

CHAPTER 3 MEASUREMENTS AND DESIGNATIONS

SECTION 3.10 INTENT

This chapter outlines methods for measuring dimensions to ensure compliance with the requirements of this Ordinance, defines terms used in this chapter and throughout this Ordinance, and designates lots, lot lines, setbacks, and yards.

SECTION 3.20 BUILDING AND STRUCTURE HEIGHT AND SIZE

A. HEIGHT MEASUREMENT

Building and structure height shall be measured in the following manner (Figure 3-1):

1. **Pitched Roof.** Pitched roofs include, but are not limited to, hipped, gable, mansard, shed, and gambrel styles. Height is measured from the average grade to the average height between the lowest eave and the highest ridge line of the building.
2. **Flat Roof.** Height is measured from the average grade to the highest point of the roof, including a parapet.
3. **Structure.** Height is measured from the natural grade to the highest point of the structure.



Figure 3-1 Building and Structure Measurements

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4. **Definition of Grade.**
 - a. Average Grade. The average of the highest and lowest adjacent grades against a building foundation.
 - b. Natural Grade. The elevation of the ground surface in its natural state before man-made alterations.
5. **Waterfront Lots- Artificial Grade.** When artificially raising the natural grade of an individual building site that is not part of an approved multi-lot development grading plan, the average high and low points of the pre-existing natural grade shall be used to calculate building height on waterfront lots.

B. STORIES

Certain zoning districts regulate buildings by the maximum number of stories. See the definitions below and Figure 3-2.

- 1. **Story.** The portion of a building included between the surface of any above-grade floor and the surface of the floor next above it, or if there is no floor above it, then the space between any floor and the ceiling next above it. A story shall have vertical walls.
- 2. **Story, Half.** The topmost story of a building is counted as a half story when it is completely within the roof form of the building, less than 50 percent of the floor area has a clear height of more than seven and a half (7.5) feet, measured from the finished floor to the finished ceiling, and dormers do not exceed more than 50 percent of the front, rear or side building length.

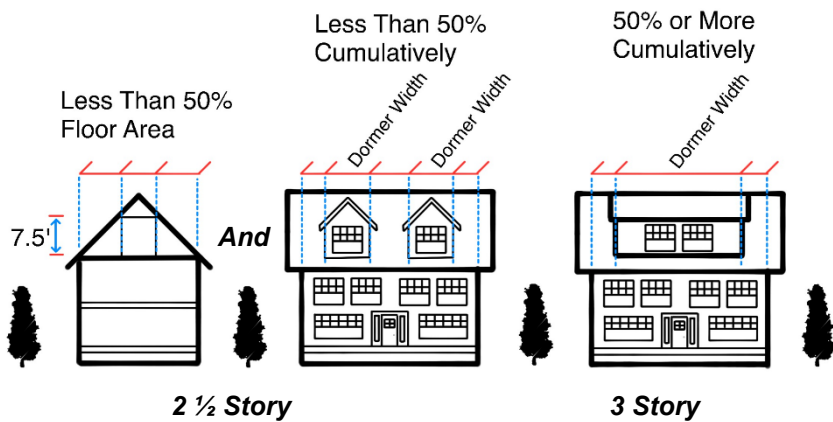


Figure 3-2 Half Story vs. Full Story

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C. HEIGHT EXCEPTIONS

The components and structures in Table 3.20 C shall be exempt from height regulations in all zoning districts to the extent noted in the table.

TABLE 3.20 C: HEIGHT EXCEPTIONS	
Building Component or Structure	Maximum Exception
Equipment screening	Shall not exceed four (4) feet in height from the adjoining roof
Chimneys, elevator bulkheads, fire towers, cupolas, domes, spires, and other similar architecture or structural elements and appurtenances	May be 25 percent greater than the maximum height with approval from the Zoning Administrator
Mechanical appurtenances and roof-mounted solar panels	May extend five (5) feet above the maximum height requirement (see Section 16.70 C).
Antennas	See Section 17.30

D. MINIMUM DWELLING AREA

1. **Requirement.** The minimum dwelling area for residential dwelling units is included in Chapters 4-7. For this requirement, the square footage of the livable floor area is measured for compliance.
2. **Definition of Livable Floor Area.** The finished area of a dwelling unit heated and/or air conditioned, located above ground, but not including basements, garages, covered patios or porches, or other outdoor space.

E. MINIMUM BUILDING WIDTH

1. **Requirement.** The minimum building width for residential dwelling units is included in Chapters 4-7.
2. **Definition of Minimum Building Width.** The minimum horizontal dimension that a building must maintain along the front, side, or rear elevation. The measurement is the shortest horizontal distance between the ground-floor exterior walls at each building elevation.

SECTION 3.30 LOTS

A. MINIMUM DIMENSIONAL REQUIREMENTS

No lot shall be divided, changed, or adjusted in a manner that does not fully comply with minimum lot area or dimension, minimum lot width, maximum depth-to-width ratio, or minimum lot frontage requirements. If a lot is already less than the minimum required by this Ordinance, the lot shall not be further divided, changed, or adjusted to result in a reduction in size. If the lot width or frontage is already less than required by this Ordinance, lots shall not be further divided or adjusted to further reduce the lot width, area, or frontage. However, pursuant to the land division approval process, a lot line adjustment between one or more nonconforming lots can be approved so long as the overall degree of the nonconformity (for either lot) is not increased.

B. DEFINITION OF LOT AND LOT TYPES

In certain cases, zoning requirements vary based on lot type. This subsection defines lots and lot types.

1. **Lot.** A developed or undeveloped tract of land in one ownership, legally transferable as a single unit of land. See Figure 3-3 for lot types. For the purpose of the Ordinance, the word “lot” includes:
 - a. Lots created through the subdivision platting process;
 - b. Existing parent tracts established by the Michigan Land Division Act, Act 288 of 1967, as amended;
 - c. Parcels created by the division of land, a combination of parcels, or adjustment of boundary lines; and
 - d. Site condominium units unless otherwise specified in this Ordinance.
2. **Lot, Corner.** A lot with at least two (2) contiguous sides abutting two (2) intersecting streets and where the interior angle of the intersecting streets is less than 135 degrees. Also, a lot located on a curved street or streets, if tangents of the curve, at the points of beginning with the lot or the points of intersection of the side lot lines with the street line, intersect at an interior angle of less than 135 degrees.
3. **Lot, Flag.** A nonconforming lot that does not comply with minimum lot frontage and width requirements and where access to the building envelope (flag area) is provided by a narrow strip of land (flag pole) extending to a public or private street.

4. **Lot, Interior.** A lot other than a corner, multi-frontage, or through lot, bordered on three (3) sides by other lots.
5. **Lot, Multi-Frontage.** A lot that is bordered by streets on three (3) sides.
6. **Lot, Through.**
 - a. A lot bordered by two (2):
 - i. More or less parallel streets; or
 - ii. Streets that are not parallel if one (1) is a cul-de-sac loop.
 - b. For the purposes of this definition, if one side of the lot is bordered by an alley opposite a street, the lot is not considered a through lot.

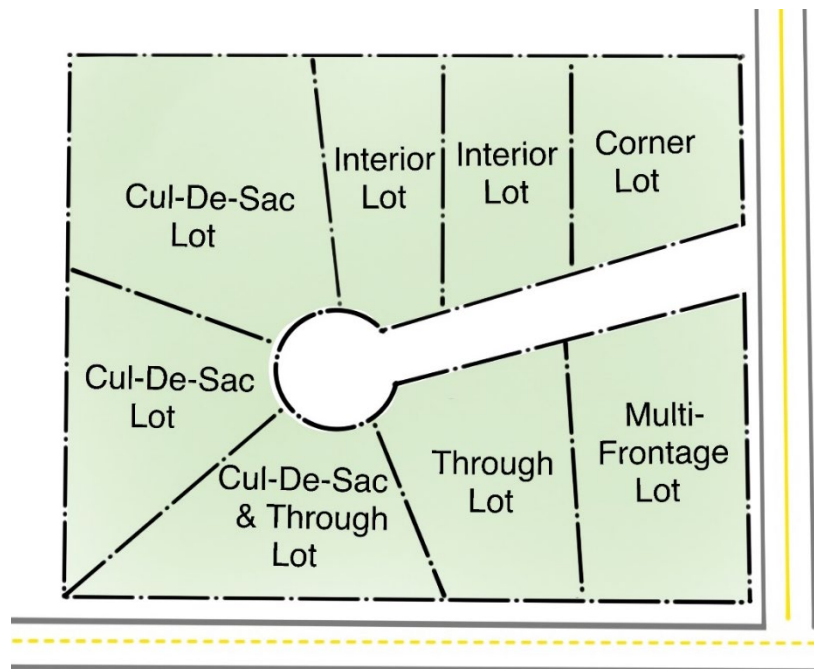


Figure 3-3 Lot Types

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7. **Lot, Waterfront.** A lot with one (1) or more of its lot lines adjoining a stream, river, or lake.

C. DEFINITION OF LOT LINES AND TYPES OF LOT LINES

Certain zoning requirements and determinations rely on lot line definitions. This subsection defines lot lines and type of lot lines.

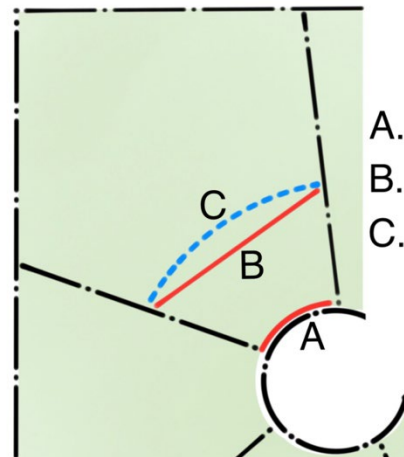
1. **Lot Lines.** The property lines bounding a lot.
2. **Lot Line, Front.** The line separating the lot from the street right-of-way or easement.
 - a. **Primary Front.** The lot line on a corner lot that the front building elevation faces that separates the lot from the street right-of-way or easement, or the narrower two (2) front lot lines if there is no building. Where the lot lines are of equal length, and/or the primary front lot line is not evident, the Zoning Administrator shall determine the primary front lot line.
 - b. **Lot Line, Secondary Front.** On a corner lot or multi-frontage lot, the lot line separating the lot from the street right-of-way or road easement, which is not the primary front lot line, opposite the interior side lot line on a corner lot and the side lot line on a multi-frontage lot.
3. **Lot Line, Rear.** The lot line opposite and most distant from the front lot line. On a corner lot, the rear lot line is opposite the shorter of the two front lot lines. In the case of a triangular lot, the rear lot line shall be an imaginary line parallel to the front lot line, not less than ten feet long, lying furthest from the front lot line and wholly within the lot. A through lot has no rear lot line. On irregularly-shaped lots, the rear lot line is determined based on a line perpendicular to the front lot line extending to the point where a rear lot line would be 10 feet in width and parallel to the front lot line. This rear lot line is intended for the purpose of establishing the rear setback and lot depth only.
4. **Lot Line, Side.** The lot lines connecting the front and rear lot lines of an interior and through lot and the lot line connecting the primary front lot line and rear lot line on a corner lot.

D. MINIMUM LOT AREA.

1. **Requirement.** Minimum lot area is required in accordance with Chapters 4 to 14.
2. **Definition of Lot Area.** The area of land included within a lot as defined by lot lines. Property and bottomlands located under a public road right-of-way, private street easement, lake, river, creek, or stream shall be excluded from lot area or dimension calculations for purposes of determining minimum lot area pursuant to this Ordinance.
3. **Conventional Condominiums.** For conventional condominiums, a comparable measurement for zoning compliance shall be the total area of the property, excluding required open space, if applicable, and excluding area that would otherwise be considered within a street easement, divided by the number of principal buildings in the development.

E. MINIMUM LOT WIDTH

1. **Requirements.** Minimum lot width is required in accordance with Chapters 4 to 14.
2. **Definition of Lot Width.** The horizontal distance between side lot lines that is measured between two (2) points where the required front setback intersects the side lot lines (Figure 3-4).
3. **Measurement.** The required minimum lot width shall be maintained from the front setback line all the way to the mid-point of the lot.



A. Lot Frontage
B. Lot Width
C. Front Setback

Figure 3-4 Lot Width and Lot Frontage

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4. **Conventional Condominiums.** For conventional condominiums, a comparable measurement for zoning compliance shall be the total linear footage of a street segment measured at the front setback, divided by the total number of buildings fronting the street segment.
5. **Waterfront Lot Width.** For all lots abutting or having frontage on a lake, river, creek, or stream, each lot shall have frontage on the lake, river, creek, or stream as measured between side lot lines at the normal high-water mark, equal to or greater than the minimum lot width requirement of the zoning district within which the property is located.

F. MINIMUM LOT ACCESSIBILITY AND FRONTAGE

1. **Minimum Lot Frontage.** All lots shall have at least 40 feet of frontage on a public street or lawful private street.
2. **Definitions of Lot Frontage and Primary Street Frontage.**
 - a. **Lot Frontage.** The distance within which a front lot line of a lot adjoins a public right-of-way or private street easement, measured between the two (2) lot lines intersecting that public right-of-way or private street easement (Figure 3-4). Corner lots at intersections and double frontage (through) lots have multiple street frontages.
 - b. **Primary Street Frontage.** The street frontage abutting the primary front lot line.

3. **Conventional Condominiums.** For conventional condominiums, a comparable measurement for zoning compliance shall be the total linear footage of a street segment divided by the total number of buildings fronting the street segment.

G. DEPTH-TO-WIDTH RATIO

1. **Requirement.** The ratio of depth to width of any lot shall not exceed four to one (4:1). The maximum depth-to-width ratio requirement is also established by Chapter 22 of the Gaines Charter Township Code of Ordinances, Chapter 22, Land Divisions, Subdivisions, and Land Development.
2. **Definition of Lot Depth.** The average distance between the front lot line and the rear lot line. The average shall include measurements of the side lot lines, if extending from the front lot line to the rear lot line, and the shortest measurement from the front lot line to the farthest point of the rear lot line.
3. **Definition of Lot Width.** See Section 3.30 E.2.
4. **Waiver.** The Planning Commission may allow a greater depth-to-width ratio after consideration of the following:
 - a. If there are any unusual topographic or physical conditions on the property; or
 - b. If there are any other conditions on the property that would warrant the need for a greater depth-to-width ratio.
5. **Conventional Condominiums.** The depth-to-width ratio requirement does not apply to conventional condominium developments.

SECTION 3.40 SETBACKS AND YARDS

A. SETBACKS

1. **Applicability.** Buildings and structures shall not be constructed, converted, enlarged, rearranged, reconstructed, or structurally altered except in full conformity with the setback requirements of the zoning district in which it is located.
2. **Setback Definitions.**
 - a. **Setback.** The minimum horizontal distance that buildings and any structure 30 inches in height or greater shall be separated from a public street right-of-way, private street easement, or lot line to meet the minimum requirements of this Ordinance. In case of a maximum setback noted in this Ordinance, it is the maximum horizontal distance that buildings shall be separated from a public street right-of-way or private street easement.
 - b. **Setback, Front.** The line marking the required setback from the public street right-of-way or private street easement.
 - c. **Setback, Rear.** The line marking the required setback distance from the rear lot line.
 - d. **Setback, Side.** The lines marking the required setback distance from the side lot lines.
 - e. **Setback, Street Side.** The line marking the required setback from the public street right-of-way or private street easement in the direction of the secondary front yard.

3. Setback Measurement for Platted Lots, Metes and Bounds Land Divisions, and Site Condominium Units.

- a. Setbacks are measured from:
 - i. Front. The fronting public street right-of-way or private street easement for front setbacks and street side setbacks; and
 - ii. Side and Rear Setbacks. Side and rear property lines for side and rear setbacks, respectively.
- b. Setbacks are measured to:
 - i. The exterior edge of the foundation of buildings and structures and any portion of the building or structure supported by a foundation; and
 - ii. The exterior and outermost edge of any structure without a foundation.
- c. Extension.
 - i. Front and rear setbacks extend across the full width of the lot.
 - ii. Street side and side setbacks extend the full depth of the lot from the primary front property line to the rear property line.
- d. Attached dwelling units sharing common walls along platted lot lines shall not be required to comply with side setback requirements except for the end units adjacent to side property lines.

4. Setback and Separation Measurement for Conventional Condominium Developments. For conventional condominium developments with no interior lot lines and no site condominium unit lines, external setback compliance and internal separations shall be determined in the following manner.

- a. Front Setbacks. From a point 33 feet from the centerline of the street to:
 - i. The exterior edge of the foundation of buildings and structures and any portion of the building or structure supported by a foundation; and
 - ii. The exterior and outermost edge of any structure without a foundation.
- b. Side Building Separation. Side separation between buildings shall be a minimum of twice the measurement of the required side setback for the applicable zoning district and shall be measured between the closest exterior side edges of the foundation of buildings and structures and any side portion of the building supported by a foundation.
- c. Side Setback. Side setbacks are measured from the development side boundary to:
 - i. The exterior side edge of the foundation of buildings and structures and any portion of the building or structure supported by a foundation; and
 - ii. The exterior and outermost side edge of any structure without a foundation.
- d. Rear Building Separation. Rear separation between buildings shall be a minimum of twice the measurement of the required rear setback for the applicable zoning district and shall be measured between the closest exterior rear edges of the foundation of buildings and structures and any rear portion of the building supported by a foundation.
- e. Rear Setback. Rear setbacks are measured from the development rear boundary to:
 - i. The exterior rear edge of the foundation of buildings and structures and any portion of the building or structure supported by a foundation; and
 - ii. The exterior and outermost rear edge of any structure without a foundation.

5. **Alleys.** Notwithstanding the front setback required from a public street right-of-way or private street easement, where alleys provide property access, a rear setback shall be applied if the alley faces the rear of the principal building, and a side setback shall be applied if the alley faces the side of the principal building. Setbacks shall be measured from the outside edge of the alley easement or edge of pavement (if no easement exists) to:
 - i. The exterior edge of the foundation of buildings and structures and any portion of the building or structure supported by a foundation; and
 - ii. The exterior and outermost edge of any structure without a foundation.
6. **Allowable Projections into Setbacks.** The following building components and structures are allowed to project into setbacks to the extent noted in Table 3.40 A.

TABLE 3.40 A: ALLOWABLE PROJECTIONS INTO SETBACKS	
Building Component or Structure	Maximum Exception
Access ramps	May project into a setback area to the degree necessary to accommodate the structural improvement. Ramps shall be removed within three (3) months after the need for the ramps ceases.
Cornices, bay windows, window wells, eaves, and other cantilevered elements determined by the Zoning Administrator to be similar	Three (3) feet into a setback area, provided that the projection is at least five (5) feet from any lot line.
Stairs	No maximum provided that the projection is at least five (5) feet from any lot line.
Uncovered and unenclosed decks no greater than 10 feet above the average grade directly below.	No maximum within side or rear yards provided that the projection is at least five (5) feet from any side or rear lot line.
Patios, concrete pads, and all flatwork, all no greater than six (6) inches above grade	No setback required.

B. ENCROACHMENT INTO RIGHT-OF-WAY

No buildings, structures, service areas, or off-street parking and loading facilities, except driveways, shall encroach on or into public right-of-way or private street easements.

C. CLEAR VISION CORNER

Signs, fences, walls, structures, benches, shrubbery, or other potential obstructions to vision shall not be permitted to exceed a height of three (3) feet within a triangular area formed by the intersection of two (2) street right-of-way lines and a line connecting two (2) points located on those intersecting right-of-way lines 20 feet from the point where the right-of-way lines intersect; provided, utility poles, street lights, and street signs shall be exempt from this requirement (Figure 3-5).

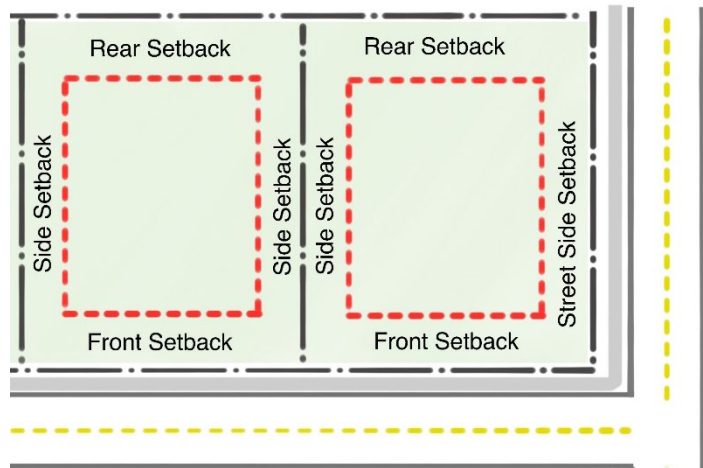


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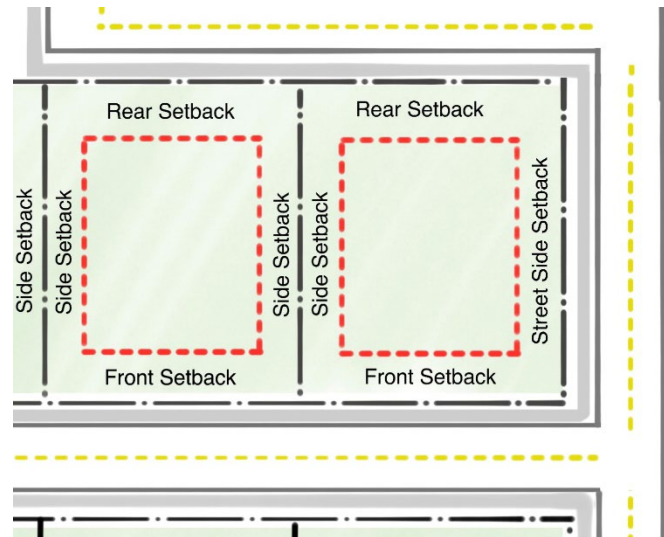
Figure 3-5 Clear Vision Corner

D. SETBACKS AND YARDS BY LOT TYPE.

1. **Interior Lots.** On interior lots, the minimum front, side, and rear building setbacks shall be met (Figure 3-6). An interior lot has a front yard, two (2) side yards, and a rear yard.
2. **Corner Lots.** On corner lots, the minimum front, side street, side, and rear building setbacks shall be met (Figure 3-6). A corner lot has a front yard, a secondary front yard, a side yard, and a rear yard.
3. **Through Lots.** On through lots, the minimum front building setback shall be met on the primary street frontage, which is the direction the building faces, and side setbacks shall be met. The minimum rear setback shall be met along the secondary street frontage (Figure 3-7). A through lot has a front yard, two (2) side yards, and a rear yard.
4. **Multi-Frontage.** On multi-frontage lots, the minimum front building setback shall be met on the primary street frontage, which is the direction the building faces, a street side setback shall be met, and a side setback shall be met. The minimum rear setback is applied to the opposite side of the front setback (Figure 3-7). A multi-frontage lot has a front yard, a secondary front yard, a side yard, and a rear yard.
5. **Lawfully Nonconforming Flag Lots.** At the discretion of the Zoning Administrator, the front setback may be applied from the lot line of the “flag” area of the lot nearest and parallel to the street on which the “pole” has frontage.



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Figure 3-6 Setbacks for Interior (L) and Corner Lots (R)

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Figure 3-7 Setbacks for Through (L) and Multi-Frontage Lots (R)

E. YARDS

In certain cases, zoning requirements vary based on yard designations. Yards and yard designations are defined as follows (Figure 3-8):

1. **Yard.** An open space at grade between a building and the adjoining lot lines.
2. **Yard, Front.** An open space between the front of a principal building and the front lot line, generally adjacent to a street, and extending the full width of the lot.
 - a. **Yard, Primary Front.** The front yard on a corner lot that the front building elevation faces. Where the primary front yard is not evident, the Zoning Administrator shall determine the primary front yard.
 - b. **Yard, Secondary Front.** The front yard on a corner lot that the front building elevation does not face. A secondary front yard extends from the rear of the primary front yard designation to the rear lot line.

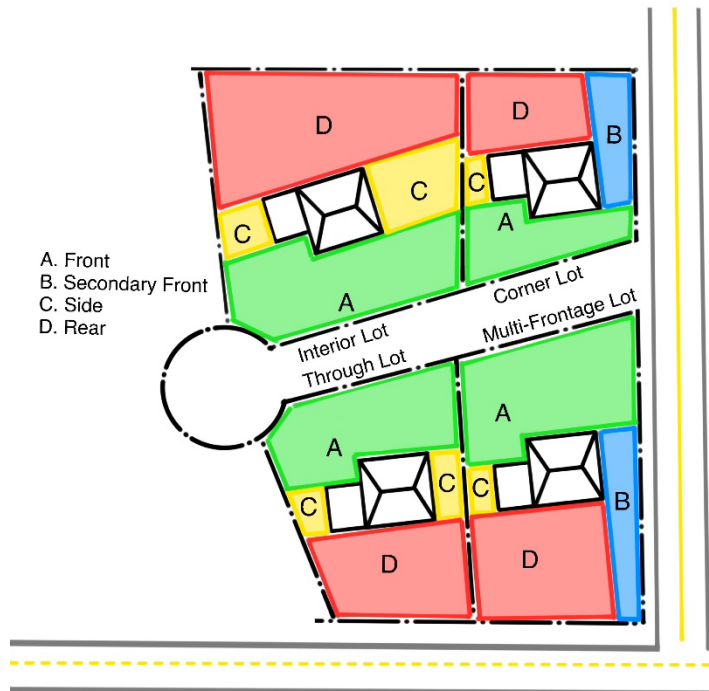


Figure 3-8 Yard Designations

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3. **Yard, Rear.** An open space between the rear of a principal building and the rear lot line and extending the full width of the lot.
4. **Yard, Side.** An open space between the side of a principal building and the side lot line extending from the front yard to the rear yard.

F. SETBACK AVERAGING

1. **Applicability.** This section applies to lots and parcels located within the SR, VR, and MFR zoning districts in Sections 6 and 7 of the Township and that are also within blocks with established building patterns that consistently vary from the current setback requirements of this Ordinance. In these areas, an applicant may request front and side setback reductions for new single-family detached and attached dwellings, garages, accessory buildings, and additions to existing dwellings as determined by the average of the setbacks of residential buildings on adjoining and nearby properties.
2. **Process.** An applicant may seek setback reductions authorized by this section through the special land use process.
3. **Method for Determining Setbacks.** The following process shall be used to determine the allowable setback range for a property based on averaging:
 - a. The average front and/or side setbacks will be determined by measuring the front and/or side setbacks of at least two (2), but no more than four (4), contiguous developed properties on the same block on either side of the property to be developed (vacant lots may be skipped). The average shall include at least one (1) property on each side of the subject site. In the case of a corner lot, two (2) to four (4) properties along both street frontages may be used in the average.

- b. The total gross setback distances shall be divided by the number of properties measured to find the average, which is the “initial” setback line. The front and/or side building line(s) of the building shall be proposed within five (5) feet of either side of the initial setback line. However, in no case shall the front or side building line of a proposed building be less than the lowest of the front and/or side setbacks used to determine the average.
 - c. Properties with different zoning categories cannot be used in the averaging. For example, a residential property next to a commercial property cannot use the commercial property setback in the averaging calculation.
 - d. The setbacks used for the calculations must be for the same type of building that is proposed. For example, only garage entrance setbacks may be used to average a garage entrance setback, and only dwelling setbacks may be used to average a dwelling setback.
4. **Final Setback Approval.** The Planning Commission shall determine the allowable setback range based on the method for determining setbacks, as well as the special land use general standards within Section 27.40. Based on the review of the proposal against Section 27.40, the Planning Commission may approve a greater minimum setback and/or a maximum setback if it is required to protect public health, safety, and welfare or the character of the neighborhood.

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