A NEW APPROACH TO HOUSING STANDARDS

LEVITT BERNSTEIN
Who we are

Levitt Bernstein is an architectural practice whose long involvement with housing design has seen many shifts in government policy and demographic trends. The practice’s current initiative to provide practical impetus to the debate about housing design standards follows the recent publication of “The Housing Design Handbook – A Guide to Good Practice”, written by David Levitt.

The quality of Levitt Bernstein’s design of housing for all densities and types of tenure has been acknowledged by numerous design and practice awards.
1.0 Introduction

That the UK has never had mandatory minimum space standards for all new homes is a surprise to many people. It may not be a coincidence that our housing is also among the smallest in Western Europe. Yet proposals to impose minimum space standards have always been heavily resisted by most private sector volume house-builders, who maintain that such a move would damage the market by reducing choice, increasing cost, and adversely affecting delivery.

With rigid policy we agree that such outcomes are likely, but we think that it’s not only possible to implement universal minimum space standards in a way which avoids these pitfalls, but to actively increase choice, maintain supply and achieve fairer competition in the market, at the same time.

This proposal adds to the many current calls for a slimmed down, more rational and more effective regulatory framework. It comes in the wake of proposed new, or revised, standards from the GLA, LDA, HCA, CLG and Habinteg; well-intentioned moves which have failed to bring clarity or to demonstrate a cooperative approach to policy making.

It hardly needs saying that this has added to the frustration of the housing designers, developers and providers who already face huge challenges and uncertainty. It therefore feels timely for experienced practitioners to suggest a practical and conciliatory way forward.

The new space standards we offer are achievable and flexible. They allow for a very wide range of general needs (mainstream) dwelling types and sizes; each supported by a simple set of requirements to ensure fitness for purpose over time, and under any tenure – two simple attributes lacking in much of our recent housing.

We suggest that these standards be instigated by central government and implemented at local level. We argue that housing quality in general, and space in particular, are issues which not only affect the well-being of every family and each individual, but which also say something about our national priorities. We want government to establish a simple framework for new housing design standards and give local authorities both the freedom, and the responsibility, to ensure that the mix of housing we deliver, genuinely meets the needs of the communities that they understand and represent.

The remaining five sections of Part I summarise how we see this working - who should do what, how, and when. We make the case for better space as a pre-requisite for better quality and outline ten steps for implementation. In a message aimed squarely at central and local government policy makers we suggest that by asking for less, we stand a better chance of achieving more.

Further details about the standards and the space calculator are included in Part II, together with a table of the full range of dwelling types and minimum floor areas we recommend. The minimum standards and best practice tips which we propose are set out, on a single sheet of paper, in the Levitt Bernstein Easi-guide to Good Housing Practice, available separately on request.
2.0 Understanding the problem before we address it

It is important to recognise that small private sector homes play an important role in helping young people in particular, to get on to the housing ladder. Many purchasers are able to under-occupy by buying a spare bed-space or bedroom, and have ‘enough space’ as a result.

Other couples or families, who can only afford to buy the number of bedrooms they ‘need’, or whose households grow to the point where every bed-space is occupied, often struggle to manage in the space provided. The problem may be a very small second or third bedroom, a tight kitchen with no space for the family to eat and talk together, inadequate storage – or a combination of shortfalls. Many flats with one bedroom only work well at the outset, for young couples starting out with relatively few possessions. These homes are quickly outgrown and have little appeal for older couples.

Part of the problem is our cultural tendency to not only describe our homes by how many bedrooms they have rather than how much space they provide - but also to use this as a measure of our own social status. We choose to make our houses sound bigger than they are.

The smallest flats proved to be particularly inflexible when the market collapsed three years ago. Many were unsuitable for transfer to the affordable sector even though such a move would have had obvious mutual benefit. Unsold stock should have been able to ease the shortage of affordable housing and help developers through their cash-flow crisis, but these homes simply didn’t work for the number of people for whom they appeared to have been designed.

Allied to this, new forms of intermediate tenure are evolving all the time. A simplistic private/public split is out-dated and unhelpful; particularly as the majority of new homes are likely to be occupied under different tenures over their lifetime. Most experts realise that we need to plan beyond the first sale or let in order to leave a sustainable housing legacy which outlives us and our political and economic cycles, but a largely unregulated private sector housing market has not made this a priority.

We think that universal space standards would help to ensure that new homes are more sustainable in the broadest sense of the word. We argue that there is little point in trying to set a single standard for the size of a two bedroom home, but that there is a value in relating the desirable floor-space of a flat or a house to the maximum number of people who are likely to be able to live in it comfortably, under any tenure.

Coupled with the idea that all sectors could (and we argue that most already do) broadly agree about the space needed for households of varying size when homes are occupied to their maximum potential capacity, this approach allows us to draw up a set of occupancy-based minimum space standards for a wide range of dwelling types - able to accommodate our varied lifestyles and patterns of occupancy.

3.0 Reconciling the priorities of different market sectors

While there can be no definitive conclusion about how much space each person needs, there seems little evidence that this necessarily varies by tenure. We suggest that few people would argue that 70m² is too much space for a family of four, whether they are renting or buying their flat. But at the same time, many people, especially private sector developers, do regard it as an unreasonably high minimum threshold for a flat with two bedrooms.

This is less paradoxical than first appears because relatively few two bedroom market sale flats are designed for, or sold to, families of four. Any proposal for a single set of cross tenure space standards fails at the first hurdle if it ignores the reality that homes for affordable rent are much more likely to be fully occupied than those which are owner-occupied.

Until now, those who have promoted the imposition of minimum space standards have usually done just that. The minimum areas they propose are tied to the typical affordable housing sector ‘norms’ of 1b2p, 2b4p, 3b5p, 4b7p etc, based on the premise of ‘full occupancy’. Certainly these dwelling types are some of the most useful, but we argue that there is nothing wrong with a two bedroom flat of 65m² as long as not more than three people are expected to live in it - and the flat is also light and well planned, the rooms are large enough and there is a reasonable amount of storage space. Even below 60m², two bedroom flats can still work well, but in our view, only for two people.

On the other hand, we stand to gain very little if, by accepting that many homes are under occupied at the point of sale and beyond, developers are simply invited to declare the occupancy of the dwellings they build – the approach described in the London Housing Design Guide consultation last year. Any developer could continue to build only very small three bedroom flats or houses by ‘declaring’ that they are intended for couples. In our view, the solution lies in ensuring that space standards are accompanied by effective control over dwelling mix.

This control is best exercised at local level. By setting quotas which relate directly to occupancy based space standards, local authorities would be in a position to ensure that their communities get a balanced provision of more sustainable housing by requiring that the mix of homes provided is matched to need and demand.

Where there is need, more flats and houses with two bedrooms should be built to the size needed to support four people and more three bedroom homes should work for families of five. This means providing not only enough bedrooms, but also enough space to sit eat and talk together and store possessions.

This would ensure that communities don’t become over-loaded with very small flats, and that the middle ground between starter homes and the executive market is addressed more comprehensively.
4.0 Ten Steps for Implementation

Notwithstanding the key role to be played by local authorities, we believe that the space standards need to be part of a new national framework arising from a fundamental regulatory review.

These are the ten steps for implementation which we would like central government to consider:

1. Establish new national housing design standards to include minimum internal space standards for new general needs housing, based on maximum potential occupancy – from one to ten people.

2. Use the HCA/LBA dwelling size calculator to generate the full range of floor areas for every likely combination of bedrooms/people/bathrooms/WCs/numbers of storeys – from one bed one person (1b1p) to ten bedroom ten person (10b10p) – and for homes on one to three floors (flats, and two and three storey houses).

3. Define a set of functionality and amenity standards for all new homes, related to occupancy where appropriate, to ensure fitness for purpose over time and under all forms of tenure.

4. Add minimum design standards for the shared spaces associated with flats, and set minimum targets for the external environment, based on Building for Life, and for environmental sustainability, based on The Code for Sustainable Homes.

5. Make compliance with all minimum standards and targets mandatory for all housing receiving public subsidy or infrastructure funding, or developed on land owned by government.

6. Ask local authorities to adopt the minimum space standards; invite them to rule out any dwelling types which are not felt to meet local policy objectives, set quotas which restrict the provision of types for which there is limited demand and encourage those types for which there is high demand.

7. Encourage local authorities to set higher standards or add extra requirements where these are considered necessary and appropriate.

8. Allow private developers and RSLs to provide any dwelling types they choose, subject to compliance with the locally adopted housing design standards and general local planning policy.

9. Require developers and RSLs to demonstrate compliance by providing information in a consistent format; a summary breakdown of the dwelling types proposed, together with other key development details (submitted as part of the Design and Access Statement at full planning application stage), and clearly dimensioned and annotated drawings of all dwelling types (tied in to a Building Regulations application).

10. Equip local authorities to enforce the standards through improved development control procedures; using the skills of planning and building control officers with housing expertise.
5.0 Timing

We realise that these simple proposals are nonetheless quite far-reaching. Should the standards be implemented as we hope, those developers who build very poor housing will have their work cut out. But others will already be exceeding them. Good designers, developers and clients will recognise this as a vindication of what they are striving to do.

The flexibility of our proposals is such that implementation across the board would be feasible fairly quickly. This would require local authorities to begin by setting fairly lenient quotas for the mix of dwelling types they require, and to use sensible discretion in setting different targets for different tenures where this is considered appropriate.

However, we recognise that because the industry as a whole faces significant challenge and uncertainty, that consultation will be needed and that local authorities must be given time to prepare their policies, a phased implementation strategy might be more practical.

In addition, while we propose that the Building for Life standard and the Code for Sustainable Homes are retained and utilised, we feel that both standards need significant review. Those who implement and assess Building for Life need a thorough understanding of the underlying principles in order to reduce the subjectivity which weakens its impact in practice. The Code needs to be simplified and restructured to ensure that more credits are awarded for measures which are appropriate and genuinely beneficial, and that illogical trade-offs between unrelated features are avoided.

There is also uncertainty in relation to the future of the Lifetime Homes Standard, and a need for other types of housing, including housing for older people and housing for wheelchair users, to be properly reviewed and calibrated against the mainstream proposals.

This suggests that a realistic timescale would see the standards applied in full to affordable housing from April 2012, and used as benchmarks for the private sector from the same date. We suggest that public subsidy should depend on full compliance, and that the performance of all new housing should be openly measured against these proposed standards – a move which might well, in itself, begin to drive up quality.

In three to five years time, when market conditions have improved and developers across all sectors will be familiar with the standards, full implementation across all tenures should be an easy and welcome final step.

6.0 Conclusion

Many authorities and individuals have made a convincing case for better housing and the role of regulation in achieving that aim. Others have argued that current regulation is cumbersome and uncoordinated to the point of being unhelpful, and that de-regulation is the answer. We agree with both viewpoints and have outlined here, in a very practical way, how these apparently opposing views could be reconciled by the creation of a simple framework for better, more sustainable housing in place of the current disparate standards.

Working back from the outcome we want, Levitt Bernstein has suggested how the best of past, present and pending new standards can be modified and distilled down to a shortlist of sensible, achievable requirements which would ensure that new housing lasts longer, serve us better and allows us to catch up with the rest of Western Europe.

We strongly recommend that the space standards are backed by central government as UK minima across all tenures. That said, we can see a case for higher standards in certain situations, provided that this has a logical rationale. In London, for example, the Mayor has decided to set a minimum target of 50m² for 1 bedroom 2 person flats. In principle this is welcome, but a more logical approach might be to suggest that at ‘super-density’ (above 150 dwellings per hectare) all flats should be slightly larger than elsewhere.

There is greater scope for the other standards to be determined at local level, but we caution against arbitrary adjustment of the other space related criteria. We already have the situation whereby the London Mayor is calling for larger bedrooms and living spaces than the HCA within the same minimum dwelling floor areas, and the amounts of storage and means of calculation also differ. These discrepancies are unhelpful; they have knock-on effects throughout the dwelling, undermine the logic and rigour of the calculator and leave designers and developers wondering how they are expected to find the extra space within the same overall floor area.

For a number of reasons, our preference would be for the minimum standards we suggest to become core national housing design standards, used by local authorities to achieve dwellings of the type and size they need, through the control they exercise over dwelling mix. We feel that other issues should be the sole province of local decision makers and have deliberately not suggested universal standards for parking, play, cycle storage or public open space because we recognise that these are issues best dealt with on a site specific basis.

Clearly, the detail of the standards and the balance of what should be mandated at national level and what is best left to local policy, needs careful consideration and will be a matter of debate, but we hope that this proposal provides a practical end goal and useful ideas for the way forward.
PART II - Further details about the space standards

7.0 Background to the space standards

Two and a half years ago, Levitt Bernstein analysed the components which affect the minimum amount of space needed to fully occupy a wide range of flat and house types.

We came up with a list of five variables:

- how many people?
- how many bedrooms?
- how many bathrooms?
- how many WCs/shower rooms?
- how many storeys?

Drawing on forty years of housing design experience and the best of past, present and pending housing standards and guidance, we looked carefully at a wide range of sensible, efficient house plans and recorded the minimum dwelling sizes that various combinations of these variables dictate. We found a pattern. By assigning an individual numerical value to the addition of an extra person, bedroom, bathroom, WC and flight of stairs, and adding these to a standard ‘starter figure’, we devised a calculator which produces a reliable minimum floor area for any combination of these variables - figures which matched our own practical experience of designing homes as well as that of other designers.

In a separate exercise, we compiled a set of straightforward, generic house and flat plans to reflect the affordable housing standards of HQI v4 and the Lifetime Homes Standard; benchmarked at April 2009. For the most typical flat and house types we produced base-line, good practice and best practice examples; defining criteria for each tier and optimising the overall width and depth of each dwelling type to achieve the most efficient solution. We then compared the floor areas of the plans with the calculator. The base-line set, which represent the minimum reasonable amount of space for the defined occupancy, correlate closely with the calculator results, though they were drawn with no preconceptions about floor area in mind.

The plans also show that planning into neat, stackable rectangular footprints demands a degree of flexibility and compromise. It isn’t possible, in practice, to optimise the size and shape of every room, add a fixed percentage of circulation space and expect the components to dovetail together at a precise target figure. For that reason, the minimum individual room areas we suggest are adequate, but not generous; leaving enough flexibility for the designer to exceed them where they can.

The plans and the dwelling size calculator were offered to the HCA who adopted the calculator space standards and published the plans as part of the evidence base in their recent Core Housing Design and Sustainability Standards Consultation. The floor areas proposed are almost identical to those put forward by MAE architects for the Mayor’s London Housing Design Guide (now included in the draft replacement London Plan) and to those proposed earlier by HATC, for the National Housing Federation’s second edition of Standards and Quality in Development (2008).

This is less coincidental than might first appear, because the authors are all housing experts and each drew on the same furniture and activity data in the Housing Quality Indicators and other reputable guidance.

While the minor differences between the HCA and the London Mayor’s proposals are irritating, the high degree of consensus around the figures (each derived by slightly different methodologies and at different times) is encouraging and suggests that they are essentially robust.

We would like to see a consensus based on the calculator because of its capacity to deliver sizes for an infinite variety of dwelling types. This makes it rigorous, yet flexible – opening up the range of useful house types which have the potential to make good homes for singles, couples and families under any tenure and over time.

As discussed in Part I, we feel that this flexibility is the key to the sensible introduction of cross tenure space standards. It demonstrates that a single set of figures can avoid the one-size-fits-all approach which has rightly been rejected by many designers and developers as restrictive.

It is worth noting too, that part of the rationale behind the calculator is to provide a framework for the gradual improvement of space standards over time. By altering one or more of the values assigned to each of the variables and/or increasing the starter figure, standards can be raised while retaining their inherent logic - avoiding endless debate or arbitrary fiddling. In the same way, the calculator has obvious potential for simple, rational adjustment to give space standards for various types of non-mainstream or specialised housing.

For those who feel the figures may be too high, we offer further detail. The largest value among the five variables built into the calculator is 9m² for each additional person – child or adult. We all know that when household size increases, the pressure on space increases too. We don’t need another bathroom for each new person or even another bedroom, but we do need an extra bed and wardrobe space, and more living/kitchen/dining space and more storage.

Throughout the home, the minimum amount of extra space which we feel is directly attributable to an additional to an extra person, breaks down approximately as follows:

- sleeping area 4m² (extra bed, bedside table and 600mm wardrobe hanging space – not a whole bedroom, just the uplift from a single room to a double, noting that children and adults who share a bedroom, are still expected to share a single chest of drawers, desk and chair)
- living area 1m² (extra armchair and nominal additional floor space)
- kitchen area 0.5m² (extra kitchen base unit and nominal access space in front)
- dining area 0.5m² (extra chair and slightly larger table)
- storage 0.5m²
- general circulation space and extra partitions 2.5m²
8.0 How they would work in practice

However robust the standards themselves, the way in which they are applied and implemented needs to be equally sound. Without control over dwelling mix, all but the most punitive approach might fail to make any difference.

In our ten steps for implementation, we set out briefly how new space and other standards could form part of a simpler, more effective approach to housing regulation. Our proposals for applying the standards demand a very light touch from central government and give appropriate freedom and responsibility to local authorities to ensure that the mix of housing that gets built, properly addresses local need and demand.

We offer here a more detailed explanation about how we think this would work. Four simple principles apply to the assessment of occupancy:

- each single bedroom should provide one adequate bed-space (a floor area of 7.5m\(^2\) is considered the acceptable minimum)
- each double/twin room should provide two adequate bed-spaces (a floor area of 11.5m\(^2\) is considered the acceptable minimum)
- each home should contain at least one double/twin room
- all bed-spaces should be counted when referring to the potential maximum occupancy level of the dwelling

These principles allow for a broad range of dwelling types. They actively encourage choice, flexibility and market preferences and offer the potential to address local need. Using these principles and a single set of space standards, we can say that:

- 1 bedroom homes are considered suitable for 1-2 people
- 2 bedroom homes are considered suitable for 3-4 people
- 3 bedroom homes are considered suitable for 4-6 people
- 4 bedroom homes are considered suitable for 5-8 people
- 5 bedroom homes are considered suitable for 6-10 people
- 6 bedroom homes are considered suitable for 7-12 people

Taking houses with three bedrooms as an example, the permissible range of minimum GIFAs would therefore start at 87m\(^2\) for a 4 person 2 storey dwelling and increase to 110m\(^2\) for a 6 person 3 storey. Everything in this 23m\(^2\) range is potentially a useful 3b family home under any tenure. No upper limit is imposed for any type, though the designer or developer may declare a higher occupancy level as soon as the GIFA increases to the next defined threshold, subject to meeting the relevant other standards.

Under certain circumstances, a small proportion of 2b2p or 3b3p homes could be considered. These would work for single parent families, sharers, single people with carers – or other households where the occupants each prefer a bedroom of their own. But without at least one full-size double bedroom, they would offer very little long term flexibility and should normally be limited to special situations where carers support an older or disabled person.

In practice, this means that where there is high demand for five person homes, a considerable proportion of the two storey houses with three or more bedrooms should be required to have a GIFA of at least 96m\(^2\) across all tenures. Even so, some smaller three bedroom houses, with a GIFA between 87m\(^2\) and 96m\(^2\), will also be desirable as good homes for four people of any tenure. It may be appropriate to permit more of these smaller types in the private element, but the majority should be 96m\(^2\) or larger in order to house five people properly where that need exists.

In determining quotas, we suggest that local authorities should refer to occupancy as well as bedroom numbers, and that targets should be established by tenure. Many authorities already set quotas but they do so by the number of bedrooms; with the result that these can be as small as developers wish to make them. Referring to occupancy instead, would guarantee size and functionality. In a similar way, considering each tenure on its merits, would ensure that delivery is tailored to the needs of different sectors and that the mix of affordable dwellings provided under a Section 106 agreement is not simply what is most convenient for the developer.

In this context, we should add that while it is necessary to define the minimum bedroom areas which provide one or two bed-spaces, a bedroom of 9 or 10m\(^2\) remains extremely useful. It is only too small if two people, (children or adults) are expected to share it on a full-time basis. So for the purposes of defining occupancy, such a room only provides one bed-space. Although a room below 7.5m\(^2\) is much less useful except as a study, it is not necessary to attempt to ban very small rooms. Simply discounting them in the assessment of bed-spaces (equivalent to occupancy) would be an effective deterrent.

Drawing on advice from housing officers to inform planning policy, local authorities would be free to rule out any types they considered inappropriate for the local community and encourage those types they feel are needed. We expect that most would choose to limit the number of 1b flats they will accept, and some may feel it desirable to restrict 3b6p and 4b8p homes, particularly for affordable housing, because they fail to offer any child a bedroom of their own when the dwelling is fully occupied. Quotas could be set as general percentages (for example, ’not more than 10% of dwellings at or below the 2p standard‘, ’at least 20% to the 5p standard and at least 5% to the 7p standard‘) or include specific requirements that homes for larger families should be provided as houses rather than flats. We suggest in the Easi-guide that flats for seven or more people should be avoided as a general principle, but individual local authorities could adjust the threshold to five or six people, and we hope that many would.

All targets could, and should, be reviewed and adjusted regularly to reflect demographic trends and the cultural and ethnic diversity of the local population to ensure the closest possible match between need and provision.
9.0 Why space alone is not enough

Housing experts agree that while enough space is probably the most important single attribute, it cannot, on its own, guarantee quality or functionality.

Within the home, the needs of the family and the individual have to be recognised and balanced. Families need well proportioned spaces in which to cook, eat, sit and talk - together, and individuals (adults and children) also need comfortable private spaces in which to play, study, relax and think - alone. Our homes need to be accessible and adaptable to changing needs and circumstances and, above all, easy and enjoyable to live in. Even large homes can fail their occupants if the space is poorly distributed; the layout inefficient, the home is dark, noisy or lacks outdoor space.

Such failings are all too common which is why we want to see universal space standards accompanied by a short list of additional dwelling quality standards. These should be the minimum requirements needed to ensure that every new home will be not only big enough, but will also be functional and provide good levels of amenity for the number of occupants determined by the overall floor area.

We therefore suggest minimum room areas and room widths where these are critical to the use and enjoyment of a space, the amount of storage space, and the number of bathrooms and WCs which should be provided. Dwelling amenity is dealt with by setting a few simple ground rules for daylight, privacy, ceiling height and private open space.

In addition, to ensure that the shared circulation and outdoor spaces which are needed to support the daily lives of flat dwellers do so effectively, we suggest safe limits for the number of people using each core, and that shared outdoor space is provided for families without gardens.

The overall design of the development poses equally important challenges. It is imperative that we design and build all new homes to be environmentally and socially sustainable, and that they should make the sort of places where people want to live and which improve over time. In line with the HCA consultation and the principles of the new London housing design standards, we suggest that the Code for Sustainable Homes should continue to set targets for sustainability and the Building for Life standard should be used to raise awareness and set targets for external design and place-making. Both documents have significant shortcomings however, and we recommend a comprehensive review before full implementation.

The complete range of minimum design standards we suggest is provided as a set of tables in the Easi-guide; organised as follows:

For each dwelling -
- size
- functionality
- amenity

For each core -
- shared spaces

For the overall development -
- external environment
- sustainability

The detail has largely been derived from the best aspects of the HCA Core Standards Consultation and the evolving London housing design standards. We have worked with both authorities on the detailed content of their standards, and pressed hard for a coordinated approach. While alignment has been promised for some time, it has not yet been achieved. We have therefore carried out our own reconciliation; adapting, cutting down and supplementing current proposals as necessary to provide a set of workable ground rules, alongside tips about how and where to aim higher.

In terms of content and presentation, our priorities have been a ‘less is more’ approach - maximum benefit for end users, and clarity and ease of use for designers and developers. We hope that it will appeal to policy makers too by providing a simple framework for leaner regulation and greater consensus.
10.0 The full range of dwelling types and space standards

In principle, the dwelling size calculator will generate a minimum internal floor area for any combination of people, bedrooms, bathrooms, WC’s/shower rooms and storeys. In practice, some types are much more practical than others, and many would be unworkable, so it will be important to clarify which types are permissible under given circumstances.

The Easi-guide sets out the minimum areas for the most typical dwelling types. These are the areas shown in the coloured boxes in the table below and other types which are also likely to be useful are shown bracketed. Together these form a range of nearly fifty viable dwelling types.

<table>
<thead>
<tr>
<th>One storey dwellings</th>
<th>1p</th>
<th>2p</th>
<th>3p</th>
<th>4p</th>
<th>5p</th>
<th>6p</th>
<th>7p</th>
<th>8p</th>
<th>9p</th>
<th>10p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b</td>
<td>39</td>
<td>48</td>
<td>61</td>
<td>70</td>
<td>74</td>
<td>86</td>
<td>90</td>
<td>95</td>
<td>108</td>
<td>117</td>
</tr>
<tr>
<td>2b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td>103</td>
<td>112</td>
</tr>
<tr>
<td>3b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td>116</td>
</tr>
<tr>
<td>4b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>116</td>
<td>125</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two storey dwellings</th>
<th>1p</th>
<th>2p</th>
<th>3p</th>
<th>4p</th>
<th>5p</th>
<th>6p</th>
<th>7p</th>
<th>8p</th>
<th>9p</th>
<th>10p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b</td>
<td></td>
<td></td>
<td></td>
<td>74</td>
<td>83</td>
<td>96</td>
<td>100</td>
<td>109</td>
<td>118</td>
<td>127</td>
</tr>
<tr>
<td>2b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87</td>
<td>100</td>
<td>109</td>
<td>119</td>
<td>128</td>
<td>137</td>
</tr>
<tr>
<td>3b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td>109</td>
<td>119</td>
<td>130</td>
<td></td>
</tr>
<tr>
<td>4b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>109</td>
<td>120</td>
<td>131</td>
<td></td>
</tr>
<tr>
<td>5b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>118</td>
<td>129</td>
<td></td>
</tr>
<tr>
<td>6b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>126</td>
<td>135</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Three storey dwellings</th>
<th>1p</th>
<th>2p</th>
<th>3p</th>
<th>4p</th>
<th>5p</th>
<th>6p</th>
<th>7p</th>
<th>8p</th>
<th>9p</th>
<th>10p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>101</td>
<td>110</td>
<td>123</td>
<td>132</td>
</tr>
<tr>
<td>2b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>110</td>
<td>123</td>
<td>132</td>
</tr>
<tr>
<td>3b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>118</td>
<td>127</td>
</tr>
<tr>
<td>4b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>131</td>
</tr>
<tr>
<td>5b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key
92 most typical dwelling types
(39) less typical dwelling types
• generally impractical dwelling types

Notes
all dwelling areas except 1-4p single storey, allow for one bathroom and one additional wc.
WCs assumed to include a shower for 7p+
Please send your comments to Julia Park or Matthew Goulcher and contact Nancy Edwards if you would like more copies of this or the Easi-Guide or would just like to come and talk to us about it.

julia.park@levittbernstein.co.uk
matthew.goulcher@levittbernstein.co.uk
nancy.edwards@levittbernstein.co.uk