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MA Sustainable Design

NATURALISING HOSPITAL GROUNDS

ADM30

Mental Health / Hospitals / Nature / Economics / Climate Change

ABSTRACT

Is a tree a tree? Or is it £5000? The true value of trees is often ignored or mistaken in design projects. Therefore, does applying monetary benefits to trees assist in increasing how they might be valued and used? How else might trees and other vegetation be valued at an NHS (National Health Service) mental health hospital site? Especially in the contexts of sustainable design to reduce carbon, increase biodiversity and improve patient and staff health outcomes?

Outputs will be an i-Tree Canopy survey, concept drawings, explanatory document, and a film (about making a film). This approach enables me to identify the value of existing trees; the potential value of adding more trees and other vegetation; and better determine the quantitative and qualitative values for various health outcomes (social, environmental, and economic). Statistics are used to present the existing situation and the value of a conceptual future situation for discussion.

Participatory methods of design are also explored to implement improvements, within guidelines such as NHS Forests. To drive improvements within the NHS, the value of projects needs to be shown in terms of health outcomes and their financial value.

INTRODUCTION AND KEY MESSAGE

Mill View is a hospital for adults with mental health problems in Hove, East Sussex. It has four inpatient wards that treat general mental health conditions. The site includes other facilities such as Hove Polyclinic and the Sussex Education Centre. It is managed and run by the Sussex Partnership NHS Foundation Trust (SPFT) which provides mental health and learning disability services to the people of Brighton & Hove, East Sussex and West Sussex (Figure 1). The Mill View grounds are currently defined by hard surfaces, cut grass, manicured hedgerows and boundary trees (Figure 2).

This study focuses on how might trees and other vegetation be valued at this NHS mental health hospital site, regarding sustainable design to reduce carbon footprint, other environmental impacts and improve patient and staff health outcomes. The benefits of trees are myriad, as shown in Figure 3. The potential value of other vegetation is also discussed, such as uncut grass and wildflower meadows.

Why do I think it is ok for me to do this? On the one hand I currently work within SPFT as an Expert by Experience. An Expert by Experience being someone who is, or has been, a service user (patient) or carer who assists clinical teams in their work. In this sense I was a service user, having used mental health services including being an inpatient in hospital wards on a few occasions between 2017 to 2019, including twice in Mill View wards. On the other hand, I present myself as someone who has been interested in nature for a very long time, working in agroforestry in East Africa, and then working as a landscaper, and ultimately a garden designer, winning a national award in 2018.¹ It is with these interests, knowledges and understandings that I feel I can temporarily put on my 'expert hat' and put together some conceptual ideas, represented as a variety of plans, for this project. These are meant as discussion articles and are by no means presented as finished artifacts. Their intention is to create further discourse and discussion that hopefully can be developed within a participatory framework including staff, patients, carers, visitors and other interested parties.

1 "Awards 2018," 2018, accessed 01/02/2022, 2022, <https://www.aplawards.co.uk/2018-winners/>.



Figure 1. Mill View Hospital





Figure 2. Hospital grounds (Google Maps)

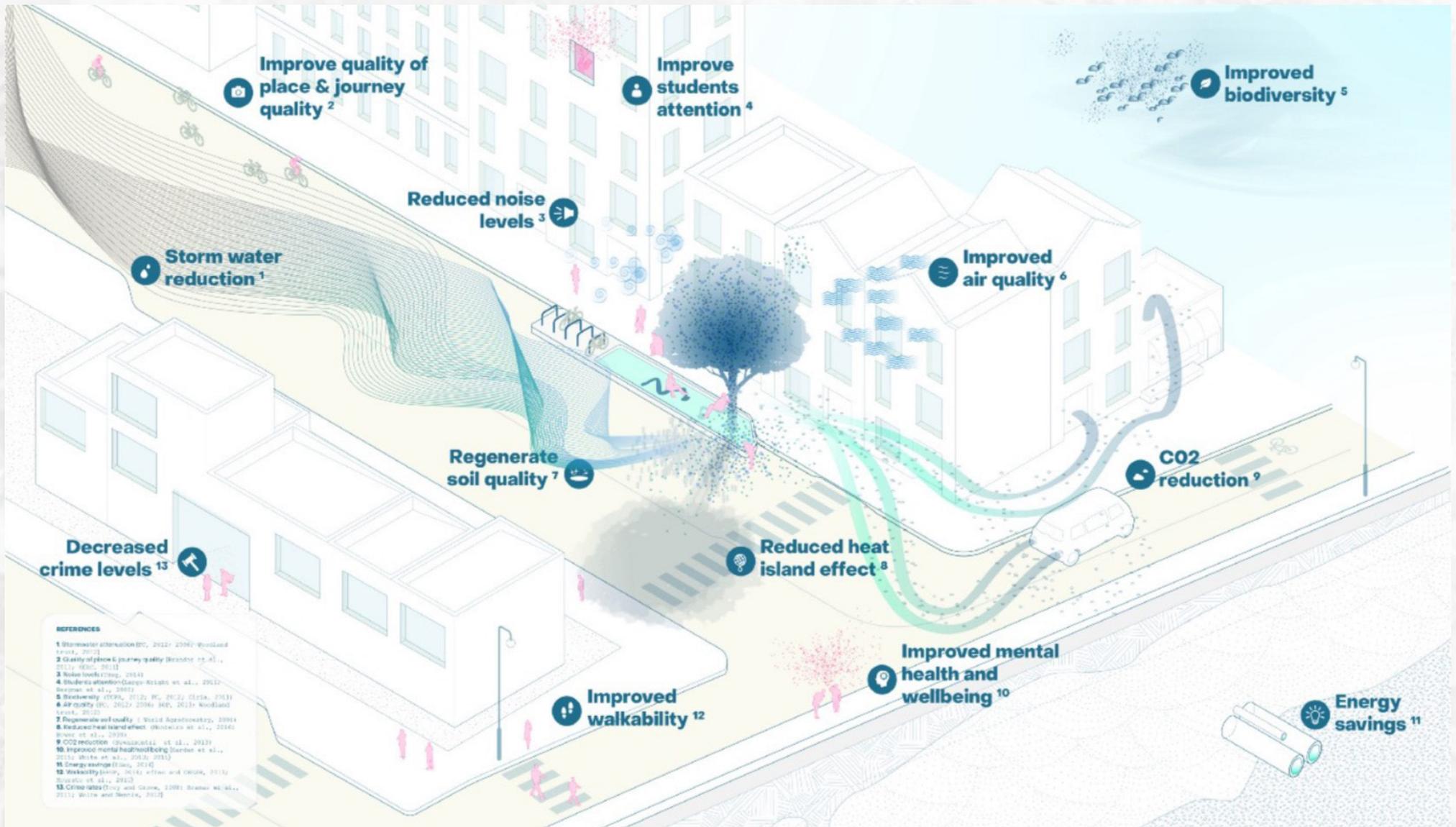


Figure 3. Social and ecosystem benefits associated with urban trees (Dark Matter Labs; 2020)

The concept drawing in Figure 4 focuses on the mown grass areas. By introducing grass meadows, more trees, and smaller plants, this creates an area that improves biodiversity, is beneficial for social cohesion and health, and changes from emitting carbon to becoming carbon negative.

Figure 5 highlights the naturalistic views that would be visible from hospital ward bedroom windows. Evidence suggests that views of nature are beneficial to mental health and could therefore speed up recovery within mental health settings.

This could all be achieved as a collaboration between staff, patients, carers, and others. Focusing on NHS objectives and the Five Ways to Wellbeing – Connect, Be Active, Learn, Take Notice, Give.² And most of this is achieved by simply not mowing! (Figure 6).

² “Five Ways to Wellbeing,” accessed 01/02/2022, 2022, <https://www.mind.org.uk/workplace/mental-health-at-work/taking-care-of-yourself/five-ways-to-wellbeing/>.



Figure 4. Concept Plan



Figure 5. Concept Plan



Figure 6. Concept Plan

SUSTAINABILITY AND HEALTH

Issues of sustainability are centred around the three major crises' facing humanity: the climate crisis, the nature crisis, and the pollution crisis. "These crises, driven by decades of relentless and unsustainable consumption and production, are amplifying deep inequalities and threatening our collective future".³

The UN Environment Programme advocates for a 'One Health' approach which is cross-disciplinary to protect the health of people, the environment and animals.⁴ Our health then is a combination of human health and biodiversity health, which I see as a subset category within the overall view of 'natureculture', the phrase coined by Donna Haraway, as a synthesis of nature and culture that recognizes their inseparability in ecological relationships that are both biophysically and socially formed.⁵

"The NHS is one of the largest employers in the world and is the largest public sector contributor to climate change in Europe".⁶ The sustainability programme followed by SPFT is managed by Care Without Carbon (CWC), who have adopted the four principles of sustainable healthcare (Figure 7). "For us (CWC), health is embedded in sustainability; you can't have one without the other. Creating these principles allowed us to shift the focus of sustainable healthcare away from the more traditional arena of estates to our core business, clinical practice; which opens up the possibility of a far more impactful approach".⁷

With regard to One Health, natureculture and SPFT I am going to advocate for a transformative approach to the Mill View grounds through collaboration and participation. Although so much is intertwined, I am going to individually examine the mental health, environmental, economic and participation aspects within this project.

3 Ivar A Baste et al., "Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies," (2021). 5

4 Baste et al., "Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies." 17

5 Donna Jeanne Haraway, *The companion species manifesto: Dogs, people, and significant otherness*, vol. 1 (Prickly Paradigm Press Chicago, 2003).

6 Care Without Carbon, *Our Vision For Sustainable Healthcare* (Sussex Community NHS Trust, 2014). 5

7 Care Without Carbon, *Creating a sustainable future for healthcare - Progress Report 2020* (Sussex Community NHS Foundation Trust, 2020). 9

1. PREVENTION

promoting health and preventing disease by tackling the causes of illnesses and inequalities

Four principles of **SUSTAINABLE HEALTHCARE**

Mortimer, F. *The Sustainable Physician*. Clin Med 10(2). April 1, 2010. p 110-111.
<http://www.clinmed.rcpjournal.org/content/10/2/110.full>

2. PATIENT SELF-CARE

empowering patients to take a greater role in managing their own health and healthcare

3. LEAN SERVICE DELIVERY

streamlining care systems to minimise wasteful activities

4. LOW CARBON ALTERNATIVES

prioritising treatments and technologies with a lower environmental impact.



CENTRE for
**SUSTAINABLE
HEALTHCARE**
inspire • empower • transform

Figure 7. Four Principles of Sustainable Healthcare (Centre for Sustainable Healthcare)

MENTAL HEALTH

At least one in four people are affected by mental illness in the UK every year.⁸ The causes of mental health illness are myriad and too numerous to outline in this study. However, with a focus on potential nature benefits it is worth noting distress that might be caused by sustainability issues, sometimes known as climate emotions. These include solastalgia – distress caused by environmental change, such as from climate change, natural disasters, extreme weather conditions, and/or other negative or upsetting alterations to one’s surroundings or home. This condition brings with it a profound, often long-lasting disruption to a person’s sense of identity, belonging, and security relating to where they live. Secondly, climate/eco grief - this is a sense of grief for the natural world that has already been lost or is likely to be. Then, pre traumatic stress - an anticipatory anxiety when faced with imminent threat and loss. And finally, climate/eco anxiety - a chronic fear of future environmental doom.⁹

The Centre for Sustainable Healthcare (CSH) promotes four principles of sustainable healthcare in order of significance (Figure 7). The most significant being prevention and patient self-care and these fit in well with solutions focused on promoting interaction with nature. The mental health benefits of a natural environment have been shown to include the direct benefits of the restorative effect of nature, and then also indirectly by improving opportunities for social contact and physical activity.¹⁰

8 Rachel Bragg and GJNECR Atkins, “A review of nature-based interventions for mental health care,” Natural England Commissioned Reports 204 (2016). 4

9 “Sustainable Mental Healthcare course,” 2021, accessed 20/10/2021, 2021, <https://www.sustainablehealthcarelearning.com/>.

10 Bragg and Atkins, “A review of nature-based interventions for mental health care.” 11

An aerial photograph of a hospital campus, likely Mill View, showing various buildings, parking lots, and green spaces. A white rectangular text box is overlaid on the upper portion of the image, containing text about hospital ward views and patient recovery. The text box has a thin black border.

Figure 5 highlights the more naturalistic views that would be visible from hospital ward bedroom windows. A study in 1984 established that patients in a general hospital ward recovered quicker if they had a view of green space from their windows.¹¹ Although this kind of research has not been carried out in a mental health setting, the restorative effect of nature could help speed up the recovery of patients.

Many staff working at Mill View have views overlooking the grounds. Studies have shown the positive associations of having views of natural green space from the workplace, reducing the effects of stress.¹² “Other implications from research are that gardens and nature in hospitals enhance mood, reduce stress and improve the overall appreciation of the health care provider and quality of care”.¹³

11 Roger S Ulrich, “View through a window may influence recovery from surgery,” *Science* 224, no. 4647 (1984).

12 Victoria Houlden et al., “The relationship between greenspace and the mental wellbeing of adults: A systematic review,” *PloS one* 13, no. 9 (2018).

29

13 Bragg and Atkins, “A review of nature-based interventions for mental health care.” 11

ENVIRONMENTAL

The grounds are currently managed by one horticultural gardener employed by SPFT. They have limited time and resources and thus the gardener focuses on maintenance rather than development of the grounds. The landscape maintenance revolves around mowing, weed spraying, hedge cutting and tree surgery (Figure 8). Trees are currently assessed for risk, in order to determine if they might damage a building or cause a nuisance. These practices of landscape maintenance are by no means unusual.

Each of the wards has a small private garden. Individual projects are occasionally commissioned to improve these ward gardens, completed by garden designers, landscapers and horticulturalists, although this is not within an overall management plan for the estate. If the grounds were to be considered as a whole, it might be assumed that the same approach would be taken to commission landscape architects to develop ideas and plans. As there is no management plan in place, and therefore no objectives, their roles as 'experts' becomes increasingly important, and it might be assumed that they can bring all the knowledge that is required to complete such a project from within their mode and culture of design. With regard to One Health, natureculture and involving the users, i.e., staff, patients and visitors in the process, I am advocating for a much more participatory approach.

I wanted to try and establish values for the existing trees, beyond seeing them as liabilities. i – Tree software can be used to estimate the amount of atmospheric chemicals removed and stored by trees, together with attaching a monetary value to this.¹⁴ Organisations such as the Forest Research Council and Treeconomics have used this software to estimate the value of tree inventories for many local authorities, including London and Glasgow.¹⁵ I carried out an i – Tree Canopy survey for Mill View Hospital which indicated that tree canopy covers 18% of the area and the trees sequester over 9 tons of CO₂ a year and currently store 234 tons of CO₂ (Figure 9).

14 “Learn about i - Tree,” accessed 15/12/2021, 2021, <https://www.itreetools.org/>.

15 Heather Rumble et al., “Valuing urban trees in Glasgow,” *Assessing the Ecosystem Services of Glasgow’s Urban Forest: A Technical Report* (2015).

Figure 8. Landscape maintenance



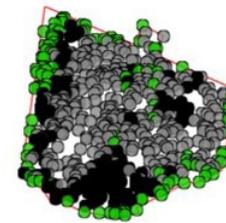
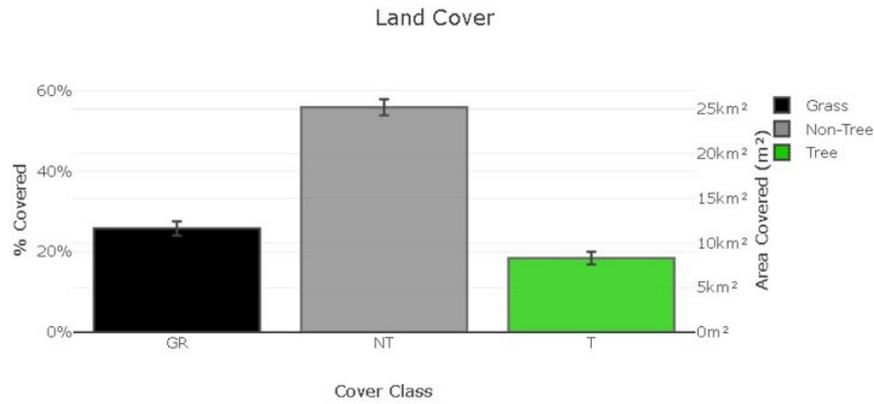
i-Tree Canopy v7.1

Cover Assessment and Tree Benefits Report

Estimated using random sampling statistics on 12/30/2021



Satellite Map White



Abbr.	Cover Class	Description	Points	% Cover ± SE	Area (m²) ± SE
GR	Grass	Grass	161	25.76 ± 1.75	11624.66 ± 789.38
NT	Non-Tree	All other surfaces	349	55.84 ± 1.99	25198.80 ± 896.36
T	Tree	Tree, non-shrub	115	18.40 ± 1.55	8303.33 ± 699.44
Total			625	100.00	45126.80

Tree Benefit Estimates: Carbon (Metric units)

Description	Carbon (t)	±SE	CO ₂ Equiv. (t)	±SE	Value (GBP)	±SE
Sequestered annually in trees	2.54	±0.21	9.32	±0.78	£643	±54
Stored in trees (Note: this benefit is not an annual rate)	63.81	±5.38	233.97	±19.71	£16,144	±1,360

Currency is in GBP and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Amount sequestered is based on 0.000 t of Carbon, or 0.001 t of CO₂ per m²/yr and rounded. Amount stored is based on 0.008 t of Carbon, or 0.028 t of CO₂ per m² and rounded. Value (GBP) is based on £253.00/t of Carbon, or £69.00/t of CO₂ and rounded. (Metric units: t = tonnes, metric tons, m² = square meters)

Tree Benefit Estimates: Air Pollution (Metric units)

Abbr.	Description	Amount (kg)	±SE	Value (GBP)	±SE
CO	Carbon Monoxide removed annually	1.23	±0.10	£1	±0
NO ₂	Nitrogen Dioxide removed annually	25.45	±2.14	£5	±0
O ₃	Ozone removed annually	85.55	±7.21	£79	±7
SO ₂	Sulfur Dioxide removed annually	3.36	±0.28	£0	±0
PM _{2.5}	Particulate Matter less than 2.5 microns removed annually	4.33	±0.36	£133	±11
PM ₁₀ *	Particulate Matter greater than 2.5 microns and less than 10 microns removed annually	17.27	±1.46	£582	±49
Total		137.20	±11.56	£801	±67

Currency is in GBP and rounded. Standard errors of removal and benefit amounts are based on standard errors of sampled and classified points. Air Pollution Estimates are based on these values in kg/m²/yr @ £/kg/yr and rounded: CO 0.000 @ £0.96 | NO₂ 0.003 @ £0.19 | O₃ 0.010 @ £0.93 | SO₂ 0.000 @ £0.06 | PM_{2.5} 0.001 @ £30.65 | PM₁₀* 0.002 @ £33.71 (Metric units: kg = kilograms, m² = square meters)

Figure 9. i - Tree Canopy survey

The i – Tree Canopy survey was also used to estimate the area that is currently mown grass, because this is the area where potential lies for changing the current landscape maintenance regime. “A typical beautiful, high maintenance lawn emits more carbon than it sequesters because of the typical use of gasoline powered equipment and fertilisers. Shifting away from a high maintenance lawn of turf into a native meadow grass could see a really big shift in improvements”.¹⁶ Using the Pathfinder App. developed for landscape architects and other landscape professionals,¹⁷ examples have been created to show average carbon sequestration through different types of lawn management over 50 years. Over this period mowing with minimum management would lead to emissions of 43 tons of CO₂ (Figure 10). This is likely to be similar to the current maintenance practice. Conversely, not mowing to create a meadow would sequester 462 tons of CO₂ (Figure 11).

The concept plans therefore introduce significantly less mowing to create grass/wildflower meadows. More trees are introduced. Medium size trees (less than 10m) planted away from buildings and cars, so they are less likely to be considered as liabilities. Mown paths and areas would be created, perhaps with some benches and additional smaller shrubs and herbaceous perennials. All these measures would be likely to create a carbon negative environment with many additional benefits, including increased biodiversity.

16 Eljays44 Ltd, “Becoming Climate Positive,” Prolandscaper, April 2021. 16

17 “Pathfinder App,” accessed 01/01/2022, 2022, <https://app.climatepositivedesign.com/>.

Climate Positive
Design **Scorecard**

Project Name **Mill View Hospital grass areas**
Type of project **Garden**

Net Impact over 50 years

Total Material Emissions (Embodied Carbon)
Total Plant Sequestration
Total Operational Emissions

43 Metric Tons

0 kg CO₂-eq
-20,140 kg CO₂-eq
22,639 kg CO₂-eq

Total Area

Planted area
Emissions per area
Sequestration per area

46,223 sq metres

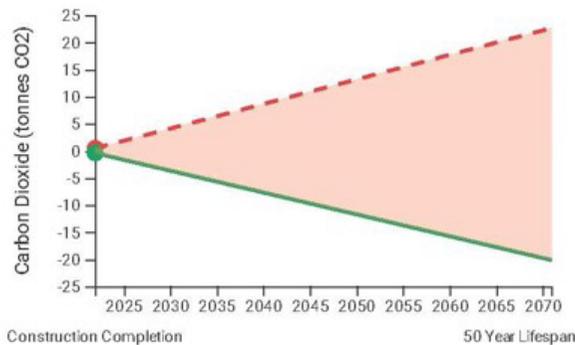
11,625 sq metres
0.5 kg per m²
-0.4 kg per m²

5 hectares

25% of total area

Net Project Impact

Project Emissions



Assumptions used in Pathfinder: -

- Grass area assessed using i - Tree Canopy survey
- Minimal management lawn
- Mowing once every two weeks using a 20 hp lawn mower

Figure 10. Pathfinder App. applied to mown grass areas at Mill View Hospital

Climate Positive
Design **Scorecard**

Project Name **Mill View Hospital grass areas**
Type of project **Garden**

Net Impact over 50 years

Total Material Emissions (Embodied Carbon)
Total Plant Sequestration
Total Operational Emissions

-462 Metric Tons

0 kg CO₂-eq
461,517 kg CO₂-eq
0 kg CO₂-eq

Total Area

Planted area
Emissions per area
Sequestration per area

46,223 sq metres

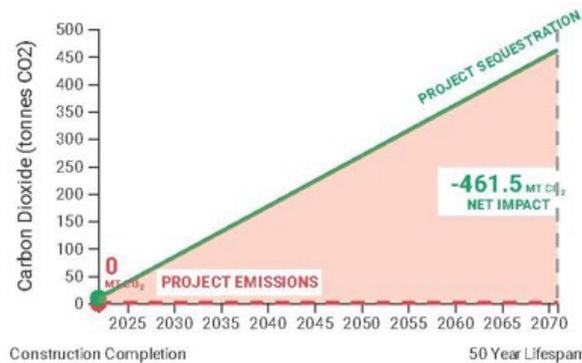
11,625 sq metres
0 kg per m²
10 kg per m²

5 hectares

25% of total area

Net Project Impact

Project Emissions



Assumptions used in Pathfinder: -

- Grass area assessed using i - Tree Canopy survey
- No-mow lawn/meadow grass

Figure 11. Pathfinder App. meadow alternative applied to mown grass areas at Mill View Hospital

ECONOMIC

“Poor mental health is estimated to incur an economic and social cost of £105 billion a year in England, with treatment costs expected to double in the next 20 years”.¹⁸ To drive improvements within the NHS, the value of projects needs to be shown in terms of health outcomes and their financial value. As previously mentioned, at present no study has been undertaken to try and value how much a view of nature from a ward bedroom window might save at hospital like Mill View. However, studies have shown a potential value of between £135 to £452 for a person having a view of green space from their own home.¹⁹

Trying to put a value on nature based mental health projects is therefore of significance, particularly within the NHS. A project called Ecominds, which involved participants in nature-based health interventions for mental health, found that as well as improved wellbeing,²⁰ there was an average saving of £7082 per participant through reduced NHS costs, benefits reductions and increased tax contributions. The charity Mind estimated that this could relate to savings of £1.46m for the 246 participants involved who then found full time work.²¹

The i – Tree Canopy survey was also used to estimate the value of carbon sequestered annually at £643, carbon stored in trees at £16,144, and £801 for other types of air pollution (Figure 9). Adding more trees at Mill View Hospital would undoubtedly increase these values.

18 Public Health England, Improving access to green space - A new review for 2020, (London: PHE publications, 2020). 23

19 Public Health England, Short Improving access to green space - A new review for 2020. 33

20 S Maxwell and R Lovell, “Evidence statement on the links between natural environments and human health,” (2017). 27

21 Maxwell and Lovell, “Evidence statement on the links between natural environments and human health.” 25

However, as Indy Johar from Dark Matter Labs points out these figures do not represent the true value of the trees because they do not include all the other potential benefits they can provide.²² Dark Matter Labs suggest that urban 'Trees As Infrastructure' projects should be compared to the costs of capital-based infrastructure projects, for instance, comparing the cost of installing a new waste water sewage system to planting a number of micro urban forests instead.²³

I wanted to consider if these concept plans could be seen as part of a mental health infrastructure project. To help with this I estimated that it would cost approximately £300 to plant a medium sized tree at Mill View Hospital (Figure 12). The concept plans have around 50 new trees indicated within the lawn areas. The cost per day for an inpatient at Mill View Hospital, otherwise known as an Occupied Bed Day (OBD), was £316.41 for 2020/21.²⁴ The cost per tree is therefore quite similar to the OBD, with 50 trees equalling approximately 47 OBD. I will discuss how a collaborative mental healthcare infrastructure project could work in the following sections. These figures take into account that the gardener would have more time available as they would be doing less mowing.

22 "Investing in Nature - Nature as Infrastructure," 2021, accessed 01/02/2022, 2022, <https://www.youtube.com/watch?v=JIWKXxRuvuE>.

23 "Trees As Infrastructure," 2020, accessed 01/02/2022, 2022, <https://provocations.darkmatterlabs.org/trees-as-infrastructure-1dd94e1cfedf>.

24 NHS Providers, NHS Providers September 2019 Spending Round (NHS, 2019).



Carbon Performance Certificate (beta)
Trees and Shrubs

Treeconomics

Barcham Trees Plc
Eye Hill Drove
Ely
Cambridgeshire
CB7 5XF

Barcham
The Tree Specialists

This certificate shows the carbon performance for this tree. It indicates the efficiency of this tree based on the amount of carbon it will absorb from the atmosphere and store within its woody tissues, over its anticipated 'ideal' lifespan. The carbon capture for each tree is compared to all the other trees and shrubs which are supplied by Barcham to provide a rating. There is more advice on how to interpret this information on the Treeconomics website at: www.treeconomics.co.uk/treecarboncertificate/

Species

Field Maple	Acer campestre
Varieties, subsets, and hybrids which are included within this species calculation:	Arends, Elegant, Elsrijk, Lienco, Louisa Red Shine, Queen Elizabeth, Streetwise, William Caldwell

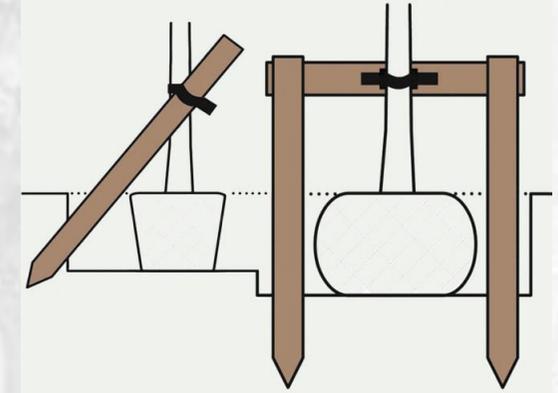
Carbon Performance Rating

More Carbon efficient:
Larger stature, longer lived, more carbon stored

5000-7000+ kg	Large Trees	A
2000-5000kg	Medium Trees	B
500-2000kg	Small Trees	C
50-500kg	Large Shrubs	D
5-50kg	Small Shrubs	E

← 2572kg

Less Carbon efficient:
Smaller stature, shorter lived, less carbon stored



Estimated tree cost: -

- Field maple 3-4m £246
- Tree stakes £16
- Peat free compost/feed £10
- Labour £28
(including Participation)

Figure 12. Estimated cost for a medium sized tree

PARTICIPATION

So far, I see the work I'm doing here as the stage before a project. An idea. Something to discuss which could then possibly become a collaboration within a participatory project. The concept drawings I have presented in figures 4, 5 and 6 are not finished plans. If I drew them again in a few weeks or months, they would most likely be different. If other people were to draw them, they would be different again. If we, did it together they would be different and that it was I am looking for. A collaboration between SPFT staff, patients, carers, visitors and other interested parties (Figure 13).

Public Health England indicates that local government in practice needs to, "work with local NHS systems and professionals, including Sustainability and Transformation Partnerships and Integrated Care Systems, to promote the role greenspace plays in both individual and population health outcomes. This will support the health service's ambition to take more action to prevent poor health and to use green assets, through initiatives such as social prescribing, as part of the overall plan to achieve this aim".²⁵

Are projects like this already taking place? There are many examples of landscape architects working in hospital settings where the design mode and practice have focused on linking the patients directly to gardens and nature (Figure 14). And the Wolfson Economics Prize 2021 was won by Ab Rogers Design for a hospital design in which all elements focused on linkages with nature.²⁶ Unfortunately, I am unaware of the degree to which landscape architects and garden designers are practicing collaboratively in these projects.

25 Public Health England, Short Improving access to green space - A new review for 2020. 14

26 Ab Rogers Design, Wolfson Economics Prize 2021 (2021). 71



Sussex Partnership
NHS Foundation Trust



i-Tree™

Eco



Figure 13. Participation

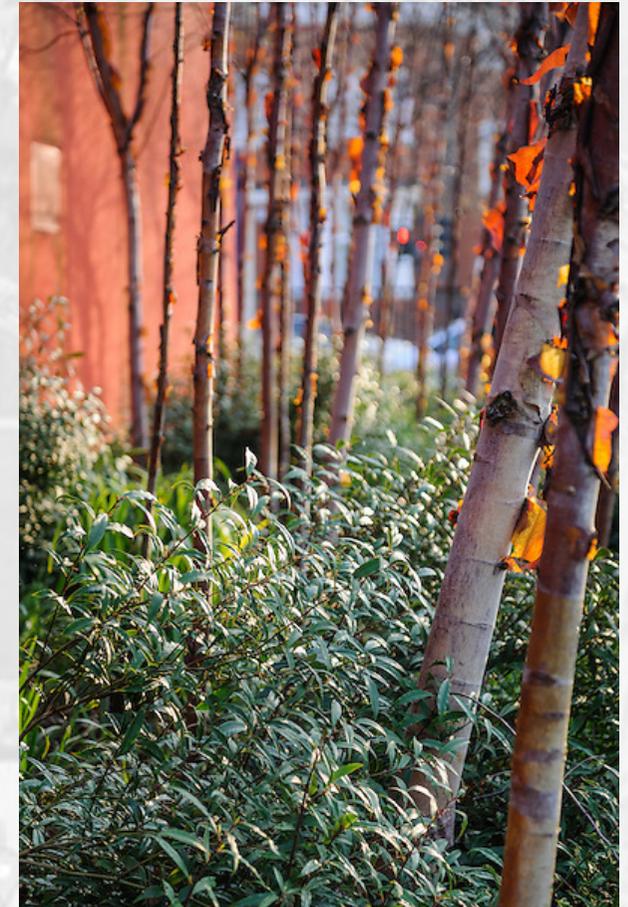
Figure 14. Hospital gardens



Fairhavens Hospice garden
by Studio 31



Addenbrookes NHS Hospital
garden by Bowles & Wyer



Maggies Centre gardens
by Dan Pearson

NHS Forest, coordinated by CSH, aims to increase the quality and use of green space at healthcare sites for patients, staff and the wider community.²⁷ Since the spring of 2021 they started to recruit Nature Recovery Rangers at a few hospital sites to improve biodiversity whilst helping patients, staff and community members to enjoy nature.²⁸ This has already included converting a standard cut lawn into a wildflower meadow at Mount Vernon Cancer Centre in London where patients are encouraged to become involved in wildlife surveys and tree planting.

The opportunity then at Mill View is to see this as a green social prescribing project. The i – Tree Canopy survey I completed provides an estimate of the value of the trees. A much more detailed analysis can be achieved by using the free i – Tree Eco software, which requires people to go and look at the trees. This survey could be undertaken by SPFT staff, including the gardener, working with patients and carers for instance. There would be opportunities for tree planting, gardening, wildlife surveys, green walks for patients in wards, amongst other opportunities as yet unidentified that support the five ways to wellbeing (Figure 15).

“If a paradigm of knowitallness has created climate change and many associated oppressions; the fumbling quality of ‘I don’t quite know, perhaps we can know together’ can be a powerful, radical and fresh new opening or seed”.²⁹

27 “NHS Forest,” accessed 01/02/2022, 2022, <https://nhsforest.org/>.

28 “NHS Forest - Nature Recovery Rangers,” accessed 01/02/2022, 2022, <https://nhsforest.org/nature-recovery-rangers>.

29 Mathilda Tham, Metadesign meditation to find agency for careful Earth work from within a ball of yarn. In *Metadesigning Designing in the Anthropocene*, Routledge. 10

Support your Mental Health by using

5 ways to Wellbeing



Connect - Reach out to your local community, neighbourhood, colleagues, family and friends.



Learn - Learning new things can be fun and can improve your confidence. Set a challenge you will enjoy achieving. Share what you have done with others.



be Active - Exercising makes us feel good. If you can get outside, try and go for a walk everyday. Discover a physical activity you enjoy and that suits your level of mobility and fitness.



take Notice - Look out as well as in. Notice your senses and what's around you. Pay attention to the present moment. Some people call this awareness "mindfulness".



Give - Acts of giving and kindness can help improve your wellbeing by creating positive feelings and a sense of reward, purpose and self-worth. They also help you connect with other people.

Be kind to yourself, and enjoy using the **5 ways**



Figure 15. Five ways to Wellbeing (Brighton & Hove City Council)

CONCLUSION

Historically as soon ago as the 1960s this land was allotment gardens surrounded by new housing development and was still indicated as farmland on the edge of the town in 1910. Maps do not go far enough back to show 'the wild' but the original soil texture would have been chalky clay to chalky loam, over chalk bedrock.³⁰ I can only guess that on a chalky soil here there might have been a mixture of chalk meadow, trees and scrubland, all very familiar in the South Downs National Park landscape. In the film I made to go along with this project the images I used towards the end illustrating how the Mill View grounds might look when naturalised evoke a return to something like this. I will not be including them here as this is an idea for a participatory collaboration and therefore, I do not intend to prescribe the outcome.

In discourse around sustainability there are many who believe that 'sustaining' is not enough, and we need to move towards a regenerative approach to repair our damaged ecosystems, and a world-centric viewpoint, where humans do not come first, and we are seen as equals with nature in order to create a flourishing planet.³¹

The existing sustainability programme, overseen by CWC, is currently in a process of transformation so that SPFT now has a Green Plan, with measurable targets, set within the four principles of sustainable healthcare.³² 'Our Green Plan 2022' includes priorities; "ensuring our workplaces are low carbon and protect local biodiversity whilst supporting wellbeing for staff, patients and visitors";³³ to "explore and develop opportunities to develop the green spaces to support physical and mental health of our staff and patients at our sites";³⁴ and "supporting the integration of social prescribing and nature-based care in both secondary and primary care settings";³⁵

30 "Digimap," accessed 01/01/2022, 2022, <https://digimap.edina.ac.uk/>.

31 Chris Riedy, "Discourse coalitions for sustainability transformations: Common ground and conflict beyond neoliberalism," *Current Opinion in Environmental Sustainability* 45 (2020). 106

32 Carbon, *Our Vision For Sustainable Healthcare*. 41

33 Sussex Partnership NHS Foundation Trust., *Our Green Plan 2022 (Care Without Carbon, 2022)*. 31

34 Trust., *Our Green Plan 2022*. 52

35 Trust., *Our Green Plan 2022*. 45

whilst offsetting residual carbon emissions;³⁶ all in collaboration with SPFTs People Participation team to unsure patient engagement around sustainability.³⁷

The concept drawings I have developed as ideas for discussion fit well within these priorities, One Health, natureculture and a more world-centric viewpoint. They aim to provide more opportunities to engage with nature, for social prescribing, and views of nature from windows.

Going forward I might suggest this idea is considered for a pilot project in a small area of the grounds. And this should be in a location that is highly visible, so that people can see it, use it, and consider whether it is beneficial, or not. This would be completed as a participatory project (Figure 13), requiring a small number of trees. Social, environmental, and economic quantitative and qualitative measures would be collected as a baseline and then at later stages, all with a view to consider this within a wider mental health infrastructure project for Mill View hospital.

To date i – Tree software only considers trees and applies monetary values to some of their characteristics. The Pathfinder App. does not apply monetary values to grass and plants, but such measures might become available in the near future. However, as carbon sequestration can be estimated this could be useful in helping with targets to offset residual carbon emissions.

Is a tree a tree? Or is it £5000? Depending on how you look at it, it could be. But it will always be much more than that.

36 Trust., Our Green Plan 2022. 27

37 Trust., Our Green Plan 2022. 43

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