REPORT

TO CHERRY HILLS VILLAGE CITY COUNCIL

BY

RESIDENTIAL DEVELOPMENT STANDARDS COMMITTEE

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Recommendations from:

The Residential Development Standards Committee Established by Cherry Hills Village City Council, September 16, 2008

A. Purpose of the Committee and Overview of Process

The Residential Development Standards Committee ("RDSC" or "Committee") was established by the City Council of Cherry Hills Village to:

- "Thoroughly analyze the City's existing residential development standards and their impact on development within the City as a whole, as well as in specific neighborhoods" and

- "Provide recommendations to the Council on possible actions to address those impacts" taking into consideration "the health, safety and general welfare of the residents of the City of Cherry Hills Village, and the goals of the City's Master Plan."

Cherry Hills Village, Resolution No. 17, Series 2008.

The Committee has held regular meetings from October 2008 through September 2009 to address its mission and the following specific issues identified by the Council:

- Setbacks
- Floor area
- Height of structures
- Open space coverage on lots
- Natural surroundings

The Committee reviewed prior studies and reports of the City regarding residential development building standards, received input from members of the public including both Cherry Hills Village ("CHV") property owners and builder-developers; and researched how other communities have addressed issues similar to those identified by the City.

This report includes an executive summary of the Committee's recommendations for action by the City, followed by analysis and discussion of each recommendation, and a conclusion urging City Council to amend the City's zoning regulations by adopting the recommendations of this report.

In Resolution No. 17 the City also directed the Committee to evaluate accessory structures, issuance of building permits, enforcement and implementation and how these factors relate to the City's Master Plan. The Committee has addressed these issues to a limited extent within the context of the recommendations presented in this report.

However, the Committee believes that the issues of floor area, building height, open space coverage on lots, natural surroundings, sustainability requirements and a contextual design review process are of such paramount importance to future residential development that delay in presenting the Committee's report would not serve the best interests of the City.

B. Executive Summary

Over the last decade or more CHV citizens have voiced concerns about the size and scale of development of some new homes relative to the particular lot size and character of the neighborhood. Though the majority of new residential developments during this time have blended with the historic semi-rural character that is our community's legacy, some developments have detracted from the views and open feel of adjoining streetscapes and properties. On a number of occasions the City has considered possible actions to address these concerns. The RDSC concludes that the City's zoning regulations should be amended as follows with respect to residential development or redevelopment of primary and accessory structures:

1. **Floor Area Ratio (FAR) - Establish standards relating building size to a percentage of lot size.**

2. **Setbacks – No recommended changes.**

3. **Daylight Plane – A daylight plane starting from the side and rear property lines and extending to the interior of the lot at a 27 degree angle should be applied to control the height of residential development. (See Pages 12 and 13 for illustrations.)**

4. **Building Height – Increase the allowed height of a structure to 35 feet above natural grade level, subject to the limitations of the Daylight Plane.**

5. **Grading - Include in the calculation of maximum allowable floor area of a lot, those areas of a site where regrading outside the footprint of the structure is in excess of 3 feet above natural grade and those areas where regrading is in excess of 6 feet below natural grade.**

6. **Preservation of Natural Surroundings – "Established trees" (those with a trunk diameter of 6" or greater measured at a height of 48" from the ground) should be protected in all setback areas and right- of- ways.**

7. **Sustainability Requirements / "Green Building" – The "LEED for Homes" at a minimum standard of "Certified" should be applied to all new construction to improve the quality of construction and livability of the home and to reduce the impact of the home on the environment.**

8. **Contextual Design Review Process – Review of a conceptual site plan and building massing for residential development or redevelopment should be required prior to application for a building permit in order to encourage excellence in design standards specific to the character of the neighborhood.**

C. Overview of the Committee's Investigation and Analysis

The recommendations of the Committee evolved from its series of public meetings, review of CHV's current zoning regulations and previous CHV reports, and research of zoning adopted by other communities.

Using Council's Resolution 17 and the Village Master Plan as guides, the Committee's first priority was to "brainstorm" and generate an initial list of priorities. The Master Plan states as its primary goal - "maintenance of the existing land use and development pattern by discouraging rezoning, which would increase residential density or intensity."

The Village Vision as articulated in the Master Plan is defined by its "semi-rural character, views and open feel." The word "character" is used over 20 times within the Village Master Plan and yet it is never defined. While the word has different meanings to different people, common interpretations became apparent in most discussions between committee members and amongst interested citizens who shared their perspectives with the Committee.

This singular word – CHARACTER – was most frequently included in comments regarding the "size" and "scale" of new developments within the context of neighborhood. These concepts were the foundation for many of the Committee's recommendations.

The Committee sought input from the public through a variety of forums: regular Committee meetings with input from interested parties in attendance; focus group meetings with citizens, CHV staff, builder-developers, Cherry Hills Land Preserve representative, and elected and appointed CHV officials; a community open house; and informal one-on-one discussions with neighbors. At the public open house meeting the Committee circulated a survey requesting responses to nine problems identified in the course of its investigation. That survey and a summary of responses are contained in the Appendix.

In addition to the Village Master Plan and the Cherry Hills Village Zoning Code, the Committee reviewed:

- "Floor Area Report Including Recommendations Regulating the Size of Residences in Cherry Hills Village" prepared by the CHV Planning & Zoning Commission (August 2001). In response to citizen concerns about new residential developments, in the summer of 2000 the City Council directed staff and the Planning and Zoning Commission to study the size and scale of homes being built. One year later this Floor Area Report was issued and includes recommended Floor Area Ratios for each of the City's zone districts.

- Memorandum on Study Session Discussion Regarding Residential Development Standards by Eric Ensey, CHV Community Development Director (August 30, 2005). Again in 2005 the City considered concerns about size, scale and character of new developments. This memorandum by city staff was submitted so that Council could consider "what regulations, if any, the Council would like to implement to minimize the 'Mansionization' of the community and the resultant loss of its rural and open character." Focus issues were size of new homes

relative to the character of surrounding neighborhoods, the mass of development between the setbacks of a property and the permitted height of structures. City staff summarized models used by other communities to address these concerns and recommended that Council consider limiting the coverage of development on a property and adopt more restrictive zoning to reduce the allowable height of structures in all districts.

- Numerous CHV staff and committee memoranda addressing current CHV housing by district, protective and HOA covenants governing various CHV developments, and potential impact of possible recommendations on CHV residential development.

- Articles and zoning codes on FAR, height, setback, daylight plane, grading, landscape preservation, sustainability standards, and design review regulations of similar communities.

- Additional information regarding the Committee's research, investigation and deliberations is available at the Cherry Hills City Center and the City's website at http://cherryhillsvillage.com/.

The Committee narrowed its initial list of priorities to the following topics which are considered in light of our community's "semi-rural character, views and open feel":

- Home Size/Density/Floor Area Ratio
- Setbacks
- Daylight Plane (bulk plane)
- Building Height
- Grading
- Landscape Preservation
- Building sustainability
- Contextual design review process

D. Discussion of Recommendations

The interrelated concepts of home size, setbacks, building height and floor area ratio were discussed in virtually every Committee meeting or one-on-one neighborhood conversation. Frequently, the concerns about these issues were articulated in general terms with comments such as:

> "The houses are just plain too big."
>
> "These new houses 'loom' over the neighborhood."
>
> "There are too many 'McMansions.'"

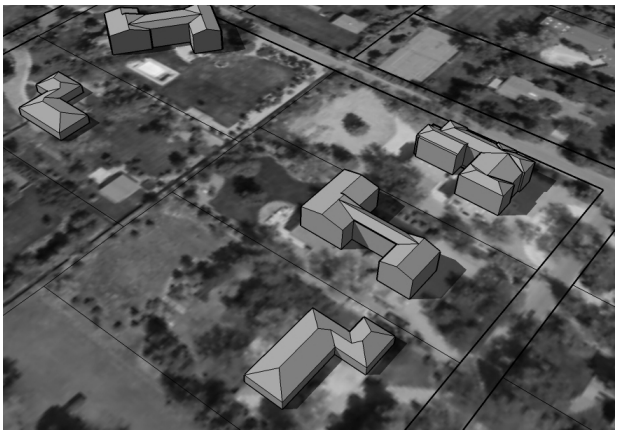
Although not always specifically articulated, the general theme of comments from citizens focused on some combination of home size and scale, building height, grading and open space issues and the perception that a substantial number of new homes did not "fit" within established neighborhoods. These concerns prompted the Committee to investigate what specifically contributes to the perception that some recently developed homes do not "fit." The information gathered during the Committee's investigation formed the basis for its recommendations.

D. 1. Home Size/Floor Area Ratio (F.A.R.) - Establish standards relating building size to a percentage of lot size.

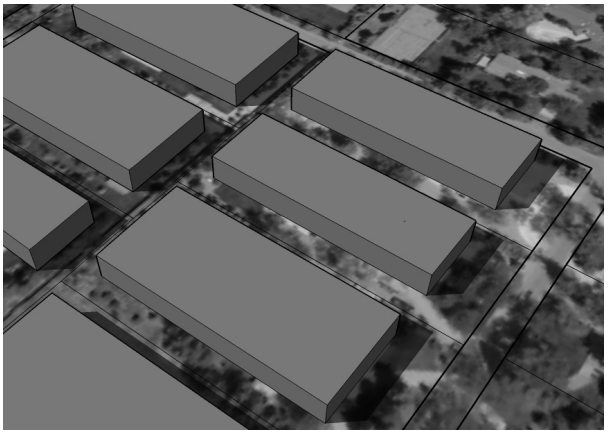
Current Zoning Code

The City's zoning code does not limit the size of new homes, other than their placement within property setback lines. The illustrations below show an aerial example of present development in a CHV neighborhood zoned R-3 (1 acre) and then the square footage development that is allowed under CHV's current zoning code in the same R-3 neighborhood.

Actual Example of R-3 Neighborhood as Currently Developed



Same R-3 Neighborhood Fully Built to Current Standards



The illustration of the hypothetical development is alarming and this potential for over-development currently exists throughout all of the CHV zoning districts. The need to adopt corrective zoning regulations is urgent.

Impact of Current Zoning

The sizes of recently constructed new homes have exceeded historical scale and development patterns even though built in compliance with current zoning regulations. Over the past 10-12 years the average new home in the City has grown to accommodate larger kitchens and family and entertainment areas, a greater number of bedrooms, home offices, home theaters, expanded garages, larger storage areas and increased square footage of hard surface landscaping.

The problem of significant increases in home size is especially visible in the R-3 zoning district (one acre lot). Increasingly, CHV residents have voiced concerns that the size and scale of new homes are too large relative to lot size and neighborhood character.

Recommendation and City-wide versus Neighborhood Specific Applications

Implement a maximum allowable floor area ratio (FAR) for residential development at a fixed percentage of net lot area, with FAR adjusted for different zoning districts within the City. Net lot area is the area contained within the lot boundaries and does not include any adjacent right-of-way. Zone districts R-1, R-2 and R-3 (characterized as rural and low-density residential) should be limited to a 23% FAR and zone districts R-3A, R-4 and R-5 (characterized as medium density residential) should be limited to a 27% FAR.

The Table below shows examples of allowable floor area for each zone under the proposed applicable FAR.

Zone District	Example Net Lot Area		Proposed FAR		Example Allowable Floor Area	Current % of New Homes within Standard
R-1 (2.5 Acres)	108,900 sq.ft.	x	23%	=	25,047 sq. ft	99%
R-2 (1.25 Acres)	54,450 sq.ft.	x	23%	=	12,524 sq. ft	99%
R-3 (1 Acre)	43,560 sq.ft.	x	23%	=	10,188 sq. ft	95%
R-4 (.5 Acres)	21,780 sq.ft.	x	27%	=	5,881 sq. ft	93%
R-5 (.37 Acres)	16,000 sq.ft.	x	27%	=	4,320 sq. ft	94%

Note that the percentages in the last column in the above Table represent the percentage of new homes built in CHV in the last five years in each different zone district that fall within the proposed new standard for that district. Thus, only a small percentage of these new homes would not be permitted by the recommended FAR limits.

The Committee believes that the recommended FAR in combination with the daylight plane discussed below, would eliminate the objection that houses appear to “loom” over adjoining properties or the street or just “don’t fit” within the neighborhood.

Square footage which should be included in calculating the maximum allowable floor area on a lot is:

- First floor of the home
- Second floor of the home
- Any space between the ceiling level of the highest livable floor and the roof rafters which is greater than 6 feet
- Walk-out basement (computed at 50% of the basement floor area)
- Attached and detached garages
- Any accessory structure having an impervious roof located on the same lot as the home, such as detached garages, carports, gazebos, storage sheds, loafing sheds and barns.
- The areas of any change in grade outside the footprint of the structure, in excess of 3 feet above natural grade or in excess of 6 feet below natural grade**.** (See discussion of Grading below at D.5.)

Comparable Community Approaches

Below are some other communities that have adopted similar or more restrictive FAR limits.

Bow Mar, Colorado	Under ¾ acre – 15% FAR limit ¾ to .99 acre – 14-15% 1 acre to 1.24 acre – 13-14% 1.25 acre or larger – 12-13% * *Maximum buildable area is based on main level of the home and the garage. The height limit is 16 feet with no more than 25% of total ridge line up to 18 feet.*
Glencoe, Illinois	All lots - approx. 27%
Lake Forrest, Illinois	Under 17,500 SF lot size – 21% Over 17,500 SF lot size – 14.5%
Greenwich, Conn.	20,000 SF lot size – 22.5% 43,560 SF lot size – 13.5%
Scarsdale, NY	20,000 SF lot size – 25.4% 43,560 SF lot size – 15.5% 76,231 SF lot size – none

Pros and Cons

Pros:

- Newly constructed homes would fit the scale of established neighborhoods.
- More of the lot area would be retained as open space.

- Smaller homes would retain their value better than large homes that do not sell.
- The City would move toward a “quality” instead of a “quantity” house inventory.
- New smaller homes would use less energy than new larger homes.

Cons:

- Initially, there may be a perception that property values could be hurt. However, a report by UrbanAdvisors Ltd titled “Economic Overview of the Impact of Massing and Scale Standards for the City of Boulder, Colorado” suggests that property values would not be hurt.

D. 2. Setbacks - No recommended changes.

Current Zoning Code

The City’s current zoning ordinance requires that structures be setback a specific distance from various property boundaries. Required setbacks along the street frontage are typically larger than setbacks along side or rear property lines. The Tables below show the current setback limits in the various zoning districts within the City.

Recommendation

The Committee recommends no changes to the current setback limits.

D. 3. Daylight Plane - A daylight plane starting from the side and rear property lines and extending to the interior of the lot at a 27 degree angle should be applied to control the height of residential development.

Current Zoning Code

CHV has no code provisions regulating daylight plane.

Impact of Current Zoning

Through the years, much of the typical development in the City comfortably fit within the setback and building height parameters without impacting neighbors. However, a recent trend towards development of significantly larger houses has tested the limits of the existing setback and height limits and led to structures which appear to “loom” over the

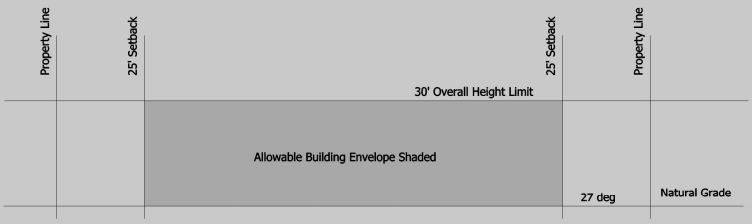
street and adjacent properties, impacting privacy and access to daylight and historic views.

Examples of New Homes that "Loom" Over the Adjacent Homes

Recommendation

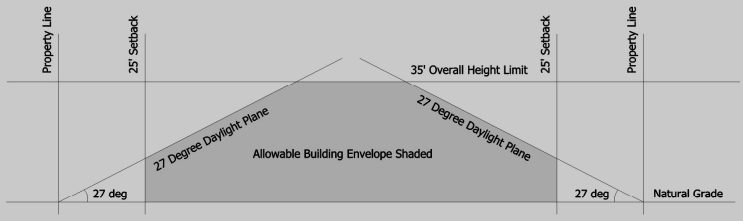
A common approach to remedying these challenges to traditional zoning is to implement a daylight plane (also known as a bulk plane or sky exposure plane), sometimes in conjunction with an increase in required setbacks. While the Committee believes that minimum setbacks established in the City's zoning ordinance should be maintained, enactment of a daylight plane would remedy many of the objections to recent developments.

The daylight plane is a theoretical inclined plane from which a building's exterior wall or roof may not protrude. Although the daylight plane is often thought of as a strategy suited to higher density urban locales, it is ideally suited to the larger lot sizes in Cherry Hills Village because a daylight plane can encourage property owners to locate taller building structures towards the middle of their sites where the structures will have less impact on the daylight, privacy and views enjoyed by their neighbors. Combining a daylight plane with the City's current setback limits will define a "building envelope" through which a proposed structure could not penetrate.



CURRENT ALLOWABLE BUILDING ENVELOPE

(R-3)



PROPOSED ALLOWABLE BUILDING ENVELOPE
with Daylight Plane Height Limit
(R-3)

CHV should adopt a zoning ordinance that requires development of residential primary and accessory structures to be contained within a daylight plane extending from all property lines to the interior of the lot at a 27 degree angle from the horizontal and continuing up to a maximum height of 35 feet above natural grade level. The reason for recommending the 27 degree angle is that this angle aligns with the high angle of the sun at noon on the winter solstice. Thus, sunlight on the shortest day of the year would not be obstructed from reaching a neighbor's property.

Coincidentally, the 27 degree angle approximates a 6" in 12" roof pitch which is a common pitch for homes seeking the look of a nicely sloped roof without creating the excess volume of steeper pitches. Potential exemptions to the daylight plane include chimneys less than 6' in width, gabled roof or dormer window structures less than 4' in width, and antennas.

Application City-wide versus Neighborhood Specific Adjustments

As a starting point, the City should address a major concern of access to the sun. The daylight plane has the potential to alleviate many of the complaints of CHV residents regarding new construction throughout the City. In zoning district R-3, the side setback limit is 25 feet. With the starting point at grade at the property boundary line, the 27 degree slope reaches a 12'6" height at 25 feet from the lot line. This height comfortably allows for a full single story at the 25 foot setback limit and for full two story construction roughly 40 feet from the property line.

However, neighborhood specific adjustments should be made for zone districts R-3A, R-4, and R-5 where some side and rear setbacks are less than 25 feet. In those instances the starting point for the daylight plane could be set at a height of 12' 6" on the setback line and extend upward from there at an angle of 27 degrees from the horizontal to a maximum height of 35 feet above natural grade level.

Please note that much of the R-5 district already is overlaid with covenants which further restrict setbacks and building height. Similarly, the R-3A district includes Covington and Buell Mansion developments which have their own covenants.

Comparable Community Approaches

The City of Menlo Park, California revised its zoning ordinance in 2002 to include daylight plane requirements. Although the typical lot size (7,000 to 9,000 SF) in Menlo Park is much smaller than in Cherry Hills Village, that community was facing similar issues and two years later, in spite of heavy opposition from property rights advocates, the city adopted a comprehensive two tiered zoning reform addressing daylight plane, FAR, setbacks, permeable surface, and neighbor review.

The City of Denver has had a bulk plane ordinance for a number of years, but is currently considering a wholly new "form-based" zoning model that further regulates development by controlling physical form of the building.

The City of Austin, Texas includes a "Side Setback Plane" requirement to restrict building height. The ordinance limits the height of a structure based on a 45 degree plane projected up from a point 15' above the property line.

The City of Palo Alto, California includes a daylight plane limit in its zoning ordinance. The starting point above the property line and the angle of the plane vary for front, rear, and side orientations.

Pros and Cons

Pros:

- By defining a maximum building envelope, the setbacks and daylight plane can limit one neighbor's ability to significantly impact the daylight, privacy and views of another.
- By encouraging taller construction to be located farther inside the property line, the daylight plane will help maintain privacy.
- The daylight plane helps to limit the sense of structures "looming" over neighbors' yards or the public street.
- A daylight plane restriction might be offset with an increase in the overall height limit from 30' to 35' towards the middle of the site. This height increase can allow more aesthetically pleasing architectural solutions without impacting neighbors' views, privacy or access to daylight.
- Compared to other form-based zoning approaches, a simple daylight plane requirement is relatively easy to administer.
- Broader setbacks and bulk limits promote fire safety by spacing buildings and their protruding parts away from each other and allow easier passage of firefighters between buildings.
- Many of the larger homes replacing older structures in Cherry Hills Village would fit within these recommended daylight plane limits. The daylight plane limit allows a flexible way for new development to enhance a property without significantly changing the impact on neighbors.

Cons:

- In some jurisdictions, daylight plane requirements can lead to undesirable architectural solutions when property owners attempt to "build to the rule" in order to comply with the ordinance.
- Daylight planes can be perceived as a restriction on a landowner's right to develop or enhance the structures on her property.
- Daylight plane restrictions might encourage larger one story homes which fill up more square footage space on the lots.

D. 4. Building Height - Increase the allowed height of a structure to 35 feet above natural grade level, subject to the limitations of the Daylight Plane.

Current Zoning Code

CHV's zoning code limits building height in all zone districts to 30 feet.

Impact of Current Zoning

The allowed building height of 30 feet has contributed to the perception that the size and scale of new residential developments is too massive primarily because there is no current daylight plane limit.

Recommendation for City-wide Application

Assuming that the City enacts a daylight plane that effectively limits taller portions of a structure to the more interior spaces of a lot, the building height should be increased to 35 feet. This would mean that at any given point the height of a structure should not be greater than the lesser of the height of the daylight plane or 35 feet from natural grade. This recommendation would not apply if the City does not implement a daylight plane.

Pros and Cons

Pros:

- The increase in the overall height limit from 30' to 35' can allow more aesthetically pleasing architectural solutions without impacting neighbors' views, privacy or access to daylight.

Cons:

- A 5 foot increase in overall height could be perceived as unwarranted, even if a 27 degree angle daylight plane is applied to limit the taller portions of a structure to more interior parts of a lot.

D. 5. Grading - Include in the calculation of maximum allowable floor area of a lot, those areas of a site where regrading outside the footprint of the structure is in excess of 3 feet above natural grade and those areas where regrading is in excess of 6 feet below natural grade.

Current Zoning Code

Other than drainage impacts and minimal berming requirements, the current CHV Zoning Ordinance has few limitations on regrading of residential properties to accommodate new construction.

Impact of Current Zoning

The recent trend towards development of larger houses has brought with it significant reconfiguration of natural grades to accommodate walkout basements, multi-car garages, tennis courts, sports courts, swimming pools, larger outdoor terraces and in some instances to manipulate height. In some cases, these modifications impact the rights of neighboring property owners and can effect a neighbor's ecosystem.

Examples of grading issues have developed in the City in most of the zone districts. The most critical grading issues are evident on the larger lots of the R-1 District where there is more land to regrade and particular challenges are evident where larger R-1 lots abut smaller zoning district lots.

Recommendation for City-wide Application

More comprehensive grading regulations could provide relief for impacted neighbors in the future. A straight forward strategy for limiting the impacts of regrading is to include in the calculation of maximum allowable floor area those areas of a site where regrading outside the footprint of the structure is in excess of 3 feet above natural grade and those areas where regrading is in excess of 6 feet below natural grade. In other words, excavated areas or areas of significant fill would count as parts of the allowable floor area for a particular site and be subject to the Floor Area Ratio (FAR).

Comparable Community Approaches

The focus of grading regulation in other communities is usually on drainage and erosion control. Some communities categorize grading as "minor," "incidental," and "substantial" based on cubic yardage. CHV and many other communities require storm water runoff control plans, or erosion and sedimentation control plans to be included as part of the permitting process.

The Town of Vail requires all grading to be reviewed by a comprehensive design review board to determine compatibility with existing topography, the extent of proposed removal of existing vegetation, and to preserve significant features on the site.

Pros and Cons

Pros:

- Graded areas, particularly those behind large retaining walls are comparable to buildings and should have comparable restrictions.
- Stricter regulation of grading could prevent the type of regrading that on some recent site developments in CHV has effectively circumvented the current height restrictions in CHV, creating a 3 story structure and leading to some of the negative sentiment within the community about new homes being "too big."

Cons:

- Effective site grading is complicated engineering and should not be further burdened by restrictions imposed by the City.

D. 6. Preservation of Natural Surroundings – "Established trees" (those with a trunk diameter of 6" or greater measured at a height of 48" from the ground) should be protected in all setback areas and right-of- ways.

Current Zoning

CHV's current zoning ordinance does not address preservation of natural surroundings in the context of developing or re-developing residential property.

Impact of Current Zoning

The removal of established trees in the process of developing or redeveloping a residential property can have an adverse impact on adjacent properties by removing an essential property buffer, reducing shade or altering the historic character of streetscapes and views between properties.

Recommendation for City-wide Application

The Committee finds that landscaping in general and established trees specifically are valuable community assets integral to the Village's character and identity. The City should implement a tree preservation program to protect established trees and to provide for mitigation when trees must be removed. A tree preservation program should:

- Apply to all "established trees" within the setback limits and rights-of-way of each zoning district, with possible exemptions for diseased or decayed trees.
- Define "established trees" as those with a trunk diameter of 6" or greater, measured at a height of 48" from the ground.

- Require property owners seeking to remove established trees from a setback or right-of-way area to obtain the City's prior approval of a mitigation plan showing location, size and species of replacement trees.
- Require a residential property owner seeking to develop or redevelop a lot to submit as part of the application for a building permit, a plan for tree protection during demolition and construction phases of the development and a tree replacement plan if existing established trees are proposed for removal within the setback or right-of-way areas.
- Require the protection and replacement plans to include a survey of existing established trees in the regulated areas, including description of the species and trunk diameter of each, and to show location, species and size of new trees proposed to mitigate the loss from removal of established trees.
- Require trees slated for removal to be replaced with new trees of a similar nature to mitigate the loss.
- Establish a minimum threshold ratio of 1.5 inches of tree replacement for every 1 inch of tree removed (1.5:1) and establish a minimum individual tree size (such as 2" in caliper size). For example if a property owner removes 3 established trees with a cumulative base diameter of 20," that property owner must install new trees totaling 30" in cumulative diameter with no tree being less than 2" in caliper size.

The Committee does not recommend that the tree preservation program be applied to trees within the building envelope. Thus, property owners retain their right to control plant materials within the area of buildable square footage and the City's Development and Public Works departments are not burdened with treescaping plan reviews and monitoring of preservation or replacement within the building envelope of a site.

Comparable Community Approaches

Communities such as Lake Forest, Illinois and Denver, Colorado have implemented similar landscape preservation ordinances with positive community response.

Pros and Cons

Pros:

- Individual property owners, neighbors and the community as a whole benefit from maintaining or the canopy, shade and natural buffers between residential lots.
- The character of the community is strengthened by maintaining and improving beautification.

Cons:

- There may be a perception that the City is interfering with property rights to control trees within setback areas.
- There could be increased cost associated with development for the protection and/or replacement of trees.

- There could be an increase in responsibilities of both the property owner and the City's staff.

D. 7. Sustainability Requirements / "Green Building" – The "LEED for Homes" at a minimum standard of "Certified" should be applied to all new construction to improve the quality of construction and livability of the home and to reduce the impact of the home on the environment.

Current Building Code

CHV has adopted the 2006 International Energy Conservation Code (2006 IECC). The 2006 IECC requires compliance with minimum energy efficiency standards for insulation, fenestrations, air leakage, moisture control, and heating, cooling and hot water systems. To measure compliance on an itemized basis, applicants submit "REScheck" calculations to the City with a building permit application. "REScheck" is a software program based on the Model Energy Code (MEC) that is used to show compliance. As an alternate measurement of compliance, CHV accepts independent energy audits demonstrating that the structure as a whole performs to a minimum standard of energy efficiency.

Impact of Current Building Code

Sustainability actions are broad community and market based efforts to reduce pollution, consume fewer natural resources and generally to minimize the impact of development on local, regional and global environments. Although CHV's building code requires compliance with certain minimum energy efficiency standards of some building materials and systems, it does not address broader sustainability measures that guide development in a more environmentally sensitive and responsible manner.

Recommendation for City-wide Application

Homebuilders and homebuyers across the country are increasingly interested in "Green Building." Green building means improving the way homes use energy, water and materials to reduce impacts on human health and the environment. Building a green home means making environmentally preferable decisions that will minimize the impact of the home both while it is being built and over the years of its use.

CHV should adopt sustainability requirements that go beyond minimum energy efficiency standards and that are applied to all new construction. "LEED for Homes" is a rating system based on comprehensive green building standards at four different levels of sustainability. In addition to the elements covered by the 2006 IECC, LEED for Homes addresses lighting and electrical systems, water efficiency (both indoor and outdoor water use), building materials and waste materials, planning and the construction process, erosion control, surface water management and drainage issues, landscapes, hardscapes, and non-toxic pest control. At a minimum, CHV should adopt "LEED for

Homes" at the "Certified" level, which is the lowest of the four LEED levels of sustainability standards for homes. The higher levels are Silver, Gold and Platinum.

The City could administer this program itself or alternatively could require self-administration through a program modeled after the United States Green Building Council (USGBC) LEED program. Sustainability standards should be reviewed periodically to assure that CHV's requirements conform to advances made in green building technology.

Comparable Community Approaches

There is a pattern of cities and counties blending three to four different standards together to form their own system of requirements. Colorado communities have adopted various minimum energy conservation standards for residential development. The sampling below reflects the diversity of models available.

The City of Boulder requires residential development to be more energy efficient than the minimum requirements of the International Energy Conservation and Insulation Code. How much more efficient depends on the square footage of the building (ranging from standards for up to 3,000 SF to standards for 5,001 SF and over).

Boulder County adopted the Home Energy Rating System Index (HERS) which is established by Residential Energy Services Network (RESNET).

The City of Aspen and Pitkin County require compliance with energy efficiency standards of E-Star, a program of Energy Rated Homes of Colorado referencing the Model Energy Code. Compliance with the LEED certification program excuses the property owner from the local standards.

The City of Steamboat Springs and Routt County partnered together to develop a Green Building Program for new residential construction. The program is a rating system based on points earned, similar to LEED programs, and includes categories for *Community, Energy, Indoor Air Quality/Health, Resources,* and *Water.* There is also a home size adjustment where a home larger than 3,000 square feet must meet a higher minimum point requirement. Development of the program was partially funded by a grant from the Colorado Department of Local Affairs (DOLA).

In July 2008, the Monterey, California branch of USGBC submitted a report to the City of Monterey proposing new sustainability building requirements for the city. Monterey adopted a requirement that all new projects greater than 1,000 square feet meet the "LEED Silver" rating. Smaller remodels and kitchen and bath remodels also need to meet minimum requirements. Twenty-one other Monterey area cities and counties were to consider some type of modified sustainable building standard in 2008 and 2009.

Carmel-By-The Sea, California recently adopted green building standards for both residential and commercial development. The program is based on LEED and "Build it Green" rating systems. In addition to having standards for new construction, minimum standards for most types of remodels must also be met.

Pros and Cons

Pros:

- The benefits of "green building" are improved energy efficiency, lower operating costs, cleaner environment and added comfort within the home.
- "Green building" standards promote the health, safety and general welfare of CHV residents.
- Communities such as Boulder, Albuquerque, and Austin, TX have adopted Energy Star, LEED for Homes, or similar standards.
- Energy Star or LEED rated homes are built to a higher standard of construction, have improved comfort, lower operating costs and contribute to a cleaner environment.
- Implementation of a LEED for Homes standard will result in an overall higher quality building stock in the community and contribute to a better environment for all.
- Having a LEED-Certified home may increase the market value of the property.
- Endorsing sustainability requirements is the civic responsibility of the City.

Cons:

- The market can dictate better than regulation whether energy efficiency is or should be a primary goal of homebuilders and homebuyers.
- The added cost will impose a financial burden on homebuilders and thus buyers.

D. 8. Contextual Design Review Process – Review of a conceptual site plan and building massing for residential development or redevelopment should be required prior to application for a building permit in order to encourage excellence in design standards specific to the character of the neighborhood.

Current Zoning

CHV has no protocol for the property owner and adjoining neighbors to review the conceptual site plan and building massing of a proposed development prior to the property owner's application for a building permit. The only provisions for review of residential development relate to height restrictions and setback requirements.

Impact of Current Zoning

CHV citizens have been concerned about the unregulated size and scale of residential developments and their impact on surrounding neighborhoods. Citizens also have expressed frustration that there is no recognized forum for communicating their concerns and discussing possible resolutions. Without an interactive process to review and discuss the context of a proposed development, citizens feel that they have no voice on issues which potentially can impact their property or the character of the neighborhood.

Recommendation for City-wide Application

A mandatory review process should be implemented by CHV to facilitate excellence in design standards for residential construction that is specific to the setting, context and character of the surrounding neighborhood and homes. This review process should occur prior to application for a building permit and should apply to proposed residential construction and extensive remodels in all zoning districts. One possible outcome of implementing the following proposed review process is that it can serve as a foundation for the City's later consideration of a broader program that could involve a panel of people who develop design guidelines and moderate the review process.

The elements of the review process recommended here are:

- The building permit applicant should mail notice of the proposed construction at least to neighbors on contiguous properties and to neighbors on properties within 250 feet of the subject lot.
- The notice should state the time and place for a meeting to review and discuss the proposed construction.
- The applicant and his architect or other advisor should be required to attend this meeting along with City staff, and any interested citizens may appear and participate as well.
- The meeting could be moderated or facilitated by a professional hired by the City and for whom the applicant could be required to pay a flat fee as part of the cost of submitting conceptual site plans and building massing and requesting contextual review of the proposed development.
- Participants at the meeting may recommend to the applicant design, site or other changes deemed necessary to reduce or alter the impact of the development on nearby properties.
- The applicant may incorporate the recommendations.

Comparable Community Approaches

Numerous other communities have developed design and site review processes to ensure compatibility of proposed development with the setting, context and character of the surrounding neighborhood. Examples are The Village of Glencoe, Illinois; The Cities of Lake Forest and Park Ridge, Illinois; and the City of Bow Mar, Colorado which has strict zoning regulations about FAR and building height that are reviewed by its Architectural Control Committee.

On the other hand, the Village Of Winnetka, Illinois, located 16 miles north of Chicago, conducted a detailed study and adopted changes to their zoning ordinances but rejected a mandatory design review process in favor of more objective standards.

The community of Sunnyvale, California established a design review trigger for any second-story or other additions resulting in an increase of 20% or more square footage to the existing home. A key aspect of Sunnyvale's regulatory approach is that limits on building volume or size were rejected in favor of design guidelines. Bulk triggers or Floor Area Limits (FAL) are used to activate the scrutiny of the planning commission, but are not used as absolute maximums. Sunnyvale's approach to "mansionization" is anchored in the inherent faith in design review and discussions among its citizenry to mitigate adverse impacts.

Pros and Cons

Pros:

- The opportunity for input from neighboring property owners will create a more positive design and development process and outcome for the community.
- Where tear downs and build-outs are proposed, the contextual review process will promote a level of harmony and compatibility within the context of the neighborhood.
- The review process will help preserve distinguishing qualities and character of neighborhood properties, structures, sites and landscaping.
- Voluntary compliance balances private property rights with the preservation of neighborhood character.

Cons:

- Because compliance with recommended changes is voluntary, the review process may not significantly affect the ultimate size, scale or siting of new construction.
- Many people oppose any regulation of private property development rights.
- Some may view the contextual review process as unreasonable empowerment of local government and neighbors to intrude into the design and construction process at the expense of the individual homeowner and the creativity of her architect.
- The review process adds another layer to the building permit process.

D. 9. Additional Issues

The Committee considered incentive based systems of building regulation. Incentive zoning is intended to provide a reward-based system to encourage development that meets established goals. (See Appendix Tab 4.) The Committee does not suggest that approach for CHV and instead recommends adoption of new or modified code sections on the issues of FAR, daylight plane, height of structures and grading.

The Committee perceived a sense of urgency to complete this report on the zoning issues identified above as priority concerns. Therefore, the Committee does not address here the following additional issues:

- Issuance of building permits.
- Enforcement and implementation of building permits.
- Fencing as it relates to open space and views.
- Lighting as it relates to sustainability.
- Berms and retaining walls as they relate to grading, open space and landscape preservation.

E. Conclusion

Citizen concerns about lot coverage, mass, height and grading of residential developments in CHV have been voiced increasingly in recent years. The City has responded by periodically studying these issues. One year ago the City adopted a new Master Plan with the vision of maintaining the established character of the community as defined by its "semi-rural character, views and open feel." In the Master Plan the specific goal for property development is to "balance private property rights and market trends for new development while minimizing impacts on immediately adjacent properties and the overall context of the neighborhood."

The RDSC concludes that the City's zoning regulations with respect to residential development or redevelopment of primary and accessory structures should be amended to further the vision and goals in the Master Plan. The Committee believes that the recommendations made in this report build on the historic qualities that make our community such a unique and desirable place to live and that these recommendations give due consideration to protection of private property rights while balancing them with the obligation to be sensitive to the impact of development on surrounding properties and neighborhoods.

The RDSC asserts that the time to act is now. A delay in addressing these issues may result in erosion of the qualities that we value and that attract others to our community. By promptly adopting these recommendations, the City can set minimum standards to guide responsible development and to assist our stewardship of CHV's resources. The Committee believes that the courses of action presented in this report protect and promote the health, safety and general welfare of Cherry Hills Village citizens.

The Residential Development Standards Committee thanks Eric Ensey (City Manager), Robert Zuccaro (Planning Manager), Laurel Landsman (Community Development Clerk), and Councilmembers Harriet LaMair, Scott Roswell and Klasina VerderWerf for their valuable assistance throughout this past year. Their expertise and insights are greatly appreciated and facilitated the RDSC's investigation, analysis and preparation of this report.

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