

## URBAN CAPACITY ASSESSMENT

A lecture by David Rudlin of URBED, given at the AiH Estate of the Nation conference, 24th May 2000. This Design for Homes CPD module should take you about half an hour to go through.

"It's not often that I give a paper with the word 'greenfield' in the title for it. Just before you get the wrong idea, we have not changed our spots from 'urbanists', which is what we have always been. I want to talk about work which has stretched out over 18 months for DETR and I do so from the standpoint of an urbanist. I want to resist the temptation to respond to the earlier speakers, other than to say one thing; even though the debate is often couched in terms which would make you think that there is a lot of disagreement going on in the development world, when you look at it, to what they are saying, it always surprises me how much agreement there is. They use different language, but people who are out and out urbanists -- and remember people from town and planning are -- are essentially talking about the same thing.

I want to talk about the work on urban capacity. You will not need me to tell you about PPG3 and what it talks about, and that it is in favour of building housing within urban areas before housing goes into greenfields. It has in it the consequence of a sequential test; something we have known about for retail development since PGG6 came out being applied to housing developments. The way that sequential test works is that it has within it the context of urban capacity assessment.

Whereas Local Authorities, for many years, have undertaken assessments on land availability, they will now be required to undertake urban capacity assessments. That now begs the question of what it is and how it should be undertaken.

So we were commissioned to look at a series of capacity assessments which have taken place over the last three or four years on the whole, to look at the strengths and weaknesses of them, and draw from them good practice. So we looked at 15 studies in total, as well as undertaking a survey of English local authorities. We have looked at most of the main regional studies; North West Yorkshire, Humberside, South West, North East and East Midlands. A number of county studies have taken place, including some of the early work in Hertfordshire, which is work commissioned by LPAC in London, which is quite separate in its content than a lot of the other work. There have not been many done on district level..... Chester and Stroud.

I am not going to talk in detail about the survey findings. I want to do three things. First, to draw from those studies some analysis about the anatomy of the study; what they tend to involve. The second is to draw a set of conclusions from the research that we undertook, and the third is to briefly outline the methodology that we are putting into the Good Practice Guide, which is due out, I am told, within weeks, if not sooner.

The four elements of capacity, four elements that most can be broken down into, the first is source of capacity. Are you looking in all the right places? Second is identifying the opportunity for housing to go into urban areas. Third is to assess the yield; in other words how much housing you can get onto each of those. Then the fourth is discounting the potential: coming to a figure useable in the local process.

I want to deal with each of those quickly in turn. There is just a quick point about the source of capacity. We sometimes get carried away with the idea that all urban capacity is brownfields. This [below] is work we did for Friends of the Earth a while back. Brownfield land may be as little as a third. In parts of the South East, it is much less than that. If you are looking for urban capacity, you cannot confine yourself to brownfield land. You need to look at other land in urban areas not previously developed; the redevelopment of areas: under-used housing areas and so on; use of surface car parks; non-residential conversions of office space; mills; industrial buildings; living over a shop; the subdivision of larger existing houses; intensification; and empty homes.

The percentages down the right hand side of that column are ball park figures about the sort of contribution each of those sources tends to give. When we cross reference this against studies we looked at in the 15 case studies, in most we were actually only looking at under half the capacity. So the first issue is to make sure you are covering all the potential capacity sources. The second element is looking at how you identify the capacity; the opportunities for housing developments.

There are essentially two main areas the studies break down into. In a typical urban area, you divide it up into different character types: estate housing, Victorian housing and so on. Then you do a series of case studies of each of those character types. Then you make an assessment of how much housing you can get per acre or hectare, and then gross it up for the whole urban area.

Sources of Capacity	
	Percentage contribution (constrained)
Previously developed land	33%
Vacant not previously developed	8%
Redevelopment	1%
Car Parks	3%
Non-residential conversions	3%
Living over the shop	16%
Subdivision of existing housing	15%
Intensification	9%
Empty homes	13%
<b>TOTAL</b>	<b>100%</b>

The second one, which we call priority areas, is essentially Sustainable Residential Quality technique. That concentrates surfeit capacity, first of all where you are more likely to find it; in interface areas, run-down areas, mixed-use areas, between existing urban areas, and also where it is beneficial to build -- the pedshed -- pedestrian pocket; areas round local centres; high accessibility areas. Interesting thing is, the problem with the typical urban area is, technically it's a bit like looking for the weeds in a foot-path by looking at the cracks in the paving slabs. The priority area technique tends to focus on the cracks, looking at where you find the capacity. Our conclusion was that when you are looking at urban areas, the priority area technique is actually much more effective. Typical area techniques have their use but not as the main technique for finding the opportunity.

Also when you look at other studies, studies looking at total urban areas undertake surveys that use existing data. I will come back to that later on. Once you identify the opportunity, the next thing is to work out how many houses you can get on a site or in a building or whatever; how much capacity it will yield. Again there are basically three ways that have been used to do this. The design exercise, which you will be aware of from the Llewellyn Davies SRQ work, basically doing a design exercise for the sites and identifying policy scenarios, based in this case on parking and how much housing you can get on to each site at different scenarios. In the north west they developed that into a tool kit which could be used by Local Authorities to undertake the assessments themselves. That, I think, has a very important role to play, and is going to get very time-consuming for very large areas.

Density guidelines have a very important role to play. You get so much per hectare on these sites, measure it by the site area and so on, provided you take account of the site and net growth ratios. As yardsticks, mostly these are not unusable. We conclude they are actually very useful. So, for example, if you are measuring housing over shops and potential to live over a shop, there are a number of yardsticks. One which came from the Civic Trust work broadly shows for every shop there is potential for one flat. In London there are about 60 000 of those already. There are 100 000 shops and shop units. There are about 60 000 flats already over shops, but capacity for another 40 000 odd to be built. Broad brush yardstick of one residential unit per shop unit. That can be done in five minutes, very quickly. That gives you a more accurate resolve than you would get out of a year of survey work: not tremendously accurate but good enough. A lot of work done on capacity tests give you a ball park figure, and actually a lot of capacity work, because urban areas are so complicated, wouldn't improve the accuracy of that greatly.

We now come to the problematic bit, because what all those techniques do in all the studies is produce what is called an unconstrained capacity. So in the ideal world, if everything possible happened, we could accommodate X thousand units an hour in an urban area. It'll never happen. We have to come to some judgment about how much realistically we can target for within the planned period, and include in the local plan to produce what is called a constrained capacity. Out of all the studies we averaged it out, and the 'fudge factor', as Roger Levett was calling it in the coffee break, is about 60%. In other words, most capacities take off 60% of the capacity they found when it comes to identifying what can go into the plan. This is a problem, not because they are taking it off, but not justifying why they are doing so.

What seems to be happening is, first of all they start with the answer in mind. So you measure an unconstrained capacity, then think what it should be, and then think about the answer you should have found in the first place. The second, and this is justifiable in terms of making a judgment about what to include in the local planning process.... but on the whole projecting market rates. So they are saying, if you produced so many houses from this capacity source in the last five years, then our capacity really should not find much more than that because that is unrealistic, where as the whole process of PPG3 is to increase the amount of urban capacity development for housing.

Capacity Statistics			
Case study	Capacity estimate from the study	Projected household increase 1996-2021	Percentage of increase identified as capacity
1 West Sussex	10 002	73 325	14%
3 Yorkshire and Humberside	156 100	300 000	52%
8 North East Region	35 735	100 003	36%
10 Hertfordshire	12 112	60 000	20%
11 South West Region	181 320	500 000	36%
London			
7 London – Large sites	89 705		
9 London – LOTS	91 500		
14 London – SRQ	35 000		
London total	216 205	600 000	36%

So both things are a problem. What we conclude is that there is nothing we find which has a credible discounting procedure. They sound like it but actually there is not any one which really stands up to scrutiny about why it has been discounted. Our conclusion is that you can't do it. You can't pretend it is an objective process. You have to take into account it is a political policy-based process. So if a Local Authority has a political target to build 100% of all housing within its urban area, how to tell whether that was a realistic target to have? That is the role of the capacity study: how difficult is that policy target? How much of the unconstrained capacity needs to be built, and therefore, how difficult and what policy measures do you need to put in place?

Some conclusions we have drawn from the work: most planning authorities we looked at are not considering all forms of capacity. Second, which is demonstrated by this table [page 20], most are actually underestimating capacity. What this table does is look at the estimates of housing capacity from the studies which produce them, and that we looked at, compared to the projected household increase. What you see, at best, the Yorkshire and Humberside study finds 52% of the projected capacity to accommodate 52% of projected household increase, which is below the historic densities being built in York and Humberside - so finding less capacity than the developing industry has found in the past. You start to think; why are we doing it then, if that's the case? Or you could ask; maybe capacity is getting smaller? Maybe we're building all these houses and it's decreasing. I don't think that is the case.

The third conclusion comes under the term capacity implying finite quantity is not useful; potential is a much better one. Most studies concentrate on supply but do not think about how it's going to be unlocked; the effect of their result on demand. The study I was talking about, when politicians wanted 100% housing in urban areas, if they stick to their guns, they will either push the demand elsewhere or create a demand for urban housing. The capacity issue has an effect, so there's inter ranges there which need to be understood, and generally are not. Again, most studies measure capacity but few think about how to promote it. They don't think about the planning policies, the planning standards and planning processes which need to be put in place to make sure the capacity is developed. Many studies treat capacity as a static issue. We can measure it today and know what it is without recognising the fact it changes, often rapidly. The factories certainly could close which you could not expect to happen to the sites and for it to come onto the market. It can change quickly. There is not an update mechanism built into many studies.

Then there is confusion about windfall. Windfall is still in PPG3. Windfall is always a way of wrapping up all the stuff we could not identify. If we are commissioning capacity work to identify that stuff, we need greater guidance about what we then do with windfall. It can't stay the same. Windfall should go down because we are finding the capacity through other sources. Identification of site is a real problem. If I was a developer and I had a capacity in front of me, which I was trying to challenge, what I would do is get my barrister to go through every site and do a capacity study, and show I can demonstrate, probably fairly convincingly, how not one could be developed. If you identify each site in a capacity study, transparently, I think, they become very easy to challenge. The reverse side of that, of course, are the ones published of finding less capacity than the market found in the past. On the one hand they are underestimating capacity, and on the other putting forward sites that can be challenged. You have to set out assumptions but not be specific about individual sites other than those which can be allocated to the local plan.

Finally, there is a need to balance the complexity of your survey mechanisms to the accuracy of your resolve. No point spending a year surveying something with a 30% error rate each way. If it is that way, you can look at other ways of finding capacity much more quickly; find the best practice indications out of that. The first is simple. If you have existing information, you have the capacity to use it. No point in throwing away the work done to date. Capacity estimates for space over shops; sub-division of housing; empty homes; should be made by applying yardsticks. No point in doing survey work in these areas -- you can use yardsticks based upon data which you already have, which gives good enough answers in each of these cases.

Typical urban areas, as I say, have problems only appropriate for intensification, but in the South East it is different. So it becomes relevant when you are looking at intensifying urban areas. Estimates for brownfield sites. If you have got capacity to build your policy targets, again there is no need to do any further work. If it does not, which to be honest is probably the case in most parts of the country, then efforts should be made to find more capacity, and perhaps the SRQ technique appears the way that is best done.

Then finally, measuring the amount of housing you could get on that area. Essentially this is done by design guidelines, although it is very useful to have those done initially by design exercises, so you can demonstrate the implications of what you are talking about and explore different policy scenarios. Once you have measured the capacity, the discounting rate should be a policy target rather than an objective measure.

Your policy making circle needs to come to a view about what they want the quality targets to be. Developers wish to challenge that, but nevertheless it is a political process rather than an objective process. Once they have done that, if they are setting a very tough policy target, it is important, in fact crucial, they put in place a series of policy measures to make sure that that is achieved. They can't increase the proportion of housing built within urban areas without commensurate alteration to policy context which is going to allow and encourage that to happen. A crucial part of this assessment is going to be the policy process to make that happen.