BUILDING

BETTER

NEIGHBORHOOD



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CREATING
AFFORDABLE
HOMES
AND LIVABLE
COMMUNITIES

BUILDING BETTER NEIGHBORHOODS	
CREATING AFFORDABLE HOMES AND LIVABLE COMMUNITIES	
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BUILDING BETTER NEIGHBORH	OODS	
CREATING AFFORDABLE HOM	ES AND LIVABLE COMMUNITIES	

Greater Minnesota Housing Fund (GMHF) is a non-profit organization committed to increasing the supply of affordable housing for working families throughout greater Minnesota.

We gratefully acknowledge the support of our primary funders, The McKnight Foundation and Blandin Foundation. Without their assistance, our continuing work on the Home At Last program and the production of BULDING BETTER REIGHBORHOODS

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would not be possible. In addition, we appreciate the financial support of The F. B. Heron Foundation, Mardag Foundation,

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Streater

Twin Cities metropolitan area

As defined by Greater Minnesota Housing Fund, greater Minnesota includes the eighty counties of Minnesota outside of the seven-county Twin Cities metropolitan area.

FOREWORD

Despite a strong economy and record homeownership rates, a lack of affordable housing has become a critical issue in many communities across the country. Too often considered primarily an urban problem, the shortage of quality, affordable housing has also reached a crisis level in cities and towns throughout greater Minnesota and rural America. Unable to afford the costs of new home construction and burdened by rising rental costs, many lower-income residents are without decent, safe, and affordable housing options.

Greater Minnesota Housing Fund (GMHF) was created in 1996 to address the growing affordable housing crisis in Minnesota communities outside the Twin Cities metropolitan area. With major funding from The McKnight Foundation and Blandin Foundation, GMHF provides financial and technical assistance for the creation of affordable housing for working families in areas of economic vitality throughout greater Minnesota.

In 1997, seeking to increase homeownership opportunities for lower-income households, GMHF developed the Home At Last (HAL) program. Initially, the HAL program focused primarily on cost-reduction strategies designed to build affordable homes with a minimum amount of public and private subsidy. Strategies to decrease costs included:

- · selecting sites located near existing infrastructure
- · reducing lot sizes
- designing efficient streets
- implementing cost-effective home designs
- building in volume

While working with several communities in greater Minnesota, it became apparent that high home costs were only part of the affordable housing problem. Local leaders were also concerned about creating neighborhoods that were assets to the community—neighborhoods that would remain attractive and livable over time.

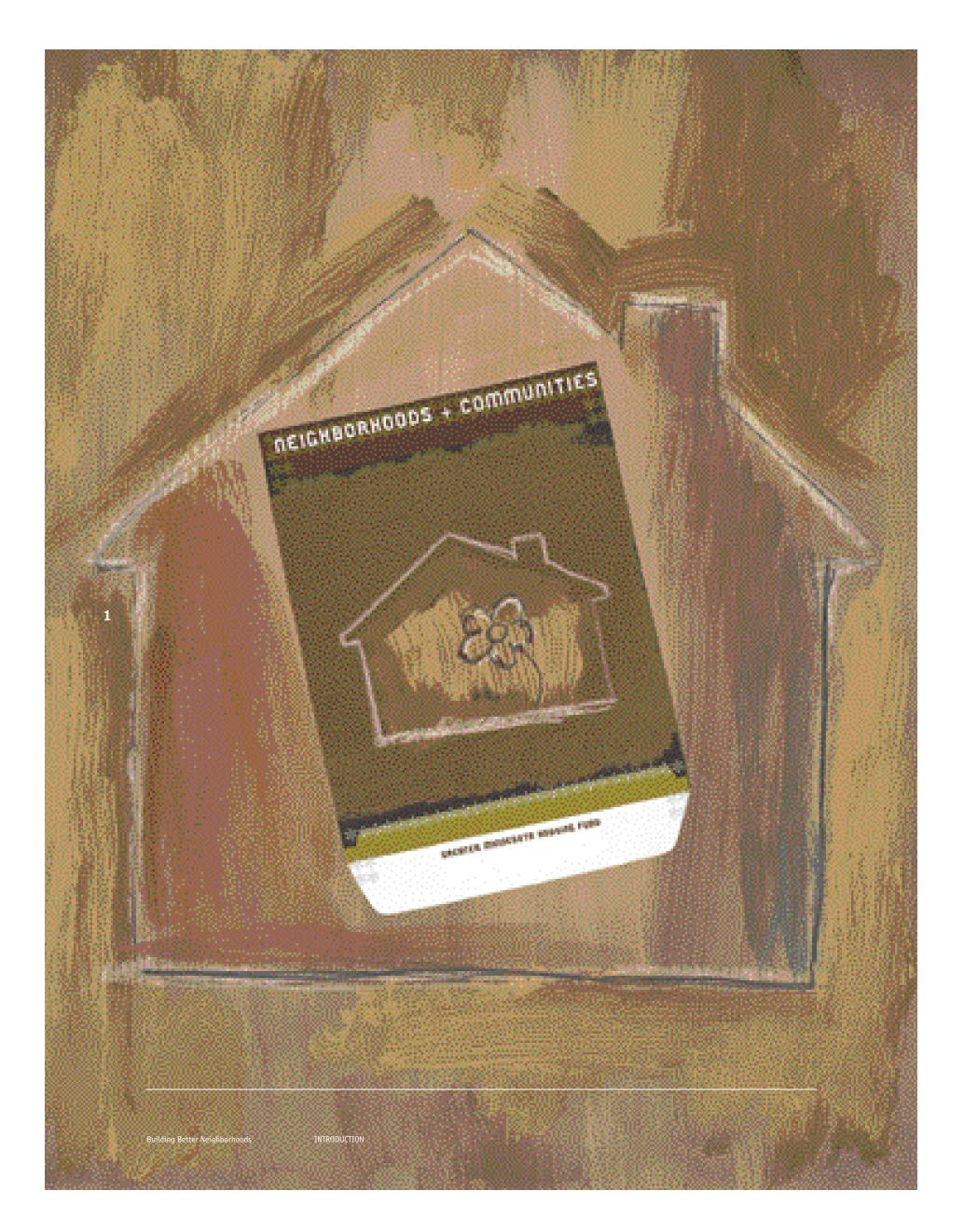
GMHF responded by consulting with architects to develop several home and neighborhood design strategies that would add value and livability to new neighborhoods at reasonable costs. Since that time, the HAL program has evolved to incorporate more extensive landscaping, more attractive home designs, and better plans for neighborhood amenities such as parks and trails. Implementing these and other design strategies adds amenities that are often absent in typical affordable housing developments. The inclusion of such amenities allows HAL neighborhoods to:

- be an asset to the surrounding community
- mature and grow over time with minimal added costs to the homebuyers
- provide amenities to lower-income homeowners that they otherwise may not be able to purchase later
- maintain value over time
- attract middle-income buyers to mixed-income developments

Building Better Neighborhoods is the culmination of the work of GMHF and its HAL consultants over the past few years. Based on knowledge gained in dozens of towns and cities across Minnesota, it advocates a balance of "cost-reduction" and "value-added" strategies. Together, these innovative design strategies and practical lessons learned will be valuable to any community seeking to provide affordable homeownership opportunities in well-planned and livable neighborhoods.

It is our hope that every community has a place for all families regardless of their income. This guide represents a portion of our efforts towards that goal.

Warren W. Hanson, President Greater Minnesota Housing Fund ii



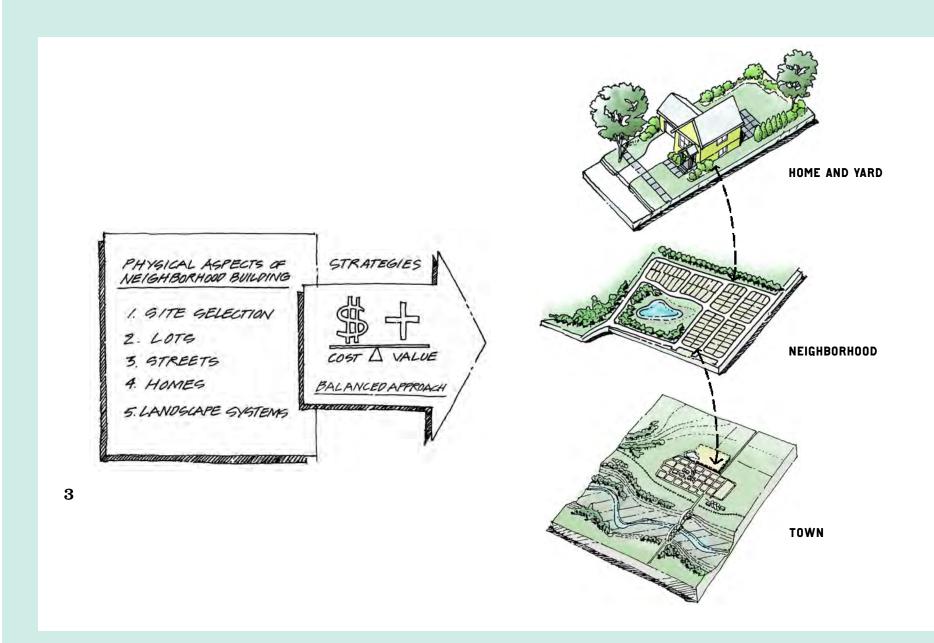
INTRODUCTION

Every good crop or bountiful garden begins with the proper seeds—carefully selected, planted with care, and nurtured so that they will flower and bear fruit. Like a garden, **growing a strong**, **cohesive**, **and livable community takes careful planning and nurturing**. The goal of *Building Better Neighborhoods* is to plant seeds for positive growth in greater Minnesota communities.

The housing crisis facing many small towns and cities is more complicated than simply a shortage of affordable housing stock. Adding more affordable housing to a community's inventory is like planting seeds is to farming, one of several necessary steps to grow a healthy crop or community. The answer for a growing town and community is not merely constructing inexpensive housing in vast subdivisions, but defining a larger vision for the physical environment that enhances and preserves the community's character and appeal as an attractive place to live.

The Greater Minnesota Housing Fund believes that people want to build strong communities as well as buy quality, affordable homes. That is why *Building Better Neighborhoods* talks about building more livable places; why the homes are planned closer together; why public spaces are prized; why it matters to put as many homes as possible within short, even walkable distance to libraries, churches, parks, and schools. Housing patterns can either separate us or draw us together.

This book represents an ambitious departure from the customary collection of guidebooks for affordable housing. Readers will find themselves encouraged not only to address the crisis of too few homes for families who cannot afford to pay market prices, but to seize upon strategies that strengthen the character of the whole community. Building Better Neighborhoods is a practical, how-to manual for building well-designed, affordable homes while creating livable neighborhoods that are long-term assets to the entire community.





An imaginary flight over your town gives you a perfect view of all three physical building blocks of a community: town, neighborhood, and home and yard.

GUIDE FRAMEWORK

NEIGHBORHOOD BUILDING

Neighborhoods are more than geographic locations. They are the places in which we choose to work, rest, play, socialize, retreat, think, and dream. The design of our neighborhoods influences how we engage in those activities—the route we take for a leisurely walk, how often we meet our neighbors, where our children play. Just as our lives are influenced by the design of our neighborhoods, we have the opportunity to shape our neighborhoods in ways that will better support our patterns of living.

Our communities are made up of social, economic, and physical resources. This guide focuses on strategies for using the community's physical resources to build better neighborhoods that include affordable starter homes. Each chapter addresses a different physical aspect of neighborhood building: site selection, lots, streets, homes, and landscape systems. Since the chapters are organized by topic, not by timeline, they can be read and referenced in any order. The topic of infrastructure, a costly component of neighborhood development, is covered in several of the chapters as it relates to the topic of that chapter.

Each chapter begins with a brief introduction and a summary of that chapter's strategies to reduce cost and strategies to add value. Following the introduction is further explanation and information on implementing each of the strategies. A "project profile", or case study, for each chapter is located at the back of the book and each one illustrates the application of selected strategies.

STRATEGIES TO REDUCE COSTS

Keeping initial costs down is the key component of providing homes that are affordable to lower-income families. But what continues to make the house affordable after the builders have left the site and the mortgage agreement is signed? The strategies to reduce cost include both strategies for initial savings (what it costs to build and buy) and long-term savings (what it costs to maintain), so that the homes remain affordable to the owners for years to come.

STRATEGIES TO ADD VALUE

What makes a neighborhood a valuable community asset? The value of a neighborhood certainly consists of more than adding together the prices of the homes which line its streets. The value is also found in how well the design of the neighborhood contributes to its residents' quality of life. This can be achieved through design decisions such as improving the character of a street by lining it with trees or creating a neighborhood that is connected to the activities and amenities of the larger community. The strategies to add value provide ways to make a more attractive, livable, and valuable neighborhood, often at little additional cost.

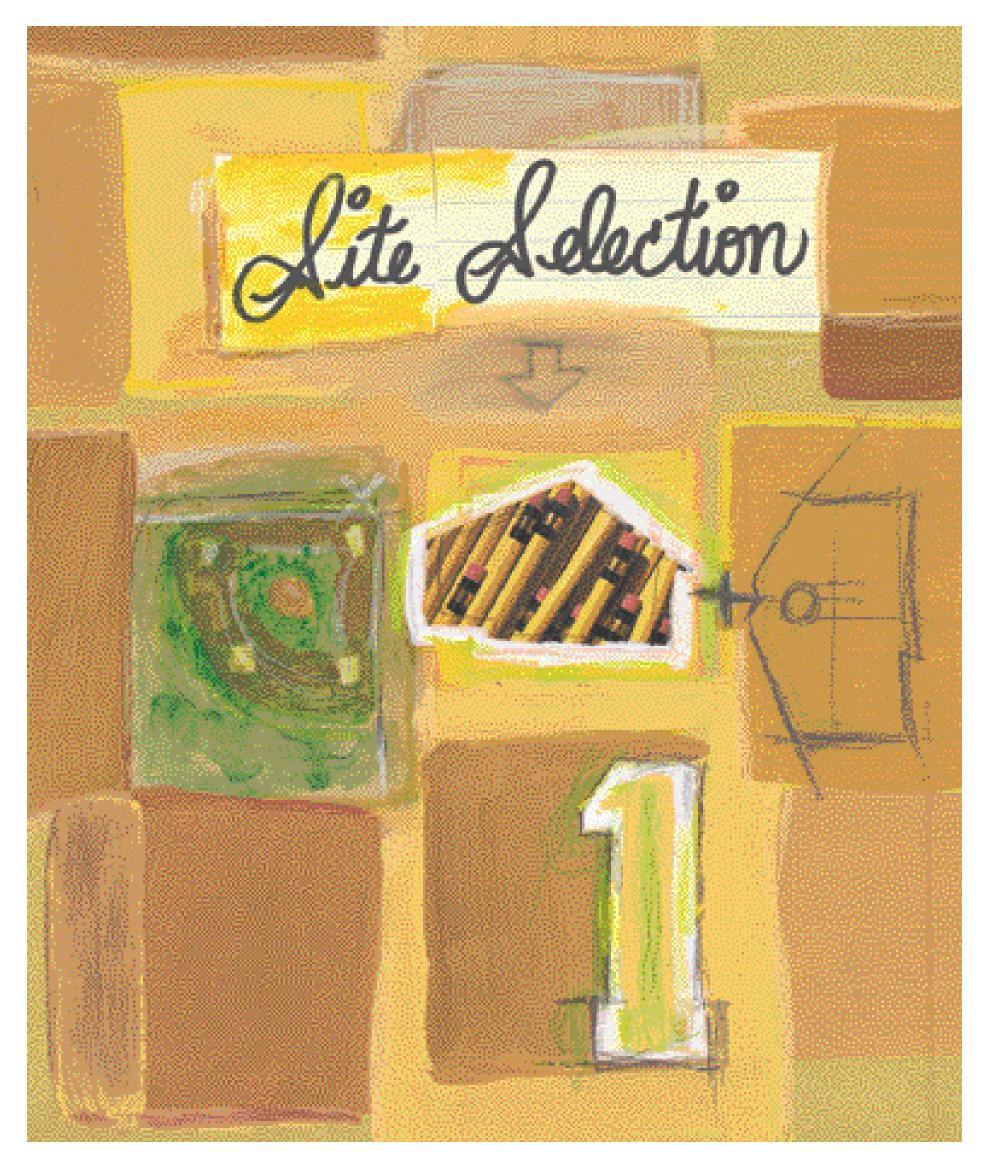
Considering both strategies to reduce cost and strategies to add value provides a balanced approach to neighborhood building. This balanced approach increases homeownership opportunities for lower-income families, improves the residents' quality of life, and increases the neighborhood's value and appeal.

PHYSICAL BUILDING BLOCKS OF A COMMUNITY: town, neighborhood, home and yard

Imagine that you are in a helicopter flying over your town towards your house. As you approach, you see the town as a whole, in the context of its surrounding natural terrain—the patchwork of farms and open space. As you get closer, you begin to see the neighborhoods connected to one another and to the downtown through a network of streets. As you approach your own neighborhood, you are able to point out the neighborhood school or park, your own street, and finally your own home and yard. This imaginary flight gives you a perfect view of all three building blocks of a community: the town, neighborhood, home and yard.

Each of these community building blocks plays an important role in creating a strong, vital community. Therefore, decisions made about providing new starter homes require thinking about not only the homes themselves, but the neighborhood and town as well. The strategies to reduce cost and add value outlined in this guide incorporate all three building blocks in order to provide options for strengthening the community as a whole while building new homes.

SITE SELECTION



SITE SELECTION

Careful site selection can be the best, first step towards reducing overall development and long-term costs.

Think for a moment about the last time you shopped for a new car or truck. First, you considered what you needed in a vehicle, such as the need to accommodate a growing family, to be big enough to haul supplies, or to have good gas mileage. You then probably shopped around to find a vehicle most suited to these needs at the best price. After all, buying a car is a big investment. Building a new neighborhood is an even bigger investment. And, unlike a car, a neighborhood will not be replaced in five to ten years.

Careful site selection can be the best, first step towards reducing overall development costs and long-term costs. This chapter details the most important considerations for a community to weigh when selecting a site for a new neighborhood, including existing site conditions, the site's connections to other neighborhoods and existing infrastructure, the community's housing needs and comprehensive plan, and neighboring land uses. Careful attention to these key considerations will help ensure that the selected site will be cost effective to develop and will successfully serve the neighborhood's residents and the surrounding community for years to come.

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STRATEGIES TO

REDUCE COSTS

• ASSESS HOUSING NEEDS

Select a site that is the appropriate size to accommodate anticipated housing needs and housing types.

• EVALUATE SITE CONDITIONS

Select a site that is reasonably priced and suitable for residential development.

CONSIDER INFRASTRUCTURE CONNECTIONS Select a site that can be easily and economically

Select a site that can be easily and economically connected to existing infrastructure and streets.



STRATEGIES TO

ADD VALUE

• CONSULT THE COMPREHENSIVE PLAN Select a site that builds on the town's plans

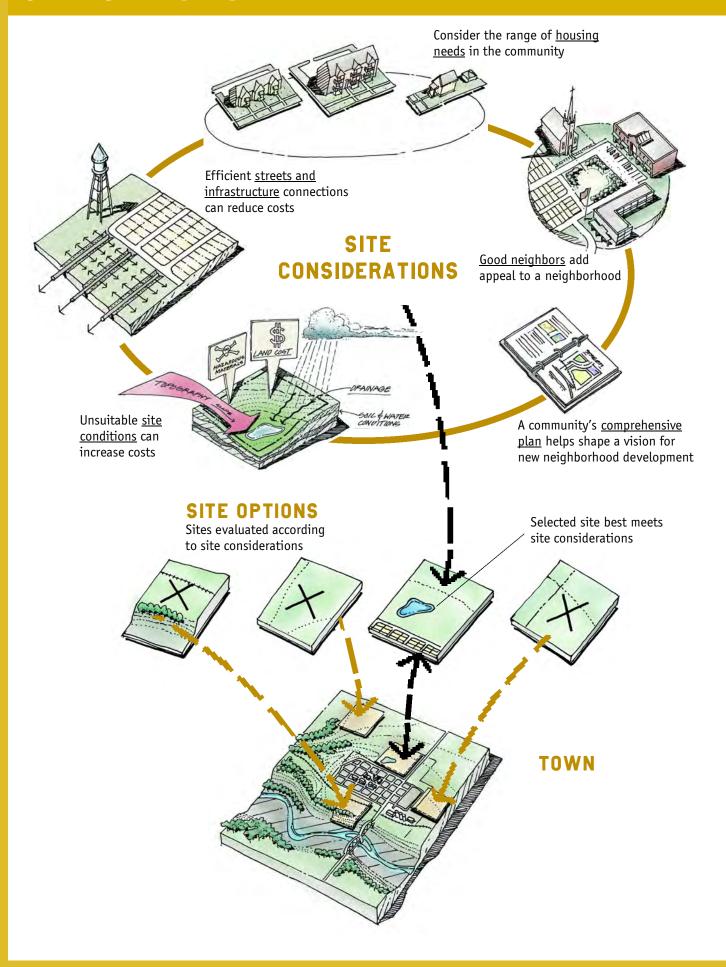
Select a site that builds on the town's plans and enhances its vision for the future.

• CHOOSE GOOD COMMUNITY NEIGHBORS

Select a site that is located near good neighbors such as schools, shops, parks, and churches.



SITE SELECTION



REDUCE COSTS: A CLOSER LOOK

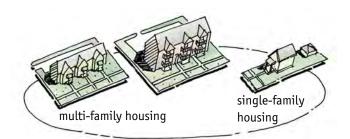


ASSESS HOUSING NEEDS

Select a site that is the appropriate size to accommodate anticipated housing needs and housing types.

The first step in developing a new neighborhood is to obtain a recent market study that documents the economic conditions and housing demand in your community and surrounding area. A recent market study will provide detailed and accurate information about the number and type of housing units that are needed. If a recent market study is not available and preparing one is not feasible, another option is to conduct a housing needs assessment. This is a more informal way to assess housing needs with information gathered through interviews with local employers, city officials, housing advocates, and landlords. Whatever the method used, be sure to include newly-approved projects both in the town and county.

Having an accurate picture of the town's housing needs will assist you when reviewing site options to determine if a particular site is the appropriate size to accommodate the anticipated housing needs, or if a larger site or multiple sites will be required. For



some towns, infill housing may be the appropriate course of development, not only to increase the affordable housing supply, but also as a strategy for redevelopment. The strategies outlined in this guide also apply to infill development.

If the housing market study indicates a need for both single and multi-family housing, consider opportunities to incorporate both types in the new neighborhood. In addition to reducing costs, combining multiple housing types in a neighborhood can help create a stable neighborhood by allowing residents to continue to live in the same neighborhood as their needs change. Careful attention to the buildings' scale and placement can allow several different housing types to exist comfortably side by side, just as they do in many older neighborhoods.

As an example, this approach is being used in a new neighborhood in Isle, Minnesota that includes a mix of sixteen single-family homes, four quad homes, eight apartments, and a senior apartment building. Refer to page 73 for a project profile on this new neighborhood in Isle.



EVALUATE SITE CONDITIONS

Select a site that is reasonably priced and suitable for residential development.

A quality site at a reasonable price is the foundation for building a neighborhood with affordable starter homes. Start by checking recent land sales to get an idea of the average land price in your area. In determining a reasonable price, it is critical to consider existing site conditions for each of the potential sites. "Final" land costs will be affected by site conditions such as poor soils or the presence of hazardous materials. If site conditions are poor, savings from a low purchase price will quickly be eclipsed by the costs associated with site preparation. Be sure to review all site conditions before deciding that the land price is indeed "reasonable."



HAZARDOUS MATERIALS

A previous use of the site may have left behind potentially hazardous materials, such as buried storage tanks, which can affect the safety of residents and dramatically increase the cost of site preparation. Conducting a title search to determine previous uses of the site and following industry standards for environmental site assessment can help to uncover any hidden issues. Refer to the Annual Book of ASTM Standards published by the American Society for Testing and Materials for more information.

TOPOGRAPHY

Verify the site's topographical conditions to determine that the site is not within a floodplain and does not have extreme topographical conditions, such as very steep slopes or very flat topography with poor drainage. Substantial re-grading of the site to prepare it for building and to provide appropriate drainage may significantly increase costs.

SOIL AND WATER CONDITIONS

Avoid areas with features that will require excessive site preparation costs, such as high water tables and poor soils. These costs can turn an otherwise affordable project into one that is not cost effective. A site that has soil containing silts and clays that are unsuitable for building construction, for example, may require extensive excavation and soil remediation to ready the area for streets and homes.



Some problematic site conditions can be addressed without rejecting the site for development. For example, on sites with higher water tables it may be possible to build slab-on-grade or even split-level houses without encountering additional costs. However, such site conditions can limit options and increase costs, so it is best to be aware of any limitations as early as possible to determine if they are acceptable. Discuss potential site problems with a city engineer or builder.

SITE VISIT

GMHF staff and community representatives visit a potential site for a new neighborhood to review site conditions.

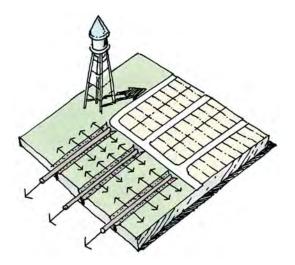
Building Better Neighborhoods Chapter 1 Site Selection REDUCE COSTS



CONSIDER INFRASTRUCTURE CONNECTIONS

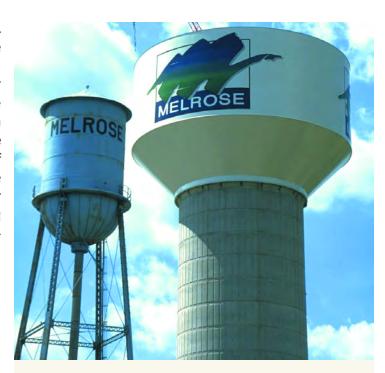
Select a site that can be easily and economically connected to existing infrastructure and streets.

When reviewing site options, keep in mind that the farther away the new neighborhood is from existing development, the greater the cost of extending infrastructure to the new site. Even if the land price of a parcel outside the city limits is less than land near an existing neighborhood, the cost of extending streets and utilities to the site may make it more expensive in the end. As a general rule, extending streets and utilities to sites within or adjacent to the city limits is less expensive than extending them to sites outside the city limits.



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The appropriate distance to extend infrastructure will depend on the size of the city, the rate of growth, and the city's plan for future development. For example, a town experiencing rapid growth may already have plans for extending infrastructure one mile out from the existing edge of development. In this case, selecting a site located within this one-mile band may be economically feasible. On the other hand, a town that is experiencing a slower rate of growth may encourage development to locate within the established infrastructure area. Knowing the city's plans for future growth and the costs to the development of extending the necessary infrastructure are critical to selecting a cost-effective site.



A SURE SIGN OF GROWTH

Replacing the town's water tower with a new, larger one is a sure sign of growth. Locating new neighborhoods adjacent to existing ones helps to minimize the cost of growth by keeping down the amount of additional infrastructure and streets.

STRATEGIES TO

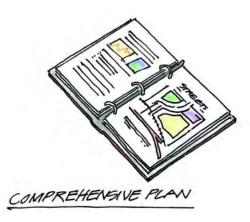
ADD VALUE: A CLOSER LOOK



CONSULT THE COMPREHENSIVE PLAN

Select a site that builds on the town's plans and enhances its vision for the future.

Every community has a vision for the future. To help reach this vision, most communities develop a comprehensive plan that serves as its "master plan" for the next ten or twenty years. The comprehensive plan provides long-term guidelines for new development and is intended to address concerns related to the town's growth, including quality of life issues, such as providing adequate schools and roads for new neighborhoods, and environmental concerns, such as preserving natural habitat and maintaining water quality.



Consideration of the town's comprehensive plan is important to ensure that the proposed neighborhood is appropriate for the surrounding area and the town. If the proposed neighborhood location does not fit within the comprehensive plan, it may be difficult to obtain necessary approvals and might be an indication that future surrounding land uses will not be compatible with the proposed neighborhood. On the other hand, if the proposed neighborhood is consistent with the comprehensive plan but does not fit within current zoning, the comprehensive plan may work as leverage to change zoning to accommodate the project.

One way to provide more flexibility in the neighborhood's design is to design it as a Planned Unit Development (PUD). A PUD groups the entire neighborhood development together and allows for more flexibility in building setbacks, types, uses, and lot sizes than traditional zoning ordinances.

A NOTE ABOUT ZONING: Local zoning ordinances regulate such things as allowable building types, densities, and building setbacks on a site. While written with good intentions, sometimes zoning ordinances have the effect of isolating good community neighbors, such as separating schools from residential areas. Ordinances sometimes even separate different compatible types of housing, such as single-family and elderly housing, offering retired residents little choice but to move out of their neighborhood when their housing needs change. Selectively changing restrictive zoning ordinances to allow mixed-use neighborhoods and a range of housing types can allow the community more flexibility in selecting and developing sites.

PLANNED UNIT DEVELOPMENT (PUD): This land control device allows the mixed development of uses previously separated into exclusive districts, provided that they are properly designed. A PUD permit will allow for smaller lots and narrower streets than traditional zoning. The result is often increased livability and efficiency. For housing developments, a PUD allows for a variety of housing types, such as rental townhomes, apartment buildings, and single-family homes, as well as for retail and other services on the same site. Local governments increasingly are willing to view development proposals in terms of integrating rather than separating different uses. Check with the local government in the area of the proposed development to determine their willingness to issue a PUD permit.

Building Better Neighborhoods Chapter 1 Site Selection ADD VALUE



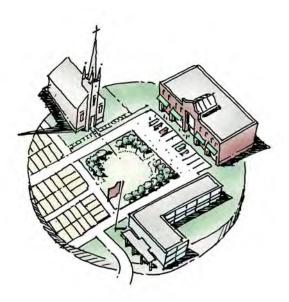
CHOOSE GOOD COMMUNITY NEIGHBORS

Select a site that is located near good neighbors such as schools, shops, parks, and churches.

A favorite phrase of realtors is "location, location, location." What is meant, of course, is that when someone purchases a house, they are buying into much more than a particular building or plot of land. The homeowner is also buying into a neighborhood. A highly desirable neighborhood provides easy access to amenities like schools, parks, and churches, as well as to needed services such as grocery stores, doctor offices, and restaurants. Adjacency to less compatible land uses, such as industrial sites with noxious odors, streets with loud, fast-moving traffic, and large parking lots or storage yards, tend to make a neighborhood less desirable. Providing screening, such as landscaping, can buffer the new neighborhood from undesirable adjacent land uses, but also adds cost. Locating the new neighborhood near needed services and amenities, rather than incompatible land uses, creates a more appealing place to live and strengthens the vitality of the town.

Re-zoning of an area or a local redevelopment plan may change future adjacent land uses. Check plans for future development adjacent to the site to determine if the future uses will be good neighbors. As you proceed with plans for the new neighborhood, consider how you can work with other proposed plans adjacent to your site to make an appealing, cohesive neighborhood.





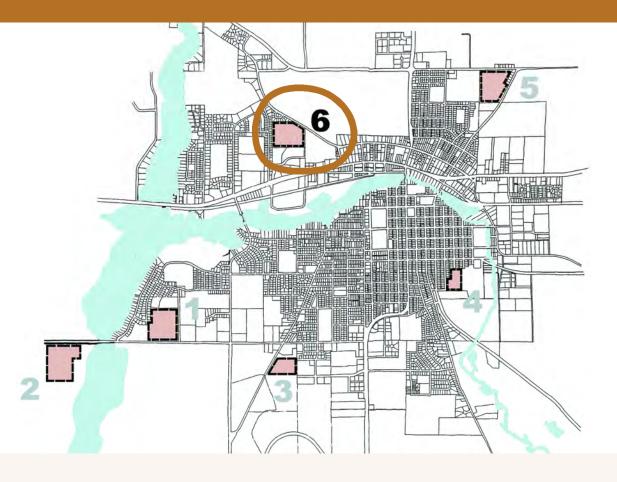
SAFETY AND ACCESS

Children and elderly residents are prime beneficiaries when neighborhoods are built near good community neighbors. Easy pedestrian access to amenities, like local parks and neighborhood stores, provides greater safety for children and greater independence for elderly residents since both groups tend to have fewer transportation options than other residents. Proximity to services and amenities helps to reduce the number and distance of automobile trips. In the long run, this results in cost savings to the residents and reduces the environmental impact of driving.

MIXED-USE NEIGHBORHOODS

Site Selection

In some communities, it may make sense for the new neighborhood to create its own good neighbors by designing the development as a mixed-use neighborhood, with a range of housing types, shops, and services incorporated into the neighborhood's design. This approach might be used, for example, in a town already considering the need for an additional commercial center. Check local zoning ordinances to verify that mixed-use neighborhoods are permitted. If current zoning isolates compatible uses, consider applying for a variance or a PUD permit. Discuss your options with the local planning officials.



SITE SELECTION PROCESS—HUTCHINSON, MINNESOTA

Six potential sites in Hutchinson, Minnesota were evaluated according to the site selection strategies to determine the most viable location for a new neighborhood that would include affordable starter homes.

- 1. EAST LAKE SITE: This site was a good location for new homes, as it was adjacent to an existing residential area. But plans were already underway for other, more upscale homes on the site.
- 2. WEST LAKE SITE: This site had a nice view of the lake, which made it an attractive location for new homes. However, this site was separated from other neighborhoods, schools, and services, and its isolation could have increased the cost of connecting it to existing infrastructure.
- 3. FUTURE SCHOOL SITE: This site was adjacent to the proposed location of a new school, which made it an appealing location for new homes. However, land acquisition costs were relatively high, and unclear plans for the exact location of the school made site planning for the new neighborhood difficult.
- 4. DOWNTOWN SITE: This site was appealing because of its location immediately adjacent to downtown services, jobs, and an existing neighborhood with modest-sized homes and lots. While the site could have satisfied some of the need for affordable starter homes, another site would have been needed for the construction of several additional homes.
- 5. CORPORATE/INDUSTRIAL SITE: This site was located within walking distance of one of Hutchinson's major employers. Since many of that company's employees were seeking affordable starter homes, this site was a desirable location. Unfortunately, the site's high water table would have restricted builders to slab-on-grade construction and necessary soil remediation would have increased construction costs.
- 6. FARM FIELD SITE (SELECTED SITE): This site, located next to an existing neighborhood with affordable single-family homes, townhomes, and apartment buildings, was considered desirable for several reasons. First, the development of this site would be cost effective to connect to existing streets and infrastructure because it was surrounded by existing established neighborhoods. Second, the new streets would help to better connect the adjacent neighborhoods with the rest of the city. Finally, the new neighborhood's homes would be a good complement to the existing homes. Because of its many advantages, this site was selected for the new neighborhood.

2

LOTS



LOTS

Planning modest-sized lots is the most significant cost-reduction strategy for new home construction.

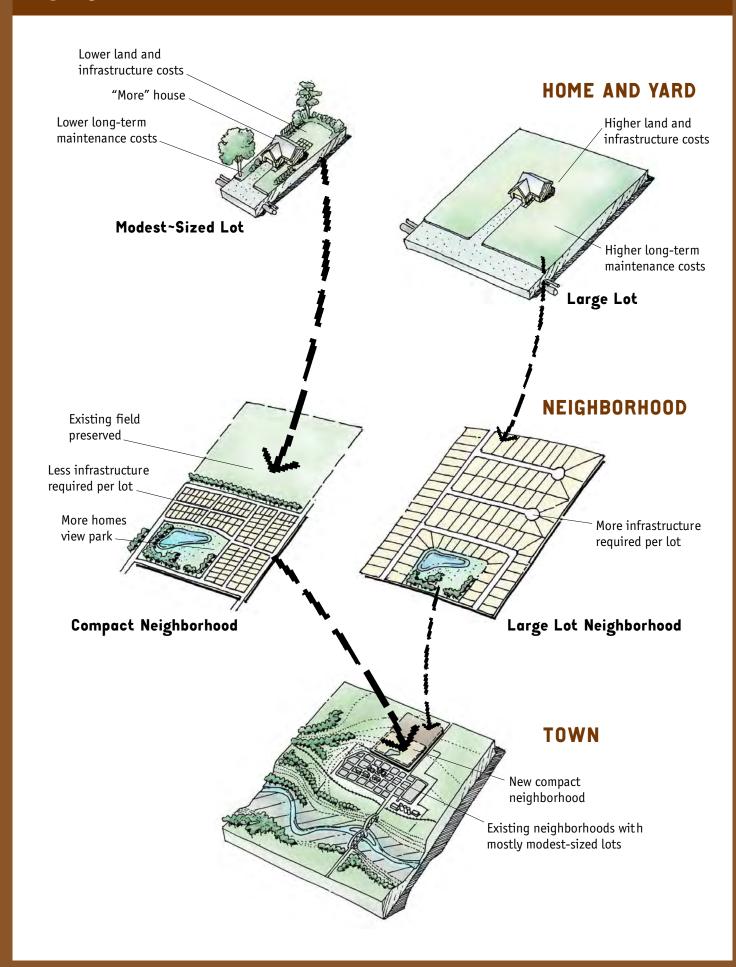
For many homeowners, having their own small piece of land to protect, cultivate, and enjoy adds to the appeal of owning a home. Yards act as extensions of the home, providing opportunities for private recreation and relaxation as well as interaction with neighbors. When determining lot sizes, keep in mind that a lot does not have to be large to accommodate a homeowner's needs—it simply must be thoughtfully chosen and well-designed.

Planning modest-sized lots is the most significant costreduction strategy for new home construction. Not only does a modest-sized lot provide ample space to accommodate both a starter home and a comfortable yard, but it can make the difference between a home that is affordable and one that is financially out of reach. In addition, planning modest-sized lots provides the foundation for building a compact neighborhood that allows for the preservation of open space.

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REDUCE COSTS - PLAN MODEST-SIZED LOTS Plan modest-sized lots in compact neighborhoods to reduce the initial and long-term costs of land and infrastructure. - PROVIDE NEIGHBORHOOD OPEN SPACE Provide attractive shared open space for the entire neighborhood to enjoy.

LOTS



STRATEGIES TO

REDUCE COSTS: A CLOSER LOOK



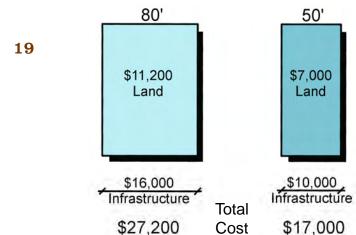
PLAN MODEST-SIZED LOTS

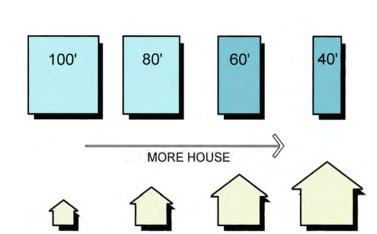
Plan modest-sized lots in compact neighborhoods to reduce initial and longterm costs of land and infrastructure.

No other single strategy can save as much in total development costs as planning modest-sized lots. By doing so, initial land and infrastructure costs are reduced, resulting in significant savings to the homebuyer through either a lower home purchase price or through lower tax assessments over time. For optimal cost savings, GMHF recommends that lots are between 40 feet and 65 feet wide.

Based on experience in communities across greater Minnesota, GMHF estimates that reducing lot frontage from 80 feet to 50 feet can reduce the final lot cost² by 30 to 40 percent.³ In the end, saving \$10,000 on the final cost of the lot translates into prospective homebuyers needing approximately \$4,000 less in annual household income to purchase the home. Affordability is increased without compromising the livability or quality of the home.

Many experienced developers have found that **given the choice between "more house" and "more yard," most homebuyers prefer "more house."** The cost savings from reducing the lot size can be passed on directly to the homebuyer through a lower sales price or can provide the homebuyer the opportunity to purchase "more house."





LOT SIZE AND COSTS⁴

In this example, building on a 50-foot rather than an 80-foot lot saves \$10,200 in land and infrastructure costs.

MORE HOUSE

Building on modest-sized lots allow buyers to gain "more house" than they would purchasing a home built on a larger lot. Recommended lot widths are shown in dark blue.

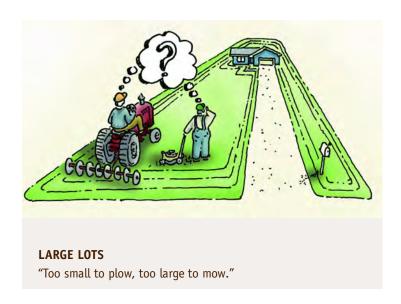
In addition to lowering the purchase price of the houses, planning modest-sized lots can complement the character of an adjacent neighborhood. As an example, the City of Moorhead, Minnesota is planning 55-foot-wide lots for a new neighborhood adjacent to an older neighborhood that is characterized by modest-sized lots. Refer to page 74 for a project profile on this new neighborhood in Moorhead.

Building Better Neighborhoods Chapter 2 Lots REDUCE COSTS

STRATEGIES TO REDUCE COSTS

FUTURE COST SAVINGS FOR THE HOMEOWNER

Compared to large lots, modest-sized lots are also more cost effective to the homeowner in the long run. One Minnesota developer has summed up the burden of large lots on the homeowner in a clever phrase, "Large lots are too small to plow and too large to mow." Large lots may seem attractive initially, but maintaining them is costly and time-consuming. Modest-sized lots also mean lower property taxes and assessments for each homeowner.



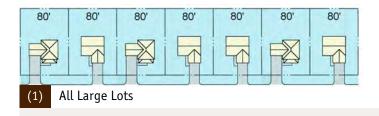
FINANCIAL BENEFITS TO THE TOWN

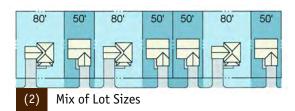
Building affordable homes on modest-sized lots, rather than large lots, also benefits the town financially by increasing its tax base within a smaller area. In addition, cost savings are realized by reducing the amount of infrastructure needed to service the neighborhood. For example, twenty 50-foot-wide lots require 600 linear feet less infrastructure (including street paving, curb and gutters, storm, water, and sewer pipes, and other utilities) than twenty 80-foot-wide lots. This reduction of infrastructure not only costs the town less to install, but additional benefits are realized over time through lower maintenance, repair, and replacement costs.

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COST SAVINGS IN MIXED-INCOME NEIGHBORHOODS

Not every lot on the street needs to be smaller to achieve overall savings. A mix of 50-foot and 80-foot-wide lots will cost significantly less to develop than all 80-foot-wide lots. This approach works particularly well, for example, when mixing starter homes with higher-priced homes along the same street. The increased variety of housing types and character found in mixed-income neighborhoods can add significantly to the neighborhood's appeal.





MIXED-INCOME NEIGHBORHOODS⁵

In this scenario, planning both modest-sized and large lots in a mixed-income neighborhood (2) saves \$40,800 in land and infrastructure costs compared to planning all large lots (1). Recommended lots for affordable homes are shown in dark blue.

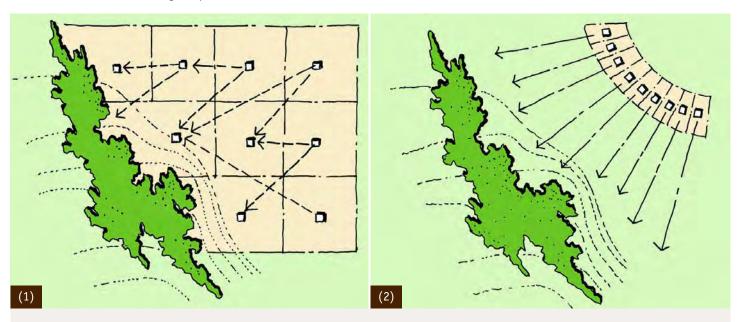
COMPACT NEIGHBORHOODS

Planning modest-sized lots or even providing a mix of modest-sized and large lots provides the foundation for building a compact neighborhood that allows for the preservation of open space. Not only can this open space become a neighborhood amenity and identifying feature, but significant costs can be saved by reducing the amount of paving and infrastructure needed.

Building Better Neighborhoods Chapter 2 Lots REDUCE COSTS

STRATEGIES TO REDUCE COSTS

Creating a compact neighborhood with modest-sized lots can also give the neighborhood a greater sense of openness than one with larger lots. A field of homes scattered on large lots provides residents with a view interrupted by other homes, while planning modest-sized lots in a relatively compact area and orienting them towards a neighborhood park or unique landscape feature can increase a feeling of spaciousness and connection to nature.



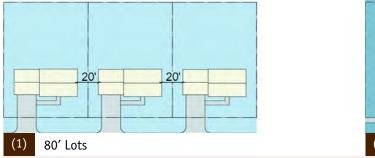
MODEST-SIZED LOTS AND VIEWS

Planning this neighborhood with modest-sized lots (2) gives each of these homes an uninterrupted view of an attractive wooded area, while using large lots (1) interrupts the view with other homes and yards.

21 COMMON CONCERNS

A common concern about reducing lot sizes and creating compact neighborhoods is that there will be too little space between houses resulting in a reduction of privacy. In fact, homes built on modest-sized lots can be designed to ensure an amount of privacy comparable to building on larger lots. For example, a series of 60-foot-wide homes on 80-foot-wide lots are twenty feet away from each other. A row of 26-foot-wide homes on 50-foot-wide lots are twenty-four feet away from each other—nearly the same distance as the homes on the wider lots, but at substantially less cost.

A related concern is that the back yard will be too small to accommodate a swing set or outdoor activities with family and friends. With the proper home selection and placement of the home on the lot, modest-sized lots can provide adequate space for outdoor activities. For information about matching the home with the lot size, refer to page 43 in the "Homes" chapter.



(2) 50' Lots

LOT WIDTH AND PRIVACY

The homes in both examples are nearly the same distance away from each other. However, each home built on a 50-foot-wide lot (2) is \$10,200 less expensive because it is built on a modest-sized lot.

STRATEGIES TO

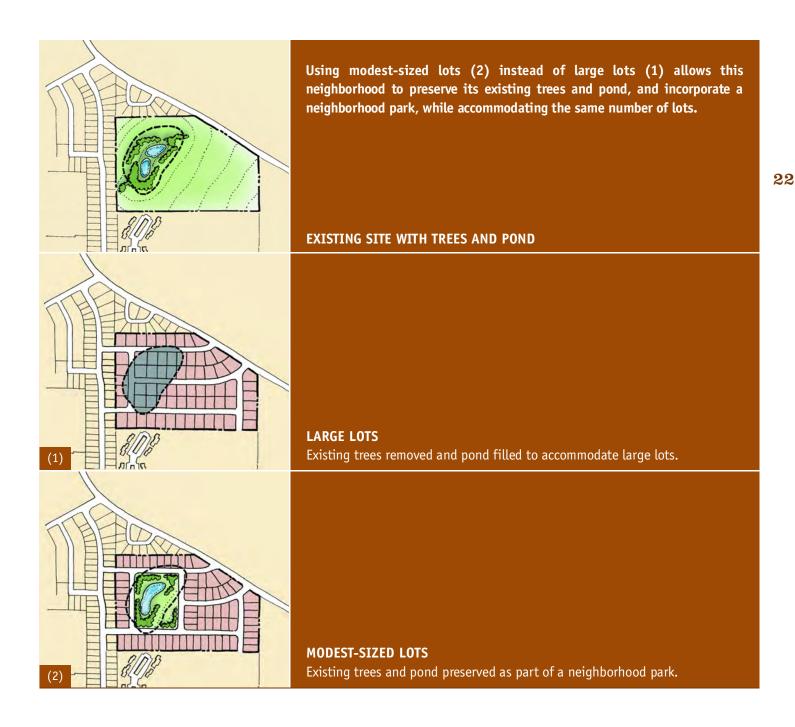
ADD VALUE: A CLOSER LOOK



PROVIDE NEIGHBORHOOD OPEN SPACE

Provide attractive shared open space for the entire neighborhood to enjoy.

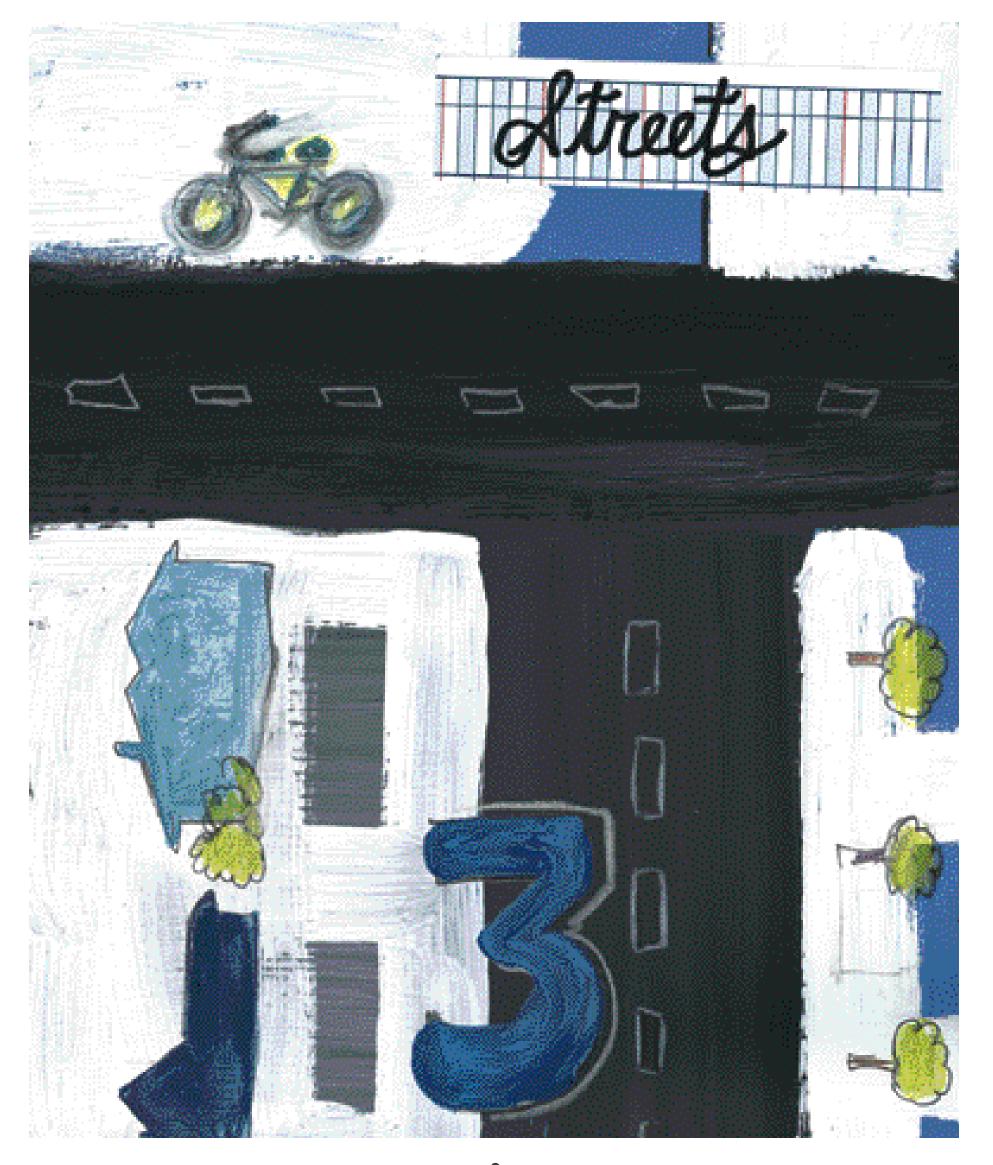
By designing a compact neighborhood with modest-sized lots, some of the land no longer needed for large lots can be used to create shared open space, such as a park, providing a conveniently located recreation area for neighborhood residents. This strategy is particularly effective where there are no existing parks nearby for public use. While private yards provide some outdoor space for individual homeowners, parks provide continuous open space for recreation activities and neighborhood gatherings. Parks can also be carefully located and designed to incorporate existing landscape amenities such as a pond or an attractive grove of trees. By preserving existing landscape amenities within the park, the neighborhood gains a unique identifying feature visible to both residents and visitors. For additional potential uses for neighborhood open space, refer to page 62 in the "Landscape Systems" chapter.



Building Better Neighborhoods Chapter 2 Lots ADD VALUE

3

STREETS



STREETS

Close attention to the layout of a neighborhood's streets will not only enhance the livability of the neighborhood, but will reduce costs significantly.

Streets sheltered by a canopy of trees and lined with attractive homes and convenient sidewalks encourage us to explore our neighborhood. While often not thought about, the layout of our streets and the amenities designed to enhance our streetscape help to define the character of our communities.

Close attention to the layout of a neighborhood's streets will not only enhance the livability of the neighborhood, but will reduce costs significantly. Streets and associated infrastructure are a major component of the total development cost of a neighborhood. Streets that are excessively wide or inefficiently designed will add unnecessary costs that eventually must be passed on to the homebuyers.

When designing the street layout, it is also important to consider connections to the larger community. A well-designed system of streets will efficiently connect the neighborhood's residents to local destinations and amenities.

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STRATEGIES TO

REDUCE COSTS

PLAN EFFICIENT STREETS AND INFRASTRUCTURE

Lay out streets efficiently to reduce total length of streets and associated infrastructure.

• STREET WIDTH

Create streets of appropriate widths to accommodate all anticipated uses and traffic volumes.



STRATEGIES TO

ADD VALUE

- MAKE NEIGHBORHOOD CONNECTIONS Connect new neighborhoods to the surrounding community.
- CONSIDER ALLEYS
 Consider incorporating alleys to minimize

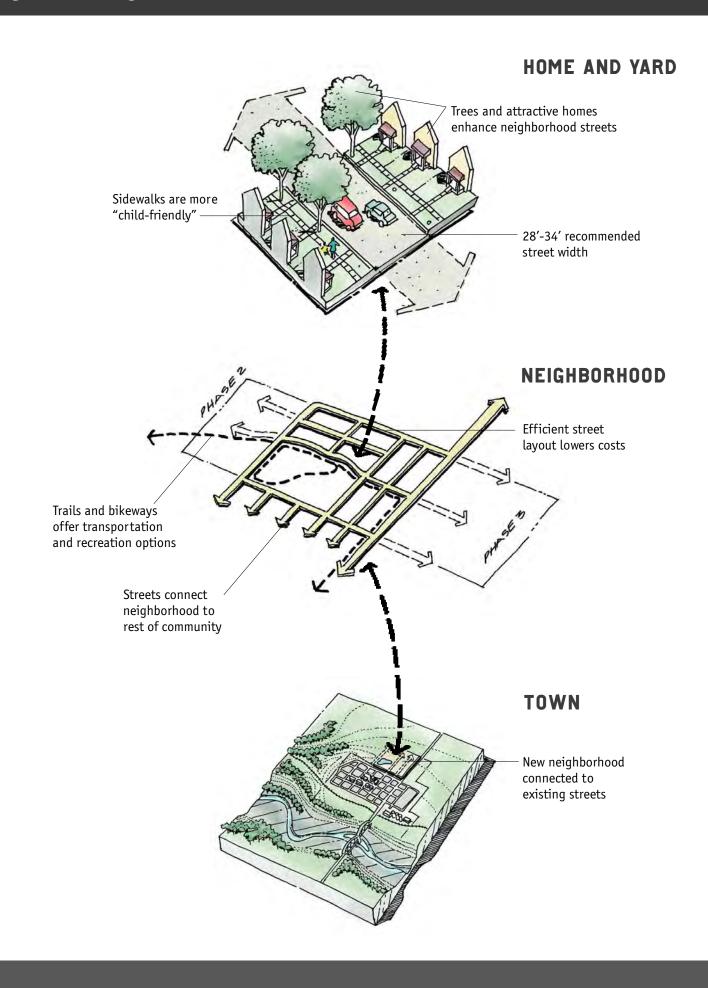
the impact of the garage and utility areas on the front of the house.

• PROVIDE STREET AMENITIES

Provide safe, attractive pathways for pedestrians, bicycles, and cars by including a variety of street amenities.



STREETS



STRATEGIES TO

REDUCE COSTS: A CLOSER LOOK



PLAN EFFICIENT STREETS AND INFRASTRUCTURE

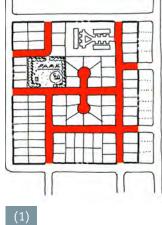
Lay out streets efficiently to reduce total length of streets and associated infrastructure.

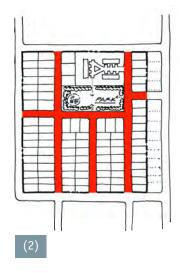
Planning an efficient street network will provide significant savings to the town and its future residents on costs related to paving and associated infrastructure, including storm, sewer, and water pipes. Initial costs for infrastructure installation will be reduced, as will the long-term costs associated with maintenance and repair. An efficient street layout reduces the total linear street footage in the neighborhood in relation to the number of lots, and maximizes the use of existing street connections.

Infrastructure for various public services typically follows the street pattern.⁶ The layout of the streets, therefore, determines the route that the other service infrastructure will follow. An efficient street layout that reduces the total length of streets will also reduce the total length of associated infrastructure and minimize costs.

While designing the street layout, it is important to consider the natural contours of the site, the soil conditions, and any significant landscape features that you may want to preserve. The selected street pattern can be linear, curvilinear, or a hybrid of the two, depending on the existing site characteristics and the site's relationship to the larger community. A qualified architect or civil engineer can provide options that best fit the needs of the community and the existing site conditions.







STREET LAYOUT AND COSTS

The City of Marshall, Minnesota saved \$100,000 on the cost of a new 38-acre neighborhood by incorporating a more efficient street layout (2) that reduced the total length of paving and associated infrastructure by 500 linear feet.

A NOTE ABOUT INFRASTRUCTURE: Infrastructure includes streets and all the structural components, such as piping and electrical conduits, for public services. When building a new neighborhood on land that has never been developed, installing the necessary infrastructure is costly. The costs for streets and other public services, including water and sewer, are passed on to the homebuyer and can add 15 to 20 percent to the cost of the home. Given the high costs associated with public infrastructure, a key component of reducing costs is to minimize the linear feet of infrastructure needed per house. The total length of infrastructure depends on a number of factors such as the site's location in relation to existing infrastructure, the width of individual lots, and the layout of the street network, to name a few. For this reason, the topic of infrastructure is covered throughout this guide, rather than only in this section.

Building Better Neighborhoods Chapter 3 Streets REDUCE COSTS

STRATEGIES TO REDUCE COSTS



REDUCE STREET WIDTH

Create streets of appropriate widths to accommodate all anticipated uses and traffic volumes.

The street width in greater Minnesota's towns has increased over time from an average of 24 feet in older, pedestrian-oriented neighborhoods, to as wide as 44 feet in many newer developments—much wider than is needed on most residential streets. Since streets are the most expensive component of neighborhood infrastructure, returning to the use of narrower streets in residential areas can significantly reduce costs, both in initial construction costs and in long-term maintenance and repair costs.

Generally, street widths should be in proportion to anticipated traffic levels and desired speeds. Remember that pedestrians and bikes, as well as cars, will likely use neighborhood streets. Narrower streets tend to slow traffic speeds, making the streets safer for pedestrians and bikers. For those streets that need to accommodate higher levels of traffic, see the "Parkways" section on page 33 for some basic design strategies to improve their quality and safety.

In Marshall, Minnesota, reducing the street width saved \$26,400. These savings, plus the savings from incorporating a more efficient street layout, resulted in a total cost savings of \$126,400 or \$1,600 per house. Refer to page 75 for a project profile on this new neighborhood in Marshall.



STREET WIDTH AND PAVING COSTS⁸

Recommended street widths range from 28 feet to 34 feet. Greater widths add costs and are not needed on most neighborhood streets.

Building Better Neighborhoods Chapter 3 Streets REDUCE COSTS

STRATEGIES TO REDUCE COSTS



PEDESTRIAN-FRIENDLY STREETS

A wide street (1) with limited residential traffic may encourage motorists to drive faster than the posted speed limit. On the other hand, a narrower street (2) is more pedestrian-friendly, cost effective, and can still accommodate two-way traffic and parking.

ENVIRONMENTAL IMPACT

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The use of narrower streets not only reduces costs, but also helps to preserve the quality of the natural environment. Reducing the amount of paving (an impervious surface)⁹ on the site allows more stormwater to soak directly into the ground and reduces the need for underground stormwater pipes. This natural system of filtration minimizes the environmental impact of stormwater runoff by removing pollutants and toxins from the water prior to it reaching the water table and nearby lakes and streams. For more information on stormwater management, refer to page 59 in the "Landscape Systems" chapter.

RECOMMENDED STREET WIDTHS: To accommodate parked and moving cars, as well as winter snow storage, local neighborhood streets need to be a minimum of 28-feet wide for one-sided parking and a minimum of 34-feet wide for two-sided parking.

ADD VALUE: A CLOSER LOOK

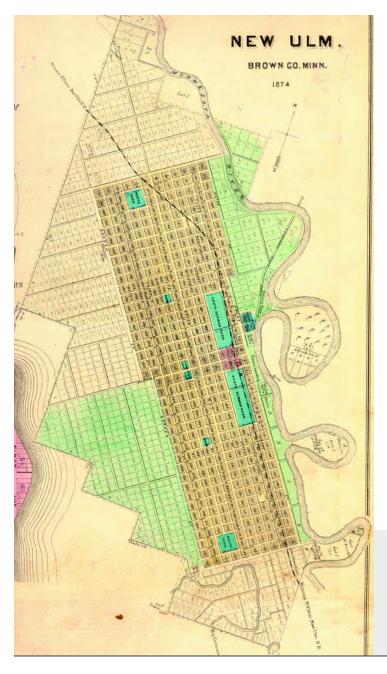


MAKE NEIGHBORHOOD CONNECTIONS

Connect new neighborhoods to the surrounding community.

If you look at a map of your town, you will probably notice that the street pattern at the center of town is a grid. Most towns in Minnesota were planned as a continuous network of streets, which provides a straightforward way to connect neighborhoods to each other and to the central business district. This also reduces automobile congestion by providing residents with alternate routes to their destinations.

Some newer developments unfortunately work in the opposite way, relying on just a few collector streets to move traffic in and out of neighborhoods. Because more cars are funneled into fewer streets, the major collector streets tend to have larger volumes of traffic traveling at higher speeds and creating more frequent delays. Having too few access points into a neighborhood can even be dangerous, as it limits access for fire trucks and other emergency vehicles.



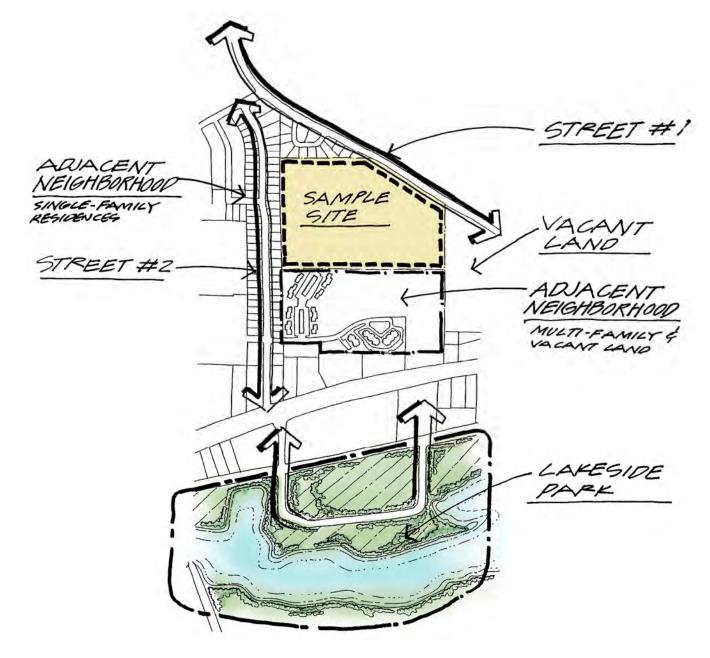
30

TRADITIONAL STREET NETWORK

This historic plan of the City of New Ulm shows how the town, like many towns in Minnesota, was planned as a continuous network of streets, which provides a straightforward way to connect neighborhoods to each other and to downtown.

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If the new neighborhood is adjacent to the original street grid, consider laying out new streets as an extension of the existing grid to extend the benefits of a networked system. If the new neighborhood is not immediately adjacent to the original street grid, make the most of potential street connections within the neighborhood and maximize direct connections to nearby neighborhoods and amenities. This will help integrate the new neighborhood with the surrounding area and will allow for more efficient fire, emergency, and delivery service.



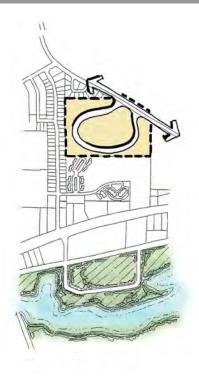
TAKING INVENTORY

CREATING A CONNECTED NEIGHBORHOOD

Before laying out a development, GMHF encourages communities to look around the site to see how the new neighborhood might be connected to existing nearby neighborhoods, streets, and amenities. This site is very near a major lakeside park and is surrounded on three sides by existing neighborhoods, yet is relatively isolated, having access into and out of the site only via street #1. The diagrams on the facing page illustrate two very different options for developing the site.

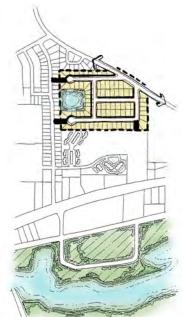
ADD VALUE

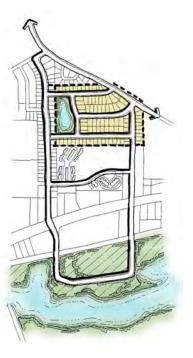
Building Better Neighborhoods Chapter 3 Streets



(3)

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ISOLATED NEIGHBORHOOD

The site is shown as an isolated development (1) with only two points of access and no direct connections to the surrounding neighborhoods or the nearby park. This site plan (2) shows how an isolated development might be laid out on the site, with only a few properties backing onto a retention pond. The dark heavy lines illustrate how the development could be improved, with little additional cost, by converting dead-end streets and cul-de-sacs into connections to existing adjacent streets.

CONNECTED NEIGHBORHOOD

The site is shown as a connected development (3) with multiple points of access into the neighborhood and a direct connection to the lakeside park. This site plan (4) shows the site with a connected development, seamlessly integrated into the surrounding community. The pond has become an important neighborhood amenity shared by many resident rather than just a few, by facing several properties towards it.

Building Better Neighborhoods Chapter 3 Streets ADD VALUE

STRATEGIES TO ADD VALUE

PARKWAYS

Even when planning a continuous network of streets, some streets will naturally be busier than others, such as those that connect several neighborhoods or connect the neighborhood to a business district. Consider designing such streets as parkways.

A busy street designed as a parkway, with grassy, tree-lined boulevards, will accommodate cars, children, pedestrians, and bikes more easily and safely than one with several uninterrupted lanes of fast-moving traffic. A parkway is typically divided by one or more landscaped medians and often bounded by a wide boulevard. Parkways can be seen as linear parks through the town, providing connections between the neighborhood and the rest of the town, while at the same time adding to the appeal of the neighborhood by giving it a greater sense of place.

BOULEVARD: The landscaped area in the public right of way between the edge of the street and the public sidewalk or property line.



PARKWAYS

Streets designed as parkways can provide safe, attractive alternatives to wide, uninterrupted lanes of traffic, and accommodate pedestrians and bikes, as well as cars.

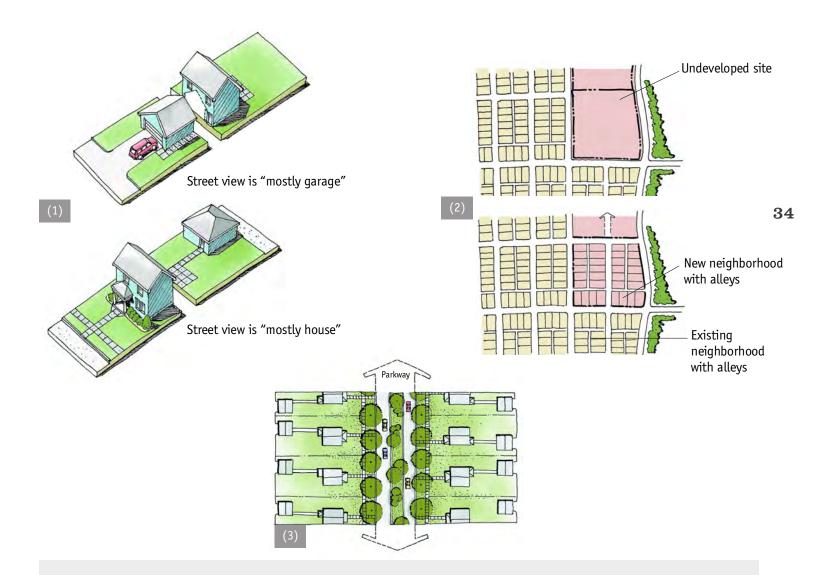
33



CONSIDER ALLEYS

Consider incorporating alleys to minimize the impact of the garage and utility areas on the front of the house.

Alleys can be a viable option for many communities. Incorporating alleys is one way to significantly improve the curb appeal of homes by moving garages, trash cans, and utility lines to the back of the homes, allowing the street view of an affordable starter home to be "all house" rather than "mostly garage." Alleys may be incorporated on selected streets or throughout the new neighborhood. Careful cost analysis will determine where alleys can be integrated in a cost-effective way to add to the neighborhood's appeal.



INCORPORATING ALLEYS

When alleys are used, they may be incorporated into all or just a portion of the new neighborhood. Some situations where alleys might be considered include:

- (1) To improve the curb appeal of homes on modest-sized lots by making the street view "all house" rather than "mostly garage."
- (2) Within new neighborhoods adjoining older neighborhoods that have existing alleys.
- (3) On busier streets (parkways, for example) where the community would prefer homes to face the street without the inconvenience of driveways directly entering the street.

COMMON CONCERNS

Some common concerns about incorporating alleys include questions about initial costs and maintenance. These concerns need to be weighed against the benefits of alleys in each particular community and for each site. For example, the relative cost of alleys versus front-loaded driveways depends on the width of the lots. Modest-sized lots with alleys and detached garages cost nearly the same as modest-sized lots without alleys and actually require less paving than front-loaded driveways. On lots wider than 55 feet, paved alleys are typically not cost effective for affordable starter homes.

Responsibility for maintenance of alleys is another common concern. Maintenance can be addressed in a variety of ways. In some communities, the municipality plows alleys, but in others the neighborhood residents choose their own contractor and pay a fee directly to that company for snow removal.

Another possible concern is the sense that alleys reduce the amount of yard space on each lot. With careful placement of the garage and attention to site design, alleys can be incorporated without compromising the amount of back yard space.



ALLEYS IN ST. PETER

In the City of St. Peter, Minnesota alleys were incorporated into the lots at the middle of a new neighborhood, where they could be used in the most efficient and cost-effective way. For the lots on the perimeter, it was not cost effective to utilize alleys because the alleys would only have had lots on one side.

MARKETING ALLEYS: While many new neighborhoods today do not include alleys, some builders are rediscovering their positive impact and successfully marketing and selling homes in new neighborhoods that incorporate alleys. Often used in neighborhoods called "neo-traditional" because they are modeled on traditional town planning and incorporate historic home styles, alleys can also be incorporated into neighborhoods with homes of any style to improve their curb appeal.



ALLEYS AND CURB APPEAL

By locating garages on alleys instead of attaching them to the front or side of these new homes, the homes maintain their curb appeal on relatively modest-sized lots. The same strategy used to improve the curb appeal of these upscale homes can also be applied to affordable homes.

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PROVIDE STREET AMENITIES

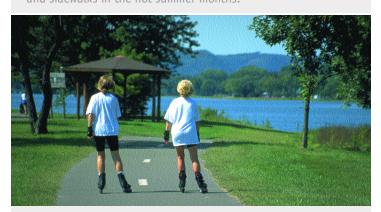
Provide safe, attractive pathways for pedestrians, bicycles, and cars by including a variety of street amenities.



Providing sidewalks in a new neighborhood gives residents a safe, enjoyable way to explore their neighborhood.



Trees add appeal to neighborhood streets and help shade streets and sidewalks in the hot summer months.



Trails, such as this one in Winona, Minnesota, offer opportunities for outdoor recreation and for alternative modes of transportation to school and work.

SIDEWALKS

Safety of children is a common concern of families moving into a new neighborhood. One way to make a neighborhood more "child-friendly" is to provide sidewalks, which safely separate children from automobile traffic. Elderly residents, parents with small children in strollers, and families walking their pets also benefit from having a safe, level path separated from traffic. Providing a sidewalk on at least one side of the street in quiet residential areas, and on both sides of busier streets, provides residents with a safe, enjoyable way to explore their neighborhood.

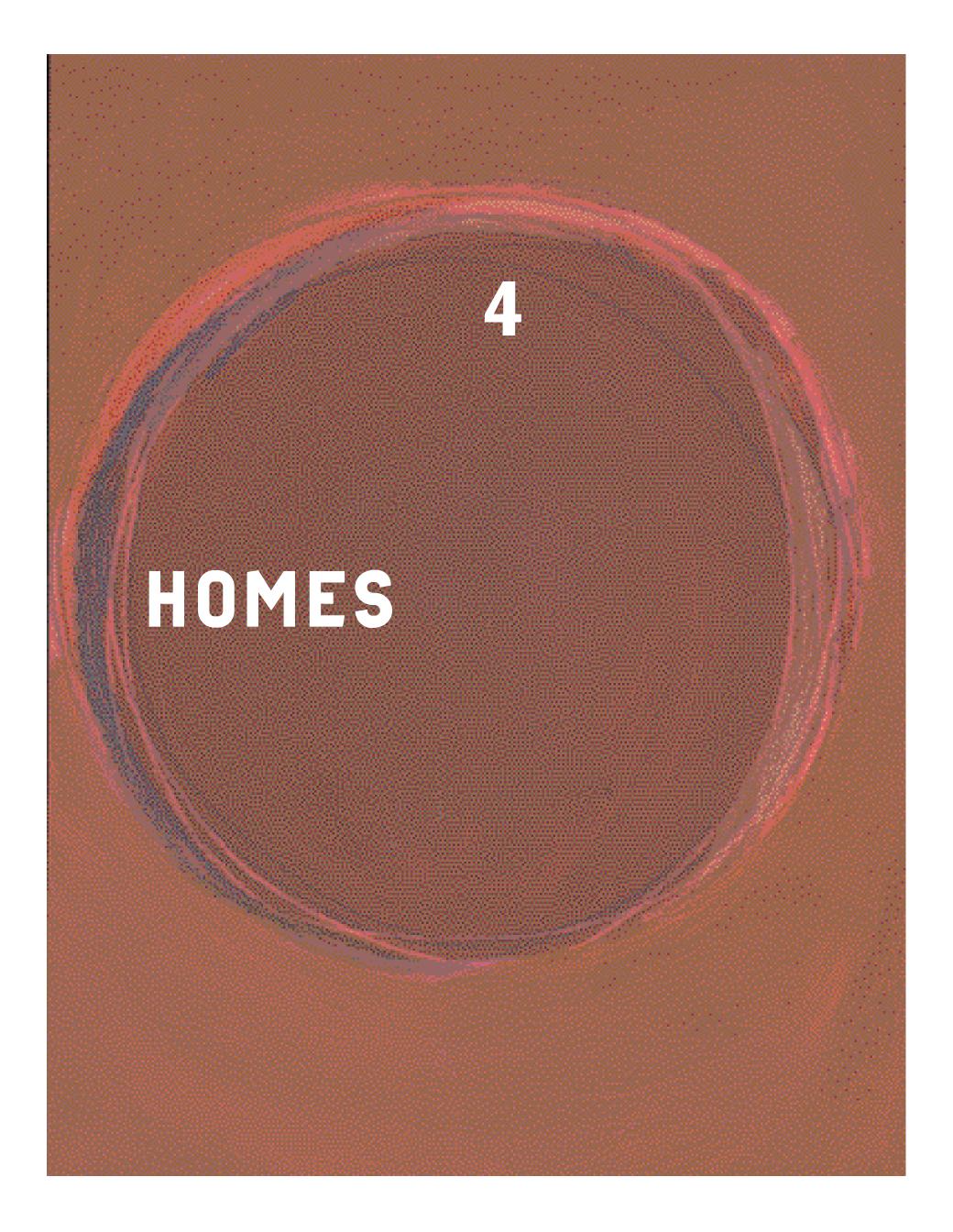
STREET TREES

Street trees planted at regular intervals along the boulevard provide a wonderful canopy over the street and can make an attractive street out of one lined with the plainest of homes. They also serve the practical purpose of providing protection for pedestrians from the sun and shading the pavement to produce a more comfortable environment during the hot summer months.

TRAILS

Bike and pedestrian trails offer opportunities for outdoor recreation and for alternative modes of transportation to school and work. If regional trail systems are nearby, consider capitalizing on this amenity by connecting those popular trails to the new neighborhood. Residents benefit by being connected to larger recreational amenities.

Other ways to incorporate bike and pedestrian trails include such affordable alternatives as adding signage to indicate bike routes on streets that connect to regional trails and downtown destinations, or including a striped bike lane on selected streets. 36





HOMES

Home selection must carefully balance cost concerns with those of livability and appeal.

A home is a place we can call our own, where we can live and raise our families in peace and safety. Although every individual and family is unique, all seek a home that is safe, livable, and affordable. To accomplish these goals, homes must include sufficient space to meet the families' needs, be well-constructed and built to last, within the buyers' financial reach, and attractive.

Because the cost constraints of building affordable starter homes impose tight limitations on home design, home selection must carefully balance cost concerns with those of livability and appeal. Once home plans are selected, the quality of the homes that result will depend on the expertise of the building team and the construction techniques employed. Strategies discussed in this section, such as choosing efficient home plans, building in volume, and selecting experienced builders, help to reduce costs without sacrificing the quality of the home. While there is no "one-size fits all" solution, careful home selection and construction is critical to ensuring that starter homes are not only affordable, but also livable and attractive.

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STRATEGIES TO

REDUCE COSTS

- SELECT ECONOMICAL HOME PLANS
 Select home plans that are economical to build.
- INCLUDE EXPANSION SPACE
 Select home plans that include unfinished expansion space.
- MATCH HOME WITH LOT SIZE

 Select home plans that fit on modest-sized lots and can be placed to reduce infrastructure.
- BUILD IN VOLUME
 Utilize volume building to get a "quantity discount" that lowers the cost per home.
- USE VALUE ENGINEERING
 Maximize the efficient use of materials and labor to reduce construction costs.



STRATEGIES TO

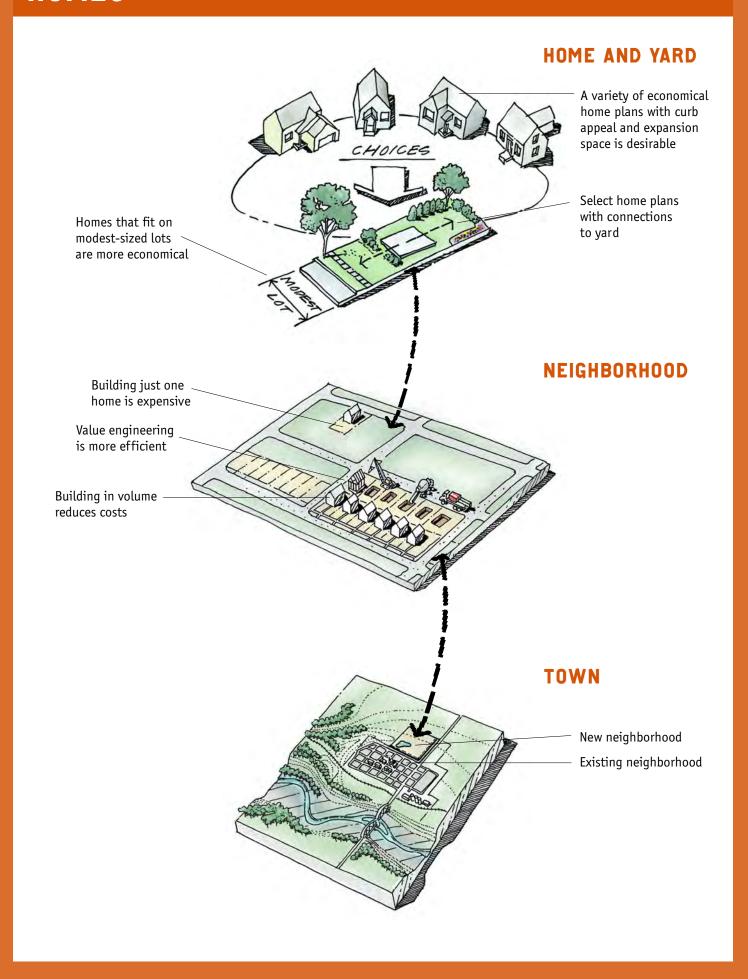
ADD VALUE

- **CREATE CURB APPEAL**Select home plans that enhance the appearance of the home from the street.
- ENHANCE CONNECTIONS TO YARD

 Select home plans that maximize the connections between the home and yard.
- INTEGRATE MIX OF HOUSING TYPES
 Include a range of home prices, sizes, styles, and colors to improve the overall appearance of the neighborhood.
- **SELECT EXPERIENCED BUILDERS**Select builders who are knowledgeable about starter home development and use durable, high-quality methods and materials.



HOMES



REDUCE COSTS: A CLOSER LOOK



SELECT ECONOMICAL HOME PLANS

Select home plans that are economical to build.

As construction costs continue to rise, a greater number of potential homebuyers are priced out of the housing market. For this reason, it is important to consider what is included in the basic "package" of an affordable starter home. In order to provide more home ownership opportunities to potential buyers with a range of incomes, select home plans that balance the needs and expectations of homebuyers with the realities of construction costs. To save on initial construction costs, select compact home plans with a modest amount of total finished square footage. Refer to page 78 for several examples of economical home plans.



MAIN LEVEL: Recommended finished space of 950-1100 square feet.

LOWER LEVEL: Include unfinished expansion space for minimum of one future bedroom and family room.

AN ECONOMICAL HOME PLAN

This home includes an economical floor plan and recommended room sizes, features, and expansion space for affordable starter homes. Refer to page 78 for several additional examples of economical home plans.

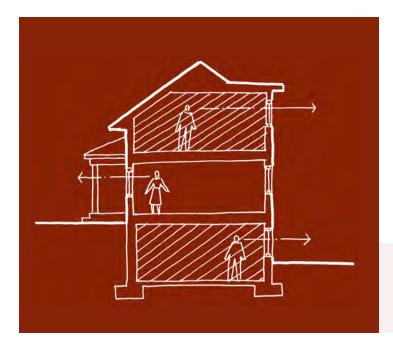


INCLUDE EXPANSION SPACE

Select home plans that include unfinished expansion space.

A key way to reduce the construction cost of a home is to provide unfinished interior space that buyers can finish as their needs change and financial circumstances permit. Look for plans that include enough finished space to meet the buyers' immediate needs and enough unfinished expansion space to allow them to grow into the home. Providing unfinished expansion space can reduce the sales price of a home approximately \$10,000 to \$15,000, depending on the size of the home.

There are two basic strategies frequently used to provide unfinished expansion space. The first strategy is to provide expansion space in the upper level or attic. A second strategy is to provide all of the unfinished space on the lower or basement level. Split-entry homes typically follow this second strategy by providing the unfinished expansion space on the lower level, which is a half level below the entry and a half level below grade. These homes are typically the most economical to build because less excavation is required than would be for a full basement.¹⁰



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EXPANSION SPACE LOCATIONS

Unfinished expansion space is often located in either the attic or the lower level of a home.

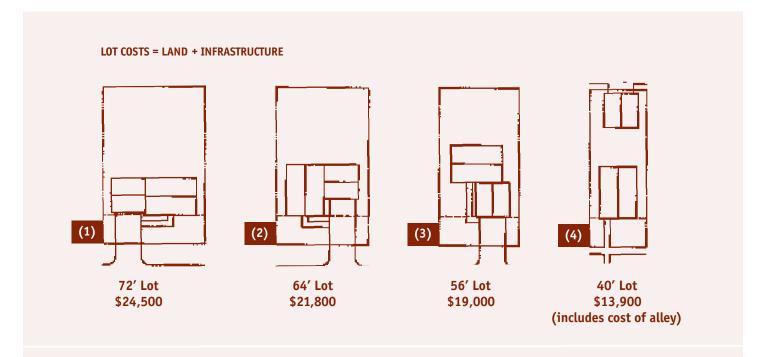
OTHER HOUSING TYPES: While the primary focus of this guide is affordable single-family starter homes, many of the same strategies discussed throughout the guide also apply to other housing types, such as apartments and townhomes.



MATCH HOME WITH LOT SIZE

Select home plans that fit on modest-sized lots and can be placed to reduce infrastructure costs.

For affordable starter homes, select home plans that fit comfortably on modest-sized lots. As a rule of thumb, subtract twelve feet (six feet per side yard) from the width of the lot and select home plans no wider than this. For example, for a lot that is 50 feet wide, the width of the home and garage (if attached) should not be greater than 38 feet.



HOME SELECTION AND LOT COSTS

The four homes pictured are all the same size. However, selecting a narrow home plan with a rear garage (4) allows placement on a modest-sized lot, while a wider home plan with a side-attached garage (1) requires a wider lot. In this example, the cost of the land and infrastructure is reduced \$10,600 by selecting the narrow home plan, rather than the wider one.

A NOTE ABOUT SETBACK REQUIREMENTS: Typical side yard setback requirements vary from town to town. Check your town's zoning code to verify current requirements in your community. If the setback requirements seem too large to achieve significant cost savings, keep in mind that zoning ordinances are not set in stone. As a long-term cost-reduction strategy for new neighborhoods throughout the town, your community and planning department can work together to change zoning ordinances that require large side yards. Or as a single project strategy, consider developing the new neighborhood as a Planned Unit Development (PUD), which provides more flexibility in lot sizes and setbacks. For more information on PUDs, refer to page 12 in the "Site Selection" chapter.

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HOME PLACEMENT ON LOT

Infrastructure costs can be reduced by selecting plans that allow for a shorter distance between the home's living space and the street. This reduces the linear amount of infrastructure needed to connect the house to basic services. For example, home plans with front-attached garages require twenty to twenty-four feet more infrastructure from the street to the house than homes with side-attached or rear garages. This is because the actual living spaces of the homes with front-attached garages are set back farther from the street to accommodate the garage. Selecting home plans that allow a shorter distance between the house and the street has the added advantage of maximizing the back yard, where families tend to spend much of their time.



HOME PLACEMENT AND INFRASTRUCTURE COSTS

A home's placement on the lot will impact the cost of infrastructure. Excavation from the street to the house is costly, as are the structural components of infrastructure. This photograph shows the excavation needed to extend utilities to the house.

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STRATEGIES TO REDUCE COSTS



BUILD IN VOLUME

Utilize volume building to get a "quantity discount" that lowers the total cost per home.

Building in volume is a cost-reduction strategy that many builders already utilize. Similar to buying in bulk at a grocery store, building several homes at a time reduces the per unit price of materials. Often, building in volume also reduces labor costs because on-site workers are able to more efficiently accomplish the same task, such as laying a foundation or framing a house, when they are able to build several homes at once. This combination of reducing material costs and labor costs potentially can result in significant savings.

Based on experience, Greater Minnesota Housing Fund has found that building in volume, even as few as five homes at a time, and utilizing value engineering saves an average of 4 percent of total development costs. If a builder builds one home per year for a total development cost of \$120,000, then building in volume and utilizing value engineering would translate into a cost savings of \$4,800 (4 percent of \$120,000) on that same home and a final purchase price of \$115,200.

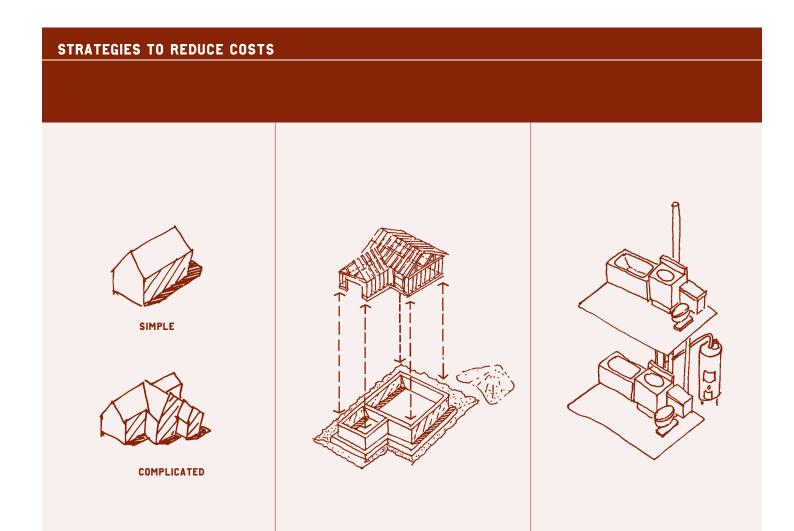
If a material supplier knows that the builder will be buying materials from them over the multiple phases of development, the supplier may offer lower per unit prices based on the total number of units to be built. Generally, the more houses to be built in the neighborhood, the greater the potential savings.

An infill housing project may also benefit from material cost savings by building several houses per phase even if the sites are scattered throughout the town. However, cost savings resulting from more efficient labor may be minimal due to the scattered-site nature of the development.

GREEN BUILDING AND AFFORDABLE STARTER HOMES: In the broadest terms, green building means implementing design and construction practices that minimize negative impacts on the environment. While green building is a very complex topic, there are a few simple and affordable steps that can be taken to reduce the impact of neighborhood development on the environment and ensure that the homes are resource and energy-efficient over time.

Some of these steps are outlined in this guide. Reducing street widths helps to improve ground water quality as there is less paving and toxic runoff. Modest-sized lots require the development of less land and infrastructure. Homes constructed utilizing value engineering techniques reduce material consumption. And trees can be strategically planted to reduce long-term energy costs for the homeowner.

In addition, minimizing the use of materials with toxic contents, such as particleboard and certain kinds of treated lumber, leads to a healthier environment and improves the indoor air quality of the home. On a final note, consider installing energy-efficient lighting, appliances, and HVAC systems. Reducing energy consumption is a critical component of green building and the homeowner will see the benefit through lower costs in monthly utility bills. For additional information about green building, refer to "Additional Resources" on page 91.





USE VALUE ENGINEERING

SIMPLE SHAPES

Maximize the efficient use of materials and labor to reduce construction costs.

STANDARD DIMENSIONS

STACKED PLUMBING

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Value engineering refers to techniques that reduce the amount of labor and material needed to build a home while maintaining the structural integrity of the building. Utilizing value engineering reduces costs and on-site waste. Examples of value engineering techniques include selecting home designs that are:

- composed of simple shapes, such as square and rectangular plans and simple roof lines. These are the easiest
 and most economical to build. Numerous angles and bumps complicate framing and increase the amount of labor
 and material needed.
- sized according to the **standard dimensions** of the building materials used. This will limit on-site waste, reduce labor costs, and make the most efficient use of materials. Foundation walls in eight-inch increments reduce the need for cutting blocks in concrete block construction. Likewise, walls and roofs in four-foot increments reduce the need for trimming and reduce lumber waste.
- designed with stacked plumbing on multiple-story houses and most of the plumbing located in one area of the house. This will reduce the amount of pipe needed and can help reduce water bills.

In addition, if using wood stick framing, establishing a common spacing for floor joists, wall studs, and roof trusses will reduce material and labor costs by eliminating redundant framing. This strategy is commonly referred to as optimum value engineering. Builders who have used optimum value engineering report reducing the amount of wood used for framing by 11 to 19 percent, saving between \$700 and \$3,400 per home. Select a builder knowledgeable about value engineering techniques. For information about selecting an experienced builder, refer to page 54 in this chapter.

ADD VALUE: A CLOSER LOOK



CREATE CURB APPEAL

Select home plans that enhance the appearance of the home from the street.

Curb appeal refers to a home's appearance from the street or sidewalk. It is an intangible quality made up of many different elements that when put together makes a house attractive. Details such as vegetation, porch design, shutters, color, and the treatment of windows all contribute to enhancing a home's curb appeal. Variation of such details from one house to the next can enhance the appearance of the overall neighborhood. Houses with curb appeal add value to the neighborhood and tend to maintain their value over time. Many different elements can simply and inexpensively add to a home's curb appeal.

CURB APPEAL

A large picture **window** greets visitors



A simple flower box adds a touch of charm



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Color and material variations make a more appealing entry



Shrubs and flowers give a base to the house



Trees, shrubs, and flowers

add color, warmth, and texture to the front yard



A formal pediment and trim emphasize the **front door**



A shady **front porch**

and shutters make the house more inviting



A detailed entry canopy and arbor with flowers and vines create a welcoming

entry



Building Better Neighborhoods

Chapter 4

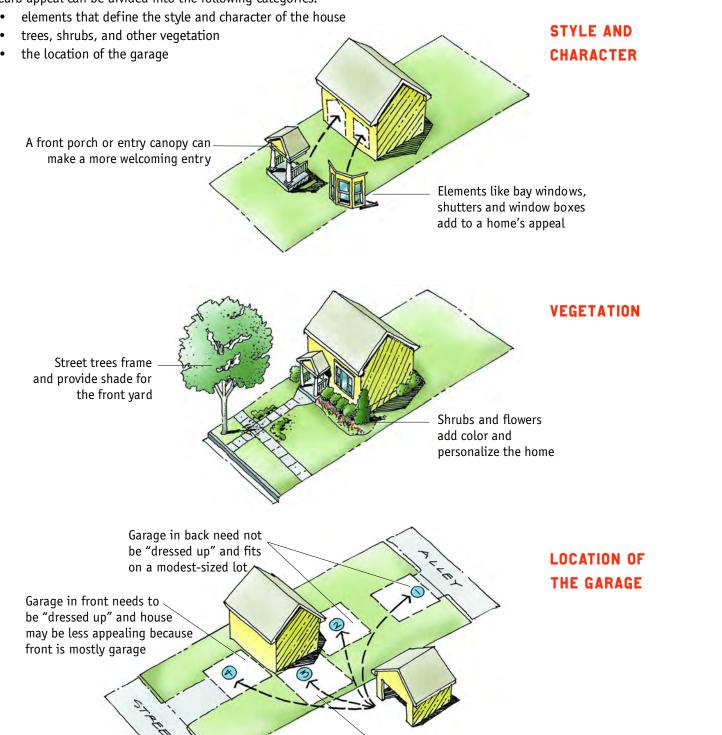
Homes

ADD VALUE

STRATEGIES TO ADD VALUE

Selecting home plans with curb appeal is an important part of the initial investment in the homes and neighborhood, even when budget constraints are tight. While it is relatively easy for a homeowner to finish an additional bathroom or bedroom after the home is built, significantly improving the curb appeal of a home by changing its style and character at a later time is usually an expensive and more challenging task.

Curb appeal can be divided into the following categories:



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Building Better Neighborhoods Chapter 4 Homes ADD VALUE

Garage on side needs to be

"dressed up" and requires a wider lot

STRATEGIES TO ADD VALUE



ALL GARAGE

The front of this home becomes nearly "all garage" when a front-loaded garage is attached to it, reducing the home's curb appeal. Carefully locating the garage in relationship to the home can help to minimize its impact on the home's overall appearance.

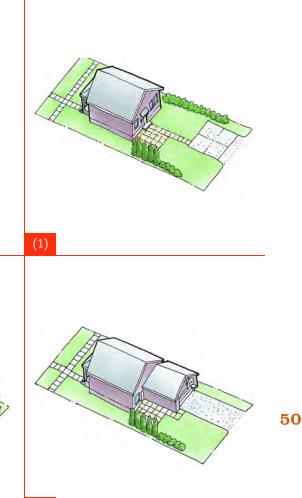


HOUSE WIDTH AND CURB APPEAL

A house with a narrower street frontage (2) can be appealing at a lower cost than a wider home (1). The narrower home, for example, looks attractive with just a few shrubs in the front yard. On the other hand, the other home would need more vegetation to improve its curb appeal because of the home's width.

RECONSIDERING THE GARAGE: One way to accommodate the changing needs of homeowners is to reconsider the garage. Some homes in a new neighborhood in Bemidji, Minnesota for example, are being built with a concrete parking pad sized for a future garage. This reduced initial construction costs by \$8,000 to \$11,000, making the homes substantially more affordable. Parking is located off an alley, so the parking pad has no visual impact on the front of the house. The costs and benefits of a garage, especially in a cold-weather climate, should be carefully evaluated by the community and prospective buyers.

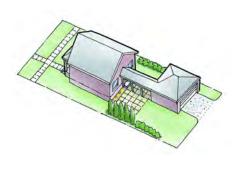
49



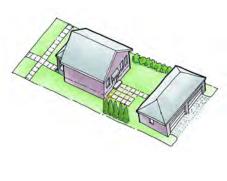
(2)

(3)

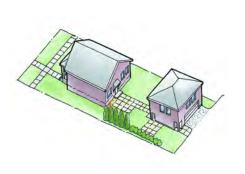
(4)



(5)



(6)



(7)

GARAGE OPTIONS

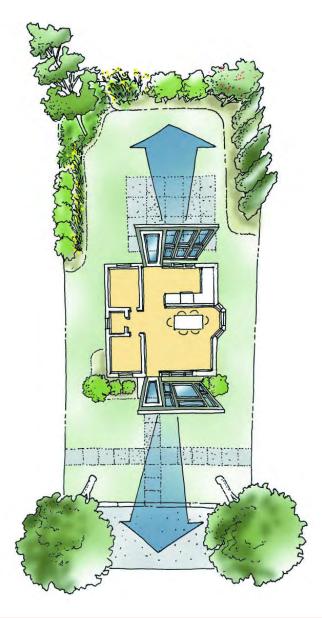
This series of drawings shows several different options for a garage located off an alley. As a cost-saving measure, the lot could be built with a parking slab, sized so that a garage can be built on it later (1). A detached garage provides plenty of usable yard space as well as accommodating additional outdoor parking (2 and 3). The home could also be built with an attached garage (4). Higher-priced homes could also include a breezeway between the house and garage (5), additional covered parking and storage space (6) or a home office, apartment, or workshop above the garage (7).



ENHANCE CONNECTIONS TO YARD

Select home plans that enhance the connections between the home and yard.

Part of the appeal of owning a house is the yard that surrounds it. The front and back yards are the "outdoor rooms" of a home, acting as important extensions of the interior living space. A front yard provides opportunities for personalizing the home and adding to its curb appeal with colorful shrubs and flowers. The back yard provides play space for young children within view of the house, room for gardens, and space for family gatherings. Views to the front and back yards allow homeowners to view activity on the street and enjoy nature from the comfort of their home. Direct physical access between the house and yard space, for example between the kitchen and patio, makes it easier to coordinate outdoor eating and other activities.



LOCATION OF INTERIOR LIVING SPACES

Look for plans where the main living areas such as the living room, dining room, and kitchen face the front and back yard. Large windows opening into the yard spaces have the added advantage of making the interior living spaces seem larger, which becomes even more important in smaller homes with less interior space. Many house plans are designed with these connections in mind and do not cost more to build than plans without them.

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OUTDOOR CONNECTIONS AND LIVABILITY

Direct access to the front and back yard, as well as visibility of the yard from the interior spaces of the home, improves the livability of the home and yard.

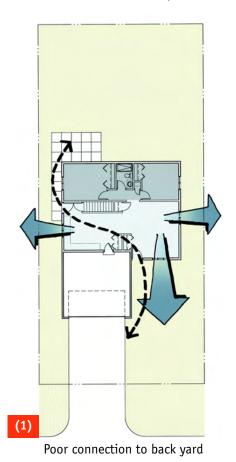
LOCATION OF DECKS AND PATIOS

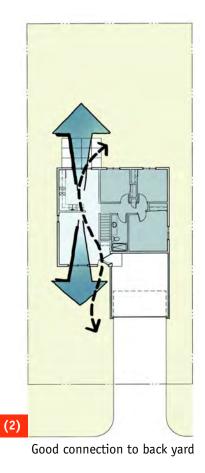
Look for plans that locate decks and patios in the back yard rather than in a side yard. Locating decks and patios in a side yard increases the minimum width of the lot, immediately increasing the land cost. Decks and patios located in a back yard also offer more privacy than those located in a side yard.

DECKS VS. PATIOS: Patios are less costly, more maintenance free, and an "environmentally-friendly" alternative to wood decks. Decks cost, on average, about three times as much to construct as patios. Patios require very little maintenance, while wood decks require regular painting and replacement of rotten or damaged pieces. Patios are also a more "environmentally-friendly" alternative to wood decks, since they require no lumber or toxic preservative treatments, such as are used on wood decks.

MAXIMIZE BACK YARD SPACE

Select home plans that maximize usable back yard space while fitting on modest-sized lots. Since families tend to spend more of their outdoor time in the back yard, the majority of open yard space should be located in the back yard rather than the side or front yards. With careful selection of home plans and design of the site, yard space can be maximized while still utilizing smaller lots.





ACCESS TO YARDS

Both homes in this example have the same basic footprint, but house plan (2) has much better connections to the back yard. In house plan (1), there is no visibility of the back yard from the public living spaces of the house, and there is a significant distance between the kitchen door and the back yard patio. House plan (2) provides visibility of both the front and back yard, and a direct connection between the kitchen and the patio.

Building Better Neighborhoods Chapter 4 Homes ADD VALUE

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STRATEGIES TO ADD VALUE



INTEGRATE A MIX OF HOUSING TYPES

Include a range of home prices, sizes, styles, and colors to improve the overall appearance of the neighborhood.

Including a variety of home plans and housing types in a range of prices provides opportunities to improve the overall appearance of the neighborhood. This variety provides more opportunities to incorporate an array of materials, color, and details, and increases the entire neighborhood's curb appeal. Mixed-income neighborhoods naturally lend themselves well to this strategy. The variation of different housing types, such as single-family homes, duplexes, rental townhomes, and walk-up apartments, can enhance the overall appearance of the neighborhood.

As an example, a new mixed-income neighborhood, Nicollet Meadows, is being developed in St. Peter, Minnesota with a variety of housing types. Nicollet Meadows includes several different plans for single-family homes and rental townhomes. The single-family home plans include split-entry, one-story, one-and-a-half story, and two-story, both affordable and market-rate. This variety in home plans naturally creates visual diversity and increases the curb appeal of the neighborhood. Refer to page 76 for a project profile on this new neighborhood in St. Peter.

In a neighborhood of all affordable starter homes, creating variation in house plans is more of a challenge. However, variety in house appearance can be improved through offering several different starter home models that vary in architectural detail, color, and landscape features.





VARIETY OF HOME TYPES AND CURB APPEAL

Building a variety of home types along a street (2) adds to a neighborhood's appeal, while the repetition of the same home (1) makes a neighborhood less attractive.

Building Better Neighborhoods Chapter 4 Homes ADD VALUE



SELECT EXPERIENCED BUILDERS

Select builders who are knowledgeable about starter home development and use durable, high-quality methods and materials.

The choice of a builder can have a significant impact on the quality and durability of a starter home. The homebuilding industry is complex; construction technology is constantly evolving and builders are challenged to keep up with the changes. Building quality starter homes at a reasonable cost requires specialized knowledge and experience. It is important to select a builder who stays informed about changing technology and uses quality, durable building materials and systems.

Because cost containment is an important concern, builders need to carefully evaluate which materials and methods provide the greatest benefit for the cost. Quality and durability are particularly important for components or systems that have a high replacement cost. In most cases, these products are expected to have a lengthy service life. Premature failure of high-cost components such as roofing, siding, windows, and HVAC systems will have serious financial consequences for the homeowner. While initial costs may be higher, quality materials will result in cost savings for the homeowner over time. High-quality materials are more durable and will need to be replaced less frequently, while energy-efficient materials and systems will save the homeowner in monthly utility costs.

While some components or systems fail due to poor quality, correct installation is also a key factor in durability. Since several different sub-contractors are typically involved in installing various components of the home, hiring a knowledgeable builder may not be enough to ensure construction of a quality home. Select a builder that hires properly trained contractors to install components and systems correctly. Without proper installation, even the highest quality products can fail prematurely.

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HEALTHY HOMES: The Environmental Protection Agency lists poor indoor air quality as one of the five most urgent environmental risks to public health in the United States. Exposure to pollutants in a home can cause recurring health problems and can be especially damaging to children.

Pollutants in a home come from many sources. Examples of common pollutants found in materials used for new home construction include organic pollutants (found in some paints, carpets, and wood preservatives) and formaldehyde (found in plywood, particleboard, and some types of insulation). These materials can "off-gas" over time and cause serious health problems as they are inhaled. Using low-VOC paint, non-toxic preservatives, and either avoiding formaldehyde-containing materials or sealing them to reduce off-gassing are some ways to reduce the level of these pollutants in homes.

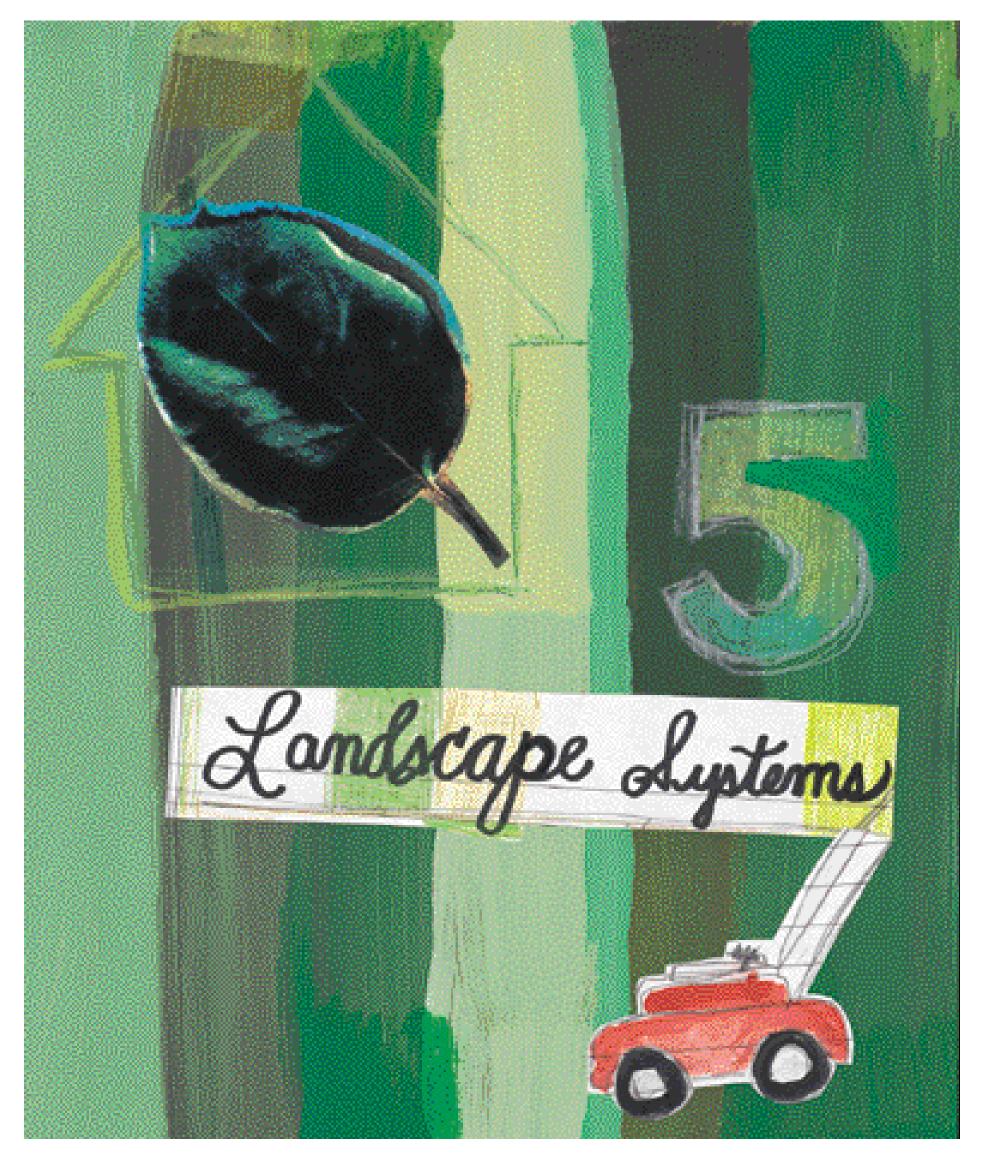
Mold, carbon monoxide, and radon are other pollutants that can appear in a home over time, often as a result of improper ventilation. Mechanical ventilation, in the form of bathroom fans, vented range hoods, and air-to-air heat exchangers can help to remove pollutants and prevent mold growth.

It is important to remember that creating a healthy home continues long after construction is completed. Careful attention to furnishing selection, equipment maintenance, cleaning routines, and household habits also contribute to the long-term health of the home. For additional information about healthy homes, refer to "Additional Resources" on page 91.

Building Better Neighborhoods Chapter 4 Homes ADD VALUE

5

LANDSCAPE SYSTEMS



LANDSCAPE SYSTEMS

With careful site design and use of cost-effective landscaping, neighborhoods with starter homes can be both affordable and attractive. Most of us have favorite memories from childhood somehow related to our neighborhood's landscape features; skating on a frozen pond, playing football in a cleared field, building forts in the woods, or learning to ride a bike on a tree-lined street. These landscape features from our childhood influence the characteristics that we value in neighborhoods as adults. When planning a new neighborhood with affordable starter homes, consider preserving or incorporating landscape features that will mature over time and enhance the neighborhood's value and livability.

When considering landscaping possibilities within the neighborhood, also identify regional landscape systems to which the neighborhood can be connected. Including a walking path through the neighborhood that connects to a path along a river or leads to a wooded area will provide a recreational amenity for all the residents to enjoy. With careful site design and use of cost-effective landscaping, neighborhoods with starter homes can be both affordable and attractive.

57 STRATEGIES TO

REDUCE COSTS

• INCORPORATE NATURAL CONTROLS

Use landscape elements as alternatives to costly infrastructure.

STRATEGIES TO

ADD VALUE

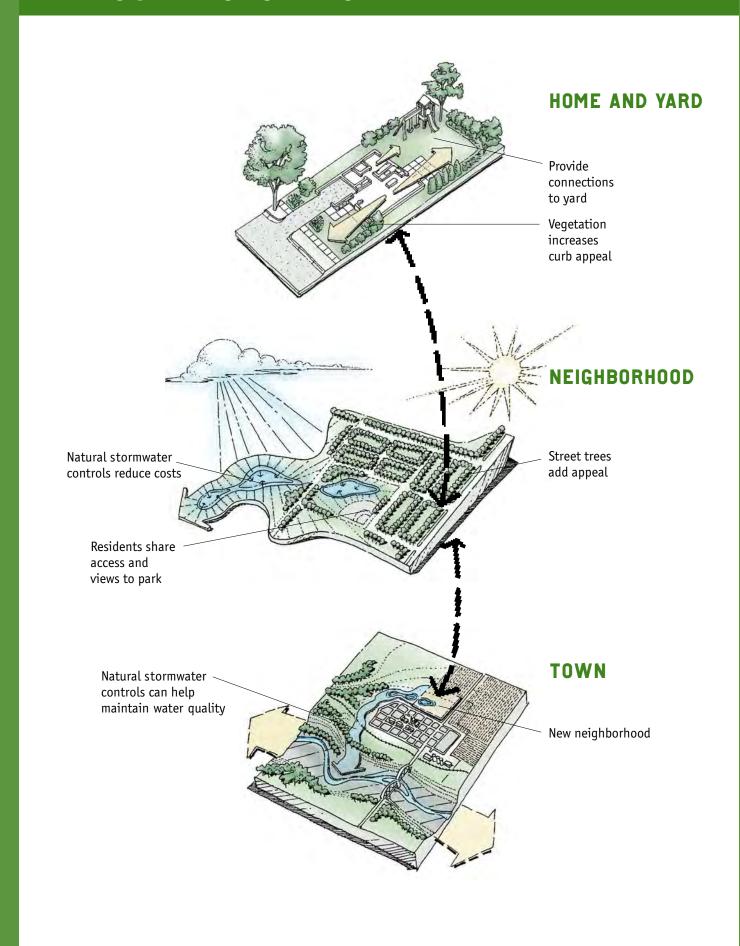
- PLAN COMPACT NEIGHBORHOODS

 Plan compact neighborhoods to preserve open space.
- PRESERVE UNIQUE NATURAL FEATURES
 Inventory significant landscape features
 and incorporate them into plans for the
 new neighborhood.
- **EXPAND ACCESS AND VIEWS**Allow the whole neighborhood to benefit from nearby landscape amenities.
- INCLUDE LANDSCAPING
 Include landscaping to increase the neighborhood's curb appeal and to create natural habitat.





LANDSCAPE SYSTEMS



STRATEGIES TO

REDUCE COSTS: A CLOSER LOOK



INCORPORATE NATURAL CONTROLS

Use landscape elements as alternatives to costly infrastructure.

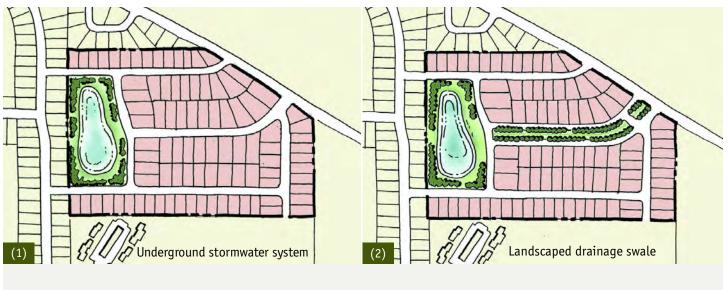
Incorporating landscape elements in the design of a new neighborhood can minimize the need for costly infrastructure and reduce energy consumption. For example, undeveloped floodplains absorb excess water from spring floods, reducing the need for expensive levees. Trees shade and help to cool our homes, reducing energy costs by minimizing reliance on air conditioning systems. Wetlands naturally filter water to keep ground water clean, reducing costs of mechanical filtration. Thoughtfully considering strategies that incorporate natural elements into the site design as a means of reducing structural controls will result not only in cost savings but also will add to the curb appeal of the neighborhood.¹²

STORMWATER MANAGEMENT

Traditional stormwater management utilizes curbs and gutters, underground pipes, and other structural controls to channel excess stormwater to nearby bodies of water such as lakes or streams. This type of system is not only costly, but can also be harmful to the natural environment. As stormwater travels over paving, roofs, and other impervious surfaces it collects hazardous materials such as oils, heavy metals, and phosphorous, as well as litter and sand. With the stormwater, these materials are eventually routed to and deposited into our wetlands, rivers, lakes, and streams degrading the quality of the water and surrounding habitat.

A new approach to stormwater management utilizes natural landscape elements to reduce dependence on structural drainage controls such as curbs and gutters, stormwater pipes, and on-site retention ponds. Using natural landscape elements for stormwater management protects the environment and can significantly reduce costs. For example, small depressions in boulevards along streets and landscaped areas within yards allow soil and plants to naturally filter pollutants out of stormwater, allowing for the reduction of the size and amount of stormwater piping. The use of these techniques has produced, in completed pilot programs, a 25 percent reduction in site development and maintenance costs by reducing grading, pipes, curbs, and paving. These techniques not only help to lower the costs of installing and maintaining structural controls, but the additional landscaping also provides more curb appeal.

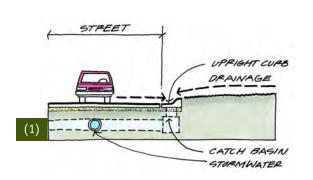


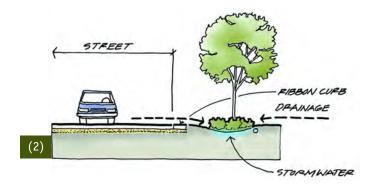


NATURAL CONTROLS AND COSTS

The City of Hutchinson, Minnesota saved \$40,000 and provided this new neighborhood with an appealing landscape amenity by incorporating a landscaped drainage swale (2) instead of an underground stormwater system (1) into the neighborhood's main street.

STRATEGIES TO REDUCE COSTS





STREETS AND STORMWATER MANAGEMENT

Including landscaped drainage areas along streets (2) can reduce the need for costly curb, gutter, and piped stormwater systems (1).



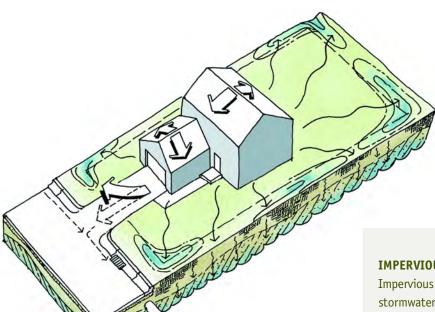
NEIGHBORHOOD APPEAL

This neighborhood incorporated a landscaped drainage swale to filter and retain stormwater on this low site in lieu of piped drainage. The vegetation in the swale also provides an attractive landscape amenity for the neighborhood.





TRANSFORMING A REQUIREMENT INTO AN AMENITY: Combining community watershed requirements with desirable neighborhood landscape amenities allows both to be accommodated with a more efficient use of land. For example, providing abundant native vegetation, trails, bikeways, and play areas around an open water retention area provides the neighborhood with a public landscape amenity without needing to set aside additional land for one purpose alone.



IMPERVIOUS SURFACES

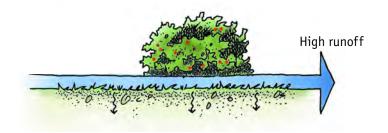
Impervious surfaces such as roofs, driveways, and streets shed stormwater rather than allowing the water to penetrate the ground. Small landscaped depressions in the yard can help to reduce the need for structural controls (such as underground storm sewer pipes) and filter pollutants out of the stormwater before it reaches the water table.

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YARD APPEAL

This photograph shows the implementation of an innovative stormwater management technique, where small landscaped depressions are created in yards to retain and filter stormwater. This approach saved the municipality the cost of an underground piped stormwater system, and adds color and appeal to the homeowners' yards.



Decreased runoff

(1) Little stormwater infiltration

(2) Better stormwater infiltration

STORMWATER INFILTRATION IN YARDS

Small, landscaped depressions (2) within yards allow soil and plants to naturally filter pollutants out of stormwater and reduce stormwater runoff across lawns.

ADD VALUE: A CLOSER LOOK



PLAN COMPACT NEIGHBORHOODS

Plan compact neighborhoods to preserve open space.

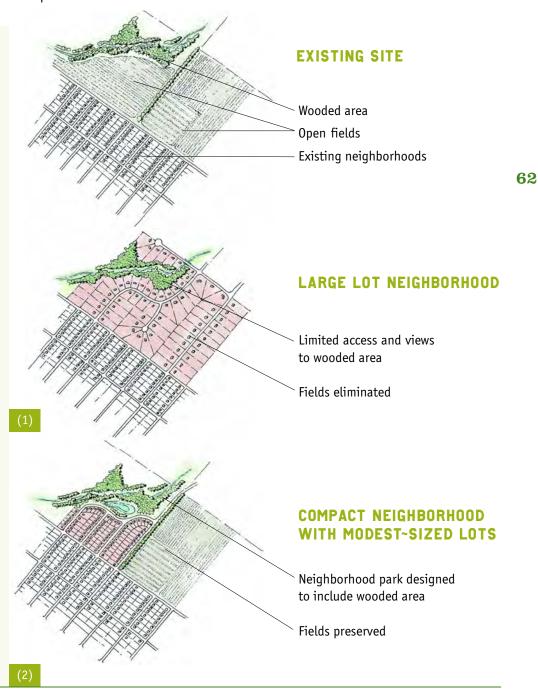
Planning compact neighborhoods not only significantly reduces land, paving, and infrastructure costs, but also allows for the preservation of open space. The uses of these spaces have the potential to be as varied as the landscapes of greater Minnesota. If the land has rich soils, it could be developed as a "working landscape" of farmland. Upland and lowland open space could continue to provide valuable habitat for plants and wildlife. Wetlands and open spaces that are part of a drainage network could help to naturally filter and transport stormwater to nearby rivers and streams. Abandoned railway corridors could be incorporated into a park or trail system. In wide open areas, groves or rows of trees could be planted (or existing trees preserved) to act as windbreaks and help protect the neighborhood from severe winds and storms. Open space within a neighborhood could also be designed as a neighborhood park, providing a nearby recreation area for its residents. For more information on creating open space, refer to page 22 in the "Lots" chapter.

BENEFITS OF A COMPACT NEIGHBORHOOD

This series of drawings shows an existing site and two different approaches to site development.

Developing this neighborhood with all large lots (1) eliminates the existing open fields and permits only a few houses views of the existing wooded area.

A more desirable option is to develop a compact neighborhood (2) that preserves a part of the existing fields and transforms the wooded area into a neighborhood park. Selecting this option protects a greater portion of the site's natural environment, adds value and appeal to a greater number of the homes, creates two public amenities, and reduces costs through a more efficient use of land.



Building Better Neighborhoods Chapter 5 Landscape Systems ADD VALU



PRESERVE UNIQUE NATURAL FEATURES

Inventory significant landscape features and incorporate them into plans for the new neighborhood.

When planning a new neighborhood, inventory the existing natural features on the site to determine those that will add value to the neighborhood at reasonable costs. These natural features will enhance the neighborhood's identity and will be enjoyed by the residents for years to come.

As an example, while it takes several years for a newly planted tree to mature, preserving existing mature vegetation on a site is one way to add immediate character to a new neighborhood. Preserving existing vegetation may also reduce costs by reducing the need to plant new vegetation. Other examples include incorporating an existing pond or wetland into the site design or turning an existing field into a recreational park.

OAK TREES AND ORCHARDS: New neighborhoods are often given names like "Oak Ridge" or "Orchard Valley" though the oak trees and orchards that gave the neighborhood its name were destroyed during development or they never even existed in the first place. The value and appeal of a neighborhood increases if such unique natural features are preserved and creatively integrated into the site.

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LANDSCAPING TO BUILD COMMUNITY: Landscaping can also be a way to strengthen a town's sense of community and economic vitality. Community planting projects are a great way to give residents a feeling of ownership in their town. The City of East Grand Forks, Minnesota with the assistance of the Design Center for American Urban Landscape, incorporated a community greening project into its plans to rebuild the city after the 1997 Red River flood. The Community Greening Workshop brought together participants including interested citizens, business representatives, educators, and local landscaping experts, who identified "pilot" greening projects to undertake throughout the city. The workshop participants also identified community partners, from local schools, businesses, foundations, and state agencies, to work together to make the project a reality.



EXPAND ACCESS AND VIEWS

Allow the whole neighborhood to benefit from nearby landscape amenities.

It seems obvious when you think of it: the more people that share access and views to a landscape amenity such as a lake or park the more people that benefit. Creating a few lots that back onto a pond, for example, may make those properties desirable, but many other nearby homeowners lose out. On the other hand, facing a greater number of properties towards that same pond and providing a parkway, local street, or path around it allows more neighborhood homeowners to enjoy that amenity.

The benefits of nearby landscape amenities can be brought to more homes in the neighborhood by extending greenways or tree-lined streets from the park or lake further into the neighborhood. Even homeowners several blocks away may then feel connected to the park or lake.



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NEIGHBORHOOD AMENITY

These diagrams illustrate two approaches the City of Hutchinson, Minnesota might have taken to incorporating a required retention pond into plans for a new neighborhood. Backing only a few homes onto the landscaped retention pond (1) hides the amenity from the majority of the neighborhood residents. A more effective solution (2) allows a greater number of homeowners views of the amenity and all the residents easy access to the pond and neighborhood park. The builder even altered some of the proposed home plans to take advantage of the appealing views to the pond. In addition, trees line the neighborhood streets and extend like "fingers" into the neighborhood, connecting the park to the rest of the neighborhood.

Building Better Neighborhoods Chapter 5 Landscape Systems ADD VALUE

STRATEGIES TO ADD VALUE



INCLUDE LANDSCAPING

Include landscaping to increase the neighborhood's curb appeal and to create natural habitat.

It has been said, "The best time to plant a tree is 100 years ago; the second best time is today." Today we are enjoying the benefits of the foresight of our town founders, who long ago invested in the landscaping of our streets and parks. Their legacy provides variety and visual interest in our landscape and highlights the changing seasons. We can build on their legacy by including landscaping at the time of neighborhood construction, allowing the neighborhood to benefit from mature landscaping as early as possible.

CURB APPEAL

The front yard is the best place to make an initial investment in landscaping, since it is the most visible side of the house. Investing in front yard trees and shrubs during the initial design and building phase is one of the simplest and least expensive ways to enhance a neighborhood's long-term curb appeal.



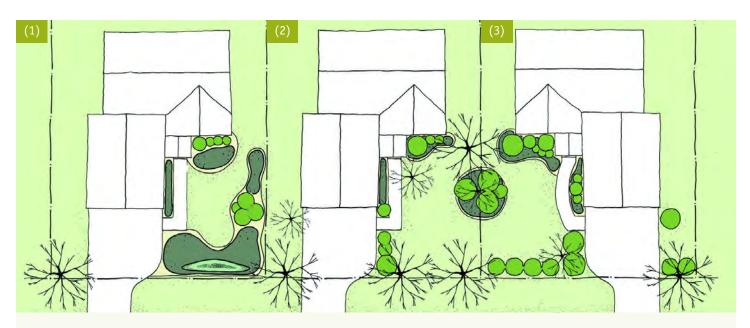


VEGETATION AND CURB APPEAL

The addition of trees and other vegetation transforms this row of homes into an attractive street.

HUTCHINSON'S ENERGY TREE PROGRAM: The local utility company in Hutchinson, Minnesota has established an innovative program that encourages the use of trees to reduce energy costs. For a nominal fee, interested homeowners can apply to have trees planted in strategic locations in their yard by the city forester. Once mature, the trees will shade the home and offer natural cooling in the summer. The homeowner not only benefits from recurring savings in reduced need for air conditioning, but also gains additional vegetation in their yard. Discuss with local and state agencies the possibility of implementing a similar initiative in your new neighborhood.

The types of trees, shrubs, and other plants selected should be appropriate to the climate, ecology, soil conditions, and orientation of the homes. In colder climates, hardy, native vegetation will be more likely to withstand winter conditions and require less maintenance, helping to maintain the yard's curb appeal while lowering long-term costs to the homeowner. Even within the same neighborhood, the homes' orientations and exposures may also require careful plant selections, since some vegetation is more appropriate to bright sunlight than shade. Local nurseries, landscape designers, contractors, and master gardeners are good resources for assistance in plant selections.



THREE PLANTING STRATEGIES

These drawings show three different, but equally effective, planting strategies that are all affordable and cost approximately \$1,000. Lot (1) demonstrates how flowers and grasses can be used to create an entry garden that defines a pleasant space in front of the house. On a portion of the yard, a small depression is created and planted with appropriate plant materials to retain and filter stormwater runoff.

Lot (2) is a scenario in which the yard is planted with a selection of trees and a few shrubs. Trees provide shade, privacy, intercept rainfall, and add visual interest to the landscape with varying forms, leaf and bark color and texture, and fruit.

Lot (3) is dominated by shrubs, which can be used very effectively as screens and to define spaces within the yard. Many also have attractive flowers, fruit, and leaves and when planted in combination with trees, flowers, and grasses can mimic natural conditions and create a diverse habitat.

STRATEGIES TO ADD VALUE

NATURAL HABITAT

Landscaping not only increases the curb appeal of a neighborhood by providing variety and visual interest, it can also create habitats for wildlife. Rather than planting vegetation in even intervals throughout the yard, consider planting the same number of plants in groups. While mown lawns or individual plantings create very little habitat, groupings of shrubs and trees attract wildlife, such as songbirds and butterflies, by creating habitats like those found in natural wooded areas. By planting shrubs and trees in groups along each side of a property line, both habitat and curb appeal can be improved without increasing the investment in landscaping for each lot.



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LANDSCAPING TO CREATE HABITAT

While mown lawns (1) create very little habitat, groupings of shrubs and trees (2) attract wildlife, such as songbirds and butterflies, by creating habitats like those found in natural wooded areas.

SUMMARY	
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SUMMARY

BUILDING BETTER NEIGHBORHOODS

Building Better Neighborhoods helps create stronger communities that include appealing, affordable starter homes. Accomplishing this goal requires a balanced approach to neighborhood building. This balanced approach—implementing both strategies to reduce cost and strategies to add value—allows communities to provide needed starter homes at a reasonable cost and at the same time strengthens residents' quality of life by building attractive, livable neighborhoods.

STRATEGIES

Strategies for the five different physical aspects of neighborhood building—site selection, lots, streets, homes, and landscape systems—provide ways to make better neighborhoods a reality. While they are discussed as separate sections in this guide, these physical aspects are interrelated and cannot be considered in isolation from the others. They also cannot be discussed only in relationship to an individual home and yard, or even a single site. In order to build better neighborhoods, decisions need to consider all physical aspects of neighborhood building, as well as how they will affect the homes, neighborhood, and entire town.

- SITE SELECTION: Consider both the existing layout of your town and its plans for future growth to decide which site or sites will have good community neighbors and connections to the rest of the town for years to come.
- LOTS: Use modest-sized lots as a way to substantially reduce costs and potentially provide more amenities for the homes and neighborhood.
- STREETS: Lay out streets to connect the new neighborhood to the rest of the town, improve the neighborhood's character and livability, and eliminate excessive infrastructure.
- HOMES: Select homes that meet your community's needs and are attractive and appropriate to the selected site.
 Consider long-term efficiency and durability when selecting building materials and utilize cost-saving techniques such as volume building and value engineering to reduce construction costs.
- LANDSCAPE SYSTEMS: Incorporate both existing and new landscape features that add appeal to the neighborhood, and reduce costs and dependence on infrastructure.

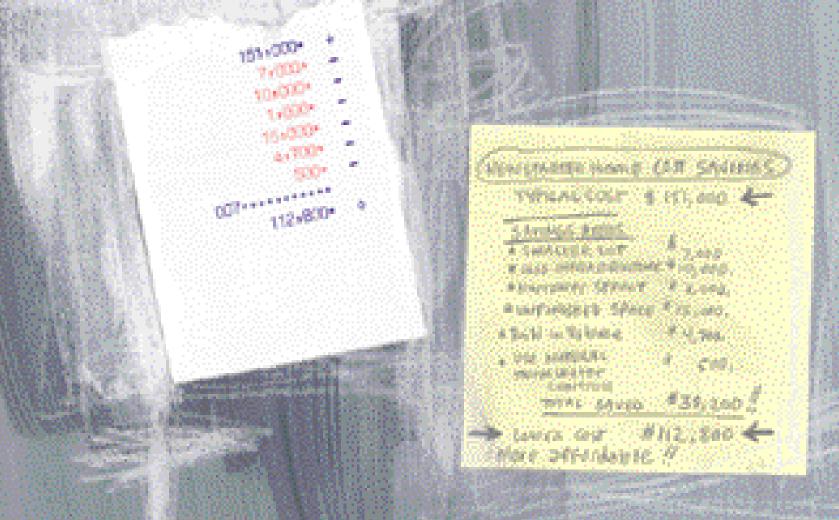
NEXT STEPS

Implementing the strategies outlined in this guide is an important first step towards building better neighborhoods. For greater Minnesota communities outside the Twin Cities metropolitan area, GMHF accepts requests for technical and financial assistance. As GMHF has limited funds available, the project selection process is highly competitive. In addition, the architects, developers, and builders in your area are good resources to help implement these strategies.

The sections "Planning A Neighborhood" and "Financing Tools" located in the Appendix are also helpful tools to assist your community build better neighborhoods. Finally, the "Additional Resources" section provides further sources of information on the topics and strategies discussed in this guide.

KEY COST-REDUCTION STRATEGIES

The costs listed on the next page demonstrate the potential cost implications of key cost-reduction strategies. These costs are compared to the costs of building a typical new market-rate home in greater Minnesota. For a new market-rate home that costs \$151,000, incorporating these key cost-reduction strategies can reduce the purchase price of the home by approximately \$38,200, a cost-reduction of 25 percent. In this example, the final sales price of a "Building Better Neighborhoods" home is \$112,800. Note that the actual costs of implementing the various strategies will depend on the costs of development in your area.



KEY COST-REDUCTION STRATEGIES"

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TYPICAL NEW MARKET-RATE SPLIT-ENTRY HOME:

100-foot-wide lot

1,800 finished square feet: 4 BRs, 2 baths, LR, DR, family room + 2-car garage

TYPICAL SALES PRICE OF NEW SPLIT-ENTRY HOME

\$151,000¹

COST-REDUCTION STRATEGIES¹⁵:

- DEDUCE LAT CIZE ED	AN A AGO FOOT WITHE LA	OT TO A FO FOOT MIDE LOT
 KEDIJU E TOT SIZE EKU) V A ()()=E()() =VV) E (OT TO A 50-FOOT-WIDE-LOT
TILDOCK LOT SILL/ TIN	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	of to the or the beat the beat

• REDUCE STREET *WIDTH*, FROM 44 FEET TO 34 FEET • LEAVE 850 SF UNFINISHED EXPANSION SPACE

BUILD IN VOLUME AND USE VALUE ENGINEERING

USE NATURAL CONTROLS FOR STORMWATER MANAGEMENT

Potential Savings

\$ 7,000 less land costs

\$ 10,000 less infrastructure cos

\$ 1,000 less paying cost

\$ 15,000 less finishing cos

4.700 less labor & materials co

less underground piping costs

TOTAL SAVINGS \$ 38,200

SUMMARY:

TYPICAL SALES PRICE OF A MARKET-RATE HOME \$151,000 LESS SAVINGS FROM INCORPORATING BBN STRATEGIES — \$ 38,200

SALES PRICE OF A "BUILDING BETTER NEIGHBORHOODS" HOME \$112,800

Building Better Neighborhoods

SUMMARY

ENDNOTES

- The two most typical ways that infrastructure is paid for are 1) upfront by the builder; or 2) financed by the town. If the builder pays for the infrastructure, the homebuyer will realize the savings in the form of a lower home purchase price. If the town finances the infrastructure, the homebuyer will realize the savings through reduced tax assessments over time. Either way, reducing the lot frontage increases the home's affordability and allows households with lower incomes to qualify for home purchase.
- ² Final lot cost includes lot purchase price and infrastructure costs.
- ³ Actual savings will vary depending on local land prices and the costs of infrastructure.
- ⁴ Savings based on a cost estimate of \$140 per linear frontage foot for land and \$200 per linear frontage foot for infrastructure, including water, sewer, and stormwater pipes, curb and gutter, and paving for streets.
- ⁵ ibid.
- ⁶ Infrastructure that is normally installed along and under streets includes water, sewer, and stormwater pipes, and often gas pipes, and electrical conduits.
- ⁷ Savings based on a cost estimate of \$200 per linear foot for infrastructure, including including water, sewer, and stormwater pipes, curb and gutter, and paving for streets.
- 8 Assuming 60-foot-wide lots, savings based on a cost estimate of \$2.50 per square foot for paving.
- Impervious surfaces include paving, roof surfaces and any other surface that does not allow water to permeate through to the ground beneath. Reducing the amount of impervious surfaces when building has become a critical environmental concern. As water travels over impervious surfaces it collects large amounts of hazardous materials—such as oils, heavy metals, phosphorous, litter, and sand—that is then routed through stormwater pipes into our streams and lakes. Over time, these hazardous materials cause extreme environmental degradation, some of which can be mitigated by reducing the surface area of impervious surfaces wherever possible.
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- While split-entry homes are the most economical, they are not the most accessible. The stairs at the entry make it difficult to accommodate persons in wheelchairs or with mobility difficulties. If the target market for your neighborhood is seniors or other populations in need of accessible floor plans, consider home plans other than the split-entry to increase accessibility.
- www.nrdc.org/cities/building/rwoodus.asp, 1998, Efficient Wood Use in Residential Construction, Natural Resources Defense Council.
- ¹² This approach of using natural elements in lieu of structural controls is called "best management practices."
- ¹⁴ All figures are 2001 U.S. dollars.
- ¹⁵ Unit cost estimates used here and throughout the guide are as follows:

LAND per linear frontage foot	\$140
INFRASTRUCTURE per linear foot (includes water, sewer, and stormwater pipes, curb and gutter, and paving for streets)	\$200
STREET PAVING per square foot	\$2.50

PROJECT PROFILES 72 These projects were selected to highlight the successful implementation of one or more of the strategies outlined in this book. Each profile illustrates a Home At Last neighborhood and provides a standard list of information about the project, such as location, size of site, and housing mix. Additionally, those features that are consistent with Building Better Neighborhood (BBN) strategies are highlighted in unique neighborhood features. Some of the projects presented deviate from certain BBN strategies. Recognizing that each community has its own preferences and development standards, the recommended improvements identify ways the community could have reduced costs even further and/or improved the livability of the neighborhood.

ISLE, MINNESOTA — PINZ ESTATES

Community leaders rallied together in Isle to select an exceptional 12-acre site directly adjacent to existing housing, a new regional elementary school and athletic field, and within walking distance to Main Street. Emphasis was placed on providing a range of home styles and prices, preserving the site's mature, wooded environment, and building a walking path to the elementary school and a larger recreational trail system.



- · GOOD SITE
- · CLOSE TO SERVICES
- MIX OF INCOMES
- TREES AND OTHER VEGETATION PRESERVED

Central Minnesota

2000 Population

PINZ ESTATES

Size of Site

Single-family Housing Mix

Multi-family Housing Mix

75 feet

8 affordable homes

8 market-rate homes

20-unit affordable apartment building

16-unit affordable senior apartment building

Homes

1-story

• tri-level

October 2000

• Central Minnesota Housing Partnership

GMHF Assistance

Isle Commerce and Development

site design

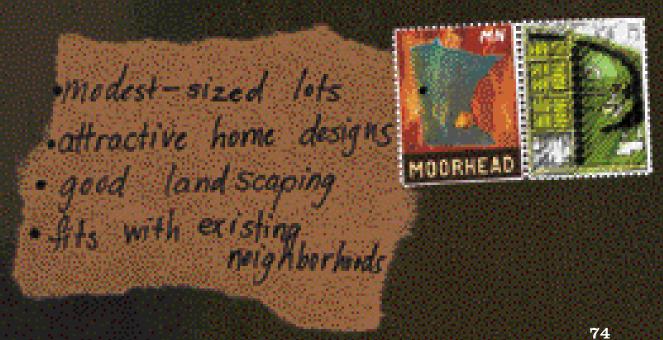
project financing

Unique Neighborhood Features

- ecommended Improvements
- mix of housing types
 within walking distance to Main Street
 partial preservation of existing vegetation
 connected to adjacent school by a trail
 decrease lot frontage by 10-35 feet
 incorporate strategies to enhance home design

MOORHEAD, MINNESOTA — URBAN NEIGHBORHOOD

The City of Moorhead jumped at the chance to acquire this unique 5-acre industrial site located within an existing residential neighborhood. The new 25-unit neighborhood development includes modest-sized 55-foot-wide lots and traditional home styles that fit well with the surrounding neighborhood. The City is building a landscaped parkway to enhance the streetscape and adjacent park and school site.



MOORHEAD

Location **West Central Minnesota** 2000 Population 32,177

URBAN NEIGHBORHOOD

Size of Site 5 acres

Lot Frontage 55 feet

Single-family Housing Mix 25 affordable homes

 split-entry Homes

• 1-story

• 11/2-story

• 2-story

\$105,000 - \$115,000 **Home Price Range**

Construction Start Date July 2001 Developers City of Moorhead

GMHF Assistance • site design

home design

project financing

Unique Neighborhood Features

modest-sized lots

neighborhood park

· parkway that extends through the neighborhood

individual lot landscaping

variety of attractive home styles

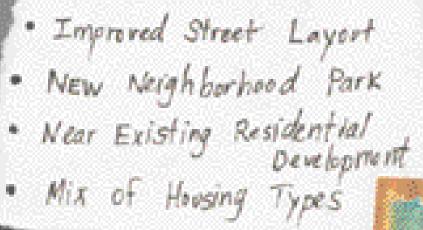
alleys with rear-loaded garages

Recommended Improvements

none

MARSHALL, MINNESOTA — PARKWAY ESTATES

Parkway Estates in Marshall is built on a 38-acre site that includes both single-family homes and attached, rental townhomes of various price ranges. A new neighborhood park is accessible to all 99 homes. After careful planning, an efficient street layout and reduced street widths provided significant construction and maintenance savings for both the city and residents.



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MARSHALL Location 2000 Population

Southwest Minnesota

PARKWAY ESTATES

Size of Site

Affordable Lot Frontage

Market-rate Lot Frontage

Single-family Housing Mix

Multi-family Housing Mix

38 acres

70 - 80 feet

80 - 100 feet 41 affordable homes

40 market-rate homes

18 affordable townhomes

• split-entry

• 1-story

Home Price Range Construction Start Date

\$101,000 - \$120,000

GMHF Assistance

• Southwest Minnesota Housing Partnership

• site design

Unique Neighborhood Features

reduced street width

efficient street layout

central neighborhood park

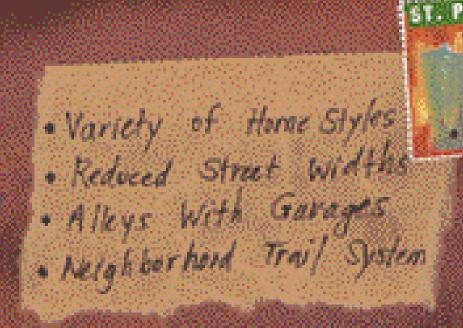
Recommended Improvements

decrease lot frontage by 15-40 feetfurther reduction of street width

• incorporation of basic landscaping package

ST. PETER, MINNESOTA — NICOLLET MEADOWS

Since the devastation of a 1998 tornado, the residents of St. Peter have worked hard to repair and restore their community. When the 26-acre, 106-unit Nicollet Meadows was proposed, a key concern was that it should complement adjacent historical neighborhoods. To complement the surrounding residential area, Nicollet Meadows was designed to include such elements as alleys with rear-loaded garages, sidewalks, reduced front yard setbacks, and attractive, traditional home styles.



ST. PETER

Location South Central Minnesota

2000 Population 9,747

NICOLLET MEADOWS

Size of Site 40 acres

Affordable Lot Frontage 60 - 65 feet

Market-rate Lot Frontage 65 - 80 feet

Single-family Housing Mix 41 affordable homes

41 market-rate homes

Multi-family Housing Mix 30 affordable townhomes

Homes • split-entry
• 1-story

• 1¹/2-story

• 2-story

Home Price Range \$110,000 - \$120,000 Construction Start Date April 2001

Developers • City of St. Peter

Southwest Minnesota Housing Partnership

GMHF Assistance • site design • project financing

Unique Neighborhood Features • variety of attractive home styles

nature conservancy

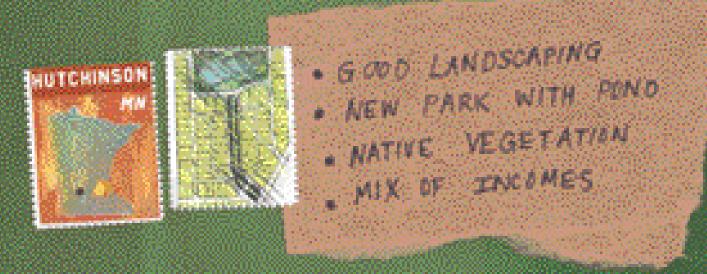
• neighborhood trails linked with a regional system

reduced street widthsalleys with rear-loaded garages

Recommended Improvements • incorporation of natural stormwater controls

HUTCHINSON, MINNESOTA — ROLLING MEADOWS

Rolling Meadows features 83 new homes of various prices on a 30-acre site which incorporates a landscaped pond with a walking trail. A stormwater swale planted with native vegetation leads from the pond through the center of the neighborhood. The City is providing trees and other landscaping to the streetscape. Lots are more compact than originally planned and start at a cost effective width of 60 feet. Nine different homestyles are incorporated.



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HUTCHINSON Location 2000 Population

Southwest Minnesota 13,080

ROLLING MEADOWS

Size of Site

30 acres

Affordable Lot Frontage Market-rate Lot Frontage Single-family Housing Mix

60 - 65 feet 65 - 80 feet

40 affordable homes 43 market-rate homes

split-entry

Homes

• 1-story

Home Price Range **Construction Start Date**

\$119,700 November 1999

GMHF Assistance

Sorensen and Naustdal Properties, LLC
site design
project financing

Unique Neighborhood Features

• 5-acre retention pond with walking path

native vegetation throughout the neighborhood

central stormwater swale

Recommended Improvements

utilize alleys with rear-loaded garagesincorporate strategies to enhance home designs



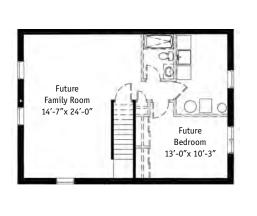
The following home plans were developed to complement the strategies found in this guide. Unlike the typical starter home where the garage is often the predominant feature facing the street, these homes accommodate rear or side-attached garages and incorporate other design elements that improve their "curb appeal." In addition, the floor plans have been carefully designed to provide direct connections to the front and back yards. To reduce the initial purchase price of the homes, each one can be constructed to include unfinished expansion space.

These home plans fit comfortably on modest-sized lots as narrow as 40 to 50-feet wide for homes with garages on an alley to 64-feet wide for homes with side-attached garages. A small site diagram accompanies each home plan and indicates which garage locations are available for that particular plan.

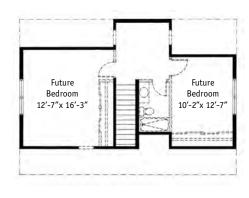
All of these home plans provide prospective homebuyers with a variety of options that can ultimately create a more interesting streetscape in a neighborhood with affordable homes. More information on these plans is available by contacting GMHF.



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Basement

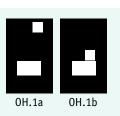
First Floor

Second Floor

Plan Type

OH.1

Basement First Floor Second Floor 936 sq. ft. (unfinished) 936 sq. ft. 575 sq. ft. (unfinished) garage location options





Future
Bedroom
11'-2" x 11'-2"

Future
Bedroom
11'-2"x 9'-7"

Future
Family Room
14'-6"x 22'-6"

Bedroom 11'-9" x 11'-7" Kitchen/Dining 12'-3" x 19'-0" Living Room 15'-0" x 14'-0"

Lower Level

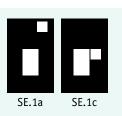
Main Level

Plan Type

SE.1

Lower Level Main Level 1,064 sq. ft. (unfinished) 1,064 sq. ft.

garage location options



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Building Better Neighborhoods

Appendix

HOMEPLANS



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Lower Level/Basement



Upper Level/Main Level

Plan Type

SL.1

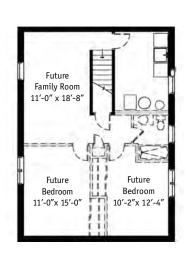
Lower Level/Basement Upper Level/Main Level 995 sq. ft. (unfinished) 995 sq. ft.

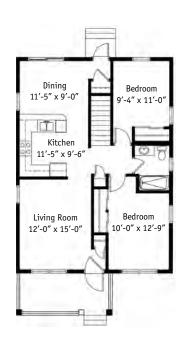
garage location options





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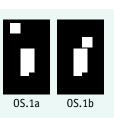
Basement

First Floor

Plan Type

0S.1

Basement First Floor 936 sq. ft. (unfinished) 936 sq. ft. garage location options





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Basement First Floor Second Floor

Plan Type

TS.1

Basement First Floor Second Floor

t 624 sq. ft. (unfinished) r 624 sq. ft. loor 624 sq. ft.

garage location options







Building Better Neighborhoods

Appendix

HOME PLANS



Future
Bedroom
10'-8" x 10'-2"

Future
Family Room
12'-0"x 24'-0"

Future
Bedroom
10'-8"x 11'-10"

Bedroom
11'-0" x 10'-8"

Kitchen
11'-0"x 8'-6"

Living Room
13'-6" x 12'-3"

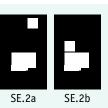
Lower Level

Main Level

Plan Type

SE.2

Lower Level Main Level 995 sq. ft. (unfinished) 995 sq. ft. garage location options



APPENDIX	
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NEIGHBORHOOD DEVELOPMENT PROCESS

PLANNING PHASE

1 ASSESS LOCAL HOUSING MARKET	2 CREATE PRELIMINARY DEVELOPMENT CONCEPT	3 ASSEMBLE DEVELOPMENT TEAM	4 PLAN THE PROJECT	5 OBTAIN PUBLIC SUPPORT
 Collect preliminary data and information on housing stock Conduct a market analysis to determine housing supply and demand Assess availability of local resources Begin building community support for project 	 Establish goals and priorities Review the design principles and strategies outlined in <i>Building Better Neighborhoods</i> Consult with potential development team members Evaluate potential sites Consider range of housing options—size, style, price Conduct a project-specific financial feasibility study Identify potential funding sources, including predevelopment dollars Consider project fit with local comprehensive development plans 	 • Identify roles and expectations for each team member • Seek professionals with starter home experience 	 Select site Prepare site and building designs Develop preliminary budget and cost estimates Use strategies to reduce costs and those that add value from Building Better Neighborhoods Formulate a project phasing plan Create a financing plan Assess availability of necessary resources 	Seek community support for the project Address regulatory and zoning issues Solicit local financial support

MARKETING AND CONSTRUCTION

6 FINALIZE THE PLAN	7 ASSEMBLE FINANCING	8 CONDUCT MARKETING	9 BEGIN CONSTRUCTION	10 COMPLETE DEVELOPMENT
 Obtain site control Get final regulatory and zoning approvals Finalize site design Complete construction and phasing plans Verify land, infrastructure, and construction costs 	 Secure financing commitments Obtain additional public funding to fill financial gaps 	 Begin marketing early Use a variety of marketing strategies Identify affordable loan products and educational services to assist target buyers 	 Close on the site Complete bidding and finalize construction costs Close on construction financing Install infrastructure Begin home construction 	 Sell the homes to qualified buyers Conduct additional marketing (if necessary) Complete other components of the project (if applicable)
Finalize home sale pricingApply for public and			Complete model homePre-sell units	88

PLANNING A NEIGHBORHOOD

private financing

This chart outlines the key milestones to consider when developing a neighborhood. Keep in mind that while the process is depicted as linear and composed of discrete steps, there may be times when re-ordering the steps is necessary. Often, many of the steps will overlap. Taking some time to understand the overall development process will assist you in planning a timeline specific to the circumstances and needs of your community.

The length of the entire development process depends on a number of variables—size of the project, political climate, and length of development approval process, to name a few. The planning phase of the process may take only a few months or more than a year. The marketing and construction phase will require one to several building seasons depending on the number of homes that are planned in the neighborhood and the anticipated phases of development.

Four key ingredients to developing a successful neighborhood with affordable starter homes are:

- 1. obtaining accurate market information
- 2. assembling experienced professionals for your development team
- 3. spending adequate time developing a feasible plan, including securing the necessary financing
- 4. gaining public support

Remember that building a neighborhood takes the collective time, energy, and commitment of all involved.

FINANCING TOOLS

Making Homeownership More Affordable

Building Better Neighborhoods (BBN) describes how to design and build attractive neighborhoods at a reasonable cost. For many lower-income families, however, the cost savings from good design are still inadequate to make a starter home affordable. Public, private, and nonprofit organizations provide financial assistance and homebuyer education to increase opportunities for affordable homeownership. Making wise use of a variety of financing tools is the final step in building better neighborhoods in your community. For more information, contact a local nonprofit housing organization, local government, or state housing finance agency.

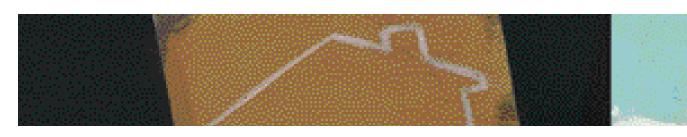
The following scenarios demonstrate how different financing options can be used to reduce the household income required to afford a home. Combined with the cost-reduction achieved by using the design strategies in *Building Better Neighborhoods*, these homes can be affordable to people with much lower incomes.

Scenario I

Market-rate home with conventional mortgage

The buyer purchases a market-rate home that has incorporated none of the BBN strategies. The buyer uses conventional, market-rate financing with no additional financing assistance. The minimum family income required to purchase this home is \$52,000.

Home price Market-rate home price	\$151,000
Conventional Financing (no assistance) Buyer downpayment (5% down) Buyer first mortgage Monthly payment (principal and interest only, 30-year term at 8% int. rate)	\$7,550 \$143,450 \$1,053
Minimum household income required to afford monthly payment	\$52,000



AFFORDABLE HOMES AND LIVABLE COMMUNITIES

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Scenario II BBN starter home with conventional mortgage

The buyer purchases a starter home that has incorporated *BBN* strategies. The buyer uses conventional, market-rate financing and receives no additional financing assistance. The minimum family income required to purchase this home is \$41,000.

Home price Market-rate home price Cost savings (using BBN strategies) Final sale price	\$151,000 \$38,200 \$112,800
Conventional Financing (no assistance) Buyer downpayment (5% down) Buyer first mortgage Monthly payment (principal and interest only, 30-year term at 8% int. rate)	\$5,640 \$107,160 \$786
Minimum household income required to afford monthly payment	\$41,000

Scenario III

BBN starter home with affordable mortgage and additional assistance

The buyer obtains an affordable mortgage and additional financing assistance to purchase a home. Using an **affordable mortgage product**, the buyer has greater purchasing power and reduced monthly loan payments. In this case, the buyer obtains a first-time homebuyer mortgage with a below-market interest rate. **Downpayment and entry cost assistance** reduces the out-of-pocket expenses at closing. While the buyer is still required to put money down, this assistance lowers the amount that must be saved. The buyer also obtains **secondary (gap) financing**, which is used to reduce the amount of the first mortgage loan. The gap loan has a 0 percent interest rate and repayment is deferred until the home is sold. By using these tools, the household income required to purchase a starter home is reduced to \$31,500.

Home price Market-rate home price Cost savings (using BBN strategies) Sale price	\$ 151,000 \$38,200 \$ 112,800
Affordable financing Buyer downpayment (3% down) Downpayment/entry cost assistance loan (0% loan, deferred until sale) Gap financing (0% loan, deferred until sale) First-time buyer mortgage Monthly payment (principal and interest only, 30-year term at 6.5% int. rate)	\$3,380 \$4,000 \$15,000 \$90,420 \$571
Minimum household income required to afford monthly payment	\$31,500

FINANCING TOOLS

Building Better Neighborhoods Appendix

ADDITIONAL RESOURCES

Following is a selected list of books, articles, and websites that provide additional background on the strategies and information presented in this guide. Annotations are provided for those texts that have been particularly helpful in the development of this book.

"No Frills New Urbanism." New Urban News, December 2000, 13-14.

American Society for Testing and Materials. *Annual Book of ASTM Standards*. Philadelphia: American Society for Testing and Materials, 1970-present.

Arendt, Randall. Rural by Design. Chicago: American Planning Association, Planners Press, 1994.

This is the seminal book on traditional neighborhood design in a rural context. It provides numerous "dos" and "don'ts" for creating highly livable communities in the tradition of small cities and towns. This book is a resource for rural communities threatened by the spread of conventional development. Emphasis is on preserving the distinctive character of small towns while accommodating growth and maintaining open space. It also provides many photos, diagrams, and drawings to depict the ideas and concepts described in the book. 440 pages, hardcover.

Better Site Design: A Handbook for Changing Development Rules in Your Community. Ellicott City, Maryland: The Center for Watershed Protection, 1998.

Bookout Jr., Lloyd W., et al. Residential Development Handbook. Washington D.C.: Urban Land Institute, 1990.

Brody, Jane. "Better suburb design encourages fitness." St. Paul Pioneer Press, 23 October 2000, 7F.

Calthorpe, Peter. The Next American Metropolis. New York: Princeton Architectural Press, 1993.

Cassano, Dennis. "Revisiting Villages." Star Tribune, 24 June 1996, A1, A6.

This article gives readers a snapshot of town planning or traditional neighborhood development through the descriptions of two new developments in the Twin Cities area. It contains graphics about the location of the new developments and about the possible mix of uses for which traditional neighborhood design allows as opposed to current methods of development.

___. "Making a new town: Middleton Hills." Star Tribune, 24 June 1996, A6.

In this article, Cassano gives readers a picture of the Middleton Hills development in Middleton, Wisconsin. The town began developing this area in 1993 after running out of developable land at today's standards. Traditional neighborhood design principles were put into place with the help of Andres Duany to create a "new urban village" in the midst of suburban sprawl near Madison, Wisconsin.

Corbett, Judith, and Joe Velasquez. "The Ahwahnee Principles: Toward More Livable Communities." Western City, September 1994.

This article presents fifteen principles for community planning, four principles for regional planning and four principles for implementation of "traditional neighborhood design." The article uses several pictures with text to describe developments that have utilized these principles to create communities scaled to people (not automobiles) and to create a greater sense of community among all age groups and various income levels.

Creating a Landscape in the Pleasure Creak Neighborhood. Minneapolis: Design Center for American Urban Landscape, College of Architecture and Landscape Architecture, University of Minnesota, 1999.

Davis, Sam. Architecture of Affordable Housing. Berkeley: University of California Press, 1995.

Dictionary of Finance and Investment Terms. Barron's Financial Guides. New York: Barron's Educational Series, 1985.

Dictionary of Real Estate Terms. Barron's Real Estate Guides. New York: Barron's Educational Series, 1984.

Energy Efficient Building Association, www.eeba.org/sites/default.htm.

Environmental Building News, www.buildinggreen.com/links/menu.html.

Ewing, Reid. Best Development Practices. Chicago American Planning Association, 1996.

______. Developing Successful New Communities. Washington D.C.: Urban Land Institute, 1991. Farnsworth, Christina B. "Greenwashing: Covering Up or Budding Out?" Builder, June 2000, 152-158.

Greenberg, Mike. *The Poetics of Cities: Designing Neighborhoods That Work*. Columbus: Ohio State University Press, 1995.

Hale, Jonathan. The Old Way of Seeing: How Architecture Lost Its Magic (and How to Get It Back). New York: Houghton Mifflin Company, 1994.

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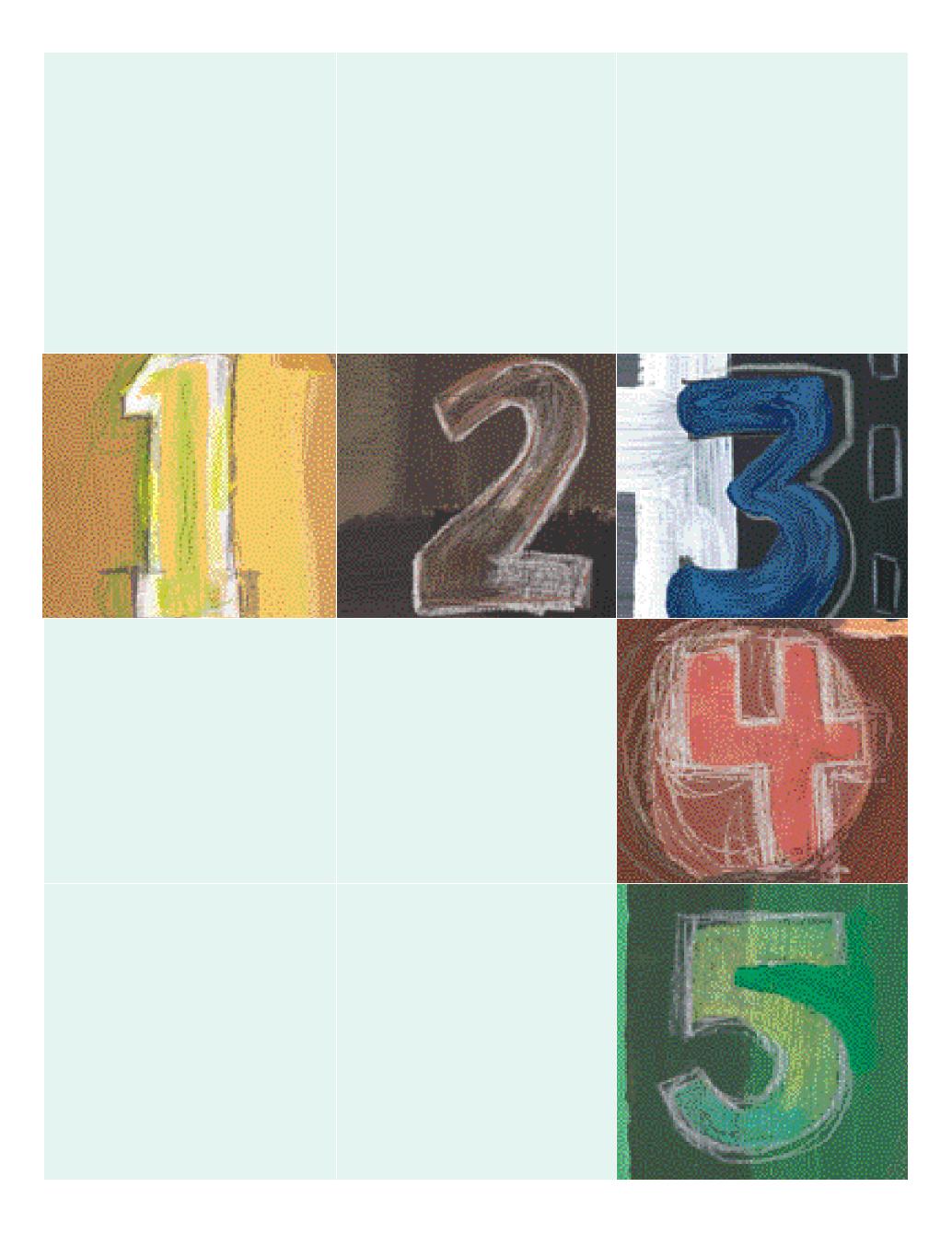
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This book represents an ambitious departure from the customary collection of guidebooks for affordable housing. Readers will find themselves encouraged not only to address the crisis of too few homes for families who cannot afford to pay market prices, but to seize upon strategies that strengthen the character of the whole community. BUILDING BETTER NEIGHBORHOODS is a practical, how-to manual for building well-designed, affordable homes while creating livable neighborhoods that are long-term assets to the entire community.

