Planning
KNOXVILLE | KNOX COUNTY

TO: Knoxville-Knox County Planning Commission
FROM: Amy Brooks, AICP, Executive Director
DATE: 5/19/2022
SUBJECT: 6-E-22-OA Agenda Item #45

RECOMMENDATION

Staff recommends approval of amendments to the Knoxville Zoning Code, Appendix B, Zoning Code, Article 2.4.N.3.c -Sign Measurement, to correct language to reference detached signs subject to the provisions of Section 13.9.F, instead of 13.9.C.

Exhibit 1: City of Knoxville Memo

Exhibit 2: Proposed amendment to Article 2.4 – Rules of Measurement

Exhibit 1

CITY OF KNOXVILLE

Plans Review & Inspections Division

MEMORANDUM

DATE: **May 19, 2022**

TO: **Planning Staff**

FROM: **Peter Ahrens**
Director of Plans Review & Building Inspections

RE: **Zoning Code Amendment**

Article 2.4.N.3.c Sign Measurement

Background The Plans Review and Inspections Department requests the following amendments to the Zoning Code of the City of Knoxville, Article 2.4.N.3.c Sign Measurement.

- Article 2.4.N.3.c, in the zoning code needs to be amended to reference detached signs subject to the provisions of Section 13.9.F, instead of 13.9.C. This is a clerical error as the old zoning ordinance referenced signs in the commercial and industrial zone districts section, while the current language references signs in the historic overlay zoning districts.

The Department of Plans Review and Building Inspections recommends the adoption of these amendments to Article 2.4.N.3.c Sign Measurement of the Zoning Code, as indicated in the attachment.

Attachments

1) Proposed amendments to Article 2.4.N.3.c Sign Measurement.

Sincerely,

Peter Ahrens
Director of Plans Review & Building Inspections
865-215-3938

2.4 RULES OF MEASUREMENT

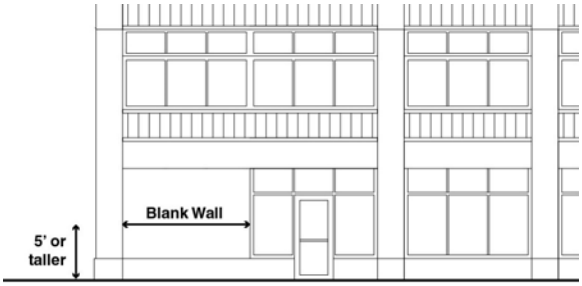
This section provides the rules of measurement for the dimensional standards and locational characteristics within the Code.

A. **Blank Wall**

1. **Blank Wall—Ground Floor**

The horizontal linear dimension of contiguous building wall that does not contain fenestration, doors, or decorative elements such as banding, medallions, artwork such as murals and mosaics, change in wall plane, or other architectural or material embellishment. Any wall less than five feet in height is not considered to be a blank wall.

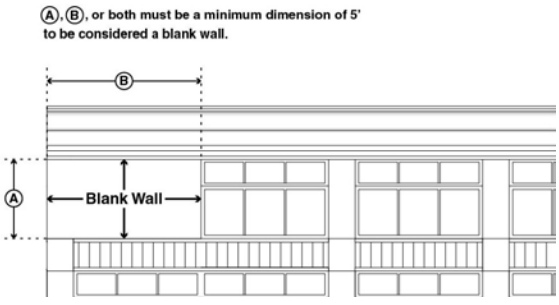
BLANK WALL—GROUND FLOOR



2. **Blank Wall, Upper Floor**

The horizontal or vertical linear dimension of contiguous building wall that does not contain fenestration, doors, or decorative elements such as banding, medallions, artwork such as murals and mosaics, change in wall plane, or other architectural or material embellishment. Any wall with a minimum dimension of less than five feet (height or width) is not considered to be a blank wall.

BLANK WALL, UPPER FLOOR

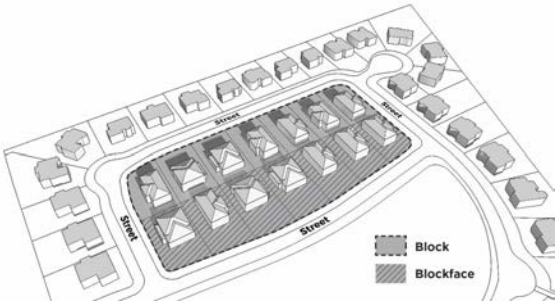


B. **Block and Blockface**

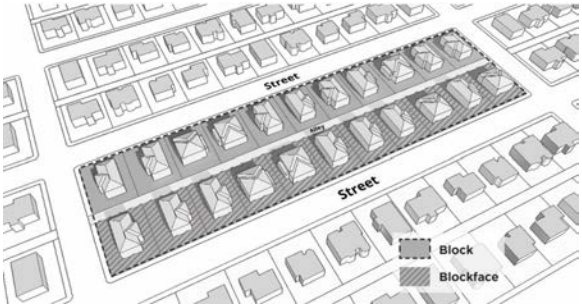
1. A block is a tract of land bounded by streets, or a combination of streets and railroad rights-of-way, municipal boundary lines, and/or waterways.

2. Blockface is measured as that portion of a block or tract of land facing the same side of a single street and lying between the closest intersecting streets.

BLOCK AND BLOCKFACE



BLOCK AND BLOCKFACE



C. **Build-To Dimensions.** Certain dimensional requirements with the district require structures to be constructed at a build-to dimension. A build-to requirement is a boundary or alignment, parallel to a lot line, where a structure must be placed. This Code includes three types of build-to dimensions:

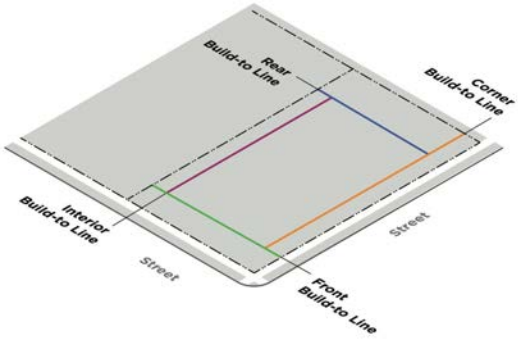
1. A build-to line (BTL) is a set building line on a lot, measured parallel from the front and/or corner side lot line, where the structure must be located. The building façade must be located on the build-to line. Façade articulation, such as window or wall recesses and projections are not counted as the building façade line, which begins at the applicable façade wall. Placement of a building at a build-to line must not violate line of sight requirements. In such case, where the City Engineer determines that line of sight would be encroached upon, the build-to line must be that point on the lot where the line of sight requirement is no longer violated.

2. A build-to zone (BTZ) is the area on a lot, measured parallel from the front and/or corner side lot line, where a structure must locate within the minimum and maximum range of setback provided. The building façade must be located within the build-to zone. Façade articulation, such as window or wall recesses and projections are not counted as the building façade line, which begins at the applicable façade wall. Placement of a building at a build-to zone must not violate line of sight requirements. In such case, where the City Engineer determines that line of sight

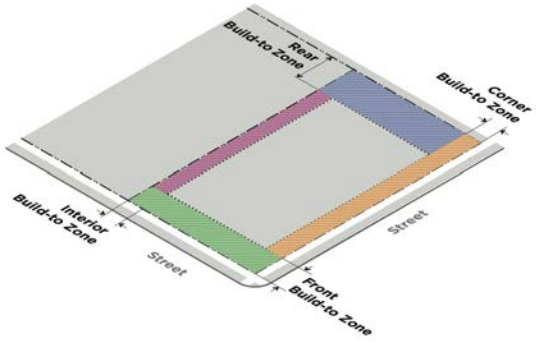
would be encroached upon, the maximum dimension of the build-to zone range must be that point on the lot where the line of sight requirement is no longer violated.

3. A build-to percentage specifies the percentage of the building façade that must be located within a build-to line or build-to zone. Façade articulation, such as window or wall recesses and projections, do not count against the required build-to percentage. Plazas and other open space features are counted as meeting the build-to percentage. Build-to percentage is calculated by building façade, not lot width.

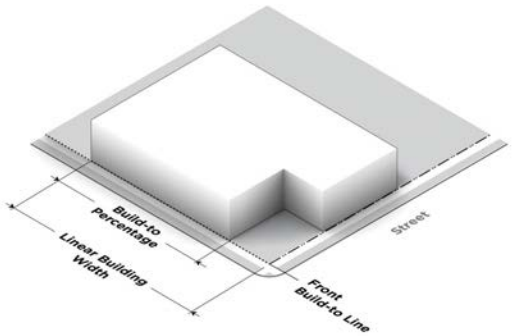
BUILD-TO LINE



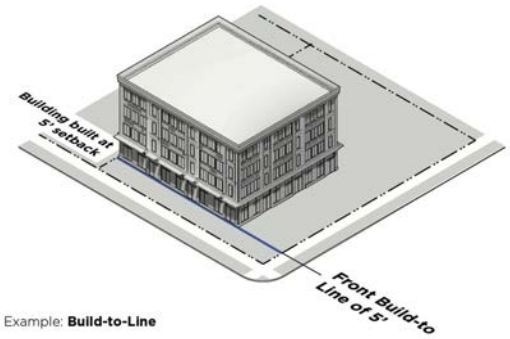
BUILD-TO ZONE



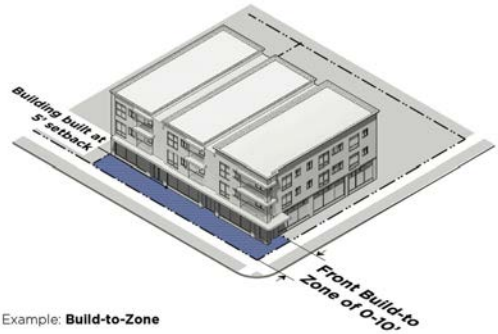
BUILD-TO PERCENTAGE



The following are examples of how build-to lines (BTL) and build-to zones (BTZ) are applied. When the front setback BTL is indicated as 5', the structure must be built at 5' from the front lot line. When the front setback BTZ is indicated as 0' to 10', the structure must be built within that range, shown in the example below as 5'; the property owner may choose any setback within that range.



Example: **Build-to-Line**



Example: **Build-to-Zone**

D. **Building Coverage**

E. **Building Height**

BUILDING HEIGHT

3. The following structures or parts thereof are exempt from maximum height limitations, unless otherwise limited by any height restriction imposed by any airport authority, or other similar federal, state, or local authority.

   a. Public utility poles, towers, and wires. This does not include wireless telecommunication towers and wind turbines that are regulated separately by this Code.

   b. Water tanks and standpipes.

   c. Building appurtenances such as chimneys, parapet walls, skylights, steeples, flag poles, smokestacks, cooling towers, elevator bulkheads, fire towers, water towers, stacks, stage towers, or scenery lofts, tanks, ornamental towers and spires, rooftop accessory structures, recreational facilities, necessary mechanical appurtenances, or penthouses to house mechanical appurtenances.

F. **Floor Area Ratio (FAR)**

The ratio of building area to parcel area. FAR is calculated by adding all of the areas of each floor of the building together and dividing by the gross area of the parcel on which the building is sited.

G. **Gross Floor Area (GFA)**

The gross floor area (GFA) of a structure is the sum of the gross horizontal areas of all floors of the structure as measured from the exterior faces of the exterior walls or from the centerline of walls separating two buildings.

H. **Impervious Surface Coverage**

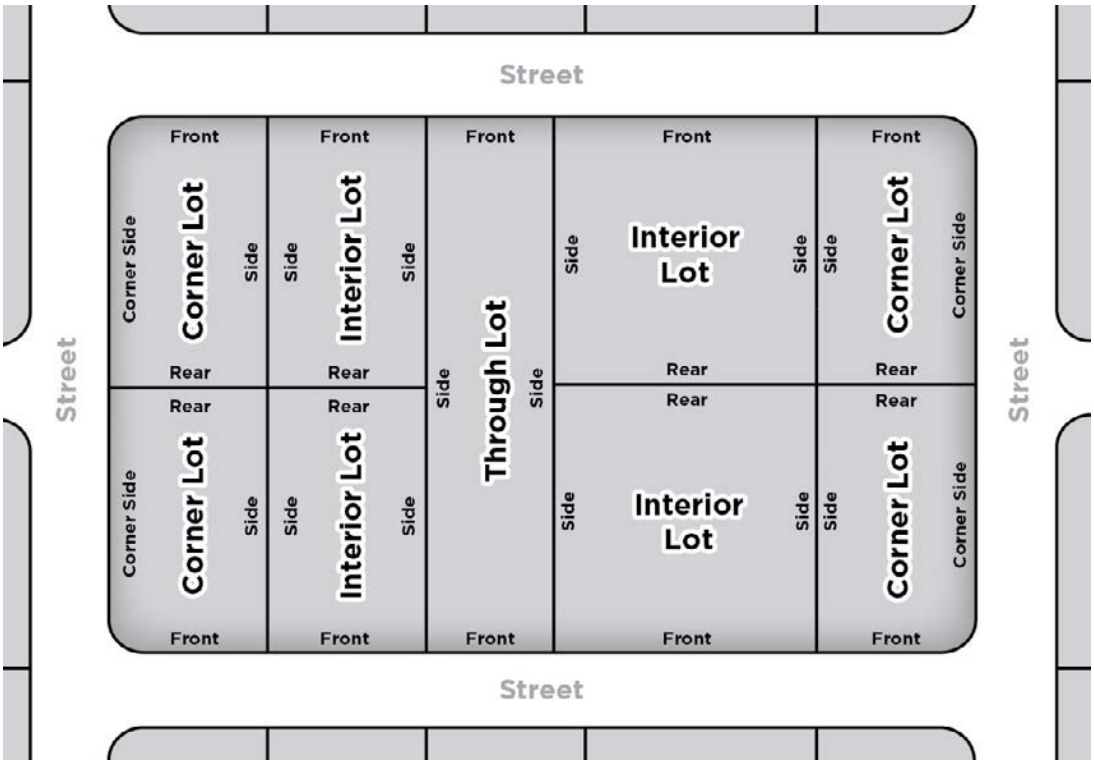
Impervious surface coverage is a measure of intensity of land use that represents the portion of a site that is occupied by structures, pavement, and other impervious surfaces that do not allow for the absorption of water into the ground. Maximum impervious surface of a lot is calculated as the percentage of all impervious surface area against the total area of the lot. When a permeable pavement system is used, it is calculated as 50% impervious surface subject to approval by the Department of Engineering.

I. **Lot**

A lot is the basic development unit for determination of lot area, depth, and other dimensional regulations. The following describes the types of lot configurations:

1. An interior lot is a lot other than a corner or through lot, bounded by two interior side lot lines.
2. A corner lot is a lot situated at the junction of, and abutting on, two or more intersecting streets.
3. A through lot is a lot that fronts upon two parallel streets, or which fronts upon two streets which do not intersect at the boundaries of the lot. A through lot is also called a double frontage lot.
4. A flag lot is platted so that the main building site area (the "flag") is set back from the street on which it fronts and includes an access strip (the "pole") connecting the main building site with the street.

LOT TYPE



J. **Lot Area**

The total area within the boundaries of a lot, excluding any street right-of-way, usually defined in acres or square feet. When applicable, lot area must be calculated above the full summer pool mark.

K. **Lot Depth**

The distance measured from the front lot line to the rear lot line. For lots where the front and rear lot lines are not parallel, the lot depth is the depth calculated at the deepest part of the lot.

L. **Lot Line**

A line of record bounding a lot, as indicated on an approved, filed, and recorded subdivision plat, which divides one lot from another lot or from a public or private street or any other public or private space.

1. Any lot line that is not a front, corner side, or rear lot line is an interior lot line.
2. A rear lot line on a pointed lot is an imaginary line parallel to and farthest from the front lot line, not less than ten feet long and wholly within the lot.

M. **Lot Width**

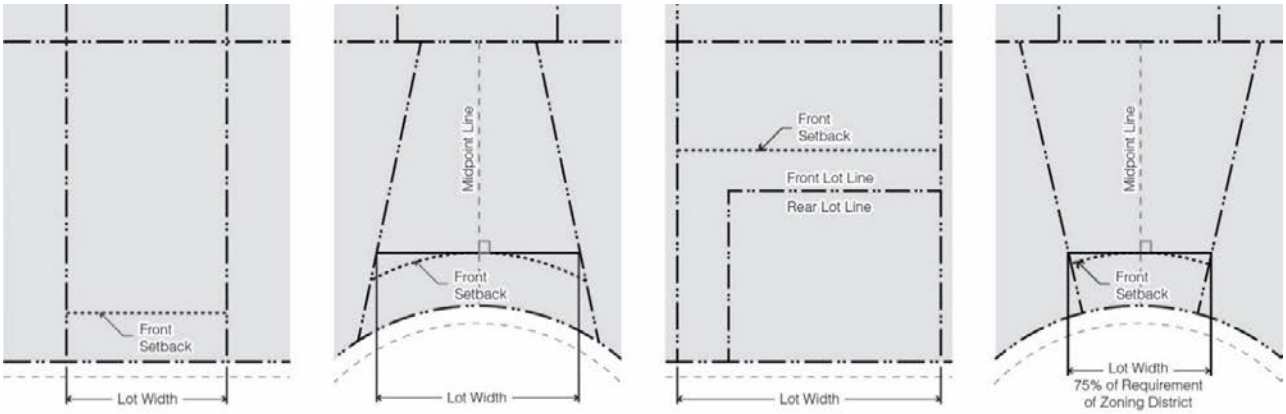
1. For regular lots, lot width is the horizontal distance between the side lot lines measured at right angles to its depth along a straight line parallel to the required front setback, build-to line, or farthest build-to line comprising a build-to zone.
2. On a lot with a radial (curved) front lot line, lot width is measured as follows:
   a. A line is drawn at the midpoint of the lot between the side lot lines, extending from the front lot line to the rear lot line.
   b. Where the required front setback intersects the midpoint line at a right angle, a line is drawn perpendicular to the midpoint line.

c. Lot width is determined as the length of the line between side lot lines.

d. Where the side lot lines angle to increase width towards the rear, the required lot width measured at the required setback is 75 percent of the lot width required by the zoning district.

3. For flag lots, lot width is measured at the required front setback as defined in this section.

LOT WIDTH



N. **Sign Measurements**

1. **Sign Area**

a. For detached signs, the total sign area is measured by calculating the entire area enclosed by the perimeter of the extreme limits of the sign cabinet or module, exclusive of embellishments such as pole coverings, framing, decorating roofing, and any appurtenances required by the Building Code.

b. For attached signs, the total sign area is measured by calculating the entire area enclosed by the perimeter of the extreme limits of the sign cabinet, or, if the sign face is not a part of a sign cabinet, the sign copy, including vertical and horizontal spacing between letters and logos on the sign face.

c. A sign designed to be viewed from two different directions is considered as one sign, provided that the two sign faces cannot be more than 42 inches apart if parallel, nor form an angle of more than 90 degrees.

d. If the attached or detached sign or sign structure is internally illuminated or back lit by any means, the entire area is included within the allowable sign area calculation for the site.

e. The area of a three-dimensional sign is calculated as the total area of the smallest rectangle, circle or square that fully encloses the largest profile of the three-dimensional sign.

2. **Maximum Allowed Sign Area**

a. **Primary Building Elevation**

For the purposes of determining maximum allowed sign area for attached signs:

i. The primary building elevation is any elevation that faces onto a street right-of-way to which the parcel has street frontage and has the principal entrance to the building, or has an entry used primarily for customers or clients.

ii. The wall area of the primary building elevation is determined as follows:

(A) When architectural elevations are provided that accurately and to scale depict the elevation of the structure, the wall area of the elevation is the area of the vertical wall surface of the building elevation exclusive of roofs, parapets, and false facia; except that a parapet on the primary building elevation, if it is part of a parapet of a uniform height on three sides of a structure and of a similar and uniform building material may be included in the elevation area, but decorative parapet extensions of irregular height on one or two sides of a structure are excluded from the calculation.

(B) When architectural plans are not provided, it is assumed that the height of the elevation of the first floor is 12 feet and that the height of the elevation of all floors above the first floor is ten feet per floor. The area of the elevation is then calculated based on the formula:

[building length × 12 ft. (first floor)] + [building length × 10 ft. per each additional floor] = elevation area.

b. **Canopies Over Gasoline Pumps**

For the purposes of determining maximum allowed sign area, the vertical surface of canopies over gasoline pumps is considered as part of the wall surface of an elevation.

3. **Sign Height**

a. Sign height is computed as the distance from the base of the sign structure to the top of the highest attached component of the sign, using as the base of the sign structure either of the following provisions:

i. The finished grade of the property below the sign; or

ii. The roadway surface at the nearest edge of pavement of the street that provides primary access to the site.

b. The finished grade of the property is construed for this purpose to be the final established grade after development, exclusive of any filling, berming, mounding, or excavating primarily for the purpose of locating a sign.

c. For detached signs subject to the provisions of Section 13.9.~~C.~~F on property that shares a common property line with an interstate highway or for detached signs on property that does not share a common property line but such signs are located within 100 feet of the right-of-way of an interstate highway, the highest interstate roadway surface as measured from the sign to the crown of the roadway surface on a line perpendicular to the interstate right-of-way, or radial to the right-of-way when the subject sign is located in proximity to a curved interstate right-of-way may be used to determine the greatest allowable height.

4. **Sign Spacing**

All distances related to spacing of signs are measured along a straight line between the two closest points of the sign structures.

5. **Setback for Detached Signs**

The setback is measured from the farthest most protrusion of the sign to the nearest point of a property line, street right-of-way or edge of pavement. The interstate highway right-of-way is considered a side or rear lot line for the purposes of determining the minimum setback required.

O. **Yards and Setbacks**

1. **General Definitions**

a. A yard is the open space area between the building line, of a principal building and the adjoining lot lines, exclusive of façade articulation, such as window or wall recesses and projections.

b. A required setback is the required minimum distance a principal building must be located from a lot line, which is unoccupied and unobstructed by any projections of a principal building, unless permitted by this Code.

i. A build-to zone or build-to line is considered a required setback.

ii. In the case of a build-to line it is where the principal building must be located.

iii. In the case of a build-to zone, it is the defined area (defined by minimum and maximum build-to lines) where the principal building must be located.

c. A setback may be equal to or lesser than a yard.

d. A setback is located along the applicable lot line for the minimum depth specified by the zoning district in which such lot is located.

2. **Front Yard and Front Setback**

The front yard and front setback extend the full width of the lot between side lot lines measured perpendicular to the front lot line.

a. Front Yard: A front yard is located between a principal building line and the front lot line.

b. Front Setback: A front setback is the required minimum distance per the zoning district that a principal building must be located from the front lot line.

c. A front setback is measured from the front lot line.

d. Front setbacks on irregular lots are subject to the additional provisions:

i. On a lot with a radial (curved) front lot line, the required front setback, as measured from the right-of-way line follows the curve of the lot line.

ii. For flag lots, the front yard and setback is measured from the rear lot line of the lot that separates the flag portion of the lot from the street.

e. Where front yard averaging is permitted, the average front setback of lots on the same side of the blockface are used to establish the required front setback.

3. **Interior Side Yard and Interior Side Setback**

The interior side yard and interior side setback extend along the interior side lot line between the front and rear yard or setback, measured perpendicular to the interior side lot line.

a. Interior Side Yard: An interior side yard is located between a principal building line and the interior side lot line.

b. Interior Side Setback: An interior side setback is the required minimum distance per the zoning district that a principal building must be located from the interior side lot line.

c. For townhouse developments, the interior side yard and interior side setback are applicable to end units only.

4. **Corner Side Yard and Corner Side Setback**

The corner side yard and corner side setback extend along the corner side lot line between the front yard or front setback and the rear lot line, measured perpendicular to the corner side lot line.

a. Corner Side Yard: A corner side yard is located between a principal building line and the corner side lot line.

b. Corner Side Setback: A corner side setback is the required minimum distance per the zoning district that a principal building must be located from the corner side lot line.

5. **Rear Yard and Rear Setback**

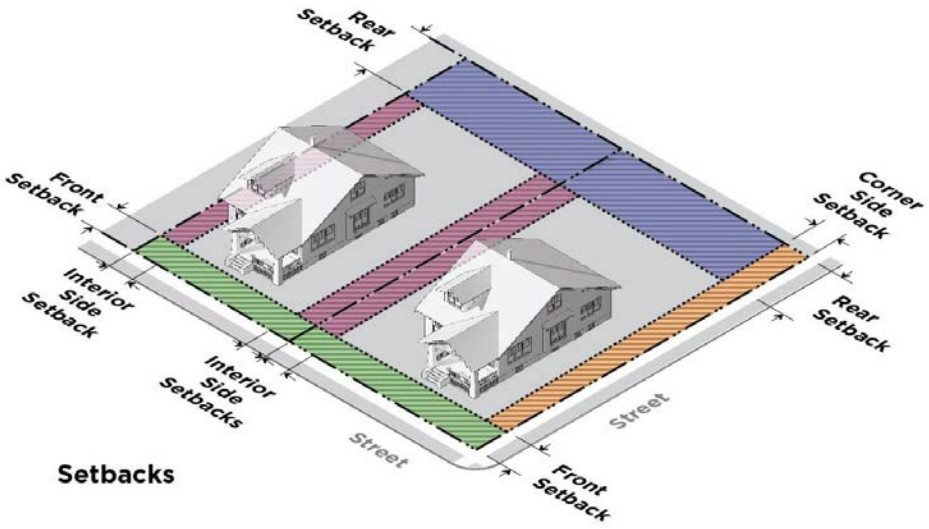
The rear yard and rear setback extend between interior side lot lines, measured perpendicular to the rear lot line.

a. Rear Yard: A rear yard is located between a principal building line and the rear lot line.

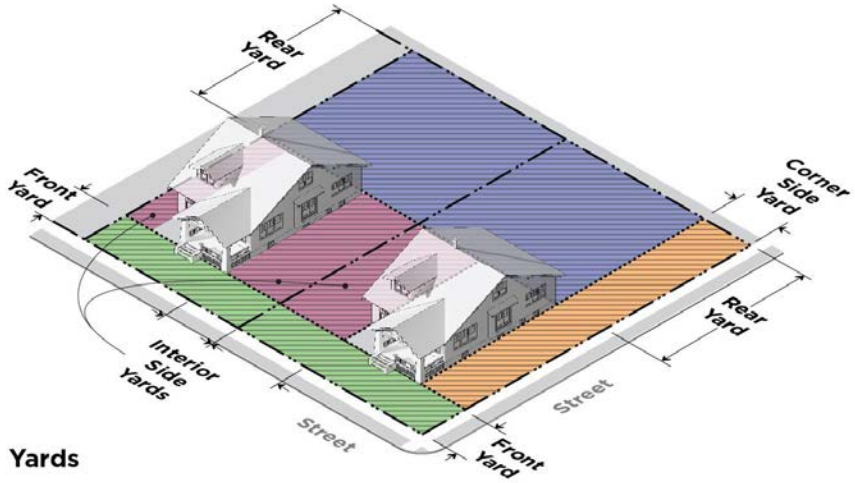
b. Rear Setback: A rear setback is the required minimum distance per the zoning district that a principal building must be located from the rear lot line.

c. In the case of a corner lot, the rear yard and rear setback extend between the interior side lot line to the required corner side setback for the [corner lot], measured perpendicular to the rear lot line.

SETBACKS



YARDS



(Ord. No. O-77-2020 , § 1, 5-19-20)