

Design Guidelines

Residential

CHAPTER 6: RESIDENTIAL

This chapter contains the design standards and guidelines for development in land use areas zoned for residential use. Development proposals for projects containing four dwelling units or less are exempt from review by the Design Review Committee. However, such projects will be reviewed by City staff for general compliance with these guidelines. Applicants should discuss specific zoning code requirements with the Community Development Department. Please refer to the Livermore Planning and Zoning Code and the City of Livermore Standard Details, Standard Specifications and the Development Plan Check and Procedures Manual.

CHAPTER SECTIONS

- A. Goals
- B. Site Planning
- C. Building Design
- D. Landscape Design
- E. Accessory Structures
- F. Lighting



A. Goals

The following goal statements set forth the basic design intent implicit in the guidelines formulated for the city's residential areas:

1. Guide the development of housing in order to create a stronger sense of community.
2. Preserve the sense of a small-scale residential community surrounded by rural open space.
3. Provide high quality housing for all sectors of the housing market.
4. Decrease the visual prominence of the automobile and related facilities, such as streets and parking areas, in residential neighborhoods.
5. Encourage greater variety in housing types, development styles, site planning and density mixes in order to provide more diversity and visual interest in the city's residential development, while preserving the city's predominantly single-family residential character.
6. Encourage the development of neighborhoods that provide a high quality living environment and generate civic pride.
7. Encourage a harmonious development pattern that respects and responds to the character of the surrounding built and natural environments.

B. Site Planning

The standards and guidelines in this section are to assist in the appropriate siting of buildings in the residential areas of the City. These standards and guidelines are intended to promote a superior appearance for both single-family and multiple-family residential development.

1. Building Siting and Orientation

Intent: To create residential development that responds to the existing environmental, geographic and topographic conditions in Livermore.

1.1 Natural Site Features

GUIDELINE

1.1.1 Residential layout should preserve existing natural site features such as topography, views and vegetation to enhance the character of the development. Public views of such features should be preserved and incorporated into development proposals.

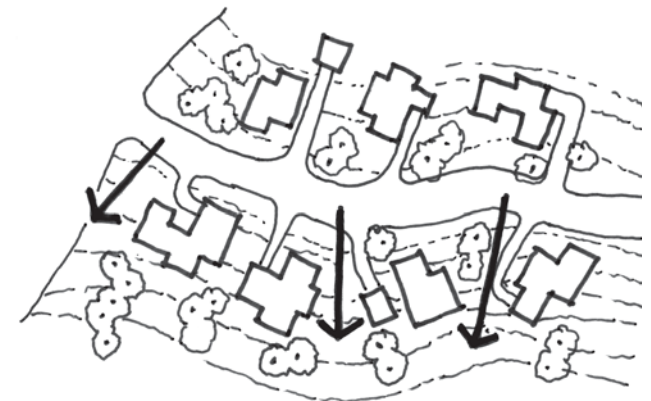
1.2 Topography

GUIDELINES

1.2.1 Livermore's topography is generally flat. Therefore, it is important that sites that have some topographical features not be graded flat, but take advantage of the topographic variation.

1.2.2 In hillside or sloping areas, street and building placement should follow contours rather than being placed at right angles to the prevailing slope.

1.2.3 On sloping sites, staggering the placement of units along opposite sides of the street, rather than siting lots directly opposite one another, can provide better preservation of views.



Staggering the placement of residential units can provide opportunities for better views from public streets.

2. Neighborhood Identity

Intent: To ensure that residential development reinforces a strong community-oriented identity in Livermore's neighborhoods.

2.1 Neighborhood Context

GUIDELINES

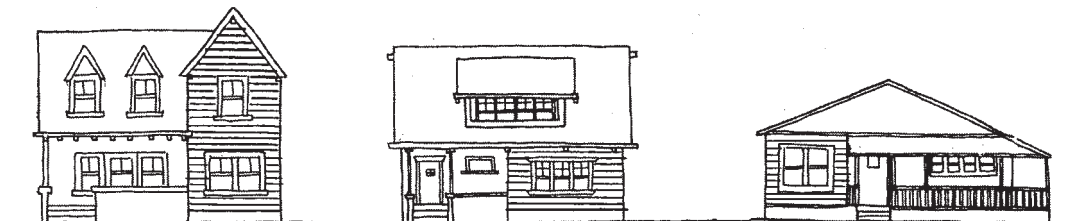
2.1.1 New residential development should provide variety in the City's residential development character than currently exists.

2.1.2 New development should not be so different in character that it is visually incompatible with existing development. Elements that can contribute to the creation of a distinct image include the architecture, street layout and design, landscaping, integration of open space and entry treatment.

2.1.3 New neighborhoods should not try to separate themselves with entry features, but should try to blend seamlessly into the existing "fabric of the city".

2.1.4 Building design should complement surrounding development.

2.1.5 In areas that possess strong existing development character, the building design should respect the predominant characteristics of neighborhood development, such as height, massing, setbacks, materials and architectural style.



The repeated use of a specific architectural element, such as horizontal wood siding, can create a thematic component that helps to identify a neighborhood.



A strong architectural identity can help to create identifiable neighborhoods.

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2.2 Sidewalk Design

GUIDELINE

2.2.1 Planting strips between the sidewalk and the back of the curb are strongly encouraged. They should be a minimum of 5 feet in width.

3. Open Space

Intent: To ensure that community outdoor components of residential development are aesthetically pleasing and promote great outdoor activity.

3.1 General Open Space Guidelines

The guidelines in this section apply to all residential development.

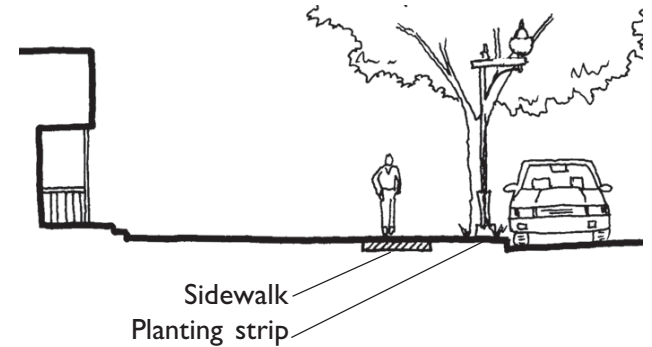
GUIDELINES

3.1.1 Neighborhood open space should be located to maximize its visual and functional benefits.

3.1.2 Common open space areas should be sited to take advantage of any views out from the site and help preserve views to significant architectural and landscape features within the site.

3.1.3 Neighborhood open space should also tie into citywide open space systems including public parks, the arroyos, bicycle, pedestrian and equestrian pathways.

3.1.4 Open space areas should be used to visually unify a development, link development clusters and provide enhanced pedestrian circulation within the development.



3.2 Multi-Family Open Space Guidelines

The guidelines in this section apply specifically to multi-family residential development.

GUIDELINES

3.2.1 In multi-family residential developments common open space areas should be readily accessible from all buildings with the maximum number of units possible sited adjacent to the common open space areas.

3.2.2 In addition to the common open space areas, projects should be encouraged to provide each unit with usable private open space. These private spaces should be directly accessible from the unit and large enough to permit outdoor living activities.



Community open space area providing space for human interaction and play.



Community open space functioning as an extension of private open space areas for all units.



Buildings should define street edge and provide enclosure for semi-private community open space.

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3.2.3 The location of all open space areas should take into account climatic factors such as sun orientation and prevailing winds.

4. Views and Visual Access

Intent: To ensure that views that are unique and specific to Livermore are preserved from the public areas of residential development.

4.1 Views

GUIDELINES

4.1.1 Views to the hillsides that surround the City are an important visual resource that should be incorporated into the design of a project.

4.1.2 Views from streets and public areas within the project should be considered a community resource and should be preserved and enhanced through sensitive site design.

4.1.3 Buildings and landscaping should not block public views.

4.1.4 Proper placement of structures can be used to focus and frame significant views and screen out elements that are visually less appealing.

4.1.5 Providing views of surrounding open space from the main entry to a project can create a positive first impression of the development as a whole.

4.1.6 Preserving views of surrounding open space and hillsides from open space areas within the project will expand the sense of openness, enhance the visual character of the space, and facilitate greater use of the open space.



Street allows view to distant hills.

4.2 Visual Access

GUIDELINE

4.2.1 Residential development adjacent to designated open space areas should maintain visual access to the open space from public streets and not create a wall of development backing up to the open space areas. Siting techniques to accomplish this include:

- ◆ Single-loaded streets with units facing open space areas.
- ◆ Creation of breaks in the development pattern through to open space.
- ◆ Siting of cul-de-sacs adjacent to linear open space.
- ◆ A wide side yard development pattern.



Single-loaded street allows access to open space areas.

5. Setbacks for Single-Family Development

Intent: To employ residential setbacks that enhance residential neighborhoods in Livermore.

5.1 Setbacks

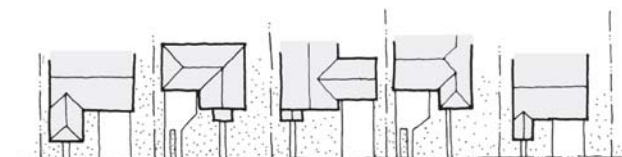
The guidelines in this section apply specifically to single-family residential development.

GUIDELINES

5.1.1 Front yard setbacks should be varied from unit to unit to avoid long repetitive development patterns. As a rule, these setback variations need to be at least three feet to be effective.

5.1.2 Variations in side yard setbacks can also be used to break up long, linear patterns.

5.1.3 Overly large front setbacks are discouraged.



Variations in front and side yard setbacks break up long linear patterns.

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5.2 Small-Lot Development

The guidelines in this section apply specifically to small-lot single-family residential development, for which lots are typically less than 4,500 square feet.

STANDARD

5.2.1 Building entries shall be located on the front façade and directly access a sidewalk.

GUIDELINES

5.2.2 Since setbacks are typically reduced in small-lot subdivisions, additional care should be taken to break up the bulk and massing of the homes.

5.2.3 To facilitate development of small-lot single-family homes, implementation of rear alleys should be considered for accessing garages, off-street parking, utilities and trash facilities.



Small lot development with minimum setback from front property line and direct pedestrian access from sidewalk.

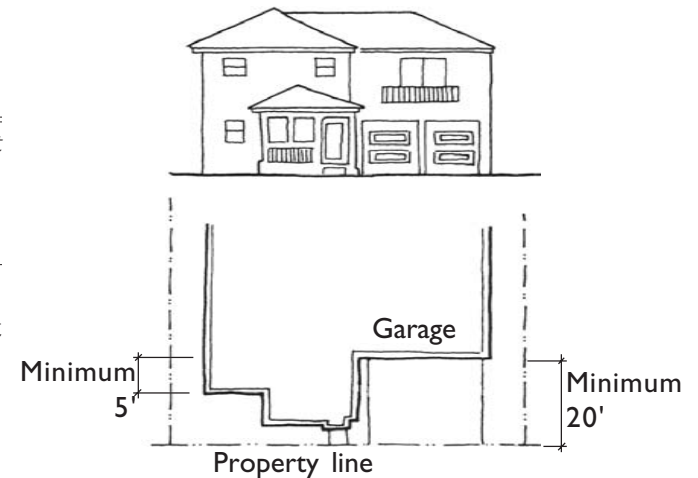
6. Parking Guidelines

Intent: To ensure that parking areas do not dominate the views of residential development from public streets and sidewalks.

6.1 Single-Family Parking

GUIDELINES

6.1.1 Garages should be set back a minimum of 5 feet from the primary front façade of the residence.



- 6.1.2 Garages should be set back at least 20 feet from the front property line.
- 6.1.3 Design that minimizes views of garages is encouraged and should utilize side and rear entry garages as well as detached garages.

6.2 Multiple-Family Parking

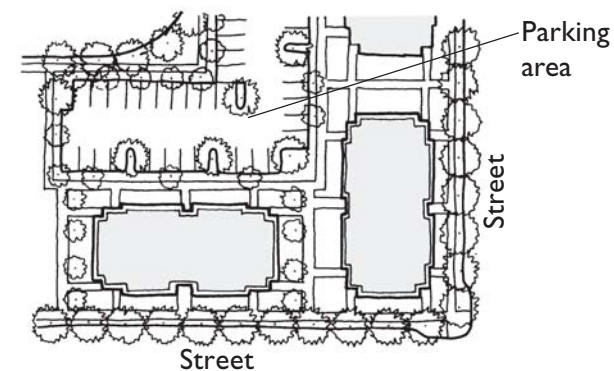
The guidelines in this section apply specifically to multi-family residential development.

GUIDELINES

- 6.2.1 Whenever possible, parking lots should be located behind residential structures, rather than along the primary frontage, to minimize visual impact to the street. Parking lots must be recessed behind the front wall of the building.
- 6.2.2 Where individual garages are incorporated into projects, common driveways, private streets or alley-loaded access is encouraged. The design of these structures should relate to the primary building.
- 6.2.3 Within the site, access drives should provide sufficient length to permit vehicle stacking during hours of peak use, without impacting circulation within the parking lot or on the fronting public street.
- 6.2.4 Flat roofed carports are discouraged.



Garage is set back from front façade to emphasize front entry to residence.



Parking is behind residential buildings.

C. Building Design

The standards and guidelines in this section give design guidance for the architectural components of single-family and multiple-family residential buildings.

1. Massing and Scale

Intent: To encourage residential development that is scaled to the pedestrian.

1.1 General Massing and Scale Guidelines

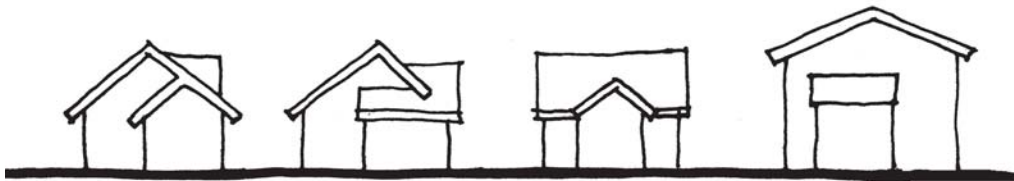
The guidelines in this section apply to all residential development.

STANDARD

1.1.1 Open space areas between buildings shall be scaled to the size of the buildings so that the height of buildings does not overwhelm the adjacent space.

GUIDELINES

1.1.2 Building massing should be varied by employing a variety of techniques, such as recessed porches, bay windows, dormers and varying planes or setbacks. As appropriate to the style of the house, the roof forms should be varied. Roof forms to be employed include: hipped roofs, gabled roofs, varying roof pitches, side-to-side gables, front-to-back gables or various combinations.



Variation in roof forms contributes to a more visually rich neighborhood.



Outdoor space and entry porch are integral components of the residence.

1.1.3 Façade components should correspond to the scale of the human form. This is accomplished by visually breaking up façades into smaller components with elements such as windows, wall insets, balconies, ledges and trim and by stepping-back upper stories.

1.1.4 Façade components should be in proportion to related components, such as the proportion of a column to its base and the width of a column to its height.

1.2 Massing and Scale Standards and Guidelines for Multi-Family Development

The guidelines in this section apply specifically to multi-family residential development.

STANDARDS

1.2.1 The massing of larger residential buildings shall be broken down to convey a sense of “home”, and give individuality to each unit that lies within it.

1.2.2 Building massing shall be subdivided into portions or segments compatible with the adjacent residential scale.

1.2.3 Façades of long buildings shall be architecturally subdivided into shorter segments every 25 to 50 feet maximum, using the methods identified in the Guidelines, below.

1.2.4 Each vertical module of units shall incorporate architectural features that help to individually distinguish them, such as wall breaks, projections, distinct color schemes and individual roof treatments.

GUIDELINES

1.2.5 Building design should resemble the scale of single-family residential architecture to the degree possible.



Variation in roofline and building volume breaks down the building mass.

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1.2.6 Building massing should be legible as individual residences or small groups of units and called out using one or more of the following methods:

- ◆ Separate building volumes or façade protrusions
- ◆ Window bays or balconies
- ◆ Porches and entrance vestibules
- ◆ Individual roof volumes and other roof articulation

1.2.7 Building façades should incorporate the following features to architecturally distinguish modules of housing units:

a) Vertical Architectural Features:

- ◆ Apply a vertical slot or recess between façade segments with a 6 inch minimum recess depth and a 15 inch minimum width.
- ◆ Apply a vertical pilaster between façades with a 3 inch minimum protrusion and a 15 inch minimum width. The maximum horizontal protrusion of pilasters into the public right-of-way should be 6 inches.
- ◆ Project a part of the building, such as a tower, above the main building volume.

b) Building Wall

- ◆ Vary the offset of portions of the building along the main façade, using elements such as bays or building volumes to create the offset.
- ◆ Change the color or material of segments across the façade. Material changes should always be accompanied by a change in plane and separated by framing or other means.

c) Individualized Roof Forms

- ◆ Use individual roof pitches to break up the form. For example, a single building could express individual units through a series of smaller gabled dormers.
- ◆ Subdivide flat roofs into recognizable segments with shifts in height and cornice treatments at street façades.



Individual residences are articulated through the use of variation in the massing, recessed balconies, wall breaks and varying roof forms.



Individual residences are articulated through the building volumes and entrance areas.

1.2.8 The following methods are recommended to break down the building mass of multi-story buildings:

- a) Accentuating the ground floor of the building by making it thicker or more substantial visually than upper stories.
- b) Using entry porticos and front porches or other articulation at the ground level.
- c) Using upper story setbacks or partial indentations for upper story features, such as balconies, outdoor moldings or cornices, to accentuate the horizontal levels of a building.

2. Architectural Style

Intent: To ensure that residential design contributes to the overall architectural character of Livermore.

GUIDELINES

2.1.1 Building design should not be limited to any particular style. However, it should generally be compatible with surrounding residential development. The authentic implementation of appropriate established architectural styles is encouraged. (Please refer to “*A Field Guide to American Houses*” by Virginia and Lee McAlester.)

2.1.2 Functional design solutions should be employed that are compatible with the surrounding natural and built environments and that contribute to the character and quality of new residential development.

2.1.3 Building elevations should not be replicated across the street from each other or on adjacent parcels.

3. Façade

Intent: To ensure that residential development relates to the human scale, facilitates opportunities for pedestrian activity on adjoining public streets and contributes to a community-oriented character for residential neighborhoods.

STANDARDS

- 3.1.1 Facades shall be designed so as to include entries, porches and other architectural elements that relate to the human scale.
- 3.1.2 Residential entries shall be located on the front façade and shall directly access the sidewalk or street.
- 3.1.3 Rain gutters shall be designed so as to be of a scale and material that is compatible with the roof and eaves.

GUIDELINES

- 3.1.4 If the building mass and pattern of windows and doors is complex, simple wall surfaces are recommended. If the building volume and the pattern of wall openings are simple, additional wall texture and articulation should be employed.
- 3.1.5 High quality materials such as crafted wood, stainless steel, copper and other ornamental metals are highly recommended.



Roof gable ends express individual residential units.



Change in building mass and setback.

3.1.6 Base treatments should be provided, if architecturally appropriate, to visually establish a human scale for passers by.

a) Base treatments should extend around all visible sides of a building.

b) A building base may be created by any of the following treatments:

- ◆ A visibly thicker and continuous base portion of the wall along the ground where the wall above the base sets back.
- ◆ A material and/or color change of the base wall relative to the building wall above. The base material should generally be heavier than portions of the building above by employing darker colors and/or more substantive materials.
- ◆ A horizontal architectural feature at or below the first story mark, such as an intermediate cornice line or protruding horizontal band.

3.1.7 Additional architectural features should be used to create interesting articulated facades such as architectural trim with substantial depth and detail, window boxes, brackets, overhangs, trellises and lattice.

3.1.8 Individual elements must be part of a well-conceived overall design.



Street facing façade is detailed with trellis, roof overhang, window trim and an overall color palette that enhances architecture.

4. Windows and Doors

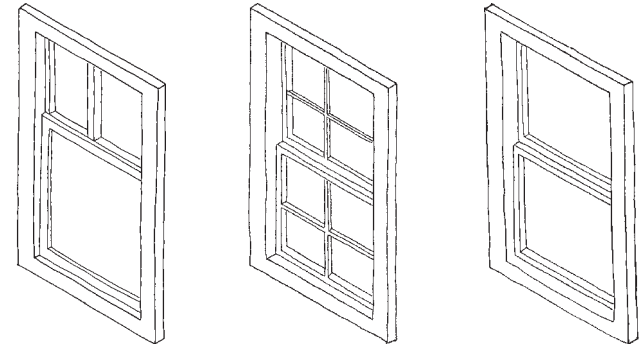
Intent: To ensure that openings in the façade contribute to the overall design of the building and promote a relationship to the human scale.

STANDARDS

- 4.1.1 All windows within a building and across a façade shall be related in design, operating type, proportions and trim.
- 4.1.2 Windows shall be used as architectural elements that add relief to the façade and wall surface.
- 4.1.3 Windows shall employ design details, if appropriate to the architecture, such as mullions, to break the scale of the façade into smaller components.
- 4.1.4 Reflective glazing is prohibited.

GUIDELINES

- 4.1.5 Windows should be vertically oriented, in order to relate to the human form, unless horizontal windows are appropriate to the style, or are necessary in the particular application.
- 4.1.6 For attached units, doors should vary from unit to unit, where possible, to further distinguish the individual identity of each residence.
- 4.1.7 Unifying architectural elements should be used to carry a window pattern across a façade, such as a common sill or header line.
- 4.1.8 Shaped frames and sills should be used to enhance openings and add additional relief. They should be proportional to the glass area framed, as where a larger window should have thicker framing members.
- 4.1.9 Unless appropriate to an architectural style, windows should not be flush with walls. Glass should be inset from the exterior wall and/or frame surface to add relief to the wall surface.

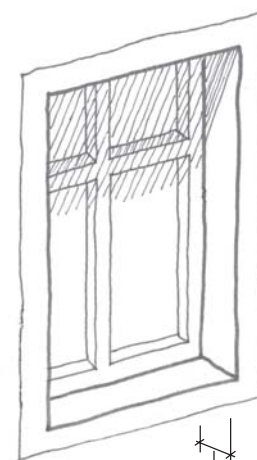


Vertically oriented windows reinforce the human form.

4.1.10 If aluminum sliding windows are used, select heavier window products with visually thicker (1.5 inches or greater) extrusions and frame members.

4.1.11 Clear glass is recommended. To add privacy and aesthetic variety to glass, fritted glass, spandrel glass and other decorative treatments are recommended. If tinted glass is to be used, light tints and green, gray or blue hues are recommended.

4.1.12 Low emissivity glass and external shade devices should be used for heat control and an increase in energy efficiency.



Window reveal

5. Porches and Balconies

Intent: To ensure that residential buildings provide transitional spaces between private and public areas.

5.1 General Guidelines for Porches and Balconies

The guidelines in this section apply to all residential development.

GUIDELINES

5.1.1 Front porches are encouraged to facilitate activity in front yards and to provide a semi-public transition zone between the street and the residence.

5.1.2 Porches should be of a sufficient size to provide functional outdoor space.



Porch as semi-public transition space.

5.2 Porch and Balcony Guidelines for Multi-Family Residential Development

The guidelines in this section apply specifically to multi-family residential development.

GUIDELINES

5.2.1 Upper-story units should have balconies or decks sufficient to accommodate two chairs and a small table.

5.2.2 Larger balconies are encouraged to provide greater usable open space.

6. Materials

Intent: To ensure that an appropriate range of building materials is used that enhances the quality of residential development.

6.1 General Standards and Guidelines for Materials

The standards and guidelines in this section apply to all residential development.

STANDARDS

6.1.1 A variety of materials shall be used that emphasize a differentiation between the various components of the building.

6.1.2 Gaps between applied materials and the base of the building shall not be visible.

6.1.3 Simulated finishes (e.g. artificial stone using concrete form liners simulating naturalistic lines and shapes such as rubblestone) shall be of a high quality that successfully mimics the natural material.

6.1.4 The combination of materials on a building façade shall be appropriate to its style and design.



Balconies should be of sufficient size to accommodate at least two chairs and a table.

GUIDELINES

6.1.5 Materials and detailing should be used on all sides of the building, not just on the front façade.

6.1.6 Natural materials are encouraged.

6.1.7 It is particularly important that the use of materials reflects that of the surrounding development in order to contribute to the cohesive visual character of the area.

6.1.8 If the building mass and pattern of windows and doors is complex, simple wall surfaces are recommended. If the building volume and the pattern of wall openings are simple, additional wall texture and articulation should be employed.

6.1.9 Materials to be used as the primary cladding on buildings include:

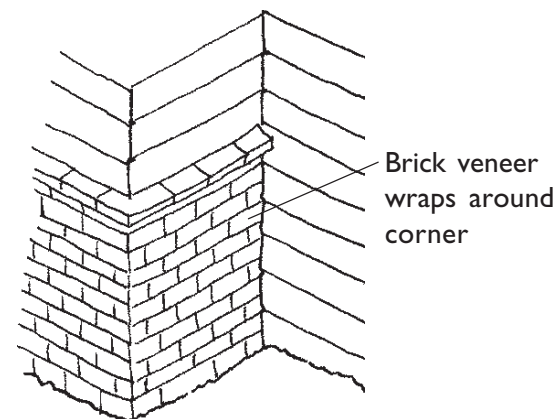
a) Wood - Horizontal sidings such as clapboard and tongue-in-groove, vertical siding such as board and batten and other horizontal sidings such as smaller wood shingles and shakes may be suitable. The larger, more rustic styles of shingles and shakes should not be used. Trim elements should be used, and traditional Craftsman styling such as timber detailing and exposed bracing are recommended. T1-11 siding is prohibited unless done in a board and batten style.

b) Brick - Both yellow and red brick are found in Livermore. Full size brick veneer is preferable to thin brick tile. Brick veneers should be mortared to give the appearance of structural brick. Brick veneer applications should use wrap-around corner and bullnose pieces to minimize a veneer appearance.

c) Stucco or Exterior Insulation and Finish Systems (EIFS) - Stucco, cement plaster or stucco-like finishes such as EIFS are acceptable finishes. Attention should be paid to detail and trim elements for a high quality installation. Highly textured surface textures are not recommended. The pattern of joints should be architecturally coordinated with the overall façade composition, and sealant colors should be coordinated with surface and other building colors.



Horizontal wood siding.



Brick veneer wraps around corner

Materials should not be simple veneers but should return around a façade.

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6.1.10 Accent materials may be used to add interest and variety at a more intimate scale, such as along architectural elements such as cornices, or on portions of buildings or walls. Accent materials include wood, stucco and brick, as listed above, as well as:

- a) Ceramic tile. Tile should be limited in use to a façade cladding or decorative wall accent material. Grout color should be coordinated with tile and other building colors.
- b) Stone and stone veneers. Stone accents should be used only as a base or as a special decorative material.

6.2 Material Guidelines for Multi-Family Residential Development

The guidelines in this section apply specifically to multi-family residential development.

GUIDELINE

6.2.1 Profile, corrugated and other sheet, rolled and extruded metal surfaces are acceptable in limited circumstances such as an agricultural theme material, or for live-work structures in a warehouse/industrial style.



Stone used to accent the architectural elements columns and base.

7. Colors

Intent: To ensure that residential building colors are compatible with the surrounding built and natural environments.

GUIDELINES

7.1.1 Exterior building colors should be compatible with the surrounding neighborhood setting and should be in keeping with the geographic and climatic conditions specific to Livermore.

7.1.2 Accent colors should be used to enhance details such as trim.

7.1.3 Primary colors should be limited to accent or trim colors and should generally be compatible with the surrounding neighborhood.

8. Roof Design

Intent: To ensure that the design of roofs correlates to the building design as well as climatic conditions specific to Livermore.

8.1 Roof Form

GUIDELINES

8.1.1 The form, color and texture of the roof should be an integral part of the building design and compatible with both the natural and built settings.

8.1.2 Roofline variations may be used to demarkate primary building entrances.

8.1.3 Flat roofs are generally discouraged unless part of a distinct architectural style.



All exterior building colors should be subtle and compatible with the surrounding neighborhood.



Roof designed as part of the building.

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8.1.4 Eaves should be of a depth that creates shadows on residential façades and that is architecturally evocative of Livermore’s rural and agrarian history.

8.1.5 Roof overhangs are encouraged to create shade in hot summer months. Roof overhangs should be detailed as follows:

- ◆ Brackets and corbels or other overhang supports are encouraged in order to add a finer level of detail to the building.
- ◆ Soffits should be designed as a visible feature and incorporated into the overall architectural design.



Eaves cast shadows on facades.

8.2 Roof Materials

STANDARDS

8.2.1 Roof materials shall relate to the design and architectural style of the building.

8.2.2 Tile roofs shall be detailed in a way that is consistent with an appropriate use of the material.

GUIDELINES

8.2.3 Roofing materials which are light-colored, such as white gravel’ brightly colored or reflective, such as metal, are generally discouraged and shall only be approved after design merit is determined by the Design Review Committee.

8.2.4 Tile roofs should not wrap onto gable-end eaves



Roof tiles are appropriate for some architectural styles.

D. Landscape Design

The standards and guidelines in this section give design guidance for the landscaping components of single-family and multiple-family residential projects in the City. All landscaping shall comply with the water efficiency requirements of the City's Water Efficient Landscape Ordinance.

1. General Landscape Design Guidelines

Intent: To ensure development plans include landscape elements that contribute positively to the character of residential neighborhoods.

The guidelines in this section apply to all residential development.

1.1 Function

GUIDELINES

1.1.1 Landscaping should be an integral part of the overall site design, rather than camouflage unused or unusable spaces or poor architectural design.

1.1.2 Landscape improvements should be utilized to better integrate a development with its setting by:

- ◆ Enhancing pedestrian scale of the building
- ◆ Screening views of unsightly elements, such as utility boxes and backflow devices
- ◆ Softening hard edges visually
- ◆ Providing a transition between different use areas
- ◆ Creating an attractive aesthetic environment
- ◆ Creating usable pedestrian areas
- ◆ Reducing energy consumption
- ◆ Defining specific areas and enhancing architectural features



Landscaping integrates site design with existing trees to provide screening and shade.

1.2 Existing Landscape Elements

GUIDELINES

1.2.1 Where feasible, significant existing landscape elements should be preserved and incorporated into development and landscape plans.

1.2.2 Elements such as mature trees, tree groupings, arroyos and rock outcroppings should be considered in the design of a project.

1.2.3 Landscape plans should show how the design integrates existing vegetation and site features.

1.3 Plant Species

GUIDELINES

1.3.1 A well-coordinated palette of plant species should be employed.

1.3.2 Native plant materials and other plant species which are well adapted to local climatic conditions are preferable.

1.3.3 Landscape plans should exhibit a well-coordinated design concept. Plant materials should be utilized in an orderly manner which defines the site's spatial organization and function, relates to the buildings and structures and incorporates the various site elements.

1.3.4 The scale and nature of landscape materials should be appropriate to the site and structures. Large scale buildings should be complemented by large scale landscape materials, such as plants, rocks, timbers, walls, and fences.

1.4 Plant Size and Scale

STANDARD

1.4.1 Size of Materials. Larger, more mature plant materials shall be used as much as possible to ensure that some immediate effect on the project's appearance will be attained within two years of planting. The following minimum sizes and spacings



Existing tree is preserved and incorporated into new development.

are recommended for plant materials at the time of installation:

- a) Trees should be a minimum 15-gallon pot size or 6 feet tall and have a 1-inch caliper size at chest height, whichever is greater.
- b) All street trees should be 24-inch box size and comply with the City of Livermore Standard Details.
- c) Twenty percent of all trees should have a 24-inch box container size or larger. More mature plant materials should be located in areas with particular visual importance such as entries and along main frontages.
- d) Shrubs should have a minimum 5-gallon pot size, and upright shrubs should have a minimum height of 18 inches and a minimum spread of 18 inches; spreading shrubs should have a minimum spread of 19 to 24 inches.
- e) Ground covers planted from flats should have a maximum spacing of 12 inches on center or, when planted from one-gallon cans, a maximum spacing of 24 inches on center.
- f) Parking lot landscaping should comply with the City of Livermore Standard Details in terms of number, size and spacing of trees and plant material.



Significant existing landscape elements should be preserved.

1.5 Irrigation

STANDARDS

- 1.5.1 All landscaped public or common areas and front yard landscaping within a development shall be required to have automatic irrigation systems to ensure plant survival. Drip irrigation is preferred.
- 1.5.2 Systems shall be designed to minimize water run-off onto sidewalks or streets.
- 1.5.3 Landscaped parking strip shall be included in the irrigated areas.
- 1.5.4 Irrigation plans shall demonstrate compliance with the City's Water Efficient Landscape Ordinance.

2. Front Yard Landscape Design

Intent: To ensure development plans include front-yard landscape elements that contribute to the character of residential neighborhoods.

2.1 Front Yard Standards and Guidelines for Single-Family Residential Development

The standards and guidelines in this section apply specifically to single-family residential development.

STANDARDS

- 2.1.1 Landscaping shall be installed with the initial construction of the residence.
- 2.1.2 A minimum of one 24-inch box tree and one 15-gallon tree shall be located in the front yard of each residence in addition to required street trees.

GUIDELINES

- 2.1.3 A sidewalk extending from the front door to the public sidewalk is highly encouraged.
- 2.1.4 Hardscape areas are encouraged to utilize permeable materials.
- 2.1.5 Use of turf should be minimized to increase water efficiency.
- 2.1.6 Planting at the foundation is encouraged.
- 2.1.7 Driveways that provide a landscaped strip between the wheel wells are encouraged.
- 2.1.8 Total area of hardscape areas should be kept to a minimum.
- 2.1.9 If decorative rocks and boulders are used, they should be integrated with planting.



Front yard landscaping should be installed with the initial construction of a residence.

2.2 Front Yard Design Standards for Multi-Family Residential Development

The standards in this section apply specifically to multi-family residential development.

STANDARDS

- 2.2.1 The front setbacks shall be adequately landscaped.
- 2.2.2 Entry opportunities to residential units shall be directly from public streets.

GUIDELINES

- 2.2.3 Hardscape areas are encouraged to utilize permeable materials.
- 2.2.4 Use of turf should be minimized to increase water efficiency.
- 2.2.5 Planting at the foundation is encouraged.
- 2.2.6 Total area of hardscape should be kept to a minimum.
- 2.2.7 If decorative rocks and boulders are used, they should be integrated with planting.

2.3 Swales

STANDARD

- 2.3.1 Drainage swales that are incorporated into landscape designs shall conform to the Water Resources Division's standards and guidelines for swales.

GUIDELINES

- 2.3.2 Swales are strongly recommended to reduce water quality impacts associated with site runoff.
- 2.3.3 Longitudinal slope of swales should be between 1% and 5%. Proposed swales with a slope of less than 1% will not be approved unless adequate underdrains are provided to prevent ponding. Swales of greater than 3% may be required to install check dams to reduce velocity through swale.



Entry areas facing public street shall be adequately landscaped to soften hard edges and screen views.

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2.3.4 Side slopes should not exceed 3:1, horizontal:vertical.

2.3.5 Swale bottom must be graded flat to improve pollutant removal. Swale bottom should ideally be at least 4 to 6 feet wide, with a minimum of 2 feet.

2.3.6 Provide at least 1,200 square feet of usable swale area per acre of impervious surface.

3. Parking Area Landscaping

Intent: To provide parking areas that do not detract from the residential environment.

The standards and guidelines in this section apply specifically to multi-family residential development.

3.1 General

STANDARDS

3.1.1 All parking areas shall provide interior landscaping for shade purposes and aesthetic enhancement.

3.1.2 Curbed planter areas shall be provided at the end of each parking aisle to protect parked vehicles from the turning movements of other vehicles.

3.1.3 Parking lots shall be landscaped with broad branching shade trees at a minimum ratio of three trees per 10 parking spaces for single-loaded stalls, six trees per 20 parking spaces for double-loaded stalls and one tree for every three parking spaces for smaller parking bays.



Landscaped parking area for multi-family residential development.

GUIDELINES

3.1.4 Views of parking areas from public streets should be buffered by landscaping, earth berms or some combination of the two in order to reduce the visual impact of large parking areas.

3.1.5 For security reasons, openings should be incorporated into the landscaping in order to permit clear views into the site.

3.1.6 No more than ten parking spaces should be located in a row without an intervening landscaped planter strip, provided the intervening planter strip is the full depth of the adjacent parking spaces.

3.1.7 Wheel stops should be used adjacent to tree wells and planter areas to protect landscaping from car overhangs. In place of wheel stops, the planter curb may be used for car overhangs, provided the 5-foot minimum clear planting area is maintained.

3.1.8 Drainage into swale areas is encouraged and may be accommodated by design elements such as flush curbs, perforated curbs and tree offsets.

3.1.9 Plant material in and adjacent to swales should delineate the transition between the swale area and the surrounding landscape.



Earth berm with lawn screens parking area.

E. Accessory Structures

This section provides standards and guidelines for the cohesive design of all accessory structures in the residential areas of the City.

1. Design Character

GUIDELINE

1.1.1 The design of accessory structures, such as carports, detached garages and sheds should draw upon the architectural character of the primary residence.

2. Mailboxes

STANDARD

2.1.1 The design of the mailboxes and mailbox enclosures shall be consistent with the architectural style of the development and shall match the colors and materials of other onsite buildings.

3. Mechanical Equipment, Trash Enclosures and Utilities

3.1 General

GUIDELINE

3.1.1 Mechanical Equipment, trash enclosures and utilities should be provided with architectural enclosures or fencing, sited in unobtrusive locations, and screened by landscaping.

3.2 Refuse Areas

STANDARDS

3.2.1 Trash enclosures shall be of sufficient size to house the number and size of trash bins and containers needed to accommodate the waste generated by the building user, including, trash, cardboard, cans and bottles, food waste, green waste and other recyclables, as required by the City's Solid Waste Ordinance and Livermore Planning and Zoning Code requirements.

3.2.2 Trash bins shall be located within a trash enclosure at all times.

3.2.3 Trash enclosures shall be integrated into the site plan to minimize enclosure visibility and accommodate truck access.

3.2.4 Trash enclosures shall be constructed of durable materials and the color, texture, and architectural detailing shall be consistent with the overall site and building design.

GUIDELINES

3.2.5 Trash enclosures should be located away from public view.

3.2.6 Landscaping should be provided around trash enclosures to soften views wherever feasible.

3.2.7 Trash enclosures should be located away from adjacent parcels to minimize noise and odor impacts typically associated with garbage collection and storage.

3.2.8 Screening of the trash enclosure should be integrated into the overall site and building design. Screening should be constructed of durable materials. All structural screening should be supplemented with landscaping.

3.2.9 Roofs of enclosures should be designed to complement the project buildings' roof style and colors.

3.2.10 A building wall may be used as one side of a trash enclosure.



Trash enclosure of high-quality, durable materials.

3.2.11 Enclosures should be located and designed to facilitate users' convenience. Person doorways should be provided in addition to the gate opening.

3.2.12 Where trash compactors are used, they should be screened from public view within a trash enclosure or within the building volume.

3.2.13 Where trash compactors will be utilized, the trash enclosure should be enlarged to accommodate the space for required trash bins as well as the trash compactor. Trash compactors may not displace space required for trash bins.

3.2.14 Trash compactors should not block access to standard trash bins or interfere with standard trash enclosure operation.

3.2.15 Trash enclosures should be designed so that each bin can be removed and replaced without requiring the removal of other bins, to avoid stacking and to maximize access.

3.2.16 Enclosure gate opening should extend the width of the enclosure with no single gate opening less than nine feet in width. The dimension of opened gates should allow adequate clearance of approximately 18 inches clear on either side of bins for mechanized truck access or manual maneuvering of bins.

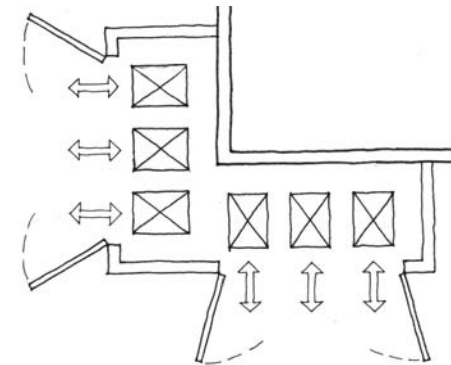
3.2.17 A smaller number of larger gate openings should be designed, instead of more numerous small gate openings.

3.2.18 Heavy duty doors should be used. The use of wheels under the doors to increase the durability of gate hinges should be considered.

3.2.19 A concrete pad inside enclosures should be included to prevent damage to ground surfaces from filled containers. The pad should extend 10 feet in front of gates.

3.2.20 If security lighting is needed, a minimum one foot-candle at ground level should be designed, integrated into the site design, shielded and located as low to the ground as possible.

3.2.21 Enclosure doors should face an approach drive aisle where possible.



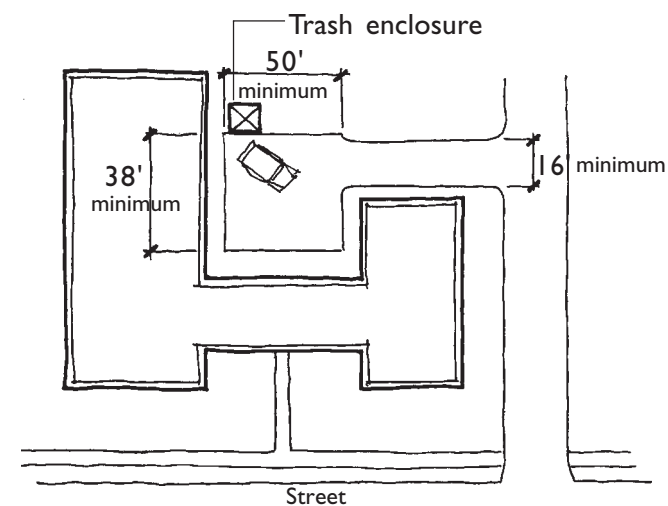
Trash enclosure lay-out where bins may be removed independently.

3.2.22 Driveways or travel aisles leading to trash enclosures should be a minimum of 16 feet in width with a 50-foot deep approach.

3.2.23 In trash collection loading areas, the minimum overhead vertical clearance should be 22 feet to accommodate loading operations.

3.2.24 Where no through-route exists for trash removal trucks, the turn-around area should be a minimum of 38 feet square in front of the enclosure.

3.2.25 Trash collection should be designed for from a side street, alleyway or parking area, to avoid collection trucks needing to maneuver in busy roadways.



Low wooden fence with open structure enhances overall site and building design.

3.3 Backflow Preventors

STANDARD

3.3.1 Backflow prevention devices shall be included in the plans for design review and shall be screened from public view by the use of landscaping, berms, low walls and other such screening devices.

4. Walls and Fences

STANDARDS

4.1.1 Chain link fences shall not be used.

4.1.2 Barbed wire, razor wire or similar wire or security fences shall not be used.

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GUIDELINES

4.1.3 The design of fences, walls and other structural landscape features should be compatible with and complementary to the architecture and the surrounding setting.

4.1.4 Fences that entirely enclose the front yard including driveways are highly discouraged.

4.1.5 Fences constructed of predominantly natural materials, such as wood and stone, are preferred; however, the use of masonry and textured or color-tinted concrete is acceptable.

4.1.6 All fences, walls and other related features should be accompanied by landscaping to better integrate the structure within the site and to reduce its visual impact.

4.1.7 Where preservation of views is a goal, such as along arroyos or open space areas, fences with an open structure should be used so as to permit views through to such community amenities.

4.1.8 Design elements should be used to break up long expanses of uninterrupted walls, both horizontally and vertically.



Fence design complementing building and site design.



Low wall accompanied by landscaping and swale between street and sidewalk.

F Lighting

This section contains the standards and guidelines for exterior lighting in the residential areas of the City. The intention for these guidelines is to ensure that the design of fixtures and the light provided contributes to the character of development and does not impact adjacent development.

1. Design

STANDARDS

1.1.1 Exterior lighting shall be designed as an integral part of the building and landscape design.

1.1.2 Site plans and architectural plans shall include the location of fixtures, their design and the nature and level of the illumination they will provide.

1.1.3 Illumination levels shall be provided to address security concerns, especially for parking lots, pedestrian paths, outdoor gathering spaces, at building entries and any other pedestrian accessible areas.

GUIDELINES

1.1.4 Decorative light fixtures, such as gooseneck lighting, are strongly encouraged.

1.1.5 Lighting should generally be designed to include cut-offs to minimize the lighting of the sky.

2. Lighting Height

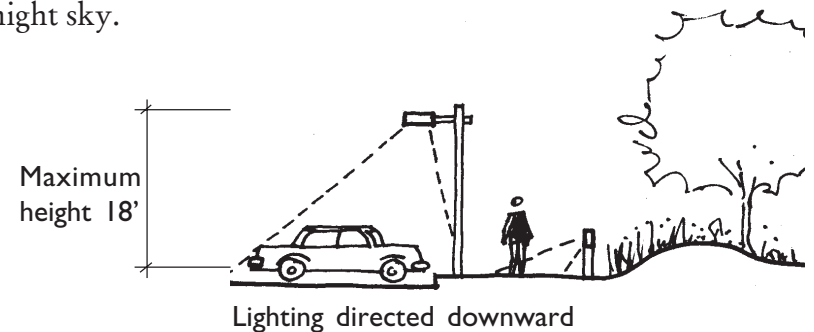
STANDARD

2.1.1 The height of luminaries shall be in scale with the building and site design and in no case shall the height exceed 18 feet in height from grade.

GUIDELINES

2.1.2 Lighting sources should be kept as low to the ground as possible while ensuring safe and functional levels of illumination.

2.1.3 Area lighting should be directed downward or employ control features so as to avoid light being directed offsite as well as to avoid lighting of the night sky.



3. Area of Illumination

STANDARD

3.1.1 The light source for externally illuminated signs must be positioned so that light does not shine directly on adjoining properties, cause glare, or shine in the eyes of motorists or pedestrians.

GUIDELINES

3.1.2 Lighting should be located so as to minimize the impact of lighting upon adjacent buildings and properties, especially residential uses.

3.1.3 In general, the location of lighting should respond to the anticipated use and not exceed the amount of illumination required by users.

3.1.4 Illumination over an entire area or the use of overly bright lighting is strongly discouraged. The use of a number of smaller lights is preferable to larger, more intense lights.

3.1.5 Lighting for pedestrian movement should illuminate changes in grade, path intersections and other areas along paths which, if left unlit, would cause the user to feel insecure. Recommended minimum levels of illumination along pedestrian paths between destinations is 0.5 foot-candles. At pedestrian destination points such as entryways, plazas and courtyards, lighting levels should typically achieve illumination of 1 foot-candle.

3.1.6 The placement of light standards, whether for street lights or garden lights, should not interfere with pedestrian movement.

4. Parking Area Illumination

GUIDELINES

4.1.1 Illumination should be concentrated along the pedestrian paths leading to parking areas and in the specific areas where cars are parked.

4.1.2 Illumination should achieve a lighting level of 1 foot-candle on the parking lot surface.

5. Prohibited Lights

STANDARD

5.1.1 No outdoor lights shall be permitted that blink, revolve, flash or change intensity.