



Southend Borough Council
Rochford District Council

SETTLEMENT ROLE AND HIERARCHY STUDY

AREA PROFILE: THORPE BAY

Troy Planning + Design
November 2020

Rochford District Council

Southend Borough Council

Settlement Role and Hierarchy Study

Area Profiles: Thorpe Bay



**Complete
Communities**

On behalf of:

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Final Report

November 2020

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A Note on Assessing Completeness

The method for assessing the degree of completeness of a neighbourhood follows from the mapping of facilities and their catchment areas. This is first undertaken for the neighbourhood services and facilities. The approach taken is to:

- a) Break the broad infrastructure and facilities categories (e.g.: community infrastructure) into the component parts (e.g.: secondary schools, primary schools, health facilities etc) and map these.
- b) For each piece of infrastructure or facility to map the associated walking catchment area around that.
- c) Calculate how much of the built area falls within the walking catchment area of that facility. This is calculated as a percentage of the built area.
- d) Repeat this for each infrastructure type of facility within an infrastructure category and then bring the percentage coverage for each facility together to present an average for that infrastructure type. So, for example, if 100% of the built area is within the catchment of a secondary school and 80% within the catchment of a primary school, the average coverage for education for that settlement would be 90%.
- e) The maps for each infrastructure type are then overlaid to present heat maps for each infrastructure category, with the 'hotter' coloured areas being those within the catchment of multiple infrastructure types or facilities.
- f) This is repeated for each infrastructure and facility category, indicating how 'complete' an area is in terms of social and community infrastructure, green infrastructure, and access to other essential facilities. A composite heat map, bringing the infrastructure categories together is prepared alongside this.

A note on catchments

Completeness is based on mapping of walking catchments around different facilities. The catchment areas vary by facility and reflect comfortable walking distances for the average, able-bodied person. The catchments are based on actual walking routes rather than 'as the crow flies' distances.

A Note on the Mapping of Green Infrastructure

The maps shown for analysis of green infrastructure facilities within this document identify points of access to these rather than the extent of the part itself.

Neighbourhood Description

- 1.1 Thorpe Bay neighbourhood is in the southeast of Southend, adjacent to the neighbourhoods of Southchurch (west), Shoeburyness (east), and Rochford District to the north. The area is bounded by the Thames Estuary to the south, Maplin Way to the east, the A13 to the north, and a combination of Thorpe Hall Avenue, Woodgrange Drive, and Lifstan Way to the west. Thorpe Bay rail station is located roughly in the middle of the area, and provides services east to Shoeburyness rail station, and west to Southend Central station and beyond to London Fenchurch Street Station.

Demographic Profile

- 1.2 The total population of Thorpe Bay is 7,944 as of the mid-2018 census update (marked in table 1) and makes up 4.33% of Southend Borough's total population. It is the least populous neighbourhood in Southend borough. Demographic analysis for this area is based upon Thorpe Ward, which, whilst not exactly following the boundary of neighbourhood, is closely aligned with the neighbourhood area. This information is sourced from the Southend Ward Profile summaries¹.
- 1.3 Of particular note, Thorpe Ward has the highest proportion of residents aged between 65 and 84 at 8% higher than the 16% Borough average, and a 4% lesser proportion of those school age (below 16 years). This could have significant impacts on the pressure exerted on local healthcare facilities now and into the future. The proportion of residents claiming to be in 'very good health' is 2.1% higher than the borough average, with a slightly lower percentage of the population identifying as in 'very bad health'.
- 1.4 The proportion of those in full time employment comparative to the total population is 2.4% lower than the borough average, while the proportion of those in part time employment or who are retired are 2.4% higher and 2.9% higher than the borough averages respectively. This shows a slightly less active workforce. Car ownership is high, with an average of one car to 1.7 people- higher than the one to 2.2-person borough average.




¹ https://www.southend.gov.uk/downloads/download/353/ward_profiles

Key to infrastructure mapping and completeness heat mapping used in this section of the report:

Infrastructure

SOCIAL INFRASTRUCTURE

Education

-  NURSERIES
-  PRIMARY SCHOOLS
-  SECONDARY SCHOOLS



Health

-  DOCTORS
-  DENTISTS
-  PHARMACIES

Civic

-  LIBRARIES
-  PLACES OF WORSHIP
-  PUBLIC CONVENIENCES
-  COMMUNITY CENTRES & HALLS

Sports & Leisure

-  PLAYING PITCHES - Access Point
-  LOCAL PLAY EQUIPPED PLAY AREAS - Access Points


GREEN INFRASTRUCTURE

-  AMENITY GREENSPACE - Access Points
-  ALLOTMENTS OR GROWING SPACES - Access Points
-  NATURAL & SEMINATURAL GREENSPACES - Access Points
-  PARKS OR GARDENS - Access Points
-  PARKS OR GARDENS - Area





TOWN CENTRE USES

-  LOCAL SHOPS
-  SUPERSTORES
-  Local & Neighbourhood Centers
-  Town & District Centers



TRANSPORT INFRASTRUCTURE

-  TRAIN STATIONS






Bus Routes

-  4 or more services per hour
-  less than 4 services per hour
-  Bus Stops - less than 4 services per hour
-  Bus Stops - 4 or more services per hour

Completeness

-  District / Borough Boundaries
-  Settlement / Neighbourhood Boundaries

Walking Completeness Score

-  1 - 4
-  5 - 7
-  8 - 10
-  11 - 13
-  14 - 17

Note: A completeness score of 1-4 is low and 14-17 is high



Figure 1 - Map of infrastructure, services and facilities within the Thorpe Bay neighbourhood

		Thorpe Ward		Southend Borough	
Data Source		No.	%	No.	%
Mid-2018 Census	Population	7,944	*4.33	183,486	
Public Health England, 2016	Population	9,140	*5.1	178,702	
	Age under 16	1,391	**15.2	34,311	**19.2
	Age 25 – 64	4,347	**47.6	92,746	**51.9
	Age 65-84	2,171	**23.8	28,592	**16
2011 Census	Population in very good health	4,372	**47.4	80,595	**45.1
	Population in very bad health	77	**0.8	2,323	**1.3
	Households one person over age 65	704	**18.0	24,482	**13.7
NOMIS, 2011	Full time employee	2,874	**67.9	125,806	**70.4
	Part time employee	1,358	**32.1	52,896	**29.6
	Retired	418	**7.8	9,114	**5.1
2011 Census	All cars in the area	5,405		81,331	
	Ratio Cars : People	1 : 1.7		1 : 2.2	

Table 1- Thorpe Bay Ward Demographic Profile Summary versus Southend Borough

*percentage represents proportion of Southend Borough total population

** percentage represents proportion of Ward total population

Socio-Economic Indicators

- 1.5 Figure 2 below shows the Indices of Multiple Deprivation across Thorpe Bay, using the Lower Super Output Areas (LSOAs) within the neighbourhood boundary.
- 1.6 These indices reveal that most residents within the neighbourhood are within the least deprived decile with a small portion within the 4th most deprived decile up to the least deprived decile. The most deprived LSOA is in the south western corner of Thorpe Bay where, of the seven different indices of deprivation, the 2019 study² found the following categories to be the worst performing within the neighbourhood (the 'worst' being 1st to 5th most deprived decile):
- Income deprivation (3rd most deprived decile)
 - Employment deprivation (3rd most deprived decile)
 - Education, skills and training deprivation (4th most deprived decile)
 - Health deprivation and disability (4th most deprived decile)
 - Crime (2nd most deprived decile)
 - Living Environment deprivation (4th most deprived decile)
- 1.7 Conversely barriers to housing and services in this LSOA is within the 7th least deprived decile.
- 1.8 Data collected in the 2011 National Census shows that 6.6% of the population of Thorpe Ward identifies as having an ethnic minority background. This population statistic is on par with Southend Borough.

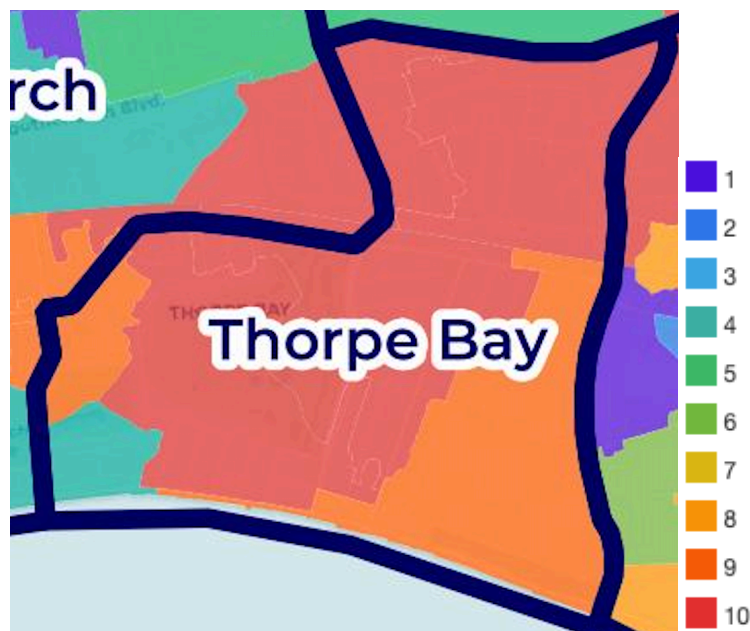


Figure 2 - Thorpe Bay Indices of Multiple Deprivation map. 1 is high IMD and 10 low

² English indices of deprivation 2019: http://dclgapps.communities.gov.uk/imd/iod_index.html#

Population Density

- 1.9 Thorpe Bay has the most consistently low population density across the whole neighbourhood area. There is very little variation in density ranging from 11-50 people per hectare (pph) up to 75-107pph.
- 1.10 The majority of the area has a population density between 11-50pph. This is likely to be attributed to the larger housing typologies and gardens and land hungry uses, such as the golf course, which contributes to lower average densities.. The highest density pocket is located on the south western boundary. This area has a higher distribution of flats and maisonettes as well as slightly smaller houses and gardens.

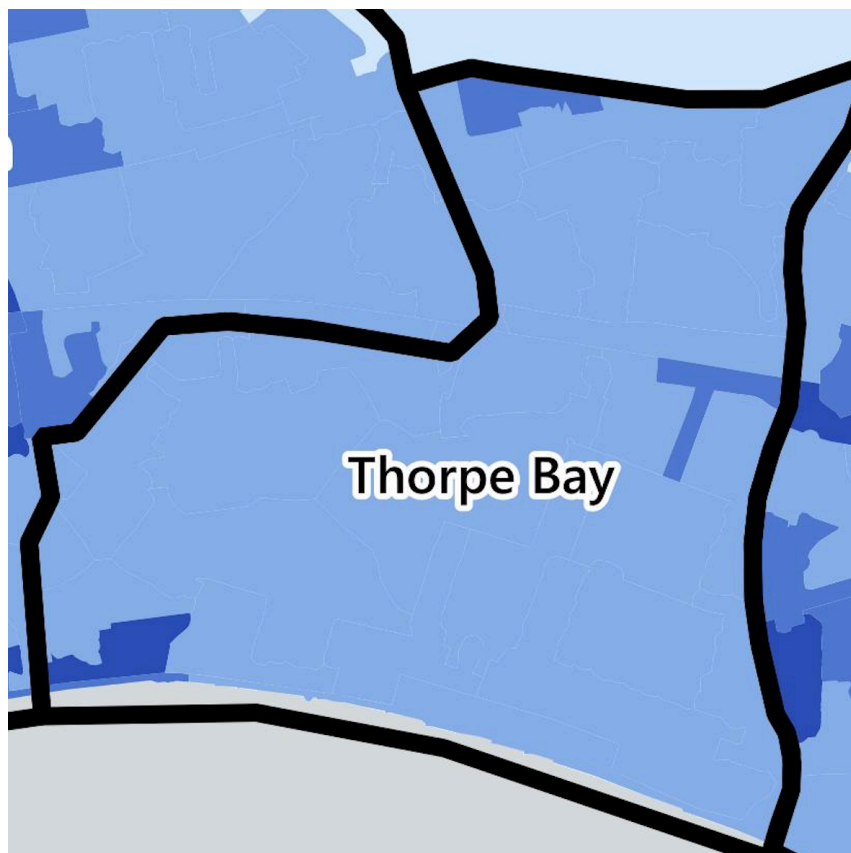
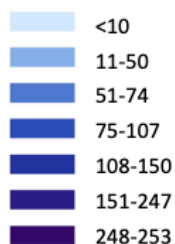


Figure 3- Thorpe Bay Density Pattern

POPULATION DENSITY MID-2018



Contains Ordnance Survey data
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Walking catchments: Education

- 1.11 Within Thorpe Bay, there are two nurseries and three primary schools. Thorpe Bay contains the fewest number of education facilities of all neighbourhoods in Southend. The walking catchment of some education facilities in adjacent neighbourhoods extend into parts of Thorpe bay. This includes two secondary schools to the west in Southchurch, one secondary school to the east in Shoeburyness, and two primary schools and one nursery to the east in Shoeburyness also.
- 1.12 Areas within walking distance of education facilities in Thorpe Bay are shown in Figure 4. This analysis is based on the following walking distances:
- | | |
|--------------------|---|
| Nurseries: | 12.5 minute walk time / 1,000 metre catchment |
| Primary Schools: | 10 minutes / 800 metres |
| Secondary Schools: | 15 minutes / 1,200 metres |
- 1.13 Almost the entirety of Thorpe Bay is within walking distance to nurseries, with only the north-western portion of the area not falling within the catchment. This is part due to the road network, where culs-de-sac and the lack of frequent pedestrian connections between roads increases the distance and time travelled walking.
- 1.14 Most of Thorpe Bay is within the walking catchment of one or more primary schools, except for the southern portion of the neighbourhood. This is due to the placement of primary schools rather than any barriers to pedestrian accessibility. Lastly, only a small section of Thorpe Bay is within walking distance of a secondary school, located in adjacent neighbourhoods: this is caused by both the lack of schools within the neighbourhood, and the barrier to movement created by the railway corridor which limits catchment areas. .
- 1.15 The percentage of area that is covered by the catchment thresholds to each type of education infrastructure can be summarised below:
- | | |
|-------------------|-------|
| Nurseries | 95.7% |
| Primary Schools | 74.7% |
| Secondary Schools | 41.6% |
- 1.16 The average coverage for education facilities in Thorpe Bay is therefore 70.6%.

Walking catchments: Health

- 1.17 Thorpe Bay has three doctors' surgeries, six dentists and two pharmacies. Health facilities are concentrated in two main clusters in the neighbourhood: one centrally, and one in the south western corner of the neighbourhood. The rail corridor, which bisects the neighbourhood increases the distance needed to walk for some residents living north of the railway. Whilst Thorpe Bay is one of the smallest neighbourhoods, it also has the older population, with the proportion of residents aged 65-84 compared to the overall population being 8% higher than the borough average.
- 1.18 Access to healthcare facilities in Thorpe Bay is based on the following walking distances and times:
- | | |
|------------------|---|
| Doctors Surgery: | 10 minute walk time / 800 metre catchment |
| Dentists: | 10 minutes / 800 metres |
| Pharmacy: | 15 minutes / 1,200 metres |
- 1.19 The majority of the neighbourhood is within walking distance to doctor's surgeries and dentists, with exception to one area in the very north of the neighbourhood, and one portion of the neighbourhood to the south east. Almost the entirety of the neighbourhood is within the walking catchments of the two pharmacies.
- 1.20 The percentage of area that is covered by the catchment thresholds to each type of health infrastructure can be summarised below:
- | | |
|------------|-------|
| Dentists | 90.1% |
| Doctors | 82.5% |
| Pharmacies | 99.5% |
- 1.21 The average coverage for health facilities in Thorpe Bay is therefore 90.7%.

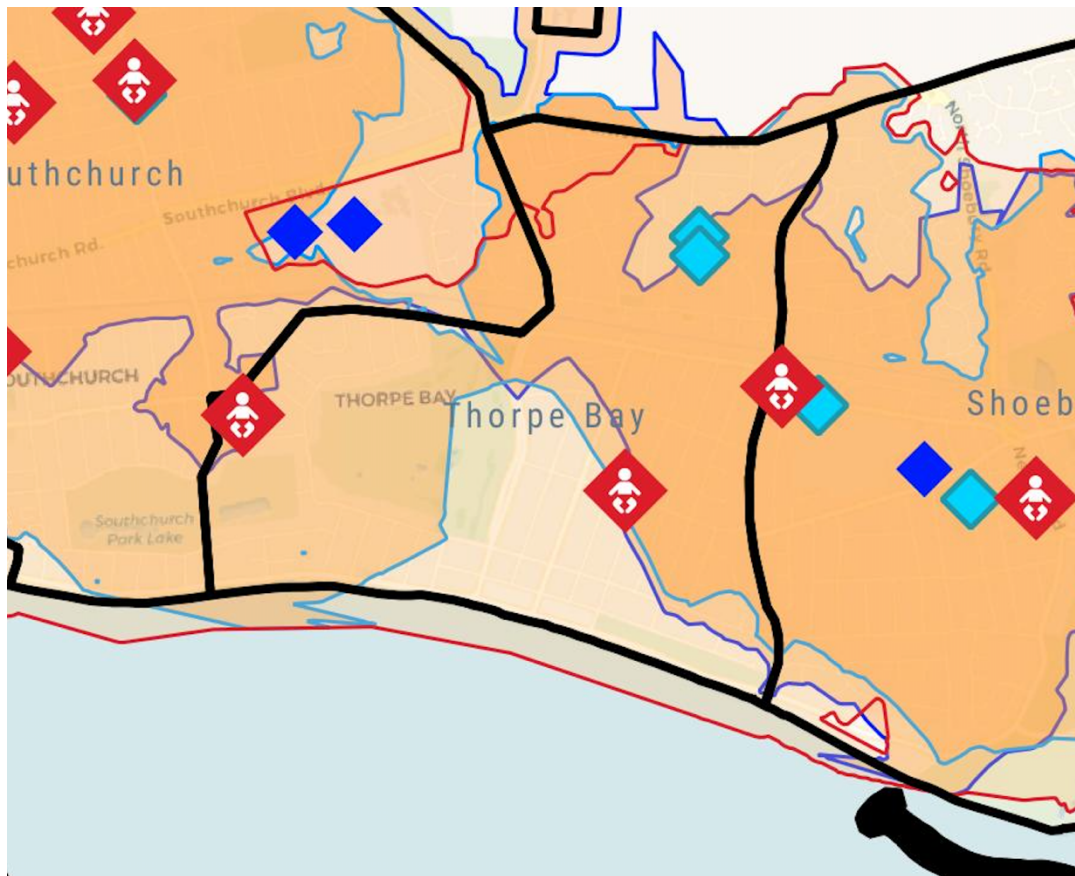


Figure 4- Thorpe Bay Education Facilities and Catchment Areas

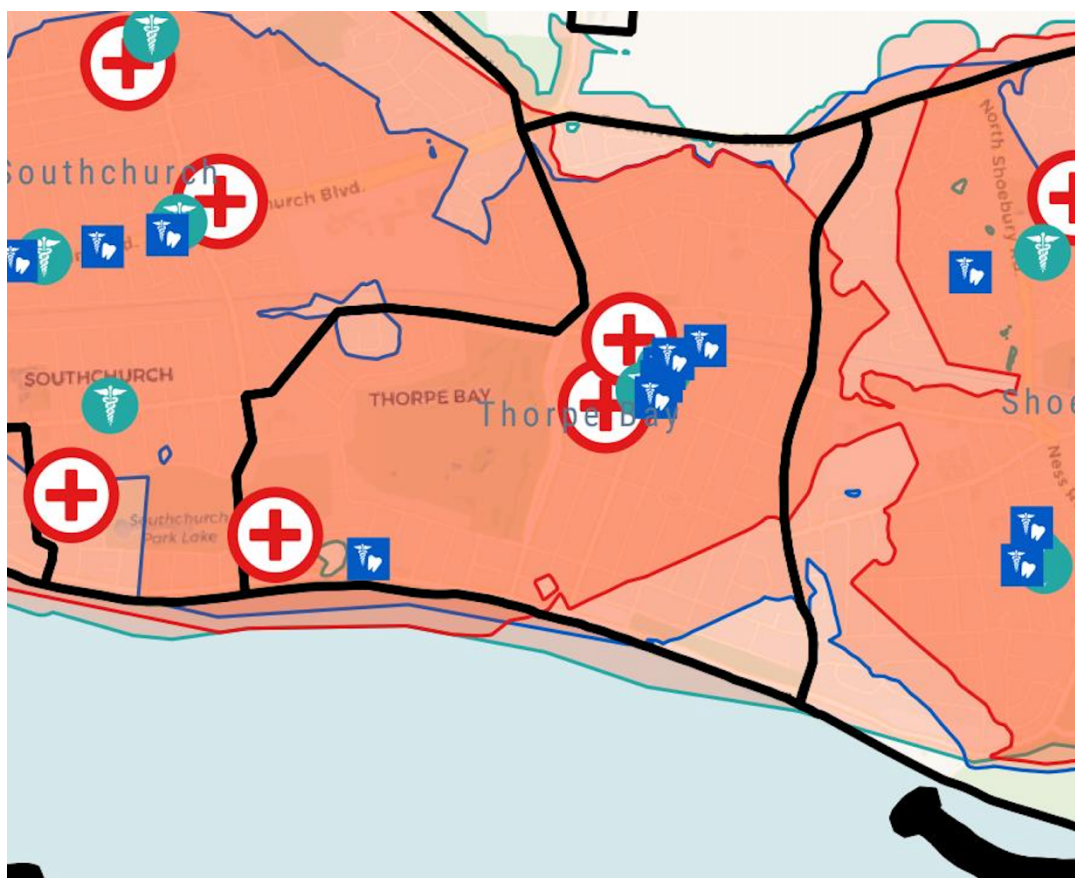


Figure 5 Thorpe Bay Health Facilities and Catchment Areas

Walking catchments: Civic facilities

- 1.22 Thorpe Bay has one community centre, four places of worship, and no other civic facilities within its boundaries. Access to civic facilities in Thorpe Bay is based on the following walking distances and times:

Community Centres / Halls:	10 minute walk time / 800 metre catchment
Libraries:	10 minutes / 800 metres
Places of Worship:	12.5 minutes / 1,000 metres
Public Conveniences:	10 minutes / 800 metres

- 1.23 Neighbourhoods adjacent to Thorpe bay are within the walking catchment of more civic facilities than Thorpe Bay, in part because of the location of facilities in these neighbourhoods. Parts of Thorpe bay that are within the walking catchments of libraries or public conveniences are located close to either Southchurch and Shoeburyness. The majority of the area is within the walking catchment of one or more places of worship.

- 1.24 The closest library is in Shoeburyness, located on Delaware Road, and Southchurch Library, to the west. The four places of worship are all located in the southern portion of the neighbourhood, and are all Christian churches with no other religious places of worship.

- 1.25 The percentage of area that is covered by the catchment thresholds to each type of civic infrastructure can be summarised below:

Community Centres	24.5%
Libraries	9.4%
Public Conveniences	3.1%
Places of Worship	94.6%

- 1.26 The average coverage for civic facilities in Thorpe Bay is therefore 32.9%.

Walking catchments: Sports and leisure facilities

- 1.27 There are no locally equipped play areas or playing pitches in Thorpe Bay. The eastern and western parts of the neighbourhood do however benefit from being within the catchment of some of these facilities in Southchurch and Shoeburyness. Access to sports and leisure facilities in Thorpe Bay is based on the following walking distances and times:

Playing pitches: 15 minute walk time / 1,200 metre catchment

Local Play / Equipped Play: 8 minutes / 650 metres

- 1.28 Whilst there is a large green space in the middle of Thorpe Bay, this is a privately-owned golf course with minimal public access. The closest playing pitches are located in Shoebury Park within Shoeburyness directly east.

- 1.29 The percentage of area that is covered by the catchment thresholds to each type of sports and leisure infrastructure can be summarised below:

Locally Equipped Play Areas 36.6%

Playing Pitches 18.8%

- 1.30 The average coverage for sports and leisure facilities in Thorpe Bay is therefore 27.7%.

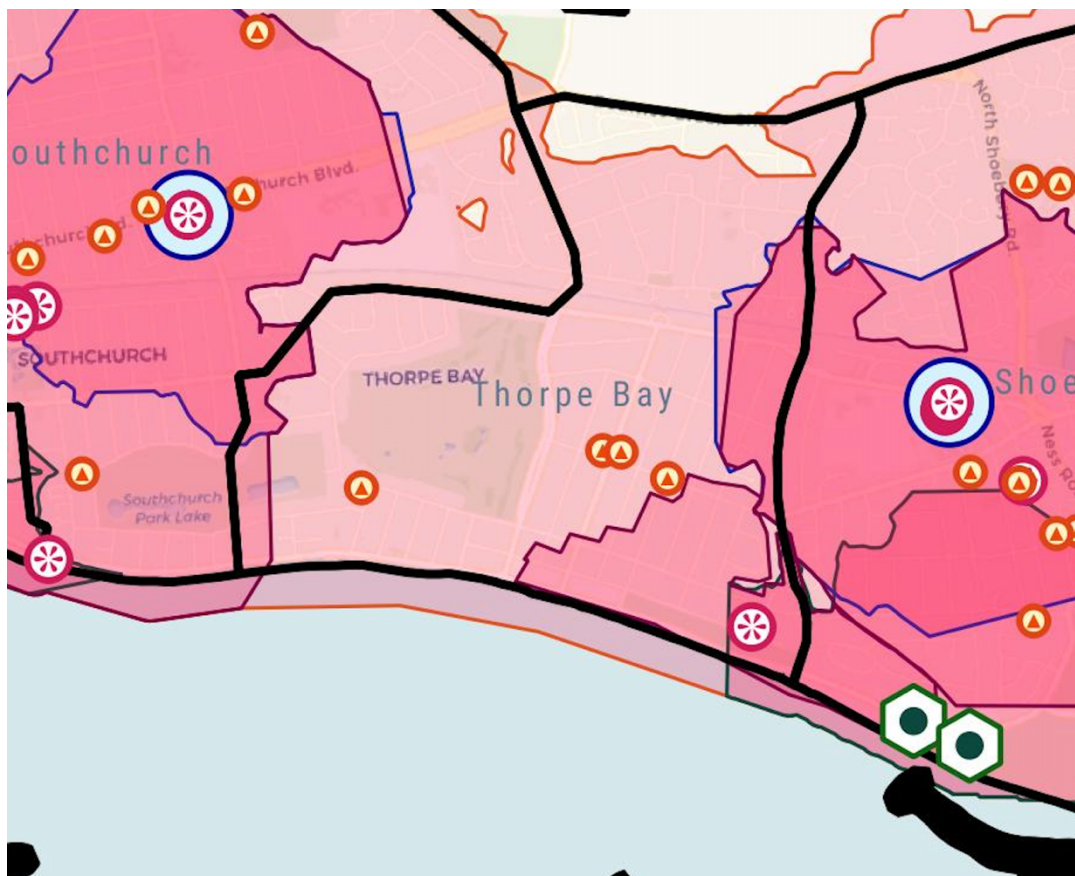


Figure 6 - Thorpe Bay Civic Facilities and Catchment Areas

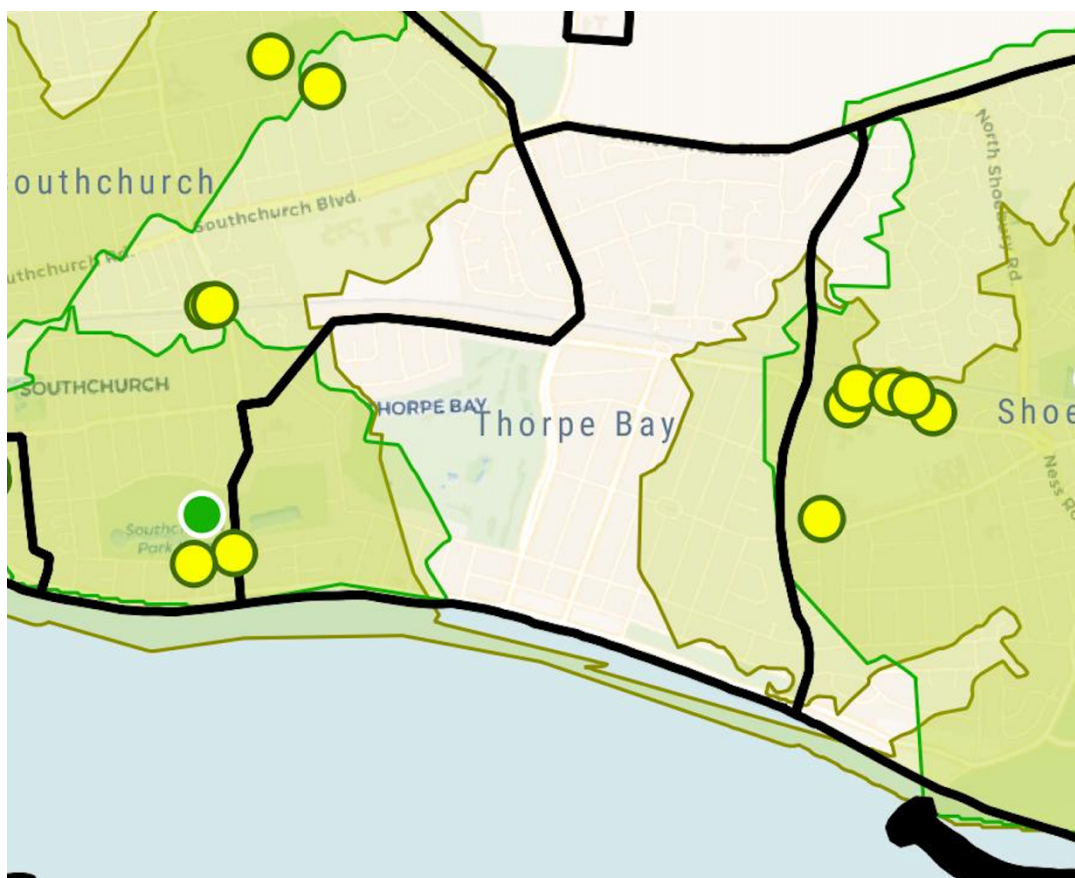


Figure 7 - Thorpe Bay Sports and Leisure Facilities and Catchment Areas

Walking catchments: Green infrastructure

- 1.31 Thorpe Bay has one area of allotments and one general location of parks and gardens (encompassing eight different park points within this area). Access to green infrastructure in Thorpe Bay is based on the following walking distances and times:

Parks and Gardens:	8.75 minute walk time / 710 metre catchment
Amenity Green Space:	5.75 minutes / 480 metres
Natural / Semi-natural space:	9 minutes / 720 metres
Allotments:	2.5 minutes / 200 metres

- 1.32 Whilst there is a private golf course in Thorpe Bay, this provides only minimal public walking access and thus does not contribute to the areas overall green infrastructure. Thorpe Bay Gardens located along Thorpe Esplanade on the foreshore provides some open green space, however provides no other features or facilities. However, the lower density nature of development in the area, which includes properties with large gardens and wide-grassed verged streets, as well as extensive tree cover, means that although Green Infrastructure is calculated as relatively low, the neighbourhood is in fact very verdant in character.

- 1.33 The railway line runs east/west directly through the middle of the neighbourhood. This forms a barrier to movement and reduces the extent of the catchment area, limiting accessibility to these facilities for those people in the north of the neighbourhood.

- 1.34 The percentage of area that is covered by the catchment thresholds to each type of green infrastructure facility can be summarised below:

Amenity Greenspaces	0%
Parks or Gardens	53.8%
Allotments or Growing Spaces	0%
Natural / Semi-natural Spaces	0%

- 1.35 The average coverage for green infrastructure in Thorpe Bay is therefore 13.4%.

Walking catchments: Town centre uses

- 1.36 Thorpe Bay has three different Local or neighbourhood Centre Locations but no superstores or Local Shops located separately from the Local Centres. The location and provision of local shops and services in Thorpe Bay is mapped in Figure 9. Access to these uses is based on the following walking distances and times:

Local Shop: 5.5-minute walking time / 450 metre catchment

Local / Neighbourhood Centre: 7.7 minutes / 600 metres

District / Town Centre: 21.75 minutes / 1,750 metres

Superstore: 25 minutes / 2,000 metres

- 1.37 Both the South Essex Retail Study (2017) and Southend on Sea Retail and Leisure Study (2018) categorise Thorpe Bay as a Local Centre. The majority of the retail units are concentrated along The Broadway in the centre of the neighbourhood near Thorpe Bay railway station.

- 1.38 The closest Town of District Centre is central Southend. The far south western edge of Thorpe Bay is within the 1,750 walking catchment to Southend. This same area is though outside of the walking catchment to Thorpe Bay local centre. While there are no superstores located in Thorpe Bay itself, the entire area of the neighbourhood is within the 2,000-metre catchment to two facilities to the west in Southchurch and east in Shoeburyness. There are no standalone local shops not located within a local centre that might provide some day-to-day need at a short distance from a residence.

- 1.39 The majority of the other community infrastructure within Thorpe Bay is located in or near the central Local Centre including doctors, pharmacies and dentists, with the exception of the community centre and the two primary schools in the area.

- 1.40 The percentage of area that is covered by the catchment thresholds to each type of town centre infrastructure can be summarised below:

Superstores 100%

Local / neighbourhood centres 66.6%

Town and district centres 15%

Local Shops 0%

- 1.41 The average coverage for town centre uses facilities in Thorpe Bay is therefore 45.4%.

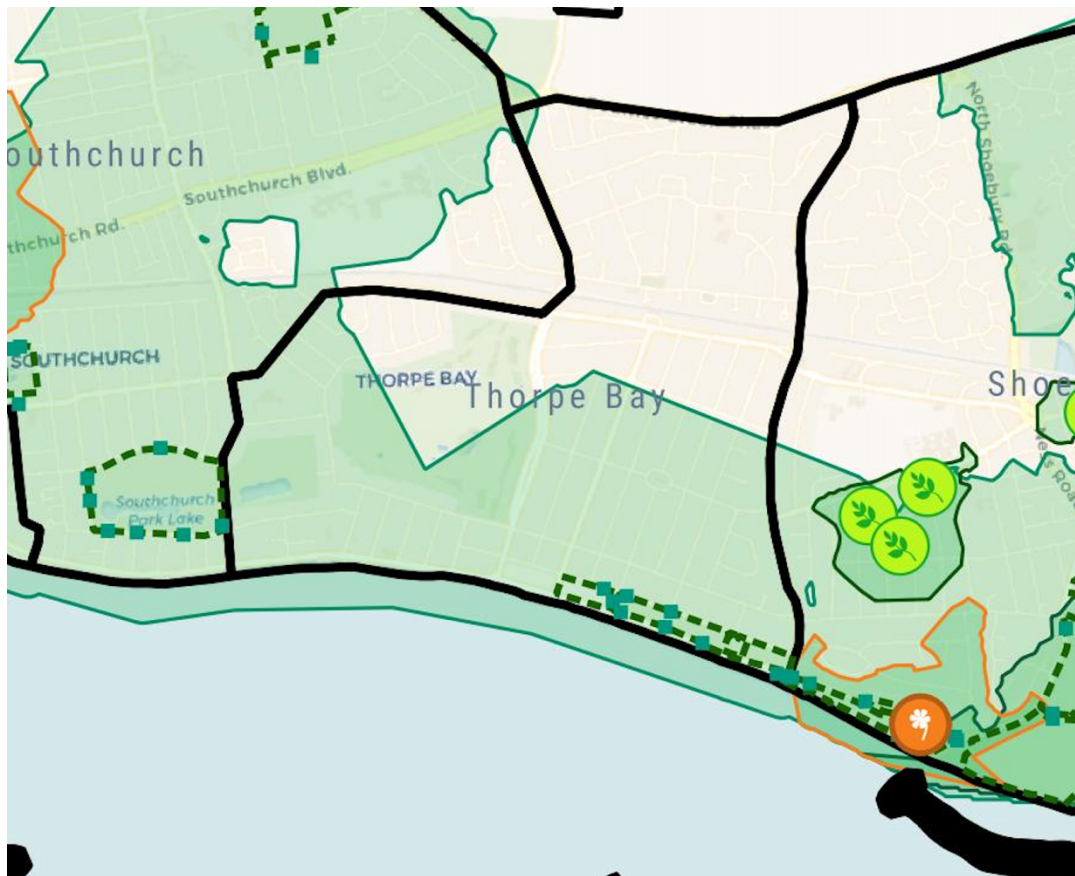


Figure 8 - Thorpe Bay Green Infrastructure Facilities and Catchment Areas

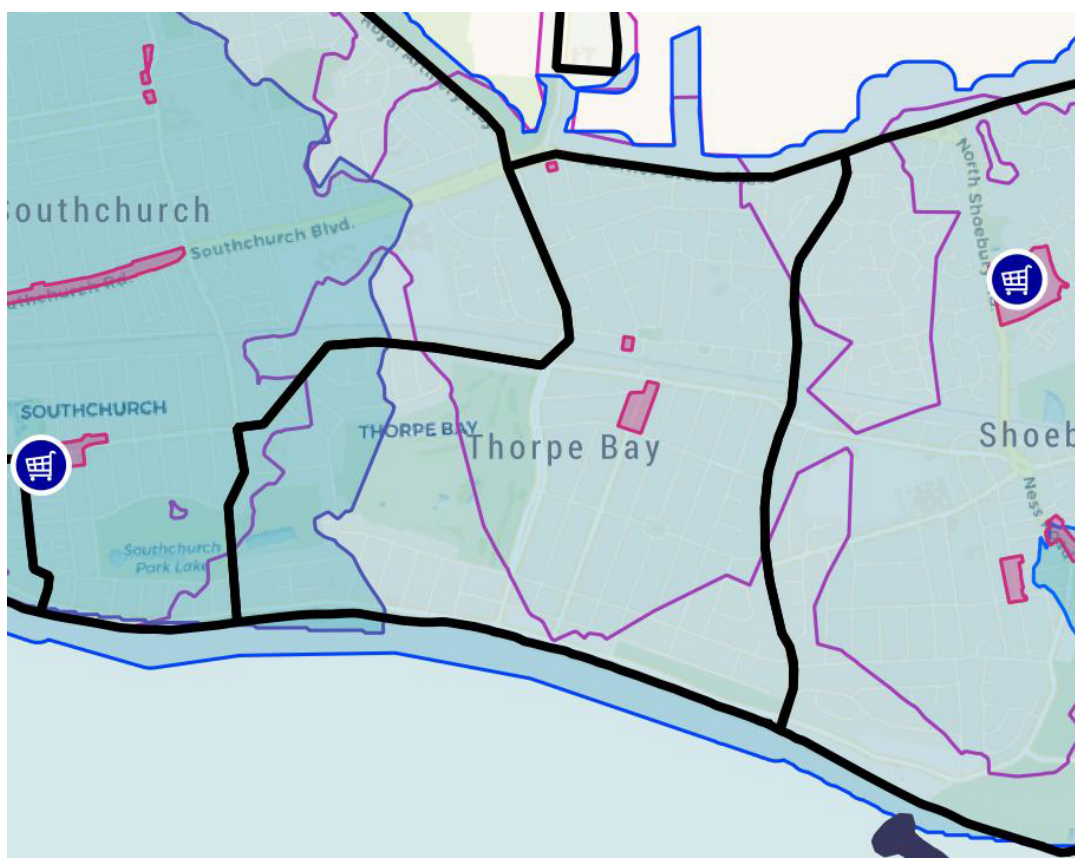


Figure 9 - Thorpe Bay Town Centre Facilities and Catchment Areas

Summary of day-to-day services

- 1.42 Figure 10, below, overlays all the walking catchments for the day-to-day infrastructure categories discussed up until this point in the report which shows the ranging levels of completeness. A fully “complete” area would be one where all twenty day-to-day services and facilities are accessible within walking distance – however, the highest number of infrastructure facilities within walking distance of an area in Southend borough is seventeen. Therefore a “complete” area within this analysis is considered to be one with access to between 14 and 17 different types of facilities.
- 1.43 The average completeness score for Thorpe Bay is 46.8%, with heat mapping indicating the most complete area to be within walking catchment of between 8-11 day-to-day facilities. There are two very small areas with the highest completeness score. One on the eastern boundary with Shoeburyness which can be attributed to the concentration of infrastructure located along Delaware Road, and the other on the boundary with Southchurch which benefits from access to Southchurch Road local centre and its associated services. The large area next to this showing up as ‘cooler’ in Figure 82 can be attributed to Thorpe Bay Golf Course.
- 1.44 The Local Centre along The Broadway does offer residents some amenity, however it is still lacking many day-to-day services such as a secondary school, library, public convenience, community centre and all types of green space.
- 1.45 The general low level of completeness is directly correlated with the low population densities seen across the neighbourhood (11-50pph).

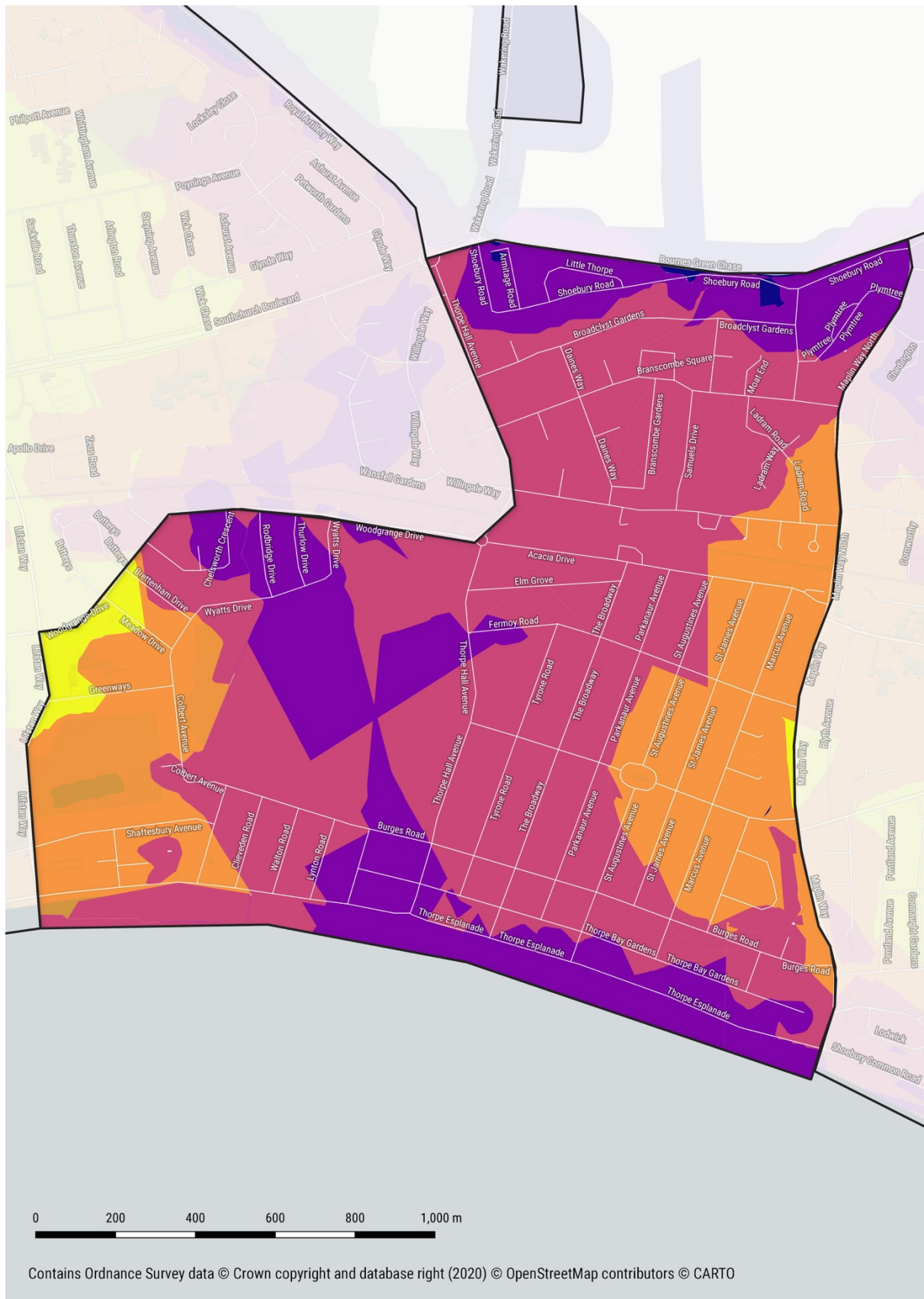


Figure 10 - Thorpe Bay "Completeness" Heatmap

Housing Mix

- 1.46 By area, Thorpe Bay's predominant residential typology is detached housing, located mainly within the central and northern parts of the neighbourhood, followed by bungalow housing, located predominantly in the south-east, as shown in figure 11. Some flats/maisonettes and semi-detached homes are also the predominant housing typology in the small western areas of the neighbourhood.
- 1.47 The median home price across the vast majority of Thorpe Bay (with one exception) is within the range of £ £350,000 - £924,999, irrespective of the dominant residential type of the area. The area with the highest average price for housing within Thorpe Bay is in the north-eastern area (£575,000), and the area with the lowest average housing price is that where flats/maisonettes are the most dominant housing type (£265,000). Further information on housing mix is set out in the appendix.

Broadband speeds

- 1.48 Broadband speeds within Thorpe Bay are starkly divided between those parts of the neighbourhood north of the rail corridor, (ranging from 50-70+mbit/s), and south of the rail corridor (ranging from 10mbits/s up to 50 mbits/s on a few streets).
- 1.49 There does not appear to be a correlation between the area's density and broadband speeds, nor the area's completeness score or broadband speeds. Areas both north and south in the neighbourhood have a medium completion score range of 8-11, and density across the area is 11-50 pph in all but a few locations. This implies that those living across the neighbourhood may trouble working efficiently from home.

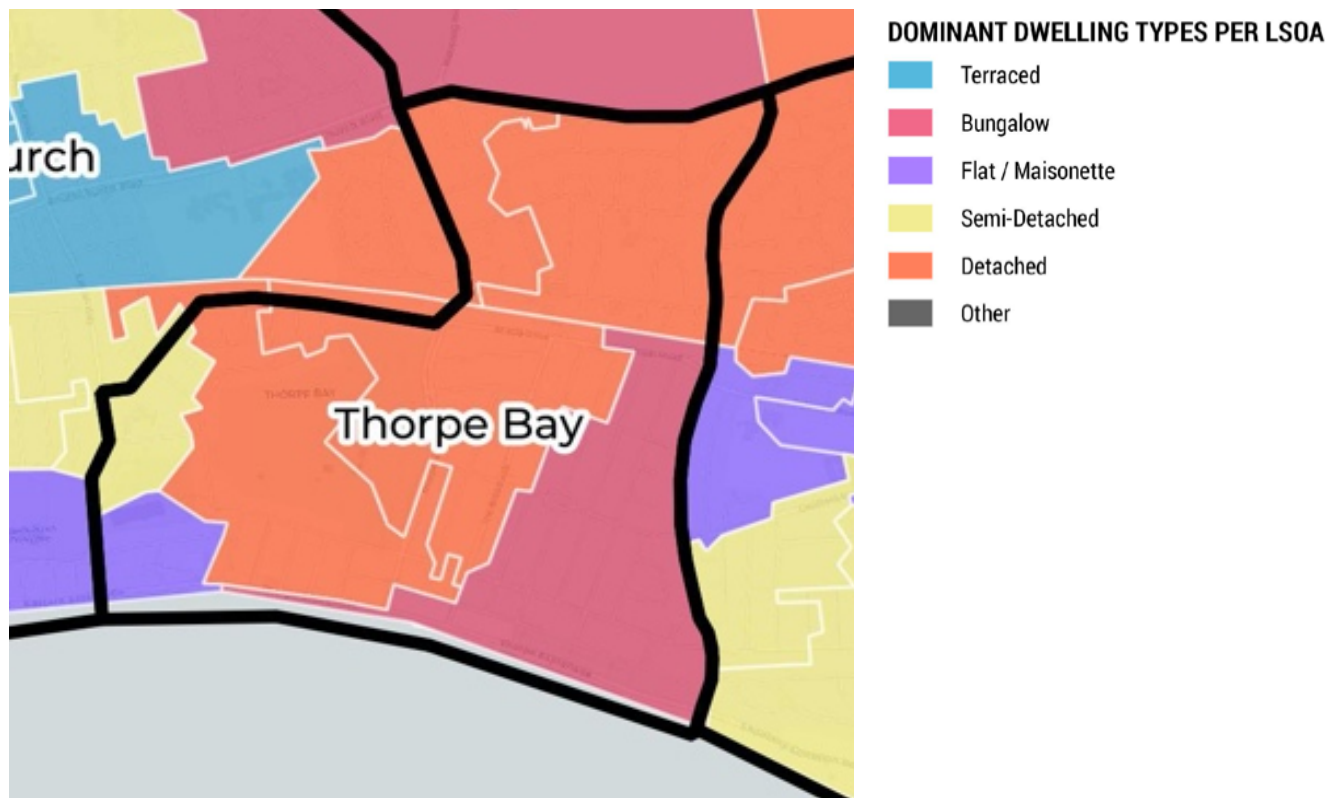


Figure 11 - Thorpe Bay Dominant Residential Types

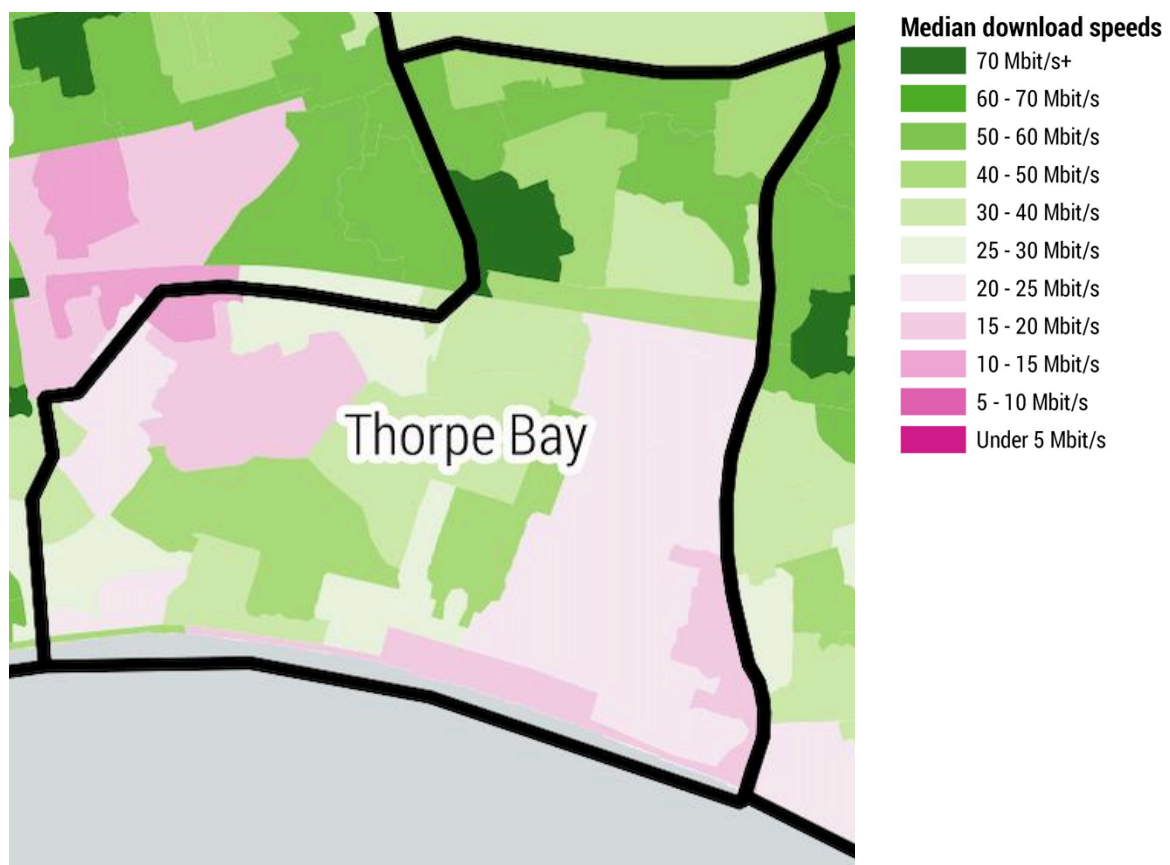


Figure 12 - Map of Broadband Speed within the Thorpe Bay Neighbourhood

Area Summary

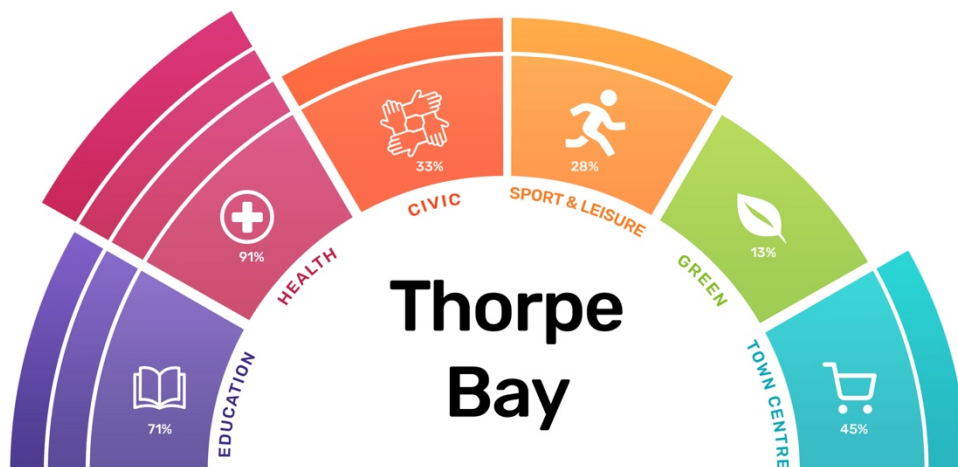
1.50 Demographics:

- Thorpe Bay has the smallest population in Southend, comprising only 4.33% of the population of Southend Borough.
- Thorpe Ward has the highest proportion of residents aged between 65 and 84: 8 percentage points higher than the Borough average. It also has 4% fewer residents of school age (below 16 years), pointing to a predominantly older population.
- There is a slightly less active work force in Thorpe Bay than in Southend Borough, given the higher retirement rate and part time employment rate, and the lower full-time employment rate.
- The population density of the neighbourhood is quite low, on average only 28.5 people per hectare (pph). Most areas within Thorpe Bay have a population density ranging from 11-50pph, in line with the predominantly detached or bungalow housing of the area.
- The exception to this low population density is one area in the southwest of the neighbourhood, which is predominantly flats and maisonettes, which has a density range of 75-107pph.

1.51 Day-to-day Infrastructure:

- The most complete areas in the neighbourhood are located towards the east and western boundaries because they benefit from being within the catchment of facilities in the neighbouring areas of Southchurch and Shoeburyness..
- As Thorpe Bay contains few infrastructure facilities itself parts of the neighbourhood have a very low completeness score, especially those around the Thorpe Hall Golf club, which acts as a barrier to walkability.
- There is a lack of primary and secondary schools in the area, but this also reflects the make-up of the population, as well civic infrastructure (with the exception of places of worship and one community centre/hall in the south-east of the neighbourhood),
- There is limited access to green infrastructure in the northern part of Thorpe Bay, which is exacerbated by the presence of the railway which acts as a barrier to movement, and a lack of sports and leisure facilities within the neighbourhood itself.
- The general low level of completeness is directly correlated with the low population densities seen across the neighbourhood.
- There does not appear to be a correlation between broadband speeds and the population densities or completeness levels within the neighbourhood.

- 1.52 The average completeness score for Thorpe Bay is 46.8%, with heat mapping indicating the most complete area to be within walking catchment of between 8-11 day-today facilities.
- 1.53 The completeness score for Thorpe Bay, by infrastructure type, is summarised below:



Appendix: Housing Mix

Information from the Valuation Office Agency (VOA) has been used to show the percentage mix of housing typologies across the study area, with the maps presented in this appendix split by housing type. This data is available at lower-layer super output area level and is the most comprehensive and up-to-date source material available that shows the housing mix at a meaningful scale. However, the boundaries of the lower-layer super output areas do not match with settlements or neighbourhood areas, so whilst the mapping does give some indication of housing mix within an area, it does not present the definitive position.

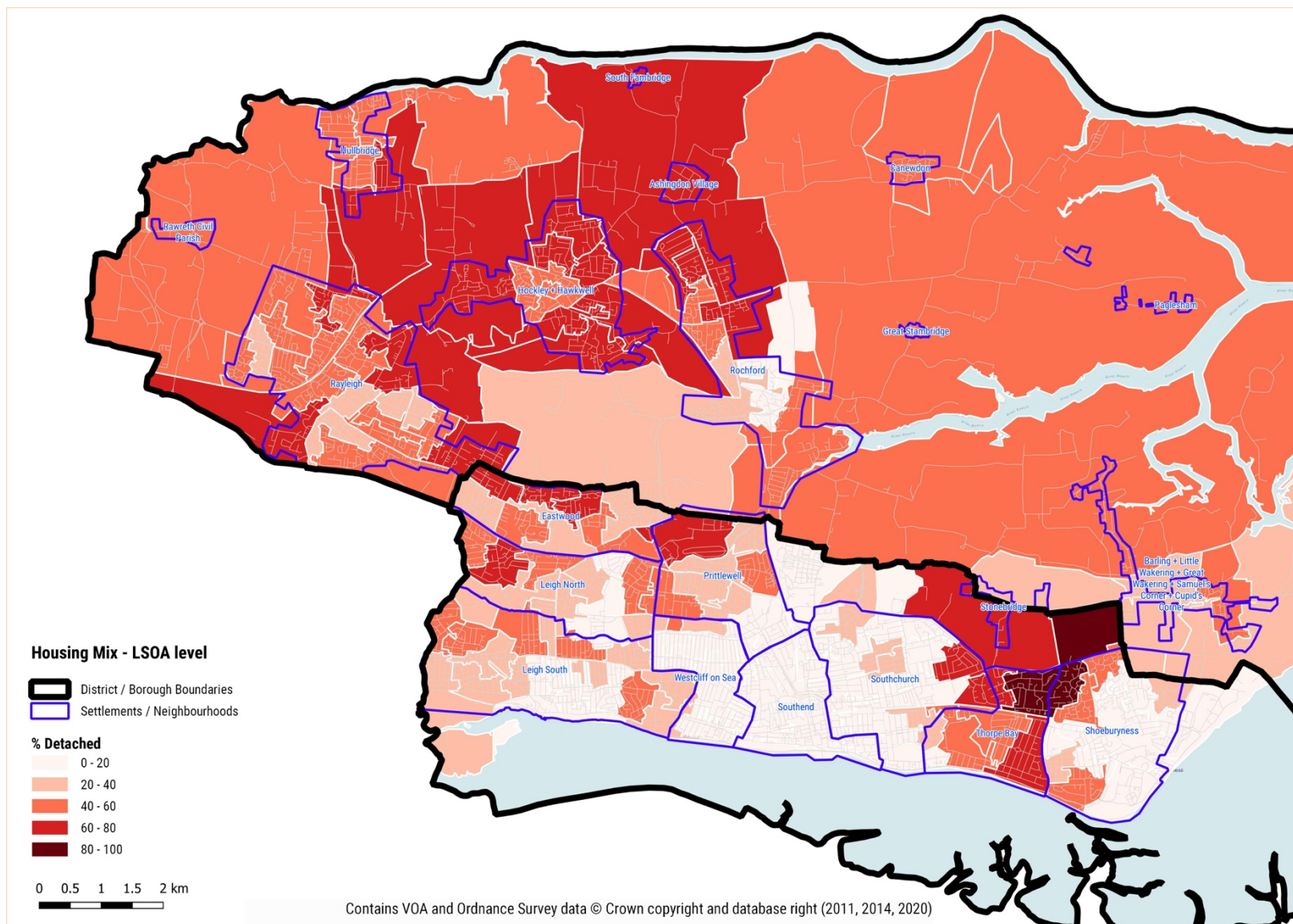


Figure 13: Proportion of detached homes in each lower-layer super output area, expressed as a percent of total homes in that area (source: VOA)

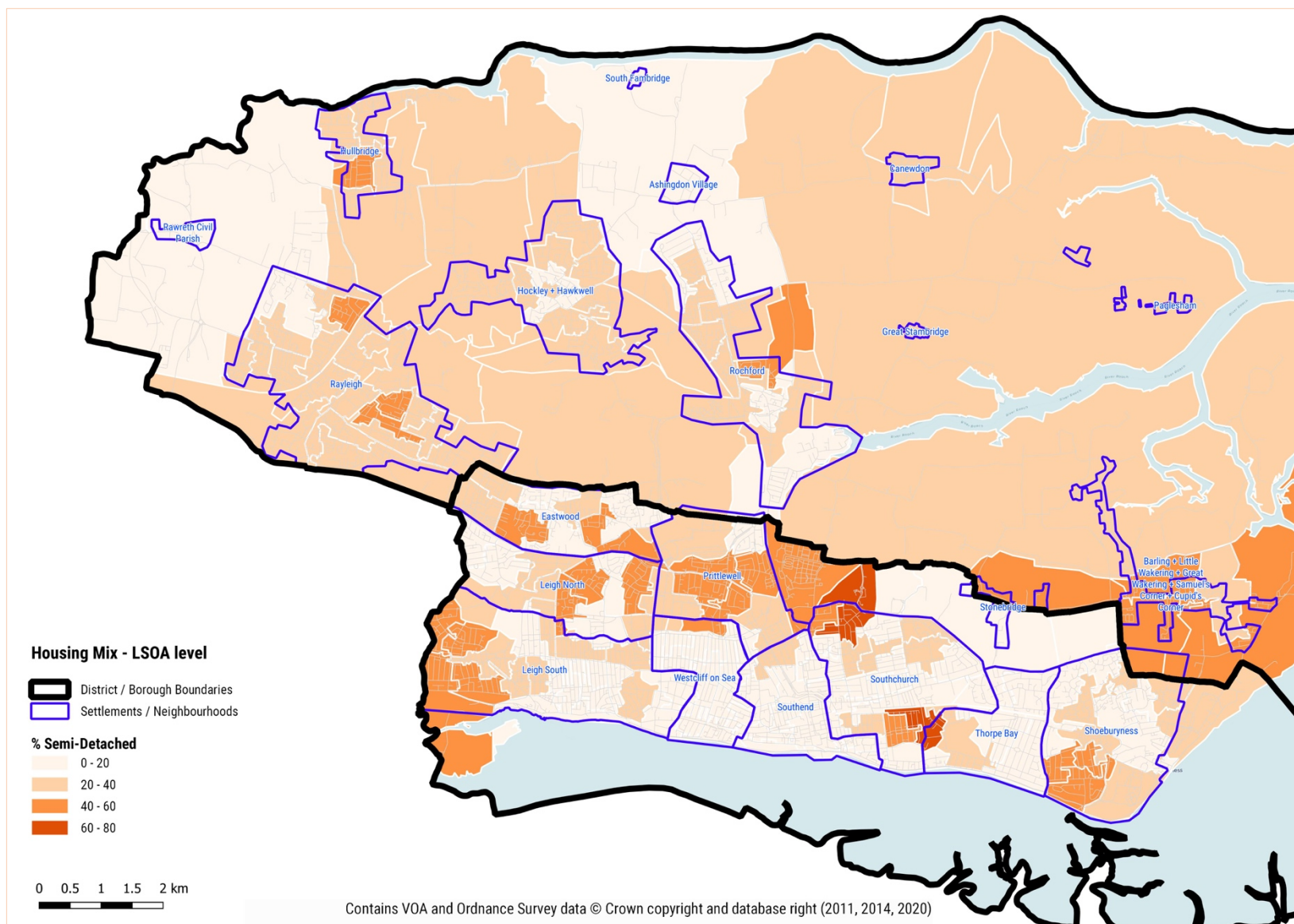


Figure 14: Proportion of semi-detached homes in each lower-layer super output area, expressed as a percent of total homes in that area (source: VOA)

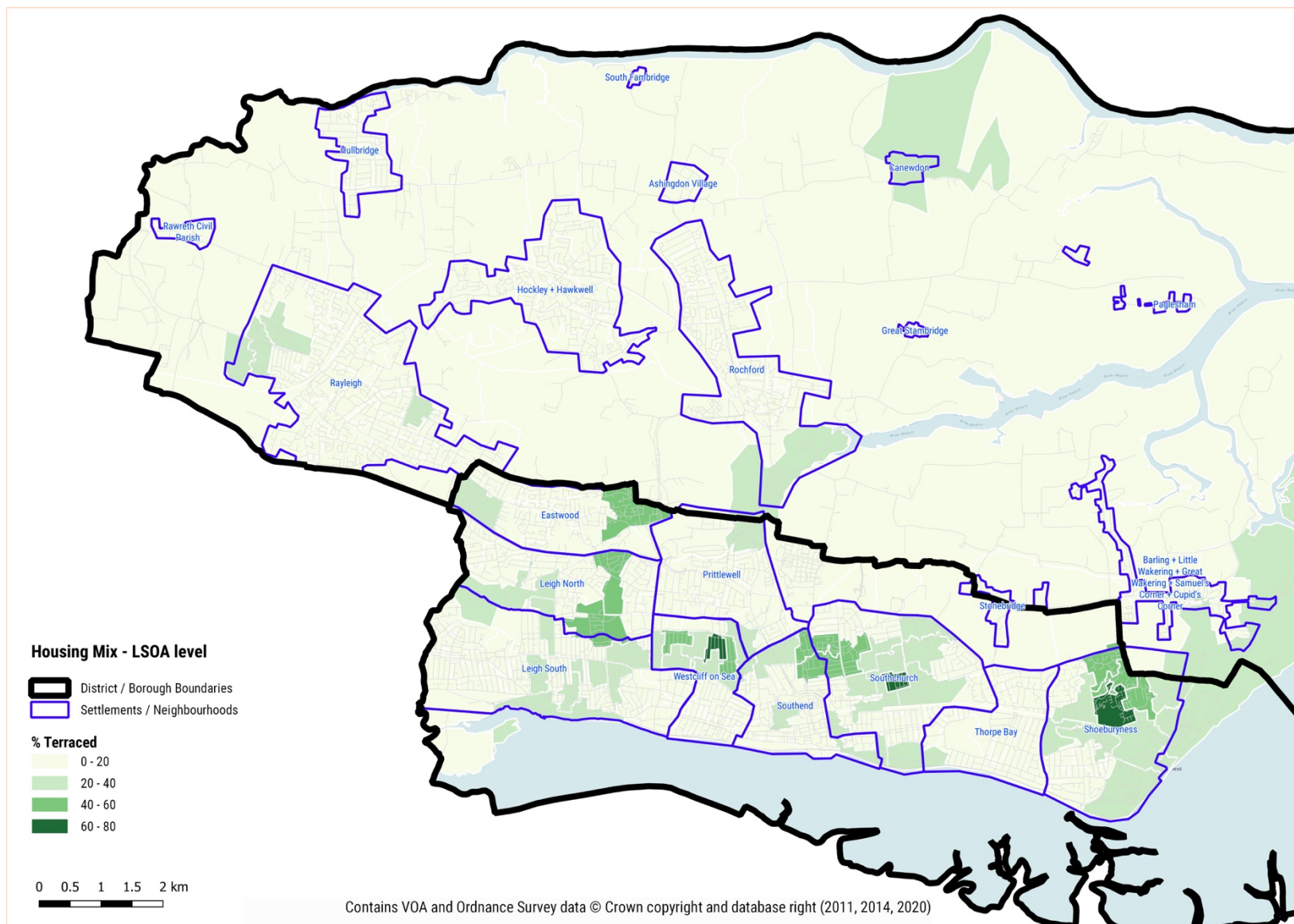


Figure 15: Proportion of terraced homes in each lower-layer super output area, expressed as a percent of total homes in that area (source: VOA)

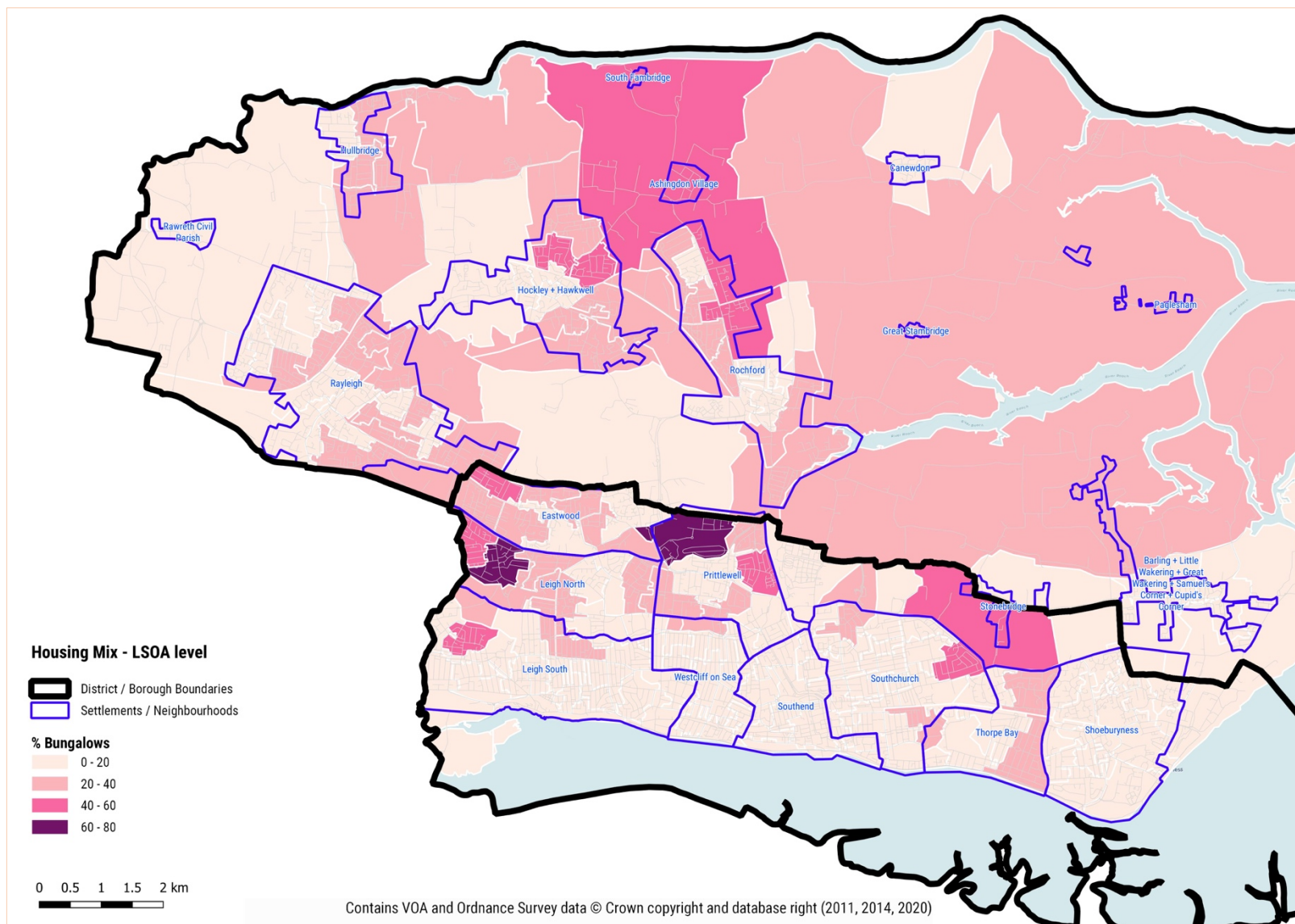


Figure 16: Proportion of bungalows in each lower-layer super output area, expressed as a percent of total homes in that area (source: VOA)

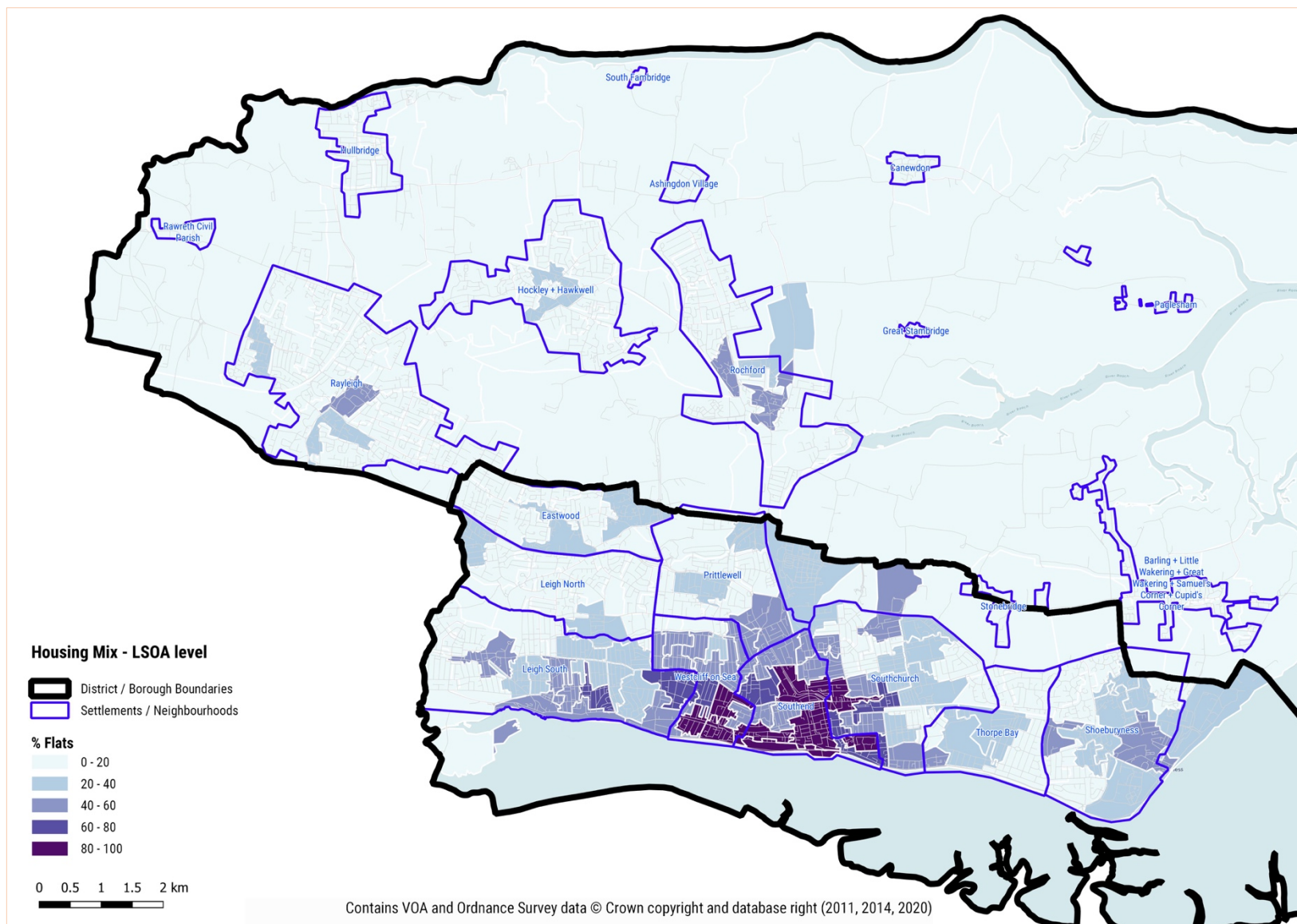


Figure 17: Proportion of flats in each lower-layer super output area, expressed as a percent of total homes in that area (source: VOA)



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