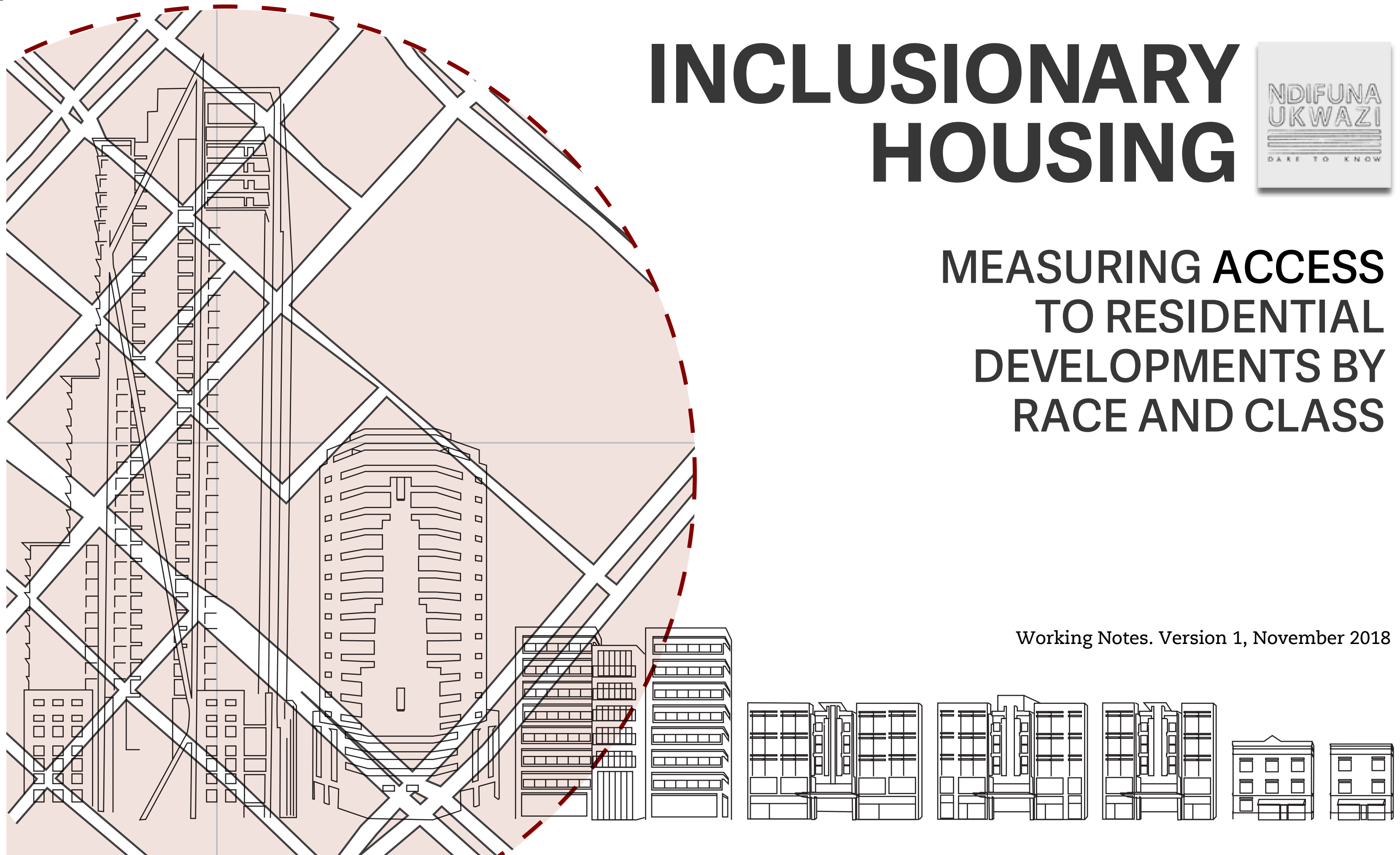


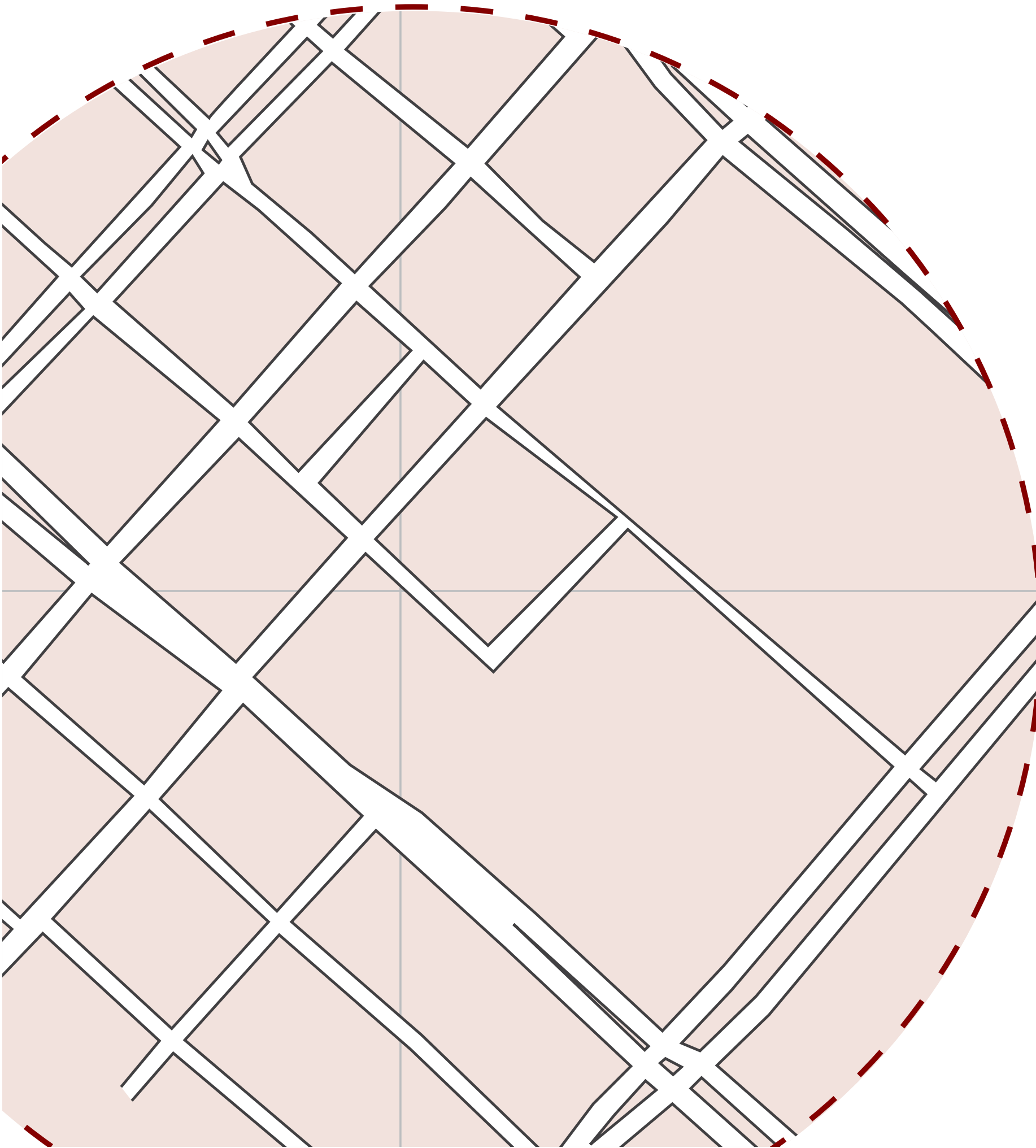
INCLUSIONARY HOUSING



MEASURING ACCESS TO RESIDENTIAL DEVELOPMENTS BY RACE AND CLASS

Working Notes. Version 1, November 2018





MEASURING ACCESS TO RESIDENTIAL DEVELOPMENTS BY RACE AND CLASS

This working note forms part of a series on inclusionary housing to advance a policy grounded in the City of Cape Town context. In each note we tackle a core concept to encourage dialogue and debate between different stakeholders. We want to advance the principle of spatial justice, equitable access to land, and the right to housing, while stimulating density and inclusive economic growth. Rather than being definitive, these working notes are iterative and we would like to re-write, edit and adapt based on feedback.

This working note explores a potential model to measure access to residential developments by race and class.

Why measure potential access?

It may be tempting to view an inclusionary housing policy that emerges in response to the affordability crisis as a “nice to have”. This would be incorrect. The need for an inclusionary housing policy in the local context results from the City of Cape Town’s obligation to advance spatial justice and mitigate against exclusionary developments which replicate spatial apartheid. In order to redress the past, the City is required to ensure that residents gain access to land on an equitable basis and advance the right to housing. When it comes to assessing whether residential developments comply with this principle, one useful tool would be to find objective ways to measure potential access by race and class. In this model, we propose measuring potential access to a home at a given price or rental amount using census data on household incomes broken down by race and family size.

Key ideas

- We don’t think affordability should be based on the market, but rather on who can access a home at that price or rental. It would not be right to say that a home is affordable because it is cheaper, when even the cheapest market prices exclude the majority of residents. So we’ve used household income to measure access. This is useful because housing policy usually uses household income too.
- We’ve used household income bands from the 2011 census. We don’t think it would be fair to measure access by median households incomes in an area because extreme inequality means that most people living in well-located areas already have comparably higher household incomes. In order to advance spatial justice, we need to understand the potential of any household in the city to access a home at a given price or rental. So we have used household incomes for the City of Cape Town as a whole.
- We think that housing should be lived in, and understand that a home being affordable does not necessarily mean it is accessible. We think a household could be said to access a home when members can both afford to buy or rent and can actually fit into the home given the size and rules governing the development. For example, most households in Cape Town are between 3 and 5 people. A household may be able to afford a studio apartment, if they can’t fit into it then it does not meaningfully advance access to housing for that family or spatial justice in the city.
- The number of households that can access a home is not only the households in the relevant income band. For example, a two person household can fit into a one bedroom home but they can also fit into a two bedroom home. A wealthier household can also afford a cheaper home. Our model is cumulative as you move down the income bands and up the household sizes.
- We’ve used the idea that a household should not pay more than a third of its income in housing expenses to derive what each household can afford to spend on a bond or on rent.
- These tables are indicative.

Limitations

There are many barriers to accessing housing that we have not accounted for. In each instance we have chosen to be cautious and so it is likely that access is actually significantly worse than the tables show here. With regard to home ownership:

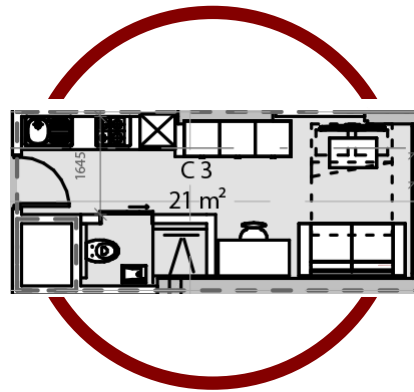
- **Calculator:** We've used the Standard Bank online home loan calculator to determine what price home a household can afford. Although all bank calculators give similar results, this is clearly a simplistic tool.
- **Interest on home loan:** We've used the interest rate of 10.25% which is just above prime. In most cases even wealthier households rarely get a home loan at this interest rate and poorer households often get significantly higher interest rates. This dramatically affects the maximum a home loan provider would be willing to lend for a home. Access gets worse the higher the interest rate.
- **Deposit:** Most home loan providers require a deposit of 10% or more. It's highly unlikely that most poor and working class households have money to pay a deposit and this is a major barrier. Our model assumes a 100% home loan which is the best case scenario. Access gets worse the higher the deposit required.
- **Debt and income:** Home loan providers take many other factors into account apart from income. Many poor and working class families have debt or bad credit records which limit their ability to access a home loan.
- **Income:** Most home loan providers do not lend based on total household income but rely on the salaries of individuals. These must be regular and permanent. Many poor and working class households have informal work, irregular salaries or combine different sources of income from different members in the household to get by. Household income is not a good proxy for what home loan providers will deem suitable income. For all these reasons and more, finance is often not available for the majority of residents on low incomes.

In general:

- We've assumed that households cannot spend more than $\frac{1}{3}$ of their income on housing related costs. This is not accurate at high and low incomes considering the fact that other living costs remain constant. Paying one third of a very low income is still burdensome when it leaves very little to get by on. Similarly, very wealthy households can still get by even if they pay more than a third of their income on housing related costs.
- We've assumed that incomes have increased with CPI but this is not likely to be the case.
- The income bands in the census are very broad and do not show granular detail, especially at the mid and upper levels. The housing opportunities available to households earning just above R18,000 per month are significantly different to those earning above R30,000 but these are in the same household income band in the census.
- The model assumes all potential purchasers or renters are residents. In reality, the property market includes wealthy households using their surplus income to buy or rent second homes, companies that invest in property but leave it empty, and short lets, to mention a few. Nevertheless, we are not measuring actual access, but potential access given the incomes of residents actually living in Cape Town.
- The model only measures access to residential development. It does not help to measure the impact of retail, commercial and industrial land uses.

Studio Apartments

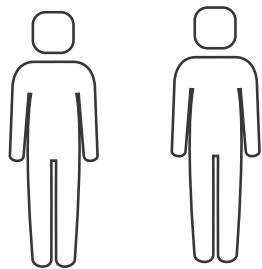
[21m²]



Market Example

[R 1 000 000]

The apartment could fit
between 1 - 2 people



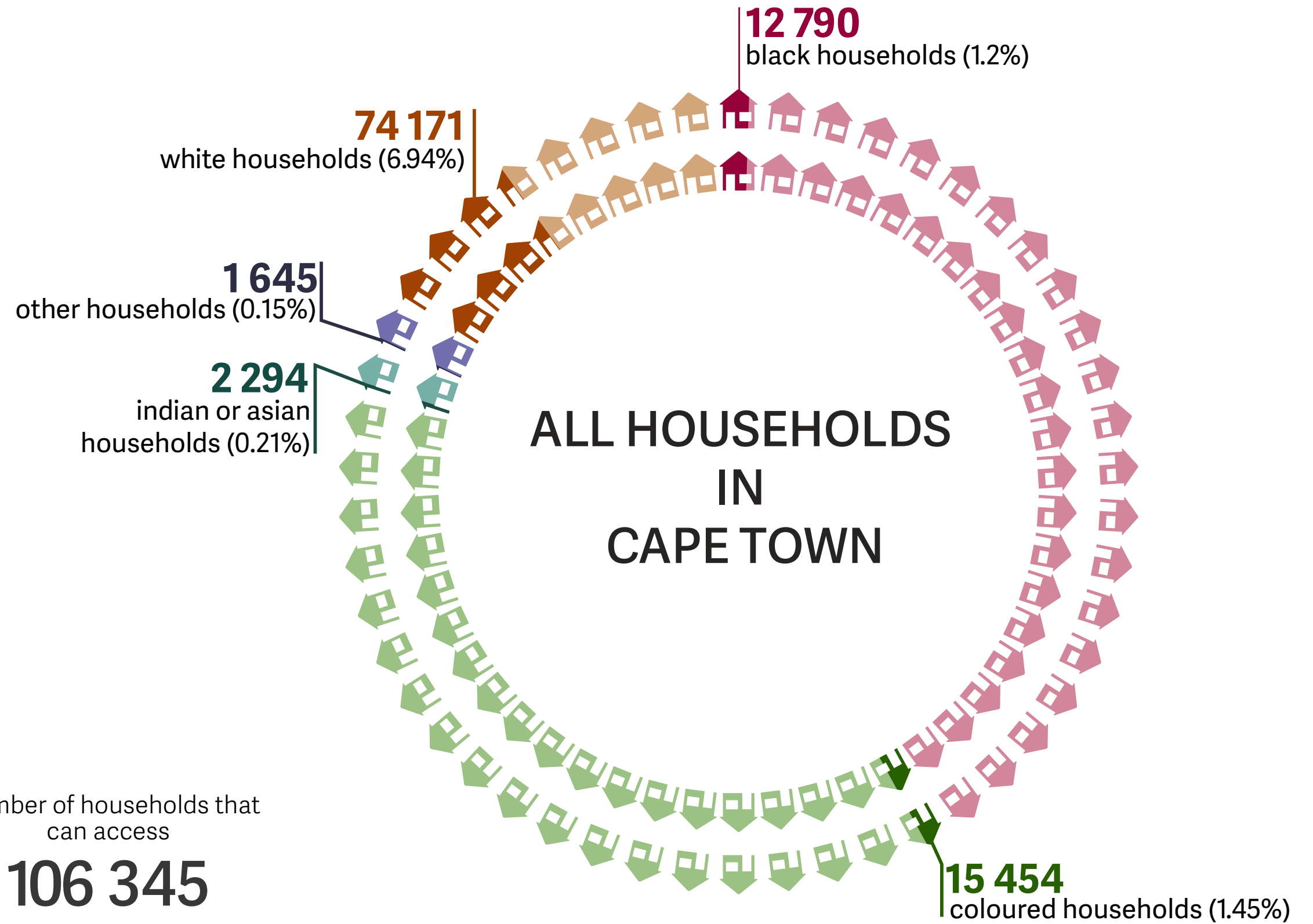
Necessary household
monthly earnings

> R18 391

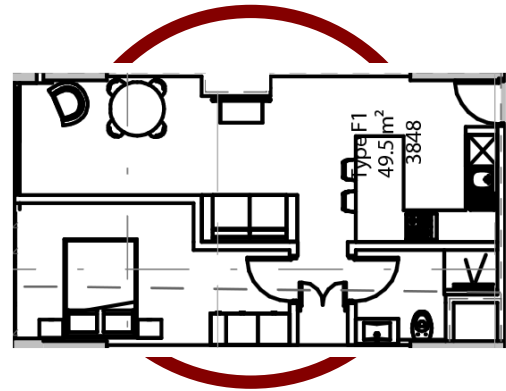
Number of households that
can access

106 345

out of 1,068,477 households

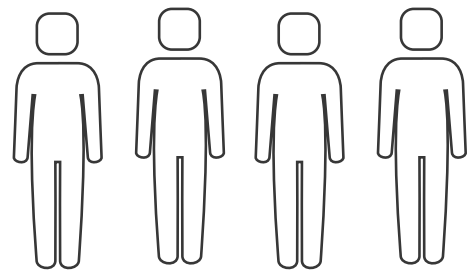


One-Bedroom Apartments [42m²]



Market Example [R 1 600 000]

The apartment could fit between 1 - 4 people



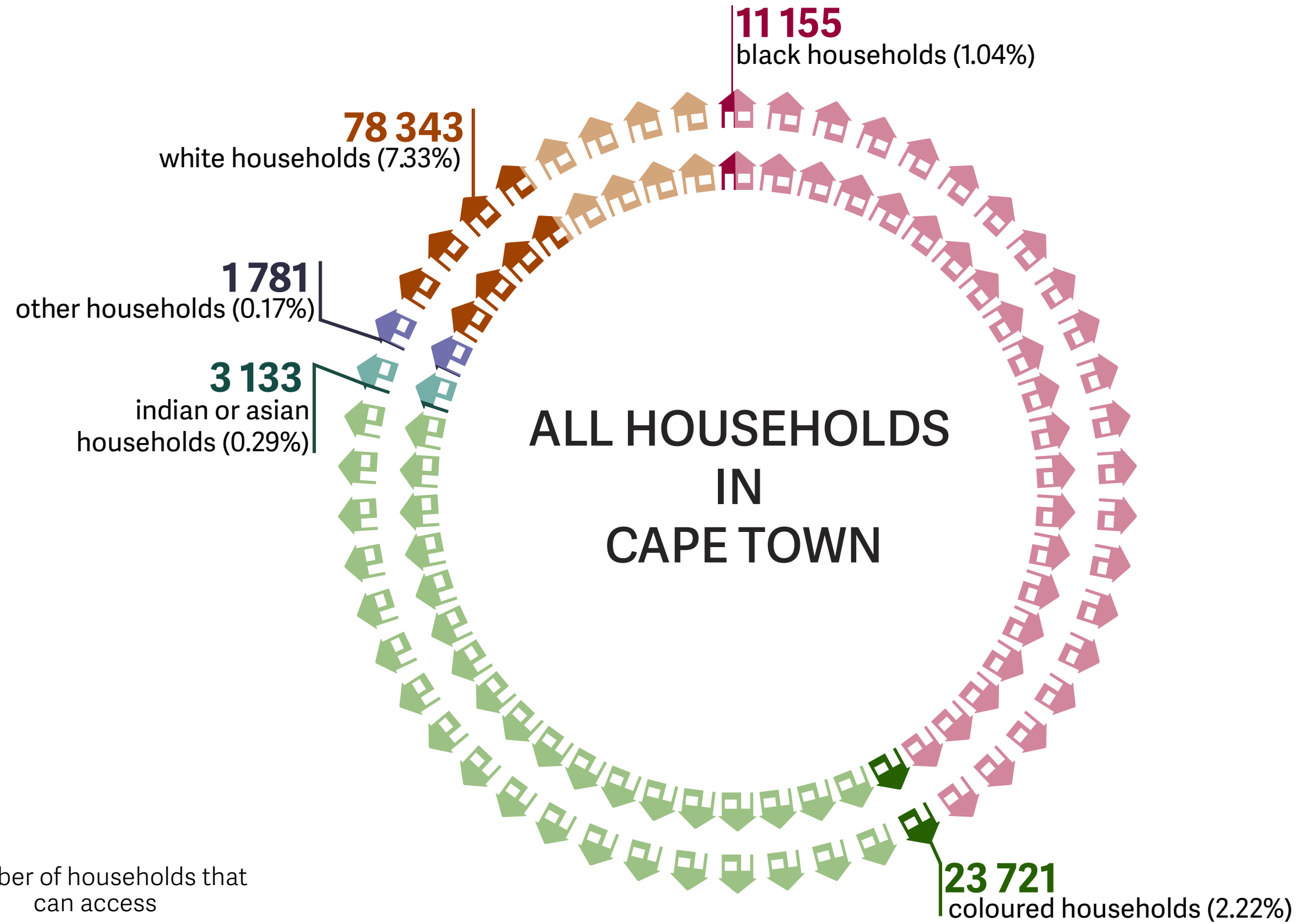
Necessary household monthly earnings

>R36 781

Number of households that can access

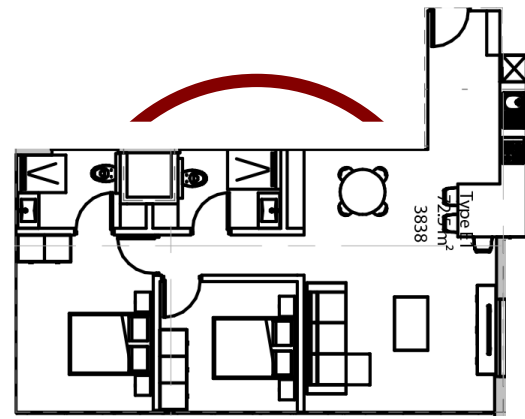
118 133

out of 1,068,477 households



Two-Bedroom Apartments

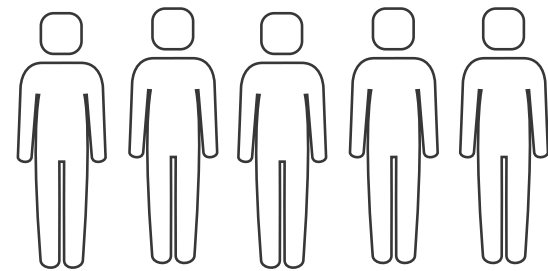
[55m²]



Market Example

[R 2 300 000]

The apartment could fit between 1 - 5 people



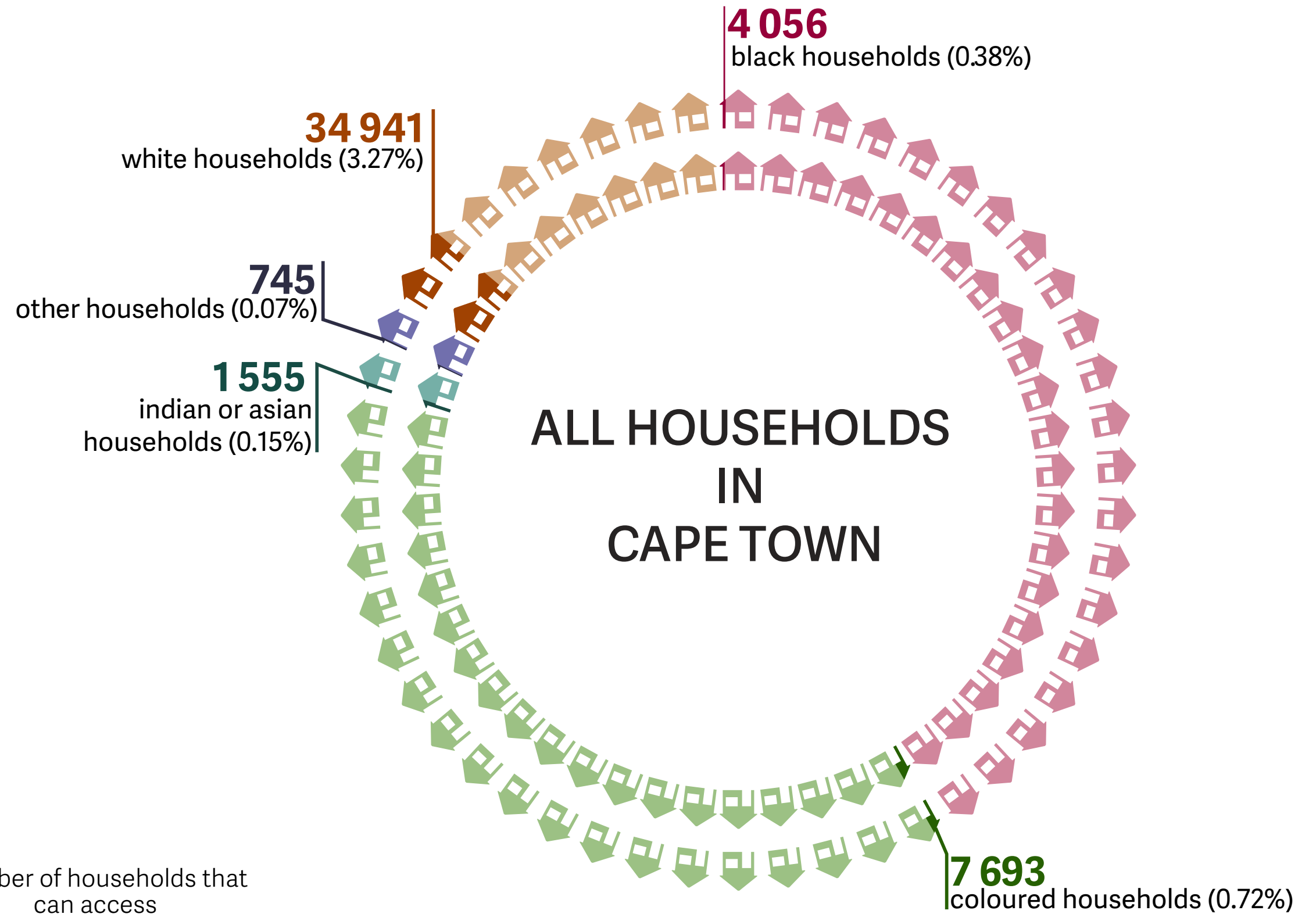
Necessary household monthly earnings

>R73 561

Number of households that can access

48 999

out of 1,068,477 households



Household Incomes, affordable rentals and house prices

This table illustrates the household income bands from the 2011 census, updated for inflation and the rent or house price the household could afford using no more than a third of their income towards housing costs. For ease of reference we have given each income band a letter and colour. To understand potential access first determine the sales price or monthly rental then the relevant income band (Remember - wealthier households can also afford cheaper homes and less rent).

	Household incomes	Rent (lower)	Rent(upper)	House Price (lower)	House Price (upper)
A	No income	n/a	n/a	n/a	n/a
B	R1 - R575	R0	R200	R0	R17,600
C	R575 - R1,149	R200	R400	R17,600	R35,100
D	R1,150 - R2,299	R400	R800	R35,100	R70,300
E	R2,300 - R4,597	R800	R1,500	R70,300	R140,500
F	R4,598 - R9,195	R1,500	R3,000	R140,500	R281,000
G	R9,196 - R18,390	R3,000	R6,000	R281,000	R562,000
H	R18,391 - R36,780	R6,000	R12,300	R562,000	R1,124,000
I	R36,781 - R73,560	R12,300	R24,500	R1,124,100	R2,248,100
J	R73,561 - R147,120	R24,500	R49,000	R2,248,100	R4,496,100
K	R147,121 - R294,240	R49,000	R98,000	R4,496,200	R8,992,300
L	R294,241 - Extreme Wealth	R98,000	Extreme wealth	R8,992,300	Extreme wealth

* These rentals illustrate what a household can afford to pay, rather than what the market rental will be for any given house price.

How to understand these tables

INDIAN OR ASIAN

H	9	1			2			3			4		
		Bachelor (<2 PAX)			One Bed (<4 PAX)			Two Bed (<5 PAX)			Larger (>5 PAX)		
		5	6	7	Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race
	> R18 390 ⁹	2294	0.21%	16.09%	5262	0.49%	36.91%	6303	0.59%	44.22%	7176	0.67%	50.34%

- 1 You can't access a housing opportunity if your family can't fit. These columns are the households which can fit into a Bachelor or Studio apartment. We think a maximum of two people could comfortably fit.
- 2 These columns are the households which can fit into a One Bedroom home or apartment. We think a maximum of four people could comfortably fit. Remember this is cumulative, so these columns include the households which can also fit inside a Bachelor or Studio.
- 3 These columns are the households which can fit into a Two Bedroom home or apartment. We think a maximum of five people could comfortably fit. Remember this is cumulative, so these columns include the households which can also fit inside a Bachelor or Studio and One Bedroom.
- 4 These columns are the households which can fit into anything bigger than a Two Bedroom Home or Apartment. These homes can fit any household from one person to very large families above five people.
- 5 This first column is the raw number of households. It represent the number of household in the City of Cape Town that can access a housing opportunity in this band. Remember this raw number is cumulative so it includes smaller households, and also wealthier families.
- 6 This percentage is indicative of the number of households which can access the housing opportunity out of the total number of households in the City of Cape Town. So in this instance, the number of households in this band (earning R18,390 and above and with two people or less) is 0.21% out of all households in the city. Remember, racial groups like Indians are underrepresented in Cape Town and so will always show low percentages You should compare this to the percentage out of the race group. See below:
- 7 This percentage is indicative of the number of households which can access the housing opportunity out of the total number of households of the same race in the City of Cape Town. This helps to put the raw number into perspective. So in this instance, the number of households in this band (earning R18,390 and above and with two people or less) is 16.09% out of all Black African households in the city. If you compare this to Black African households, which is 2.88% or White households, which is 31.86%, then the inequity in access to the opportunity becomes stark.
- 8 This is the Band Letter, which can be used to compare across Race Groups.
- 9 This is the household income which can access this housing opportunity.

BLACK AFRICAN

		Bachelor (<2 PAX)			One Bed (<4 PAX)			Two Bed (<5 PAX)			Larger (>5 PAX)		
		Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race
A	No income	220,118	20.60%	49.49%	352,353	32.98%	79.22%	393,164	36.80%	88.40%	444,771	41.63%	100.00%
B	> R1	157,148	14.71%	35.33%	274,190	25.66%	61.65%	311,389	29.14%	70.01%	359,343	33.63%	80.79%
C	> R580	145,964	13.66%	32.82%	253,956	23.77%	57.10%	289,653	27.11%	65.12%	336,303	31.47%	75.61%
D	> R1,150	135,074	12.64%	30.37%	231,690	21.68%	52.09%	263,093	24.62%	59.15%	305,652	28.61%	68.72%
E	> R2,300	98,992	9.26%	22.26%	176,056	16.48%	39.58%	202,421	18.94%	45.51%	238,542	22.33%	53.63%
F	> R4,600	50,610	4.74%	11.38%	96,794	9.06%	21.76%	112,949	10.57%	25.39%	136,216	12.75%	30.63%
G	> R9,200	25,362	2.37%	5.70%	50,673	4.74%	11.39%	59,647	5.58%	13.41%	71,508	6.69%	16.08%
H	> R18,390	12,790	1.20%	2.88%	26,014	2.43%	5.85%	30,699	2.87%	6.90%	36,090	3.38%	8.11%
I	> R36,780	5,143	0.48%	1.16%	11,155	1.04%	2.51%	13,333	1.25%	3.00%	15,570	1.46%	3.50%
J	> R73,560	1,500	0.14%	0.34%	3,356	0.31%	0.75%	4,056	0.38%	0.91%	4,736	0.44%	1.06%
K	> R147,120	554	0.05%	0.12%	1,169	0.11%	0.26%	1,375	0.13%	0.31%	1,614	0.15%	0.36%
L	> R294,240	243	0.02%	0.05%	478	0.04%	0.11%	559	0.05%	0.13%	644	0.06%	0.14%

COLOURED

		Bachelor (<2 PAX)			One Bed (<4 PAX)			Two Bed (<5 PAX)			Larger (>5 PAX)		
		Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race
A	No income	87813	8.22%	24.49%	228015	21.34%	63.58%	284111	26.59%	79.23%	358610	33.56%	100.00%
B	> R1	74451	6.97%	20.76%	201120	18.82%	56.08%	252443	23.63%	70.39%	321210	30.06%	89.57%
C	> R580	72898	6.82%	20.33%	197351	18.47%	55.03%	248042	23.21%	69.17%	316159	29.59%	88.16%
D	> R1,150	71113	6.66%	19.83%	191625	17.93%	53.44%	240386	22.50%	67.03%	306517	28.69%	85.47%
E	> R2,300	54027	5.06%	15.07%	163066	15.26%	45.47%	207693	19.44%	57.92%	268109	25.09%	74.76%
F	> R4,600	38238	3.58%	10.66%	127124	11.90%	35.45%	163363	15.29%	45.55%	212260	19.87%	59.19%
G	> R9,200	26129	2.45%	7.29%	89448	8.37%	24.94%	114254	10.69%	31.86%	145771	13.64%	40.65%
H	> R18,390	15454	1.45%	4.31%	54052	5.06%	15.07%	68151	6.38%	19.00%	83485	7.81%	23.28%
I	> R36,780	6235	0.58%	1.74%	23721	2.22%	6.61%	29852	2.79%	8.32%	35534	3.33%	9.91%
J	> R73,560	1522	0.14%	0.42%	6051	0.57%	1.69%	7693	0.72%	2.15%	9144	0.86%	2.55%
K	> R147,120	420	0.04%	0.12%	1451	0.14%	0.40%	1853	0.17%	0.52%	2257	0.21%	0.63%
L	> R294,240	175	0.02%	0.05%	551	0.05%	0.15%	697	0.07%	0.19%	831	0.08%	0.23%

INDIAN OR ASIAN

		Bachelor (<2 PAX)			One Bed (<4 PAX)			Two Bed (<5 PAX)			Larger (>5 PAX)		
		Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race
A	No income	5491	0.51%	38.52%	10827	1.01%	75.95%	12607	1.18%	88.44%	14255	1.33%	100.00%
B	> R1	4657	0.44%	32.67%	9547	0.89%	66.97%	11181	1.05%	78.44%	12711	1.19%	89.17%
C	> R580	4608	0.43%	32.33%	9472	0.89%	66.45%	11096	1.04%	77.84%	12620	1.18%	88.53%
D	> R1,150	4530	0.42%	31.78%	9351	0.88%	65.60%	10961	1.03%	76.89%	12462	1.17%	87.42%
E	> R2,300	4092	0.38%	28.71%	8735	0.82%	61.28%	10307	0.96%	72.30%	11750	1.10%	82.43%
F	> R4,600	3587	0.34%	25.16%	7952	0.74%	55.78%	9442	0.88%	66.24%	10784	1.01%	75.65%
G	> R9,200	3067	0.29%	21.52%	6877	0.64%	48.24%	8181	0.77%	57.39%	9325	0.87%	65.42%
H	> R18,390	2294	0.21%	16.09%	5262	0.49%	36.91%	6303	0.59%	44.22%	7176	0.67%	50.34%
I	> R36,780	1299	0.12%	9.11%	3133	0.29%	21.98%	3794	0.36%	26.62%	4324	0.40%	30.33%
J	> R73,560	465	0.04%	3.26%	1263	0.12%	8.86%	1555	0.15%	10.91%	1760	0.16%	12.35%
K	> R147,120	131	0.01%	0.92%	377	0.04%	2.64%	470	0.04%	3.30%	519	0.05%	3.64%
L	> R294,240	56	0.01%	0.39%	148	0.01%	1.04%	171	0.02%	1.20%	185	0.02%	1.30%

WHITE

		Bachelor (<2 PAX)			One Bed (<4 PAX)			Two Bed (<5 PAX)			Larger (>5 PAX)		
		Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race
A	No income	145745	13.64%	62.61%	216082	20.22%	92.83%	227422	21.28%	97.70%	232782	21.79%	100.00%
B	> R1	131278	12.29%	56.40%	197540	18.49%	84.86%	208221	19.49%	89.45%	213261	19.96%	91.61%
C	> R580	130552	12.22%	56.08%	196689	18.41%	84.49%	207354	19.41%	89.08%	212385	19.88%	91.24%
D	> R1,150	129553	12.13%	55.65%	195465	18.29%	83.97%	206100	19.29%	88.54%	211119	19.76%	90.69%
E	> R2,300	124903	11.69%	53.66%	190298	17.81%	81.75%	200857	18.80%	86.29%	205819	19.26%	88.42%
F	> R4,600	117615	11.01%	50.53%	181933	17.03%	78.16%	192333	18.00%	82.62%	197186	18.45%	84.71%
G	> R9,200	102256	9.57%	43.93%	163735	15.32%	70.34%	173741	16.26%	74.64%	178333	16.69%	76.61%
H	> R18,390	74171	6.94%	31.86%	128215	12.00%	55.08%	137257	12.85%	58.96%	141217	13.22%	60.66%
I	> R36,780	39925	3.74%	17.15%	78343	7.33%	33.66%	85130	7.97%	36.57%	87962	8.23%	37.79%
J	> R73,560	14526	1.36%	6.24%	31588	2.96%	13.57%	34941	3.27%	15.01%	36342	3.40%	15.61%
K	> R147,120	4208	0.39%	1.81%	8687	0.81%	3.73%	9706	0.91%	4.17%	10150	0.95%	4.36%
L	> R294,240	1533	0.14%	0.66%	2888	0.27%	1.24%	3172	0.30%	1.36%	3299	0.31%	1.42%

OTHER		Bachelor (<2 PAX)			One Bed (<4 PAX)			Two Bed (<5 PAX)			Larger (>5 PAX)		
		Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race	Raw	/HH	/Race
A	No income	9228	0.86%	51.10%	15140	1.42%	83.84%	16572	1.55%	91.77%	18059	1.69%	100.00%
B	> R1	7608	0.71%	42.13%	12811	1.20%	70.94%	14090	1.32%	78.02%	15430	1.44%	85.44%
C	> R580	7404	0.69%	41.00%	12524	1.17%	69.35%	13786	1.29%	76.34%	15114	1.41%	83.69%
D	> R1,150	6981	0.65%	38.66%	11897	1.11%	65.88%	13125	1.23%	72.68%	14422	1.35%	79.86%
E	> R2,300	5818	0.54%	32.22%	10321	0.97%	57.15%	11464	1.07%	63.48%	12679	1.19%	70.21%
F	> R4,600	4002	0.37%	22.16%	7631	0.71%	42.26%	8607	0.81%	47.66%	9629	0.90%	53.32%
G	> R9,200	2580	0.24%	14.29%	5189	0.49%	28.73%	5959	0.56%	33.00%	6710	0.63%	37.16%
H	> R18,390	1645	0.15%	9.11%	3390	0.32%	18.77%	3897	0.36%	21.58%	4333	0.41%	23.99%
I	> R36,780	780	0.07%	4.32%	1781	0.17%	9.86%	2066	0.19%	11.44%	2288	0.21%	12.67%
J	> R73,560	302	0.03%	1.67%	663	0.06%	3.67%	754	0.07%	4.18%	839	0.08%	4.65%
K	> R147,120	91	0.01%	0.50%	210	0.02%	1.16%	236	0.02%	1.31%	265	0.02%	1.47%
L	> R294,240	38	0.00%	0.21%	84	0.01%	0.47%	94	0.01%	0.52%	97	0.01%	0.54%

Questions

Is it necessary to measure potential access?
Should this inform particular applications or be used to monitor and evaluate a policy? Should the City make these assessments or should the burden be on the applicant to prove potential access is inclusive?

How do we find ways to measure spatial justice in land use applications that are for commercial, industrial, mixed use or other land uses?
Is it appropriate to use the “third rule” for all incomes? Should we use a sliding scale?

How do we include guidelines for measuring access by race and class in a policy framework?
What alternative methods, models or data sets could be used to measure spatial justice or potential access by race and class?

How do we better understand and support greater access for women headed households?

