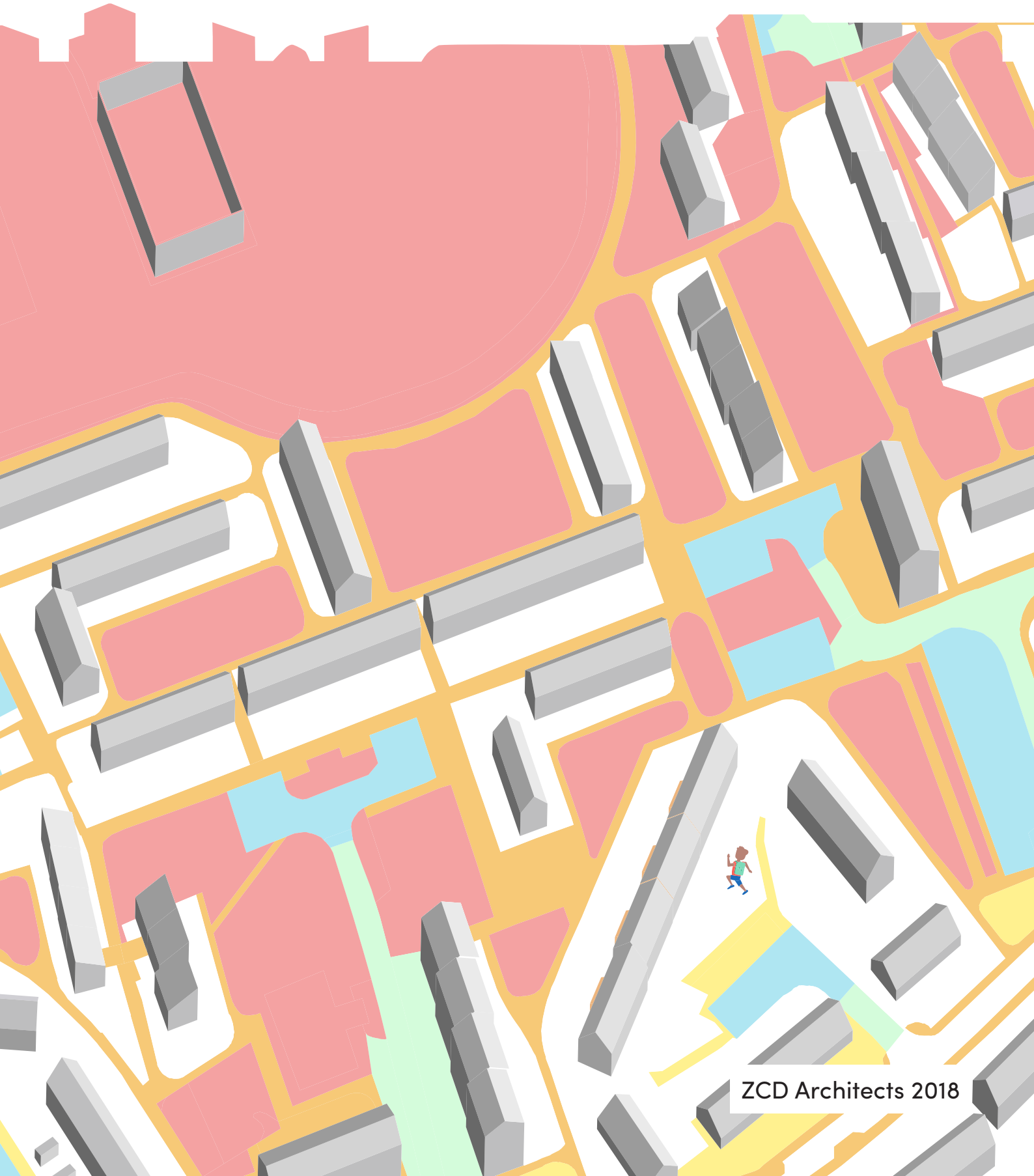


Play Sufficiency and Neighbourhood Layout

A comparative study



This project was commissioned Wrexham Council and the work was carried out by Dinah Bornat and Ashleigh-Paige Fielding at ZCD Architects

About the author

Dinah Bornat is co-director at ZCD Architects in Hackney, East London.

Dinah is a Mayor's Design Advocate for the Mayor of London, where her role involves championing design for children and young people. She is a Design Review Panel member for Harrow and a member of the Hackney Estate Regeneration Design Advice Group. She has worked with Hackney Council, Islington Council, Harrow Council, A New Direction, Urban Design London and Arup Associates on child friendly urban design.

First Published: 2018

For further information please contact

Dinah Bornat

db@zcdarchitects.co.uk

ZCD Architects
Studio 107
Netil House
1 Westgate Street
London E8 3RL
020 3095 9762

www.zcdarchitects.co.uk

Contents

| | |
|-----------------|----|
| Introduction | 4 |
| Mapping | 6 |
| Community One | 8 |
| Community Two | 14 |
| Community Three | 20 |
| Community Four | 26 |
| Appendix | 33 |

Introduction

'Children want to feel as though they can play freely within their community and despite the many fixed equipment playgrounds available; children want to find their own spaces to play and be with their friends.'

This report is a mapping analysis of four neighbourhoods in Wrexham County, Wales, presented alongside previous Play Sufficiency Assessments (PSAs) and research work.

The PSAs and subsequent focus group work carried out with children in the four communities have uncovered the importance of a number of 'spatial' aspects that can contribute to children's play opportunity, one of three factors, alongside 'temporal' and 'psychological'.

ZCD Architects' mapping methods, which can be used to visualise levels of independent play in a neighbourhood, have been applied to each of these neighbourhoods, ranking each according to assessment criteria.

The report reveals that Community One and Community Two, neighbourhoods where children report higher levels of satisfaction with their opportunities for play, show a high mapping score. Community Three and Community Four, where children have previously reported lower levels of satisfaction with play, have lower mapping scores.

This systematic analysis of the 'spatial' aspect of neighbourhoods could be used to better plan for Play Sufficiency in Wales, where it is a statutory duty. It shows how to 'design it in'

from the outset and could help professionals judge where to make physical improvements. The report could influence the rest of the UK, where a link can be made between social value and play, presented as a measurable outcome and achievable through good design.

In summary, we recommend the following spatial 'rules' are applied to achieve better Play Sufficiency:

Enable all public and shared spaces to be accessible and playable

Provide direct access to a variety of shared/ car free spaces throughout a development

Allow play close to home and avoid a single play area

Aim for universal or a significant majority of the dwellings to have direct access to these spaces

Create safe footpaths and networks connecting all external spaces

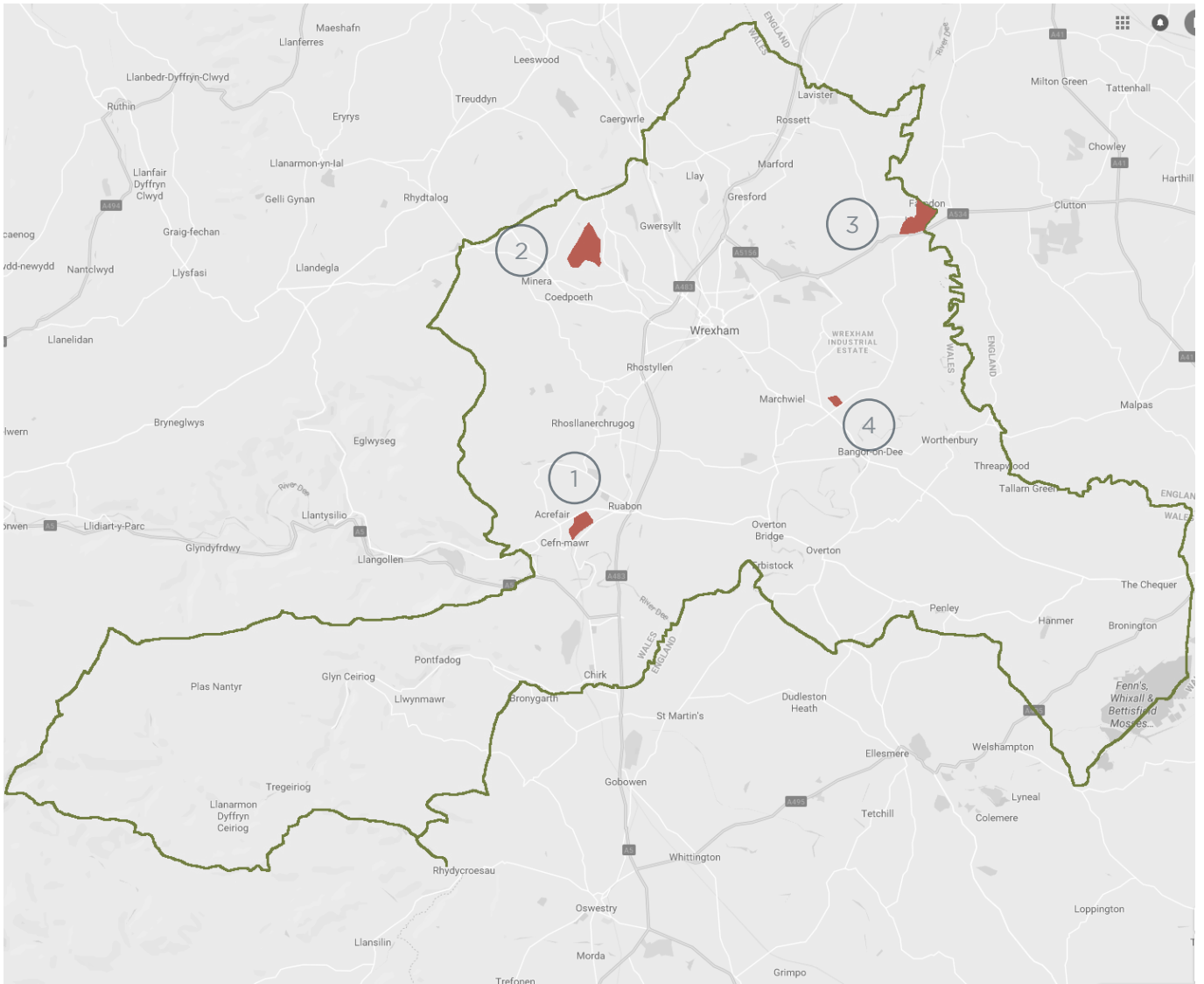
Allow for overlooking from dwellings



Community One



Community Two



Wrexham County Location map not to scale

- 1. Community One
- 2. Community Two
- 3. Community Three
- 4. Community Four



Community Three



Community Four

Mapping

ZCD Architects mapping criteria is backed up by several hundred hours of observational analysis carried out in a variety of neighbourhoods across England.

Originally published in the report *Housing Design for Community Life* (HDfCL) in 2016, these maps seek to display the layout of a residential development as an interrelationship of dwellings and spaces that support varying levels of use by the residents for social activities and play. These maps emphasise the importance of overlooking, location, safe connections and road layout that provide the right conditions for social activity and play to thrive. The four different maps rank the following:

- Shared external spaces
- Access from dwellings
- Networks
- Streets - entrance relationships

Figure 1, taken from HDfCL, shows how the overall mapping rank correlates with the overall number of people using external spaces for social use. This is a helpful finding for landowners, developers and housebuilders who are looking to make the most of their land and investment over the long term.

Figure 2, also from HDfCL, shows there is a relationship between adults social use of space and children's independent use of space. It suggests that designing for children's independent play and paying attention to what that requires, may be one of the best ways to design for social use by other age groups in the neighbourhood. It has led to the phrase 'Children are the generators of community life'.



Figure 1: Mapping rank and social use of space

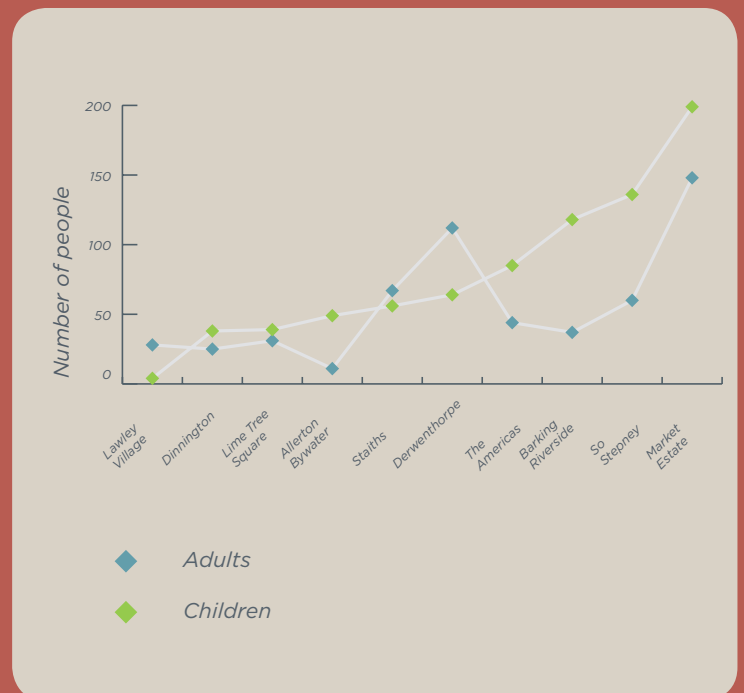


Figure 2: Adult use of space and children's play

The opportunity in Wrexham to present case study examples of mapping against Play Sufficiency work, develops both areas of research and gives physical examples that can be used to emphasize the conditions that lead to well designed space that will meet children’s play needs and potentially lead to other wider social benefits.

It reveals that the layouts with a variety of safe, traffic free, well connected spaces to play close to home provide the right environment for external play and work towards meeting children’s rights under General Comment 17 on the UNCRC Article 31 requirements.

We suggest that mapping and thinking about external spaces in this way may be the key to designing in social value from the outset.

The four maps for each neighbourhood are presented on the following pages, alongside excerpts from previous Play Sufficiency research. The resultant mapping scores are presented below in Figure 3, which give the overall scores as follows:

- Community One 19
- Community Two 12
- Community Three 7
- Community Four 5

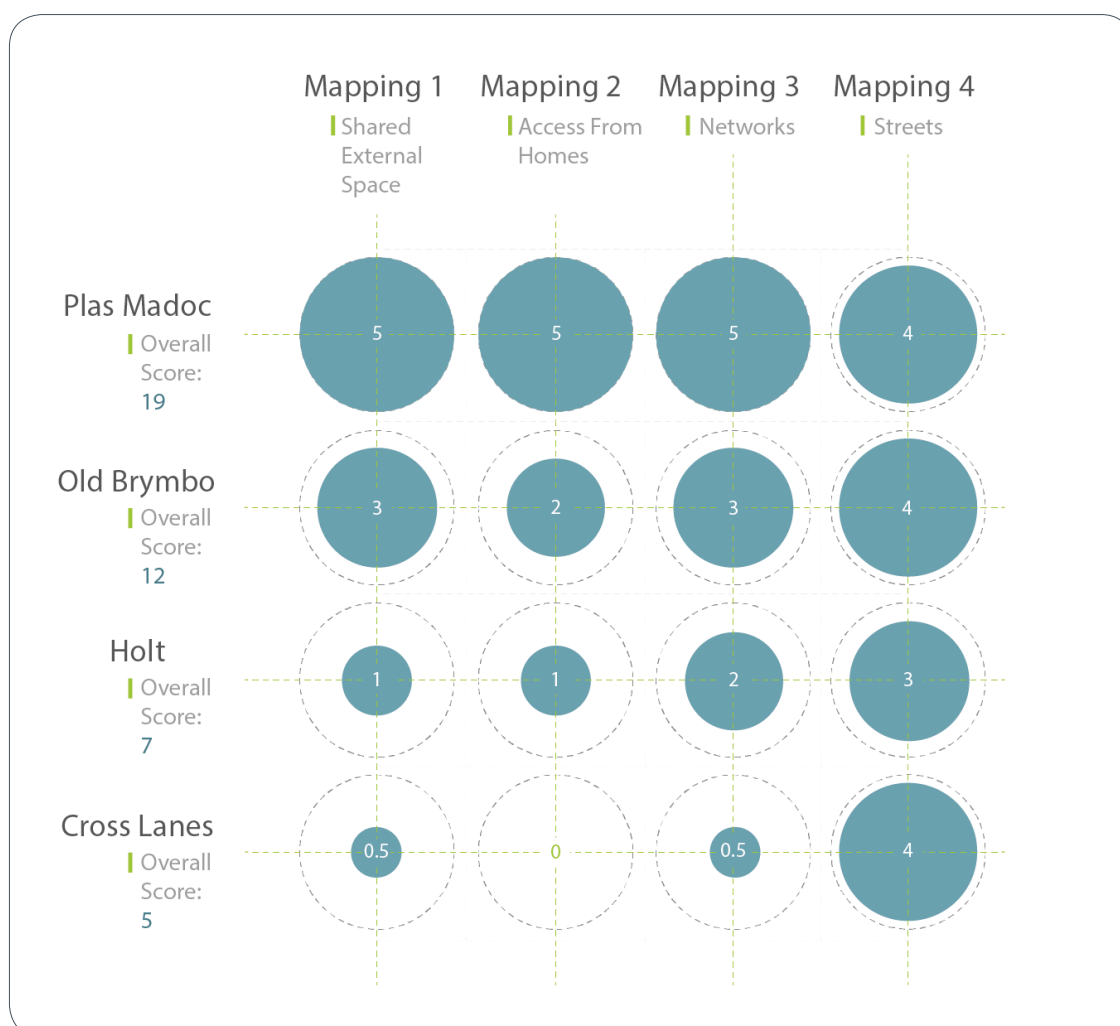


Figure 3: Map rankings

Community One

Community One is an estate of predominantly two storey houses, a school and leisure centre approximately seven miles south west of Wrexham. It has an abundance and variety of car free shared spaces which are directly accessible from the majority of the dwellings. These spaces are well connected by safe routes and footpaths that are in turn well overlooked from dwellings. There are no roads or vehicular routes crossing the development, which coupled with the extensive footpath routes results in a low level of car dominance. Community One is home to a loose parts adventure playground that gives children the freedom to play and construct. However playwork provision is also extended throughout the estate with regular playscheme and street play sessions encouraging children to play out and supporting parents in allowing them to do so.

As well as a positive attitude towards play in the community, the layout gives children the opportunity to play close to home and also to move around their neighbourhood safely to call on friends and find a variety of spaces to play.

Despite relatively high levels of deprivation (see opposite page), the neighbourhood is able to offer children a high level of play opportunity, which seems to be contributing to positive social interactions as well as other wider community benefits.

Access to playable space is immediately outside front doors

Extensive footpaths and car free routes exist across the neighbourhood.

Overall mapping rank: 19

General levels of satisfaction: Above average



Focus group work was carried out with children in Community One as part of Wrexham's first play sufficiency assessment in 2013. This was followed up by more in depth research comparing conditions for play in Community One with a neighbouring community where children reported lower levels of satisfaction with their opportunities for play. The findings suggest that 'spatial' and 'psychological' issues were behind the 66% of children rating their satisfaction at 7 or above. From a spatial point of view, the children revealed a diversity of places where they play with friends, both formal and informal:

They discussed how they spent their time playing with friends.....This appeared to contribute to their sense of community

Children associated having friends and family living close by, with providing a sense of security






Community One is ranked 24th most deprived LSOA in the Welsh Indices of Multiple Deprivation and the local area is classified by The National Statistics as "Struggling Urban Families" (Info Base Cymru ND). At a local authority level, Community One is the second most deprived LSOA in Wrexham.

Source: Leeds Metropolitan University 'Developing a culture of play: A follow-up report to the Wrexham Play Sufficiency Assessment.' Long, Delorme, Brown 2014






Adventure Playground






-  Fully accessible and overlooked space that can be accessed without crossing a road
-  Pavements or spaces situated alongside a road
-  Overlooked space accessed by crossing a maximum of one road OR a space that is adjacent but is not well overlooked
-  A shared surface space or cul-de-sac
-  A car dominant space e.g. car parking



200 m

-  Green is safe, car-free route - this could be a pavement, footpath or green space
-  Orange is a shared surface where pedestrians and cars share the route
-  Red is a crossing over a road or alongside a road where there is no pavement



-  Homes with safe, direct access to external spaces
-  Homes with safe but in-direct access to external spaces (e.g. via a pavement)
-  External Spaces



 Homes with strong social networks accross streets

Community Two

The layout of Community Two differs from Community One, it can be characterised by streets of two storey terraces with set backs and pavements. There are play areas at the edge of the development and some smaller areas within it. They are very easy to access and for the most part well overlooked. Direct access is not so strong as Community One, but the networks between spaces is good, with footpaths, pavements and cut throughs making it easy to get around safely. It is also only a short distance from homes to wilder edges and open fields around the estate and the children are known to roam and play outside the main housing area.

Similar to Community One, focus group work with children in Community Two was carried out to inform Wrexham's first play sufficiency assessment in 2013 and this was followed up by further research looking in detail at children's freedom to roam, parental perceptions and neighbourhood attachment:

During the focus group with Community Two children, both boys and girls spoke with great enthusiasm and large smiles on their faces about their play areas. One child commented how they would use stray pieces of wood that were found left lying around to make dens.

The children discussed not only playing out more, but in a variety of places doing a multitude of activities, which increased their independent mobility.

There are a number of housing types and layouts across Community Two.

There is plenty of evidence of play in a number of areas around the neighbourhood, including in front gardens

Overall mapping rank: 12

General levels of satisfaction: About average



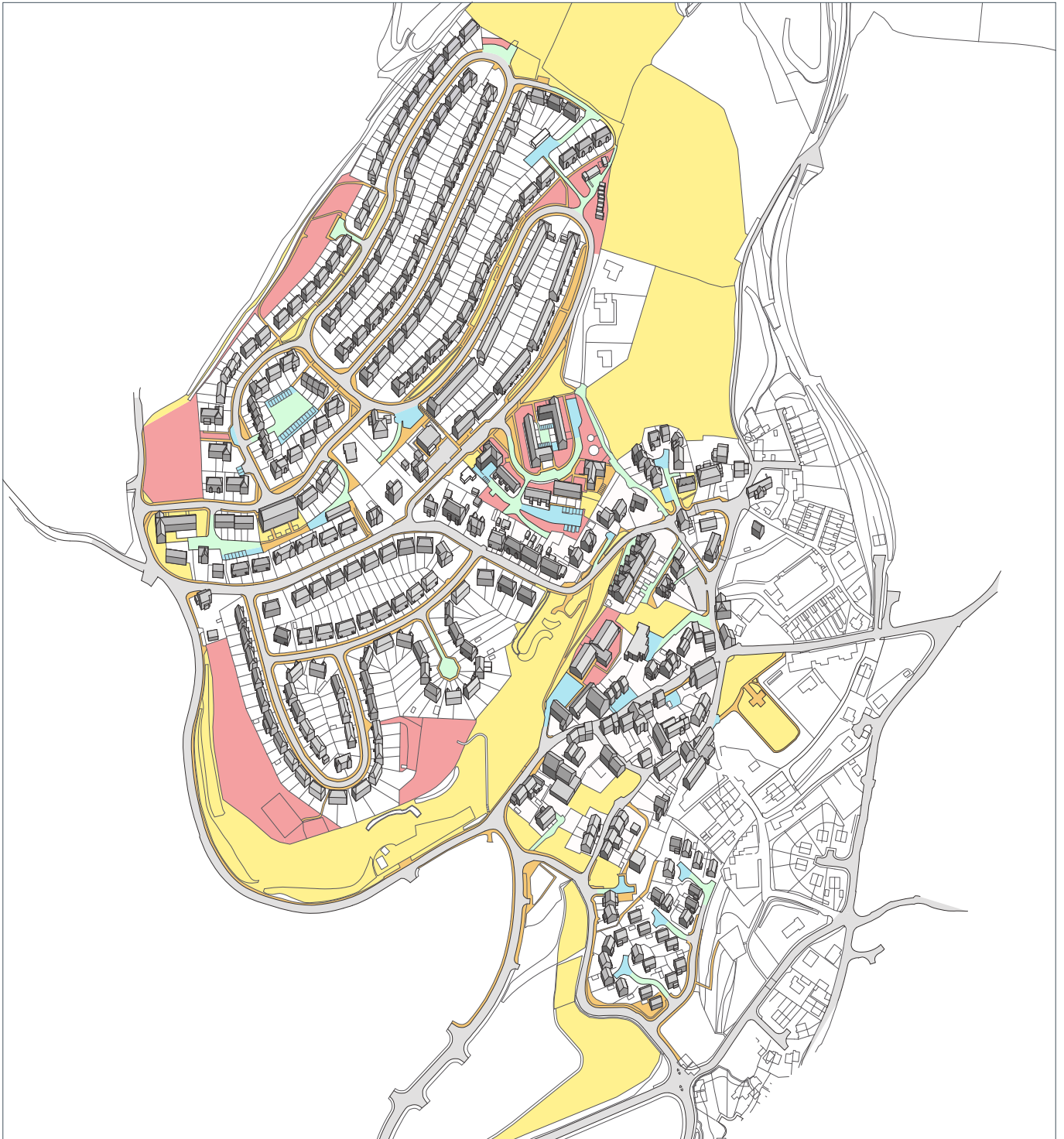
The mapping rank is good and represents a good comparison with the level of satisfaction which is about average. However as identified in the research previously carried out in the area, spatial layout is one factor that influences children's use of space and it is important to consider all the other factors when understanding a place.

It can be seen from the maps that the area scores well across each of the criteria and that these factors will be contributing to children's experience.






Source: 'Neighbourhood attachment and subjective experiences of children's play: A comparative study in North East Wales.' 2014. Marie-Claire Hartshorne

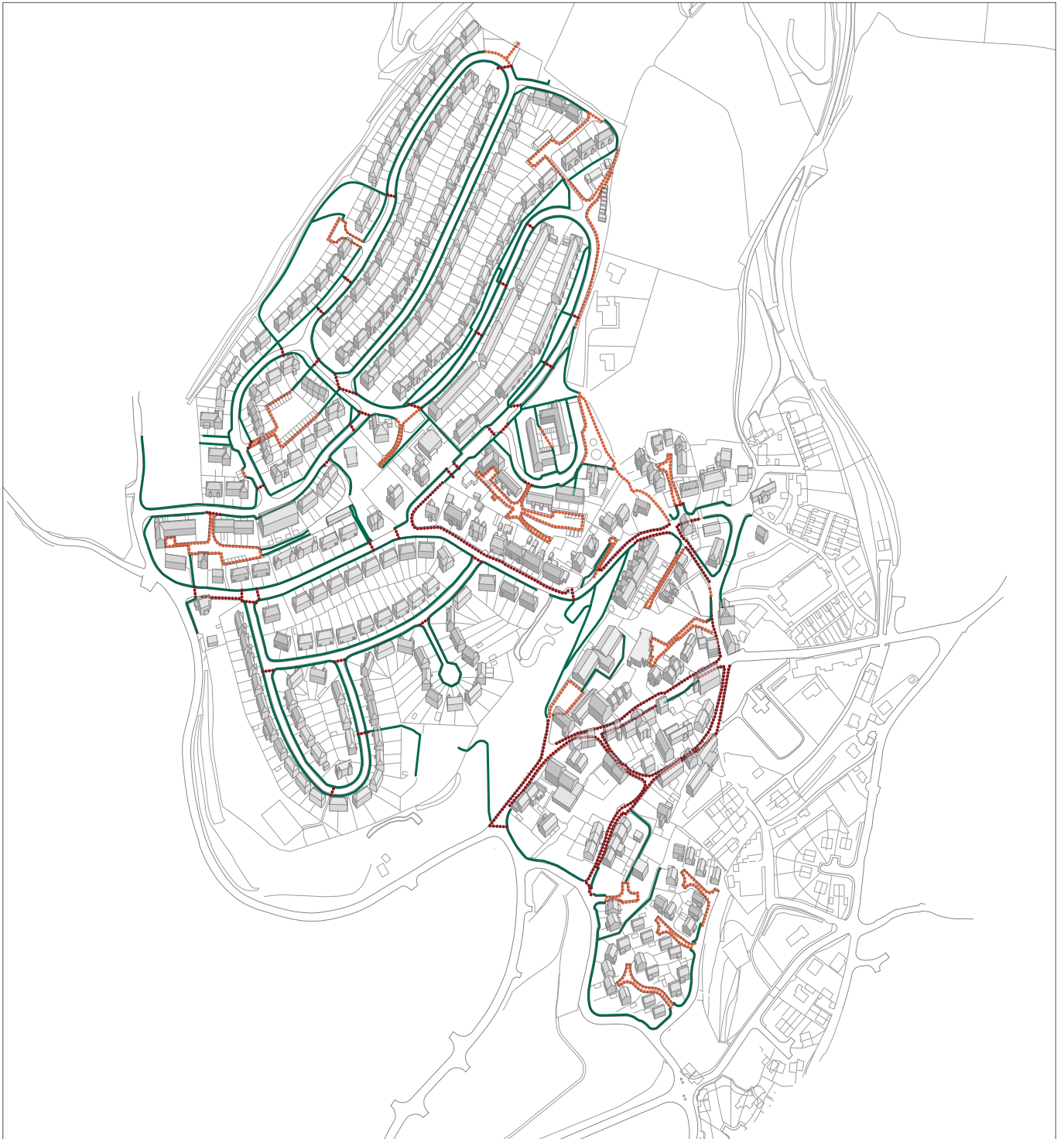


Skate park at the edge of Community Two. There are a number of places to play on the periphery






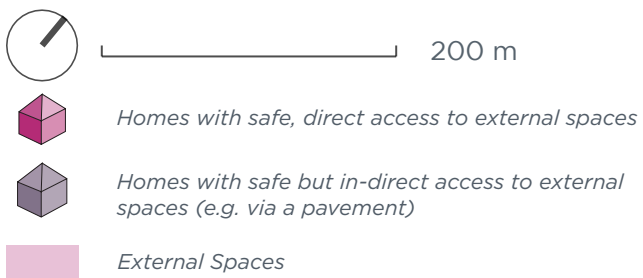
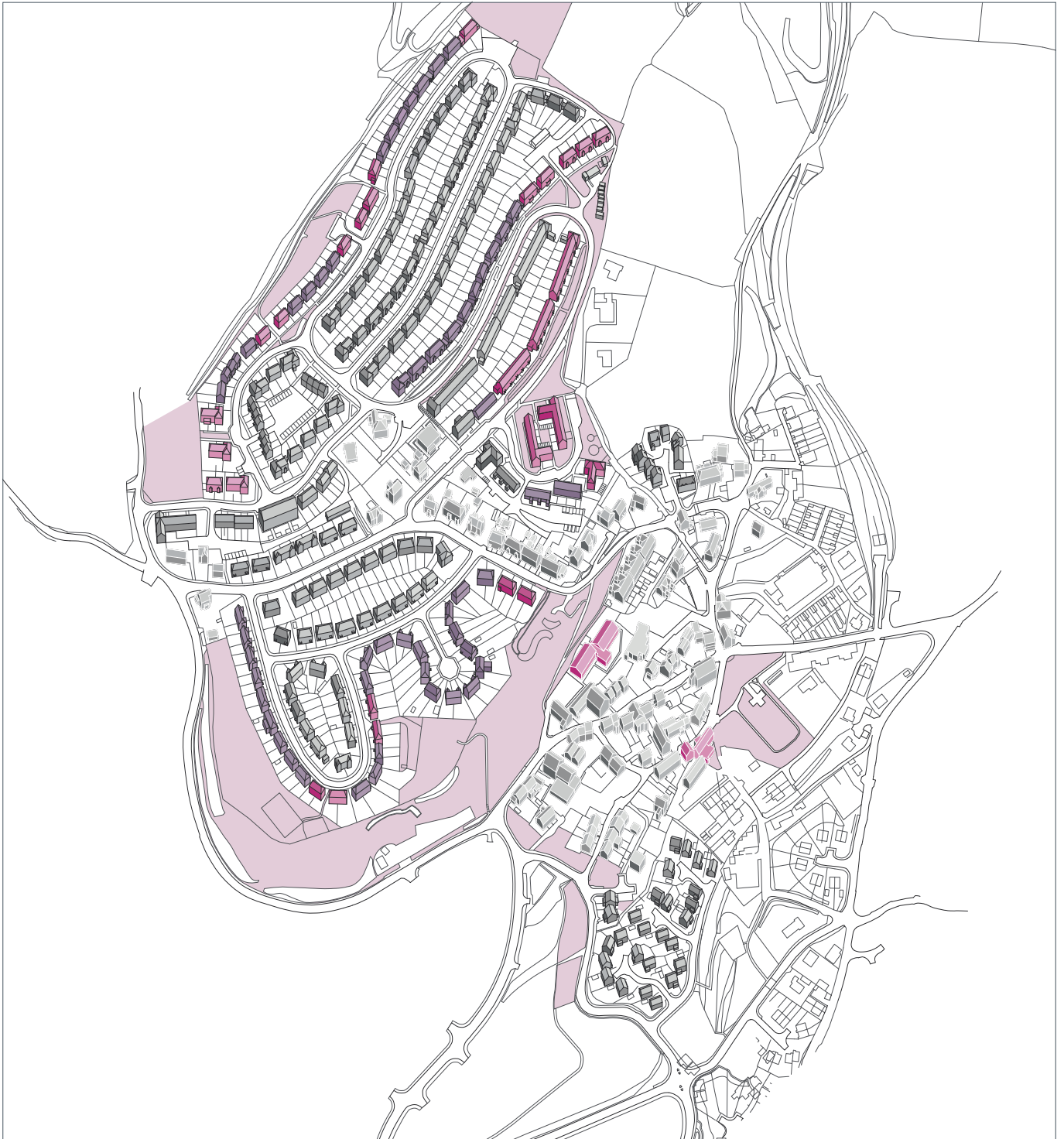
200 m

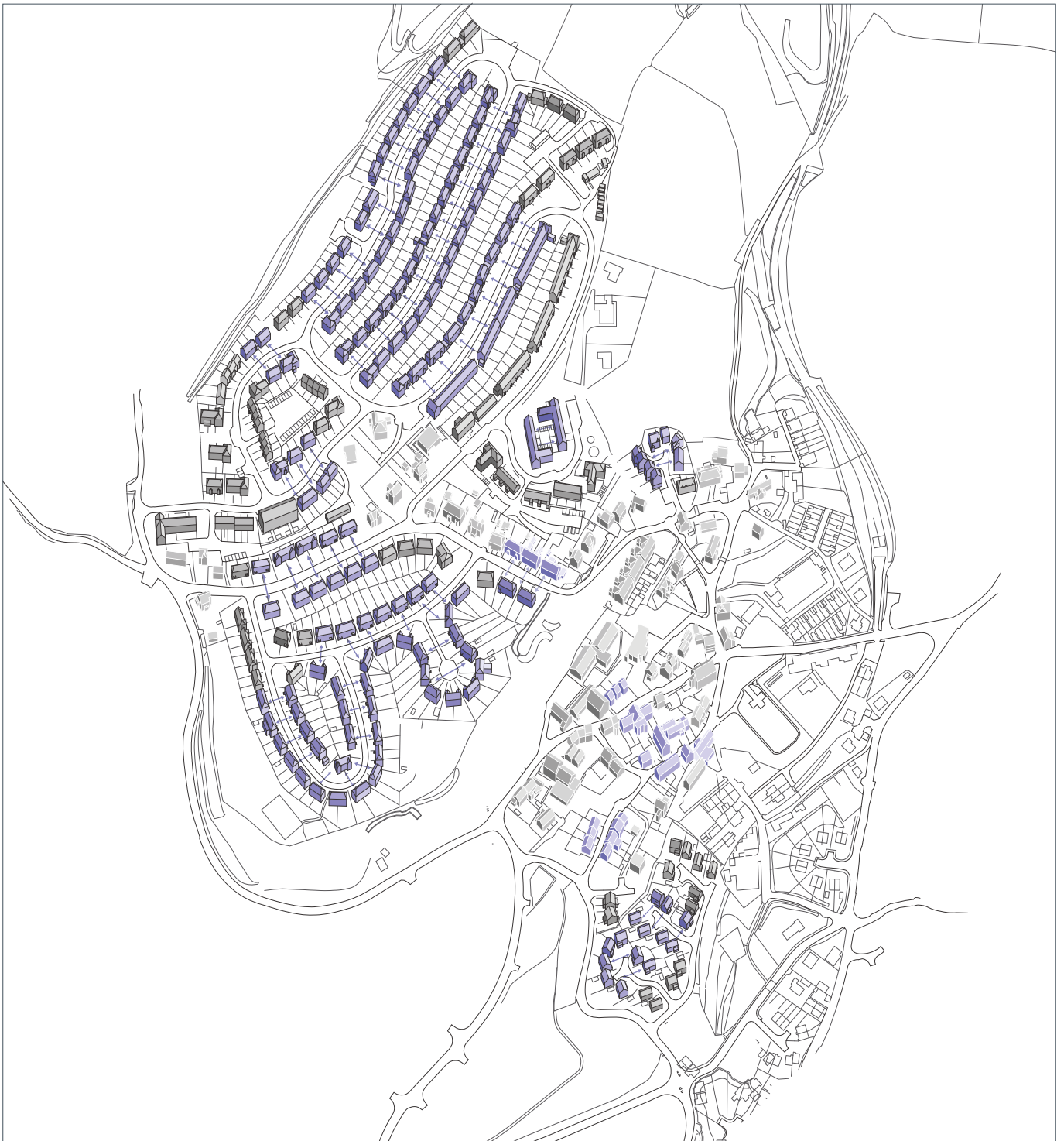
-  Fully accessible and overlooked space that can be accessed without crossing a road
-  Pavements or spaces situated alongside a road
-  Overlooked space accessed by crossing a maximum of one road OR a space that is adjacent but is not well overlooked
-  A shared surface space or cul-de-sac
-  A car dominant space e.g. car parking



200 m

-  Green is safe, car-free route - this could be a pavement, footpath or green space
-  Orange is a shared surface where pedestrians and cars share the route
-  Red is a crossing over a road or alongside a road where there is no pavement





200 m



Homes with strong social networks accross streets

Community Three

The village of Community Three is located to the North West of Wrexham, on the border with England, which is to the west.

There is a main road running through the village with a number of local shops. Houses are mainly two storey, with a range of detached, semi detached and terraces.

There are two play spaces within the village, but otherwise there is little space to play close to home. Surrounding the village is open countryside, similar to Community One and Community Two, but it appears that the children have little access to it as part of their play experience.

This suggests that the layout within the development can play a significant role in children’s ability to move around and start to access some of the opportunities close to their community, in this case well managed open spaces.

The route to the playground is protected
Clear messages about where not to play

Overall mapping rank: 7

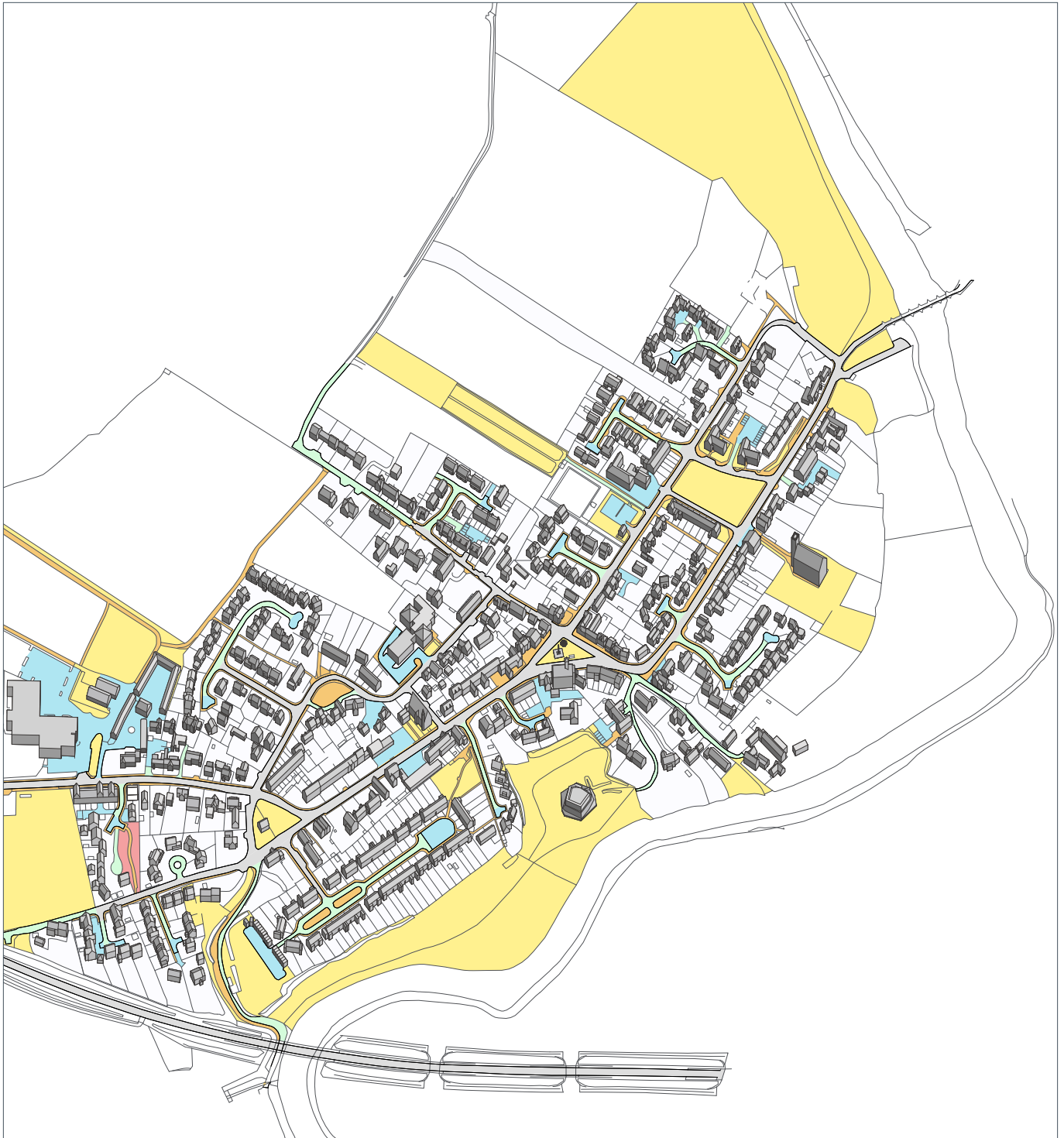
General levels of satisfaction: Slightly below average








Following a survey of children's satisfaction with play across the county borough in 2015, Holt was one of the communities the Local Authorities Play Development Team revisited to talk to children about their opportunities for play based on the fact they had reported low levels of satisfaction compared to other areas. The key issue for these children seemed to be the limited number of places they had to play in and the subsequent contested nature of that space i.e. the tensions that resulted from everyone having to use the same spaces. They also talked about parents not feeling like they could give their children permission to play out because of concerns about traffic.






Open countryside on the edge of Community Three

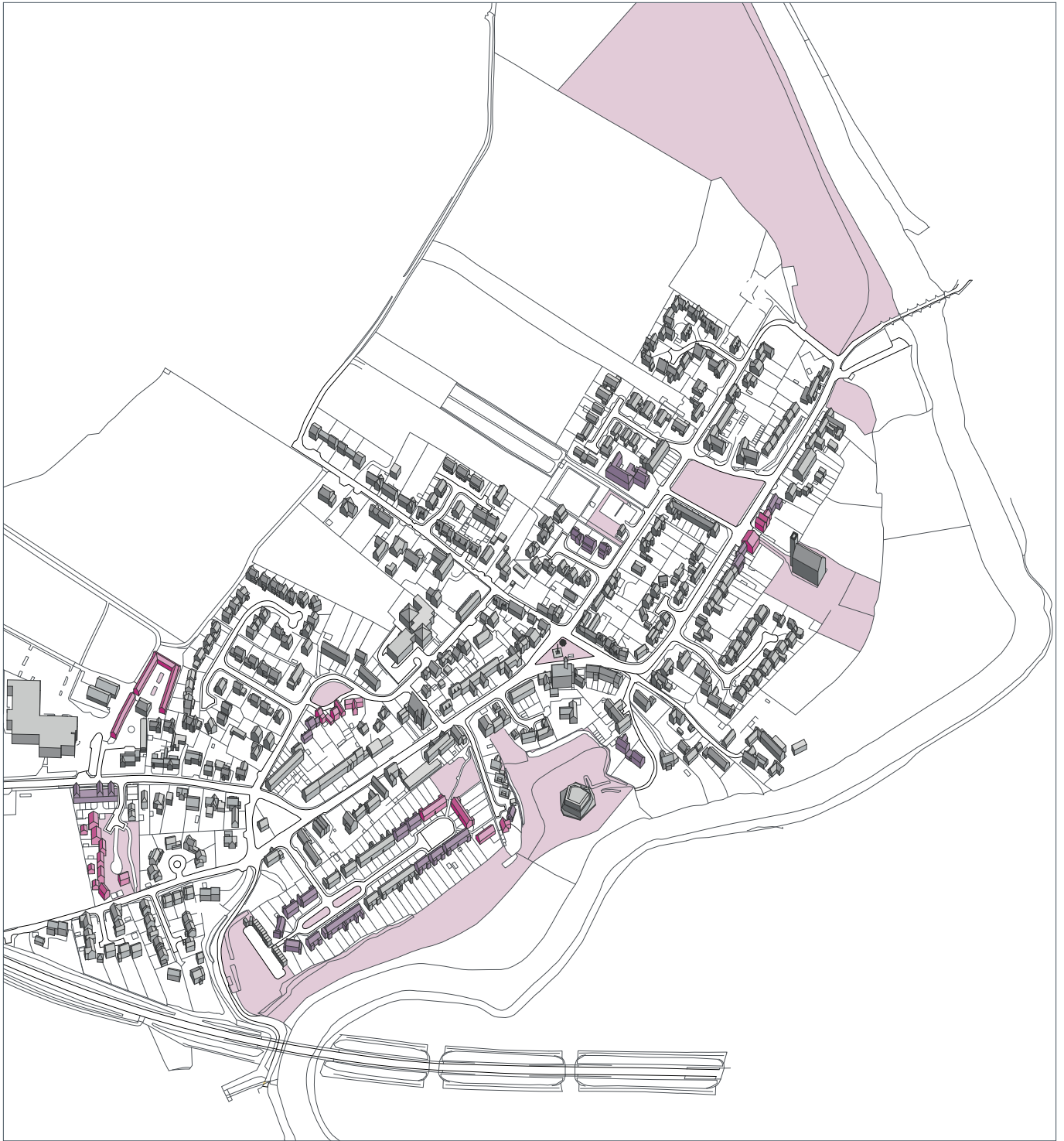


200 m

-  Fully accessible and overlooked space that can be accessed without crossing a road
-  Pavements or spaces situated alongside a road
-  Overlooked space accessed by crossing a maximum of one road OR a space that is adjacent but is not well overlooked
-  A shared surface space or cul-de-sac
-  A car dominant space e.g. car parking



-  Green is safe, car-free route - this could be a pavement, footpath or green space
-  Orange is a shared surface where pedestrians and cars share the route
-  Red is a crossing over a road or alongside a road where there is no pavement



200 m



Homes with safe, direct access to external spaces



Homes with safe but in-direct access to external spaces (e.g. via a pavement)



External Spaces



200 m



Homes with strong social networks accross streets

Community Four

Community Four is a small estate of cul de sacs, just south of the Wrexham industrial estate. There is an openness to the front gardens, with no fences or walls. Grassed areas exist on the junctions with the access road and the cul de sacs, these are poorly overlooked and don't seem to offer anything in terms of play or social use.

In Wrexham's 2015 play sufficiency survey, children from the wider rural community reported low levels of satisfaction with their opportunities for play. The majority of these children live in Community Four. In response the local Community Council (which covers the estate of Community Four) commissioned the Local Authority's Play Development Team to carry out a small scale play sufficiency assessment to identify the reasons for this and make recommendations for improving the situation.

Whilst (Community Four's) youngest community members enjoy playing in the home/street environments, which support their initial independent play (from around five to eight years), the problems begin to arise for children beyond this age. There are spaces that potentially support children's play, particularly for those aged approximately eight to 12 years, although these are limited in their affordance for playing and could be improved at relatively little cost.

The situation becomes more polarised for young people, those aged 12 years and over. Their need to range further and independently is not supported by safe routes so young people's activities and socialisation is reliant on parents ability to transport them (or the bus journey to school). Alternatively they have no option but to hang out in their neighbourhood (or just stay indoors). This in itself may

Green spaces have no visual connection to the dwellings

Houses are set back from the centre of the development

Overall mapping rank: 5

General levels of satisfaction: Below average



cause problems because adults tend to have less tolerance for the playful behaviour of bigger children. Young people who have grown up with sense of detachment from their community may also be less inclined to show respect towards it (although this did not appear to be the case for the young people engaged in this research). Both of these issues could be contributing factors to the concerns raised by some adults about young people's behaviour around 'the wall' and the bench that was previously located near the shops (both of which appeared to have caused serious problems in the past but were also linked to people turning up in cars).

This research indicates that there is a need to promote ways of connecting children and families who live on the main housing estates, as well as those living in more isolated homes in every direction. At the moment it seems that car journeys are made to connect individual families so children can play together but there are also strong indications that the adults within the main estate have a tendency not to mix beyond their own street. The environmental audit supports this by identifying that there is no intergenerational community meeting place and no obvious space where community events can take place.






Source: '██████████ Play Sufficiency Assessment.' Wrexham County Council. 2017



The dominant feature in Community Four are the roadways






200 m

-  Fully accessible and overlooked space that can be accessed without crossing a road
-  Pavements or spaces situated alongside a road
-  Overlooked space accessed by crossing a maximum of one road OR a space that is adjacent but is not well overlooked
-  A shared surface space or cul-de-sac
-  A car dominant space e.g. car parking



200 m

-  *Green is safe, car-free route - this could be a pavement, footpath or green space*
-  *Orange is a shared surface where pedestrians and cars share the route*
-  *Red is a crossing over a road or alongside a road where there is no pavement*



200 m



Homes with safe, direct access to external spaces



Homes with safe but in-direct access to external spaces (e.g. via a pavement)



External Spaces



200 m



Homes with strong social networks across streets

Appendix

Scoring criteria for mapping exercises

Accessible, shared external space

- 5 Plenty of good-sized red spaces throughout the development
- 4 Small number and/or small size of red spaces throughout the development
- 3 Mostly green/orange with a good-sized shared space within the development
- 2 Mostly blue and green/orange with a small amount of shared external space within development
- 1 Mostly blue and green/orange, with some external space on the edge of development
- 0 Blue and green only (vehicle accessible) - no shared external space within or on edge of development

Access to external spaces from homes (% with direct access)

- 5 90 - 100% of homes
- 4 70-90% of homes
- 3 50-70% of homes
- 2 30-50% of homes
- 1 10-30% of homes
- 0 0-10% of homes

Networks

- 5 A series of safe, networks throughout the development connecting shared spaces
- 4 A series of routes, reaching the shared spaces, but not well connected throughout the development
- 3 There are some loops, perhaps around blocks on pavements, but these are poorly to each other, some using red connections
- 2 Closed loops, all connections between the loops are red
- 1 Most circulation around development is shared surface
- 0 Very unsafe development - no pavement or shared surface and/or high traffic speeds etc

Street design for social interaction (% of homes with visual connection)

- 5 90 - 100% of homes
- 4 70-90% of homes
- 3 50-70% of homes
- 2 30-50% of homes
- 1 10-30% of homes
- 0 0-10% of homes

This report, for Wrexham County Council, is a systematic mapping review of four neighbourhoods, using previously researched techniques. The maps offer a unique way to visualise Play Sufficiency, a statutory duty for local authorities across Wales.

It is hoped that the findings of the report will be useful for local authorities across Wales and the UK: It presents a process that enables the measurement of predictable outcomes for children's well being and could provide other positive social benefits for rural and suburban communities.

