CALUM DUNCAN ARCHITECTS

Greenway Hub
Stage 2 Concept Design Report
October 2022

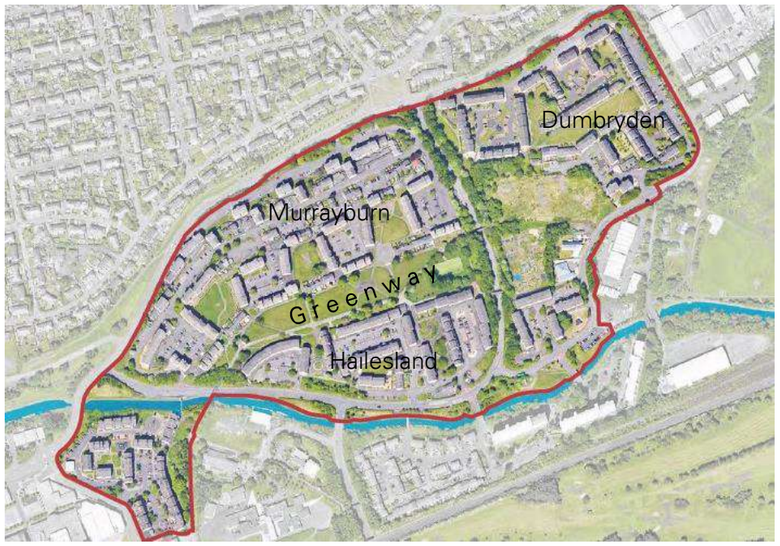
Calum Duncan Architects LTD ARB RIBA Officer's Club, The Drill Hall,
30-36 Dalmeny Street, Edinburgh, EH6 8RG 0131 677 6444
Company Incorporation No. SC516826

RIBA Chartered Practice

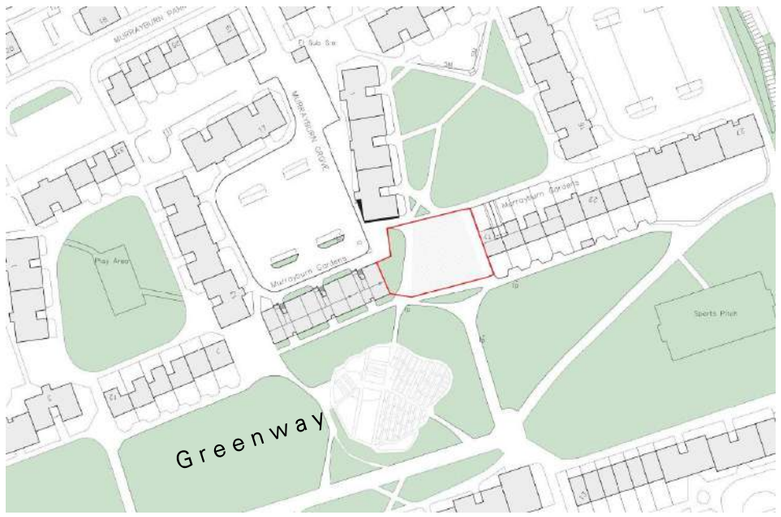
INTRODUCTION

Calum Duncan Architects LTD (CDAL) were appointed by Wester Hailes Growing to carry out an architectural feasibility study that would investigate a new Community Hub to the north of the Greenway and adjacent to the existing Community Garden in Wester Hailes. This new facility would serve the neighbourhoods of Murrayburn, Hailesland and Dumbryden, with the detailed use of the facility being guided by the outcomes of the consultation process as carried out by Community Enterprise and Calum Duncan Architects.

The site: Adjacent to the Wester Hailes Greenway, between the residential streets of Murrayburn Gardens and Murrayburn Grove.

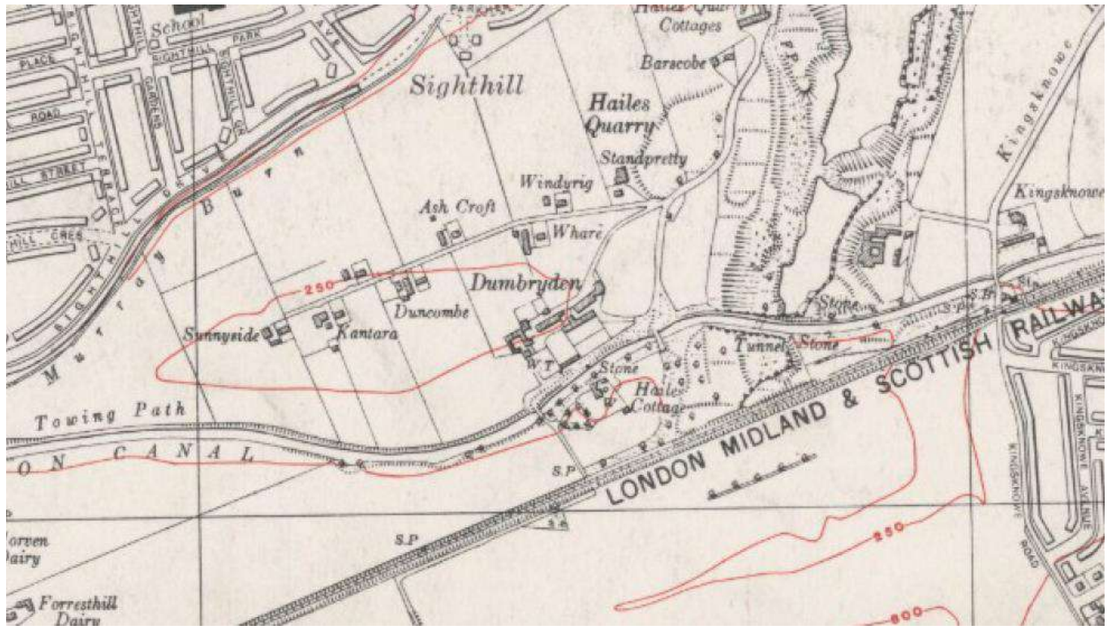


Neighbourhoods of Murrayburn, Hailesland and Dumbryden (by Atkins)



Location plan with site boundary

SITE HISTORY



Extract of 1938 OS map

On the 1938 OS map above, the area of Murray burn, Hailesland and Dumbryden can be seen to the south of the post war housing of Sighthill constructed to the north. The Greenway area can be seen to historically be a rural road linking a series crofts adjacent to the larger Dumbryden Farm. The Greenway Hub site is likely to be on the line of this central road and close to the Ash Croft or Duncombe.

Housing to the East end of the Murrayburn Greenway 1979 (photo: John Walmsley)

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Construction of the existing housing on the site began in around 1967, and as documented by the above image, by the later 1970's the housing was beginning to require repairs.

The Murrayburn Greenway Aerial Photograph, Canmore, 1991

Aerial View prior to Community Garden Construction

View of the site as existing

The 1991 Greenway Area shows the hard standing of what was a pavilion building and adjacent, we understand to have been a prefab type construction which served as a community space. During consultations with the neighbouring community, this has been referred to fondly when it functioned as a youth club and for gatherings. The year of its demolition is unknown. This is a provision which is now missed by those who used and remember the building. This is now the location of the community garden.

The Greenway Hub site itself appears to be largely unaltered since its construction as a concrete paved space. It is unclear how it was envisaged to be used and our speculation would be, it was seen as an open public 'piazza' of sorts or may have been planned to accommodate a non residential building which did not materialise. However, its existing nature and character is exceptionally underwhelming and unhelpful in terms of circulation, social engagement, character or function.

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CONSULTATION OUTCOMES

The methodology and outcomes of the consultation exercise for this study has been led by Community Enterprise (CE) with the input and engagement of Calum Duncan Architects. This process has been described in the Business plan produced by CE. Key aspects which have been given consideration as outcomes from the consultation include:

The local demographics shows a higher than average number of young people under the age of 16, a ethnically diverse and a high number of unemployed people in the community.

Feedback from locals revealed there are not facilities which cater for the younger ages or provide support for the diversity of the community, including the unemployed. The CE report describes I full the demographic and asset mapping for the locality, which has set out the aims for the brief and the feasibility proposals.

The vision for the Greenway Hub is to:

- Provide a welcoming and accessible space for the community to come together and connect around shared activities, events and support our community to become more connected
- Join up with other support providers in the area to offer a holistic service to our community, which has a range of needs, with a focus on young people under the age of 12
- Take steps to reduce food insecurity and poverty in our community by helping to improve household finances and providing a venue for community food-based activity and learning
- Promote the health and wellbeing of our community by encouraging and supporting healthy, sustainable living by improving diet and supporting positive mental health
- Encourage and provide opportunities for local people to develop skills and experience that will improve employment prospects.

THE BRIEF

The brief has been set out in detail and compiled in the form of an Accommodation Schedule, Appendix to this report. New single storey community space will function as a 'BASE CAMP' for a variety of uses, with the flexibility to accommodate multiple users of varying ages with a focus on the needs to early years and younger age groups. The primary special facilities within the brief are as follows:

- **Community Space:** As a flexible space for community group activities, meetings and as a community café operating on an intermittent basis. Importantly, this space can function as a 'base' for groups which are focused on outdoor activities, but presently have nowhere to begin and finish, or use as an indoor space where the activity and weather require this.
- **Pantry:** The space will function using the established scheme as a 'food pantry', where the local community can purchase a range a variety of produce at a reasonable price.
- **Teaching Kitchen:** With a strong link the adjacent community garden, this will provide teaching opportunities for cooking and preparation of food. This can also cater as preparation kitchen for a community café.
- **Office:** Building management space with 2 desks.
- **Private Meeting:** A place for various small group meetings and private one to one consultations.
- **Makers Workshop**: A workshop space for youth training and making opportunities.

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SITE ANALYSIS + DESIGN PROPOSALS

Site analysis drawing

Location + Services

The site is currently absent of character, function or use, and only services as a relatively exposed and unwelcoming open space which locals can be seen to negotiate in order to walk between services, housing or greenspaces. Notable local services are few and far between, with only Michael's Shop, being located on the opposite residential corner to the south of the Greenway space. The nearest, permanent non-residential building are the facilities of Wester Hailes plaza. It is evident that with this lack of services, and activity, the locality feels transient in its nature.

Access, Footfall and Parking

Pedestrian access is of primary importance to the operation of the Hub, with its purpose being to cater for the local neighbourhoods, over users from afar. The location is excellent being centrally located within the neighbourhoods it will service. The building doesn't fall clearly within the local authority requirements for vehicle parking, with community centre being the nearest building type (but note it differs being a local neighbourhood hub). The site sits out with the city parking zones. For a new build community centre this would require 1 space per 40sqm, so 4 spaces for a 175sqm building. The adjacent court of Murrayburn Green is has unrestricted and little used on street parking. We would propose demarking 1- 2 no accessible spaces for the building. Early discussion with the local authority is recommended during the detailed design stage to agree. Cycle parking will likely be requires as 2 for users and 1 for staff. We would recommend providing more. Murrayburn green on street parking would also be suitable for deliveries to the building.

Green + External Space

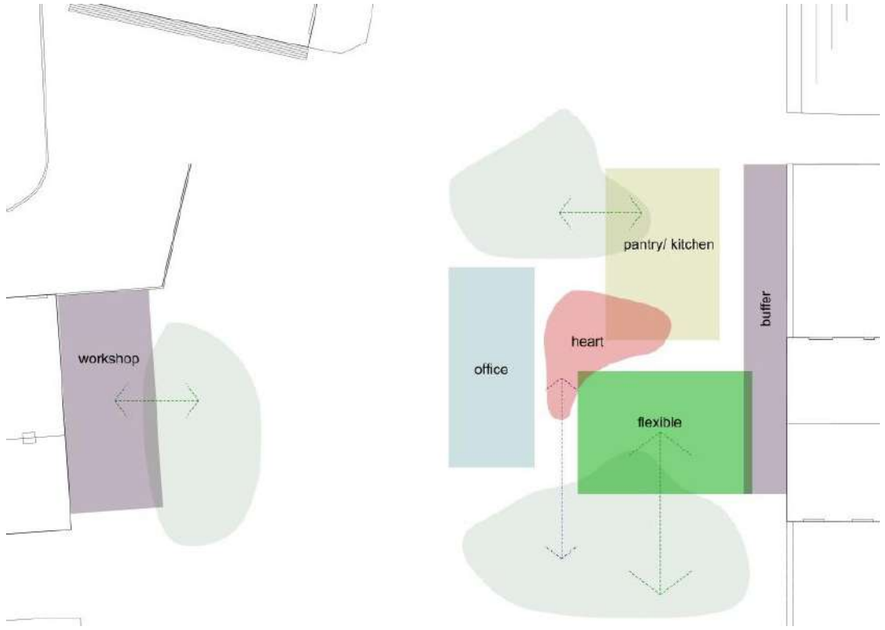
In contrast to the site itself, there are some promising green open spaces local to the site. Most are not used to their potential, with the exception of the relatively recent construction of the Murrayburn and Hailesland Neighbourhood Garden, within the southern Greenway space established in 2019. The green courtyard space to the north does have the potential for improvements, for which there is the ambition within the wider landscape masterplan (Edinburgh Council/ Atkins Consultants), to introduce an amphitheatre within the grass landscaped area (point 1 on plan below). The immediate adjacent spaces, given the importance of relevant outdoor related uses, are considered so as to make space within the boundary of the building which internal spaces can spill out into, and also bring activity to the wider green space to the south and north.

City of Edinburgh Council/ Atkins Landscape master plan extract

DESIGN PROPOSALS

Desire lines, Active Frontages + Orientation

Proposal focus on the use of the east area of the site which meets the single storey residential housing to the east. Currently this area is without character or function. On the west side of the site, this then reinforces the north/south circulation between the greenways to south and the landscaped courtyard to the north. The opposite higher gable then becomes ideal for the separate workshop space. These two uses (Hub building and workshop), being separate, are beneficial to maximise activity, presence and footfall, so challenging the current transient nature. The main elevation to the Hub faces the sunny south facing Greenway aspect, improving the space as an active frontage.



Adjacency Diagram

The development of the architectural feasibility study has provided a design proposal which organises the uses to reflect the nature of varying and complimentary activities, considering need, aspect and orientation around the site. The adjacency of spaces within he building are considered to reflect their similar uses and compatibility. The south aspect is primary, in terms of activity, sunny outside space. The main entrance is provided this side, linking towards the pedestrian route across the Greenway including connections to the Community Garden and Michael's Shop. Creating a secured enclosure to this south elevation makes a usable external space akin to an external room, for learning, play and congregating.

The entrance would give access to a central circulation heart, which importantly can directly give access to the uses of Community space, Kitchen, office, meeting and the pantry. Given the location is relatively quite single storey residential building to the east, a buffer of storage or services is located along the residential gable wall. The pantry function, which operates is a different way to a traditional shop where footfall is primary, works well in this case to the northside. An independent external entrance bringing needed activity to the courtyard on the north side, but linked to the internal kitchen space.

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Sketch visual from south

Massing and Context

It feels appropriate that the community hub should feel visually playful, in response to its three main functions, but which acknowledges the residential neighbours. The Hub is proposed to be single storey allowing all spaces to have direct connection from the outside, easily accessed and avoid the need to for a lift. The primary Community space reflects the form of the adjacent terraced houses, avoiding conflict in terms of daylight/ sunlight and gives a friendly sense of engagement with the existing buildings. This south facing pitched roof is very suitable for PV panels. The other main uses of pantry and office/meeting are then 'articulated' as a composition of spaces/uses. These roof spaces can be used to give a generosity of space, where more public in nature, such as the community space. These forms can integrate high level windows to give a characterful and bright quality of daylight (as well as views out). Where height is less important, such as the meeting space, the higher roof works well to accommodate services.

Material and Detail

Consideration is given to how and appropriate material character can be developed which is visually and practically appropriate, as well as sustainable in terms of energy efficiency, embodied energy and toxicity. The form will lend itself to a variety of external surface finishes, and this needs some careful consideration in terms of lifespan and robustness, while providing a friendly feel.

A secured boundary, which can open generously during hours of operation (by wide hinged or sliding doors), allows the elevations within this boundary to have greater flexibility due to this protection. Likewise, higher level surfaces are less prone to wear, and for these surfaces would consider a timber finish where out of reach, being sustainable, durable, relaxed and friendly in appearance. At the lower level and exposed areas, it may be that brickwork or a rendered surface is appropriate. The roofs are envisaged as a standing seam, profiled sheet metal finish, with flat surfaces as sedum green roof, with generous rooflight to the central circulation area. These are initial considerations at this stage which will be developed in detail, with consideration for their durability and maintenance.

The external form/ shape will be designed to feel generous, light and reflective of the relevant internal spaces. Each space will be designed to consider the aspects of sunlight for the buildings energy use to balance heat gain and overheating to each space. Example precedent images are provided to suggest the opportunities externally and internally, in terms of surface material, form, daylight, space and general character.

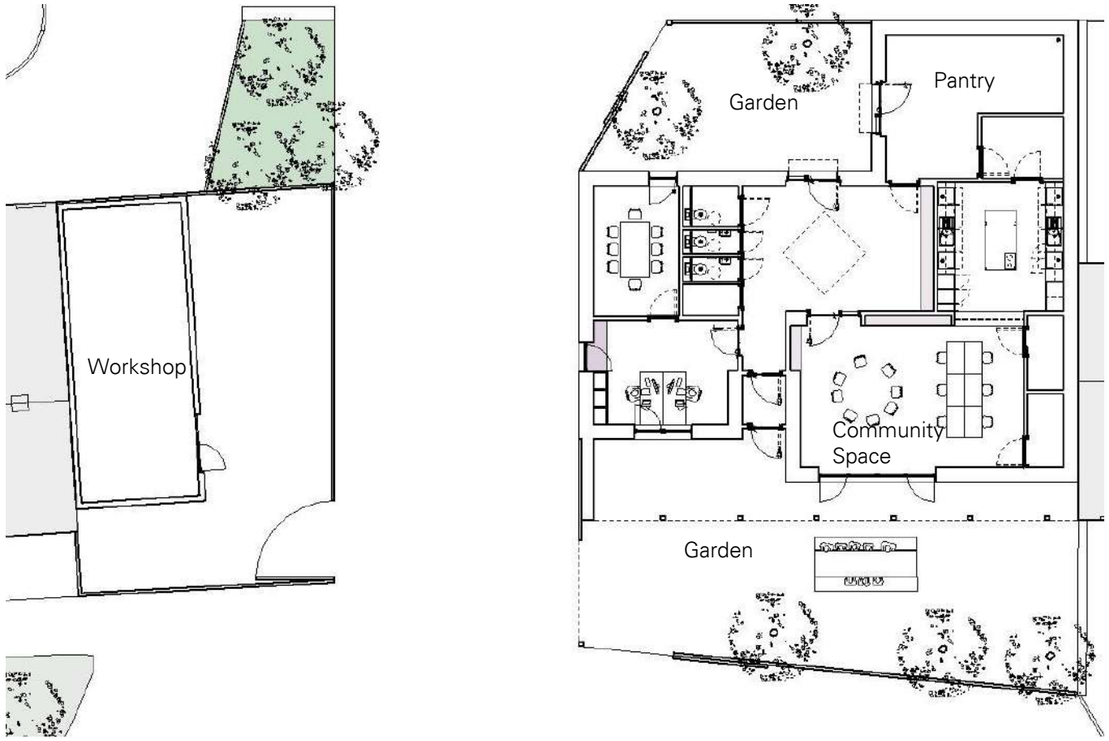
Precedent images for material, light and space

Sustainability and Passive House

A running cost analysis has been undertaken based on improved local authority Technical Standards coming into use in October 2022. This is compared to a 'Passive House' standard of design which reduces running cost further. This design potentially suits the Passive House design method, and we would recommend this be discussed at the commencement of the detailed design stage. The principle of the methodology is to make an external fabric which is as extremely thermally efficient, thorough insulation, airtightness, detailing of construction and efficient ventilation. This is referred to a 'fabric first' approach. It would also be recommended that the embodied carbon, toxicity and local sourcing of materials be considered during the detailed design stage and these considerations have been made within this outline design stage,

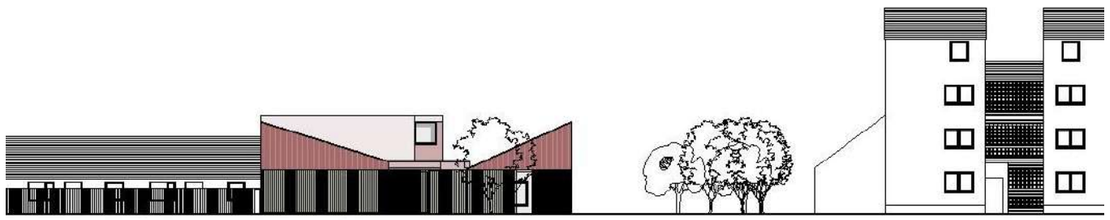
Accessibility

We recommend in line with best practice for accessibility, that any additional space created in the school is accessible by wheelchair and ambulant disabled persons. Unless there is consideration of a lift being installed, this is best done by looking at a single storey building and these proposals are based on this principal.



Plan view of Greenway Hub and Workshop

South Sketch Elevation



North Sketch Elevation

OUTLINE SPECIFICATION

Purpose: The following description and referenced drawings summarises the outline specification at RIBA Stage 2 Concept Design.
Removals
Paving slabs to existing ground.
Structural Foundations
Refer to structural engineers report.
Superstructure
Refer to structural engineers report. Options to be considered during detailed design: CLT panels SIPS panels Prefabricated timber Larsen truss or composite joist to walls and roofs.
Ground Floor
Likely to be concrete slab floor with EPS insulation below. This is most beneficial for achieving accessible level form outside. Floor finish options to be considered appropriate to each space.
Upper Floor

External Wall
To suit superstructure solution. U value outline target of 0.1 W/m2k for Passivhaus. Vapour open and air tight construction.
Roof
Flat roof to be considered as sedum roof build up. Pitched roof finish to be consider in detailed design stage in terms of durability and maintenance. Coated metal standing seam to be investigated. South facing roof as full PV finish. U value outline target of 0.1 W/m2k for Passivhaus.
Internal Wall
Timber stud with part recycled and durable plasterboard finish. Acoustic insulation internally. Some areas of plyboard substrate for fixings (kitchen, wcs and as required).

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Ceiling
Plasterboard and fibre acoustic ceiling to social areas.
Stairs + Lift
—
Windows
Outline target of 0.68 W/m2k triple glazed for Passivhaus or low energy target. Timber or metal frame.
External Doors
Passivhaus standard and secure locking to comply with technical standards.
Internal Doors + Screens
Painted internal doors allow future repainting. 30 + 60min FR doors to be considered. Sound reduction to be not less than 30db for accommodation spaces. Glazed vision panels to fire doors and where beneficial.
Sanitary
Reduced flow wc cisterns Dual flush of 4/2.6lt (effective 2.95lt) with delay fill ball valve. Local guidance or symbols required instructing the user on the appropriate operation of the flush. Reduced flow taps 6 litres/min for water pressure of 0.3MPa and either/ both timed automatic shut off/ electronic sensor/ low flow screw down/ level taps/ spray taps. Service routing of water to flush, from rain water harvesting.
Signs + Notices
Some internal and external signage to be investigated. Braille signage throughout.
Permanent Access and Safety Equipment
Access hatch form inside for security, leading to any flat roofs. Permanent access to sloping roofs not considered a requirement.
Unframed isolated trims/skirtings/sundry items
MDF to be avoided or to be low VOC specification throughout the building. Skirtings and door frames should be softwood painted. New skirtings generally SW 75 x 20mm.
Ironmongery
Locking and ironmongery to be considered during detailed design with client consultation
Lightning Protection

Not envisaged as a requirement.
Fire Proofing
Painting and Clear Finishes
Fixed Fittings
Refer to accommodation schedule for individual space requirements – to be developed int eh detailed design stage.
Loose Fittings and Furniture
Refer to accommodation schedule for individual space requirements – to be developed int eh detailed design stage.
External Hard and Soft Landscaping
Courtyard surfaces maybe self-binding gravel and some areas of good quality durable paving.
Planting
To be considered in consultation with client at detailed design stage. The opportunity for new trees will be considered.
Cycle Parking
Provision to be established in stage 3.
Contractor considerations
To consider: Self-build with the client as a community benefit Considerate contractor Passivhaus experience and sustainability measures