



**TENTATIVE AGENDA
MARCH 5, 2024 6:00 PM.
ARCHITECTURAL REVIEW BOARD**

The Architectural Review Board will convene at the City of Glendale Auditorium which will be open to the public.

- I. MEETING CALLED TO ORDER
- II. ROLL CALL
- III. APPROVAL OF MINUTES: DECEMBER 13, 2023
- IV. DISCUSSION: ARB GUIDELINES UPDATE
- V. MISCELLANEOUS
- VI. ADJOURNMENT

Joanne Carr
Deputy City Clerk

POSTED: 5:00 PM, MARCH 1, 2024



**MINUTES
ARCHITECTURAL REVIEW BOARD
WEDNESDAY, DECEMBER 13, 2023, 2023 - 6:00 P.M.**

CHAIRMAN JEFFREY FERNHOFF
JOHN FALK
MIKE MORAN
REED VOORHEES
BRAD WEITEKAMP
JON EMERT

CITY ATTORNEY, ALEXANDRA SIEVERS
INTERIM CITY ADMINISTRATOR, ANDREW STEWART
DEPUTY CITY CLERK, JOANNE CARR

MEETING CALLED TO ORDER

The meeting was called to order by Chairman Fernhoff at 6:00 p.m.

ROLL CALL

Present: Chairman Fernhoff, Mr. Moran, Mr. Voorhees, Mr. Emert

Absent: Mr. Falk, Mr. Weitekamp

APPROVAL OF MINUTES FROM NOVEMBER 8, 2023.

Mr. Fernhoff asked if there were any additions or corrections to the minutes from the November 8, 2023. There being none, he asked for a motion. Mr. Voorhees motioned approval of the amended minutes. Mr. Moran seconded the motion, which was unanimously approved.

**REVIEW OF PLANS FOR A TWO-STORY REAR ADDITION
TAYLOR AND KATHERINE ST. EVE, 263 ELM AVENUE**

Present: Jennifer Sims Taylor, Fendler + Associates, Inc.

Mr. Fernhoff opened the discussion.

Mr. Moran stated the Board tries to discourage builders and architects from using working drawings due to cost. Ms. Taylor thanked Mr. Moran for the information.

Drainage: Mr. Moran stated that the Board's civil engineer was not present, noted that the addition would be a teardown with a replacement in kind and added that the impervious surface would be reduced by 70 cf. Mr. Moran stated that there would be no need for drainage enhancements, as the new project would be generating less surface drainage.

Mr. Emert asked if the existing patio was brick, and if the whole area considered impervious. Ms. Taylor stated that she did not know. Mr. Moran stated that he was certain they counted it on civil plans, adding that he did not know if the seams were concrete or sanded joints. Chairman Fernhoff stated that the patio was joints were sanded. It was noted that brick patios were not generally a pervious surface.

Mr. Moran commented on the downspouts noting that he did not understand the corner placement near the doorway, adding that water would flow in front of the door. Mr. Moran stated that there was no stoop or concrete patio to support the entrance, connecting the driveway to the mudroom, with only grass and a downspout in the area. Mr. Moran suggested that the placement be located on the western corner or connect it to the northerly pipe which would be piped to a pop-up.

Mr. Moran noted that the drainage would not impact the neighbor but would affect the doorway noting that the drainage would need to be piped away from the house. Mr. Voorhees asked about the percentage of landscaping to pavement. Ms. Taylor stated that there was nothing in the area. Mr. Voorhees asked about pavement versus landscaping. Mr. Moran stated that a door stoop needed to be added and Ms. Taylor agreed.

Landscape: Mr. Weitekamp stated that there was not much landscape. Ms. Taylor stated that an overgrown holly would be removed, and the lawn area restored. Mr. Moran suggested that there was no need to stipulate backyard landscape adding that the homeowner can work on it over time.

Architecture: Chairman Fernhoff asked about the date of the original addition. Ms. Taylor stated that she did not know the age and added that it was unconditioned space with windows and very thin walls, adding that it was a very cold room. Chairman Fernhoff noted that the project was slightly above the FAR, added that the front elevation was not changing and noted that the back addition was tastefully done. Mr. Voorhees stated that it was a simple addition but took up much space in the backyard. Mr. Voorhees stated that there were very few windows on the elevations except the south façade. Ms. Taylor stated that the mudroom had one off set window, the bedroom had a north and south window adding that there were no windows to the rear. Ms. Taylor stated that they tried to design windows on the west wall, primary bedroom, but the family preferred not to add windows, including even transom windows. Ms. Taylor agreed that it was a blank elevation and added that the north kitchen wall did not get a window due to the addition of a hood and cabinetry. Mr. Moran stated that there was a nice window over the sink which made sense, adding that overall, the addition was more informal, away from the public's view. Ms. Taylor noted that the ac unit is positioned on the same side as the neighbor's ac unit, adding that there will be many shrubs added in the location. Mr. Moran noted that there were many trees already planted on the neighbor's side yard.

Chairman Fernhoff called for public comment.

There was no one present.

Mr. Moran motioned approval of the submittal with the following condition:

- Relocate downspout at inside corner of addition to northwest corner of mud room.

Mr. Voorhees seconded the motion which was unanimously approved.

REVIEW OF RESUBMISSION OF AMENDED PLANS FOR A SINGLE-FAMILY HOME
KORUS PROPERTIES, LLC, 993 GLENBROOK AVENUE

Present: Roger Bettlach, Korus Properties, LLC

Mr. Fernhoff opened the review of the submittal noting that the plans were reviewed by the Board of Adjustment, last Wednesday with much discussion. Chairman Fernhoff stated that that the first appeal was approved to keep the stop work order in place and added that the variance request was approved by a vote of 3 to 2.

It was noted that drawing A11, included in the plans was not necessary for the plans.

Mr. Moran read a letter addressed to the Architectural Review Board, written by Phil Wilson, Architect, dated November 28, 2023, laying out the amendment request as follows:

Re: 23BLD-02358 for Proposed Residence at 993 Glenbrook Avenue – Glendale, Missouri

Attached please find a joined Acrobat PDF containing a modified Architectural Review Board set for amended review. Also included are the Construction Drawings for reference (as per Mr. Roger Bettlach – Korus Properties LLC).

Items modified on the ARB package to amend previous approval:

1. First Floor line raised 2”;
2. First floor plate lowered 2” to leave roof line unchanged;
3. Lower-level window and egress well at the front portion of the east elevation omitted;
4. Composite illustration and photo study noted as an estimate based on ‘counting brick’ method as directed by the City of Glendale, and as included as an approximation for ARB review only. (not for construction purposes).

Please let us know if anything else is needed.

Sincerely,
Phil Wilson

Mr. Bettlach stated that overall, there is tolerance for variability adding that the plans compensated for the error in the foundation height by cutting the wall by two inches. Mr. Bettlach stated that he thought it was generally outside of ARB’s purview. Mr. Moran stated that it seemed fine to him. Mr. Bettlach stated that they were leaving out the egress window adding that if it was okay with St. Louis County it would not be illustrated on the side of the property.

It was noted that there was no problem reclassifying changes with the County and it was also noted that there was no problem with the four items that were updated.

Chairman Fernhoff called for public comment.

Mr. Bill Miller, 1000 Nancy Carol,

Mr. Miller stated that he wanted to emphasize that the elevations are maintained in light of the drainage discussion adding that he did not know if the garage foundation was impacted in any way by the drainage don’t know if that impacted the garage foundation. Mr. Miller stated that the garage elevation is at the top of his 4’ fence, adding that the 580 contour has moved back approximately 40’. Mr. Bettlach stated that the elevation dropped down from the covered porch at the 581 contour, 4’ above bottom of fence line. Mr. Miller noted that he wanted to make sure that it was not an excuse to raise the elevation and to keep the slope toward the house minimized.

Mr. Miller stated that he welcomed Mr. Bettlach and the Board to visit the house to see the elevation, adding that he was at the bottom of the precipice. Mr. Miller stated that the new house would be noticeably higher to houses on either side.

A friend of Mr. Miller's stated that the porch looked significantly higher from Mr. Miller's house, was concerned about lighting, and asked if the porch lighting would be obtrusive. Mr. Bettlach stated that there would be a center light in the ceiling of the porch, with the fan adding that the light would face downward.

Mr. Bettlach stated that the floor was verified and was drawn to plan. The neighbor stated that the foundation was high. Mr. Bettlach stated that the drainage would be collected and piped into the rock garden closer to the house, adding that the final grading needed to be done. Mr. Bettlach stated that he would meet with the neighbors when grading begins and noted that the grade would not be raised to the foundation level, adding that the foundation would be painted. It was noted that the finished grade would be 2.5' in the area.

Wendy Haffner, 1009 Glenbrook,

Ms. Haffner posed the following comments:

1. Since the variance was granted, why were the current plans submitted here for the ARB; It was noted that there was a second approval due to two submittals at the Board of Adjustment hearing.
2. Ms. Haffner asked about the location of bedroom #1; It was noted that it was located on the first floor.
3. Ms. Haffner questioned the basement ceiling height noting it was 9'; Mr. Bettlach stated that the basement had an 8' pour.

Mr. Emert motioned approval of the plans. Mr. Voorhees seconded the motion which was unanimously approved.

MISCELLANEOUS

Mr. Stewart stated that Mr. Hetlage, the City Attorney, would work on a preamble to the ARB Guidelines produced earlier by the ARB adding that the preamble would be forwarded to the Board. Mr. Stewart noted that the idea was to make the guidelines more user-friendly adding that the Board would have an opportunity to review the update. It was noted that an Index should be included in the preamble. Mr. Stewart stated that he hoped to see the supplement in January adding that the City needed regulations to help the ARB with approvals.

Mr. Stewart noted that the Mayor and the Board of Aldermen were looking at adding more members to the Plan Commission. It was noted that the ARB had looked at the area bank of architects and it was also noted that there was an active list of engineers for use when looking to add board members.

ADJOURNMENT

Mr. Moran moved adjournment of the meeting; Mr. Emert seconded the motion, which was unanimously approved.

These minutes approved as submitted this 5th day of March, 2024

Joanne Carr, Deputy City Clerk



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MEMORANDUM

To: Architectural Review Board
City of Glendale, Missouri

From: James C. Hetlage
City Attorney

CC: Frank Johnson
City Administrator

Date: March 1, 2024

Subject: Proposed Amendments and Revisions to the Proposed Revised Architectural Review Board Guidelines

This memorandum provides a brief summary of the steps taken by my office to revise the proposed revised ARB Guidelines. The current guidelines are approximately seven pages in length. Applicants, the City and the Architectural Review Board (“ARB”) found that the current guidelines periodically failed to provide sufficient direction to applicants and periodically failed to serve as a sufficient tool for the ARB to warrant certain decisions or desired decisions regarding certain applications. Due to these concerns, the ARB devoted many hours and expertise to draft much more thorough proposed revised ARB Guidelines. The proposed revised ARB Guidelines were approximately 70 pages in length and provided extensive guidance to applicants about how the ARB considers applications and the ARB review process. Concerns were expressed by builders and others that the proposed revised ARB Guidelines did not concisely express the required standards and factors for analysis by the ARB to guide applicants to submit compliant and acceptable applications for new construction projects (new homes and additions).

Ben DeClue was asked by the Board of Aldermen to revise the proposed revised ARB Guidelines to streamline the Guidelines and to ensure that the Guidelines captured the intent of the ARB while also being manageable for the builders and applicants. Mr. DeClue separated from the City on October 20, 2023. At that time, he had not prepared a revised draft of the proposed revised ARB Guidelines. At that time, the Mayor asked that I prepare a revised draft of the proposed revised ARB Guidelines. The draft that has now been submitted to the ARB for its

review was prepared by me and submitted to the Mayor and Interim City Administrator in January 2024.

The primary goals in my review and revision of the proposed revised ARB Guidelines was to provide a clear and concise roadmap to applicants and builders regarding the City's requirements and the standards for review, while also capturing the illustrative aspects of the proposed revised ARB Guidelines in order to share with applicants and builders the approach that the ARB takes when considering an application and preserving the extensive work that the ARB did in preparing the proposed revised ARB Guidelines. The 2024 draft of the proposed revised ARB Guidelines which I prepared divide information into the formal Guidelines that are 11 pages in length, and five appendices that are 44 pages in length in the aggregate. This draft is prepared with the idea that the Guidelines and Appendices are available on the City's website and thus the Appendices are found as links in the actual Guidelines. Therefore, the applicant should be able to easily move between the Guidelines and the Appendices.

The Guidelines are divided into the following sections:

1. Submittal Procedures with a link to Chap 535 of the Code of Ordinances. The definitions from the City's zoning code are incorporated into the Guidelines;
2. Scope of Review with reference to context, scale and proofs of measure;
3. Architectural Design Requirements, including Architectural Design Objectives, and Architectural Design Requirements for various materials;
4. Site Design and Stormwater Guidelines;
5. Landscape Design and Tree Protection, Preservation & Replacement Requirements; and
6. Procedures for Modifications.

The Appendices are divided into the following:

1. Submission and Review Procedures & Required Submittals
2. Descriptions of Context and Scale
3. Architectural Design Objectives
4. Site Design Guidelines
5. Landscape Design Requirements

The Appendices are incorporated into the Guidelines and thus the ARB may rely on the contents of the Appendices in making decisions.

As stated, my intent was to capture the hard work of the ARB and the details that help explain to applicants and builders how the ARV approaches its review of an application, while providing a more concise document for the applicants and builders.



Glendale Architectural Review Board Neighborhood Design Guidelines

Preface

In order to assure that new construction in the City of Glendale (the “City”) is of high-quality design and materials and generally compatible with the style and design of surrounding structures, an Architectural Review Board (“ARB” or “Board”) is established. The ARB reviews the design, material and compatibility of new construction within the City, including the construction of new homes and additional to existing homes. These Guidelines are designed to provide a structure from which to assemble and submit proposals for review by the ARB.

No two structures, additions, lots, landscapes nor drainage patterns are the same. The purpose of the ARB is not to create rigid uniformity within the community, rather to put forth a road map that can be followed by any individual, architect, or builder so that they can propose and complete a project that will be visually pleasing and sympathetic with the surrounding neighborhood.

The City of Glendale has always prided itself in offering high quality housing opportunities. The ARB is charged with improving the architectural integrity of housing in the community by assuring compatibility of new and renovated homes with existing neighborhoods and insuring that proposed designs preserve the order, function, green space, and beauty of our streets.

The review of each project will consider issues of context and scale that are relevant to the specific location of the project site. This includes understanding the neighborhood qualities of the project location, and the relative size of the project with respect to its existing neighbors.

Glendale welcomes homeowners and builders who want to create a better Glendale, preserving great qualities and enhancing our neighborhoods with creative ideas for living. We are excited to see each and every proposal from our current and future neighbors!

Section 1 – Submittal Procedures

Applications to the ARB should be submitted to the City Administrator and must follow the Submittal Procedures outlined in Chapter 535 of the City’s Municipal Code, which may be viewed online by going to the following link:

<https://ecode360.com/29355791>

Unless defined otherwise herein, words and phrases shall have the meanings expressed in Section 400.010 Definitions in the City’s Zoning Code.

The procedure for submission, review and approval of applications to the ARB and a listing of the required submittal documents may be found HERE [LINK #1].

Section 2 – Scope of Review

Each application submitted to the Board will be reviewed within the context of the neighborhood within which it is located and the measurable limitations regarding its scale as established in the Municipal Code.

Understanding how a neighborhood is identified, recognizing its patterns of planning and design, and working within these patterns are keys to neighborhood conservation and the preservation of the high quality of our community. Further, the size of new and renovated homes is a major concern of Glendale residents. No homeowner wants their home to be dominated or overshadowed by a neighboring property. Understanding how the ARB measures the size of a project and its conformity to the community's measured limits is important to the success of an application.

Details regarding how the ARB considers and evaluates Context and Scale may be found [HERE \[LINK #2\]](#).

Applicants and their design professionals are strongly encouraged to review the Guidelines regarding how the ARB considers and evaluates Context and Scale when reviewing applications for new homes and additions to existing homes.

2A – Context - Understanding the Neighborhood, Block and Street

A neighborhood is a place with a particular character and boundary. It is given presence by the specific characteristics of streets, trees, sidewalks, driveways, front yards, house set-backs, massing, scale, and street configurations. From place to place in Glendale, there is rich diversity in these neighborhood qualities.

Despite these understandable patterns of municipal organization, the qualities that are most useful for understanding neighborhood conservation are probably best understood on a smaller scale by the immediate surroundings of the block and the street. Neighborhood identity is perceivable at this scale in the patterns that are common and shared by most houses on the block. These include similarities in size, scale, and height of the houses; complexity of form; the height of entrances in relation to the street; the distance that houses are setback from the street; the organization of sidewalks, driveways, and parking with respect to streets and front yards; the massing and arrangement of trees and plantings; and the predominant materials used to make houses, drives, and walks.

Designing for neighborhood compatibility requires the design professional to visit the applicant's site and take a close look at what is already there. A compatible design will compliment the neighborhood patterns found. It requires a desire to understand the neighborhood and prioritize its existing qualities over novelty or preconceived design solutions. Applicants and their design professionals must pay particular attention to the area of influence around the proposed residence. This includes the physical boundaries that are visible from the residence, and from the yards of the property. It should also include the vehicle and pedestrian traffic ways that approach and support the property.

Applicants and their design professionals should be cognizant of the scale, height and composition of the other in the neighborhood in order to generate a successful, approvable design that complements the neighborhood rather than ignoring it.

The ARB considers a street to be a community of rooms, where the rooms are the front yards of the houses that are organized along the street. The walls of these “rooms” are primarily the facades of the houses, though fences, hedges, and garden beds are also often prominent markers. These “rooms” are visually public space. They support neighborly relationships, play, access to houses, beautiful gardens, and constitute one of the most important and prevalent outdoor assets of the community. While the Municipal Code sets minimum requirements for front, rear and side yard setback dimensions, consideration of the front yard setbacks along the street created by the existing houses and the size of side yards is recommended to help maintain neighborly relationships and avoid crowding adjacent homes with a new design.

The perceived height of houses is created not only by the number of stories and dimensioned height of roofs and facades, but other factors as well. The elevation of the first floor entry into the house will have a prominent effect on how well a house fits into the streetscape. Designs should propose a compatible first floor elevation that fits into the contours of the street topography and avoids creating a dominant situation with respect to neighboring houses.

Every applicant should submit a design that respects its neighbors. The design of a new house or addition should make an effort to transition its forms to the scale and form of the adjacent homes and avoid dominating or overshadowing the neighbors. It is not necessary to design a new house in the same style as its neighbors. It is necessary to create harmony in the juxtaposition of homes reflecting differing taste and style.

Section 2B Scale – Setbacks, Height, and Floor Area Ratio

Each application submitted to the ARB must comply with measurable limitations to its scale. There are established setback, height, lot coverage and floor area ratio requirements established in the Municipal Code. Each application for a new or remodeled home must comply with these Code requirements or variances must be obtained from the City’s Board of Adjustment. The ARB does not grant such variances. The ARB does, however, consider the scale of each proposed new or remodeled home with respect to context setbacks, height, lot coverage, and floor area ratio to consider the mass and scale of each such proposed home. No homeowner wants their home to be dominated or overshadowed by a neighboring property. Understanding how the ARB measures the size of a project and its conformity to the community’s measured limits is important to the success of an application.

Setbacks for Front, Side and Rear Yards are defined in detail in the municipal Zoning Code. Setbacks vary for projects located in the R1 and R2 zoning districts are found at:

<https://ecode360.com/29353932>

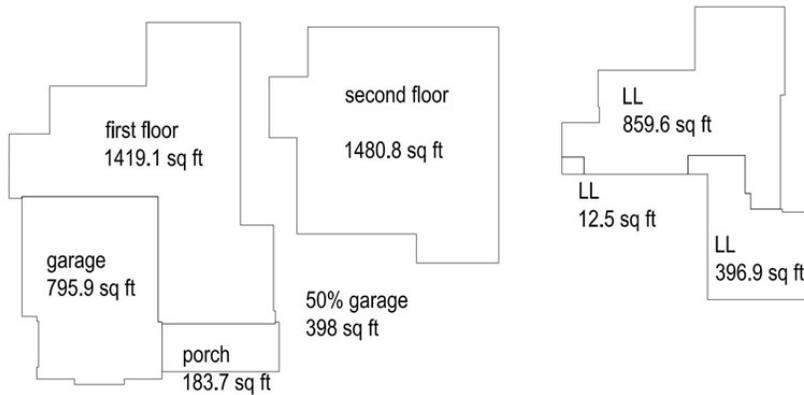
Additional information regarding the ARB’s scope of review related to setbacks, building height and floor area ratio is found [HERE \[LINK #2\]](#).

2C – Proofs of Measure

The design professional must illustrate the measurement of limits for the applicant’s project on the drawings submitted for approval. These will include the following at a minimum:

- i. Dimensioning of all setbacks, including a Context Setback where applicable, on an appropriate Site Plan Drawing.
- ii. Illustration of the Floor Area calculation on Floor Plans or provision of plan diagrams illustrating the area measurements. Where areas are taken from a digital CADD plan, show the boundaries of measurement areas and label the area stated by the software.

<u>FLOOR AREA RATIO:</u>		Lower Level Finished	859.6 sq ft
Lot Area	12,300 sq ft	Lower Level Unfinished	409.4 sq ft
House First Floor	1419.1 sq ft	Garage	775.2 sq ft
House Second Floor	1480.8 sq ft	Front Porch	173.6 sq ft
House Total	2899.9 sq ft	House Height	34'-4½"
Attached Garage (50%)	398 sq ft		
Total Floor Area	3297.9 sq ft		
Floor area Ratio	26.6%		
Maximum FAR is 30% or 3500 sq ft which ever is greater			
30% of 12,300 sq ft is 3690 sq ft			



- iii. For determination of the grade plane, label the six required grade points on an appropriate site plan or site diagram, and show the calculation by formula on the drawings.
- iv. Building height shall be dimensioned on building elevations and/or sections. The Grade Plane shall be shown graphically on the drawings, as well as the grade line at the building façade which shall be accurate and coordinated with Civil Engineering grading plans. The roof height elevation at the highest ridgeline, or highest coping or mansard roof deck line elevation shall be shown graphically and dimensioned from the Grade Plane accordingly.
- v. The scale of the proposed building as viewed from the street will be illustrated in comparison to the immediate neighboring structures located on each side of the subject property. This may be done diagrammatically or by using a photographic composite with the proposed street elevation of the project design. The exhibit will show the vertical relationship of the façade and eave heights of the proposed design to those of its immediate neighbors.

Section 3 - Architectural Design Requirements

3A – Architectural Design Objectives

As the ARB reviews an application and project, it focuses on the following objectives:

- i. Compatibility with existing neighborhood characteristics
- ii. Respect of the Street
- iii. Respect of Private Space
- iv. Ensuring the Buildings are Three Dimensional.
- v. Architectural Style
- vi. Scale and Massing of proposed buildings
- vii. Additions should be designed to provide compatibility of style and character with the existing home as remodeled and should preserve beneficial public-private space relationships to neighbors.

Additional information regarding the Architectural Design Requirements is found [HERE \[LINK #3\]](#).

3B- Architectural Design Requirements

The ARB considers specific requirements for various aspects of architectural design that will meet the above objectives.

- i. Driveways, Parking and Garages

The location of driveways and car parking should be consistent with other houses on the street. Design solutions should strive to not interrupt the street pattern. Garage placement will determine the location and impact of driveways on the neighborhood.

Driveway width should be the minimum required to support the garage configuration proposed with the project. In general, garage locations should be consistent with the pattern seen in the other houses located on the street and the within block. This will result in positive relationships between houses and outdoor spaces. Where the pattern is for rear yard, detached garages, it is recommended that new garages should also occur in rear yards.

When an attached garage is located towards the rear of the house, it does not dominate the street front of the residence, and can provide opportunities to create diverse side yard, driveway, and patio spaces. Oversized garages, front entry garages and double width garage doors can call negative attention to a home if they become too dominant to the facade. Even more so, a garage that projects beyond the main front building plane towards the street centers attention on the garage and not the home. A priority of the City is to ensure that the garage is not the primary architectural feature of any elevation, and that the garage does not detract from the general streetscape. The width of an attached garage with an entrance facing the front yard shall not exceed 35% of the overall width of the facade of the principal structure (inclusive of the garage A front entry garage should not be a central feature of the façade and must be asymmetrical to one side or the other of the main living space. The front face of an attached

garage shall not project more than seven (7) feet beyond the living space enclosure of the front elevation.

Additional details regarding proper design of garages is found HERE [LINK #3].

ii. Compatibility with Neighbors.

While every house must serve the needs of its owners, it will also shape the spaces and character of the houses next-door. The ARB is charged with insuring that new houses and additions to existing houses do not detract from or unduly impact their neighbors. While privacy cannot be guaranteed from site to site, patterns of public, semi-public, and private spaces in a neighborhood can be respected. Design professionals should observe and preserve the flow of public to private spaces that are set by Example Houses on the Street. Often, the sensitive massing and planning of buildings and their outdoor spaces can create the needed levels of privacy.

Preserving sunlight and access to sunshine for neighboring homes is encouraged by these guidelines. While sunlight on side yard facades cannot be guaranteed through the application of the setbacks and building height limits imposed in the Municipal Code, applicants should consider their neighbor's access to sunlight as seriously as their own desire for it in the design of their own homes. Attention to eave heights, roof form, setbacks, façade massing, and the use and location of either deciduous or evergreen trees should be carefully considered.

Massing refers to the physical size and shape of the building volume; and mass follows the functional configuration of space in the home. Elements of building massing should relate to the size and shape of the adjacent houses. Certain measurements of mass are controlled by Zoning ordinance. However, massing is also comparative between houses on the street, and designs proposed for a house should not present massing that is in high contrast to its neighbors. The height, scale and proportion of each building should be compatible with its site and neighboring buildings.

iii. Architectural Design

In addition to design for compatibility with the neighborhood and surrounding houses, the Architectural Design of each project should consider style, unity of expression, balance of scale in the relationship of the elements of the design, and the use of quality materials. As noted previously, the quality of Glendale neighborhoods is enhanced by the wide variety of architecture that has been created over the years.

No single architectural style should be superimposed upon buildings, and each should reflect its own individual style. A home reflects the taste and interests of the homeowner, their architect, and the skill and craft of their builder. While style is a matter of preference for each applicant and is typically not the basis of approval by the ARB, any style expressed and implemented in a design can be a matter of commentary by the ARB. Monotonous design should be avoided. Variation of detail and form should be used to provide visual interest and create a scale that is appropriate to the neighborhood and the street. The selection and detailing of materials should be relevant to the architectural style being expressed. Evaluation of the appearance of a project

shall be based on the quality of its design and relationship to surroundings. Additions should relate to the existing building in scale, details, colors, and material. Compatibility will be valued over conformity concerning style and architectural design.

Every design should be undertaken with an understanding that buildings are perceived in three dimensions, and that the style and expression presented to the street should extend in some way to the entire house. Each façade should be part of a cohesive whole – all sides should have a balance of architectural features. Detail, scale and massing, materials, and the design and composition of elements such as windows, doors, and trim will all be considered to ensure that each facade conveys a consistent character within the context of the design.

Design solutions should reflect consideration of both interior planning and exterior form in a collective, holistic approach. Placement of window and door openings should convey order and balance rather than appear as an arbitrary or random afterthought. Scale relationships are important within a design, just as they are important with respect to a neighboring property. Building components expressed in the design should have proportions and sizes that are appropriate to the architecture being developed. The composition and size of both primary and secondary elements in the design should be governed by proportion and balance.

Doors and windows should reflect the style of the architecture being developed. Their size and style should be consistently expressed on all exterior walls. A good design will harmonize varied opening sizes by judicious composition, attention to alignment, and the detailing of standing and running trim incorporated into the design.

Trim details are critical to establishing a human scale within a design. The detailing of trim should be consistent with both the architectural style and the materials used in façade construction. Trim used for fascias, soffits and coves, banding, corners, and material changes (known as running trim) should be used to help strengthen the composition and scale of facades and should reflect a high level of artisanship associated with whatever architecture style is being developed.

Decks and porches should be designed to fit into the style of the architecture. Avoid creating decks that look “tacked on” to a house as an afterthought. Integrate the details of deck skirting, stairs, railings, roofs, and eaves into the material and design details of the facades.

iv. Materials

Glendale wants to see buildings constructed in its neighborhoods that feature durable and lasting materials. Materials and their texture, patterns, and colors should be selected to be compatible with those used in neighboring houses. Material use should be consistent on all facades, and should reinforce the volume, massing and composition of surfaces in a three-dimensional design approach. Building materials should not change at an exterior building corner. Materials should extend around building corners and changes should be made where primary and/or secondary masses intersect.

1. All proposed materials will be evaluated based on quality and appropriateness to architectural style and character. Materials should be selected for suitability to the type of building and the design in which they are used and for harmony with materials used in adjoining buildings. Acceptable materials include the following. The list is not exhaustive, as innovative materials may always be considered.
 - i. Masonry: Clay brick, integrally colored concrete masonry, natural stone, cast stone veneer, thin-set stone veneer, thin set tile products.
 - ii. Cement stucco, integrally colored or painted.
 - iii. E.I.F.S. synthetic stucco. The EIFS water management system is the only EIFS system to be allowed.
 - iv. Siding – configurations include horizontal clap board, panel and batten, panel and reveal, board and batten, shakes or shingle: Materials shall be natural wood (painted, stained, or prefinished), engineered hardwood, cement fiber, polymer composite.

The following materials are generally not acceptable and would require special consideration by the ARB within the context of an exceptional architectural design or as a limited use material.

 - i. Vinyl Siding – Exception: Vinyl siding may be considered for additions to existing houses having vinyl siding as the primary material, or to match an existing design with a specific application of vinyl siding (i.e.: vinyl siding infill in a roof gable end).
 - ii. Metal siding, industrial or agricultural metal panel siding, such as ribbed or corrugated panels, commercial insulating, and composite metal panels.
 - iii. Glazed aluminum curtain wall or storefront systems as a primary façade enclosure material.
 - iv. Untreated, flat veneer plywood panels.
 - v. Asphalt shingles – Exception: vertical surfaces of mansard roofs. In this application, shingles shall be high quality, textured, architectural grade shingles only.
2. Colors: Façade materials should feature colors that are harmonious and visually compatible with neighboring buildings; this includes trim and accent colors.
3. Concrete: Smooth, plain concrete shall not be a primary façade material. Textured concrete developed with form liners, board forming, hammering, aggregate exposure, etc. may be considered as a façade material where proposed as an integral feature of an architectural design. Exposed concrete brick ledges and foundation walls below primary facade materials should be limited to no more than twelve inches (12”) above grade. The distance between siding and the finished grade shall be no less than four (4) inches. Exposed concrete shall be painted.
4. Roof Materials

Use high quality materials for roofs. Architectural grade, heavy weight fiberglass-asphalt shingles are very common. Other acceptable roof materials include metal that is prefinished,

natural slate and tile, wooden shakes and shingles. Sheet roofing products should be used only on low-slope roofs that are not visible from the street.

5 Fireplaces, Chimneys:

Fireplaces and chimneys projecting beyond the façade should be supported down to the foundation and enclosed with masonry (stone or brick).

Additions

Projects that propose additions to existing houses should follow the Guidelines outlined above. Style, unity of expression, compatible scale, balance, and proportions, and consistent use of materials are all important factors in designing an addition that is compatible with both the neighborhood and the existing building that is to be expanded. Care should be taken to preserve original, and period specific details used to build the existing house and convey its style. Some additions may propose a transformative architectural style. In such cases, ensure that the transformation is complete, and that the new architecture fits into the street and neighborhood as described in the Guidelines. A great addition may present a contrast in architectural style as compared to the original building. Such designs must be carefully coordinated in their details and use of materials to ensure that the resulting combination of styles is not jarring and does not detract from the neighborhood.

Section 4 - Site Design and Stormwater Guidelines

No two sites are exactly the same. Good design will take advantage of existing topography and fit a new home into the contour of the existing site. Planning the elements of the site should be thought through in three dimensions, respecting topographical features and limits, and avoiding the enforcement of a preconceived two-dimensional plan.

The following features must be addressed by a thorough site design:

- Existing topography is integrated into grading design.
- Locating the top of the foundation and the entry floor in relation to adjacent neighbors.
- Avoiding “Mounding” of the site – building up too high from the street to the entry level.
- Control stormwater flow and discharge from the site.
- Resolve existing and proposed grades in a complete contour plan.
- Slopes are maintainable, retaining walls are not massive.
- Downspouts for roof drainage are designed and directed.
- Neighboring property lines are respected, not encroached upon.
- Landscaping and trees minimize erosion.

Details regarding the requirements for site plans are found [HERE \[LINK #4\]](#)

Every project design will need to address storm water mitigation. Projects can be categorized into two groups:

Group 1: Building Additions

Any project where the existing residence is substantially remaining, and new building additions are to be constructed, that creates an increase in the storm water differential as compared to the existing

conditions of the site, shall provide storm water mitigation that is capable of holding and delaying the runoff of the differential storm water volume.

Group 2: New Building Construction

Any project where a new residence will be constructed on an undeveloped property or on a property where an existing building is to be removed, the entirety of the storm water from the roof area of the new building and the roof area of the new detached garage (if applicable) will need to be captured on the lot and storm water mitigation shall be provided.

Mitigation measures may include the use of infiltration pits, bio-detention basins or similar design features.

Details regarding required storm water mitigation and required storm water calculations can be found [HERE \[LINK #4\]](#).

Section 5 – Landscape Design and Tree Protection, Preservation & Replacement Requirements

It is intended that all projects satisfy the following objectives:

1. Protect and enhance the visual appeal of the City of Glendale.
2. Contribute to high-quality site development.
3. Conserve water resources by using sustainable design techniques.
4. Promote plant species that are low water-use and regionally appropriate.
5. Improve water and air quality through the preservation and protection of mature tree canopy coverage.

Site development plans must include a landscape design plan that identifies the selection and installation of landscape plantings, and appropriate design standards.

The ARB focuses on protecting against the unnecessary removal of existing canopy coverage. When tree removal is deemed necessary, the ARB focuses on requiring tree plantings to promote a healthy succession plan for future tree canopy coverage. All applicants must review and comply with the City's established tree protection, preservation and replacement guidelines.

Details regarding the required landscape plan, tree protection and replacement requirements and a list of approved replacement trees can be found [HERE \[LINK #5\]](#).

Section 6 – Modifications and Enforcement

In the event that a modification to the submitted and approved design that affects the exterior appearance of a project becomes necessary during the design development or construction of the proposed project, the applicant must submit details of the proposed modification to the City Administrator. Minor adjustments to the exterior that are not material changes in style, materials or context, may be approved by the City Administrator. All material modifications to the exterior of a project must receive ARB review and approval. Material changes include, but are not limited to, such characteristics as the physical configuration of the building, details of standing and running trim, material selections in kind, color, texture, or extent of application, substitutions of plant species and size, and changes to grading and drainage design.

The City of Glendale reserves the right of inspection for compliance with submitted and ARB approved Design Documents, and subsequently submitted Construction Documents that have necessarily been approved for building permit by St. Louis County. The City Administrator and the ARB shall have the authority to approve or deny design modifications, whether submitted during completion of Construction Documents, discovered by examination of Construction Documents submitted to St. Louis County, submitted during Construction Phase activity as a substitution request, or discovered by inspection of completed or in-progress construction work.

DRAFT

APPENDICES TO ARCHITECTURAL REVIEW BOARD GUIDELINES

[THE FOLLOWING SHOULD BE FOUND UNDER LINK #1]

1A – Submission and Review Procedures

- a. The Applicant will prepare an application and submit it to the City Administrator for review. The application must be complete, contain the required forms, include the required number of copies, and shall be accompanied by the designated fee, all as defined in Sections 535.060 and 535.070. The Applicant may request a pre-application meeting with the City Administrator. A pre-application meeting should be scheduled no later than 7 days in advance of a submittal deadline.
- b. The Applicant must submit their full and complete application by 4:00 P.M. at least 21 calendar days in advance of a scheduled Board meeting.
- c. The Applicant or its designated representative must appear in person at the ARB meeting, or in an online meeting facilitated through digital technology. Failure to appear may result in being removed from the Board’s meeting agenda.
- d. The Board may approve an application as submitted, approve with modifications or deny an application. If the application is approved as submitted, the Building Commissioner or their designee may process an application for a building permit. If the Board approves the application with modifications, the Building Commissioner or their designee shall issue a permit only after the Applicant submits the appropriate revisions required by the Board. The Board may require an Applicant to return to a subsequent meeting with revisions to the proposed construction prior to a final vote on approval or denial of an application. In that event, the applicant shall submit its revised drawings and exhibits showing design changes 14 days prior to the next monthly Board meeting, or 14 days prior to the subsequent monthly Board meeting. If the applicant does not plan to submit its changes for either of the two subsequent Board meetings, they shall notify the City Administrator in writing indicating their desire to either extend postponement for an agreed amount of time or withdraw the application. Withdrawal of an application has important consequences for the applicant, affecting their rights to appeal.
- e. In the event that the ARB denies an application, no request for a hearing upon the same application or substantially similar application will be accepted for a period of at least one (1) year from date of denial by the ARB.”
- f. The Applicant may appeal decisions by the ARB according to the procedures defined in Sections 535.130 Appeals, and 535.140 Action by the Board of Aldermen, of the municipal code.
- g. Having been granted municipal approval by the ARB and the City Administrator, the applicant may proceed with the building permit approval process facilitated by the St. Louis County Building Department.

1B Required Submittals

Applications to the Architectural Review Board shall include the following content and be submitted to the city administrator.

- 1. Completed Application Form.**

2. Existing Conditions Survey + Site Plan

- a. Minimum scale : 1"=20'
- b. This plan shall show all site improvements existing on the subject property, including buildings, paved areas, lawns, landscaping.
- c. All existing trees and landscape plant areas shall be shown and identified.
- d. Existing servicing utilities shall be shown.
- e. The first-floor elevation of existing buildings shall be noted.

3. Site Demolition Plan

- a. Minimum scale: 1"=20'
- b. Demolition scope of work may be shown on the Existing Conditions Plan, provided the drawing is presented legibly with notes and graphics to clearly represent improvements to be removed.

4. Architectural Floor Plans

- a. Minimum scale 1/4"=1'. Reduced size exhibits shall be limited to not more than 50%.
- b. Show all levels, including basements whether finished or unfinished.
- c. Show all detached structures, such as rear yard garages.
- d. The plans shall be fully dimensioned and indicate all room functions but need not be construction document plans.
- e. Include a Roof Plan, accurately showing the geometry proposed, roof slopes shall be noted, gutter and downspout drainage shall be shown and coordinated with the Site Grading and Drainage Plan

5. Aerial Photo Plan

- a. Submit a plan that superimposes the proposed Site Geometric Plan on an aerial photo of the proposed site. This will allow the ARB to evaluate the proposed development in context with the street and the block and assess issues of fit within the existing context. The proposed buildings shall be shaded black, proposed pavements shall be shaded grey. The aerial photo shall include the extent of the entire street to the nearest street intersections, the full properties on both sides of the street, and the full properties aligned to the rear boundary of the site so that the block containing the property is fully visible. This drawing can be an 11x17 exhibit, and need not be drawn to scale, but should show the relationship of new development to existing properties accurately.

6. Proposed Site Plan – Geometrics, Grading and Drainage

- a. Minimum scale: 1'=10'. Half size reductions are not permitted.
- b. This drawing should convey legibly all aspects of the site plan layout.
- c. Show all site improvements, existing to remain and proposed. Include buildings, walls, retaining walls, patios, pavement, walks, and ground based equipment. Key setting out dimensions shall be provided. The proposed buildings and structures shall be dimensioned to the property lines. Label and note all materials for paving and walks.
- d. Adjacent neighbor properties to each side and rear of the subject property shall be shown. Include the full site for side adjoining parcels with buildings, pavements, and sidewalks shown accurately for reference and comparison to the proposed building and site improvements. Show rear adjoining parcels to the extent of building facades on the rear neighbor's lot but show no less than approximately 50% of rear adjoining parcels. Data for adjoining property

geometrics may be taken from County GIS mapping data, aerial photo data, Google Earth data, or other on-line digital image services, and do not need to be surveyed.

- e. Show property boundaries, setback lines, easements, and right of way lines.
- f. Show location of proposed site servicing utility lines and physical utility items such as street light and power poles, manholes, inlets, etc.
- g. Graphically show existing and proposed trees so they can be seen in relation to the main geometric features of the site.
- h. Show existing and proposed contours with a 1-foot contour interval.
- i. Show downspout locations serving roof areas of the proposed buildings. Coordinate with the architectural plans and elevations.
- j. Show how downspout drainage flow is collected and piped or conveyed to drainage discharge points.
- k. Show and note over-land drainage discharge patterns.
- l. Show drainage swales, detention basins and flow direction.
- m. Show drainage detention structures such as gravel pits, trench drains, flow well structures, etc. and their overflow discharge points. Show all piping into drainage detention structures.
- n. Provide complete drainage differential discharge calculations showing the engineered basis of pre and post development storm water flow off of the site. No development shall result in an increase of storm water discharge volume from the site.
- o. Show Erosion Control measures and tree protection barriers.
- p. Items “h” through “o” above may be presented as a separate Grading and Drainage Plan, provided that the Site Geometrics Plan graphics are used as a background.

7. Pervious and Impervious Area Coverage Plan

- a. The plan shall illustrate all impervious improvements and diagram the impervious areas in comparison to pervious areas such as lawns, landscape beds, and pervious pavements. Types of site area coverage shall be indicated by shading and/or patterns with a complete legend of materials.
- b. Areas of each type of coverage shall be measured and shown in a schedule, provide calculations of pervious and impervious areas and the ratio of impervious coverage.

8. Landscape Design Submittal Requirements

To be considered for approval, all projects must have the following components to satisfy the landscape design requirement:

a. Arborist Report

- i. Title Page
 1. Site address
 2. Arborist name and certification number
 3. Date of inspection
- ii. Cover Letter - Purpose of report and for whom
- iii. Tree Protection Plan (TPP)

1. Project title listing project name, owner name and name of firm or individual preparing the plan.
2. North arrow, graphic and written scale.
3. Scaled base plan using current information from the site development plan depicting existing and proposed grades, location of all improvements, existing and proposed utilities, and sewers.
4. Graphic depiction of all existing trees to remain and to be removed including location, types and DBH size (Diameter of the trunk at breast height, measured at 4.5 ft. above natural ground level) of 4-inches or greater.
5. Graphic depiction of the accurate drip line canopy showing the extent of the Critical Root Zones (CRZ) and Structural Root Zones (SRZ).
6. Graphic depiction of the proposed Tree Protection Zones (TPZ) and location of tree protection fencing.
7. Identification of any areas of invasive plant removals recommended for removal.

iv. Tree Report Summary

1. Common and Scientific name of the tree
2. Estimated height.
3. DBH (Diameter of the trunk at breast height, measured at 4.5 ft. above natural ground level)
4. Comments on the vitality, structure and form of the tree
5. Tree number (to correspond with the TPP)
6. Recommended action to be taken.
7. Reason for proposing removal or trimming of tree.
8. Assessment of value and/or significance

b. Landscape Plan

- i. Minimum scale 1/8" = 1'-0".
- ii. Use the Site Geometric Plan as the background for the Landscape Plan.
- iii. Title block
 1. Project title or project name
 2. Owner name
 3. Name of firm or individual preparing the plan.
- i. Landscape Planting Plan

1. Current information from the site development plan.
2. Existing and proposed grades.
3. Final arrangements of all buildings and structures.
4. Location of all lot lines, building setbacks, and easements as depicted on the site development plan.
5. North arrow.
6. Graphic and written scale
7. Graphic legend depicting existing vegetation and proposed conditions.
8. Location of all improvements such as walks, patios, driveways, and walls shown on the site development plan.
9. Location of all existing and proposed utilities and sewers
10. Graphic depiction of all existing trees including location, types and caliper inch as measured at a Diameter Breast Height (DBH) of 4.5 feet above grade.
11. Graphic depiction of the accurate drip line canopy of all existing trees showing the extent of the critical root zone.
12. Tabulation of all existing trees to be saved or preserved, removed, or impacted.
13. Graphic depiction and plant schedule of all proposed trees to be planted including location, species and caliper inch as measured at a DBH of 4.5 feet above grade.
14. Graphic depiction and plant schedule of all proposed landscape plantings, shrubs, lawn areas and groundcovers. Botanical and common names should be listed on plans.
15. Planting details.
16. Graphic depiction indicating limits of ground disturbance and all associated areas of lawn to be seeded or sodded upon project completion.

9. FAR Illustration Plans

- a. Minimum scale: 1/8"=1'-0"
- b. Present a diagrammatic illustration of the plan areas as measured in CAD-based takeoff or as calculated by dimensions. Note the measured or calculated area of each floor plan level, show the boundary of each measured area graphically, and indicate how each area is assessed for the FAR calculation (i.e., some areas are assessed at either 50% or 200%, or may be excluded as defined by the Zoning Code definitions for area measuring).
- c. All floor areas shall be accounted for and classified as defined by the Zoning Code (ie: heated living space, enclosed porches, attached or detached garage, two story living space, etc).

10. Color Photos of Adjoining Properties

- a. Color photos of existing property and neighboring properties. Include photos of rear yard and neighboring rear yards.

11. Composite Street Elevation

- a. Provide a colored elevation of the street façade at $\frac{1}{4}''=1'$ scale superimposed on a photographic montage showing the adjoining neighbors to each side of the property. The exhibit shall accurately depict the height, width, materials, style, roof slopes, and massing of the proposed design in relation to the neighboring houses and shall accurately show the relationship of the first floor level of each existing neighbor in comparison to the proposed first floor level of the design.
- b. The ARB may request a three-dimensional perspective rendering on a case-by-case basis.

12. Building Elevations

- a. Minimum scale $\frac{1}{4}''=1'$. Reduced size exhibits shall be limited to not more than 50%.
- b. Provide building elevations of all principal facades, and all facades of detached structures.
- c. All building materials shall be noted.
- d. The line of grade shall be accurately shown and coordinated with the Grading Plan.
- e. The "Grade Plane" or Average Grade Elevation shall be graphically indicated on the elevation drawings. Basements shall be noted as a Story Below Grade or a Building Story based on the Average Grade Line.
- f. The roof height shall be dimensioned on each elevation, from the Average Grade Elevation (Grade Plane) to the Average Roof Height.

13. Colored Illustration

- a. A 3-dimensional rendering or a colored building elevation of the principal street façade.
- b. For additions, illustrate the most prominent façade whether side or rear.

14. Materials and Samples

- a. Provide a photo sample board accurately depicting all materials and their colors employed in the building exterior. Printed color product data is acceptable.
- b. The applicant is encouraged to bring physical samples of the materials to the ARB meeting.

[THE FOLLOWING SHOULD BE FOUND UNDER LINK #2]

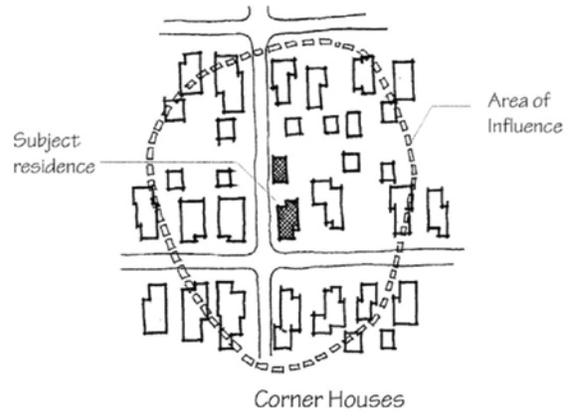
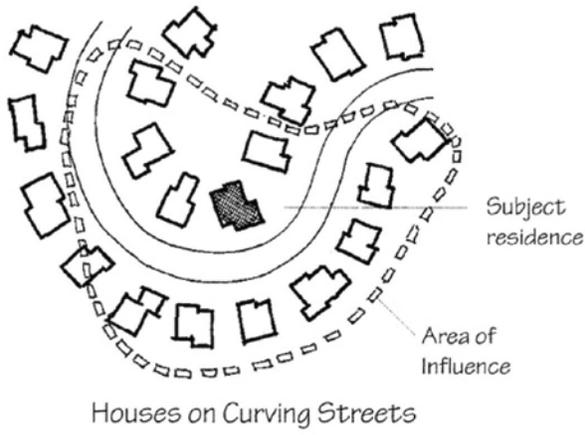
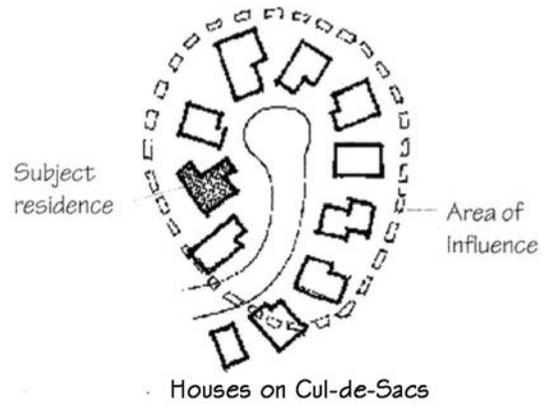
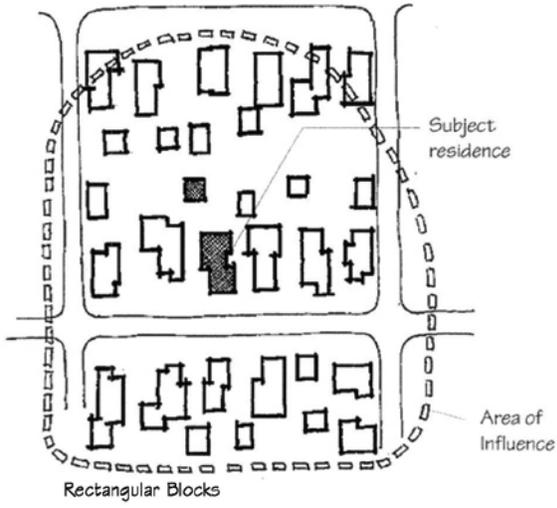
2A – Context - Understanding the Neighborhood, Block and Street

A neighborhood is a place with a particular character and boundary. It is given presence by the specific characteristics of streets, trees, sidewalks, driveways, front yards, house set-backs, massing, scale, and street configurations. From place to place in Glendale, there is rich diversity in these neighborhood qualities. A neighborhood may not be definable by boundaries on a map. However, by examining the Glendale map, patterns of land use, organization, lot size, and lot geometry offers some clues about the neighborhood qualities that define our community. Concentrations of narrow lots on orderly rectangular street grids can be observed in the neighborhoods West and East of Sappington Road. The 50-foot-wide lot dominates the street scale of these blocks of homes, and has important implications on land use, arrangement of driveways, neighborhood parking patterns, the preservation of front yard space, etc. Larger and more varied lot sizes and less rigid street grid characterizes the neighborhoods East and West of Berry Road.

Despite these understandable patterns of municipal organization, the qualities that are most useful for understanding neighborhood conservation are probably best understood on a smaller scale by the immediate surroundings of the block and the street. Neighborhood identity is perceivable at this scale in the patterns that are common and shared by most houses on the block. These include similarities in size, scale, and height of the houses; complexity of form; the height of entrances in relation to the street; the distance that houses are setback from the street; the organization of sidewalks, driveways, and parking with respect to streets and front yards; the massing and arrangement of trees and plantings; and the predominant materials used to make houses, drives, and walks.

Designing for neighborhood compatibility requires the design professional to visit the applicant's site and take a close look at what is already there. A compatible design will compliment the neighborhood patterns found. It requires a desire to understand the neighborhood and prioritize its existing qualities over novelty or preconceived design solutions.

Consideration of the block that a property exists within may take careful observation. A block may be defined by the nearest corners in each direction up the street, but it should also include houses located behind the property, as they will also be affected by a project. The design professional should carefully assess the area of influence around the proposed residence. This includes the physical boundaries that are visible from the residence, and from the yards of the property. It should also include the vehicle and pedestrian traffic ways that approach and support the property.



Blocks will typically host groupings of houses that share similar characteristics, often indicating that the homes were built during an original period when the neighborhood was first established. These “Example Houses” may represent positive neighborhood character that the Board is charged with preserving and enhancing in the new projects that it approves. Applicants and their design professionals should identify and understand Example Houses in the neighborhood in order to generate a successful, approvable design that complements the neighborhood rather than ignoring it. The members of the ARB should take into account the patterns of Example Houses in order to perform a meaningful review and ensure a new home fits well in its block and neighborhood.

Example Houses present patterns in the following design features:

- Scale (comparative size and relationships)
- Height and size of the houses
- Composition of form, shapes and slopes of roofs and dormers, and complexity of façade planes
- Use and composition of materials
- Street setback, side yard size and massing relationship to neighboring houses
- Arrangement of entries and porches
- Location (or lack of) of sidewalks, how pedestrians move through the neighborhood
- Arrangement and size of driveways, the location of garage parking, open parking on site, and street parking

Look for the following characteristics to identify Block Patterns:

- The extent of consistent neighborhood fabric based on the original period of the houses and Example Houses which define its character.
- The location and styles of Example Houses.
- The location and style of houses that are obviously inconsistent with Example House patterns.
- The extent to which new houses and additions are either consistent with or divergent from the patterns of Example Houses on the Block.
- The general location of houses with respect to the street (setbacks?), and how they meet the street with porches, stoops, sidewalks, landscaping.
- The general height, mass, and form composition of houses.
- Special circumstances in neighboring properties, such as proximity to businesses, schools, churches, civic buildings.
- Driveway, parking, and garage patterns.

The ARB considers a street to be a community of rooms, where the rooms are the front yards of the houses that are organized along the street. The walls of these “rooms” are primarily the facades of the houses, though fences, hedges, and garden beds are also often prominent markers. These “rooms” are visually public space. They support neighborly relationships, play, access to houses, beautiful gardens, and constitute one of the most important and prevalent outdoor assets of the community. While the Municipal Code sets minimum requirements for front, rear and side yard setback dimensions, consideration of the front yard setbacks along the street created by the existing Example Houses and the size of side yards is recommended to help maintain neighborly relationships and avoid crowding adjacent homes with a new design. The street itself, along with its sidewalks and trees, defines, and supports movement through this public space of the neighborhood. A good design proposal should strengthen the harmony and structure of the street. While a specific house design does not have to look like everything else on the street, the design of the house and the site should reinforce and complement the existing streetscape.

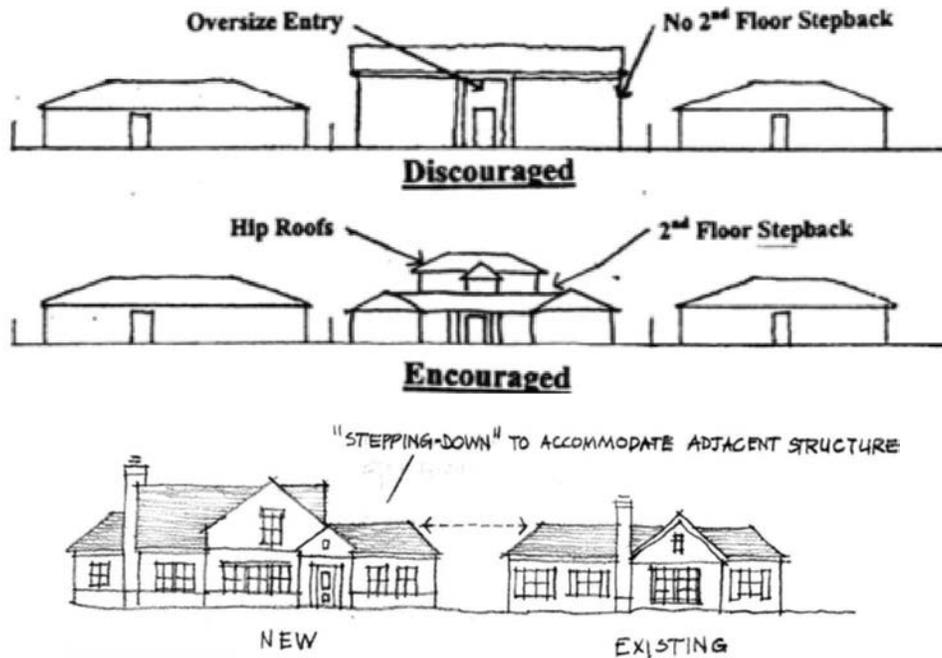
Look for the following characteristics to identify Street Patterns:

- The shape of the street and the extent of the street visible from the applicant’s residence.
- Driveway, parking, and garage location patterns.
- The setback of houses from the street.
- The relative elevations of entry level with respect to topography and the elevation of the street at the curb.
- The arrangement of sidewalks, entry walks, porches, stoops, and front doors.
- The massing of house facades into single or multiple planes, and the presence or absence of secondary forms such as porches, roof dormers, entry steps, projected bay windows, etc.
- The pattern, form, and relative elevations of roofs from house to house along the street.
- The rhythm, placement, and species of street trees and front yard trees, the presence of Heritage Trees.
- The arrangement of gardens and plant beds.
- The types, sizes, and materials of fencing and retaining walls, although fences are also regulated by the Municipal Code.

The perceived height of houses is created not only by the number of stories and dimensioned height of roofs and facades, but other factors as well. The elevation of the first floor entry into the house will have a prominent effect on how well a house fits into the streetscape. Designs should propose a compatible first floor elevation that fits into the contours of the street topography and avoids creating a dominant situation with respect to neighboring houses.



Every applicant should submit a design that respects its neighbors. The design of a new house or addition should make an effort to transition its forms to the scale and form of the adjacent homes and avoid dominating or overshadowing the neighbors. Design professionals should take notice of the compositional elements of the houses on the street and work to create relationships between the new structure and the existing houses. New and remodeled homes should not tower over the neighboring properties or block the sun from the neighboring properties.



Glendale neighborhoods host a wide variety of architectural styles. Therefore, style in design is less of a defining factor for neighborhood identity. Nevertheless, style should not be totally ignored when designing a new home if it is to preserve the quality of a neighborhood. A divergent or unique expression of architectural style may feature other qualities that help it fit in with neighbors, such as sensitivity to scale, similarity of massing, appropriate selection of materials, etc.

It is not necessary to design a new house in the same style as its neighbors. It is necessary to create harmony in the juxtaposition of homes reflecting differing taste and style. Take a drive around Glendale neighborhoods and notice the wide variety of styles ranging from traditional to contemporary, colonial to modern, craftsman to clapboard.

Consider the following characteristics of neighboring houses, and design in response to them to be a good neighbor:

- Note how front yards and driveways are organized and where garages are typically located. Where are vehicles parked? How are houses typically approached by cars and pedestrians? Notice and reinforce these patterns.
- What is the pattern of street trees and front yard trees in neighboring yards?
- How neighboring houses are massed should be considered in the composition of a new house or addition. Is their composition horizontal or vertical in the expression of form? Are single main

forms typical, or is there complexity in massing? Typical Glendale houses are not usually cubic boxes with a single roof form, and neither should your design propose such simplistic solutions.

- Notice the scale and architecture of front entries – consider ways to reinforce the patterns evident in entries along the street. Porches may be projected as forms or recessed into the main form of the house. Whatever the solution, ensure that the scale of the entrance is compatible with the neighbors on the street.
- Notice characteristic roof forms. Are roof eaves level or do they follow gabled roof ends? What secondary roof forms are common, and how many roof masses are typical in other houses on the street?
- Consider the size and proportions of windows and the style of trim around openings. These elements should be designed to relate to neighboring homes, which is a matter of both style and the degree of openness projected by the design and relative to the street.
- Observe the façade materials that are common in neighboring houses and take note of composition and transitions in materials.
- Are there special or unique features in repeating in neighboring homes that may be adapted or applied to the design being proposed?

Section 2B Scale – Setbacks, Height, and Floor Area Ratio

Each application submitted to the ARB must comply with measurable limitations to its scale. There are established setback, height, lot coverage and floor area ratio requirements established in the Municipal Code. Each application for a new or remodeled home must comply with these Code requirements or variances must be obtained from the City’s Board of Adjustment. The ARB does not grant such variances. The ARB does, however, consider the scale of each proposed new or remodeled home with respect to context setbacks, height, lot coverage, and floor area ratio to consider the mass and scale of each such proposed home. No homeowner wants their home to be dominated or overshadowed by a neighboring property. Understanding how the ARB measures the size of a project and its conformity to the community’s measured limits is important to the success of an application.

Setbacks for Front, Side and Rear Yards are defined in detail in the municipal Zoning Code. Setbacks vary for projects located in the R1 and R2 zoning districts are found at:

<https://ecode360.com/29353932>

There is often a front yard setback defined by the existing location of Example Houses with respect to the Street. This is considered as the “Context Setback” in these Guidelines. Where the predominant setback of existing Example Houses creates a Context Setback that exceeds the required setback in the Zoning Code, the ARB may consider the Context Setback in the front yard of the applicant’s project.

Density of development on a property is measured by calculating the Floor Area Ratio (FAR) for a proposed design. FAR is defined in the Zoning Code as follows: “The number which is calculated by dividing the Floor Area of a house by the total area of the lot upon which such house is constructed.” (Section 400.010) .

Floor Area is defined in the Zoning Code as follows: “The sum of the gross horizontal areas of the several stories of a building that are under air, i.e., all areas provided with heat and/or air conditioning. Floor area shall be measured from the exterior faces of exterior walls or from the center line of party walls. Floor area shall include any interior balconies and mezzanines, elevator shafts and stairwells. All living space with ceiling heights of sixteen (16) feet or greater shall be counted at two hundred percent (200%). Attached garages shall be included in floor area and counted at fifty percent (50%). Excluded from floor

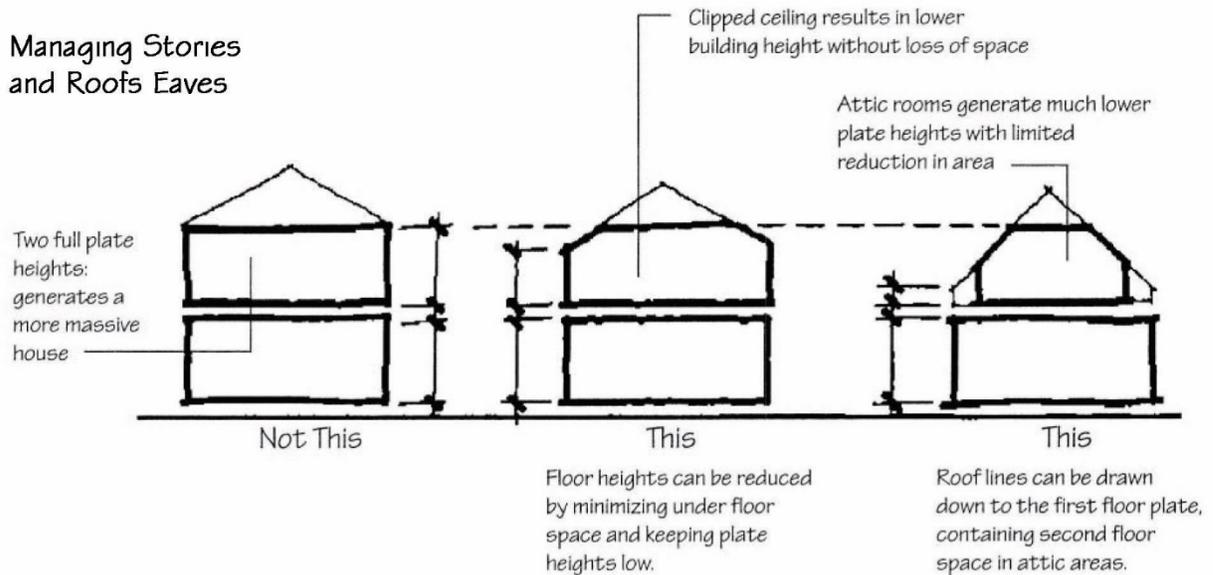
area shall be any finished or unfinished basement, a detached garage, and any unenclosed porch.”
 (Section 400.010) Floor area shall be measured and reported in units of square feet (sq. ft.)

The Floor Area Ratio limit for all lots in the R-1 or R-2 zoning districts is 0.30 or 30%.

The massing and height of a building form both directly affect how its scale is perceived within the neighborhood. The Zoning Code sets a limit of 35 feet / 2-1/2 stories on building heights within the community for all residential zoning districts. The eave height (also known as the roof plate height) shall not exceed 25 feet in height from Average Grade elevation.

Managing the massing of facades and roofs is critical to creating a design that fits into the neighborhood. The location of gable-end roofs must be carefully considered in the massing of a project as it relates to neighbors on either side.

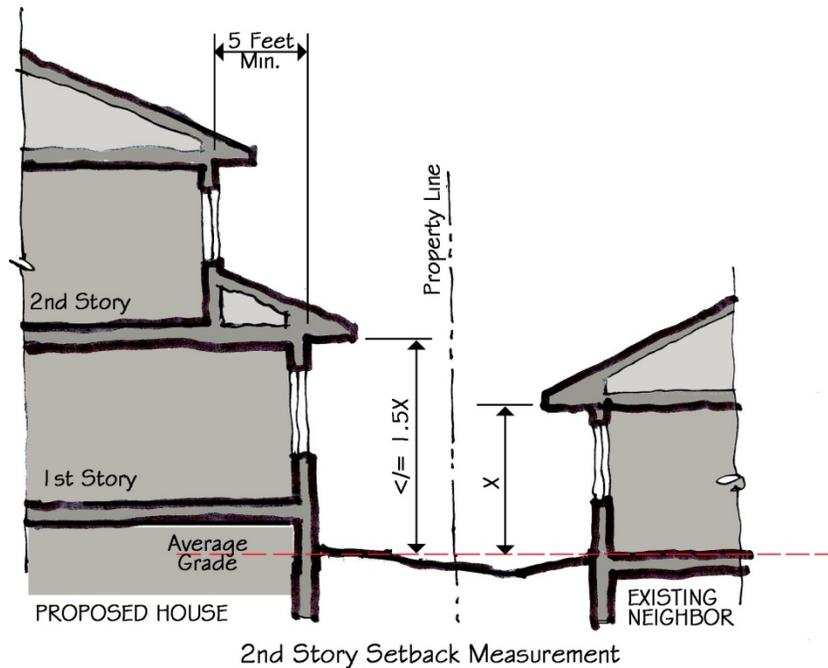
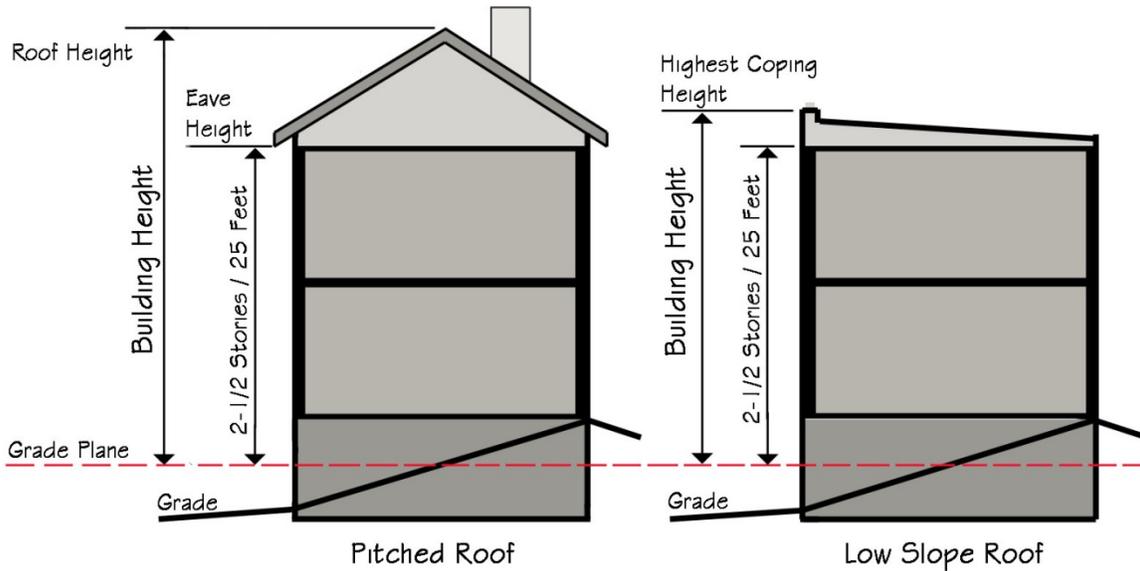
Managing Stories and Roofs Eaves



Controlling the height of roof eaves can help harmonize a two-story design with one story neighbors.

Measuring roof and building height accurately and fairly requires determination of the Average Grade Elevation (AGE). See Section 400.010 of the Zoning Code addressing Grade Plane.

The building height is defined as the dimension between the Grade Plane (calculated by finding the Average Grade Elevation) and highest point of the coping of a flat roof or to the deck line of a mansard roof, or to the height of the highest gable (ridge line) of a pitched or hip roof. See Section 400.010 of the Municipal Code. The following diagram illustrates measurements of Building Height.



[THE FOLLOWING SHOULD BE FOUND UNDER LINK #3]

3A – Architectural Design Objectives

As the ARB reviews an application and project, it focuses on the following objectives:

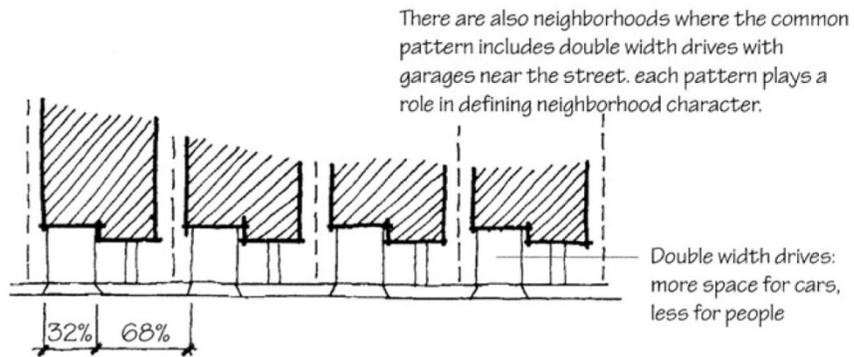
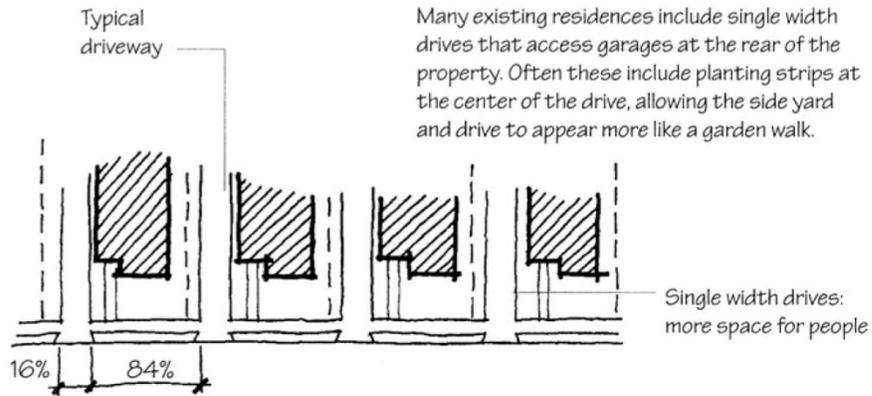
- i. Provide for compatibility with existing neighborhood characteristics.
- ii. Respect the Street - The street is the public domain, created by the cooperation and interplay of many private property owners. The characteristics of a street must be understood, illustrated, and respected in order to insure neighborhood compatibility. Design for the street must include a sensible approach to controlling traffic and property access, parking patterns, and the continuity of walks, driveways, lawns, and landscaping.
- iii. Respect Private Space - Private space is comprised of yards, driveways, and outdoor functional areas such as patios and decks. The private space of neighbors must be respected and preserved by proposed designs. Controlling adjacency, yard patterns, scale, massing of building structures, and landscape massing all contribute to enhancing private space in a neighborhood.
- iv. Ensuring the Buildings are Three Dimensional. Regardless of how they are presented in two-dimensional drawings, a building exists and is viewed in three dimensions. From the street, a building will be viewed from a wide range of angles. The front and side facades, and side and rear facades, will always be seen in relation to one another as connected parts of a single whole form. An architectural style cannot be applied to a front facade only, with none of the fine qualities of that design included in the side and rear facades.
- v. Architectural Style - Style is simultaneously a matter of context (at the block and street scales) and the personal taste of owners and/or their developers. Style matters do not need to be dictated by the ARB in order to preserve the quality and character of Glendale neighborhoods. Our neighborhoods are very diverse and feature a wide variety of architectural styles. Nevertheless, style matters. Applicants should ensure that their designs present a style cohesively and comprehensively, and that their chosen style is compatible and complementary to the street domain and neighbors, especially in matters of scale, massing, detail, and quality of materials.
- vi. The scale and massing of proposed buildings must be appropriate for neighbors and the street, must comply with measurable limits, and should harmonize rather than contrast with other properties on the street.
- vii. Details and articulation of form preserve human scale and convey style consistently.
- viii. Additions should be designed to provide compatibility of style and character with the existing home as remodeled and should preserve beneficial public-private space relationships to neighbors. Compatibility can be achieved by controlling massing, scale, composition, and detail, and is not strictly a matter of stylistic expression.

The following Guidelines define specific requirements for various aspects of architectural design that will meet these objectives.

3B- Driveways, Parking and Garages

- i. Vehicle Access Patterns and Street Presence
The location of driveways and car parking should be consistent with Example Houses on the

street. Coordinate the curb access of driveways with neighboring lots adjacent and across the street. Design solutions should strive to not interrupt the street pattern. Garage placement will determine the location and impact of driveways on the neighborhood.



ii. Driveway Scale and Materials

Driveway width should be the minimum required to support the garage configuration proposed with the project. Wherever possible, narrow the driveway width to minimize its impact on front yards and maintain the pattern of driveways on the Street.

- a. Provide a minimum of 9 feet in paved width.
- b. Maximum driveway width for lots wider than 65 feet:
 - i. The driveway width within the front yard setback shall not exceed 25% of the width of the street frontage of a lot, and in no case shall be greater than 18 feet wide.
 - ii. Circular drives: The combined width of both entrances shall not exceed 25% of the lot width. Neither entrance shall exceed the maximum 18-foot-wide limit. The impervious front yard area limit shall not be exceeded.
- c. Maximum driveway width for lots 65 feet wide or less:
 - i. The driveway for rear entry garages on lots 65 feet wide or less shall not exceed 10 feet wide in the front and side yards.
 - ii. The driveway may exceed 25% of the lot width but shall be no greater than 16 feet wide on lots 65 foot wide or less where the driveway accesses a front entry garage, carport, or uncovered car parking space in front of the house.
 - iii. Circular driveways are not allowed.
- d. Driveway entries shall be located no closer than 30 feet to any intersecting street right-of-way.
- e. All paved driveways and turn-around areas shall be located at least 3 feet from any adjacent property line.
 - i. The ARB may make an exception to this requirement for lots 65 feet wide and narrower.
- f. Acceptable materials include:
 - i. Concrete, integrally colored or pattern stamped concrete.
 - ii. Permeable, flexible pavements such as concrete unit pavers, vegetative unit paver systems. Clay bricks not designed for pavement applications are not acceptable.
 - iii. Asphalt is permitted.
 - iv. Crushed stone compacted and having a minimum depth of 4 inches is permitted but not preferred. The first 10 feet of driveway extending into the site from the Right-of-Way line shall not be constructed of crushed stone.

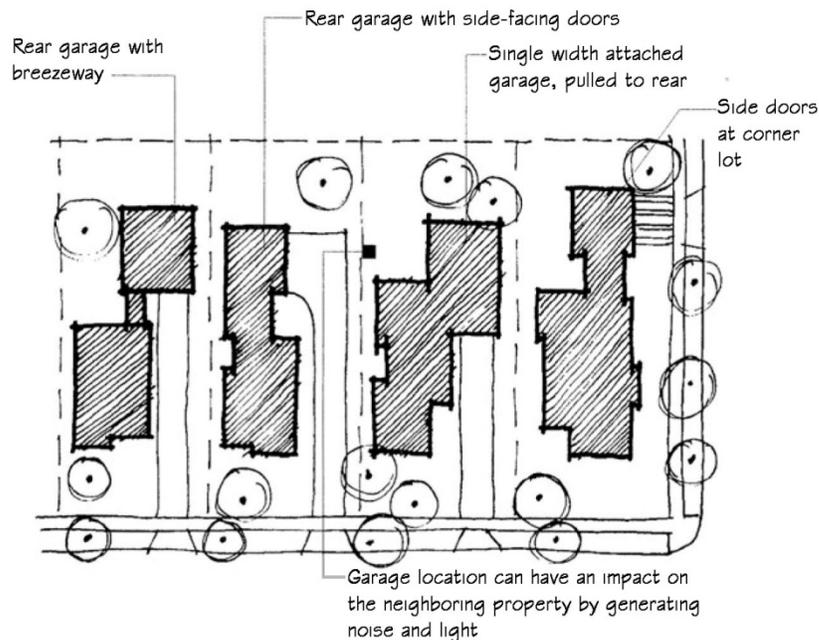
iii. Garage Locations

In general, garage locations should be consistent with the pattern seen in Example Houses located on the street and the within block. This will result in positive relationships between houses and outdoor spaces. Where the pattern is for rear yard, detached garages, it is recommended that new garages should also occur in rear yards. In general, rear garages offer

more positive benefits to the quality of public space in the street. In terms of designing for a high-quality street character, rear yard detached garages are preferred, and front yard, front entry garages are discouraged. However, applicants are encouraged to identify and follow the pattern in the neighborhood and on the street.

iv. Low Impact Attached Garages

When an attached garage is located towards the rear of the house, it does not dominate the street front of the residence, and can provide opportunities to create diverse side yard, driveway, and patio spaces. This garage placement can help with managing difficult topography, the positioning of public and private spaces, and preservation of front yard spaces on the Street that are less encumbered by cars.



v. Limits on Front Yard, Front Entry Attached Garages

This section applies only to attached residential garages, which have the vehicle entry facing the front yard. For purposes of this subsection, on a corner lot, the front yard shall only be the frontage of least dimension.

Oversized garages, front entry garages and double width garage doors can call negative attention to a home if they become too dominant to the facade. Even more so, a garage that projects beyond the main front building plane towards the street centers attention on the garage and not the home. A priority of the City is to ensure that the garage is not the primary architectural feature of any elevation, and that the garage does not detract from the general streetscape.

- a. The width of an attached garage with an entrance facing the front yard shall not exceed 35% of the overall width of the facade of the principal structure (inclusive of the garage).

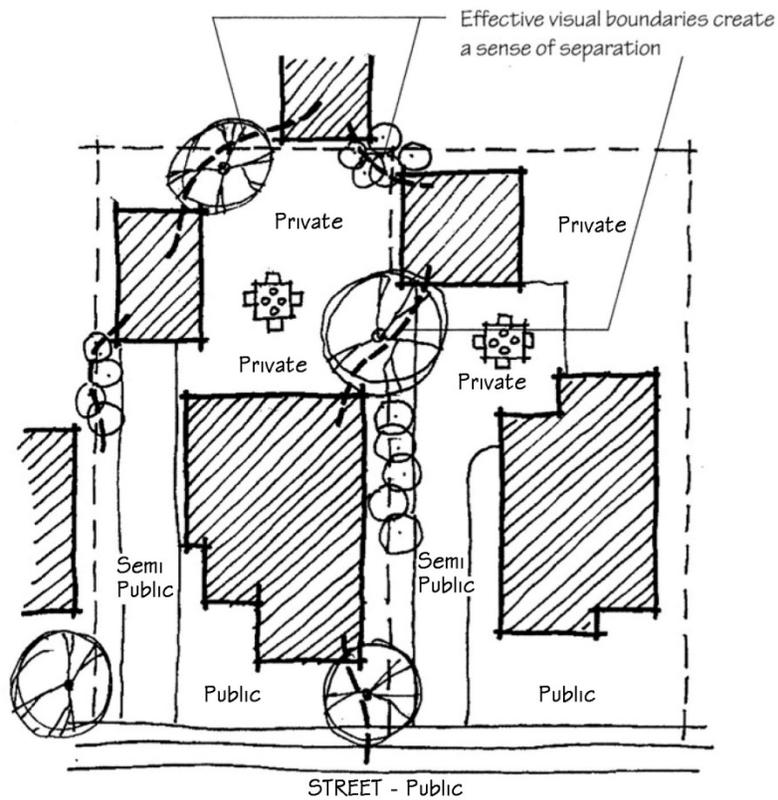
- b. For the purpose of determining garage width as used in (a) above, garage width is defined as that portion of the exterior elevation which, by virtue of front façade off-set, vehicle door placement, roof lines and/or other exterior architectural treatment, is clearly discernible as space designed for parking of automobiles and similar vehicles.
- c. A front entry garage may not be a central feature of the façade and must be asymmetrical to one side or the other of the main living space.
- d. The front face of an attached garage shall not project more than seven (7) feet beyond the living space enclosure of the front elevation.
- e. No more than two garage doors (single car width) may be installed facing any one street for new residential construction. Should the applicant deem three doors necessary, the applicant must demonstrate that all other possibilities have been examined and every attempt to mitigate the impact must be taken. The following mitigation approaches will be considered:
 - i. The garage door facades shall not project beyond the residential portions of the main façade.
 - ii. Provide a façade recess separating the doors into a pair of two doors in one façade plane, and a single door in the other façade plane.
- f. All proposed garages shall have windows on the sides and rear in order to maintain the residential qualities and scale of the community.
- g. Garage doors should be compatible with the structure and reflect a residential character of detail (as opposed to a commercial quality). To help achieve this, it is required that a row of view panels (windows) be included along the top panel of the garage doors. If windows are not provided, the door design shall feature high quality detail and construction or other architectural treatment acceptable to the ARB. Residential quality details can include stile and rail designs, raised panels, or other features compatible with the style of the proposed residence. Flush panel garage doors are not allowed.
- h. Front entry basement level garages will not be allowed unless topographical conditions of the property dictate consideration.

3C- Compatibility with Neighbors

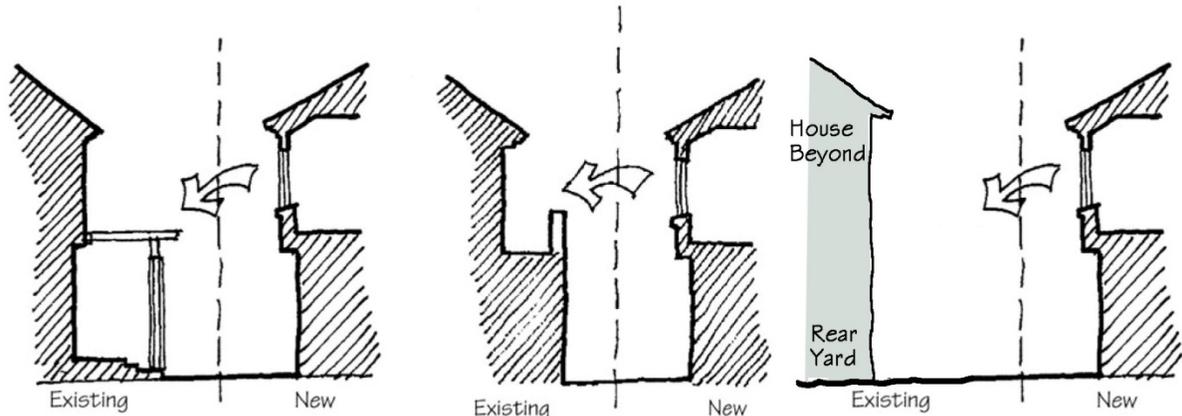
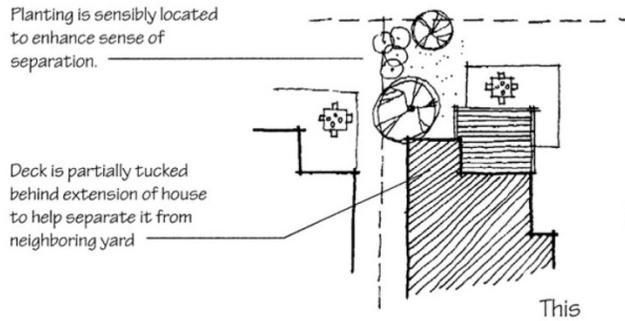
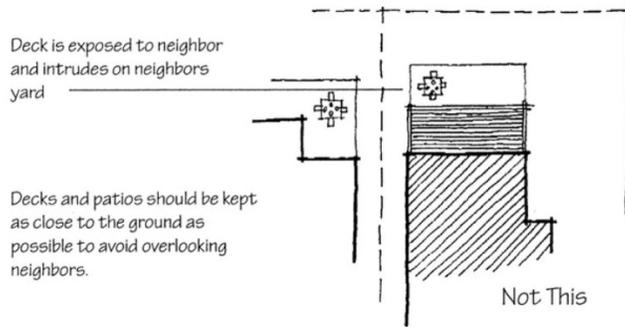
While every house must serve the needs of its owners, it will also shape the spaces and character of the houses next-door. The ARB is charged with insuring that new houses and additions to existing houses do not detract from or unduly impact their neighbors.

A. Design for Privacy

While privacy cannot be guaranteed from site to site, patterns of public, semi-public, and private spaces in a neighborhood can be respected. Observe and preserve the flow of public to private spaces that are set by Example Houses on the Street.



Privacy is best achieved by creating a sense of separation at the property boundaries. Landscaping with trees and hedges can be effective separations. Architectural elements such as trellises, lattice work, low site walls, site furniture, etc. can create effective boundaries. Fences may or may not be a good solution and should be considered in context with the side and rear yard patterns of Example Houses. Often, the sensitive massing and planning of buildings and their outdoor spaces can create the needed levels of privacy.



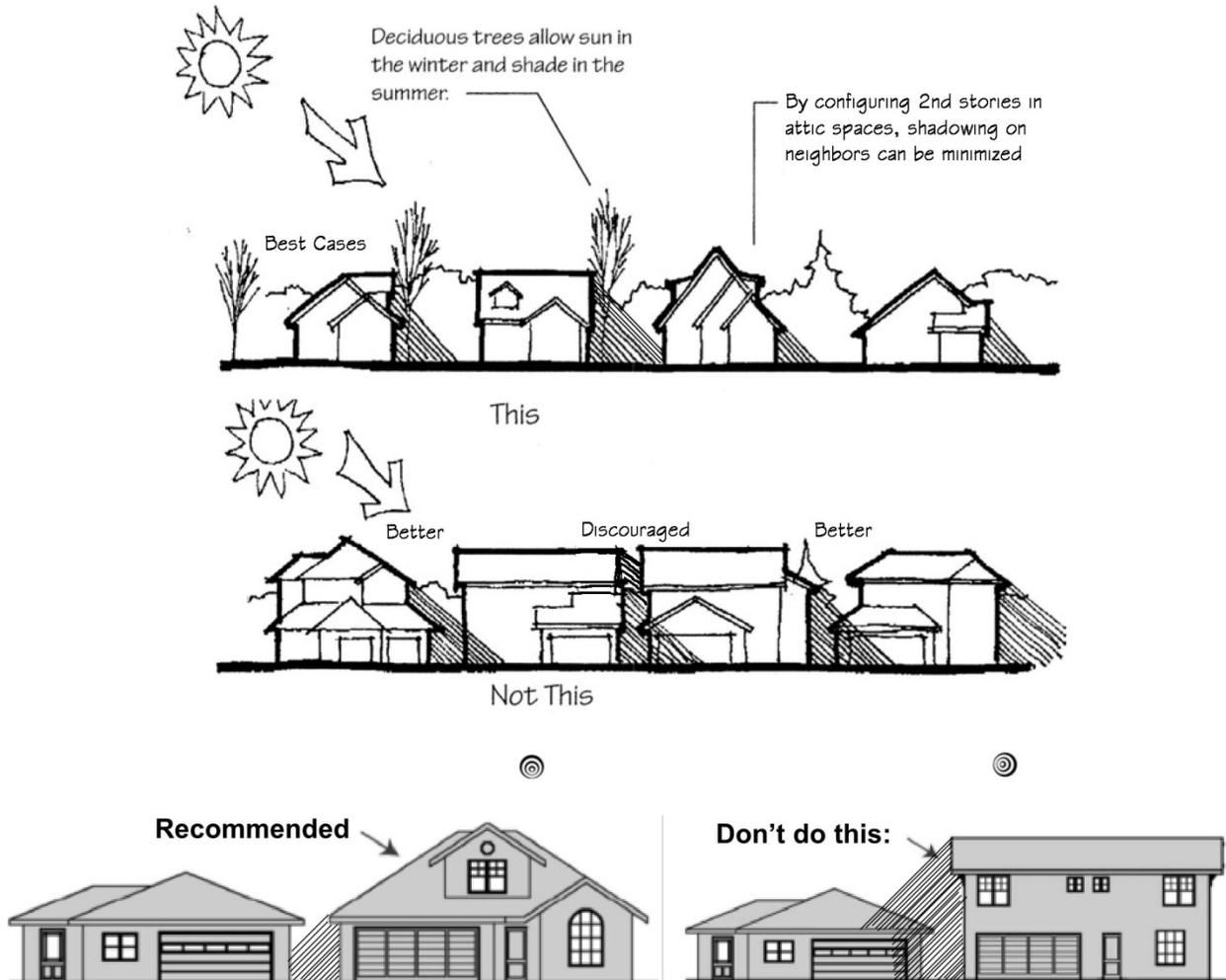
Avoid windows and second story masses that overlook existing neighboring outdoor spaces

Avoid windows and second story masses that overlook existing neighboring second floor balconies

Avoid planning the depth of the house so that second story windows overlook neighboring rear yards

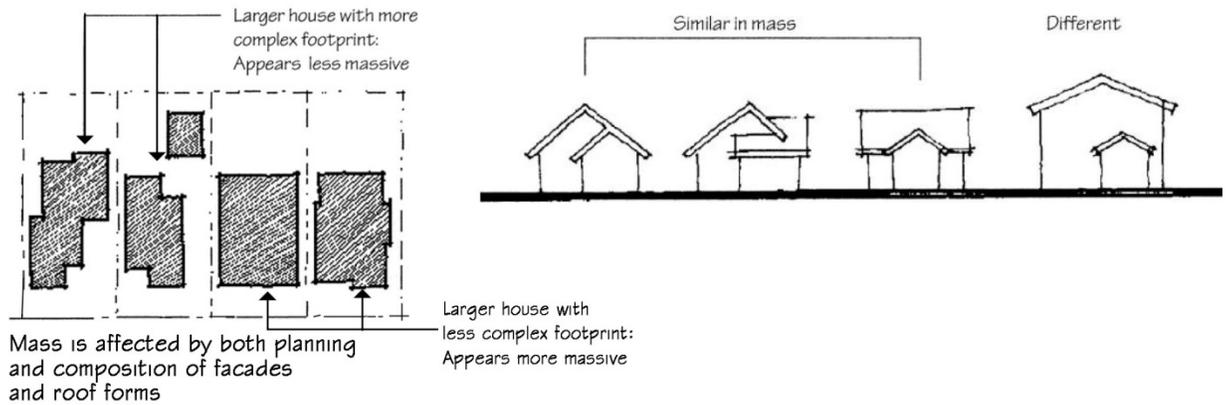
B. Sunlight and Shadowing

Preserving sunlight and access to sunshine for neighboring homes is encouraged by these guidelines. While sunlight on side yard facades cannot be guaranteed through the application of the setbacks and building height limits imposed in the Municipal Code, applicants should consider their neighbor's access to sunlight as seriously as their own desire for it in the design of their own homes. Attention to eave heights, roof form, setbacks, façade massing, and the use and location of either deciduous or evergreen trees should be carefully considered.



C. Massing and Comparative Scale

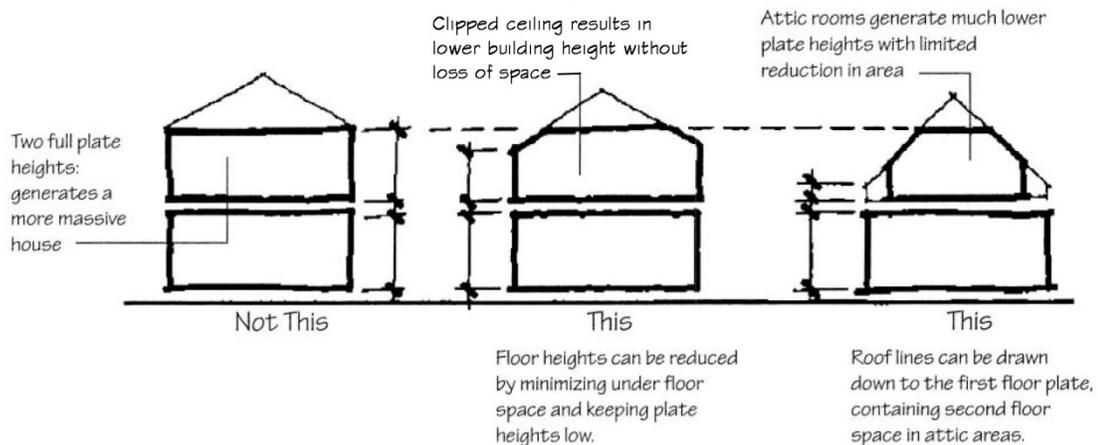
Massing refers to the physical size and shape of the building volume; and mass follows the functional configuration of space in the home. Elements of building massing should relate to the size and shape of the adjacent Example Houses. Certain measurements of mass are controlled by Zoning ordinance. However, massing is also comparative between houses on the street, and designs proposed for a house should not present massing that is in high contrast to its neighbors.



The height, scale and proportion of each building should be compatible with its site and neighboring buildings. Respecting the design of Example Houses will insure compatibility in scale - an important quality of Glendale neighborhoods.



Mass and scale can be reduced by managing story heights within the design. A primary element can incorporate a lower roof-plate height at the exterior wall to reduce the height of perimeter walls. This can reduce mass in a design to be compatible with smaller scale neighbors.



3D- Architectural Design

In addition to design for compatibility outlined in Section C, the Architectural Design of each project should consider style, unity of expression, balance of scale in the relationship of the elements of the

design, and the use of quality materials. As noted previously, the quality of Glendale neighborhoods is enhanced by the wide variety of architecture that has been created over the years.

A. Style

No single architectural style should be superimposed upon buildings, and each should reflect its own individual style. A home reflects the taste and interests of the homeowner, their architect, and the skill and craft of their builder. Style will therefore be a matter of preference for each applicant and is typically not the basis of approval by the ARB. However, any style expressed and implemented in a design can be a matter of commentary by the ARB. Monotonous design should be avoided; variation of detail and form should be used to provide visual interest and create a scale that is appropriate to the neighborhood and the street. The selection and detailing of materials should be relevant to the architectural style being expressed. Evaluation of the appearance of a project shall be based on the quality of its design and relationship to surroundings. Additions should relate to the existing building in scale, details, colors, and material. Compatibility will be valued over conformity concerning style and architectural design. Variance in style from a monolithically styled neighborhood isn't necessarily discouraged, however, the ARB will be reviewing drastic variations in style more critically to ensure proposal has been developed thoughtfully and thoroughly as an enhancement to the neighborhood rather than a distraction and/or detriment to it.

B. Unity of Expression

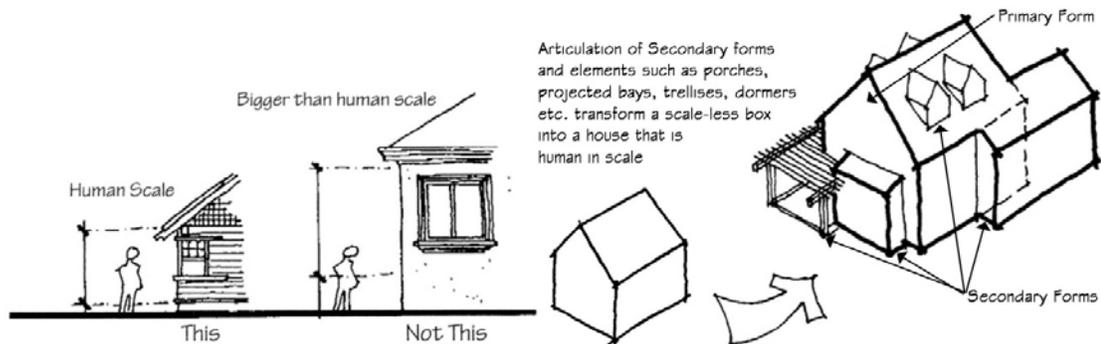
Every design should be undertaken with an understanding that buildings are perceived in three dimensions, and that the style and expression presented to the street should extend in some way to the entire house. Each façade should be part of a cohesive whole – all sides should have a balance of architectural features. Detail, scale and massing, materials, and the design and composition of elements such as windows, doors, and trim will all be considered to ensure that each facade conveys a consistent character within the context of the design. This is not to say that there is no hierarchy between the expression presented towards the public realm and that presented to semi-public and private areas.

Design solutions should reflect consideration of both interior planning and exterior form in a collective, holistic approach. Placement of exterior windows and doors that occur solely as a result of interior planning considerations typically appear as an afterthought in the building exterior. This should be avoided; designs should consider both the exterior composition and the interior functional needs. Placement of window and door openings should convey order and balance rather than appear as an arbitrary or random afterthought. Formal and informal expression and composition can coexist when attention to design and detailing is exercised throughout.

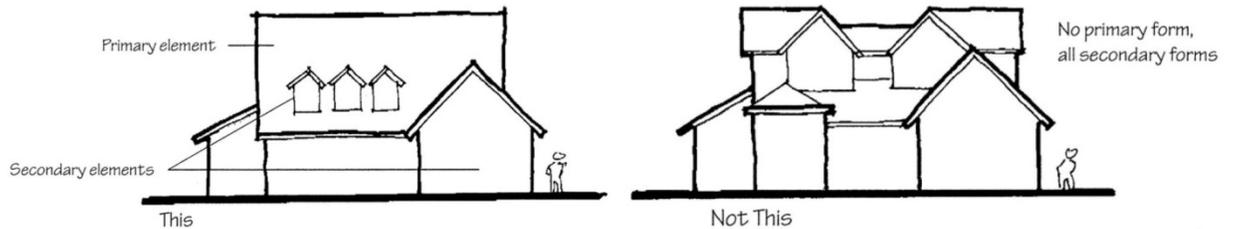
When a house is designed properly, the elements of style are expressed throughout the whole of the structure. Solutions for massing, form, scale, openings, trim, materials, and color extend from the front facades to the side facades, so that the design as a whole is perceived as presenting one style of architecture. A good design pays equal attention to all four building facades.

C. Scale, Proportion, and Balance

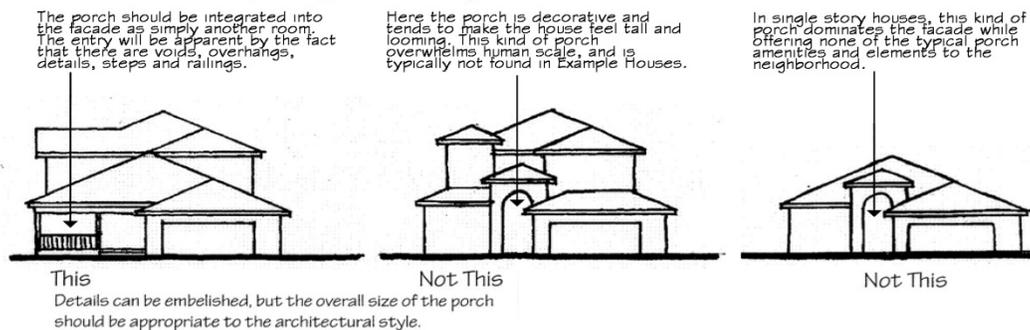
1. Scale relationships are important within a design, just as they are important with respect to a neighboring property. Building components expressed in the design should have proportions and sizes that are appropriate to the architecture being developed. The composition and size of both primary and secondary elements in the design should be governed by proportion and balance. Building components such as facades, roofs, projected bays, porches, windows, and doors are important elements of scale, and can transform a boring and inappropriate box into a compatible architectural design.



2. A project exhibits balance if the parts of the design are equally distributed to create a sense of stability. Both physical and visual balance is important to the design. The quality and detail of composition and fenestration should be consistent on all facades. In a balanced design, Primary and Secondary forms and elements are established and controlled to present a clear hierarchy within the design.



3. Entries and porches should be consistent with the architecture of the residence. Porches should not be the tallest element of the façade. They should instead support access at a human scale and ideally provide functional space at the entrance that fits the pattern in the neighborhood.



4. Massing of facades strongly affects the perceived scale of a house or structure. To control scale and balance, applicants and their design professionals should take note of the following.
 - i. There should be a clearly identifiable primary mass.
 - ii. The primary mass should be compatible with the mass and scale of other homes on the Street.
 - iii. Multi-layer setbacks with more than three wall planes are discouraged.
 - iv. More than three roof lines in the composition of the front façade are discouraged.
 - v. Roof slopes should not vary significantly from Example Houses in the neighborhood having the same style. Use dormers, porches and porticoes to control mass and scale.

5. The composition of openings – doors, windows, louver, and vents – in the facades of a house is an important determinant of scale. Every attempt should be taken to create order and pattern in the placement and arrangement of windows, doors, and other compositional elements. Minor informalities in the composition of side and rear facades may be unavoidable and may also have a precedence set by Example Houses. However, applicants should be mindful that their neighbors constantly see the sides and back of the applicant’s home. Good architecture includes design features and articulation – walls that include elements of architectural interest, not blank walls that impose an uncomfortable and dominating scale upon neighbors.



Encouraged: Primary forms, secondary forms, roof forms, materials, and compositional elements such as pilasters, railings, windows, doors, trim and their composition are designed to create balance, continuity and human scale



Discouraged: Large, flat, unarticulated facades and roof forms create monotonous architecture that is out-of-scale and incompatible with Glendale Neighborhood Quality

D. Entrance Doors

Doors and windows should reflect the style of the architecture being developed. Their size and style should be consistently expressed on all exterior walls. Example Houses may include a range of opening sizes that functionally fit the spaces they are serving. A good design will harmonize varied opening sizes by judicious composition, attention to alignment, and the detailing of standing and running trim incorporated into the design. In certain situations, a large single opening may be warranted by view or interior room use. However, avoid monumentality that is

often created by the over-use of large openings throughout a design. Opening patterns should be true to the architecture of the design. If the design is compatible with the Neighborhood, a compatible opening pattern should follow naturally.

The design of entrance doors should take into consideration their location and be used within the plan of the house. Main entrance doors benefit from glass view panels, stile and rail detailing, side-light windows, transoms, accent colors, and architectural trim. Secondary doors may be treated more modestly. The scale and detailing of doors should be managed to maintain a balanced design. Doors should be made of high-quality materials and have a protective finish.

E. Windows

Windows should be selected and designed to carry out the style of the architecture in all facades. Their material, color and configuration should be consistent, and where variation is needed for function and scale, such variety should reflect a thematic pattern in the design, and not be randomly occurring. The sill should be an appropriate material consistent with the façade material and should project beyond the face of the material below to function properly. Muntins, where employed to create divided glass lite sashes, should appear on the exterior of the glass. Shutters should be one-half the width of the sash they are adjacent to and be detailed as if they are functional whether they are fixed or operable. The composition of windows in the facades need not be symmetrical, but an orderly pattern is preferred, and randomness is discouraged. While some Example Houses will have random or informal window arrangements on side facades, good design will implement minor patterns of alignment and size to overcome a disorderly result.

F. Trim

Trim details are critical to establishing a human scale within a design. The detailing of trim should be consistent with both the architectural style and the materials used in façade construction. Trim used for fascias, soffits and coves, banding, corners, and material changes (known as running trim) should be used to help strengthen the composition and scale of facades and should reflect a high level of artisanship associated with whatever architecture style is being developed. The trim around openings (standing trim) is an important detail element; trim should have the right proportion within the design. Avoid trims that are out of proportion to the opening. Column enclosure trim and porch railings should be used to express style consistently and add a human scale to entrances and porches. Take note of neighborhood patterns in the detailing of trim. A house with no design for trim elements often appears monumental and out of scale.

G. Awnings, Canopies

Awnings and canopies, where employed, should fit the character of the building, reinforce the architectural style, and be consistent with Neighborhood patterns for their use. Awnings and canopies that are applied to otherwise flat facades are discouraged. They should be part of the overall massing and detailing of the building design.

H. Decks, Porches

Decks and porches should be designed to fit into the style of the architecture. Avoid creating decks that look “tacked on” to a house as an afterthought. Integrate the details of deck skirting, stairs, railings, roofs, and eaves into the material and design details of the facades.

I. Materials

Glendale wants to see buildings constructed in its neighborhoods that feature durable and lasting materials. Materials and their texture, patterns, and colors should be selected to be compatible with those used in the Example Houses on their street and block. A unique or divergent material may be acceptable, provided that its use enhances other design patterns in the neighborhood, is appropriate to the architectural style being developed, and adds quality and durability to the proposed building. Materials should be selected for suitability to the type of building and the design in which they are used and for harmony with adjoining buildings.

The ARB emphasizes an honest use of materials; a material should not be applied two-dimensionally as paint unless it is paint. Material use should be consistent on all facades, and should reinforce the volume, massing and composition of surfaces in a three-dimensional design approach. Where materials change in-plane on a façade, the appropriate running trim should be employed as suitable to the materials in use. Where a material used on a front façade is to be transitioned and discontinued on other facades, care must be taken to integrate the material change into the three-dimensional design of the building. The unity of the design must be preserved. Building materials should not change at an exterior building corner. Materials should extend around building corners and changes should be made where primary and/or secondary masses intersect.



Acceptable: Brick applied around corner to pilaster width, aligned with roof pitch change. Brick base coordinates with bay window.



Encouraged: Materials reinforce volumes and massing, and change where masses intersect.



Discouraged: Brick changes to siding at corner, brick pilasters not connected to roof eaves.

Material colors and patterns provide visual interest, but too many changes in material or color can be distracting and detract from the design. Limit façade materials and their textures to three variations. Material changes should respond to changes in function or the need to manage mass and scale by modulating the exterior of the building. Use accent colors to draw attention to important features of the design.

1. Façade materials

All proposed materials will be evaluated based on quality and appropriateness to architectural style and character. Materials should be selected for suitability to the type of building and the design in which they are used and for harmony with materials used in adjoining buildings. Acceptable materials include the following. The list is not exhaustive, as innovative materials may always be considered.

- i. **Masonry:** Clay brick, integrally colored concrete masonry, natural stone, cast stone veneer, thin-set stone veneer, thin set tile products.

- ii. Cement stucco, integrally colored or painted.
 - iii. E.I.F.S. synthetic stucco. The EIFS water management system is the only EIFS system to be allowed.
 - iv. Siding – configurations include horizontal clap board, panel and batten, panel and reveal, board and batten, shakes or shingle: Materials shall be natural wood (painted, stained, or prefinished), engineered hardwood, cement fiber, polymer composite.
- The following materials are generally not acceptable and would require special consideration by the ARB within the context of an exceptional architectural design or as a limited use material.
- i. Vinyl Siding – Exception: Vinyl siding may be considered for additions to existing houses having vinyl siding as the primary material, or to match an existing design with a specific application of vinyl siding (i.e.: vinyl siding infill in a roof gable end).
 - ii. Metal siding, industrial or agricultural metal panel siding, such as ribbed or corrugated panels, commercial insulating, and composite metal panels.
 - iii. Glazed aluminum curtain wall or storefront systems as a primary façade enclosure material.
 - iv. Untreated, flat veneer plywood panels.
 - v. Asphalt shingles – Exception: vertical surfaces of mansard roofs. In this application, shingles shall be high quality, textured, architectural grade shingles only.
2. Colors: Façade materials should feature colors that are harmonious and visually compatible with neighboring buildings; this includes trim and accent colors.
 3. Concrete: Smooth, plain concrete shall not be a primary façade material. Textured concrete developed with form liners, board forming, hammering, aggregate exposure, etc. may be considered as a façade material where proposed as an integral feature of an architectural design. Exposed concrete brick ledges and foundation walls below primary facade materials should be limited to no more than twelve inches (12”) above grade. The distance between siding and the finished grade shall be no less than four (4) inches. Exposed concrete shall be painted.
 4. Roof Materials

Use high quality materials for roofs. Architectural grade, heavy weight fiberglass-asphalt shingles are very common. Other acceptable roof materials include metal that is prefinished, natural slate and tile, wooden shakes and shingles. Sheet roofing products should be used only on low-slope roofs that are not visible from the street.
 - 5 Fireplaces, Chimneys:

Fireplaces and chimneys projecting beyond the façade should be supported down to the foundation and enclosed with masonry (stone or brick).

Additions

Projects that propose additions to existing houses should follow the Guidelines outlined above. Style, unity of expression, compatible scale, balance, and proportions, and consistent use of materials are all important factors in designing an addition that is compatible with both the

neighborhood and the existing building that is to be expanded. Care should be taken to preserve original, and period specific details used to build the existing house and convey its style. Some additions may propose a transformative architectural style. In such cases, ensure that the transformation is complete, and that the new architecture fits into the street and neighborhood as described in the Guidelines. A great addition may present a contrast in architectural style as compared to the original building. Such designs must be carefully coordinated in their details and use of materials to ensure that the resulting combination of styles is not jarring and does not detract from the neighborhood.

[THE FOLLOWING SHOULD BE FOUND UNDER LINK #4]

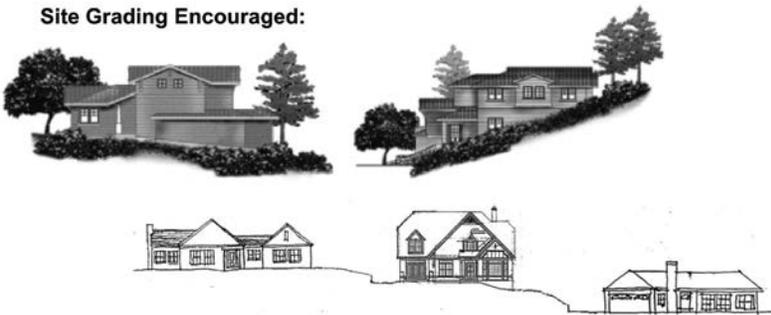
Section 4 - Site Design Guidelines

Site plans shall show the following characteristics of the proposed design.

4A Project Site Characteristics

No two sites are exactly the same. Good design will take advantage of existing topography and fit a new home into the contour of the existing site. Planning the elements of the site should be thought through in three dimensions, respecting topographical features and limits, and avoiding the enforcement of a preconceived two-dimensional plan. The design will always need to meet the existing conditions of the land on the property lines and the street, since little can be done to change these conditions off-site.

Site Grading Encouraged:

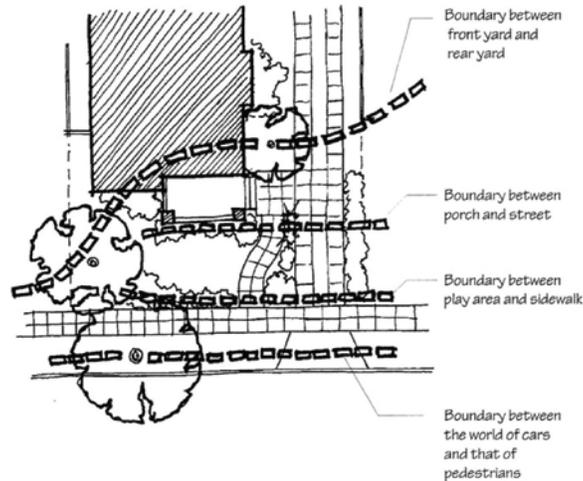


The following features must be addressed by a thorough site design:

- Existing topography is integrated into grading design.
- Locating the top of the foundation and the entry floor in relation to adjacent neighbors.
- Avoiding “Mounding” of the site – building up too high from the street to the entry level.
- Control stormwater flow and discharge from the site.
- Resolve existing and proposed grades in a complete contour plan.
- Slopes are maintainable, retaining walls are not massive.
- Downspouts for roof drainage are designed and directed.
- Neighboring property lines are respected, not encroached upon.
- Landscaping and trees minimize erosion.

Utility planning is an important aspect of site design. An applicant must have an accurate survey of utilities that service the property, and the plan for development must take the lay of existing utilities into account. Landscape design and the location and eventual scale of plants and trees must be accounted for in the planning of a site, so that grading, utilities, and the landscape do not pose conflicts that will prevent a successful result.

Plan the “room” of the Street to recognize and establish the natural boundaries of public, semi-public, and private space that progress from the street to the house.



4B - Aerial Photo Plan:

Submit an illustration compositing the proposed development with buildings shaded black and pavements shaded grey, superimposed to scale onto an aerial photo image (such as may be obtained from Google Maps or Google Earth) showing the project street in its entirety, from end to end. This exhibit will allow the applicant and ARB to see and understand the density, parking patterns, and building adjacency patterns of the project context.

4C - Building Location

The location of all buildings and structures must be clearly documented on Site Plan Drawings

- Illustration of yard setbacks and relationship of building to set back lines.
- All buildings and structures shall be dimensioned to property lines / corners.
- Illustration of yards and buildings, to include complete plan of adjacent neighbor sites. Neighboring sites do not need to be surveyed but may be drawn based on county property record illustrations and field measuring of the adjacent property facades as they face the subject property.

4D - Grading Design

A complete grading plan is required with 1ft contours, with structure drainage discharge points, and surface drainage patterns illustrated, at the appropriate scale of 1"=10'. This drawing shall not be submitted in a half size or reduced scale exhibit. Grading design shall achieve the following:

- Design new contours to connect to existing contours at the property lines. Do not propose off-site grading solutions. Provide retaining walls as needed to meet existing grades at the property boundaries. Indicate top and bottom elevations of all retaining walls. However, extensive reliance upon retaining walls may indicate a flawed design concept.
- Avoid excessive overland discharge of storm water onto neighbors' properties.
- Direct drainage from structures and impervious pavements to swales, area drains served by drain piping, curbed or swaled pavements discharging to streets, or storm water detention areas to prevent concentrated roof downspout storm water flow from discharging across neighboring properties.
- Set the finished floor elevation of the first floor / entrance story to avoid "mounding" up to the ground level floor. The entry floor should be at a mediating elevation between the neighboring houses on either side.

- E. Grade maintainable slopes. Do not exceed slope of 1 foot vertical in 3 feet horizontal.
- F. Do not raise or lower the grade within the critical root zone of trees that are designated to remain.

4E - Pervious and Impervious Surfaces

Site plan drawings shall document the pervious and impervious areas of the site, and shall provide a table showing the calculation of impervious ratio and lot coverage .

A. Table Example:

IMPERVIOUS LOT COVERAGE CALCULATIONS			
	AREA (SF)	ACRES	
TOTAL LOT SIZE	XX,XXX	X.XX	
FRONT YARD AREA	X,XXX	X.XX	
IMPERVIOUS AREA	AREA (SF)	ACRES	% OF TOTAL LOT (PROPOSED SHALL NOT EXCEED 50%)
EXISTING	X,XXX	X.XX	XX.XX%
PROPOSED	X,XXX	X.XX	XX.XX%
CHANGE	X,XXX	X.XX	XX.XX%
FRONT YARD SETBACK			% OF FRONT YARD IMPERVIOUS AREA (PROPOSED AREA SHALL NOT EXCEED 40%)
PROPOSED FRONT YARD SETBACK IMPERVIOUS AREA	X,XXX	X.XX	XX.XX%
GREENSPACE AREA	X,XXX	X.XX	TOTAL GREENSPACE SHALL NOT BE LESS THAN 40% OF THE TOTAL LOT, AND 50% OF THE FRONT YARD SETBACK AREA

4F - Site Utility Servicing

Site plan drawings shall document the location of all underground storm water piping, site utilities, utility service entrances, and mechanical equipment. The direction of overland storm water flow will be indicated on the drawings using arrows, shading, or other notation to clarify the flow direction resulting from the grading design. The following may be presented as separate drawings, or as a combined drawing provided that all information is legible.

- A. Drainage Utility Drawing, showing grading contours, structure drainage downspouts, underground storm utility piping, over-land storm drainage patterns and flow, storm water detention structures, municipal storm water structures on or in immediate proximity to the site and that are intended to accept storm water flow from the proposed project, storm water calculations, and the ARB’s specified and preferred expression of water volumes, differential discharge, etc. (defined below).

- B. Utility drawing showing all underground utilities such as: power, sanitary sewer, storm sewer, natural gas, and telecom service entrances; site located equipment such as air conditioning compressors; municipal lighting equipment or telecom/data service station points; overhead power service; easements and rights of way, an indication of major existing and proposed trees.
- C. Pop up emitters shall be located so that storm water released will have some pervious yard space within which to dissipate. Location limits are as follows:
 - 1. Minimum of 10 feet from public sidewalks and streets.
 - 2. Minimum of 10 feet from a neighbor's property line, but as far interior to the site as practical; always maximize the distance over which storm water discharge may dissipate and be absorbed by overland drainage.
 - 3. Do not discharge a pop-up emitter to flow over a sidewalk surface. Extend drain piping below sidewalk and discharge on grade down-slope from the walk surface.

4G - Storm Water Mitigation

Every project design will need to address storm water mitigation. Projects can be categorized into two groups:

Group 1: Building Additions

Any project where the existing residence is substantially remaining, and new building additions are to be constructed, that creates an increase in the storm water differential as compared to the existing conditions of the site, shall provide storm water mitigation that is capable of holding and delaying the runoff of the differential storm water volume.

Group 2: New Building Construction

Any project where a new residence will be constructed on an undeveloped property or on a property where an existing building is to be removed, the entirety of the storm water from the roof area of the new building and the roof area of the new detached garage (if applicable) will need to be captured on the lot and storm water mitigation shall be provided.

Mitigation measures may include the following design features: (The following list is an example of what would be considered. The applicant may deviate from this list with other storm water mitigation devices, so long as they meet the prescribed storm water volume holding and storm water delaying requirements.)

Infiltration pit. An infiltration pit is a below grade device that captures and holds the required storm water volume, and then allows this storm water to soak into the surrounding soils. This type of pit's stormwater volume can be either be filled with rock (modeled at 40% voids) or with air (similar to the NDS Flo-Well).

- A. **Bio-detention basin.** A Bio-detention basin is an above ground basin that captures and holds the required storm water volume in an above grade pond and then allows storm water to be released slowly over a prescribed period of time. This type of pit's stormwater volume is modeled in the basins above grade area. The slow release of the stormwater is controlled by a low flow pipe that is designed to release storm water at a rate no greater than the modeled storm water area as grass. The basin must contain native plantings complying with publication MSD Landscape Guide for Stormwater Best Management Practice Design, Rev. 2, May 2012, or any more recent versions.

Maintenance of Storm water Mitigation Infrastructure

It is the responsibility of the property owner to keep all storm water mitigation infrastructure in good working order, and repair and maintain such stormwater management infrastructure constructed as part of the plan approval, for as long as the property owner owns the property.

Group 1: Building Addition Storm Water Mitigation Calculations

DIFFERENTIAL STORM WATER RUNOFF CALCULATIONS (15 YEAR, 20-MINUTE STORM)

CAPTURE AREAS FOR THE ENTIRE PROPERTY. TOTALS MUST EQUAL PROPERTY TOTAL AREA AS RECORDED ON THE SURVEY, SHOWN ON ST. LOUIS COUNTY RECORDS, AND AS DOCUMENTED IN PERVIOUS AREA CALCULATION TABLE.

EXISTING	AREA (SF)	ACRES	P.I.	FLOW (CFS)
ROOF	X,XXX	X.XX	4.20	X.XXX
PAVEMENT	X,XXX	X.XX	3.54	X.XXX
PERVIOUS / GREEN	X,XXX	X.XX	1.70	X.XXX
TOTALS	X,XXX	X.XX	N.A.	X.XXX

PROPOSED	AREA (SF)	ACRES	P.I.	FLOW (CFS)
ROOF	X,XXX	X.XX	4.20	X.XXX
PAVEMENT	X,XXX	X.XX	3.54	X.XXX
PERVIOUS / GREEN	X,XXX	X.XX	1.70	X.XXX
TOTALS	X,XXX	X.XX	N.A.	X.XXX

DIFFERENTIAL RUNOFF (TOTAL CHANGE IN FLOW (CFS) FOR ENTIRE PROPERTY)

PROPOSED CFS - EXISTING CFS = X.XXX CFS

STATEMENT – UNDERLINE ONE AND INDICATE RUNOFF AMOUNT:

THIS PROJECT HAS AN INCREASE / DECREASE IN STORM WATER AMOUNT OF X.XXX CFS

Group 2: New Building Construction Storm Water Mitigation Calculations

STORM WATER RUNOFF CALCULATIONS (15 YEAR, 20-MINUTE STORM)

CAPTURE AREAS FOR BOTH BUILDING AND GARAGE.

PROPOSED	AREA (SF)	ACRES	P.I.	FLOW (CFS)
ROOF (BUILDING)	X,XXX	X.XX	4.20	X.XXX
ROOF (GARAGE)	X,XXX	X.XX	4.20	X.XXX
TOTALS	X,XXX	X.XX	N.A.	X.XXX

Conversion of Storm Water FLOW in CFS (Cubic Feet Per Second) to Volume in CF (Cubic Feet)

$$X.XX \text{ CFS} \times 60 \times 20 = X.XX \text{ CF}$$

This is the volume that will need to be stored.

The stormwater calculations shall be provided by a Professional Engineer licensed to practice in the State of Missouri.

[THE FOLLOWING SHOULD BE FOUND UNDER LINK #5]

Section 5 – Landscape Design Requirements

It is intended that all projects satisfy the following objectives:

1. Protect and enhance the visual appeal of the City of Glendale.
2. Contribute to high-quality site development.
3. Conserve water resources by using sustainable design techniques.
4. Promote plant species that are low water-use and regionally appropriate.
5. Improve water and air quality through the preservation and protection of mature tree canopy coverage.

5A - Tree Protection, Preservation & Replacement

The ARB focuses on protecting against the unnecessary removal of existing canopy coverage. When tree removal is deemed necessary, the ARB focuses on requiring tree plantings to promote a healthy succession plan for future tree canopy coverage. All applicants must review and comply with the City's established tree protection, preservation and replacement guidelines.

1. Tree Protection Requirements

- a. Contractor shall stake clearing limits to coordinate the locations for tree protection measures and tree protection fencing installation.
- b. Contractor shall build and maintain temporary fences of brightly colored plastic tree protection fencing and signage so that construction workers can clearly see zones from where equipment must be kept clear. Signage will indicate "DO NOT ENTER," "TREE PRESERVATION AREA - DO NOT REMOVE," or other messages that communicate the importance of tree protection fencing. Tree protection fence must be maintained at all times. It cannot be removed at any time during the construction. Upon completion of construction, all barriers, fencing, and debris shall be removed from the site by the contractor.
- c. No clearing or grading shall begin on a construction site until tree preservation measures have been completed.
- d. No construction equipment can be operated within tree protection zone (TPZ) of the trees that are to be protected. Access to fenced preservation areas by construction equipment, materials, or individuals that may cause harm to protected trees is prohibited.
- e. Boring or tunneling methods, including hand trenching, shall be used, to the extent reasonably practicable, when utilities are to be located in the critical root zone, since many critical roots are close to the surface.
- f. Contractor will be prohibited from cutting into tree's roots, compacting the soil over roots, or changing the ground level around the tree during construction. Root pruning, a tree protection measure, must be completed by qualified experts (forester or arborist) prior to any construction.
- g. Attachment of any signage or fencing to any tree is strictly prohibited.

2. Protection of Heritage Trees

- a. Removal of Heritage Trees within City limits is strongly discouraged. A permit to remove a Heritage Tree may be considered on a case-by-case basis by the ARB upon a certified arborist documenting the Heritage Tree in question to be:
 - posing an immediate threat to health, safety, or property, and/or
 - dead or diseased, and has been documented as such, and/or
 - currently damaging public property, creating a public safety hazard, and/or
 - currently damaging improvements on private property, and/or
 - interfering with existing public utilities, and/or
 - removed to preserve an existing tree grove of 5 or more tree species of the Heritage Tree in question, and of sound health, as determined by a certified arborist.

3. Tree Replacement

- a. A replacement tree is required for each tree removed in accordance with a site development plan submittal from the Approved Tree List.

- i. Replacement ratio

For every 10 caliper inches removed, one replacement tree from the Approved Tree List should be installed. For example, if one 10-inch caliper tree and one 20-inch caliper tree are removed, three new trees should be planted onsite.

- ii. Replacement tree location

Replacement trees planted within an easement shall be located so as not to interfere with the use of that easement, and shall not be planted under any present/planned overhead utility or above any present/proposed underground utility.

- iii. Tree Mitigation Fund

1. If an applicant demonstrates to the satisfaction of the ARB a site cannot support the total number of replacement trees required, the applicant will provide a monetary contribution to the Tree Mitigation Fund established to support City-wide tree maintenance and replacement efforts.
2. For residential projects, the applicant will contribute \$50.00 per caliper inch of replacement trees that could not be accommodated on the site, not to exceed \$1,000.00 per residential site.
3. For non-residential project sites, \$50.00 per caliper inch of replacement trees not able to be accommodated on the site will be contributed by the applicant to the Tree Mitigation Fund, supporting City-wide tree maintenance and replacement efforts.

- b. A list of approved trees is found in the attached appendix to these Guidelines.

5B - Landscape Design

Site development plans must include a landscape design plan.

1. Selection and Installation of Landscape Plantings

All planting materials used shall be of good quality and meet American Association of Nurserymen (AANS) standards for minimum acceptable form, quality and size for species selected, and capable to withstand the seasonal temperature variations of eastern Missouri, as well as the individual site microclimates. The use of species native to eastern Missouri shall be encouraged. Size and density of plant material, both at the time of planting and at maturity, are additional criteria that shall be

considered when selecting plant material. Where appropriate, the use of drought and salt tolerant plant material is preferred.

2. Installation

All landscaping materials shall be installed in accordance with the current planting procedures established by the AANS. All plant materials shall be free of disease and shall be installed so that soil of sufficient volume, composition and nutrient balance are available to sustain healthy growth.

3. Design Standards

Landscape plans, as described, shall be prepared by a landscape design professional, and evaluated and approved based on the following design criteria:

- a. Softening of walls and fences. Plant material shall be placed intermittently against long expanses of building walls, fences, and other barriers to create a softening effect and to help break up long expanses of blank walls with little architectural detail.
- b. Planting beds. Planting beds may be mulched with shredded hardwood, granite mulch, river rock, or similar materials. Lava rock is not permitted.
- c. Energy conservation. Plant material placement should be designed to reduce the energy consumption needs of the development.
- d. In addition, landscaping designs shall take into account and make an effort to implement stormwater treatment and low impact design standards, where appropriate.
- e. Deciduous trees, where appropriate, should be placed on the south and west sides of buildings to provide shade from the summer sun.
- f. Evergreens and other plant materials should be concentrated on the north and west sides of buildings to dissipate the effect of winter winds.
- g. Species diversity. Diversity among required plantings not only provides visual interest but reduces the risk of losing a large population of plants due to disease.
- h. No plant material exceeding three (3) feet in height above the elevation of the street. pavement is allowed within the sight distance triangle.

Approved Tree List.

Just as neighborhood compatibility should be considered for architectural design, canopy tree selection should complement the surrounding neighborhood. While each property presents its own unique site conditions, certain tree species have been proven to thrive in our regional climate. The approved tree list heavily favors Missouri native species, while also providing flexibility for the selection of approved cultivars and non-natives appropriate for our region.

Tree Group: Deciduous-Large

Characteristics: Trees 50 feet or more in height at maturity with a spread approximately equal to or more than their height and trees over 75 feet in height at maturity with a spread less than their height. Size is measured by DBH.

Minimum size at planting: 2.5 caliper inch

Botanical Name	Common Name
Acer platanoides	Norway Maple
Acer rubrum	Red Maple (Missouri native)
Acer saccharum	Sugar Maple (Missouri native)
Aesculus	Horsechestnut
Alnus	Alder
Carya	Hickory
Carya ovata	Shagbark Hickory (Missouri native)
Castanea	Chestnut
Celtis	Hackberry (Missouri native)
Gleditsia triacanthos var. inermis	Thornless Honey locust
Gymnocladus dioica	Kentucky Coffeetree (Missouri native)
Liriodendron tulipifera	Tulip poplar (Missouri native)
Magnolia acuminata	Cucumber Magnolia
Metasequoia glyptostroboides	Dawn Redwood
Platanus x acerifolia	London Planetree
Platanus occidentalis	American Sycamore (Missouri native)
Quercus alba	White Oak (Missouri native)
Quercus bicolor	Swamp White Oak (Missouri native)
Quercus borealis	Red Oak (Missouri native)
Quercus coccinea	Scarlet Oak
Quercus imbricaria	Shingle Oak (Missouri native)
Quercus macrocarpa	Bur Oak (Missouri native)
Quercus muehlenbergii	Chinkapin Oak (Missouri native)
Quercus palustris	Pin Oak (Missouri native)
Quercus phellos	Willow Oak (Missouri native)
Quercus robur	English Oak

Botanical Name	Common Name
Quercus shumardii	Shumard Oak (Missouri native)
Quercus stellata	Post Oak (Missouri native)
Quercus velutina	Black Oak
Taxodium distichum	Bald Cypress (Missouri native)
Ulmus 'Homestead'	Homestead Elm
Ulmus parvifolia	Chinese Elm
Zelkova serrata	Japanese Zelkova

Tree Group: Deciduous-Medium

Characteristics: Trees 25 to 50 feet in height at maturity with a spread equal to or greater than their height and trees over 50 feet in height at maturity with a spread less than their height. Size is measured by caliper or DBH.

Minimum size at planting: 2.5 caliper inch

Botanical Name	Common Name
Acer campestre	Hedge Maple
Acer griseum	Paperbark maple
Acer truncatum	Shantung Maple
Aesculus x carnea	Red Horsechestnut
Betula nigra	River Birch (Missouri native)
Carpinus betulus	European Hornbeam
Carpinus caroliniana	American Hornbeam (Missouri native)
Cercidiphyllum japonicum	Katsura Tree
Cladrastis kentukea (C. lutea)	American Yellowwood (Missouri native)
Fagus	Beech
Ginkgo biloba	Ginkgo (male only)
Magnolia macrophylla	Bigleaf Magnolia
Nyssa sylvatica	Black Gum (Missouri native)
Ostrya virginiana	American Hophornbeam
Sophora japonica	Japanese Pagoda Tree
Tilia americana	American Linden (Missouri native)

Tree Group: Deciduous-Small and Columnar

Characteristics: Trees 50 feet or less in height at maturity with a spread less than one-half of their height. Size is measured by caliper or DBH.

Tree Group: Deciduous-Small and Columnar

Minimum size at planting: 2.5 caliper inch

Botanical Name	Common Name
Acer buergerianum	Trident Maple
Acer japonicum	Full Moon Maple
Acer palmatum	Japanese Maple
Acer pensylvanicum	Striped Maple
Asminia triloba	Pawpaw (Missouri native)
Carpinus betulus 'Fastigiata'	Fastigate European Hornbeam
Carpinus betulus 'Columnaris'	Columnar European Hornbeam
Carpinus caroliniana	American Hornbeam/Ironwood
Sassafras albidum	Common Sassafras (Missouri native)

Tree Group: Deciduous-Ornamental

Characteristics: Trees that can be maintained at a height of 20 feet or less and have a spread approximately equal to their height. Size is measured by caliper or height. Multi-stem tree size is determined by measuring caliper of the largest stem and adding half the size of each of the other stems together for the total.

Minimum size at planting: 2 caliper inch (single stem), 1.5 caliper inch (multi-stem), 8 feet tall (clump).

Botanical Name	Common Name
Amelanchier	Serviceberry (Missouri native)
Botanical Name	Common Name
Cercis canadensis	Eastern redbud (Missouri native)
Cercis spp	Redbud
Chionanthus virginicus	White Fringetree (Missouri native)
Cornus florida	Flowering dogwood (Missouri native)
Cornus spp	Dogwood
Cotinus obovatus	American Smoketree (Missouri native)
Crataegus crusgalli var. inermis	Thornless Hawthorn (Missouri native)
Crataegus mollis	Downy Hawthorn (Missouri native)
Crataegus phaenopyrum	Washington Hawthorn (Missouri native)
Crataegus spp (species with thorns)	English Hawthorn (only in non-pedestrian areas due to thorns)
Crataegus viridis	Green Hawthorn (Missouri native)
Magnolia stellate	Star magnolia
Magnolia virginiana	Sweet Bay Magnolia

Botanical Name	Common Name
Magnolia x loebneri	Loebner Magnolia
Magnolia x soulangiana	Saucer magnolia
Malus spp	Flowering Crabapples
Prunus spp	Flowering Cherry
Syringa reticulata	Japanese Tree Lilac
Viburnum prunifolium	Blackhaw Viburnum (Missouri Native)

Tree Group: Evergreen - Large

Characteristics: Trees with needled boughs or evergreen/semi-evergreen leaves and foliage, with a mature height of 40 to 80 feet depending upon genus and species. Size is measured by caliper or height.

Minimum size at planting: 6 feet tall

Tree Canopy Coverage: 500 square feet

Botanical Name	Common Name
Abies spp	Fir
Chamaecyparis spp	Falsecypress
Larix spp	Larch
Metasequoia glyptostroboides	Dawn Redwood
Picea	Spruce
Pseudotsuga menziesii	Douglas Fir

Tree Group: Evergreen — Medium

Characteristics: Trees with needled boughs or evergreen/semi-evergreen leaves and foliage, with a mature height of 30 to 60 feet depending upon genus and species. Size is measured by caliper or height.

Minimum size at planting: 8 feet tall

Botanical Name	Common Name
Ilex opaca	American Holly (Missouri native)
Juniperus virginiana	Eastern Red Cedar (Missouri Native)
Juniperus virginiana 'Canaertii'	Canaerti Juniper
Magnolia grandiflora	Southern Magnolia
Thuja occidentalis	American Arborvitae
Thuja orientalis	Oriental Arborvitae
Tsuga Canadensis	Canada hemlock

Tree Group: Evergreen — Small

Characteristics: Trees with needled boughs or evergreen/semi-evergreen leaves and foliage, with a mature height of 15 to 25 feet depending upon genus and species. Size is measured by caliper or height.

Minimum size at planting: 6 feet tall

Botanical Name	Common Name
Arborvitae spp	Arborvitae
Ilex x attenuate 'Fosters #2'	Foster's Holly
Juniperus chinensis varieties	Upright Juniper
Juniperus scopulorum varieties	Upright Juniper