



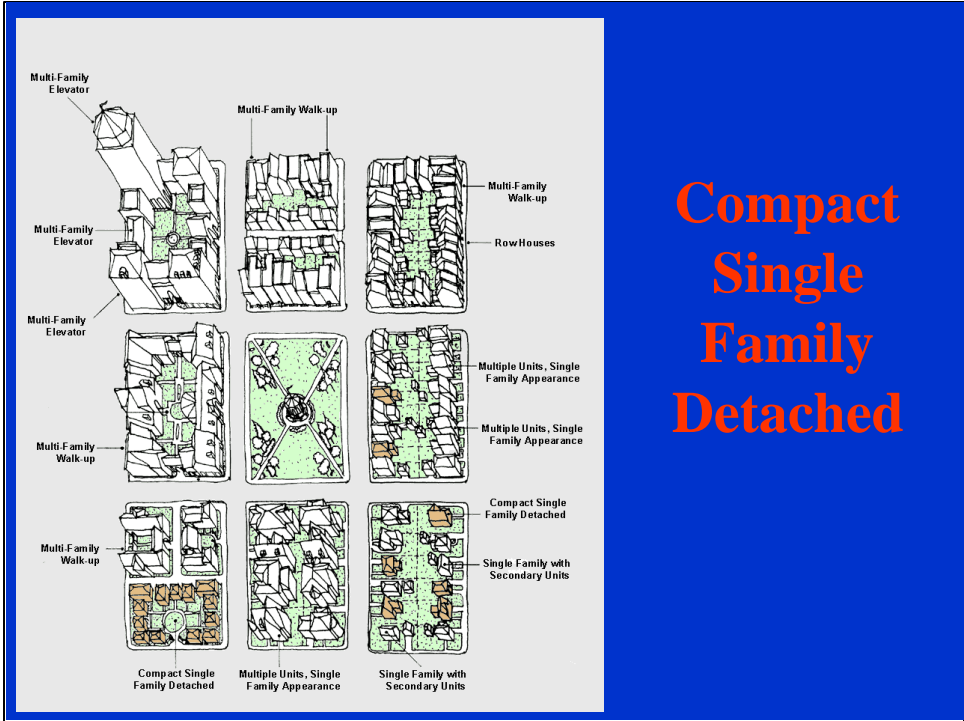
Compact Single Family Detached Homes

Generally, “Compact” single family lots are defined as smaller than 1/8 acre, or around 5500 – 5000 SF or less. Lots of this overall area are typically 50 by 100 feet, or 45 by 120 feet. Street frontage of 45 to 50 feet allows for a single garage plus living room to front the street, with side setbacks of 5 to 10 feet. Alternatively, they allow for an 8 - 10 foot wide driveway on one side of the lot to give access to a garage at the rear of the lot, and for a 25 to 30 foot wide house with an entry plus one or two rooms facing the street.

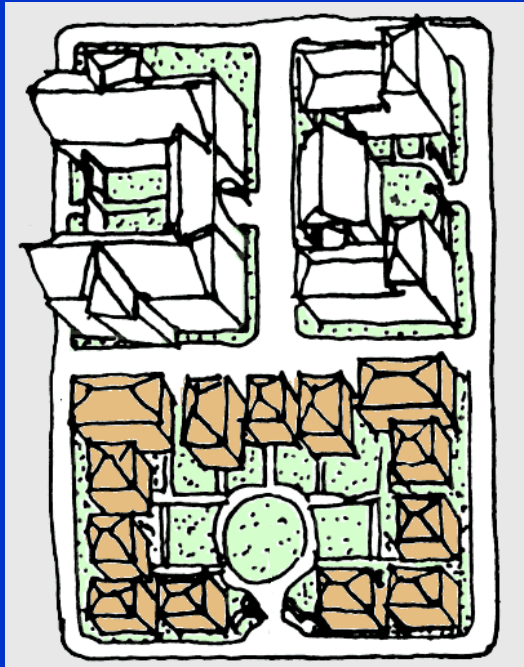
To achieve densities above 8 units per acre excluding streets (about 6 units per acre including streets) requires shrinking the width of the lot or depth of the lot or both. Using one strategy, “narrow but deep” lots 30 feet wide and 75 to 100 feet deep are used to reduce lot sizes and increase density. As lot widths narrow, there are more homes fronting a given length of street, which reduces street related infrastructure costs per unit, but increases the challenge of getting sufficient frontage for both cars and ground level rooms.

Using another strategy, “wide but shallow” , lots are kept at 45 – 50 feet wide or more, but with depths reduced to 60 feet. This pattern keeps the homes spread further apart along the street, which resolves some of the visual and vehicular access issues of narrower lots, but is less efficient from a street infrastructure perspective, and may also compromise rear yard depth.

The case studies show a wide range of possible densities, from 7-21 units per acre.



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Case Study 1: Lyton Park Place, 7 units per acre, excluding streets, including alley

By Midwestern standards, these homes are on compact lots, even while they might appear quite generous in other more dense and higher land areas of the country. They serve as a good base index for comparing subsequent higher density single family case studies.

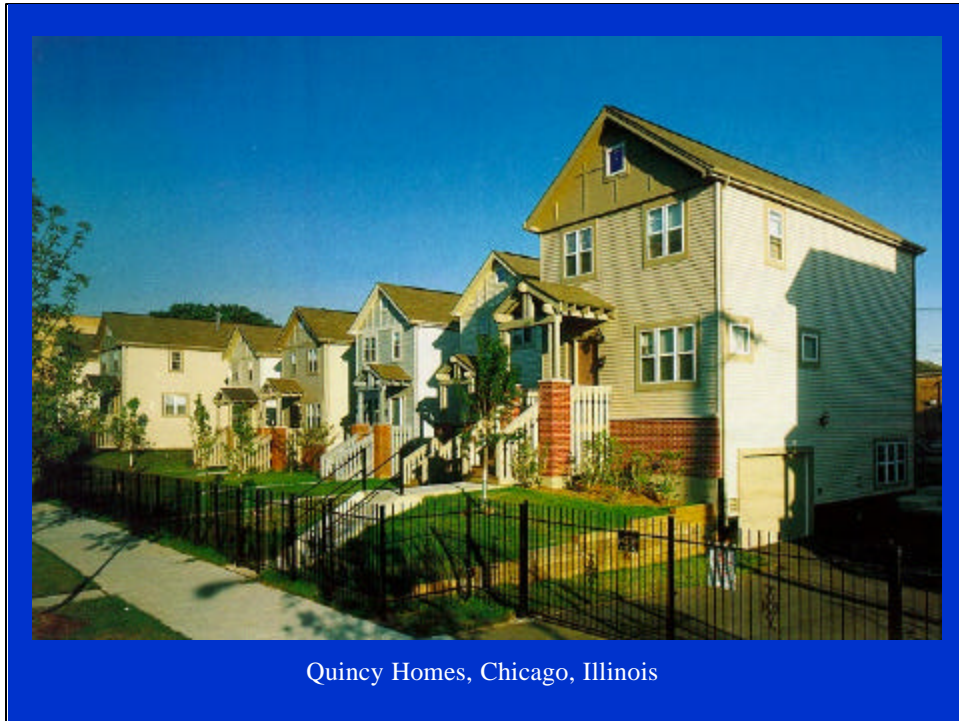
In the case of this development, just being able to meet the same density as the surrounding area was a challenge, because the neighbors were opposed to any affordable housing on the site. Here then, achieving the same density was highly dependent on a design that was similar to the wider neighborhood pattern. Lots varying from 48-51 feet in the midblock to 57 ½ feet on the ends allowed for generous side yards, and 20 foot setbacks from the front walk to the porch repeated standard patterns. Lots average about 5500 SF each, and all lots are 110 feet deep, with a 20 foot wide alley behind. The plan uses ten different unit types in a 21 unit development with each having several roof and bay forms. This creates a sense of uniqueness for each house, although all have simple and easy to build forms and details. Wider homes are interspersed with narrower homes so that there is variety to home types, and yet similar spacing between them. However, due to a parking requirement for one covered garage plus one additional space for each unit, the actual usable rear yard space is smaller than the front yard. The yards are still ample, and both the rear alley and parking space can serve as hard surface play area.



Case Study 2: Benson Glen, 7.2 units per acre including new public and private streets, but excluding saved wetlands

Benson Glen represents a statistically similar density as Lyton Park, but using a different site planning strategy and greater public cooperation in achieving densities greater than might have been allowed by conventional zoning. Here, the dimensions of the site plus the requirement that about 40% of the site be left as a wetlands led to a combination of some houses on wide but shallow lots along a new street, and then some additional units clustered along semi-private drives at right angles to the street. The local jurisdiction allowed reducing lot sizes to 3600 square feet, reducing parking from 4 cars to 2 cars per unit, and allowing the second car to be parked in the front drive. Front setbacks were also allowed to be just 15 feet, and side setbacks on one side were allowed to be reduced to 5-10 feet from a 15-20 foot standard. One garage per unit is accessed from the street side, but the visual image of the garage is played down by having garages in lower elements or further back from the street, and comprising only 1/4 to 1/3rd of the building frontage.

The accumulated change in site sizes and layout standards allowed for the inclusion of a one quarter acre park within the development, which is included in the density calculations. Despite the lots being almost 40% smaller than Lyton Place, the back yards are substantially larger. Four basic models of units were developed, but with their varying heights and rotation on the lots at corners, a lot of visual variety and openness is achieved

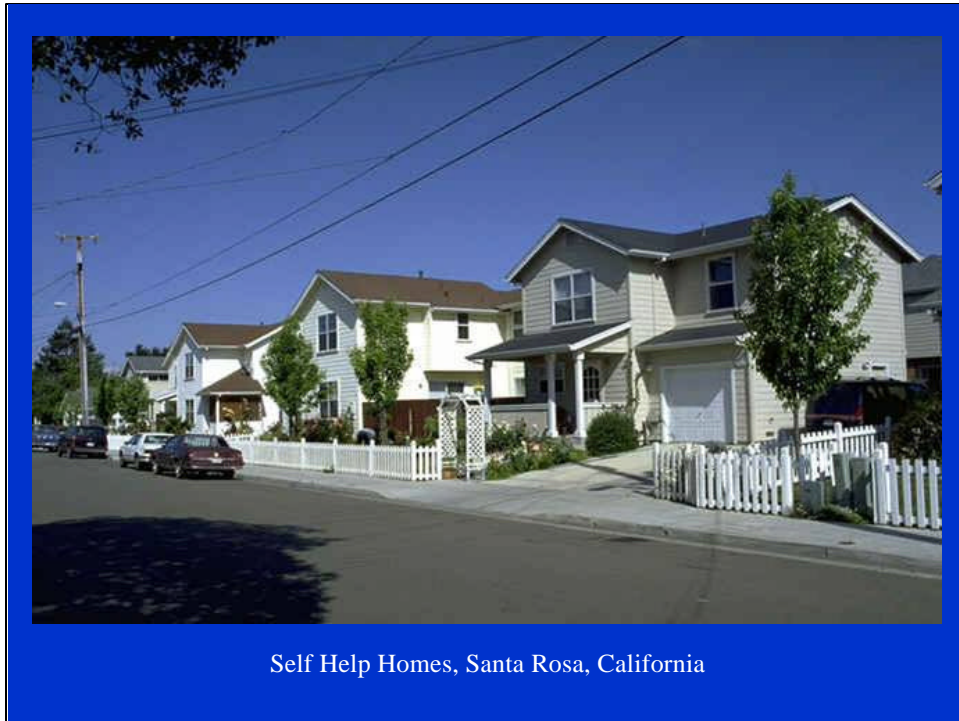


Case Study 3: Quincy Homes, Chicago, 9 units per acre

The density of Quincy Homes is about 20% greater than that of Lyton Park Homes, while being within a very similar context of an older neighborhood with an existing rear alley system. This is possible because the average lot widths in this part of Chicago are narrower.

The context challenge for Quincy was also different, in that the older homes and apartments in the area were larger in scale, and the proposed new Quincy home could have looked too small. While keeping to an economical rectangle form, front porches and brick facing at the grade reflect local design elements. The lot size including the depths of front yards has been altered and paint colors varied to create a semi-custom home appearance.

While a uniform floor plan is used for all 40 three bedroom units, two distinct house and site plan choices are provided on the same standard lot. Raising the units allowed for garages in the basement level for 8 pairs of units, which are placed further forward on the lot and share a semi private drive that give access to their single car garage from the street. The remainder of the units sit further back on the lot, have more interior usable space in the ground floor level, and have a double car garage on the alley side. Those homes with a garage below their living space have a smaller front yard, a bigger back yard, and space for their second car is out at the alley side. Others get more interior space in the basement and bigger front yard, but smaller back yard, with both cars on the alley.



Case Study 4: Self Help Homes, Santa Rosa, 14 units per acre

These homes on 3000 square foot lots are twice the density of Lyton Park Place, and almost 50% more dense than the Quincy homes, yet do not appear any closer than the previous three examples. This illustrates the visual advantages of the "wide-shallow" strategy, as the lot size savings are entirely in shallower front and back yards, and only slightly narrower side setbacks. The main plan of the homes is just 15 feet back from the street, but a front porch encroaches into that setback. The actual lot configuration and unit placement is similar to that of Benson Glen, but the rear yards are shallower and there is no central community open space. Comparing lot sizes only, this development is about 10% more dense than Benson Glen.

Variations in roof forms, porch locations, roofing color, and siding color provide visual variety, while trees planted in the front yard areas will soon create a green canopy and provide greater visual privacy for upstairs bedrooms and shelter from hot summer sun.



Case Study 5: De Turk Homes, Santa Rosa 16 units per acre, including semiprivate lanes.

Developed by the same sponsor as the Self Help Santa Rosa Homes, this development of 2700 square foot lots uses a different strategy for the parking and even shallower front yards. The presence of a new city park and community center across from the site removed the need for a park in the development, and allowed for smaller yards.

Garages have been moved back from the façade and project slightly into the rear yard. The front of the homes is pushed forward, just 12 feet from the sidewalk. The living quarters portions of the homes do not touch, but paired garages do., so technically the homes are semi-detached. Buyers and neighbors still consider them “detached” homes to the rear of the units, accessed by a narrow drive up one side of the house that serves two single car garages the side lot line. Simple shapes, and small scale porches and windows and detailing make the homes look bigger than they are.

The development was sought by the City who worked with the sponsor to maximize density within the goal of providing a first time homebuyer model that people would be willing to take a risk on. The area around was a mix of run down industrial and commercial properties, and considered both blighted and unsafe. The homes therefore actual set up a new residential pattern, which has subsequently been copied with great success by market rate developers who came into the area later.



Case Study 7: Randolph Neighborhood, Richmond, master planned new urban neighborhood, 20 units per acre average of town homes plus apartments

There are certain similarities between the Classics at McNear Landing and the Randolph Neighborhood in term of the lot sizes and historically evocative building types, although important differences related to their context and public expectations. The Randolph Neighborhood was a relatively flat urban parcel, within an existing gridded street pattern context, and the street layouts were dictated by the desire to link the area to the wider community. adjacent blocks of 1920s red brick houses with white-painted porches and rear alleys were replicated with a proposed mix of single homes and duplexes. The zoning was changed to conform to traditional patterns which was made possible using redevelopment area procedures. While the built result is handsome and well received, its urban character was sought by the neighbors who considered the density and attached home types “too urban”

Additionally, the market was not receptive to some of the attached housing models, and the original townhouses were therefore separated by three feet and raised slightly above grade to make them feel separate and larger. The duplexes were left in the plan and were able to sell. The splitting apart of the townhouses late in the development and construction process led to the use of cost saving wood siding with no windows in them. This reduced the density of the original concept by about 10%, and increased costs.



Case Study 8 Metro Square, Sacramento 21 units per acre

This case study of a market development is also included to illustrate another strategy for achieving surprisingly high density while preserving single family characteristics.

The size of the typical Sacramento block allowed for one set of narrow, shallow lot homes to face the public streets, and then an inward facing set to face a private “street”. In stead of providing a City and fire department required standard 60 foot wide right of way down the block middle, the architects won support for two ten foot wide shared pedestrian/auto lanes, with a 40 foot wide public green between. Minimal front setbacks for these “green” facing units, combined with the use of deep front porches that have bedrooms above, allowed for a substantial amount of living space to be on the front portions of the shallow lots. Larger front yards are found on the units that face existing streets, to match existing urban patterns.

While only a few basic unit layouts are used, a great variety was achieved by changing porch, rail, window size, roof shape, and color from unit to unit, just as the 1920’s arts and crafts units in the neighborhood also features. Many developers doubted these small lot homes would ever be sought given the soft market in the City, but they were quickly sold out and are now being copied by others.