated pedestrian guardrail



Example of a Therapy Garden



Typical signage within Therapy Garden



Typical seating



A miniature garden in a pot



Raised beds



Mini greenhouse



Potting table

Soft Landscape Materials

TREES

Building frontage	Tilia x euchlora
Building Entrance	Prunus avium ‘Plena’
Play Courtyard	Acer palmatum ‘Sango Kaku’
Therapy Garden	Malus sp.

HEDGING

Building frontage	Fagus sylvatica
Play courtyard	Choisya ternata

ORNAMENTAL SHRUB & HERBACEOUS PLANTING

Building Frontage	Bergenia cordifolia
	Hydrangea arborescens ‘Annabelle’
	Pachysandra terminalis

THERAPY GARDEN PLANTING

The palette of planting for the therapy garden will be developed with the users and facilities management team to meet the neets of the horticultural therapy team.



Tilia x euchlora



Acer palmatum “Sango Kaku”



Malus domestica



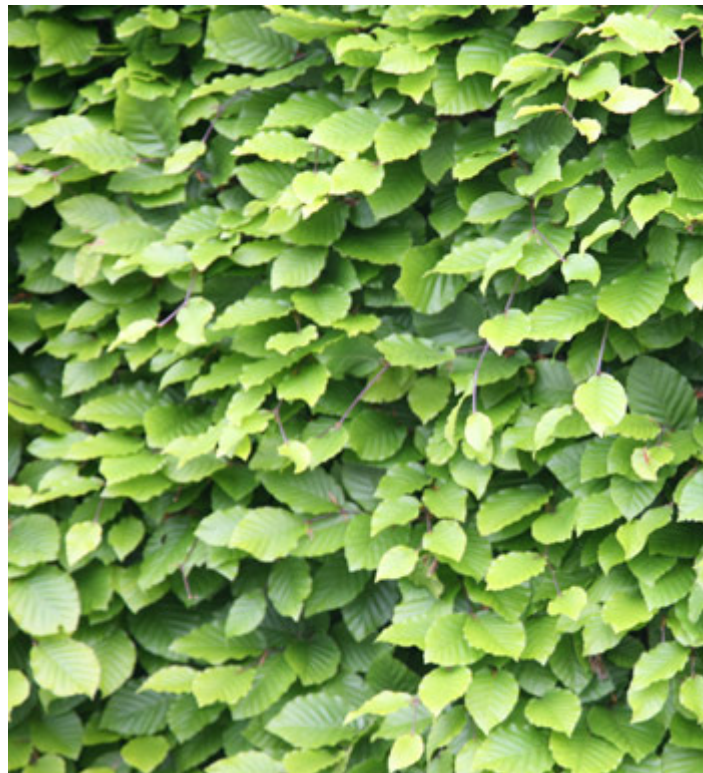
Prunus avium “Plena”



Malus Hopa



Malus domestica - detail



Fagus sylvatica - hedging



Bergenia cordifolia



Pachysandra terminalis



Hydrangea arborescens "Annabelle"



Choisya ternata - hedging



Examples of possible plants for use in a therapy garden

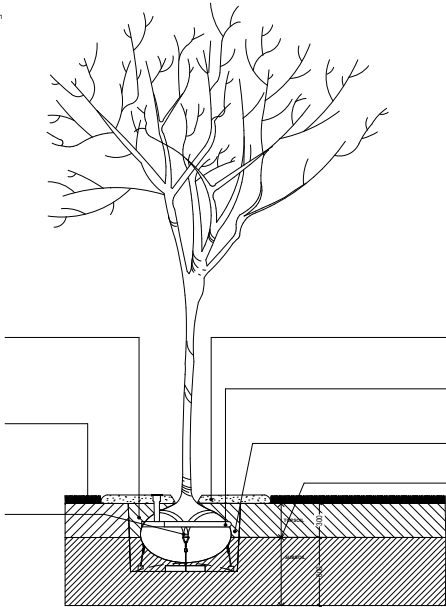
Soft Landscape Details

General Notes:
Trees may be container grown if works are carried out outside planting session.
Trees are to be supplied and handled in accordance with BS5454:2014
Topsoil and associated operations to comply to BS EN 12882:2015
Subsoil and associated operations to comply to BS EN 8601:2013
During excavation of the tree pit the soil dug should be placed to one side separating the topsoil and subsoil as far as practically possible.
Backfill to tree pit should be added gradually in layers 150 - 200mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil.
Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and heasen and haws should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed.
Base of the planting pit should remain undisturbed unless there is poor drainage or compaction of soils.
Tree pit should be saturated to field capacity immediately after planting.

Soils to be levelled, cultivated and seeded with grass seed as specified.

Underground geying system

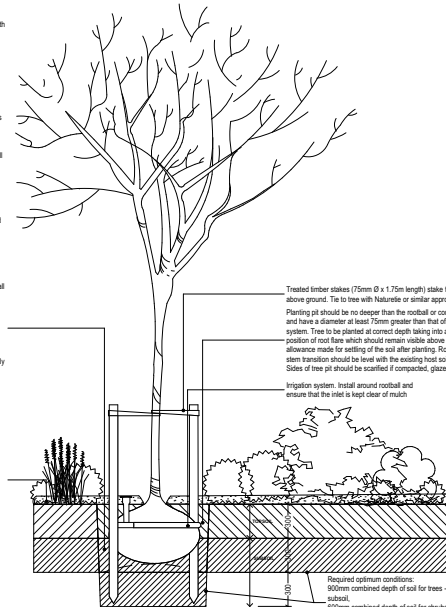


Section - Tree with underground geying and irrigation system into grassed landscape.

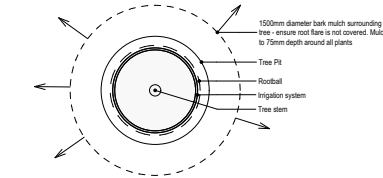
General Notes:
Trees may be container grown if works are carried out outside planting session.
Trees are to be supplied and handled in accordance with BS5454:2014
Topsoil and associated operations to comply to BS EN 12882:2015
Subsoil and associated operations to comply to BS EN 8601:2013
During excavation of the tree pit the soil dug should be placed to one side separating the topsoil and subsoil as far as practically possible.
Backfill to tree pit should be added gradually in layers 150 - 200mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil.
Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and heasen and haws should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed.
Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils.
Tree pit should be saturated to field capacity immediately after planting.

Mixed shrubs - planted in 300mm topsoil with 300mm subsoil beneath. (subject to local conditions), with 75mm organic mulch



Section - Shrubs & Tree with double staking and irrigation system into soft landscape.

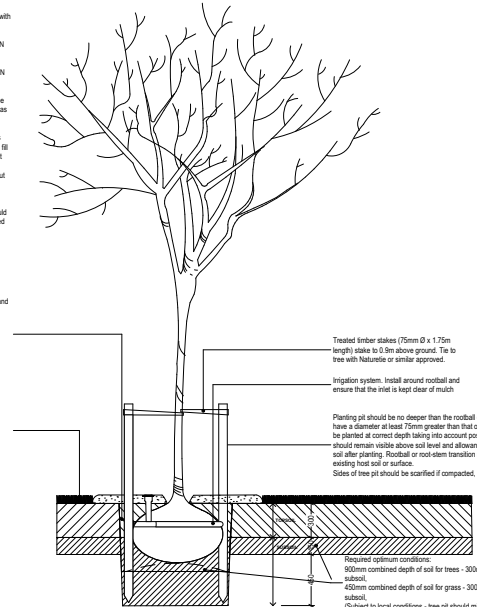


Plan - Tree with double staking and irrigation system into soft landscape.

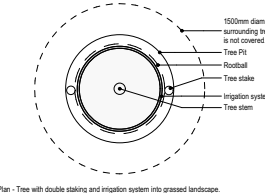
General Notes:
Trees may be container grown if works are carried out outside planting session.
Trees are to be supplied and handled in accordance with BS5454:2014
Topsoil and associated operations to comply to BS EN 12882:2015
Subsoil and associated operations to comply to BS EN 8601:2013
During excavation of the tree pit the soil dug should be placed to one side separating the topsoil and subsoil as far as practically possible.
Backfill to tree pit should be added gradually in layers 150 - 200mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil.
Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and heasen and haws should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed.
Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils.
Tree pit should be saturated to field capacity immediately after planting.

Soil to be levelled, cultivated and seeded with grass seed as specified.



Section - Tree with double staking and irrigation system into grassed landscape.

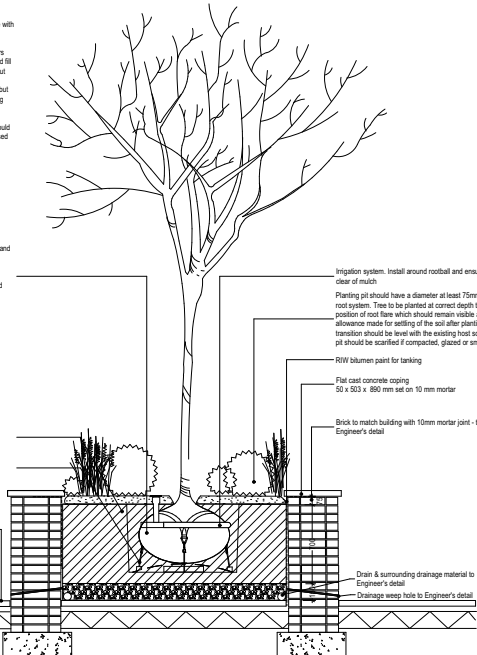


Plan - Tree with double staking and irrigation system into grassed landscape.

General Notes:
Trees may be container grown if works are carried out outside planting session.
Trees are to be supplied and handled in accordance with BS5454:2014
Backfill to tree pit should be added gradually in layers 150 - 200mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil.
Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and heasen and haws should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed.
Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils.

Tree pit and shrub planting
Pre-prepared topsoil mix over 150 clean stone drainage material
Underground geying system



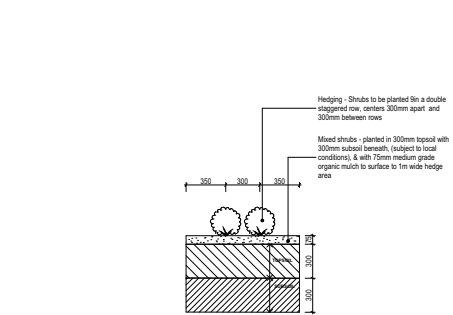
Section - Planter onto hard landscape with tree and shrubs.

General Notes:
Trees may be container grown if works are carried out outside planting session.
Trees are to be supplied and handled in accordance with BS5454:2014
Backfill to tree pit should be added gradually in layers 150 - 200mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil.
Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

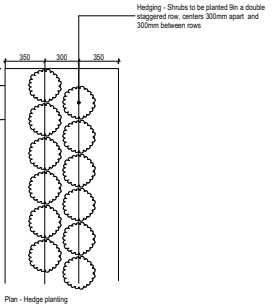
After positioning the tree into the planting pit the rootball wire cage should be removed and heasen and haws should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed.
Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils.

Tree pit and shrub planting - 500mm above paving level. Allow 900mm of pre-prepared topsoil mix depth for tree planting and 600mm for shrub planting.

Section - Planter into soft landscape with tree and shrubs.

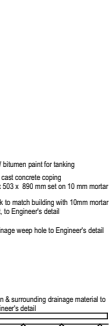


Section - Hedge planting



Plan - Hedge planting

Notes
Check all dimensions on site. Do not scale from this drawing.
Revised and dimensioned in accordance with the drawing.
This Drawing is Copyright ©
ARCHITECTS/DESIGNERS
NAME
ARCHITECTS/DESIGNERS INFORMATION
NAME
ARCHITECTS/DESIGNERS INFORMATION
NAME
ARCHITECTS/DESIGNERS INFORMATION
NAME



RW blumen paint for tanking
Flat cast concrete coping
50 x 50 x 80 mm set on 10 mm mortar
Brick to match building with 10mm mortar joint, to Engineer's detail
Drainage weep hole to Engineer's detail
Drain & surrounding drainage material to Engineer's detail

P3 AMENDMENTS MADE FOLLOWING CLIENT COMMENTS	24/07/15	PN	NO
P2 ISSUE FOR PLANNING	15/07/15	PN	NO
P1 PRELIMINARY ISSUE FOR PLANNING	03/07/15	SOB	SOB
Plan Description	Date	Chk	Chk

Revisions
Project
National Paediatric Hospital Project

Client
Dublin National Paediatric Hospital Development Board

Title
SATELLITE CENTRES, TALLAGHT HOSPITAL - TYPICAL LANDSCAPE - PLANTING DETAILS
Drawing No.
13130.06 / TH-HLM-A-DR-JX-ZB-9201
P3

Scale @ A2	Drawn
1:20	Jan Taylor
Date	Checked
02/07/2015	Simon Bell
PLANNING	

Coady Partnership ARCHITECTS

E: +44 (0)2890 445700
F: +44 (0)2890 445710
E: bell@hlmarchitects.com
W: www.hlmarchitects.com

architects landscape & urban design interior environment
Regional office: 10th Floor, Gateway Tower, 8-9 James Street South, Dublin, D12 6B4
London: Shadwell Glasgow Belfast Cardiff Plymouth Johannesburg Abu Dhabi

National Paediatric Hospital Project

Landscape Report - Connolly

CH-HLM-XX-Z0-RP-9001

Prepared for: National Paediatric Hospital Development Board

Prepared by: Simon Bell

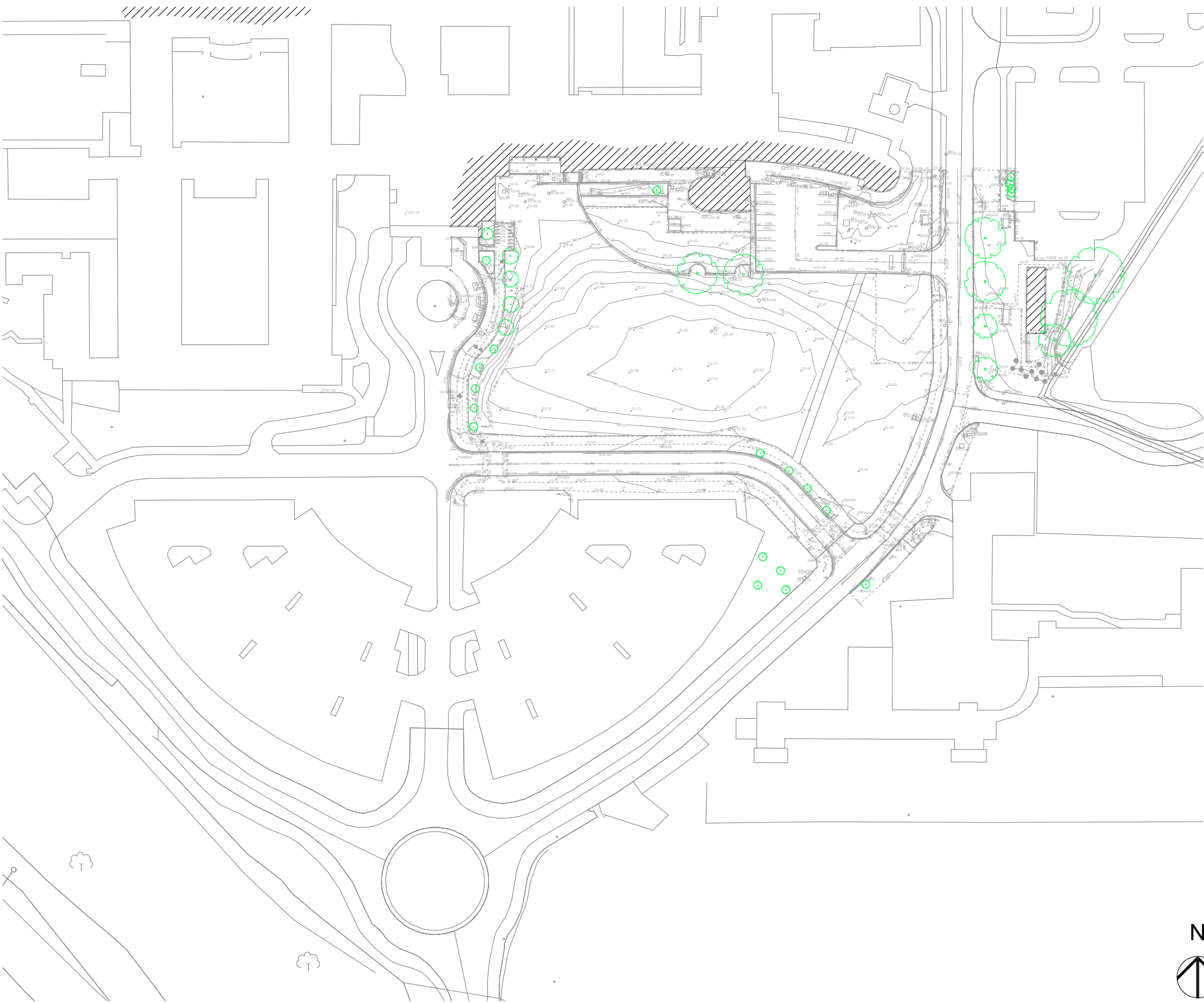
29th June 2015

Existing Site Condition

CONNOLLY HOSPITAL, DUBLIN

Connolly Hospital is a major teaching and health promoting hospital which provides a range of services including 24 hour Emergency Department, acute medical and surgical services, acute psychiatric services, long-stay residential care, day care, out-patient care plus diagnostic and therapeutic and support services to which the proposed Children’s Satellite Centre will be added.

The proposed site lies to the east of the existing main entrance on an area of open grass. An existing garden in the northern part of the site will be integrated with the new development.



Topographical Survey of Existing Site



View from southeast towards main entrance



View from south looking north



View from existing building looking south



View of existing garden

Landscape Proposals

The new building will be located to the east of the existing main hospital entrance on an area of grass partially used as a garden for the elderly care ward. The existing carparking and road network will be amended to provide 47no. additional carparking spaces.

ENTRANCE AND DROP OFF

The entrance on the west of the new building will be accessed from the existing main hospital set down and pick up area. A new entrance space will be created with informal seating, enhanced paving and planting. The levels have been designed to provide level access between the set down / pick up bays and the new entrance.

URGENT CARE ENTRANCE

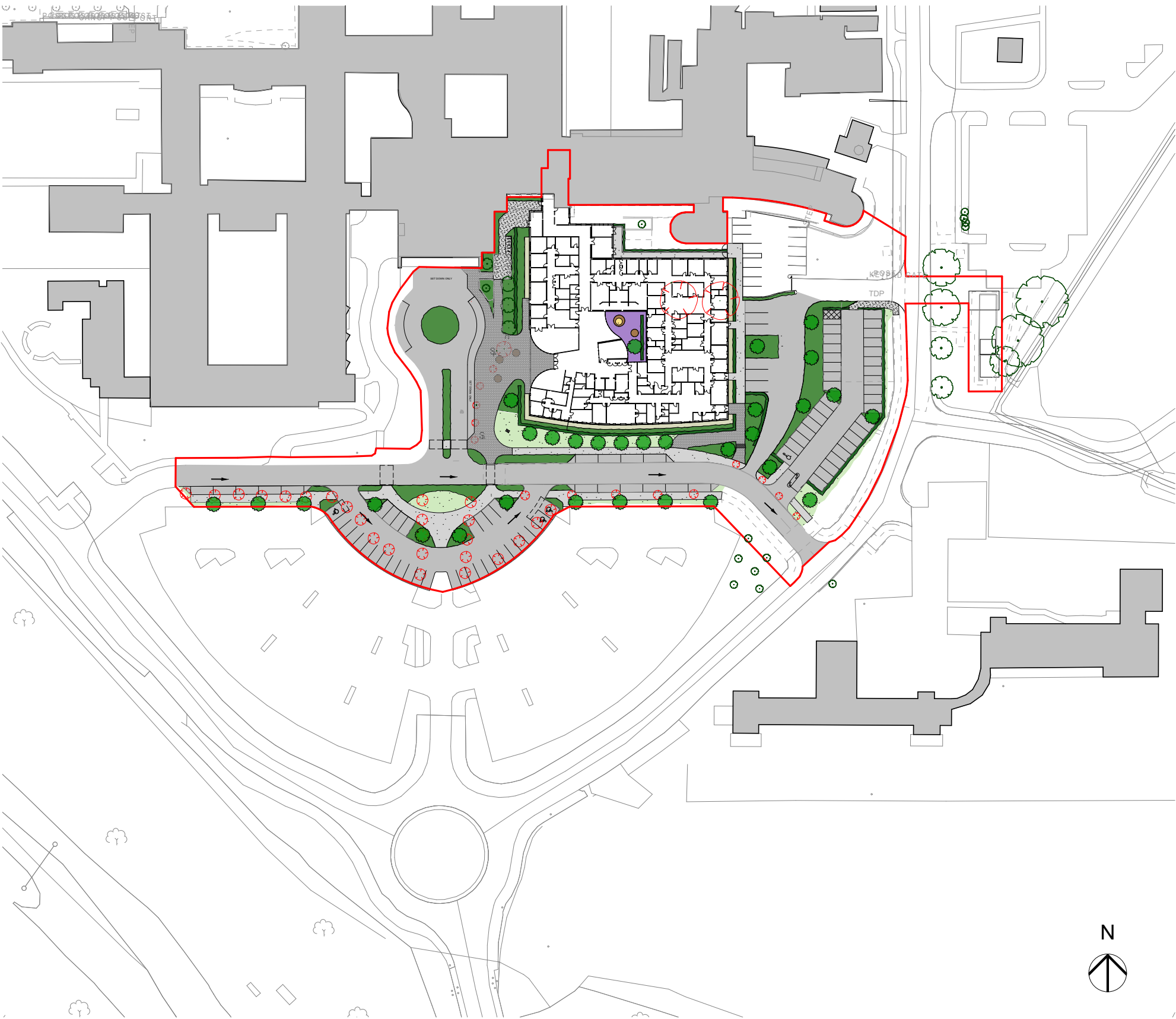
The urgent care entrance is located on the east elevation of the building adjacent to the ambulance parking area. A direct pedestrian route will be provided between the set down / pick up bays to the south of the building and this entrance. In addition to the gently sloping path a set of steps will also be provided including handrails and tactile paving.

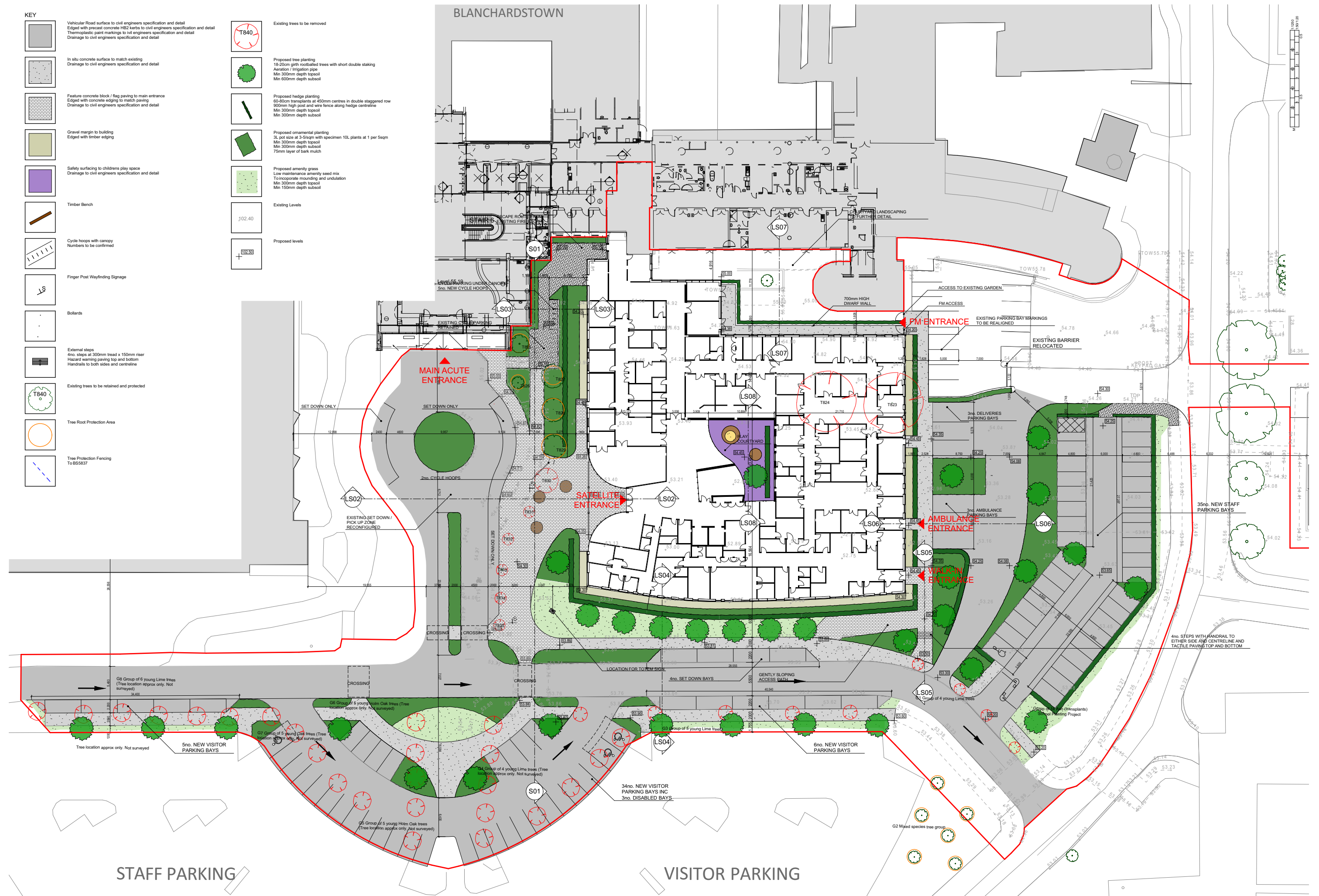
PLAY COURTYARD

A play courtyard will be provided accessed off the waiting area. The courtyard will be surfaced in colourful wet pour rubber surfacing including undulations to provide inspiration for imaginative play. An evergreen hedge to the back of the courtyard will provide privacy to the bedrooms. A small tree will provide a human scale as well as visual interest through the seasons. Sensory play equipment will be provided in the form of wall panels, sculptural elements and natural elements such as rocks, pebbles and sand.

THERAPY GARDEN

A horticultural therapy garden will be developed on the roof terrace at Level 02 as part of the CSAU. The garden will incorporate seating spaces, gardening spaces and opportunities to interact with the garden by growing plants, picking flowers, touching and smelling plants.





Hard Landscape Materials

SURFACES

The hard landscape materials have been chosen to support a hierarchy of spaces. In situ concrete footpaths will tie in with existing paths offering a robust and functional surface for general pedestrian areas. To highlight the entrances an exposed granite aggregate paving flag will be used in two colours to provide pattern and texture. These flags will also be used within the therapy gaardens at roof level supported on pedestals. The play courtyard will be surfaced in wet pour rubber surfacing in a range of colours, using mounding to create topography and a framework for imaginative play.

ENCLOSURES

New gates will be provided to the existing garden and to the FM access route along the north side of the building. These will be a louvred gate finished to match the colour of the metalwork on the building.

STREET FURNITURE

Seating will take the form of timber platforms. They will incorporate some back and armrests to enable use by all. Bollards will complement the building finishes in polyester powder coated steel. The wayfinding signage will be developed to integrate with the wider campus, however at this stage we anticipate the inclusion of finger post signage at key nodes to provide direction to the main hospital entrance, the childrens hospital entrance, the urgent care entrance and the carparking.

CSAU THERAPY GARDEN

The design of the therapy garden at Level 02 is to be developed in collaboration with the departments team. It will be an intensive roof garden, incorporating paving, seating areas, raised planters, potting area, a flower cutting area and a small shelter.



Precast granite aggregate concrete paving flags in silver grey and mid grey



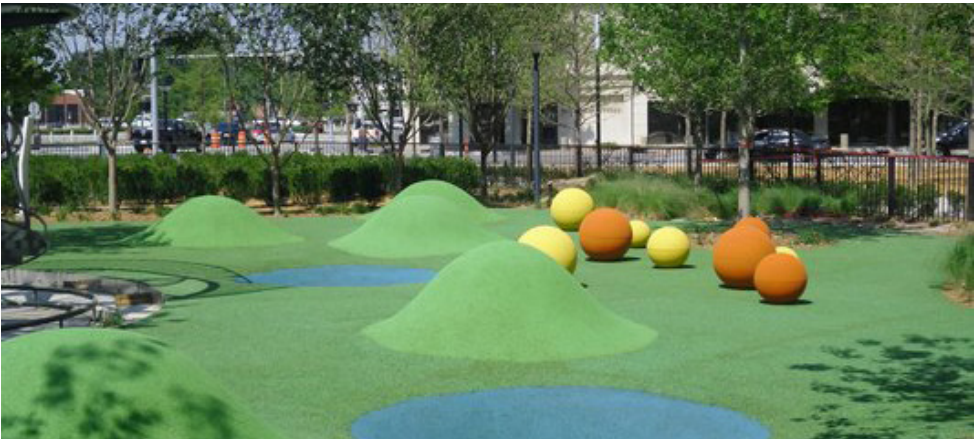
Timber seating platform



In situ concrete



Fingerpost signage



Wet pour rubber safety surfacing



Polyester powder coated steel bollard



Louvred gates



Example of a Therapy Garden



Willow shelter



Typical signage within Therapy Garden



Typical seating



A miniature garden in a pot



Raised beds



Mini greenhouse



Potting table

Soft Landscape Materials

TREES

Building frontage	Tilia x euchlora
Building Entrance	Prunus avium ‘Plena’
Play Courtyard	Acer palmatum ‘Sango Kaku’
Therapy Garden	Malus sp.

HEDGING

Building frontage	Fagus sylvatica
Play courtyard	Choisya ternata

ORNAMENTAL SHRUB & HERBACEOUS PLANTING

Building Frontage	Bergenia cordifolia
	Hydrangea arborescens ‘Annabelle’
	Pachysandra terminalis

THERAPY GARDEN PLANTING

The palette of planting for the therapy garden will be developed with the users and facilities management team to meet the needs of the horticultural therapy team.



Tilia x euchlora



Acer palmatum “Sango Kaku”



Malus domestica



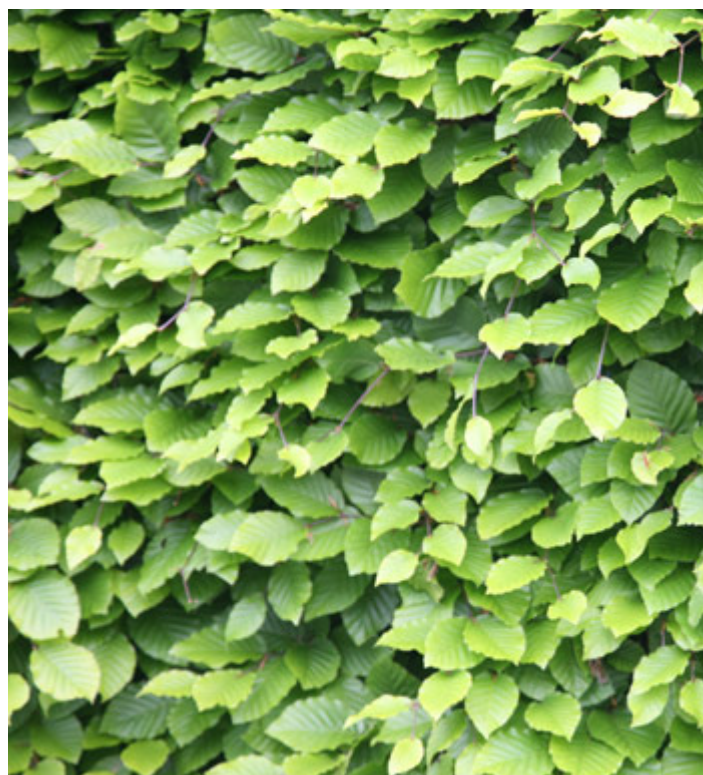
Prunus avium “Plena”



Malus Hopa



Malus domestica - detail



Fagus sylvatica - hedging



Bergenia cordifolia



Pachysandra terminalis



Hydrangea arborescens "Annabelle"



Choisya ternata - hedging



Examples of possible plants for use in a therapy garden

Soft Landscape Details

General Notes:

Trees may be container grown if works are carried out outside planting season.

Trees are to be supplied and handled in accordance with BS8545:2014

Topsoil and associated operations to comply to BS EN 12000:2015

Subsoil and associated operations to comply to BS EN 12001:2013

During excavation of the tree pit the soil dog should be placed to one side separating the topsoil and subsoil as far as practically possible.

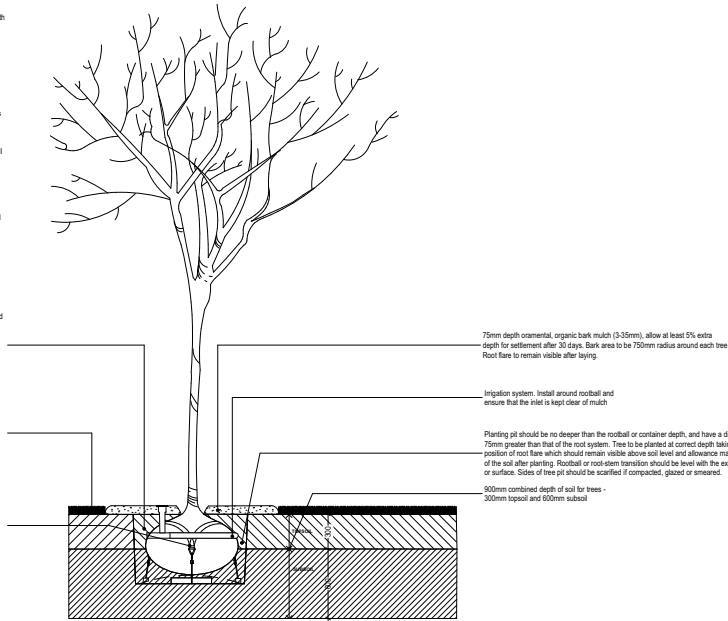
Backfill to tree pit should be added gradually in layers 150 - 230mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil. Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.

Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and hessian and twine should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed. Base of the planting pit should remain undisturbed unless there is poor drainage or compaction of soils. Tree pit should be saturated to field capacity immediately after planting.

Soils to be levelled, cultivated and seeded with grass seed as specified.

Underground geying system



Section - Tree with underground geying and irrigation system into grassed landscape.

General Notes:

Trees may be container grown if works are carried out outside planting season.

Trees are to be supplied and handled in accordance with BS8545:2014

Topsoil and associated operations to comply to BS EN 12000:2015

Subsoil and associated operations to comply to BS EN 12001:2013

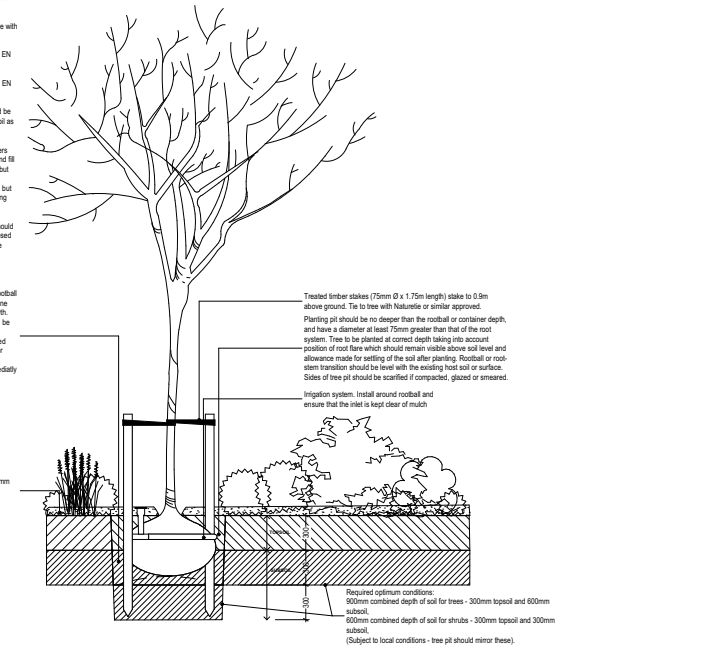
During excavation of the tree pit the soil dog should be placed to one side separating the topsoil and subsoil as far as practically possible.

Backfill to tree pit should be added gradually in layers 150 - 230mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil. Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.

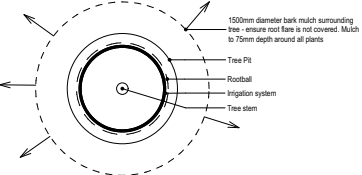
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and hessian and twine should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed. Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils. Tree pit should be saturated to field capacity immediately after planting.

Mixed shrubs - planted in 300mm topsoil with 300mm subsoil beneath. (subject to local conditions), with 75mm organic mulch



Section - Shrubs & Tree with double staking and irrigation system into soft landscape.



Plan - Tree with double staking and irrigation system into soft landscape.

General Notes:

Trees may be container grown if works are carried out outside planting season.

Trees are to be supplied and handled in accordance with BS8545:2014

Topsoil and associated operations to comply to BS EN 12000:2015

Subsoil and associated operations to comply to BS EN 12001:2013

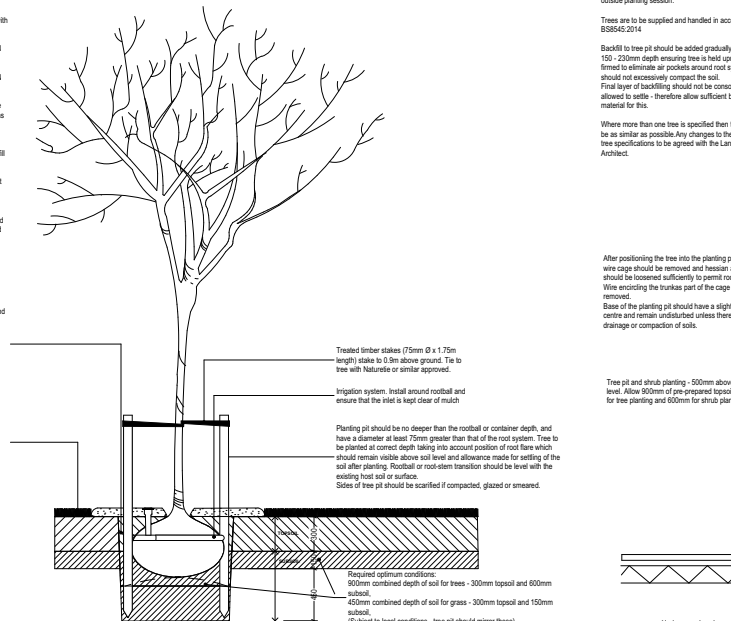
During excavation of the tree pit the soil dog should be placed to one side separating the topsoil and subsoil as far as practically possible.

Backfill to tree pit should be added gradually in layers 150 - 230mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil. Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.

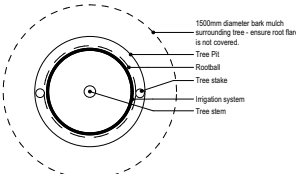
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and hessian and twine should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed. Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils. Tree pit should be saturated to field capacity immediately after planting.

Soil to be levelled, cultivated and seeded with grass seed as specified.



Section - Tree with double staking and irrigation system into grassed landscape.



Plan - Tree with double staking and irrigation system into grassed landscape.

General Notes:

Trees may be container grown if works are carried out outside planting season.

Trees are to be supplied and handled in accordance with BS8545:2014

Topsoil and associated operations to comply to BS EN 12000:2015

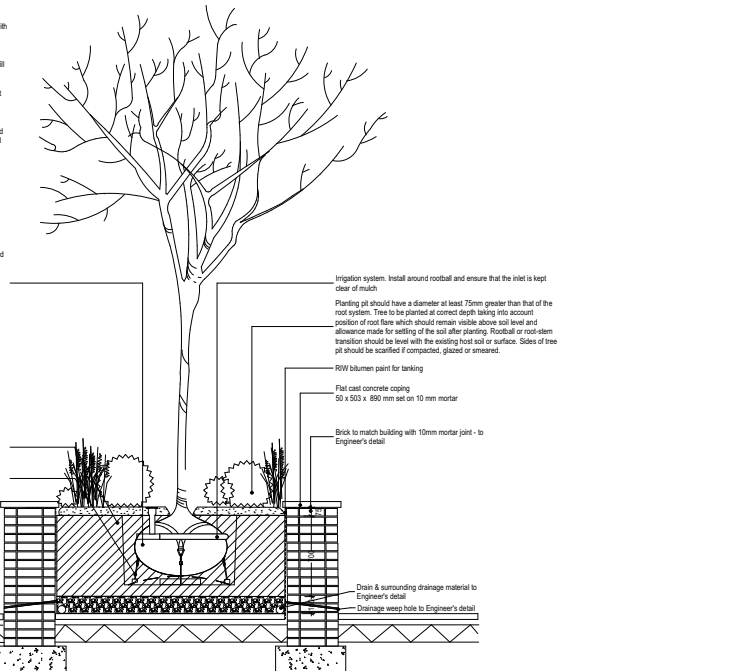
Subsoil and associated operations to comply to BS EN 12001:2013

During excavation of the tree pit the soil dog should be placed to one side separating the topsoil and subsoil as far as practically possible.

Backfill to tree pit should be added gradually in layers 150 - 230mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil. Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.

Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

Tree pit and shrub planting. Pre-prepared topsoil mix over 150 clean stone drainage material



Section - Planter into hard landscape with tree and shrubs.

General Notes:

Trees may be container grown if works are carried out outside planting season.

Trees are to be supplied and handled in accordance with BS8545:2014

Topsoil and associated operations to comply to BS EN 12000:2015

Subsoil and associated operations to comply to BS EN 12001:2013

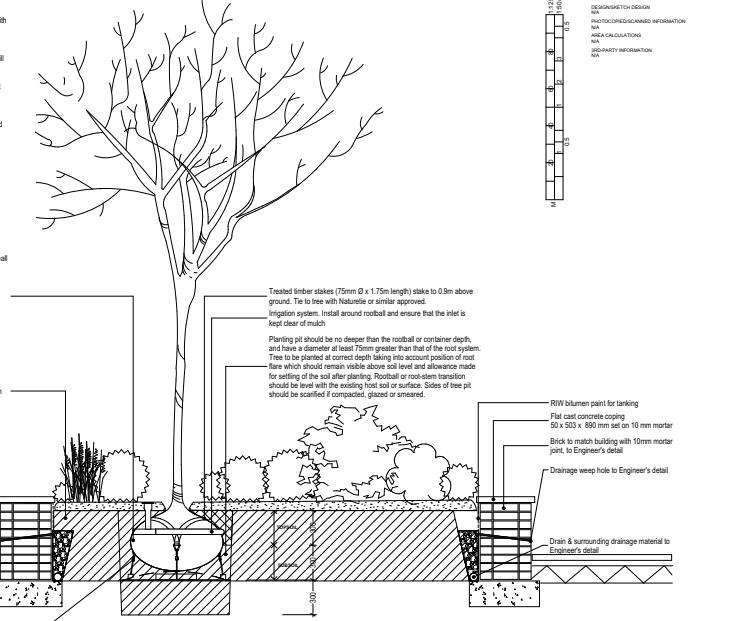
During excavation of the tree pit the soil dog should be placed to one side separating the topsoil and subsoil as far as practically possible.

Backfill to tree pit should be added gradually in layers 150 - 230mm depth ensuring tree is held upright, and fill firm to eliminate air pockets around root system but should not excessively compact the soil. Final layer of backfilling should not be consolidated but allowed to settle - therefore allow sufficient backfilling material for this.

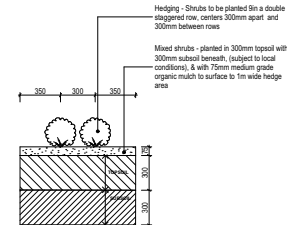
Where more than one tree is specified then they should be as similar as possible. Any changes to the proposed tree specifications to be agreed with the Landscape Architect.

After positioning the tree into the planting pit the rootball wire cage should be removed and hessian and twine should be loosened sufficiently to permit root growth. Wire encircling the trunks part of the cage should be removed. Base of the planting pit should have a slightly raised centre and remain undisturbed unless there is poor drainage or compaction of soils.

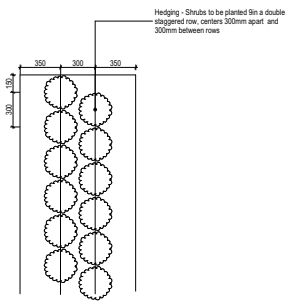
Tree pit and shrub planting. 500mm above paving level. Allow 900mm of pre-prepared topsoil the depth for tree planting and 600mm for shrub planting



Section - Planter into soft landscape with tree and shrubs.



Section - Hedge planting



Plan - Hedge planting

Notes

Check all dimensions on site. Do not scale from this drawing.

Respect any designations or warnings in HLM Architects.

This Drawing is Copyright ©

2015 HLM Architects

ALL RIGHTS RESERVED

NO REPRODUCTION OR TRANSMISSION

WITHOUT PERMISSION

IN ANY FORM OR BY ANY MEANS

Electronic or Mechanical

including photocopying, recording, or by any information storage and retrieval system

without prior written permission from HLM Architects

Any unauthorised use of this drawing is a breach of copyright

and will be prosecuted to the full extent of the law

For more information contact HLM Architects

020 7461 1111

www.hlmarchitects.com

hlm@hlmarchitects.com

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

020 7461 1111

Landscape Specification

NBS Code	NBS Section	Description	Location	Reason for Selection	Performance Criteria
Q10	Kerbs / Edgings / Channels / Paving Accessories				
	Precast Concrete Road Kerbs	HB2 / BN Kerbs including radius, dropper and corner units where applicable. Laid on accurately cast foundations on mortar bed with concrete haunching	Yards, Access Roads and Parking	Durable and suitable for heavy duty use	All kerbs To BS EN 1430, radius units to be used for radii less than 15m. All concrete for foundations and haunching to BS 8500-2, not less than GEN0 or ST1. Cement Mortar Bedding 1:3 Portland Cement: Sand mix.
	Precast Concrete Edgings	EF Edgings to inner edge of adoptable pedestrian footpaths at road frontage	Pedestrian footpaths	Durable and acceptable to Roads Authority	All kerbs To BS EN 1430, radius units to be used for radii less than 15m. All concrete for foundations, and haunching to BS 8500-2, not less than GEN0 or ST1. Cement Mortar Bedding 1:3 Portland Cement: Sand mix.
	Linear Slot Drainage Channel Systems	"Heelsafe" Linear slot drainage channel system including endcaps, outlets, sunp units and inspection units. Channels to be connected into stormwater drainage system as per civil engineers specification. ACO Drainage or equal and approved	Civic Space	Durable and discreet	Drainage channels with A15 loading grade to BS EN 124
	Linear Drainage Channel Systems with gratings	Linear drainage channel system with "Heelsafe" gratings including endcaps, outlets, sunp units and inspection units. Channels to be connected into stormwater drainage system as per civil engineers specification. ACO Drainage or equal and approved	Yards, Access Roads and Parking	Durable, easily maintainable and suitable for heavy duty use	Drainage channels with D400 loading grade to BS EN 124
	Road Markings (General)	White / Yellow Thermoplastic Road Markings as Civil Engineers Specification	Access Roads	Durable	In accordance with StanSpec
	Road Markings (Operational)	White / Yellow / Red / Blue Thermoplastic Markings to delineate operational parking / zones within yard.	Yards and Parking	Durable	In accordance with StanSpec
Q20	Granular Sub bases to roads / pavings				
	Granular Material for Vehicular Areas	See Civil Engineers Specification	Vehicular Circulation areas		See Civil Engineers Specification
	Granular Material for Pedestrian Areas	See Civil Engineers Specification	Pedestrian circulation areas		See Civil Engineers Specification
Q21	In-situ concrete roads / pavings				
	In situ concrete surface (pedestrian)	In Situ concrete paving incorporating movement / expansion joints with brushed finish incorporating smooth trowelled margin.	General pedestrian footpaths	Durable, robust, hard wearing surface	Concrete to BS 8500-2, resistant to freeze / thaw attack, resistant to effects of deicing salts. Slip resistance suitable for pedestrian paving areas
Q22	Asphalt roads / pavings				
	Asphalt surface (vehicular)	See Civil Engineers Specification	Access Roads / Parking	Durable and acceptable to Roads Authority	See Civil Engineers Specification
	Asphalt surface (pedestrian)	See Civil Engineers Specification	Adoptable footpaths	Durable and acceptable to Roads Authority	See Civil Engineers Specification
Q23	Gravel / Hoggin / Woodchip / Resin Bound Roads / Pavings / Overlays				
	Loose Gravel	50mm deep 14mm silver grey granite gravel laid on weed suppressing membrane over granular subbase. CED Natural Stone or equal and approved	Drainage margins to building	Durable, free draining, easy to maintain	Hard wearing gravel not prone to breaking down.

NBS Code	NBS Section	Description	Location	Reason for Selection	Performance Criteria
Q25	Slab / Brick / Sett / Cobble Pavings				
	Concrete Slab Paving System	600x300x60mm silver grey granite aggregate paving laid on sand bedding over granular subbase. Tobermore Fusion or equal and approved	Entrance areas and courtyards	Durable, high quality, easy to maintain, long life expectancy	Concrete Slab Paving System to BS 7533-4 suitable for pedestrian / vehicular overrun trafficking. Tactile flags to DD CEN/TS 15209. Slip resistance value of 40 or better to BS 7932
	Concrete Slab Paving System	600x300x60mm silver grey granite aggregate paving laid on pedestals. Tobermore Fusion or equal and approved	Roof Terraces & Gardens	Durable, high quality, easy to maintain, long life expectancy	Concrete Slab Paving System to BS 7533-4 suitable for pedestrian / vehicular overrun trafficking. Tactile flags to DD CEN/TS 15209. Slip resistance value of 40 or better to BS 7932
	Tactile Slab Paving System - Crossings	400x400x50mm deep buff coloured concrete flags laid on proprietary mortar bed over concrete base on granular subbase with 5mm proprietary mortar jointing	Pedestrian Crossing Points	Durable, easy to maintain.	Concrete Slab Paving System to BS 7533-4 suitable for pedestrian / vehicular overrun trafficking. Tactile flags to DD CEN/TS 15209. Slip resistance value of 40 or better to BS 7932
	Tactile Slab Pavign Systems - Steps	400x400x50mm deep buff coloured concrete flags laid on proprietary mortar bed over concrete base on granular subbase with 5mm proprietary mortar jointing	Top and Bottom of External Steps	Durable, easy to maintain	Concrete Slab Paving System to BS 7533-4 suitable for pedestrian / vehicular overrun trafficking. Tactile flags to DD CEN/TS 15209. Slip resistance value of 40 or better to BS 7932
Q26	Special Surfacing / Pavings for Sport / General Amenity				
	Wet pour rubber safety surfacing	We pour rubber safety safety surface - 2 colours	Play Courtyard	Provision of fall protection	To BS 7188
Q28	Topsoil, growing media and ameliorants				
	Imported Topsoil	Multipurpose topsoil, 300mm deep for all planted areas over min subsoil depth as defined on drawings	All planted areas and treepits	Guaranteed quality of topsoil to ensure healthy plant growth	To BS 8332
	Sanitized and Stabilized Compost	Compost resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth	All planted areas and treepits	Guaranteed quality of compost to ensure healthy plant growth	In accordance with PAS100 and BSI PD CR 13456.
Q31	External Planting				
	Tree Planting	Irish Grown Trees, sizes as per plant schedule, planted in tree pits as described below	External areas	To provide screening and enhance biodiversity	In accordance with National Plant Specification
	Bulbs	Sizes as per plant schedule	All planted areas	To enhance biodiversity	In accordance with National Plant Specification
	Container Grown Plants	Irish Grown plants, sizes as per plant schedule, planted in cultivated soil as described below	All planted areas	To provide screening and enhance biodiversity	In accordance with National Plant Specification
	Climbing Plants	Irish Grown plants, sizes as per plant schedule, planted in cultivated soil as described below	Therapuric Garden	To provide screening and enhance biodiversity	In accordance with National Plant Specification
	Hedges	Irish Grown plants, sizes as per plant schedule, planted in cultivated soil as described below. Planted in double staggered row at 450mm centres with post and wire fence for support	Civic Space	To provide screening and enhance biodiversity	In accordance with National Plant Specification

NBS Code	NBS Section	Description	Location	Reason for Selection	Performance Criteria
	Cultivation	Loosen, aerate and break up soil into particles of 2-8mm to full depth of topsoil when ground conditions are suitably dry. Remove weeds and debris. Incorporate compost.	All planted areas	To ensure healthy establishment of all planting.	In accordance with HTA, Handling and Establishing Landscape Plants
	Mulching	75mm deep coarse bark mulch	All planted areas	3 year life cycle	
	Tree Pits (Soft Landscape)	1100mm deep treepit with root barrier where trees are close to services / drainage, aeration pipe, irrigation pipe and short double staking	Boundaries	To ensure healthy establishment of trees	
	Tree staking	Stakes driven at least 300mm into bottom of pit. Cut stakes to 600mm above ground level. Firmly fix crossbar on windward side close to stem. Secure tree firmly to cross bar with tree tie	Boundaries	To ensure healthy establishment of trees	
	Underground guying	Proprietary underground guying system suitable for use on roof gardens	Therapy Garden	To anchor trees securely	
Q40	Fencing				
	General Pattern Strained Wire Fencing	900mm high strained wire fence with timber posts at 1500mm centres driven into the ground before planting the hedge	Hedge Planting	To ensure healthy establishment of hedge	To BS 1722-2 Type SW900
Q41	Barriers / Guardrails				
	Handrails	Stainless steel handrail to both sides of steps.	Steps	Durable, robust, low maintenance	To BS 8300
Q50	Site / Street Furniture / Equipment				
	Bollards	150x1100mm polyester powder coated steel bollard fixed below ground to concrete foundation. Marshalls or equal and approved	Civic Space	Durable, robust, low maintenance	
	Removable Bollard	150x1100mm removable polyester powder coated steel bollard set in recessed lockable socket fixed below ground to concrete foundation. Marshalls or equal and approved	Civic Space	Durable, robust, low maintenance	
	Cycle Stands	Sheffield style stainless steel cycle hoop fixed below ground to concrete foundation. Marshalls or equal and approved	Civic Space	Durable, robust, low maintenance	
	Benches	Timber & steel bench seat 2000x500mm fixed to paving with countersunk bolts. Marshalls Loci or equal and approved	Civic Space	Durable, robust, low maintenance	
	Litter Bins	Steel litter bin fixed below ground to concrete foundation. Marshalls Loci or equal and approved	Civic Space	Durable, robust, low maintenance	
	External Lighting (General)	See M&E Engineers Specification	Civic Space / Access Road / Parking		See M&E Engineers Specification

NBS Code	NBS Section	Description	Location	Reason for Selection	Performance Criteria
	External Signage	Information panel / Finger post. Marshalls Loci or equal and approved	Civic Space / Access Road / Parking		

