



**PROPERTY CONSULTING  
DEVELOPMENT MANAGEMENT**

## **Review of Auckland Council's "Capacity for Growth Study 2012"**

**By Patrick Fontein, 23<sup>rd</sup> April 2013**

### **1.0 Executive Summary**

The Auckland Council (AC) Capacity for Growth Study 2012 (CfGS12), released in early April 2013, claims there are an extra 188-272,000 residential dwellings able to be accommodated within Auckland's existing urban areas, utilizing the existing District Plans, as at May 2012. The Property Council of NZ has requested SD4 to carry out a brief initial review of the CfGS12 and especially its claimed Results.

SD4 has substantial background in reviewing development potential for AC. SD4 considers the methodology and assumptions applied by the CfGS12 and finds that whilst much of the background work is technically robust, there are 3 major flaws in the CfGS12:

1. The CfGS12 totally over-states the actual development sites by including schools, churches, retirement villages on residentially zoned land and some parks in its sites considered as development sites. It also does not take sufficient account of sloping sites, cliff-top sites, sites in valleys and those prone to flooding.  
The CfGS12 assumes all potential development sites will be developed to 100% of its maximum potential, whereas the CfGS12 should have allowed for:
  2. "**the likely capacity utilization**" of property owners who choose to redevelop (as a %). i.e. a site allows an extra 10 units, but the developer chooses to build only 3.
  3. Consideration of a site's "**development chance**" over the next 30 years (again as a %).  
E.g. of the thousands of sites within each neighbourhood, how many will realistically be redeveloped in the next 30 years?

In this initial review, SD4 has considered the CfGS12 Report for Orakei and Otara – Papatoetoe in detail, and then considered whether the findings for these Board areas are likely to be consistent for all the other Board areas. SD4 report that there are major flaws in the analysis for these 2 Board areas and that the flaws are consistently carried over onto the other areas.

The CfGS12 has assumed that all residentially zoned sites (incl schools on residentially zoned land, churches, retirement villages etc) will all be built on at the maximum density allowed. SD4 concludes that the likely accommodation for growth numbers in the "Results" section of the CfGS12 are likely to be over-stated by upto 400%.

SD4 concludes by recommending that AC needs to urgently engage an FGA Analysis on all of the areas covered by the CfGS12 to cover the development potential of all of Auckland's urban areas, taking account of the new Unitary Plan proposed Zones. The development potential capacity numbers can then be more accurately quantified. The base work of the CfGS12 team is consistent to enable the FGA to be "added on". The FGA will have a dramatic effect on the stated intensification "Results", providing realistic data for leaders to make important informed decisions for Auckland's growth during the next 10-30 years.

## 2.0 SD4 Background on Development Growth projections.

SD4 has provided consultancy services for Auckland Council (AC) on the Auckland Plan during 2011 and for various parts of AC on property development growth projections during 2012.

After the Property Council of NZ (PCNZ), raised concerns on AC's methodology of calculating intensification capacity in early-mid 2011, AC commissioned SD4 to complete a "Total Auckland Development Potential" Report, which was published on 22<sup>nd</sup> December 2011.

The SD4 Report used a "Fine Grained Analysis" (FGA) on 14 of Auckland's 109 urban neighbourhoods. These 14 were an agreed cross-section of neighbourhoods that mirrored all of Auckland geographically, demographically and by housing type. The results of the 14 areas were then extrapolated to cover the 109 neighbourhoods that make up urban Auckland.

At AC's request, the SD4 Report was peer reviewed by Martin Udale of Essentia Consulting. Essentia found the SD4 FGA Report, its methodology, assumptions and conclusions robust. The SD4 Report was endorsed by PCNZ. On the basis of AC adopting the intensification actions recommended in the SD4 Report, PCNZ finally supported the AC in its intensification projections of 60:40, which was then adjusted by AC to 70:40.

The SD4 Report has been in the public arena for approx. 16 months. The property industry feedback is that the FGA process is robust and has been the most appropriate method of predicting future development growth within various neighbourhoods across Auckland, for the next 10-30 years.

## 3.0 Overview of SD4's Fine Grained Analysis carried out in 2011

The FGA Analysis starts with AC's GIS data, from where it uses a series of property aspects to review development potential of each single property parcel in a neighbourhood. SD4's property assimilated mathematical formulae are then "re-run" through the AC GIS. SD4 then physically visited every neighbourhood reviewing the data and sense checking. This ensured schools, churches, parks and other residential zoned properties not likely to be re-developed were excluded from the analysis. Using a combination of the AC GIS, Google Maps and Google Streetview across 3 computer screens, SD4 then assessed the development potential of every property parcel, reported by meshblock, considering:

1. ***"the maximum number of extra dwellings able to be developed"*** in each meshblock.
2. This was then multiplied by a professional judgement on ***"the likely capacity utilization"*** of property owners who chose to redevelop (as a %).
3. This was then multiplied by ***"the development chance"*** of properties within each meshblock over the next 30 years (again as a %).

The SD4 FGA methodology physically evaluates every property parcel and the Dec 2011 SD4 Report concluded by: ***"the above constraints mean only 20-50% of technically capable intensification potential will actually be developed, Council would therefore need to upzone for 250-300% of the actual dwelling unit numbers desired"***.

Considering SD4's background in assisting AC with Auckland's development potential, the Property Council of NZ has requested that Studio D4 (SD4) review the "Capacity for Growth Study 2012" (CfGS12), released by AC in early April 2013.

#### 4.0 SD4 Review of AC's "Capacity for Growth Study 2012".

The CfGS12 is a major piece of work by AC's Research, Investigations and Monitoring Unit (RIMU), started in early 2012 and completed in 2013. The Methodology and Assumptions, incl Appendices cover some 193 pages and the Results and Appendices cover a further 123 pages. Most of the methodology, assumptions and background analysis is sound, especially the depth and comprehensive nature of including all the various structure plan assumptions and growth projections.

The CfGS12 Report can be found on the Web at:

<http://www.aucklandcouncil.govt.nz/EN/PLANSPOLICIESPROJECTS/REPORTS/TECHNICALPUBLICATIONS/Pages/home.aspx#capacity>

The Report has a very odd contradiction between the Disclaimer on the very first page, and then follow on pages:

The Disclaimer on the very first page (i) of the Methodology and Assumptions states: "*The study is a measure of current plan enabled capacity, not a prediction of future growth*".

However from there on, the CfGS12 purports to highlight growth capacity, eg the very first paragraph of the Introduction, page 3, "*The Capacity for Growth Study assesses the ability of residential and business land within Auckland to accommodate growth*".

So the Disclaimer states it is not a predictor of growth, yet the entire CfGS12 from there on purports to assess the ability of residential and business land within Auckland to accommodate growth. From here SD4 will assume that the CfGS12 attempts to assess Auckland's growth capacity.

#### 5.0 So how well does the CfGS12 assess Auckland's growth capacity?

Table 2 on page 10 of the CfGS12 Methodology and Assumptions, states that residential redevelopment numbers are based on "*sites being redeveloped to yield the maximum number of dwellings permitted*".

Considering the maximum number of dwellings able to be developed on a site is a good start, however there will be a number of property owners who don't want to redevelop their property, or others that when they do, not build the 8 terrace houses permitted by the District Plan, instead only building 3 better quality town houses. Where does the CfGS12 take account of this? Answer: **the CfGS12 takes no account of property owners choosing not to develop their sites, or when they do under-utilising the site's development potential!!**

Now lets look at the manner in which all the results are generated in the very detailed "Report" section, named TR2013/010.

The Dec 2011 SD4 FGA Report stated that "*without major re-zoning only 45-60,000 extra dwellings are able to be provided in intensified form in the next 30 years*".

If we look at the CfGS12 Results Appendix A, page 67, Table 11, there is a result of 188,164 capacity for Infill dwellings, and 272,150 if Redevelopment was utilised.

***So why is there such a difference between the SD4 Dec 2011 Report of 45-60,000 extra dwellings under current zoning and the CfGS12, released in April 2013 of 188-272,000 extra dwellings under current zoning? A 400% difference??***

SD4 has had 10-15 hours of reviewing the CfGS12's 316 pages, so have used the following methodology to come up with an initial preliminary review given the rapid response required:

1. Consider in detail 2 of the 21 Local Board areas that have been assessed in the CfGS12. Orakei was chosen as SD4 has extremely detailed property knowledge of this entire area. The Otara – Papatoetoe Local Board was also selected as the CfGS12 was predicting an increase from it's current 20,481 dwellings, by an extra 22,077 dwellings. How would increasing a neighbourhood's dwellings by 110% be achieved?
2. SD4 considered the conclusions of the Orakei and Otara – Papatoetoe Local Board reviews, and then considered all the other Local Board areas in outline to see whether the same conclusions applied.

### **5.1 SD4 Review of the Orakei Local Board CfGS12 capacity numbers:**

As part of the 188,164 infill capacity, or 272,150 redevelopment capacity, Orakei would be assumed to have either 8,258 infill or 13,145 of redevelopment extra dwellings (see Table 11 referenced above). So where would these extra dwellings be accommodated?

Appendix C, Map Series 2, Map L shows the Map for Orakei

<http://www.aucklandcouncil.govt.nz/EN/planspoliciesprojects/reports/technicalpublications/Documents/tr2013010series2mapl.pdf>

The following are some of the key findings of SD4's review of the above Map:

The 10 largest "Residential Vacant" and "Residential Vacant Potential & Infill" development sites in the Orakei Local Board area are (according to the CfGS12):

- Dilworth School on Market Rd
- Kings Prep School on Remuera Rd
- The Caughey Preston Rest Home on Upland, Ventnor and Lucerne Rd's
- St John's College on St Johns Rd
- Liston Park on St Michaels Ave
- St Kents Prep School on Shore Rd
- The Oceania Retirement Village at 148 Meadowbank Rd
- The Mary MacKillop Centre (Rest Home) at 56 Selwyn Ave, Mission Bay
- The School of Philosophy at 268 West Tamaki Rd
- Graeme Hart's house and land at 743 Riddell Rd, covering 2.0058 Hect.

SD4 then closely reviewed the CfGS12 methodology, which then assumed that all of these sites showing as having development potential, would be developed 100% to their maximized development potential.

Further to the above, SD4 also observed the following:

- Most churches were highlighted as being either "Residential Vacant" and "Residential Vacant Potential & Infill".
- Most of the expensive homes on large sections were shown as "Residential Vacant Potential & Infill". SD4's direct experience of the very high end luxury housing market is that few of these properties tend to be sub-divided very often. Eg:
  - 139 Arney Rd, large house on 1.258 Hect, had major recent upgrade
  - Numerous large houses on large sections on Riddell Rd, Glendowie
- Sections with major slopes, steep valleys and flood plains were all marked as "Residential Vacant" or "Residential Vacant Potential & Infill". See numerous sections down steep driveways between Victoria Ave and Portland Rd, Arney Rd and Portland Rd, all extremely

difficult to subdivide, yet shown as pink and red, i.e. CfGS12 shows good development potential.

Notwithstanding all the above, the 3 largest intensification options in Orakei, were all missed out on the CfGS12 Map:

- Orakei Point, where a further 600-800 dwellings have been in planning stages for a number of years in consultation with AC, almost totally missed on the CfGS12 Map
- 5.8 Hect of the Ellerslie Racecourse is for sale as a residential redevelopment site, allowing 350+ units, tenders closing on 30<sup>th</sup> April, totally missed by the CfGS12 Map.
- A 3.08 Hect site at 223 Kohimarama Rd has been sold by Selwyn College and re-zoned for intensive residential by Auckland City Council on 23 Sept 2010, allowing some 150-200 dwellings, totally missed by the CfGS12 Map.

## **5.2 SD4 Review of the Otara - Papatoetoe Local Board CfGS12 capacity numbers:**

Otara – Papatoetoe would be assumed to have either 15,706 infill or 22,082 of redevelopment extra dwellings (see Table 11 referenced above). During the last 20 years this area has had very little infill or redevelopment activity, so what would change in this area to see the dwelling numbers increase by approx. 110%? Yes, that's correct, from almost no re-development to more than doubling the total dwellings!!

The 10 largest “Residential Vacant” and “Residential Vacant Potential & Infill” development sites in the Otara - Papatoetoe Local Board area are (according to the CfGS12 Map):

- Middlemore / Auckland Golf Club
- The Grange Golf Club
- De La Salle College
- The Samoa Church / School at 80 Wyllie Rd
- Residential Land at 15 Glenmary Pl and 111 Malaspina Pl, Papatoetoe
- The School and Child Care at 28, 38 Puhinui Rd
- St John the Evangelist School on Otara Rd
- The large church and grounds at 75 Ferguson St, Otara.
- The Church at 328 East Tamaki Rd
- The Dingwall Trust School at 8 Dingwall Pl, Papatoetoe

Further to the main residential redevelopment sites that would contain the extra 22,000 dwellings are currently schools and churches, SD4 also found large anomalies in the business / industrial CfGS12 assessments. The following sites were shown as “Business Vacant” and “Business Vacant Potential”:

- The substantially built out retail Supa Centre on Cavendish Drive
- The entire DB Breweries site in Gt South Rd
- The Lion Breweries facility in Ormiston Rd, built in 2008-2010
- The Farmers facility off Ormiston Rd, built in 2008-2010
- The Rainbows End entertainment facility
- The land housing most of the Auckland Council buildings in the Manukau City Centre
- The Bus Depot at 8 Norman Spencer Drive.

## **5.3 SD4 Comparison of other AC Board areas with Otara - Papatoetoe and Orakei**

Reviewing all of the other CfGS12 maps shown in Appendix C, these all show very similar trends as those shown for Otara – Papatoetoe and Orakei, i.e.

- Most private schools shown as development sites
- Most churches shown as development sites

- Retirement facilities and rest homes shown as development sites
- Steeply sloping sites and sites in valleys / flood plains showing substantial development potential, whereas there is often limited potential.
- Industrial land analysis of the CfGS12 is too simplistic. Many of the industrial site users require yard and storage areas as part of their operations. CfGS12's assumption that most large yards are all available for redevelopment is unrealistic.

## **6.0 SD4 Review of the CfGS12 Results Numbers**

The following has had a dramatic impact on the total numbers shown in the Results section of the CfGS12:

1. Dramatic over-statement of actual development sites, by including private schools, churches, retirement villages, some parks.
2. Steeply sloping sites and sites in valleys / flood plains showing substantial development potential, whereas there is often limited potential.
3. Assuming "the maximum number of extra dwellings able to be developed" will be developed on every site showing development potential.
4. The CfGS12 taking no account of "the likely capacity utilization" of property owners who chose to redevelop (as a %).
5. The CfGS12 taking no account of "the development chance" of properties being developed within each meshblock over the next 30 years (again as a %).

SD4's professional judgement is that the numbers projected within the CfGS12 "Results" section will be over-stated by upto 400% when considering the likely actual dwelling increase take-up over the 30 year period. The 400% is across the Board, although there will be variations within each Board area. i.e. some areas maybe over-stated by 100-250%, whereas other areas could be over-stated by as much as 500-800%. Only a complete FGA will be able to determine the likely development potential of each area.

## **7.0 SD4 Review of Auckland Council's Unitary Plan 3D modeling videos**

SD4 were alerted on 22<sup>nd</sup> April by Jasmox of a series of AC Unitary Plan 3D modeling videos, and asked had we seen these. Instead of the normal Council process of posting these on the Council website so that they could be clearly viewed by all, they are tucked away on "YouTube", as below:

<http://www.youtube.com/playlist?list=PLNiuqKCzobSwwvxhdHPqawQy4GPEFW8R9>

Unlike the Gangnam style videos that are attracting big YouTube audiences, these nicely nestled away AC Unitary Plan 3D Videos have yet to hit their straps, recording between 164-300 views only (as at 23 April, probably mostly from Jasmox and SD4 staff!). So having reviewed the 19 video simulations of a cross-section of Auckland's neighbourhoods (all 1min and 21 sec long each), SD4 provides the following comments:

- The base information provided for the 3D modeling is outstanding. It provides very accurate 3D building shapes of all the existing buildings in the area.
- The 3D views are rotated across each of the town centres, the main features are marked and it is very clear to get a good context of each centre.
- The buildings and sites of historic character are clearly signposted before the growth projections commence.

- The manner in which under-developed sites are prioritized for redevelopment within each centre looks promising.
- The new building massing of each of the chosen redevelopment sites appears realistic.
- This is where the good news stops. The extent of the re-development shown in three 10 year time periods in a number of the lower socio-economic centres is totally unrealistic.
- SD4 has carried out an extremely detailed FGA of the entire Papakura area for the Papakura Local Board (PLB) in Nov 2012 and has an intimate knowledge of the development drivers of this area. The PLB is supportive of residential intensification in its centre, and wants to ensure that initial developments are of a good quality, that would encourage further high rise development. Using the FGA, and a re-zoning to an 18 storey height limit, SD4 considered it unlikely that a high rise would be developed in Papakura in Years 1-10, that 1-2 high rises could be developed in years 11-20 and a few more in years 21-30. The AC 3D videos show 8 buildings of 18 storey developed in years 1-10, another 10 in years 11-20 and a total of 40+ (yes forty+) 18 storey buildings developed in Papakura by year 30+. These numerical projections by AC are totally unrealistic.
- The 3D modeling videos also show how under-utilised a number of market attractive town centres will be. The Remuera Village is shown to have a 4 storey residential intensification overlay, with a large amount of 4 storey re-development occurring over a 30 year period. SD4 has extensive knowledge of the Remuera intensification sub-market. The existing land and building prices in the Remuera town centre are very high, with retail shops on small sites selling at yields as low as 5%. A 4 storey development will not work in the Remuera town centre. There is too much existing 2 storey building value to “knock-down” to replace this with a 4 storey building. Remuera has a high market attractiveness, and should have been up-zoned to 12-18 storeys. The same reasoning will apply to many other market attractive town centres.
- SD4 concludes that if the computer modeling team were provided with realistic projections of where intensification could realistically occur, these 3D modeling videos could be outstanding.

## 8.0 Conclusions and Recommendations of the CfGS12 Report

- AC’s CfGS12 Report is a computer driven exercise, with practically no reality / sense checking “out in the field”. i.e. a check on: “Does this make sense”?
- AC’s CfGS12 Reporting has counted most private schools, churches, retirement facilities and some parks in its sites able to be redeveloped.
- Sites with major slope, cliff-top, valley and flooding constraints are shown as able to be extensively redeveloped as if they were flat.
- All sites that are “under-developed” (incl the schools, churches, parks mentioned above) are assumed by the CfGS12 analysis to be redeveloped to 100% of their maximum potential, within the 30 year period.
- Much of the CfGS12 Methodology and Background structuring is sound, it is the sense checking of excluding schools, churches etc; assessing the likely capacity utilization and development chance that has yet to be completed.
- By excluding schools, churches, parks and retirement facilities from the analysis, and multiplying maximum development capacity, by capacity utilization and development chance, will result in a reduction of actual total intensification dwellings by approx. 400% from the CfGS12 Report Numbers.
- SD4 believes the Unitary Plan has not up-zoned sufficiently in many market attractive areas of Auckland and is highly unlikely to achieve its 60-70% intensification target.
- Auckland Council needs to urgently engage an FGA Analysis on all of the areas covered by the CfGS12 to cover the development potential of all of Auckland’s urban areas, taking account of the new Unitary Plan proposed Zones. The development potential capacity numbers can then be more accurately quantified.