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CURA

CONNECT WITH NATURE

Response to Graham McKay of Misfits Architecture Post “Something in the Air”

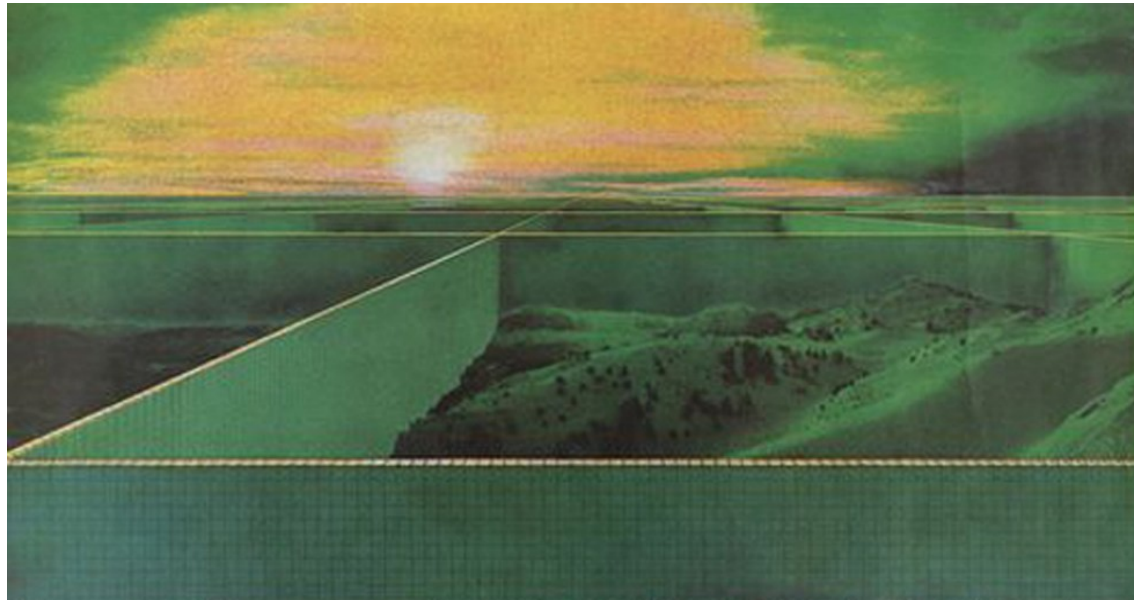
Edges

As one of your older readers my generation was in architecture school in the 1980s. Some of us were looking back in the midst of Post modernism to the 50s/60s for inspiration with Louis Kahn or Aldo Van Eyck or Herman Hertzberger and as well everything happening in London at that time.

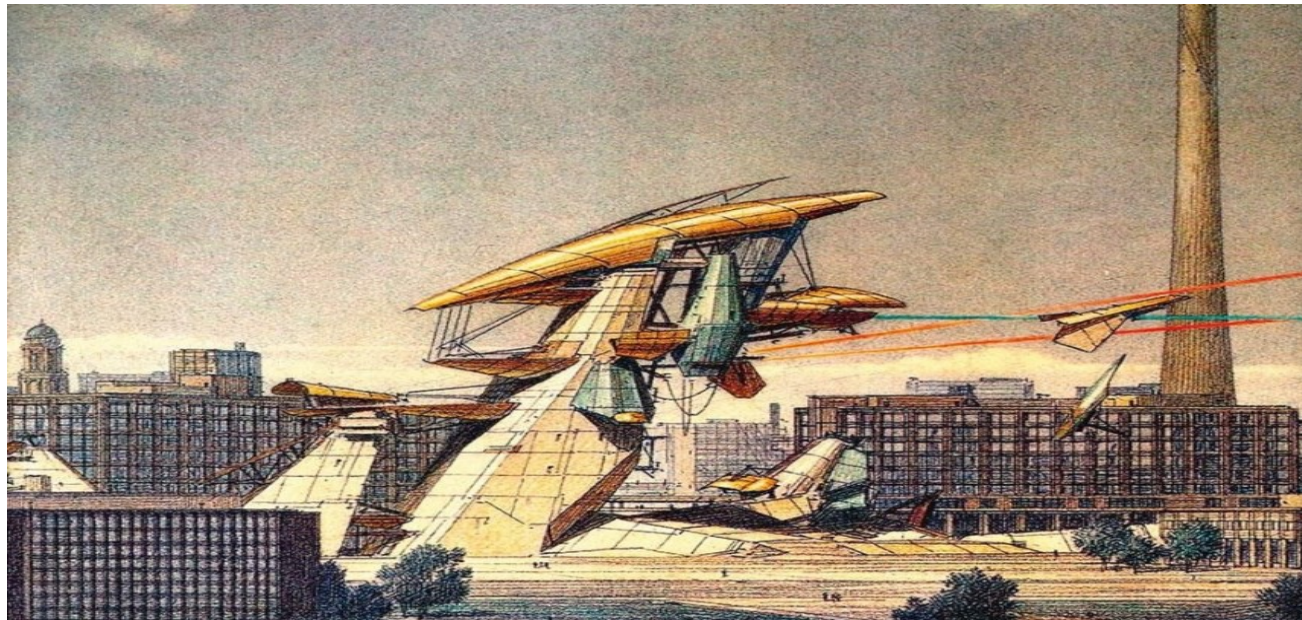
In an external way, one of the themes here is the relationship of architecture and the built environment to nature. and the vast majority of the projects covered in this post were created at a time when oil and energy and the use and exploitation of nature were either thought to be limitless or at least issues that did not need to be addressed. I wonder how many of these designers would have reacted to the massive loss of biodiversity and the 6th extinction event that is now happening on the planet.

In an internal way and a way of how our internal life can be affected by our surroundings and relationship to nature, few of these proposals express a love for nature as much as nature as commodity to be exploited and although there is a beautiful craft to the images in Lebbeus Woods work there is for me an undeniable nihilism and the foregone conclusion that indeed the planet has finally been consumed and nature and our relationship to it completely severed. In any event, I think these designs and images need to be seen in the context of the time they were created in.

Many times in these images and designs its always the same edge occurring with a wall or form smashing into some placeless landscape. Perhaps it is this edge (for better or for worse) which will ultimately define western culture on this earth.



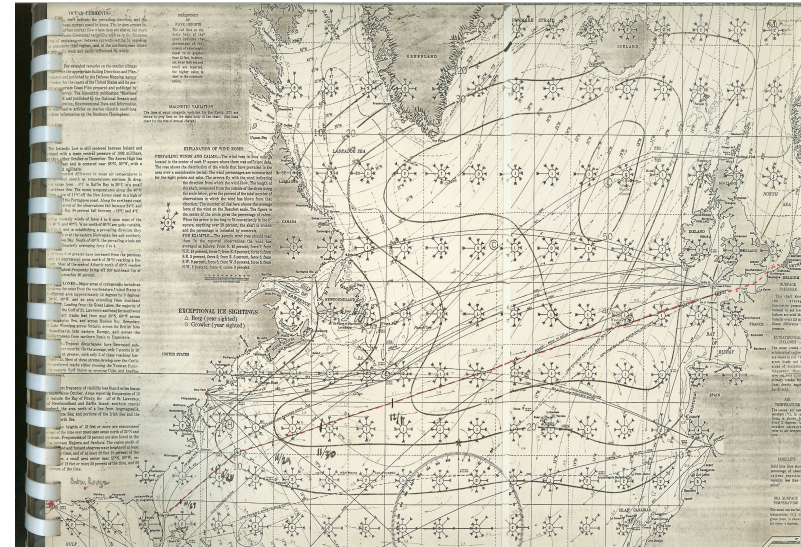
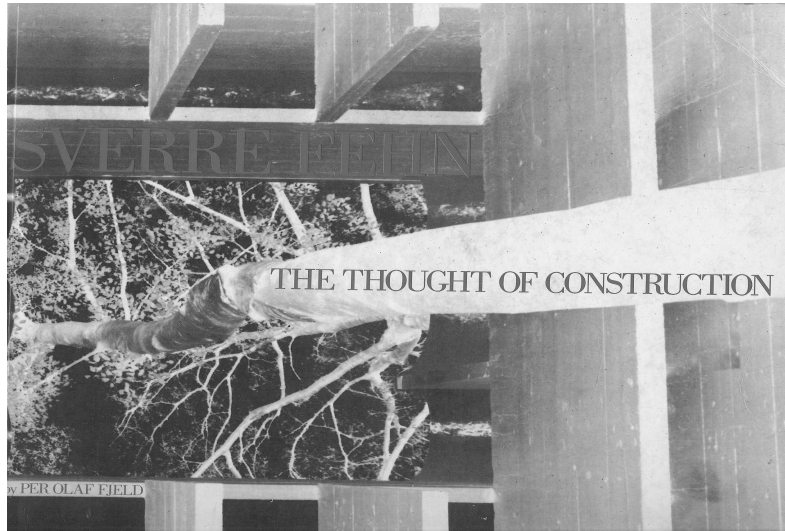
Superstudio's 1971 Megaton City



Dystopias of Lebbeus Woods

“The relationship between native peoples and the earth its very important to realize that ofcourse landscape can create character. Laurence Durrell the writer once said that you could de populate France and resettle it with Tartars and find to your astonishment that within a generation or so the same national traits would re-emerge – the affection for fine food, and beautiful men and women, the reflections of disdain for Americans all of this would sort of pop out of the ground from the sacred soil of France.” Wade Davis

“Design begins with Self knowledge” – Charles Eames
“Truth begins with a belief in Man” - Per Olaf Fjeld



Sverre Fehn was not a fan of sentimentality or romanticism.

“Is this fantasy or is it construction?”

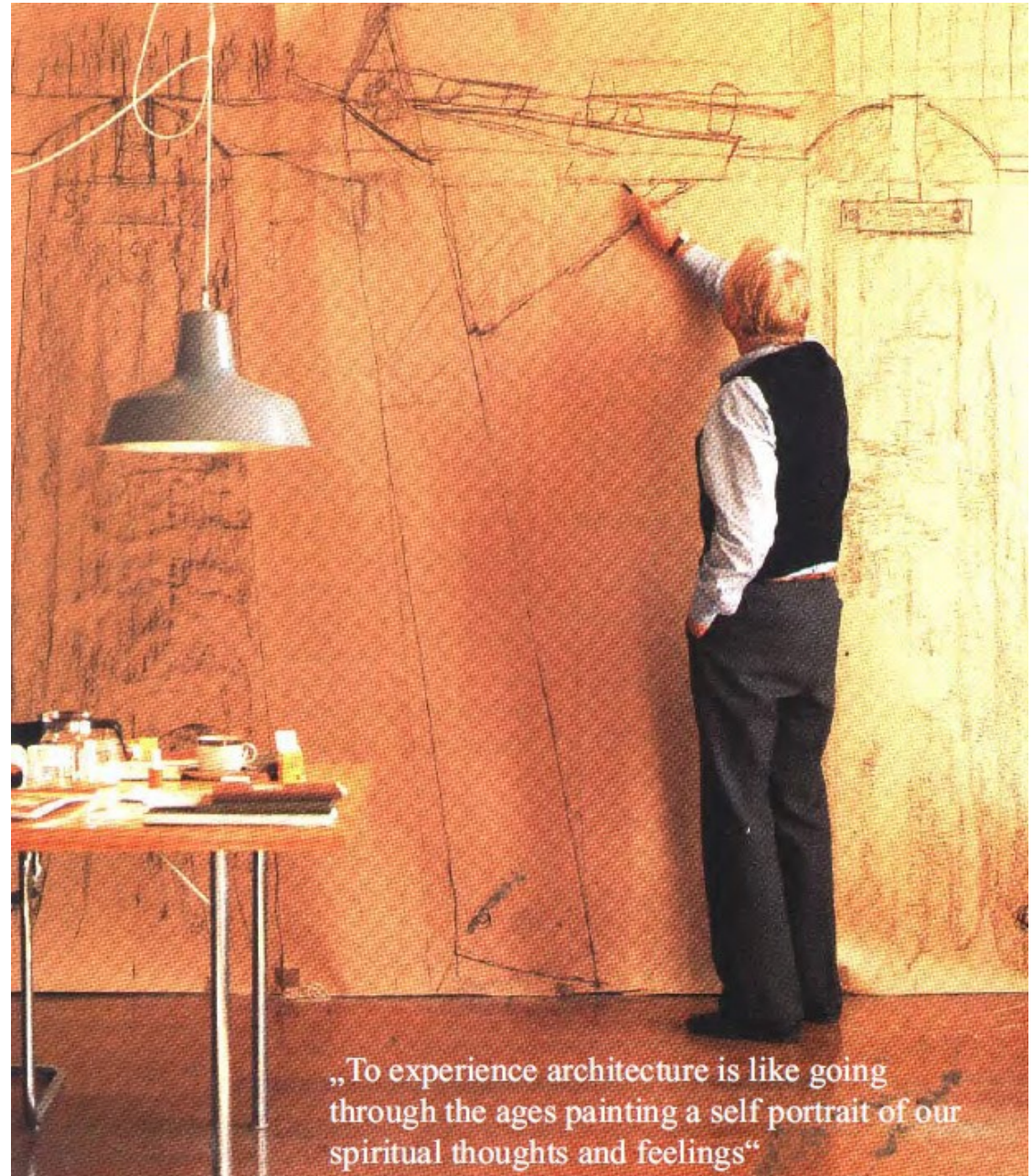
Prof. Fehn regarded building as “an act of brutality”

“When I build on a site in nature that is totally unspoiled, it is a fight, an attack by our culture on nature. In this confrontation, I strive to make a building that will make people more aware of the beauty of the setting.”

A command of drawing technique from the designer and for the builder a command of construction technique were required in order to achieve precision and a means of expression.

Drawing Full size details.

Details were worked out at full size. At the office there was also a floor to ceiling blackboard for this.



„To experience architecture is like going through the ages painting a self portrait of our spiritual thoughts and feelings“

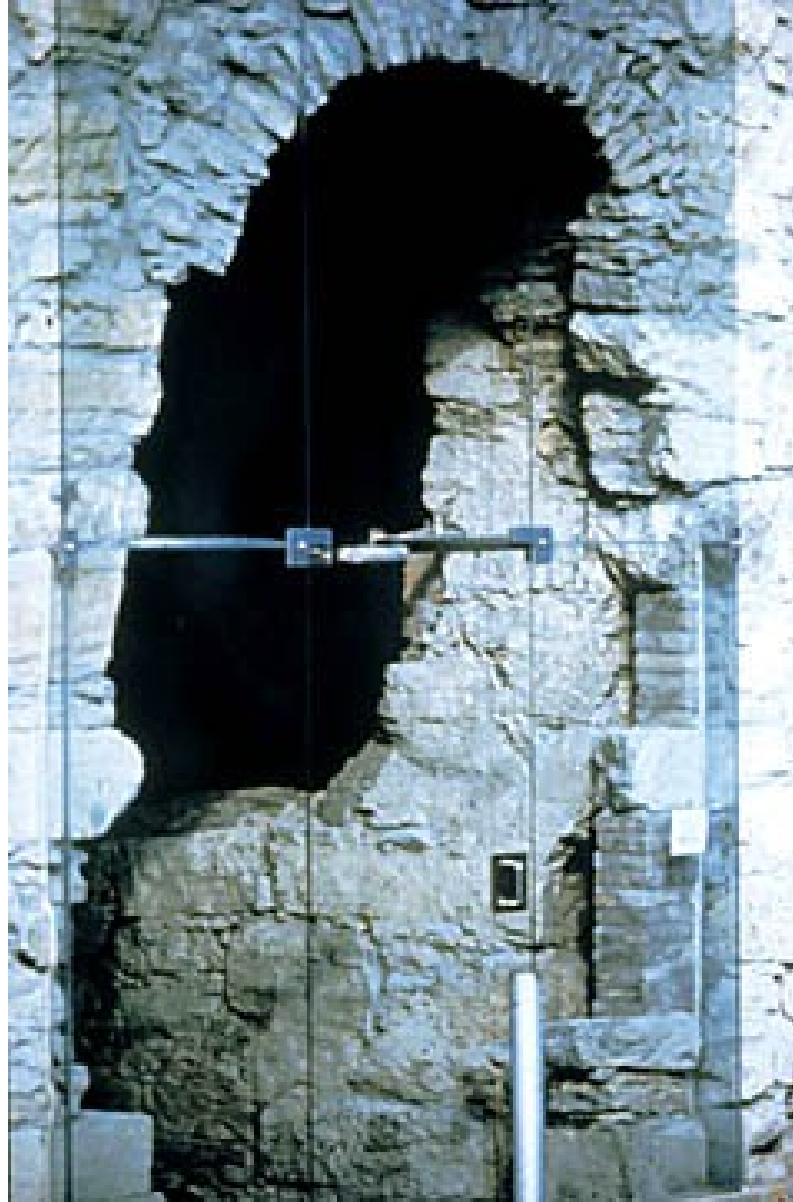
The Bodtker House edges of the corner

Turning a corner no bricks are cut. There is a sense in this house of acknowledging the hill , the sky and the horizon.



The Hamar Museum -edges of glass and stone

Inbetween the modern plate glass and the ancient Roman masonry we sense the time in between.



Hamar Museum - edge of the horizon

In between Land And Sky

Walking Towards the horizon then turning to face the building, a wave in the concrete handrail perhaps a pause.



Villa Busk – edge of the hill

The slope of the stairs is not solely calculated by local regulations and acknowledges the slope of the adjacent hill.



Villa Busk

In Between Earth and Construction

Concrete has two lives and acknowledges and traces the stone outcrop.



Edges in Between Earth and Construction

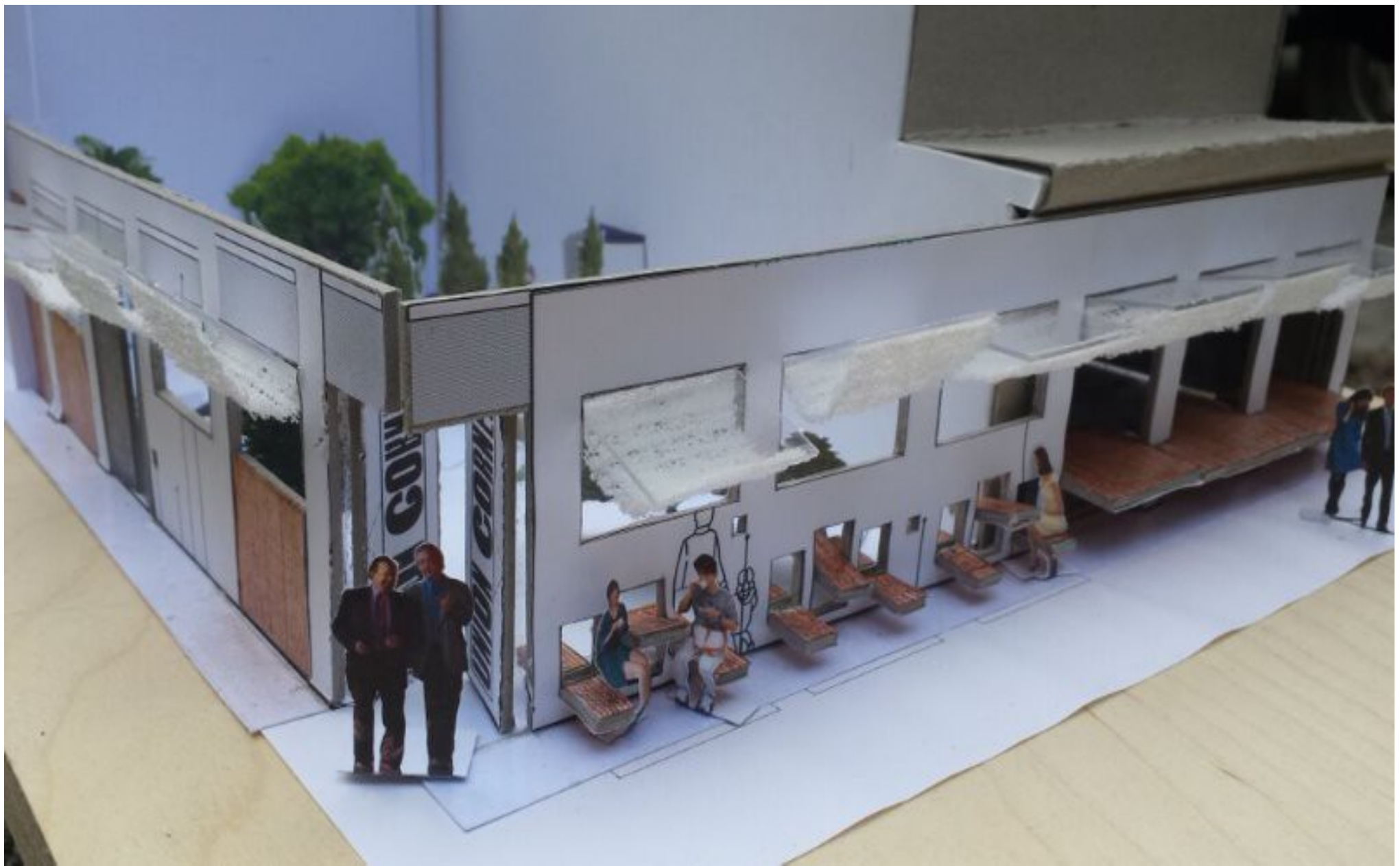
Concrete has two lives and acknowledges and traces the stone formation.



All projects that CURA carry out are biophilic to some degree.

Simply put, biophilic design endeavours to do its best in two areas. First to protect and enhance nature and biodiversity wherever a project is being built and second, to increase human well being through a better connection with nature and our surroundings.

We believe this approach is essential for our physical well being, our spiritual well being, and for the present and future well being of the planet.











Old Changing Rooms, Devonport Park

Devonport, Plymouth, Great Britain



Old Changing Rooms, Devonport Park

These changing rooms have long since been disused and abandoned to the tender mercies of local teenagers. The building was originally built at the start of World War II as a gas decontamination centre. In the event of a gas attack, people were supposed to enter the building, closing the outer door before opening the inner door, remove their shoes and outer clothes and douse themselves underneath the showers which were fed by a large water tank above. Fortunately it was not needed as chemical weapons were not used in the Second World War on any group of people with the capability to retaliate in kind.



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Image classification

Geograph

Date Taken

Sunday, 4 June, 2006 ([more nearby](#))

Submitted

Wednesday, 7 June, 2006

Category

[Park](#) > [Park](#) ([more nearby](#))



5.2 Appearance (Contd)

constructed in sections and can be folded back and into the stage when required for performances. When the balustrade is up it provides a protected rooftop space for childrens activities (to be supervised). There are additional glazed balustrade areas over both East and West entrances and two clear acrylic bubbles (large enough for a child to sit inside of) that will provide views of the park and approaching parents for the children.

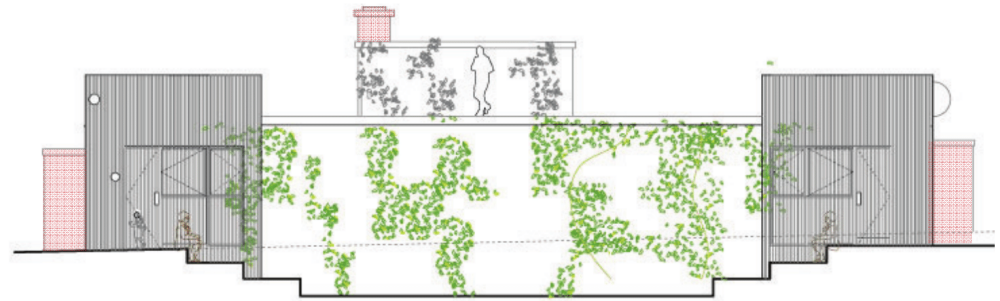


Example of childrens acrylic bubble. Refer to elevations

The cladding and rendered panels have been juxtaposed with the existing fabric of the building in visual sense to highlight, where technically feasible, the old against the new. The West and East entrance elevations are focused on the heritage aspect of the building which visitors walk through to access the building. These entrances can be seen from the south (amphitheatre side) as can the existing chimney and tower roof. The rendered and green walls on the North elevation provide a backdrop for the refurbished tower. The following diagrams highlight the areas where heritage elements are retained



Retained and refurbished heritage elements (highlighted in red)



6.0 PREAPPLICATION REPORT / PUBLIC CONSULTATIONS / CROWD FUNDING CAMPAIGN

6.1 Overview

Pre application discussions were held on site with Jess Maslen of the Plymouth City Council Planning Department in July of 2015. The discussions were positive in nature. Both the Client and Research + Design appreciated the proactive and positive contributions and insights that Ms Maslen has made towards developing the design of the project and many of the suggestions and comments from the discussions and the pre application report have been incorporated into the Planning Submission. The following excerpts from the pre application report (highlighted in italics and grey font and itemized) are responded to in the following section.

In addition to this, a series of presentations to local community groups, a two day public consultation event held in Devonport Park, and a crowd funding campaign were carried out which provided further feedback and input from park users and the community. Excerpts and comments are provided and responded to (in the same format) in the following section.

6.2 External Works

"As the building stands within the Registered Park and Garden, any external works proposed to the building would need to be considered in the context of the area as a whole, evaluating the visual impact that it may have on the area. In this respect I have asked for consultation input from the Green Infrastructure team (the response was emailed to you on 22 July) and the Tree Officer. As and when the actual application comes in we will also be consulting with The Garden Trust (previously the Garden History Society) but you may want to contact them prior to the application to let them know of your proposals and giving them an opportunity to give feedback on your proposals at an early stage. Their contact details can be found at <http://www.gardenhistorysociety.org/> or <http://www.thegardenstrust.org/index.html>."

The garden history society has merged with the Garden Trust. Research + Design made attempts to contact the Garden Trust but to date have not received a response. Research + Design are looking forward to the Trusts input. During the presentation of the project to the Friends of Devonport Park, it was noted that FDP would like input regarding the selection of the plantings for the green walls on the North South East and West facades.

6.3 Historic asset

"The Cleansing and Decontamination Station, which is located at the north-east corner of Devonport Park, is believed to have been built circa 1941 and is understood to have been originally designed as a cleansing centre, in case of gas attacks during WWII. It is a single storey, brick building with a flat roof sporting a short tower topped by a chimney on the north elevation, set on a gentle slope. It is unlikely that the building was ever used for its original purpose and despite having been used for a short time by the Plymouth Model Railway Club; it has remained unused for many years, leaving it at high risk of vandalism. Despite not being listed this building is still identified as an historic asset, a rare wartime survival and as such we would want to see as much of the original fabric retained, restored and refurbished appropriately."

Stiltskin Childrens Theatre

Proposed Childrens Theatre
Devonport Park
Plymouth

Research + Design
The Brunel Building
16-18 Stonehouse Street
Plymouth, Devon PL1 3PE
Tel: 01752 251 659
archbuildingplaces@gmail.com



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ARCHITECTURE - BUILDINGS - PLACES

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No. Date Revision

Date: June 2015 Drawn By: AD
Scale: 1:100 @ A3 Checked By: RB
Project No. & Title: 15004 Childrens Theatre

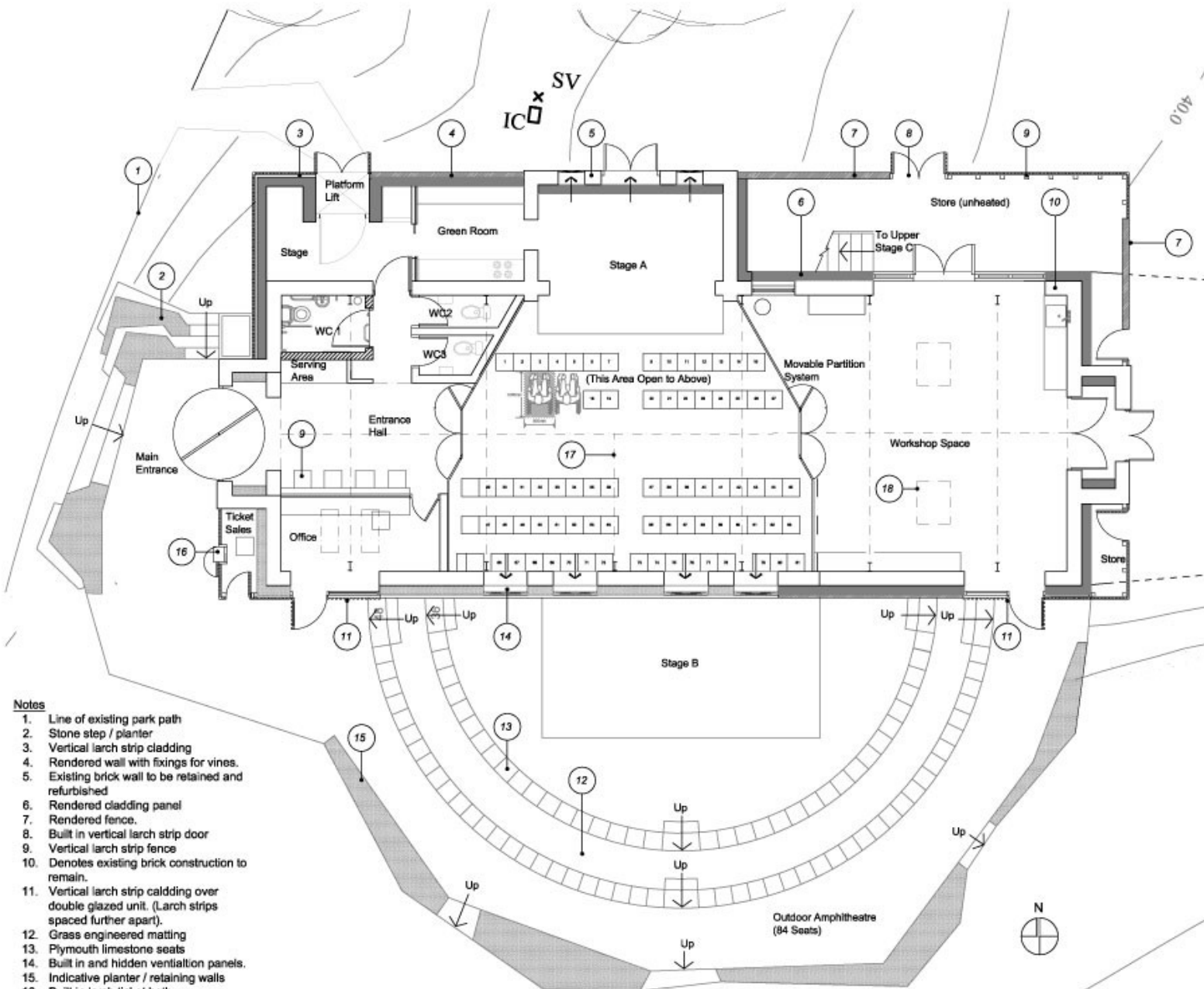
Drawing Title:

Proposed Plan

Drawing Number:

PA01

Pre Application Documents
Research+Design



Notes

1. Line of existing park path
2. Stone step / planter
3. Vertical larch strip cladding
4. Rendered wall with fixings for vines.
5. Existing brick wall to be retained and refurbished
6. Rendered cladding panel
7. Rendered fence.
8. Built in vertical larch strip door
9. Vertical larch strip fence
10. Denotes existing brick construction to remain.
11. Vertical larch strip cladding over double glazed unit. (Larch strips spaced further apart).
12. Grass engineered matting
13. Plymouth limestone seats
14. Built in and hidden ventilation panels.
15. Indicative planter / retaining walls
16. Built in larch ticket booth.
17. Existing steel structure to remain.
18. Skylights above

1
PA01
Proposed Plan
1:100

Childrens Theatre

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Devonport Park
Plymouth

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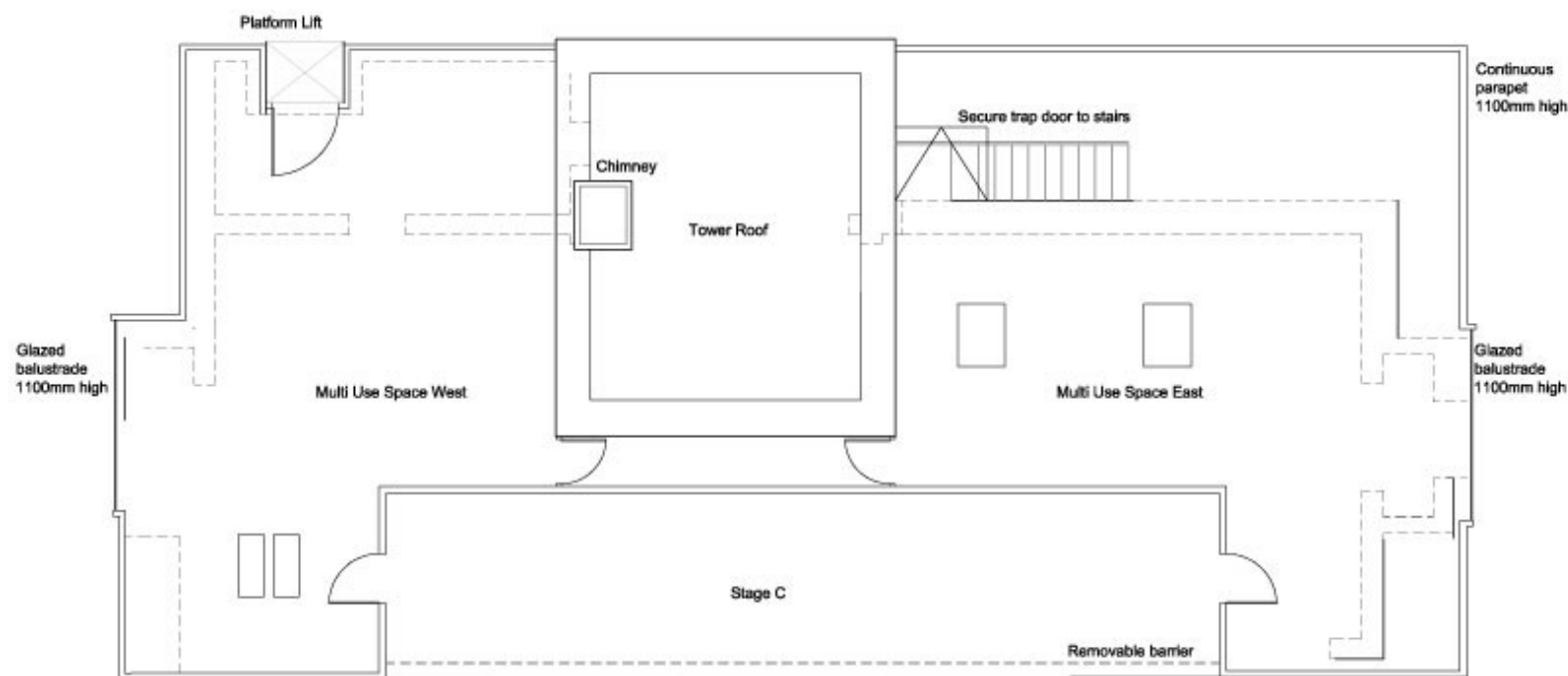
Detail Entrance Eleva

Drawing Number:

PA04



1
PA04
Detail Entrance Elevation
1:50



Proposed Roof Plan
1:100



Site Section-Elevation g-h
(see drg. M364 D 01 01 03 2018 for section location)

KEY- LANDSCAPE MASTERPLAN SECTION

HARD LANDSCAPE SCHEDULE

(See drg. M364 D 03 01 03 2018 for construction drawings)

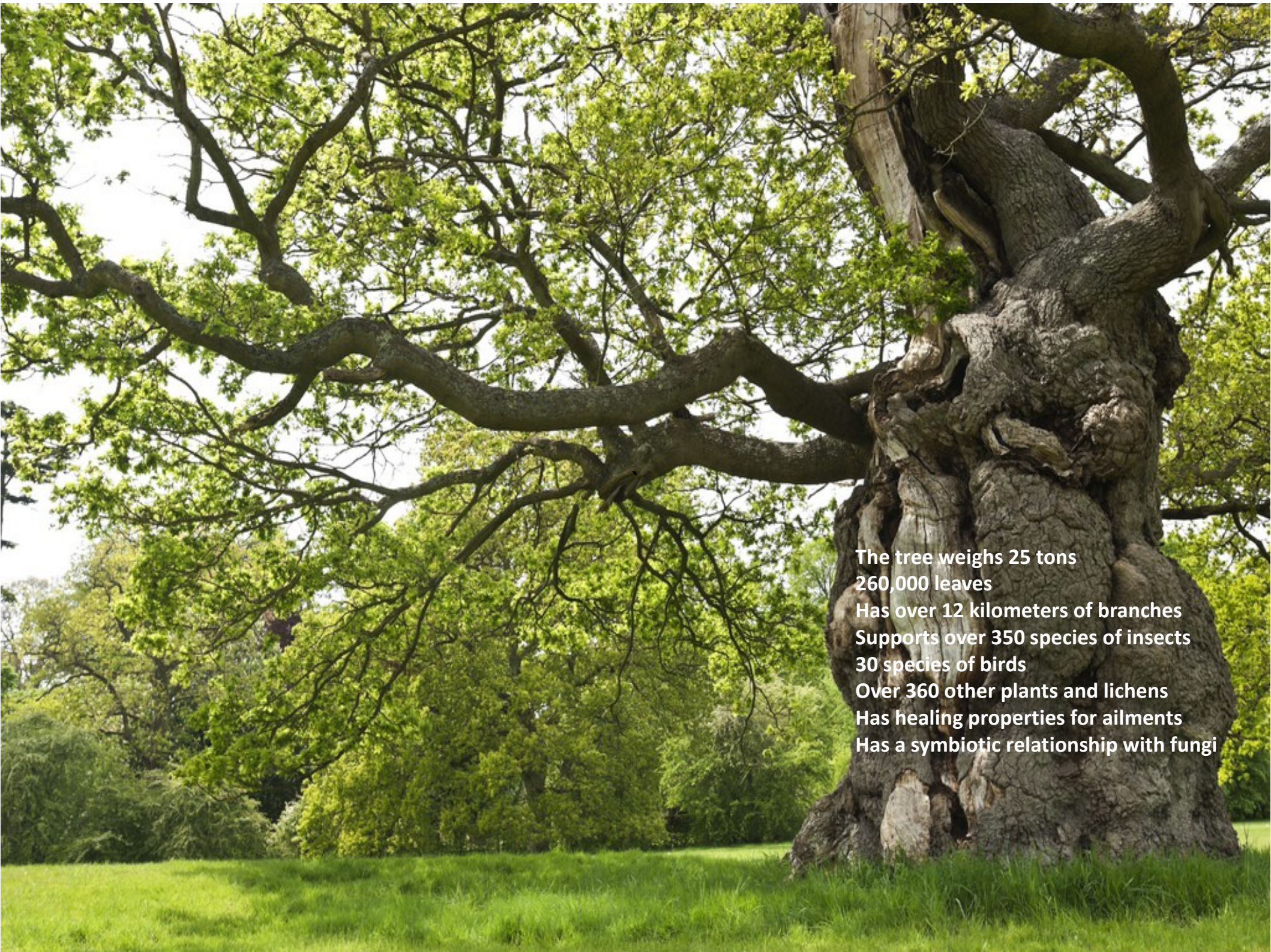
- 1** **'Plymouth Marble' faced Gabion Steps**
Gabion steps are constructed from galvanized steel wire mesh filled with natural stone. They are designed to provide a durable, permeable, and aesthetically pleasing surface for pedestrian traffic.
- 2** **Gabion Seating Steps**
Gabion seating steps are constructed from galvanized steel wire mesh filled with natural stone. They are designed to provide a durable, permeable, and aesthetically pleasing surface for pedestrian traffic.
- 3** **Granite Steps :**
Granite steps are constructed from natural granite stone. They are designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.
- 4** **Hardwood Step Handrail**
Hardwood step handrails are constructed from natural hardwood. They are designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.

- 5** **Granite Set Hazard Warning Paving/ Trim**
Granite set hazard warning paving/trim is constructed from natural granite stone. It is designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.
- 6** **Cellweb Cellular Confinement System Path Surfacing (laid on existing ground surface)**
Cellweb cellular confinement system path surfacing is a permeable, durable, and aesthetically pleasing surface for pedestrian traffic.
- 7** **Cellweb Cellular Confinement System Path Surfacing (Laid on filled Gabion Steps)**
Cellweb cellular confinement system path surfacing is a permeable, durable, and aesthetically pleasing surface for pedestrian traffic.

- 8** **Metal Path Edging**
Metal path edging is constructed from galvanized steel. It is designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.
- 9** **Timber Bench Seating**
Timber bench seating is constructed from natural hardwood. It is designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.
- 10** **Ground fixed, stainless steel hoop bike stands**
Ground fixed, stainless steel hoop bike stands are constructed from stainless steel. They are designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.
- 11** **Proposed raised shrub planter**
Proposed raised shrub planter is constructed from natural stone. It is designed to provide a durable, slip-resistant, and aesthetically pleasing surface for pedestrian traffic.







The tree weighs 25 tons
260,000 leaves
Has over 12 kilometers of branches
Supports over 350 species of insects
30 species of birds
Over 360 other plants and lichens
Has healing properties for ailments
Has a symbiotic relationship with fungi

CURAs Design Process

Cura works through a cross discipline process. The front end and follow up stages of the design process utilizes dedicated Environmental Scientists and Psychologists and Researchers to ensure that all of the inhabitants of a facility or place are fully understood, given a voice, and both their mental and physical wellbeing are documented and verified through pre design and post design evaluations. These findings feed into both the design process of the spaces and as well provide validation and verifications illustrating improvements in patient and staff performance and well being.

CURAs Team

Curas team has a wealth of experience that works together in a synergetic way making the whole much stronger than the individual parts.

Cura Design Services are designed to work closely and in conjunction with Cura Research Services. They can also be appointed separately.

CURAs Research Services

Cura can provide: One Day Workshops / Appraissals and Feasibility Studies / Design Peer Reviews / Biophilic Consultants Reports / Bespoke Case Studies

CURAs Design Services

Cura can provide: Healthcare Facilities for healing / Cultural Projects for celebrating the Arts and Nature / Community Projects for Living and Engaging / Educational Projects for Learning/ Residential Projects for Living.



Biophilic Research and Report

Purpose and Scope of this document

This document has been prepared by CURA Research Services together with CURA Design Services for Biophilic research and report at an ongoing development of 80 apartment Mayflower Court development in Plymouth relating to;

- Atrium and entrance at ground floor;
- 5th floor communal terrace;
- 6th Floor Terrace
- Atrium at 1st to 7th floors and relationship with flats and front gardens

The report covers the following:

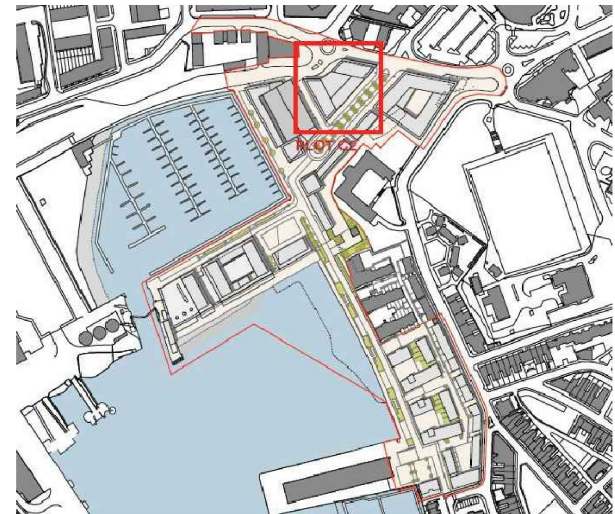
- A written background review on contemporary core industry literature;
- An objective review of 'wellness' within the site;
- Written recommendation for possible improvements and alterations to the current design.

Detail design solutions are not part of the brief at this stage.

The wealth of research proving the positive health, cognition, behavioral and other impacts that access to nature has on human beings is astounding. And yet, on average we spend 90% of our time indoors, often in sterile buildings devoid of any natural elements. Adding a biophilic design approach is critical if we are to address this. The purpose of the design principles are more to recognize a way of living life to its fullest and creating well being than creating a new aesthetic or architectural style in residential home design.

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Base building design drawings supplied by Abbeyfield and credited as appropriate.



Illustrative masterplan (EIA figure 4.2) Ferguson Mann Architects. Plot C2 is highlighted.

Thomas' belief that "every creature has a habitat in which it thrives, and one in which it withers. Human beings wither in institutions" (Brownie, 2011, p. 65).

While working as a physician in a nursing home, Dr. Thomas spent time observing patient interactions specifically in the dining areas, hallways and solarium. He came to the conclusion that loneliness, boredom, and helplessness are the three biggest problems for long-term care residents to overcome (Flynn, 2008).

4.1 Atrium Plans and Front Garden Spaces

Recommendations

4.11 Recommendations for the Atrium

The atrium is the central focal point for residents and therefore comprises a large part of their experience in the facility. Therefore, it is vital that it is constructed to a high standard regarding resident's wellbeing and dementia. Our initial analysis of the area gave a score of 48.1% (25/52).

Recommendations to improve this score consist of the following:

4.12 Seasonality: Bowlby Sifton (2007) highlights the importance of reality reassurance in individuals suffering with dementia and voices that this may be achieved through orientation to the seasons and time of day. Because of this, we suggest that the atrium, as a central viewing point, is orientated towards the seasons to improve the level of reality reassurance in residence. This could be incorporated by seasonal decorations/alterations made four times a year, potentially done in connection with local school groups who could design elements e.g. autumn leaves with the residents. In doing so, this will help to combat loneliness, one of the biggest issues elderly face in care facilities (Butler, 1995), improve social interactions and increase a sense of community in the wider scale.

4.13 Lowering of the Glass: We would recommend to lower the glass on each floor to 1500mm high to promote social interaction across the space and decrease the sense of institutionalisation that can come from floor to ceiling glass. Institutionalisation is prevalent in individuals with low cognitive impairment and those with dementia that comprise of most of the elderly population. This sense of institutionalisation can have effects on health, mortality and the development of dementia (Frisoni *et al.*, 1999). Lowering the glass would also improve airflow and allow for the opportunity of overhanging planters.

4.14 Overhanging: If the recommendation of the lowering of the glass is adhered to, it allows for the possibility of planters hung from upper floors that can be accessed by the residents as a means of horticultural therapy (Rodiek, 2008). This would bring a sense of green throughout the atrium, tying the floors together. Specific plants could be selected for to improve air quality inside the building such as Chrysanthemum, Spider Plant, Peace Lily, Dracaena Janet Craig, Snake Plant (Roy, 1997).

4.15 Water Feature: Water as a design theme for the building: A natural element such as water could be a possible theme for the overall design of the building. Rainwater at roof level could be used as a sustainable source channeling the water to pools and water features at terrace level and then continuing down through the Atriums to end in fish pools at the base of the Atriums. The water could be used for hanging plants such as Wisteria and Japanese Creeper, plants which can be planted at roof or balcony level and hang down the building towards the ground. Small waterfalls that began at 6th floor level could make their way down to the base of the Atriums. The waterfalls could also contribute to humidifying the air in the summer and de humidifying the air in the winter as well as adding interest and light and sound to the Atrium areas. This idea could be extended to the entrance and cafe area either in terms of an actual water feature or with photographs/images or graphics.

4.16 Dutch doors. We would recommend that dutch doors be installed on all of the private flats to facilitate social interaction between the private flats and the semi private front gardens and general atrium areas.

4.17 Lighting. Ideally lighting would be specified that was natural in tone and character. Ideally circadian lighting could be installed in common areas where the majority of the residents and visitors could benefit from its effects. Ideally lighting could be integrated both with internal plantings and as well within the large skylight over the atrium.



Water as a design theme, from the roof terraces through Atrium to entrance.



Plants growing down the face of the building from above.



Dutch doors for the flats to increase interactions



Plants on the facade. Screening flats.

List of substances that cannot be used in projects because they have been determined to be detrimental to human health and the environment.

The Red List

A	B	C
CAS RN	Chemical Name	Red List Item
104-40-5	4-Nonylphenol (Linear)	Alkylphenols
142731-63-3	4-(1-Ethyl-1,4-Dimethylpentyl)Phenol	
17404-66-9	P-(1-Methyloctyl)Phenol	
186825-36-5	4-(1-Ethyl-1,3-Dimethylpentyl)Phenol	
26543-97-5	P-isononylphenol	
30784-30-6	P-(1,1-Dimethyleptyl)Phenol	
52427-13-1	4-(1-Ethyl-1-Methylexyl)Phenol	
84852-15-3	4-Nonylphenol (Branched)	
127087-87-0	Polyethylene Glycol Mono-Branched P-Nonylphenyl Ether	
156609-10-8	4-T-Nonylphenol Diethoxylate	
26027-38-3	Polyoxyethylene Nonylphenol Ether	
27177-08-3	Nonylphenol Polyethylene Glycol Ether	
37205-87-1	isononylphenol Ethoxylate	
68412-54-4	Polyoxyethylene Branched C8 Alkylphenol Ether	
9016-45-9	Polyethylene Glycol Nonylphenyl Ether	
26523-78-4	Nonylphenol Phosphite (3:1)	
67905-91-3	2-Propenoic Acid, Polymer With Formaldehyde, 2,5-Furandione, Methyloxirane, 4-Nonylphenol And Oxirane (20:1)	
136-83-4	2-Nonylphenol	
139-84-4	3-Nonylphenol	
25154-52-3	Nonylphenol (Mixed isomers)	
26636-32-8	4-Octylphenol polyethoxylate	
2315-61-9	Ethanol, 2-[2-(4-(1,1,3,3-tetramethylbutyl)phenoxy)ethoxy]-	Asbestos
2315-67-5	Octosynol-1	
8002-93-1	Octosynol-8	
2487-59-8	TR-TO (R) 3-405	
57700-46-3	resin, polymer with formaldehyde, 4-octylphenol and pentaerythritol	
70955-46-2	resin, polymer with formaldehyde, glycerol, octylphenol and polymd Resin	
11081-15-5	isooctylphenol	
140-66-9	4-Tert-Octylphenol	
1806-26-4	4-n-Octylphenol	
27193-28-8	Tert-Octylphenol	
67554-50-1	2-Tert-Octylphenol	
949-13-3	2-n-Octylphenol	
12001-28-4	Asbestos(R) Crocidolite	
12001-29-5	Asbestos, Chrysotile	
12172-73-5	Asbestos, Amosite	
12413-46-5	Asbestos	
132207-32-0	Asbestos, Chrysotile	
132207-33-1	Asbestos, Crocidolite	
1332-21-4	Asbestos	
13768-00-8	Actinolite	
14567-73-8	Tremolite Asbestos	
16829-43-9	Asbestos, Anthophyllite	
17068-78-9	Anthophyllite, Non-Asbestiform	
77536-66-4	Asbestos, Actinolite	
77536-67-5	Asbestos, Anthophyllite	
77536-68-6	Asbestos, Tremolite	
77641-59-9	Asbestos	
6386-73-8	3,3',5-tribromobisphenol A	Bisphenol A (BPA)
29426-78-6	3,3'-dibromobisphenol A	
6073-11-6	3-monobromobisphenol A	
104133-73-5	amines, tallow alkyl, reaction products with bisphenol A diglycidyl ether, ethoxylated	
80-05-7	bisphenol A (BPA)	
2024-88-6	bisphenol A bischloroformate	
1675-54-3	bisphenol A diglycidyl ether (BADGE)	
25085-99-8	bisphenol A diglycidyl ether (BADGE)	
3253-39-2	bisphenol A dimethacrylate	
64401-02-1	bisphenol A ethoxylate diacrylate	
68318-44-5	bisphenol A, epichlorohydrin polymer	
68610-56-0	bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	
55819-57-0	bisphenol A-epichlorohydrin acrylate	
1478-51-1	bisphenol AF	
68609-08-5	cyclohexanemethanamine, 5-amino-1,3,3-trimethyl-, reaction products with bisphenol A diglycidyl ether homopolymer	
30583-72-3	cyclohexanol, 4,4'-(1-methylethylidene)bis-, polymer with 2-(1-chloromethyl)oxirane	
25068-38-6	epichlorohydrin-bisphenol A resin	
68488-98-0	linseed oil, polymer with bisphenol A, formaldehyde, glycerol, rosin and tung oil	
181028-79-5	phosphoric trichloride, reaction products with bisphenol A and phenol	
42617-82-3	polyethylene glycol-bisphenol A-epichlorohydrin copolymer	
5743-04-4	Cadmium Acetate, Dihydrate	Cadmium
10022-68-1	Cadmium Nitrate, 4-Hydrate	
10108-64-2	Cadmium Chloride, Anhydrous	
10124-36-4	Cadmium Sulfate, Anhydrous	
1306-19-0	Cadmium Oxide	
1306-23-6	Cadmium Sulfide	
17010-21-8	Cadmium Hexafluorophosphate	
2223-93-0	Cadmium Stearate	
2420-98-6	Cadmium 2-Ethylhexanoate	
513-78-0	Cadmium Carbonate	

Green Buildings and BREEAM Certification and Well Certification



www.breem.com

Briefing Paper

Assessing Health and Wellbeing in Buildings

Alignment between BREEAM and the WELL Building Standard™

Version 2: January 2018

Chris Ward & Alan Yates - BRE
Shalini Ramesh, Nathan Stodola, Sarah Welton & Jacyn Whitaker - IWBI



BRE and USGBC announce new partnership

14th November 2018



The world's leading built environment organisations announce the first building quality and performance partnership of its kind

4.0 Wellness Certification: Water and Fitness

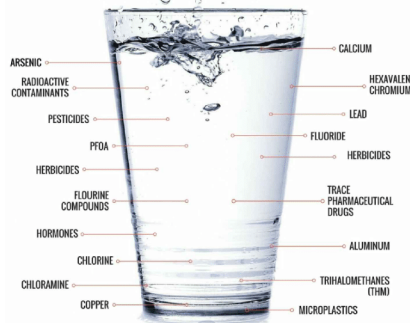


WATER (8 features)

Safe and clean water promoted through proper filtration and other methods.

Features include quality, treatment and hydration

WHAT'S IN A GLASS OF TAP WATER THESE DAYS?



The National Academy of Medicine (NAM) in the US recommends that women consume approximately 2.7 litres and men 3.7 litres of water per day²⁵.

However, up to 80% of the U.S. adult population go through their normal day in a mildly dehydrated state²⁶, reducing work productivity by 12%²⁷ and reaction time by 23%²⁸.

Contaminants, such as lead and arsenic, can have serious effects on health. However, treating water with chlorine and chloramine can also lead to adverse health effects. performance.

WELL carries out an assessment of the building's water source. Filtration can be installed based on the specific requirements. Regular testing to maintain water quality is an optional strategy.

Fundamental water quality tests

Filter out inorganic contaminants using reverse osmosis systems or Kinetic Degradation Fluxion filters

Filter out organic contaminants using activated carbon filters

Monitor public water additives to maintain disinfectant, and fluoride levels

Regular water quality testing and monitoring



FITNESS (8 features)

Integration of exercise and fitness into everyday life by providing features to support an active and healthy lifestyle.

Features include support, activity programs, spaces, and interior and exterior active design.



Many people are physically inactive due to sedentary jobs, modern transportation, and urbanisation.

US statistics show that less than 50% of young school students, 10% of adolescents and 5% of adults reach the recommended exercise goal. Worldwide, fewer than 40% get the 30 minutes of moderate-intensity activity per day recommendation.

Physical inactivity is estimated to be responsible for 30% of ischemic heart disease, 27% of type 2 diabetes and 21-25% of breast and colon cancer cases, and is the 4th leading risk factor for mortality.

WELL Buildings should be designed to encourage movement to, from and around them, to help to make occupants less sedentary.

Interior fitness circulation through prominent designs to promote movement i.e. promoting use of stairs rather than elevators, or zoning of activity spaces to create destination points

Activity incentive programs - wearable activity monitors and gym memberships

Structured fitness opportunities, such as access to personalised fitness advice and classes

Exterior active design to facilitate more active living

Physical activity spaces

4.0 Wellness Certification: Air

Administered by the International WELL Building Institute and certified by Green Business Certification Inc. the WELL Building Standard is a building standard that focuses on human health and well being. The standard is fast emerging as a leading human centered approach to health and well being in the built environment. Other well known building standards such as LEED and BREEAM differ mainly in their assessment methods, tend to be carbon centered and focus more on buildings environmental performances.

CURA Research recommend that Abbeyfield consider applying the following principles and if appropriate apply for a WELL certification as the first care home in the UK to have this certification.



AIR
(29 features)

Optimal indoor air quality to support the health and well-being of building occupants.

Features include material selection, ventilation, filtration, and pest control.

First of all, we breathe in 15,000 litres of air every day.

Air pollution contributes to 7 million premature deaths annually worldwide. Indoor pollution levels can be 100 times higher than pollution found outdoors, and toxic household cleaners can be three times more likely to cause cancer than breathing in outdoor air²¹.

Volatile Organic Compounds (VOCs), such as adhesives, paints, and air fresheners²², cause headaches, eye, nose and throat irritation and dizziness, and may lead to chronic diseases or cancer. 96% of VOCs detected in a large office building were a result of materials used to construct and furnish the building²³. These air quality issues can diminish work productivity and lead to sick building syndrome.

Better indoor air quality, such as low levels of CO₂, pollutants and increased ventilation, can lead to an 8-11% improvement in productivity²⁴

The WELL Building Standard requires a combination of the installation of appropriate materials with the implementation of effective procedures to improve air quality.

Implement a smoking ban

Optimise mechanical and natural ventilation

VOC reduction in adhesives, finishes, furniture and cleaning products

Air filtration (such as carbon filters that remove volatile pollutants, and media filters for smaller particles)

Microbe and mould control (ultraviolet germicidal irradiation devices)

Healthy entrances (such as floor systems that capture pollutants from shoes)

Cleaning protocol (frequency, supplies, equipment, procedures and training)

Pesticide management (use only approved, nontoxic products)

Humidity control and balancing

Operable windows

Pest control for food storage and presentation

Buildings with Money Plants, Mother-in-Laws Tongue and Areca Palm resulted in:

34%

fewer respiratory problems



52%

less eye irritation



24%

fewer headaches



Similar in spirit and intention to the idea in Sverre Fehns Thought of Construction:

“Written in the ruins of the Second World War, Martin Heidegger characterised the reduction of the natural world to resources for production and consumption as THE crisis of modernity. Heidegger claimed this crisis is rooted in our technological worldview. Its consequences include a loss of the sacred, the violation of nature, and the destruction of our home.”

“He thought this freedom could be achieved through a form of “wilful non-willing” that releases us from our selfish activities and puts us in a position to interact with nature in a sustainable way. Of course, “wilful non-willing” sounds contradictory, but the basic idea is straightforward: we need to resist the tendency to reduce the natural world to a resource.”

Author: Aaron James Wendland



Heidegger spoke of “letting things be” and of shifting our mindset from “masters and possessors of nature” to shepherds of being.

This idea of shepherding suggests the policies that simultaneously preserve the natural world and ensure our own well-being; whether those contained in the Paris Climate Agreement or Green New Deal could even begin to adequately protect our life-sustaining ecosystems is an open question. But one thing is clear ahead of the UN’s Climate Action Summit: with rising temperatures and mass extinction, we can no longer afford to reduce nature to a stock of resources waiting to be used at our command. In Heidegger’s words, we need “a new ground and foundation” from which we can “confront the dangers of modern technology”, and “dwell in the world in a totally different way”.

In my opinion, we need people to fight this good fight and find a totally different way in making as Charles Eisenstein writes - The More Beautiful World Our Hearts Know Is Possible.