Wayfinding Report:

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Wayfinding for University Hospitals Bristol NHS Foundation Trust

Part 2:
Wayfinding Strategy Document

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Contents

Introduction

The following document outlines the proposed Wayfinding Strategy for University Hospitals Bristol (UHB) and The Bristol Royal Infirmary (BRI). The Strategy has been developed in-line with observations made during our on-site analysis and is based upon our findings and recommendations as outlined in earlier reports. It is backed by scientific research, our own extensive experience and supported by recognised best demonstrated practice.

A   The Wayfinding Strategy Document

1   Aims and Objectives

It is the aim of the Wayfinding Strategy to deliver the right information in the right place at the right time. Our goal is create an intuitive environment that appears straightforward and logical to the user whatever their age, level of experience or ability.

Our aim in developing this strategy was to deliver a solution that can be easily recognised and followed effectively by all users without any previous knowledge of UHB/BRI or any other Hospital environment. The solution is also suited to those with learning difficulties, age related illness or other cognitive impairments.

To achieve our goal, we will aim to simplify the existing situation wherever possible and present the environment in a manner that is most meaningful to the majority of users. We will reduce complexity by removing the reliance on clinical terminology as the primary Wayfinding element, replacing it with logical and intuitive systems based on social norms. This will enable the user relate more easily to the site, therefore providing them with the logical understanding of the Hospital that they need to confidently navigate their way around.

As well as considering the users conscious needs the Strategy will present the information in a manner that will harness the sub-conscious cognitive processes concerned with navigation and use them to best effect.

The new Wayfinding Strategy will enable us to realise one of our key objectives, by helping users to orientate themselves more effectively within the space. This will allow all users a more straightforward navigation from any point of entry to any given location inside the hospital, before moving on to their next destination, or exit via the most appropriate route.

We aim to improve the image and reduce the perception of complexity by reducing the number of signs and removing excessive visual noise. The result will be a cleaner environment free from distraction. This will significantly reduce disorientation and allow important information to be more easily seen.

It is our Clear recommendation that the solution be supported by effective management at a senior level, to provide firm control over exactly what is allowed on display. As a result the environment will stay clutter free and the information will remain current.

2   Important Considerations

The strategy has been developed with the following key user and operational considerations in mind.

2.1   Flexibility

It is our understanding that the site will be subject to continued re-development and reconfiguration over the next few years. It is out aim to deliver a solution that will remain current for the long-term. The implications for future change have been fully considered and we believe the Wayfinding Strategy offers a solution that will not only works effectively under current and planned changes, but will have the capability and scope to cope with all changes as and when they happen long into the future.

2.2   Minimum Impact on Staff Wayfinding

The strategy delivers a solution that will simplify the patient wayfinding process without affecting the way staff or experienced users understand the site. The strategy does not aim to change the names by which departments are currently known, or their locations. The Hospital's main entrances will also retain their current status and location thus retaining familiar landmarks for staff and experienced users.

2.3   Cost Effectiveness

We believe the strategy will meet both the short-term and long-term needs of the Hospital in a manner that is cost effective to install, manage and maintain. Once installed, the strategy will require minimum upkeep and little revision even in the event of department re-location or site re-development.

2.4   Sign System Practicalities and Flexibility

For both internal and external signage we propose the use of a flexible sign system. A flexible solution will allow individual panels to be removed, updated or changed more easily. It will also allow additional information to be incorporated at minimal cost should it be required.

The use of a sign system will allow information to remain ordered, concise and confined to the smallest number of points. It will also ensure that any changes are carried out at minimum effort and cost to the Trust.

2.5   User Perception and Understanding of UHB/BRI

The strategy has been designed so that the information provided will reflect the way users from the wider community currently understand and relate to the UHB/BRI site. Essentially as, a large multi-level General Hospital building containing a number of Wards and Department,s linked by a network of connecting corridors. The main Hospital building is part of a larger Hospital campus which includes a number of specialist functions contained within separate peripheral buildings either side of the main road.

The strategy had been developed in consideration of all users, no matter what their level of experience. The solution will support the first time user, allowing them to orientate themselves effectively. By avoiding any change to existing department names we will provide comfort to the experienced users so they can quickly relate the new strategy to their existing cognitive map.

2.6   User Orientation

The proposed strategy has been designed to aid user orientation, currently a major cause of confusion. The signage and information on display throughout the Hospital will be designed to allow the user to immediately orientate his/herself at any given place in the hospital and on any floor so there will be no doubt as to the direction they must move in to reach their destination.

2.7   Appointment Letters

The strategy has been designed to link effectively with the patient appointment letters and all other information used to assist pre-journey planning and on-site navigation.

The necessary information required to understand the Wayfinding Strategy can be explained in few words and can be easily incorporated in all appointment letters using a universal format. This will help UHB/BRI maintain complete consistency across all aspects of the strategy. This will remove the need for departmental involvement thus saving staff time and preventing incorrect or outdated information from being sent out.

3 The Wayfinding Strategy – Structure

For The individual Hospital buildings with specific identities, the strategy is focussed on clear external identification, with the internal spaces broken down into numbered locations. However on this occasion due to the size of the buildings there is no need for the space to be broken down into further sub-divisions.

In the larger multi-block complex (BRI) the space has been logically sub-divided into a system of easily recognised geographical "Zones" or "Areas", based on historic boundaries to assist staff and more familiar users. Therefore reducing the information required to reach any destination, while making full use of our natural navigation processes.

3.1 Structure Plan

3.2 BRI Zoning Strategy

The "Main Hospital" or BRI, (considering public/user perception and understanding of the site) has been divided into five geographical zones. In addition to this, the remaining Hospital buildings are more logically identified as individual buildings (single geographic zone) by virtue of their primary discipline which based on a clear function which is easily recognised and understood by users from the wider community.

BRI Zoning Only

(i)   Zone/Area A
Incorporating current Queens Building, New Terrell Street Ward Block and Dermatology

(ii)   Zone/Area B
Incorporating current Bristol Haematology and Oncology Centre

(iii)   Zone/Area C
Incorporating currnet Bristol Heart Institute

(iv)   Zone/Area D
Incorporating current King Edward Building

(v)   Emergency Department (designated Zone by virtue of its position within the Hierarchy)
Incorporating current Emergency Department (Consider duel identification for this department with the re-introduction of A&E).

The geographic zones/areas have been identified in such a way for the following reasons

- System is consecutive which will aid user orientation
- Single sign panel can be used for multiple destination therefore reducing the need for hardware, reducing cost, complexity and the impact of visual noise
- Removes the need to use colour or to introduce further systems therefore the signage will remain consistent
- Identification will not be confused with other elements of the Wayfinding Strategy
- The letter used to identify the zone can be used as a prefix to department numbers therefore reinforcing the identity of the current zone.
- There is no reliance with other elements i.e. colour to define the geographic areas therefore minimising sign complexity to improve clarity and understanding.
- When accessed from the BRI's Main Entrance the zones run consecutively.
- All BRI zones can be easily accessed via all existing individual building entrances by means of internal link corridors and the strategy has been designed to reinforce this message to reduce visitor stress, provide comfort and promote the new Main Entrance as the default means of access for all first time and unfamiliar users..

The zones are arranged in alphabetical order from the main site entrance. This will allow for the internal zone direction signs to appear in alphabetical order therefore appearing more logical to the user.

The size and position of the zones has been planned in consideration of future site development so that they will remain both manageable and relevant even in the event of significant expansion.

Directions to toilets, shops and other facilities will only be given within the zone to which they are located therefore ensuring the signs remain consistent and uncomplicated.

3.3 Information Hierarchy

The success of the Wayfinding Strategy depends on strict control being maintained over the information hierarchy and how it is put into practice on site.

The hierarchy of information has been divided into four levels (See below).
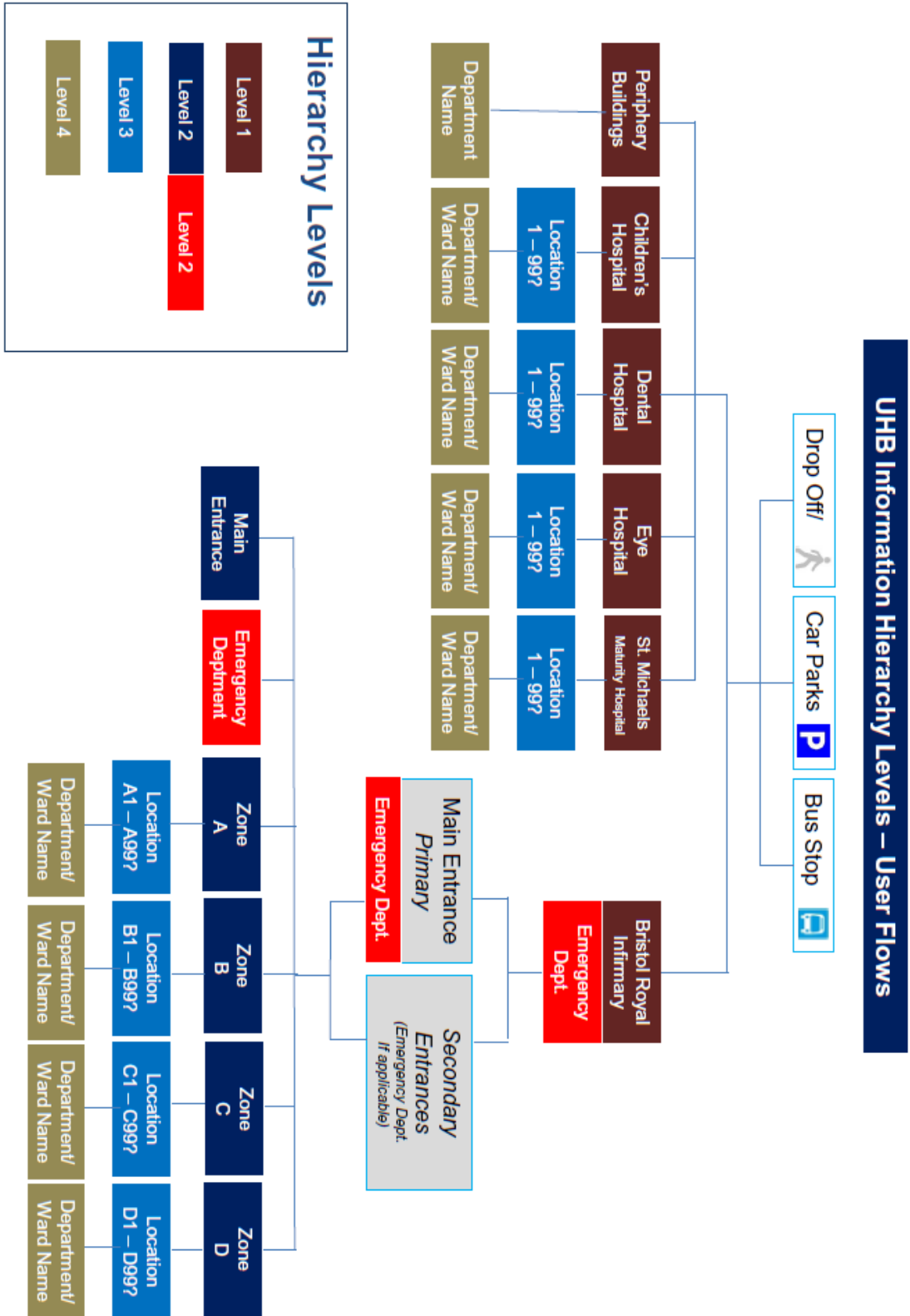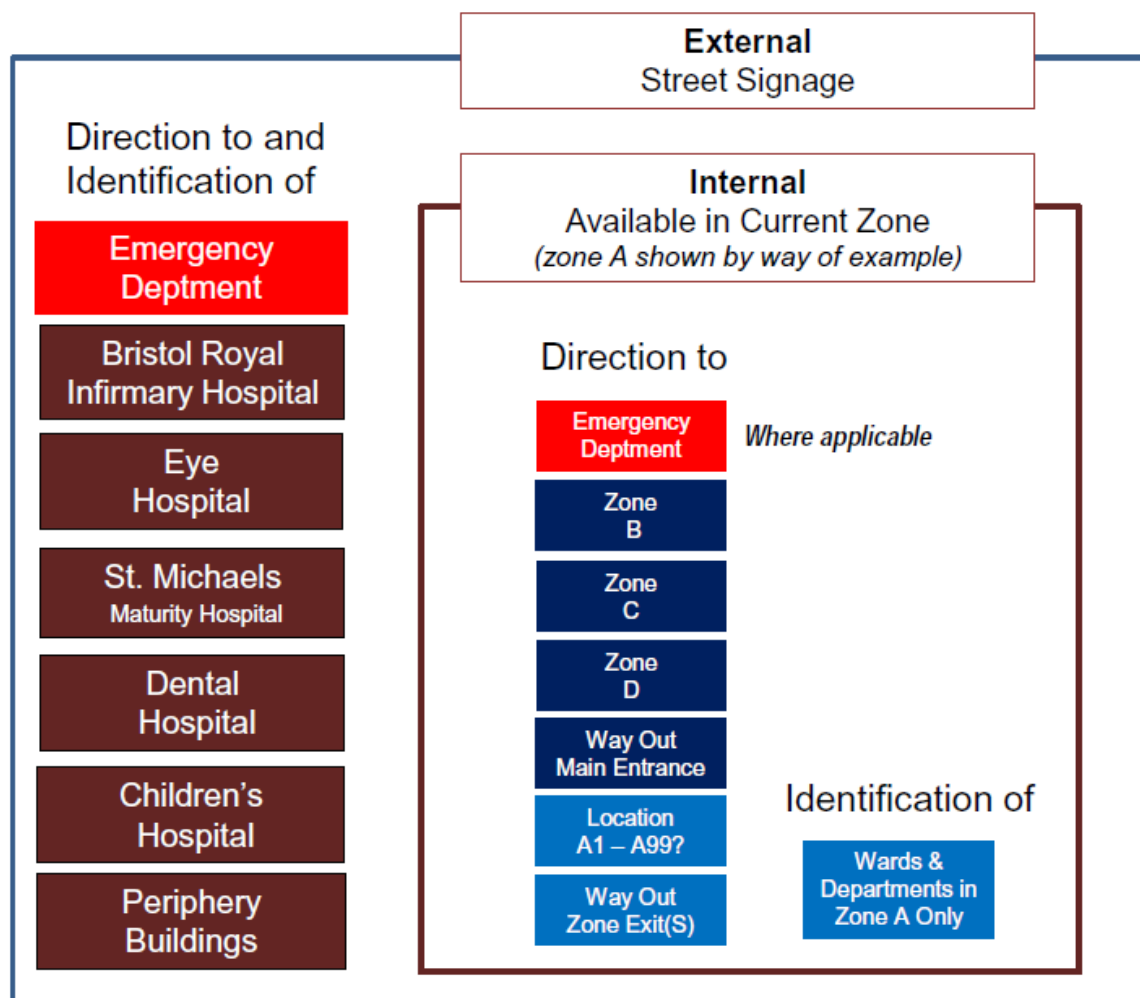
It is important that level 4 information is only visible within the specific level 3 area to which it corresponds. For example, direction signs for departments located in Zone A should only be available inside Zone A and not in any other level 3 Zone.

"Emergency Department" has been designated a level 3 zone in recognition of its importance within the Hospital Hierarchy and by virtue of the fact that it must be identified to the user at the site entrance.

Although situated within Zone A, "Main Entrance" has been designated level 2 within the hierarchy because of its importance as a major destination for the majority of patients/visitors arriving at the Hospital, as a result of bus and taxi drop off points etc. There is an important need therefore to offer direction to it from outside of its immediate zone.

The model below Illustrates the information on Display in each of the given Geographic Zones/Areas

Availability of Information on Display

External
Street Signage

Direction to and Identification of

- Emergency Deptment
- Bristol Royal Infirmary Hospital
- Eye Hospital
- St. Michaels Maturity Hospital
- Dental Hospital
- Children's Hospital
- Periphery Buildings

Internal
Available in Current Zone
(zone A shown by way of example)

Direction to

- Emergency Deptment — *Where applicable*
- Zone B
- Zone C
- Zone D
- Way Out Main Entrance
- Location A1 – A99?
- Way Out Zone Exit(S)

Identification of

- Wards & Departments in Zone A Only

3.4   Department Identification and Direction

The naming of all Departments will be replaced by a sequential numbering system, with each department allocated a number prefixed with a letter corresponding to the zone to which it is located.

For example Zone A may contain Locations/Departments A1 – A40? (inclusive) and Zone B may contain Locations/Departments B1- B30 (inclusive). The total number of locations/departments will depend on the size of the area. However the total number of Locations/departments will not exceed two figures in any zone.

Location/department Identification number will take place by clear consistent and visible marking orientated towards the user in all directions of approach so that they can be easily seen.

Upon arrival at the entrance to a location/department the number allocated will be displayed alongside the names of the department, ward or unit based within.

The Name of the department(s) located at a particular location will be displayed in full at the door or entrance. In the case of multiple departments/units occupying the same space/reception then all names will be displayed.

By introducing such a system we will remove from the navigation process all the complexity associated with department naming and the errors and frustrations created by clinical terminology. Instead of being asked to find *"Cardiology Mon CAR/CPX located at "BRI OPD Level 5 in the Bristol Heart Institute"* patients will simply be asked to find *"Department C10 inside Zone C".*

In line with the important considerations the solution provides an effective and recognisable pattern from which the users can orientate themselves and therefore instantly recognise which direction they must travel in order to reach their destination. If they require department A20 and they are stood near A14 they will know they must walk past A15, A16 and A17 etc. to reach it. If they are looking for A3 they will know they must head the other way.

The letter prefixing the department number will not only serve to reinforce the identity of the current zone but will instantly show anyone stood near D14 but looking for A10 that they must first find Zone A before they can start looking for their department.

The numerical system of identification allows us to future proof the scheme. With careful planning we can anticipate all the possible additions that will be required as a result of future expansion or re-development thus avoiding a situation where additional departments will need to be identified out of sequence (i.e In the case of a motorway where the addition of a new junction results in its identification as for example "21A") In the case of The locations/department inside UHB/BRI there is plenty of scope to build additional numbers into the system for future because if the numbers are not assigned to a live ward or department then they simply act as an additional prompt as part of the strategy rather than marking a destination.

A numerical system has been chosen for department identification for the following reasons
- Departments accessed along each corridor and on each floor will identified by numbers that run consecutively which will aid user orientation
- Single sign panel can be used for multiple destination therefore reducing the need for hardware, reducing cost, complexity and the impact of visual noise
- Will not be confused with other elements of the Wayfinding Strategy

3.5   Ward Identification and Direction

In-patients at UHB?BRI are currently admitted to beds located in a mixture of wards, units and departments depending on the purpose of their visit. No longer is it the clear case that all in-patients will be treated on a "Ward". Therefore in absence of any clear reason to the contrary, and in order to reduce complexity and minimise materials and cost all end destinations should be identified in the same way and marked by department numbers.

Ward names can be retained, but as in the case of departments, they will not be used for navigation and will only be identified upon arrival. As with departments Wards would normally be able to retain their current names, however in the case of UHB?BRI many of the existing wards are identified by numbers i.e Ward 17. This will create a conflict with the new department numbering strategy. For this reason the current system of identification will need to change. We propose that one of the following options be adopted for Ward identification

1. Replace current Letter/number with a short simple or distinctive name that can be easily retained in memory, i.e. "Oak Ward" or "Beech Ward"   It would also be favourable if all ward names followed a theme. In the names above we have used British trees as an example. The advantage for this method of identification are as follows:
   a. The name can be retained should the Ward move location
   b. Naming may be considered by some as more "friendly"

2. Retain numbers for ward identification, but make sure they correspond with the new department location numbers. This is the most favourable option because the name will directly match the location offering a significant benefit to visitors who will only need minimal information to find their goal. However, if a ward should change location, its name would need to change to match its new location.

By including all wards and departments within a single system for navigation we are once more easily able to apply ward names to all in-patient areas, even when housed in units or departments. This will significantly benefit those visiting as the more familiar term of "Ward" can once more be used. This is possible because we can easily explain through frequent and comprehensive "Information Points" (Explained below) that the ward name must be cross referenced with a location or Department number for the purpose of navigation.

3.6   Information Points

The department numbering system will be supported by strategically located information points clearly positioned at all entrances and junctions (see below).
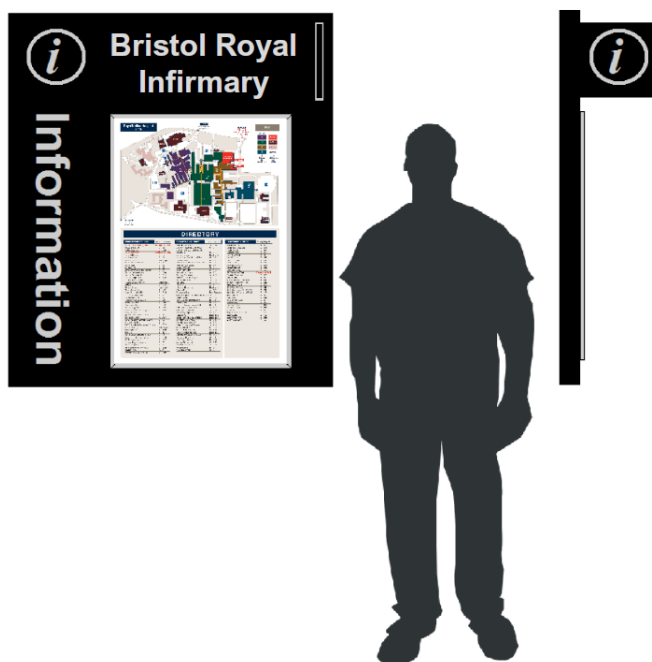
The purpose of these information points is to act as reassurance by displaying the names of all Wards/In-patient areas and Departments in alphabetical order. Each department name will be cross referenced with the zone in which it is located and the department number by which it is identified.

The purpose of the departmental numbering system is not to stop department names being used between staff, but to remove the complexity from the patient/visitor wayfinding strategy.

In recognition of the different requirements of patients and visitors and the fact that visitors will be the most likely users of such information, both In-patient Wards and Departments will be listed separately so those who are visiting friends and relatives are not required to look through a full list of departments.

The information Points can be clearly configured to recognise the significant differences faced by visitors and Patients when navigating.

Information points will include digitally printed material that can be easily and cost effectively replaced should a department change its name or location.

3.7   Demarcation of Site Entrances

We feel the clear demarcation of building entrances is important especially considering the location of the Emergency Department. It is also important to show users, who in the majority of cases will be entering via the "Main Entrance" that they have done so. This is important as this will give them certain expectations of access, from which their understanding of the rest of the wayfinding strategy will follow.

It will also provide a clear landmark to head for when exiting. Strong identification of the Main Entrance is especially important to first time and unfamiliar users as it will help them understand the site more easily.

The information provided at each entrance will provide clear indication of what "Zones" or "Areas" are available from that point of access. This is particularly important as the user is made immediately aware there is a zoning in strategy in place. It also provides reassurance that access (or not) is available to the zone they require from that particular entrance.   This is particularly important at UHB/BRI because whichever entrance the patient/visitor arrives at will probably provide the most direct access to the ward, department or clinic they require.

University Hospitals Bristol

NHS Foundation Trust

NHS

St. Michaels Hospital Main Entrance

Parents' residential accommodation

Parents' residential accommodation

St Michael's Hill

St Michael's Hospital

BRI Entrance Zone B

Clifton City centre

Trenchard St 100 metres

M5

P

A38

A38

Levins Mead

Rupert Street

Children's Hospital Main External Entrance

BRI Main Entrance & Zone A

Children's Hospital (BRHC)

BRI Entrance Zone A (Physiotherapy)

NCP

Education Centre

Above & Beyond

Chapter House

Dental Hospital

Eye Hospital

New Terrell Street Ward Block

BRI Queen's Building

BRI King Edward Building

Bristol Heart Institute (BHI)

BRI Entrance Zone C

College Place

Alfred Place

Alfred Hill

Upper Maudlin Street

Marlborough Hill

P

MAT

P

P

P

Southwell Street

Park & Ride bus stops

902
903
904

Whitson Street

BRI Old Building

BRI Entrance Zone D

Trust Headquarters

Eugene Street

Facilities & Estates

BRI Entrance Zone A (Dermatology)

Maudlin Hill Place

Marlborough Hill Place

Marlborough Hill

Eye Hospital Main External Entrance

Bus station

Eden Street

Marlborough Street

Dental Hospital Main Entrance

Montague

Montague

South

P

St James Barton 50 metres

NCP

BRISTOL SHOPPING QUARTER

M32 M4

Temple Meads

Legend

- 🅿 Drop-off area
- ✷ Entrance
- 🅿 Disabled parking (limited)
- P&R Hospital Park & ride (to BHOC)
- P Parking
- ↓ One-way traffic direction
- 🚫 No entry
- Free hospital bus
- 902 Park & Ride bus stops
- ◼ Taxi rank

3.8   Parking Restrictions

UHB/BRI does not possess sufficient parking to meet the demand of all users. The Trust car parks which are available are small and fragmented. As a result much reliance is placed upon City Centre parking. As a result parking cannot be exclusively allied to Hospital "zones" and patients/visitors are unable to pre-plan where they will be able to park.

Furthermore it would be too complex to provide directional support for all possible car parks from within the Hospital. Therefore, to help patients/visitors return to their cars it is even more important that the strategy properly reinforces the point at which they enter the hospital in their memory.

3.9   Level Indication

It is vitally important for the Human Navigation process and effective orientation that the user is able to associate a clear and constant "Ground Floor" or Street level, which they can then relate to the Way Out and fresh air.

Within a complex multi-level environment it is far easier for users to orientate themselves if the term "Ground Floor " is used rather than a purely numerical system, (even if plus and minus numbers are used to indicate the current levels position in relation to street level).

As we have seen in the earlier report, any failure to offer a clear reference to Street level will result in disorientation. Therefore for the purpose of level identification the universal system of Ground Floor, First Floor, Second Floor and Third Floor etc. will be adopted throughout the Hospital and in all buildings.

To further reduce disorientation and to avoid the common wayfinding mistakes associated with levels (i.e. assuming continued access through all zones on all floors) we aim to remove the reference to floors from all wayfinding support.

Instead of the destination being referenced to a Floor in appointment letters and on directories (as is currently the case) this information will only be given on a need to know basis as the user progresses through the sign trail.

For example in the new Wayfinding Strategy, Patients /visitors will simply follow signs for a given destination and if their journey requires them to move from one floor to another they will be directed towards the appropriate lift/stairs at which point they will be told which floor they need to move to in order to continue their journey.

If the user has no up-front knowledge for the level they require they will be less likely to make the kind of mistakes that are currently commonplace at UHB/BRI

3.10   Entrance, Exit and Way Out.

The term "Way Out" will only be used near to the end of a sign trail when it provides the best possible route to all major exit points and car parks.

In major corridors and central areas the term Way out will be associated with an identified point of entry i.e. **"Way Out (Main Entrance)"** or important links to onward Journeys i.e. Bus Stops.

3.11   Peripheral Buildings

Of the many buildings comprising UHB/BRI there are a number of none clinical administration or service related buildings that cannot be logically linked to the "Main Hospital". These buildings will be included in the sign strategy as "Buildings" and consecutively numbered in respect to their proximity to the BRI Main Entrance. The majority of these buildings are access restricted and will not be entered by patients therefore they will not form part of the patient /visitor Wayfinding

Strategy. Each of these buildings will be so numbered that they appear logical and easy to identify from a site map.

3.12   Service Area & Deliveries

Special Consideration will be given to the Service areas and delivery points so that delivery vehicles can be easily directed to the correct location. This will be achieved by means of dedicated on site direction for delivery vehicles and individual identification of delivery points. This information can be provided to Service partners on a need to know basis or even used to form part of the delivery address.

3.13   Appointment letter – Wayfinding Content

As we have maintained throughout this process signage is only one element of the Wayfinding Strategy.

As an important source of wayfinding information, reference for pre-journey planning and aid to on site navigation the appointment letter is a vital part of the wayfinding process.

It is important that all departments responsible for the production of such letters understand their importance to the success of the strategy and observe the following recommendations.

All wayfinding information should be confined to one single paragraph within the body of the letter and this paragraph should carry all the directional information required, including the department name, even if it is repeated elsewhere. i.e. within the title of the letter or the letterhead its self.

All appointment letters must contain the wayfinding information presented in the same order and confined to a single paragraph within the main body of the letter. A possible example of which is given below.

"An appointment has been made for you at Dr Smiths Cardiology Clinic.
*Upon arrival you will find the hospital has been divided into four Zones. You are requested to report to the reception desk at **Location/ Department A5** which is located in **Zone A**.*

(Note: we do not have to include Emergency Department as a "zone" as it will not appear as such on the signs)

3.14   Hospital Map

As part of the Wayfinding Strategy a revised site map must be developed to reflect the new Wayfinding Strategy. The map must be kept simple and use as few colours as possible.

If the Trust should wish, Wayfinder UK would be happy to assist with the development and production of the map through our Wayfinding Design Service.

Once complete the map can be used in support of the Wayfinding Information Points.

3.15   Central Control

Control is an essential part of the Wayfinding Strategy. For this reason it is important that a single point of control is established with responsibility for all areas that impact on wayfinding.

This must include all on-site signage and all wayfinding related elements within the appointment letters, website, maps and information brochures. This control should take the form of a Wayfinding Manager or Wayfinding Team working across the hospital's Estates department, communications and all generators of patient related information including appointment letters.

The Wayfinding Manager or team's head should be given the power to ensure that no single department should be able to make changes in these areas before first having them approved. Without this kind of umbrella view coupled with firm control, changes will quickly take place that weaken the strategy and its effectiveness will be greatly reduced.

The team responsible will be assisted by the "Wayfinding Guidelines Document" which will be produced by Wayfinder UK as part of the project and handed over prior to completion to act as a framework for the upkeep and development of the new Wayfinding Strategy.

4   The Family of Signs

Signage is an important part of the Wayfinding Strategy and it is important that all signage on site is kept as simple and consistent as possible with the minimum use of systems and colour.
All sign types will be consistent with regard to their fundamental design characteristics and each sign type will be used to perform a single function. All sign types must also be consistently located in terms position and ground clearance (see appendix 1)

4.1   Choice of Panel Colour

At this stage colour choice remains to be decided by the Trust, who have final approval.
However for the purpose of illustrating the sign types we have chosen text and panel colours in line with the NHS colour pallet, while providing sufficient variation as is necessary to present the information.

The Trust must be aware that any colour combinations they wish to choose must be firstly sympathetic to the environment in terms of contrast between panel and background. They must also offer clear distinction between each colour

(i)   Internal Signs
3 Colours, NHS Blue Pantone 300, Navy Blue and Red Pantone 485 (Emergency Department). All with White text. On Floor directories to emphasise current level we have used reverse colours (Blue text on White panel) as is standard practice.

(ii)   External Signs
4 colours, NHS Blue Pantone 300, Navy Blue, Red Pantone 485 and Black, again all with White text Header panels when required to display the UHB brand are to be presented in White.

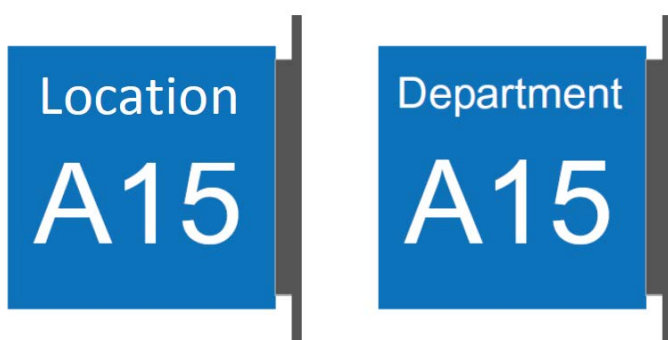**4.2 Examples of Typical Direction Signs from the UHB Sign Family Displaying the Information Hierarchy**

The signs below are designed to show typical examples of sign layouts only. A more detailed specification of the sign family will be made available as part of the Signage and Information Schedule, once the Trust has agreed on the terms used to define the geographical areas (i.e Areas/Zones or Locations/Departments)
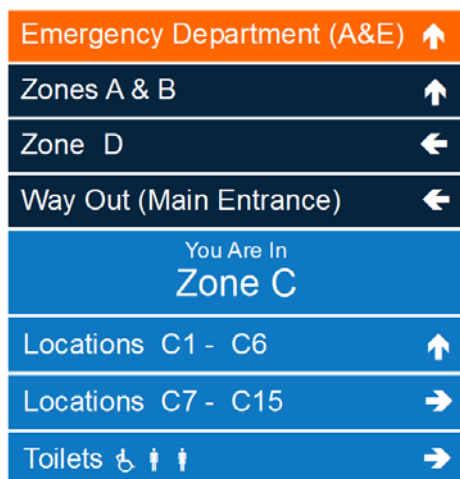
Wall Mounted Direction Sign
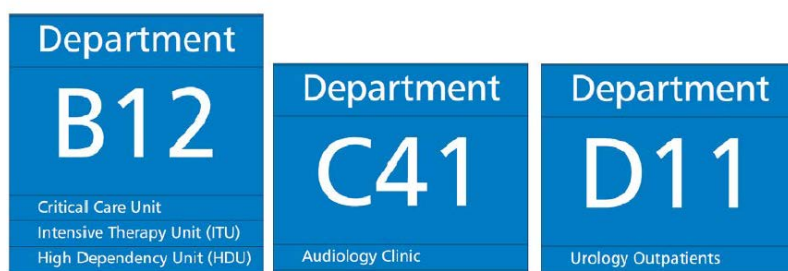
Department/Location Identification Signs

Department/Location Identification Signs