Energy Snapshot Report
for the South Side of Glasgow

Govanhill, Crosshill, Queen's Park and Strathbungo

south seeds
GROWING A GREENER GLASGOW

Dress for the Weather

The Scottish Government
Riaghaltas na h-Alba

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April 2013.

South Seeds is a Scottish Charitable Incorporated Organisation, Registered in Scotland (number: SC042244).

The South Seeds Energy Catalyst Project is funded by the Scottish Government's Climate Challenge Fund.

Report Produced by Dress for the Weather for South Seeds.

Thermal Images by Euan Lochhead.

Thanks: Matt McKenna (Dress for the Weather), Maf Smith, Kirstie Penman, Reuben Chesters, Robin Ashton, Lisa Peebles, Caroline Gausden, Steffi Keir, Martin Sanden, Lucy Gillie and Simon Morris.

Printed on 100% Recycled Paper.

Contents

Introduction

Energy Snapshot Report by South Seeds

South Seeds is a community led charity based in the south of Glasgow. We work in partnership with residents and local organisations to help improve the look and feel of the Southside of Glasgow. Our main effort goes into helping local residents tackle climate change by taking practical action such as improving home energy efficiency, cutting energy bills and tackling fuel poverty. Alongside this we work with local residents to bring underused land back into use as both gardens and food growing areas. As one newspaper described it, we're "tackling Glasgow's substandard homes with peas, beetroot and thermal imaging".

In 2012 South Seeds received an award from the Scottish Government's Climate Challenge Fund to reduce the consumption of carbon in Govanhill, Crosshill, Queen's Park and Strathbungo here in the southside. We know that the overall energy use of a household depends on the physical fabric of the dwelling plus the behaviour of those living there. This report marks a starting point for our work to identify where we need to focus our efforts by drawing out from background data the types of buildings, housing condition and tenure in our project area and pulling this all into a single source: our Carbon Savings Map.

Here's what it tells us: most of the housing stock we're looking to improve is Victorian, built at a time when coal mines were being worked underneath the streets we still walk down. Time and circumstance have not always been kind to our area, and make action to cut energy use more difficult. Many of the buildings are rated by the Scottish Index of Multiple Depravation as in poor condition. We have a lot of Victorian sandstone tenements in the area which suffer from being in a poor state of repair, and some blocks of tenements in the project area have the highest percentage of private lets in the whole of Scotland. However, we have a good proportion of housing maintained by registered social landlords which is in good condition, and a programme of repair and regeneration work which is slowly but surely making its mark here.

This report first sets out some essential information about our project area, then we map out the main features of our area, and then examine the main housing types we will be working in, and what opportunities exist across our area for cutting energy use and bringing local land back into more productive use.

One final point before we begin: one thing the map doesn't show, but we know will be critical to our success, is the fact that we have local residents looking for solutions to help them cut energy bills and energy use, and we have a strong network of community groups, housing associations and agencies ready to help us in this work. We will be using this Map to guide us in this work, and while we know that we have a number of challenges to overcome, we also know that we are part of a community up for the task.

The Project Area

The Project Area Within Glasgow

Figure 1: Map Showing Project Area within Glasgow Boundary, 1:100,000

The Project Area within the City

The project area is approximately located between one and two miles south of Glasgow city centre.

The area is made up from four neighbourhoods: Govanhill, Crosshill, Queen's Park and Strathbungo. It is bounded by the M74 extension to the north, the rail network to the west, Aikenhead Road to the East and Queen's Park to the South. These boundaries clearly define the area but also have the effect of separating it from other communities.

The project area has several key shopping streets running north-south: Pollokshaws Road, Victoria Road and Cathcart Road. Residents from across the four neighbourhoods are drawn to the retail opportunities offered on these streets. All four neighbourhoods are in the same political ward. Although the boundary cuts through Strathbungo on Pollokshaws Road, by including the rest of Strathbungo, the project area does not divide any neighbourhoods.

The Project Area

Composition of the Project Area

Figure 2: Aerial Photograph of Project Area

Composition of the Project Area

The South Central area of Glasgow is one of the few areas left in the city that is still densely populated with Victorian tenement buildings. Alterations to this particular building type will be critical in meeting carbon reduction targets within the area. The area also includes villas, town houses and later infill developments as a result of regeneration from the 1980's onwards. Within the areas there are a number of well used and highly valued public parks: Queen's Park, Govanhill Park and the recreation ground. Tenements have back courts, which in many cases includes a shared space in the middle, while houses have private garden spaces. There are also a number of derelict or semi-abandoned spaces around our area.

We will be working alongside local residents to make better use of some of these green spaces, creating food growing areas in back courts, shared areas behind tenements and utilising disused pieces of land. As we do this, we will talk to residents about where they live and offer practical advice and help to reduce domestic energy consumption too.

The Project Area

Heritage and Notable Buildings

Figures 3 - 6: Non-residential Buildings (Clockwise from left) : Our Lady of Consolation Church, Govanhill Baths, Govanhill Library , Govanhill Picture House

Heritage and Notable Buildings

The density of Victorian sandstone residential buildings is striking in the area. More than half the project area contains traditional buildings built before 1919, some highly desirable and worth over £500,000, others - such as some ground floor, one bedroom tenement flats - worth less than £50,000.

The project area includes the Crosshill Conservation Area and the Strathbungo Conservation Area, both given their protected status by Glasgow City Council. Within the project area there are many buildings of architectural significance including Alexander 'Greek' Thomson's finely detailed 'A' listed tenement of 1875 at 265 – 289 Allison Street, the Carnegie Library and the Govanhill Baths on Calder Street, and other amenity buildings scattered throughout the project area.

The Project Area

SIMD Map: Housing Condition

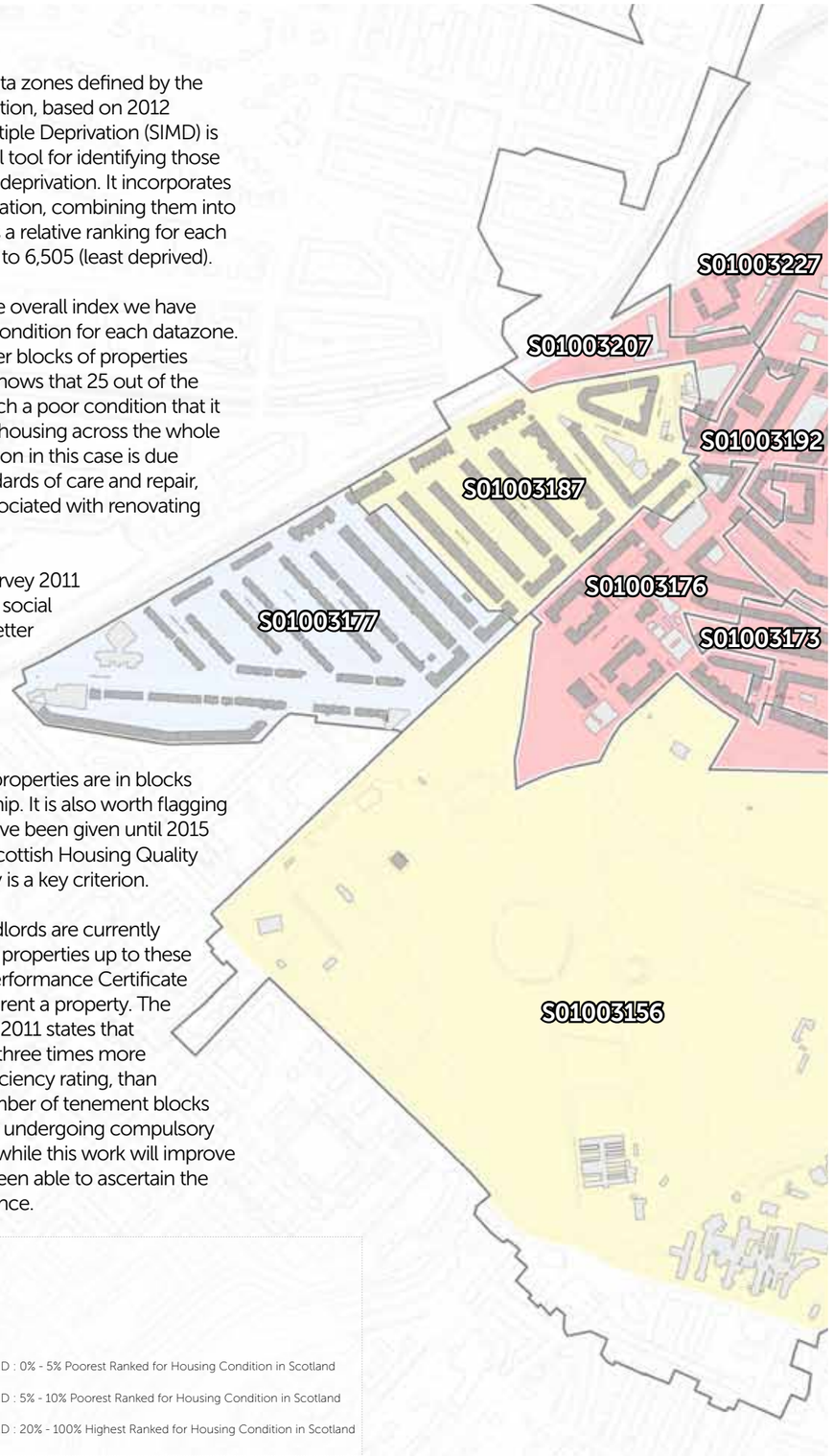
Housing Condition

The project area comprises 26 data zones defined by the Scottish Index of Multiple Deprivation, based on 2012 figures. The Scottish Index of Multiple Deprivation (SIMD) is the Scottish Government's official tool for identifying those places in Scotland suffering from deprivation. It incorporates several different aspects of deprivation, combining them into a single index. The Index provides a relative ranking for each datazone, from 1 (most deprived) to 6,505 (least deprived).

For this report instead of using the overall index we have isolated the ranking for housing condition for each datazone. These datazones represent smaller blocks of properties within our four areas. The SIMD shows that 25 out of the 26 datazones have housing of such a poor condition that it falls in the bottom 10 per cent of housing across the whole of Scotland. Poor housing condition in this case is due to the age of the properties, standards of care and repair, and barriers such as the costs associated with renovating Victorian sandstone buildings.

The Scottish House Condition Survey 2011 identifies the energy efficiency of social rented dwellings is significantly better than that for the stock as a whole in Scotland. Our assumption here is that this is due to the long term investment programmes adopted by these landlords and the fact many of their tenement properties are in blocks under full social landlord ownership. It is also worth flagging that registered social landlords have been given until 2015 to ensure their stock meets the Scottish Housing Quality Standard where energy efficiency is a key criterion.

Owner occupiers and private landlords are currently under no obligation to bring their properties up to these standards. However an Energy Performance Certificate is required to sell a property or to rent a property. The Scottish House Condition Survey 2011 states that private rented dwellings are over three times more likely to have a poorer energy efficiency rating, than owner occupied dwellings. A number of tenement blocks in private ownership are currently undergoing compulsory repairs by Glasgow City Council, while this work will improve building fabric, we have not yet been able to ascertain the likely impact on energy performance.



SIMD Map

Scale 1:7500 @ A4

Map Key:

- Residential Properties
- Non-Residential Properties
- S01 SIMD Area Reference
- SIMD : 0% - 5% Poorest Ranked for Housing Condition in Scotland
- SIMD : 5% - 10% Poorest Ranked for Housing Condition in Scotland
- SIMD : 20% - 100% Highest Ranked for Housing Condition in Scotland

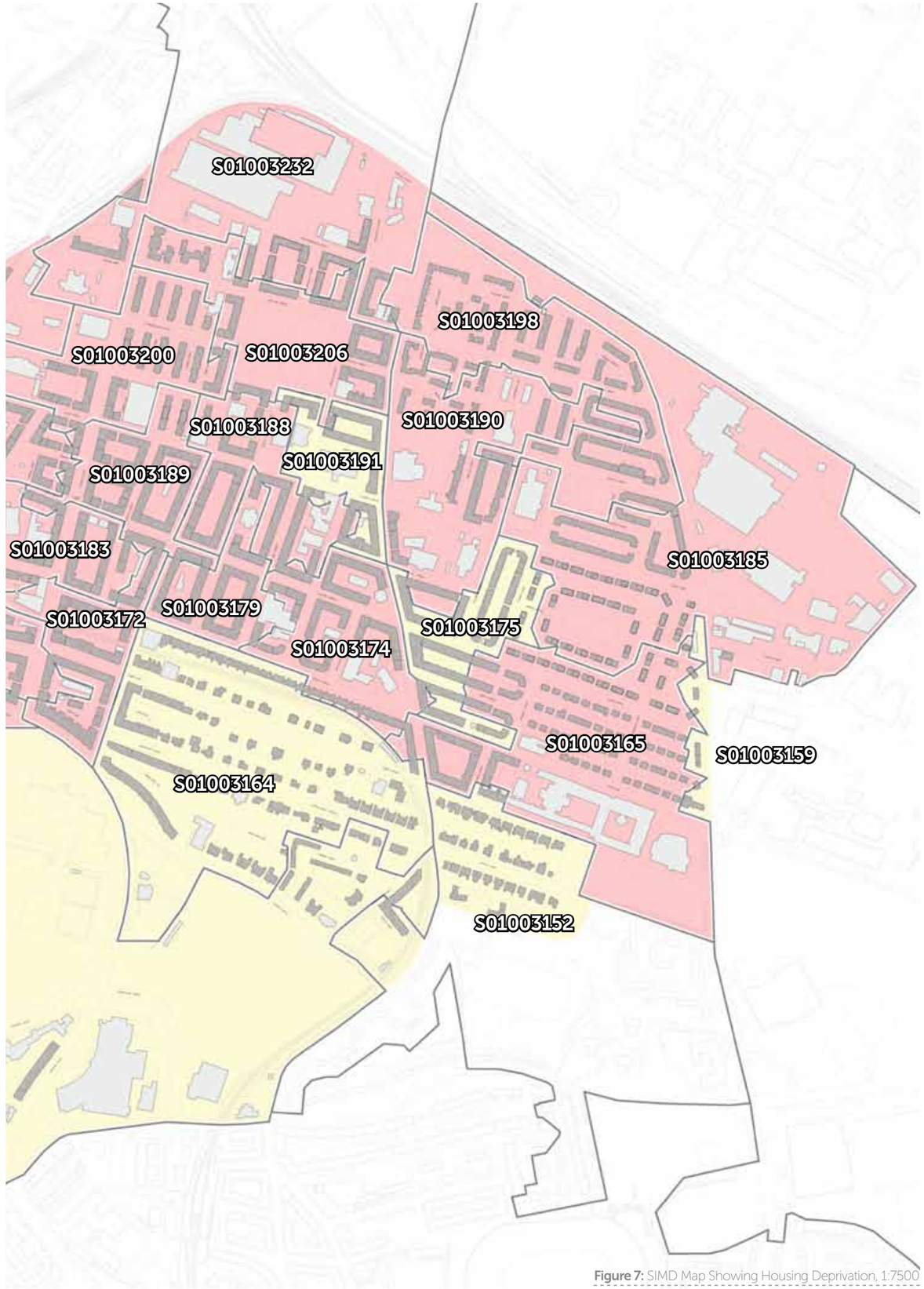


Figure 7: SIMD Map Showing Housing Deprivation, 1:7500

The Project Area

Tenure / Works Map

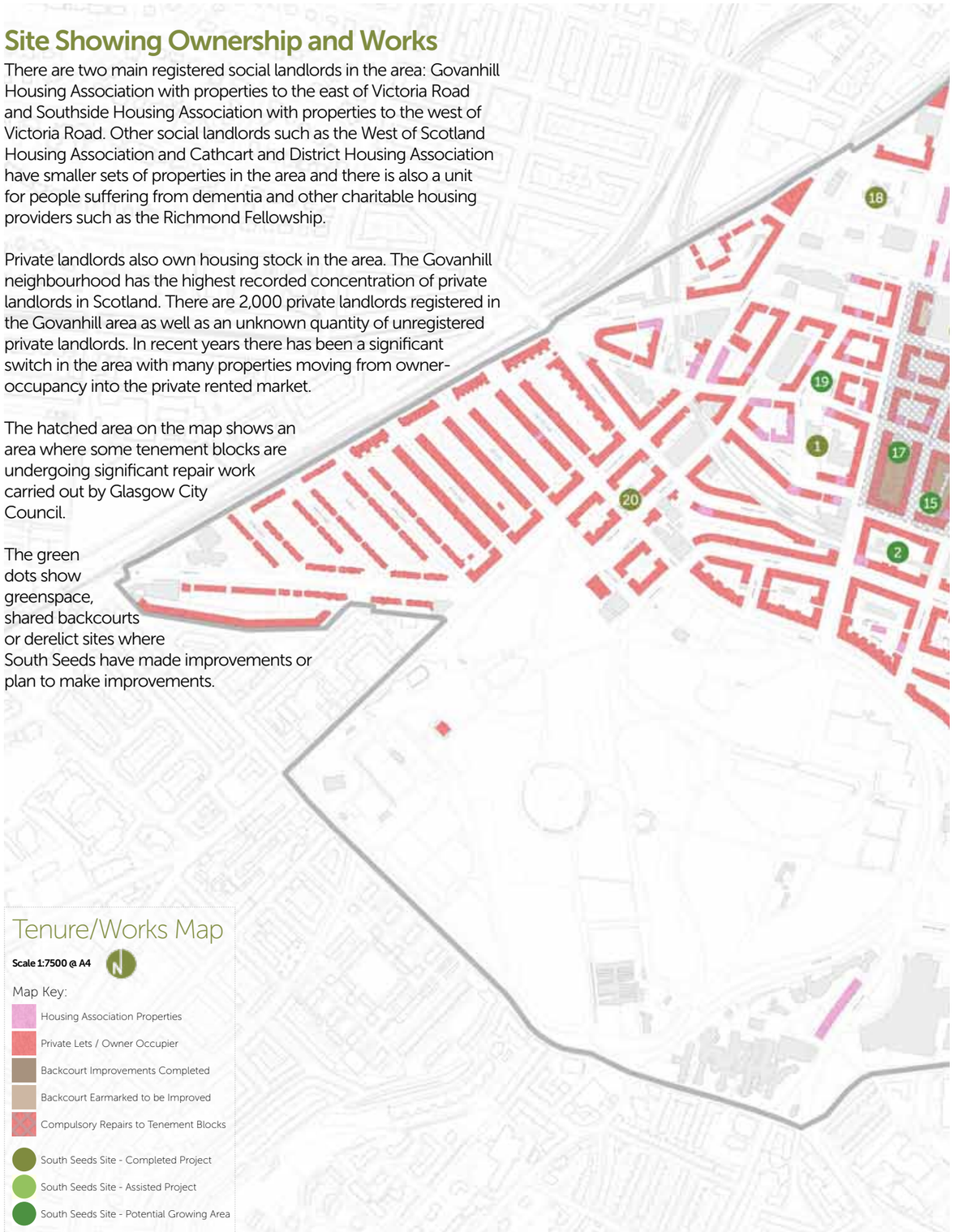
Site Showing Ownership and Works

There are two main registered social landlords in the area: Govanhill Housing Association with properties to the east of Victoria Road and Southside Housing Association with properties to the west of Victoria Road. Other social landlords such as the West of Scotland Housing Association and Cathcart and District Housing Association have smaller sets of properties in the area and there is also a unit for people suffering from dementia and other charitable housing providers such as the Richmond Fellowship.

Private landlords also own housing stock in the area. The Govanhill neighbourhood has the highest recorded concentration of private landlords in Scotland. There are 2,000 private landlords registered in the Govanhill area as well as an unknown quantity of unregistered private landlords. In recent years there has been a significant switch in the area with many properties moving from owner-occupancy into the private rented market.

The hatched area on the map shows an area where some tenement blocks are undergoing significant repair work carried out by Glasgow City Council.

The green dots show greenspace, shared backcourts or derelict sites where South Seeds have made improvements or plan to make improvements.



Works by South Seeds

Site 1 – St Brides Primary School
Tarmac playground where South Seeds have installed several raised beds. Access: on Craigie Street.

Site 2 – The Chalet Backcourt
Potential growing area. Backcourt space, mainly lawn with no fences between gardens. Access: through gate on Dixon Avenue.

Site 3 – Agnew Lane Community Garden
Large growing area with many raised beds developed by South Seeds and surrounded by tenements. Easy access for vehicles. Access: Agnew Lane is off Albert Road.

Site 4 – Queens Drive Lane
Potential growing area. Large area, hard-core underfoot with some weeds growing. Surrounded by tenements, with vehicle access. Access: off Langside Road up Queens Drive Lane.

Site 5 – Queens Park Tennis Court
Potential growing area. Old, disused tennis court next to bowling club. Access: off Langside Road next to Queens Park Bowling Club.

Site 6 – Crosshill Train Station
South Seeds have installed two raised beds on the platform with a selection of herbs. Access: on the corner where Albert Road crosses Cathcart Road.

Site 7 – Crosshill Quad
Backcourt space with a grass mound in the middle. South Seeds have installed six raised beds around the lawn and supplied residents with compost bins. Access: through any of the close doors on Eskdale Street, Dixon Road, Cathcart Road or Albert Road.

Site 8 – B.H.A.C Quad
Potential growing area. Tenement backcourt with communal area in the middle. Paving underfoot with two lawns and mature trees. South Seeds have engaged with residents and installed a raised bed. Access: through any of the close doors on Bankhall Street, Holybrook Street, Allison Street and Cathcart Road.

Site 9 – Aikenhead Road Space
Potential growing area. Long narrow site at the end of a tenement block. Uneven ground which is a mixture of hard-core, grass and weeds. The site is covered in rubbish. Access: on Batson Street.

Site 10 – Network House
This former school and now hub for services to the Asian community has a huge tarmac area where South Seeds have installed two raised beds. Access: on Calder Street.

Site 11 – Millennium Square
Potential growing area. This square is an underused public amenity area with a hard-core surface. Access: from Cathcart Road or Inglefield Street.

Site 12 – Annette Street Primary School
The playground is mainly tarmac with some landscaping including raised beds. South Seeds installed composting facilities. Access: on Annette Street.

Site 13 – Govanhill Residents Group front gardens
Row of front gardens along Annette Street landscaped by Govanhill Residents Group. South Seeds supplied the raised beds.

Site 14 – A.L.D.A Quad
Tenement backcourt space. Fruit and veg growing in space in the middle which can be accessed through a lane.

Site 15 – Westmoreland Street Gardens
Potential growing area. Well used lawn area which is one of the main venues for the Streetlands festival. Access: on Westmoreland Street.

Site 16 – The Peace Garden
Narrow strip next to Govanhill Baths with a lawn and two semi mature trees. Around the border there's a mixture of ornamental shrubs flowers and a few herbs that South Seeds planted. This area will be the entrance for the Baths when they are converted for public use. Access: from Calder Street.

Site 17 – A.W.D.V Quad
Potential growing area. Triangle of land owned by Ladbrokes. Access: through gate on Allison Street.

Site 18 – Cuthbertson Primary School
Tarmac playground where South Seeds installed a raised bed and supplied the school with seeds. Access: on Cuthbertson Street.

Site 19 – Craigie Street Greenspace
Potential growing area. Two lawns with trees and electricity substation in the middle. South Seeds have listened to local residents views.

Site 20 – The Rainbow Pre-School
Paving area in front of church where South Seeds supplied three raised beds, a half barrel planter and compost. Access: on Queens Drive.

Figure 8: Tenure/Works Map Showing Block Ownership and Planned Works, 1:7500

The Project Area

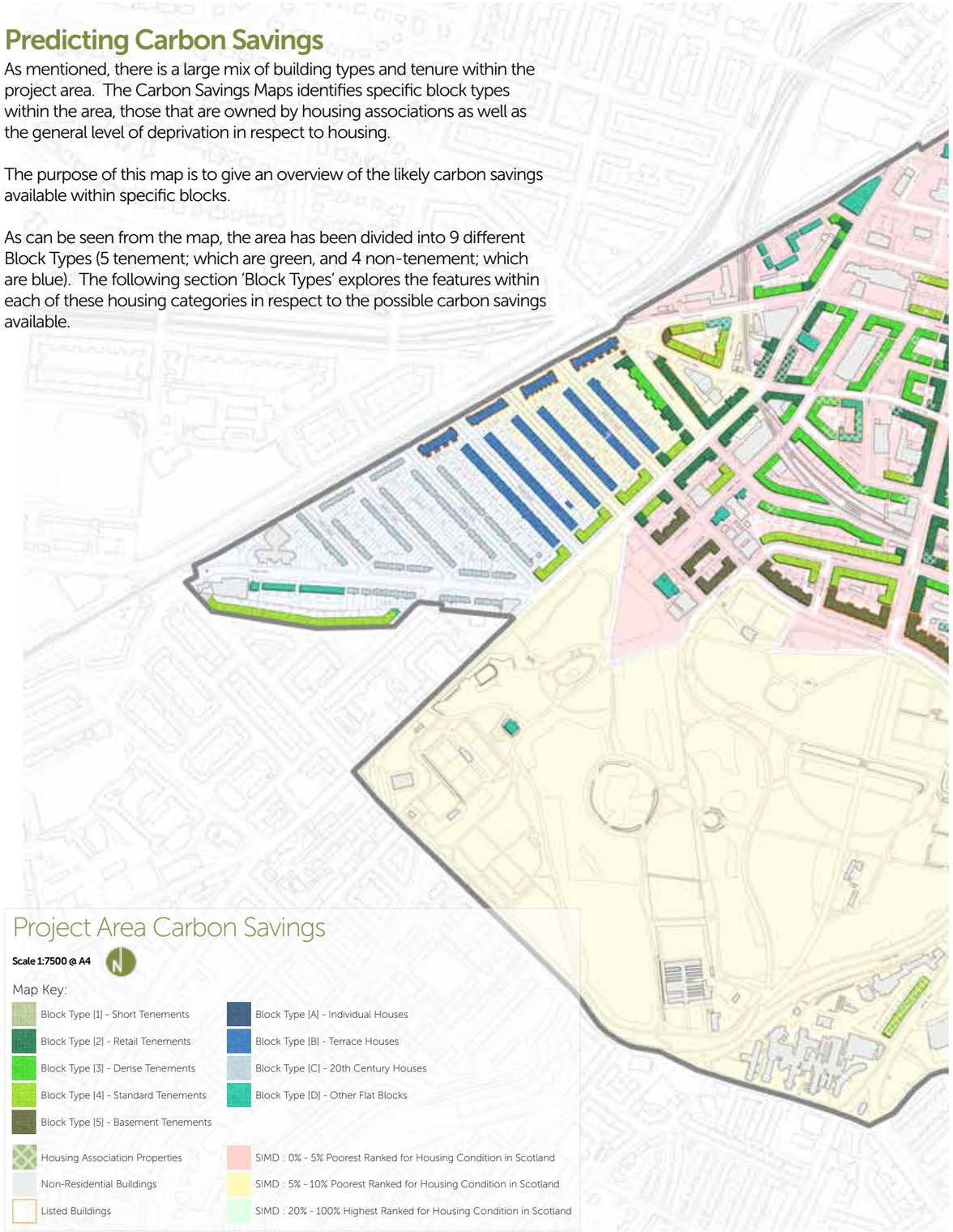
Carbon Savings Map

Predicting Carbon Savings

As mentioned, there is a large mix of building types and tenure within the project area. The Carbon Savings Maps identifies specific block types within the area, those that are owned by housing associations as well as the general level of deprivation in respect to housing.

The purpose of this map is to give an overview of the likely carbon savings available within specific blocks.

As can be seen from the map, the area has been divided into 9 different Block Types (5 tenement; which are green, and 4 non-tenement; which are blue). The following section 'Block Types' explores the features within each of these housing categories in respect to the possible carbon savings available.



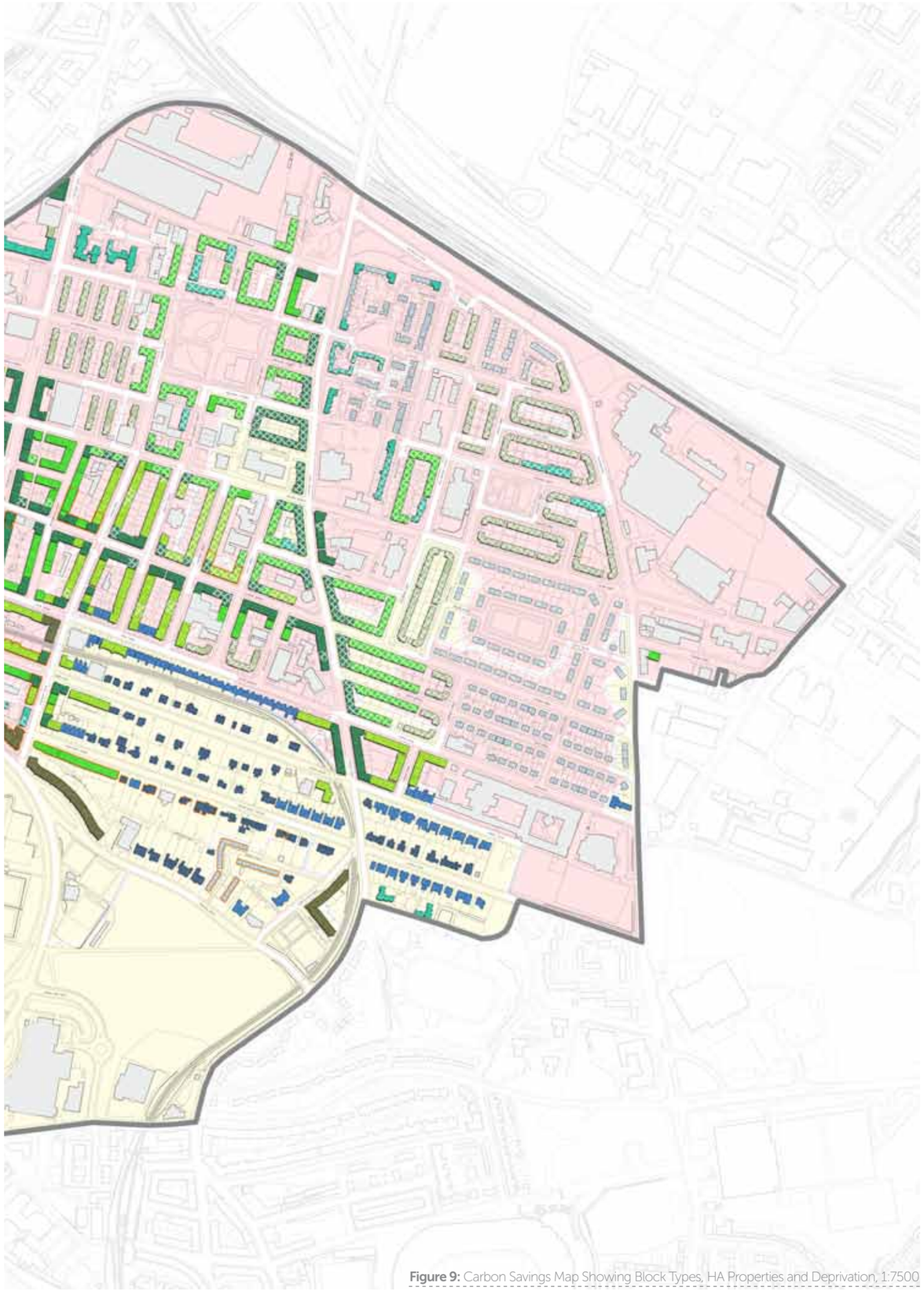


Figure 9: Carbon Savings Map Showing Block Types, HA Properties and Deprivation, 1:7500

Block Types

[1] Short Tenements

This type of tenement block is the smallest within the project area. These building types are typically constructed in the inter-war period of the 1920's and 30's.

The windows tend to be smaller than those of Victorian or Georgian tenements but are still larger than most contemporary flat types. The floor to ceiling heights are relatively small, resulting in a lower dwelling volume. Also, as a ratio, there is a higher proportion of wall to glazing.

This tenement type is typically a cavity wall construction and therefore there is potentially an opportunity to add insulation to the cavity.

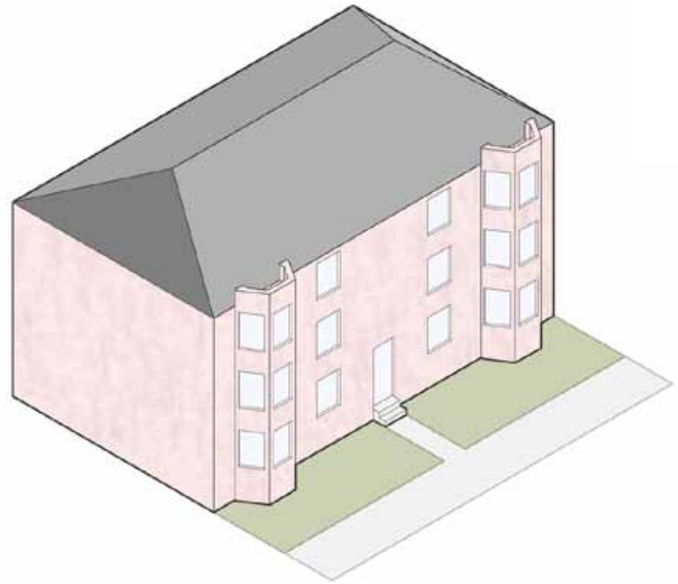
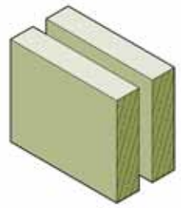


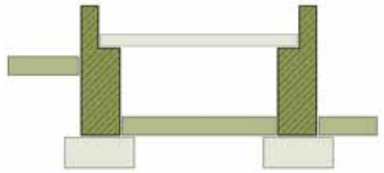
Figure 10: Sketch of 'Short Tenement' Features

Figures 11-13: Examples of 'Short Tenement' (Clockwise from top left): Victoria Road, Daisy Street, Hickman Street

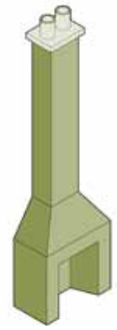
Typical Block Features:



Cavity Wall



Solum Space / Suspended Timber Floor



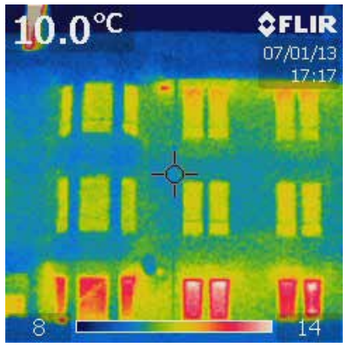
Chimney / Open Flue

Thermal Imaging:

» This image shows more heat escaping from the windows in the lower flat than the upper two. However, as the windows are all the same type of double glazing it is likely that upper two flats either have the heating at a lower level or have not turned the heating on.

» There is a fair amount of heat escaping through the close door.

» It also shows at least one working chimney within the block.



Figures 14+15: Base and Thermal Image of Tenement on Dixon Avenue

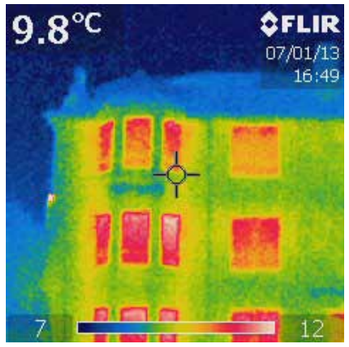
» Here we can see the whole building is heated.

» The middle flat is heated to a higher temperature than the rest of the block.

» There is very little heat loss through the roof.

» This image shows more heat loss through the walls (in relation to the windows) than the Dixon Avenue block.

» Again, we can see heat lost through the close door.



Figures 16+17: Base and Thermal Image of Tenement on Langside Road

Specific Blocks:

Victoria Road
Govanhill

Hickman Street
Govanhill

Daisy Street
Govanhill

Belleisle Street
Govanhill

Block Types

[2] Retail Tenements

This type of tenement block – with retail or commercial units at the ground floor - is very common within the project area.

The window sizes can vary between blocks but are generally best categorised as small-medium in relation to the rest of the tenement block types. The proportion of glazing to solid walls varies but as an approach to carbon reduction, action here could be fruitful.

This block type is typically quite well heated from below due to the commercial function during the day. Therefore floor insulation between floors or underneath the ground floor is less of a priority.

These block types are located on main thoroughfares so air tightness work or window improvements will have the added benefit of sound proofing.

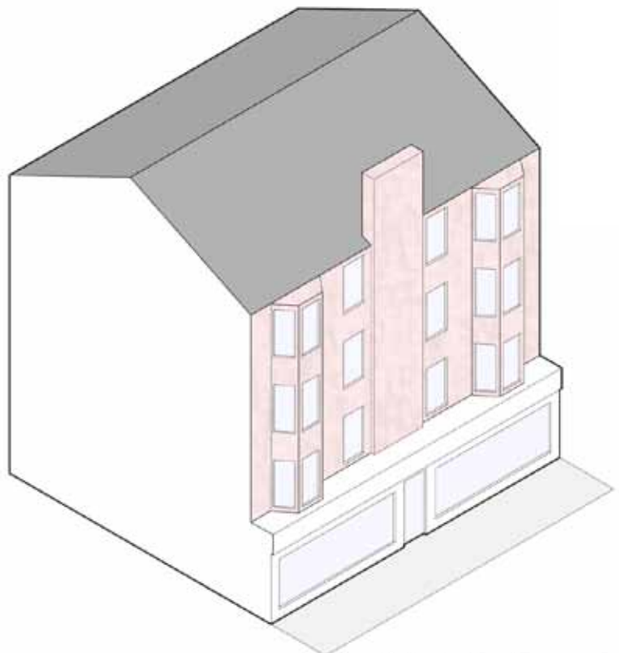
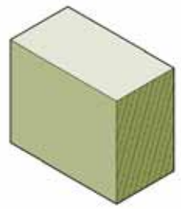


Figure 18: Sketch of 'Retail Tenement' Features

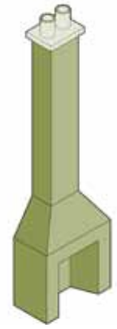
Figures 19-21: Examples of 'Retail Tenement' (Clockwise from left): Pollokshaws Road, Cathcart Road, Victoria Road

Typical Block Features:



Solid Wall

Rooflight in Close



Chimney / Open Flue

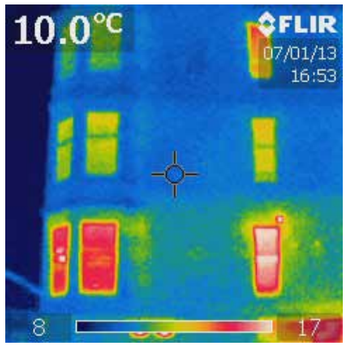
Thermal Imaging:

» This image shows a significant heat loss within the first floor property. However, as a commercial premises, the heating will likely be higher with more equipment operating.

» It shows a comparatively large amount of heat being lost through the upper-right window.

» Generally, there is very little heat being lost through the solid walls.

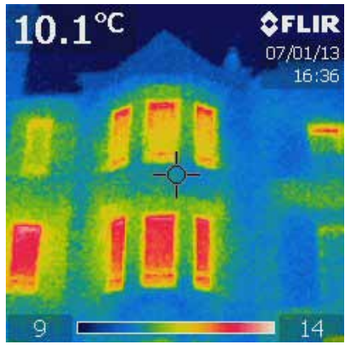
» It also shows a huge amount of heat being lost through the extract fan on the first floor.



Figures 22+23: Base and Thermal Image of Tenement on Victoria Road

» Again, we can see similar windows within the block, so the difference in heat loss is down to the heat of the flat as opposed to the performance of the windows.

» Interestingly, this photograph allows a comparison with the contemporary building to the right. It shows little difference in the heat lost through the windows but does show more heat lost through the walls around the windows. Improved air tightness around the windows could be explored in this instance.



Figures 24+25: Base and Thermal Image of Tenement on Cathcart Road

Specific Blocks:

Allison Street
Govanhill

Pollokshaws Road
Strathbungo

Victoria Road
Govanhill

Cathcart Road
Govanhill

Block Types

[3] Dense Tenements

This type of tenement block is one of the more densely packed blocks. The flat sizes are generally smaller in comparison to types [4] and [5]. The more prominent Victorian blocks have a higher proportion of glazing to solid wall and tend to have two apartments facing onto the street. The window sizes are comparable to those of type [2].

The relationship with this block type to the street is interesting as there is no garden space as a 'buffer'. Worth noting is this block type is the only one in the project area that utilises oriel windows.

The dense tenements around the railway lines at Queen's Park Station feature large basement or solum areas to deal with the change in height. Ground floor properties above basements would benefit from underfloor insulation. Also, having larger glazed areas than type [1] means these blocks would benefit more from draught-proofing, secondary glazing or even window replacement.

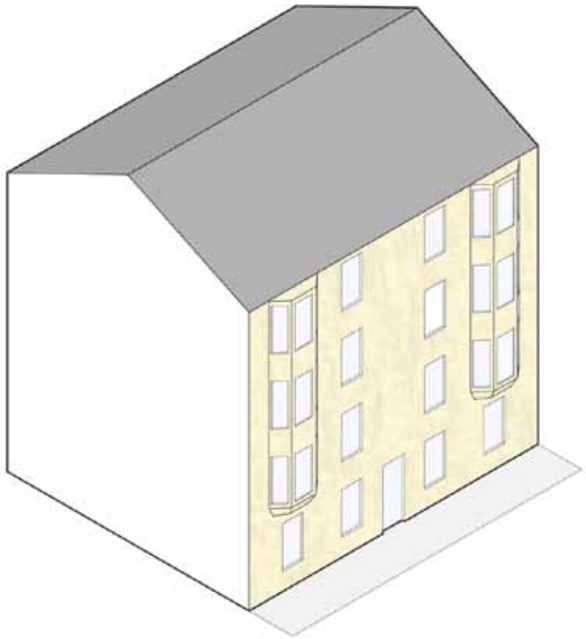
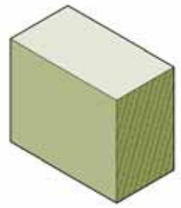


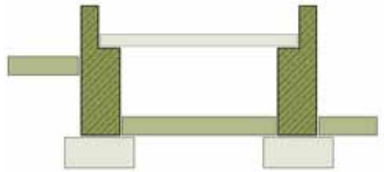
Figure 26: Sketch of 'Dense Tenement' Features

Figures 27-29: Examples of 'Dense Tenement' block types at Prince Edward Street

Typical Block Features:



Solid Wall



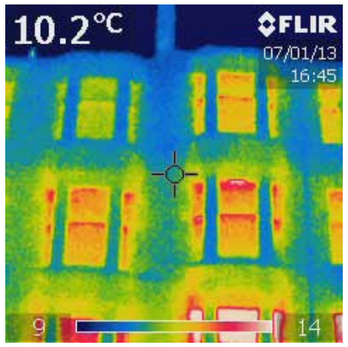
Solum Space / Suspended Timber Floor

Thermal Imaging:

» Here we can see varying heating use throughout the block, as the block has been fitted with the same type of windows.

» There is very little heat being lost through the chimney, which means it has probably been fitted with draughtproofing.

» There is a trickle vent open to the middle-right flat in the image.



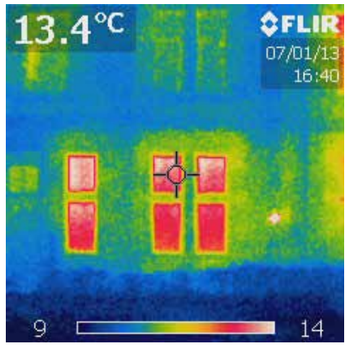
Figures 30+31: Base and Thermal Image of Tenement on Govanhill Street

» Here we can see a well heated ground floor with an unheated property above.

» There is very little heat being lost through the close door.

» The most heat being lost from the ground floor property is through an open extract vent.

» There is not much heat being lost through the solid walls.



Figures 32+33: Base and Thermal Image of Tenement on Inglefield Street

Specific Blocks:

Craigie Street
Govanhill

Torrisdale Street
Govanhill

Prince Edward St
Govanhill

Dixon Avenue
Crosshill

Block Types

[4] Standard Tenements

Named 'standard', not because of the prominence or number, but because this block type is most associated with the standard image of the Glasgow Tenement.

This type of tenement block is typically symmetrical often with a bay window living room on either side. It is almost always 4 storeys tall and has a small front garden space. There is sometimes a front chimney. The block is most commonly entered at ground level but some have steps up to the front door.

It has among the biggest flat/room sizes with large windows. The proportion of glazing to solid walls also offer a strong opportunity for carbon reduction.

This block type is less ornate and fussy than type [5] and is less likely to have large accessible basement spaces.

Large glazing area means that draught-proofing and secondary glazing and even window replacement would significantly cut energy use, while ground floor properties above basement areas would benefit from underfloor insulation. As the thermal image shows, chimneys can be a major source of heat loss, and would merit further investigation in individual blocks.

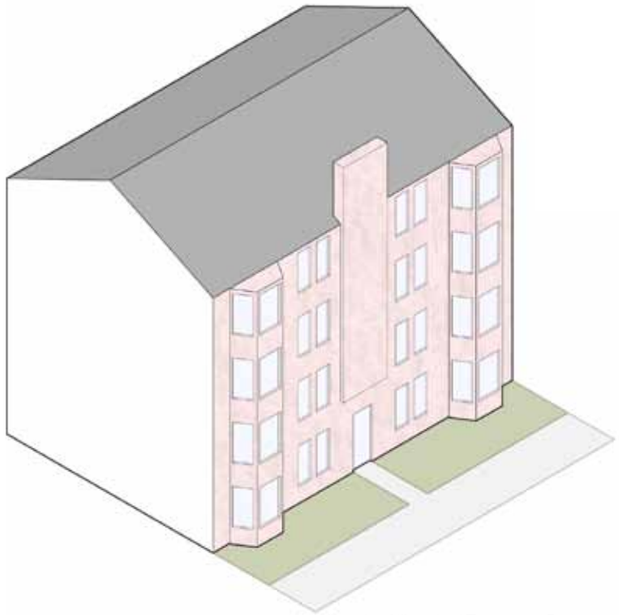
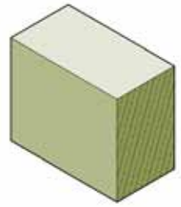


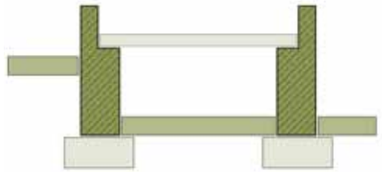
Figure 34: Sketch of 'Standard Tenement' Features

Figure 35-37: Examples of 'Standard Tenement' (Clockwise from left): Albert Avenue, Waverly Place, Dixon Avenue

Typical Block Features:

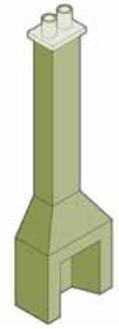


Solid Wall



Suspended Timber Floor

Rooflight in Close

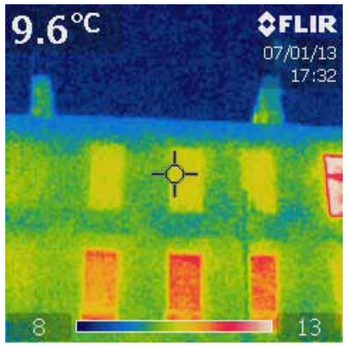


Chimney / Open Flue

Thermal Imaging:

» This image shows heat loss around the blind windows at a similar level to heat being lost around through the walls around the double glazing, this is likely due to the reduced wall thickness and different detailing of the stone wall.

» There is also heat loss through the chimneys. However, the amount of heat would suggest it's unlikely there is a working fireplace and that this is heat escaping from flats through the open flue.

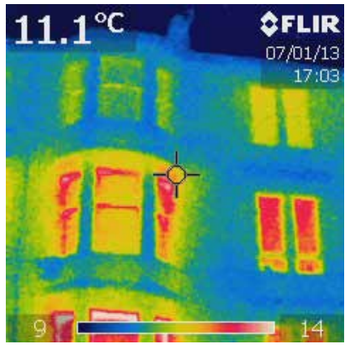


Figures 38+39: Base and Thermal Image of Tenement on Albert Road

» In this image we can see heat being lost through different types of windows.

» There is a lot of heat being lost around the edges of the middle window.

» We can also see more heat being lost through the walls at the bay windows than in the rest of the building.



Figures 40+41: Base and Thermal Image of Tenement on Langside Road

Specific Blocks:

Albert Avenue
Crosshill

Waverly Place
Strathbungo

Garturk Street
Govanhill

Dixon Avenue
Crosshill

Block Types

[5] Basement Tenements

This type of tenement block is best categorised as the largest flat sizes within the project area. The windows are also among the biggest within the area and the proportion of glazing to solid walls high.

This block type is typically quite ornate and often has accommodation within the mansard-style roof spaces.

These blocks frequently have either basement flats or large solum spaces, where appropriate underfloor insulation would help cut energy use in ground floor or basement flats. High glazing areas will mean that draught-proofing and secondary glazing and even window replacement would be very effective in cutting energy use.

Lastly, by coincidence, the majority of these block types have a strong south aspect so will benefit from solar gain, and even solar panels.

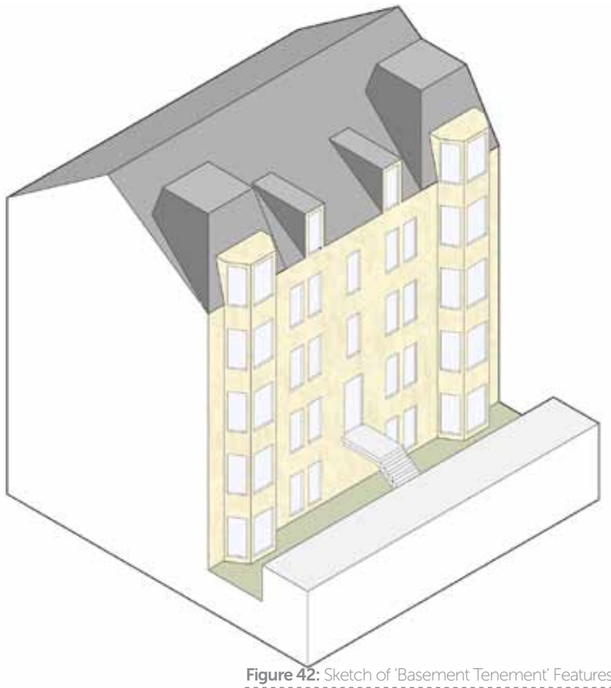
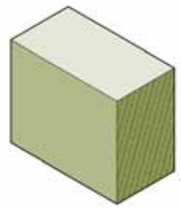


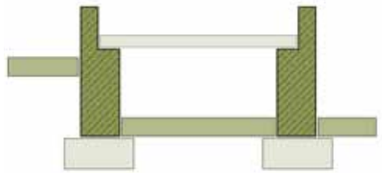
Figure 42: Sketch of 'Basement Tenement' Features

Figures 43-45: Examples of 'Basement Tenement' (Clockwise from top left): Queen's Drive, Queen's Park Avenue, Niddrie Square

Typical Block Features:

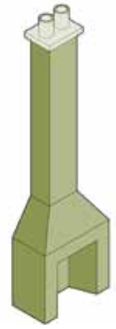


Solid Wall



Suspended Timber Floor

Rooflight in Close



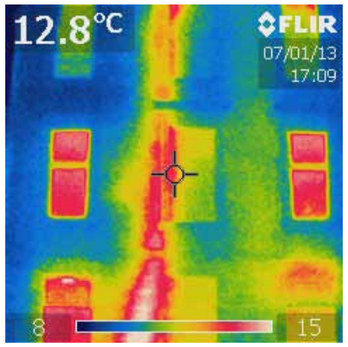
Chimney / Open Flue

Thermal Imaging:

» The line of heat loss running up the centre of the image is from an active fireplace at a lower level and the heat escaping through the chimney.

» It shows more heat being lost through the portions of the wall with blind windows.

» It also seems that there is heat being lost through a chimney flue without a fireplace. However, this could also be the result of dampness in the wall.

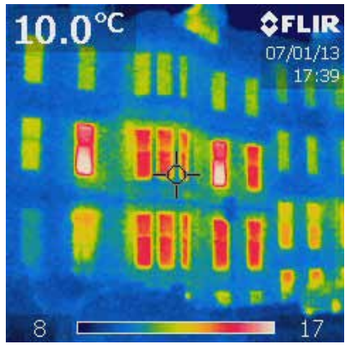


Figures 46+47: Base and Thermal Image of Tenement on Dixon Avenue

» All the flats in this image have their original timber window frames. Compared to the Dixon Avenue thermal image (Figures 46+47), we can see comparatively more heat is being lost through the windows themselves but also more heat is being lost around the edges of the windows.

» The top floor flat is unheated in this image.

» To the left of the thermal image are the close windows. There is a significant amount of heat loss here considering it is an unheated space.



Figures 48+49: Base and Thermal Image of Tenement on Queen's Drive

Specific Blocks:

Niddrie Square
Queen's Park

Queen's Drive
Queen's Park

Garturk Street
Crosshill

Queen's Park Ave
Crosshill

Block Types

[A] Large Individual Houses

Beyond tenement buildings there are a number of other typologies that could yield carbon savings.

This particular block type, although not prevalent, offers a number of opportunities for carbon savings, and as they will have a single owner, arranging work will be less complex than for tenement blocks.

This block type has the same solid wall construction as the local tenements. There are often bay windows or other large windows, meaning draught-proofing, secondary glazing and even window replacement will be effective in reducing energy use. There are also large attic spaces in which loft insulation could be applied.

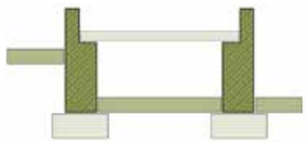
Lastly, probably by design, the majority of these block types are on an east-west axis which means that there are potentially large amounts of heat being lost on the north side of the buildings.

Figures 50+51: 'Individual Houses' on Queen Mary Avenue (top) and Myrtle Park (bottom)

Typical Block Features:

Solid Wall

Bay Window



Solum Space

Thermal Imaging:

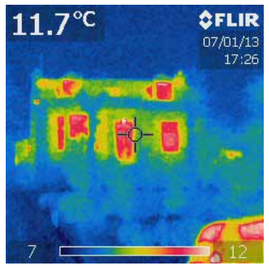
» This image shows the property is heated to an even temperature throughout.

» This property is losing a lot of heat through the roof and external walls.

» There is also heat escaping from the extract fans.

» In addition to heat lost through the windows, there is an equal amount of heat being lost through the front door.

» It seems one chimney is in use while the other isn't



Figures 52+53: Base and Thermal Image of Tenement on Albert Road

Specific Blocks:

Queen Mary Ave
Crosshill

Myrtle Park
Crosshill

Block Types

[B] Terrace Houses

Figures 54+55: 'Terrace Houses' on Regent Park Square (top) and Dixon Avenue (bottom)

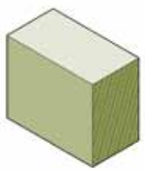
This particular block type is smaller than type [A] and therefore has fewer rooms/ windows in which to look for carbon savings. This is also a much denser block type and is normally arranged in terrace formations.

This block offers a number of opportunities for carbon savings and because each has a single owner; arranging work will be less complex than for tenement blocks.

This block type has the same solid wall construction as the area's tenements. There are often bay windows or other large windows and the proportion of glazing to solid is actually higher than block type [A], meaning draughtproofing, secondary glazing or even window replacement will be effective in cutting energy costs.

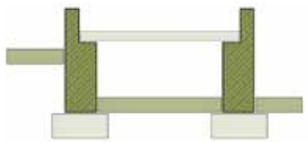
There are also attic spaces in which loft insulation could be applied.

Typical Block Features:



Solid Wall

Bay Window



Solum Space

Thermal Imaging:

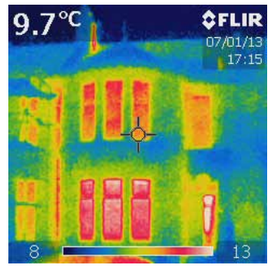
» This image shows a single house with rooms heated to slightly different temperatures.

» The house appears to have a working chimney.

» There is a lot of heat escaping from the shared wall between dwellings. This could be a result of a thinner wall construction between bay windows or a chimney near to the external wall.

» The walls are a source of heat loss.

» There is a lot of heat escaping from the front door. This could be because the outer door has been left open.



Figures 56+57: Base and Thermal Image of Tenement on Dixon Avenue

Specific Blocks:

Regent Park Square
Strathbungo

Queen Mary Ave
Crosshill

Block Types

[C] 20th Century Houses

There are also a number of houses that have been built since the early 1900's that could yield carbon savings.

They present a fairly broad range of designs, from inter-war terraced houses to 1980's and 1990's housing estates.

One aspect to consider for modern houses, is that newer houses will tend to have better thermal performance, so there will be fewer opportunities for delivering carbon savings through installation of measures, unless cavity and loft insulation have yet to be fitted.

The areas in which blocks in this category are situated are: South Strathbungo, East Govanhill and North-East Govanhill.

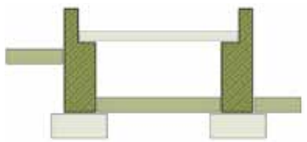
Again, with houses being in single ownership, it will mean any work is less complex to arrange than in tenements.

Figures 58+59: '20th Century Houses' on Crosshill Avenue (top) and Bennan Square (bottom)

Typical Block Features:

Cavity Wall

Chimney/Open Flue



Solum Space

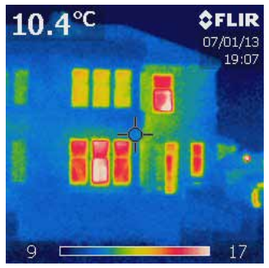
Thermal Imaging:

» The rooms in this house are being heated to different temperatures.

» The middle window on the ground floor may have a faulty seal, which would account for the higher rate of heat loss.

» There is some heat loss in the walls, around the front door, but generally there is very little heat escaping through the walls or roof.

» There is also heat being lost due to the fact the outer door is being left half-open.



Figures 60+61: Base and Thermal Image of Tenement on Titwood Road

Specific Blocks:

Batson Street
Govanhill

Thorncliffe Gardens
Strathbungo

Block Types

[D] Other Flat Blocks

Figures 62+63: '20th Century Houses' on Niddrie Road (top) and Balvicar Street (bottom)

There are other types of flatted blocks within the project area. While it is unlikely any of the blocks will offer the carbon savings of a tenement flat, there could be additional carbon savings found here.

The range of styles and scale is obvious and ranges from 1960's modernist blocks to very recent housing developments. The ratio of glazing to solid wall varies considerably but as this building type is constructed in single units (as opposed to tenements which largely fill whole urban blocks) there are often entirely blank facades.

Depending on the wall construction there may be opportunities for cavity wall insulation. Also for older blocks, with original windows, air tightness could be a problem.

Lastly, these blocks often feature balconies meaning an increased glazed surface area.

Typical Block Features:

Cavity Wall

Heavily Glazed Closed

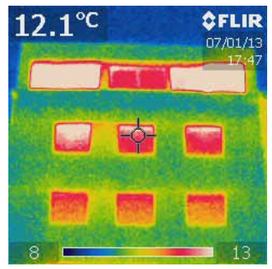
Thermal Imaging:

» This image shows all the flats are being heated to around the same temperature.

» There is a significant amount of heat being lost through the windows in the top floor flat. This could be due to inefficient windows or damaged seals. The windows on the flat second from top, seem to also have faulty seals.

» The majority of heat being lost through the walls is around the openings.

» The edge of the photo shows heat being lost through the glazed communal hallway.



Figures 64+65: Base and Thermal Image of Tenement on Dixon Avenue

Specific Blocks:

Craigie Street
Govanhill

Niddrie Road
Queen's Park

Findings

Carbon Savings Summary

The majority of the buildings in the area are classed as traditional older stock with solid walls. This means installing cavity wall insulation will not be possible.

Figures 66-69: Balvicar Street, Waverly Place, Myrtle Park and Prince Edward Street

Many of the blocks in our area have a higher than normal window to wall ratio, meaning that heat loss through windows will be higher than is found in average Scottish properties. While double-glazing is present throughout the area, old windows in poor repair are common. Making sure windows are airtight and draught-proofed will be effective in cutting energy use. However, to improve thermal performance of such blocks would require secondary or double-glazing and internal wall insulation. Such measures would be a major intervention and also be expensive – particularly if done in a way that is sympathetic to housing character and construction type.

Figures 70-73: Queen's Drive, Langside Road (at Allison Street), Langside Road (at Calder Street) Myrtle Park and Cathcart Road

Many blocks have solum spaces (open areas under the ground floor timber joists) that prevent the timber floor from coming into contact with damp surfaces. Such spaces mean that ground floor flats will suffer from underfloor draughts, and likely loose a lot of heat through the floor. A programme of underfloor insulation – while difficult to install – would radically improve energy performance.

Figures 74+75: Photos showing suspended timber floor structure with solum space underneath

As well as looking at air tightness in flats, it will be important to look at how tenement closes can be improved. Glasgow City Council has been active in installing higher security doors across many of the area's tenements. However, poorly fitting close doors and windows remain a problem in the area, and will mean draughty closes will act as chimneys sucking heat from individual tenement flats.

Figures 76-79: Closes and front doors within the study area

Where traditional buildings are owned and maintained by Registered Social Landlords, a programme of window maintenance is on-going. Effective action by such landlords means that these properties tend to have better thermal performance.

Our area has a high proportion of private rented accommodation. There are a high number of private landlords, and high turnover of tenancies. Our impression is that some of the poorest condition properties in our area are owned by private landlords. A poor state of repair will contribute to higher energy costs, particularly if boilers, windows and doors are old and poorly maintained. It can often be difficult for tenants to get the agreement from their landlords to carry out home improvements, and with a high turnover of tenancies, it is clear that landlords will be resistant to investing in properties to secure longer term lets and a stable rental income.

Alongside this, it can be harder to secure agreement to install measures in a close with a higher proportion of private rented flats, and the bulk of energy grant schemes are targeted at owner occupiers. These challenges mean that significant carbon savings could be made but are currently overlooked by many agencies. We will work to support tenants reduce their bills by putting in place simple measures, and giving them advice about energy use, and will seek to engage with landlords through working with community and agency partners in the area.

Irrespective of property type, all householders in our area will be able to reduce energy bills through installing simple measures such as draught-proofing. Advice on how to use energy in the home should also reduce the energy bills of a home. By working with local community groups to raise awareness, as well as working to arrange home visits, we will help local residents access available grants to improve their properties, install DIY measures and manage energy use more effectively. We will also work with local housing associations, Glasgow City Council and energy agencies to make sure that local properties are able to benefit from wider home improvement programmes.

South Seeds

What We Can Do For You

» We assess homes and identify if householders are eligible for a new boiler, loft insulation or assistance with property upgrades.

» Where tenants are renting from private landlords, we support tenants in managing their energy use. We can make sure that landlords understand that an Energy Performance Certificate is required to rent out a property and are supported in identifying what energy saving measures can be installed.

» We offer support to all householders in installing basic measures such as draught proofing and chimney balloons to help cut home energy bills.

» We advise on energy saving behaviour, giving practical tips based on home visits. We also lend out energy monitors to households so that their energy usage can be revealed in pounds and pence on a day to day basis. We do this because this puts people in better control of their energy use and able to understand what changes in behaviour will make the most difference.

» Where easy-to-make alterations will improve energy savings within the home, we can provide a handyman service.

» We work alongside local residents to put derelict land to use as greenspace and food growing areas, and also support residents in making better use of back court areas and other greenspaces. We do this not only for the carbon savings, but also because such action can help bring individuals together, and can be a starting point for a discussion about energy use in the home.

» We support volunteers to become local energy advisors or assist us with providing community gardening opportunities.

To get in contact with South Seeds call 0141 636 3959 or drop in to the office at 168 Butterbiggins Road, Govanhill. Visit www.southseeds.org for more information.

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GROWING A GREENER GLASGOW