

Planning Academy – Classroom Activity LARI - 01 (Calculation Guide)

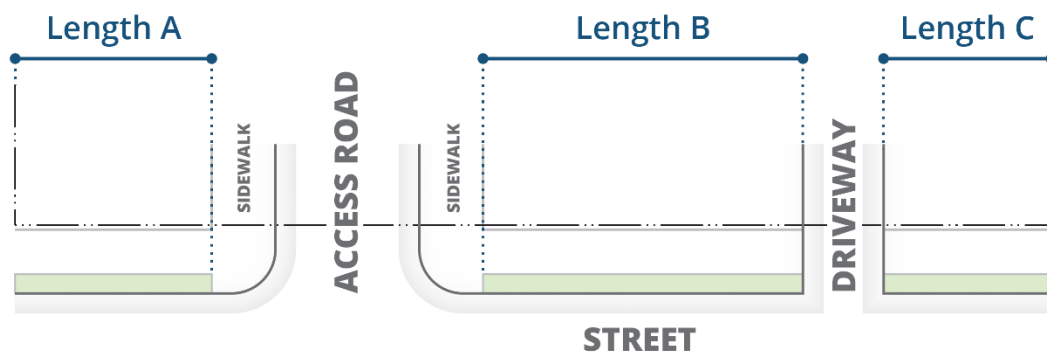
For more information or complete code section references, please review the noted sections within the full [2025 reenacted development code \(opens in separate window\)](#)

Related code sections for review and use

SEC. 18-598 RIGHT-OF-WAY (ROW) LANDSCAPE AREA.

- (a) **Intent.** The intent of the right-of-way (ROW) landscape requirement is to buffer pedestrians from vehicular traffic, to improve the appearance of transportation corridors, and **promote the aesthetic of tree-lined streets to the greatest extent possible.**
- (b) **Applicability.** **Right-of-way landscape area tree equivalents (TEs) shall be required in addition to any street landscape buffer TE requirements as detailed in Section 18-599.**
- (c) **Location.** Required TEs shall be **located within the ROW** or within the adjacent street landscape buffer as defined in Section 18-599.
- (d) **Requirements.**
 - (1) **Required ROW TEs.** **A minimum of one and one-half (1.5) TEs shall be required for each 50 linear feet of street frontage as measured from property line to property line along the frontage, excluding all existing and proposed driveways, alleys, curb returns, and maintenance access roads. See Figure 18-598.1.**

Figure 18-598.1. ROW TEs frontage calculation.



REQUIRED ROW TEs

Length A + B + C = Total Street Frontage

(Total Street Frontage / 50') x 1.5 = **Required ROW TEs**

SEC. 18-599. STREET LANDSCAPE BUFFER.

- (a) **Intent.** The street landscape buffer, also referred to as a street buffer, is intended to ensure that new development and redevelopment is adequately separated from street rights-of-way.
- (b) **Location.** The street buffer shall be located on private property along all street right-of-way property lines.
- (c) **Requirements.** Street buffer requirements shall apply based on the subject use and the classification of the applicable roadway per the Thornton Transportation and Mobility Master Plan.
- (3) **Mixed-use and nonresidential street buffer.** If a street buffer is required for a mixed-use or nonresidential development per Table 18-599.2, the standards established for the applicable roadway classification, as indicated in Table 18-599.2.

Table 18-599.2. Mixed-use and nonresidential street buffer requirements.

Specification	Freeway / Tollway	Major Arterial Option 1	Major Arterial Option 2	Minor Arterial / Collector Option 1	Minor Arterial / Collector Option 2
Minimum width (as measured from the right-of-way line)	25 feet	15 feet	5 feet	10 feet	5 feet
6-foot minimum height freestanding masonry or concrete wall	optional	optional	required [3] [4]	optional	optional
6-foot minimum height solid fence with masonry columns [1] [2]	N/A (not applicable)	N/A (not applicable)	N/A (not applicable)	optional	required [3] [4]
Minimum TE per 50 linear feet	3.5	2	1	1.5	1

Table 18-599.2 footnotes:

- [1] Fence shall be double-sided and have masonry columns located at fence terminations, changes in direction or at a minimum of every 100 feet along the property line.
- [2] Where a fence is required, a wall may be utilized.
- [3] Specifically for redevelopment sites or Type 1 façades of commercial buildings, wall and fence requirements can be waived and alternatively a low continuous landscaped hedge (minimum three feet in height) or decorative masonry wall (minimum three feet in height) may be used in lieu of walls or fences in combination with shrubs, ornamental grasses and perennials planted between the ROW and wall location.
- [4] Where the setbacks within a zoning district are ten feet or less, the wall or fence requirements of this section may be waived

Figure 18-599.7. Mixed-use and nonresidential street buffer requirements – Major Arterial Option 1.

MAJOR ARTERIAL OPTION 1

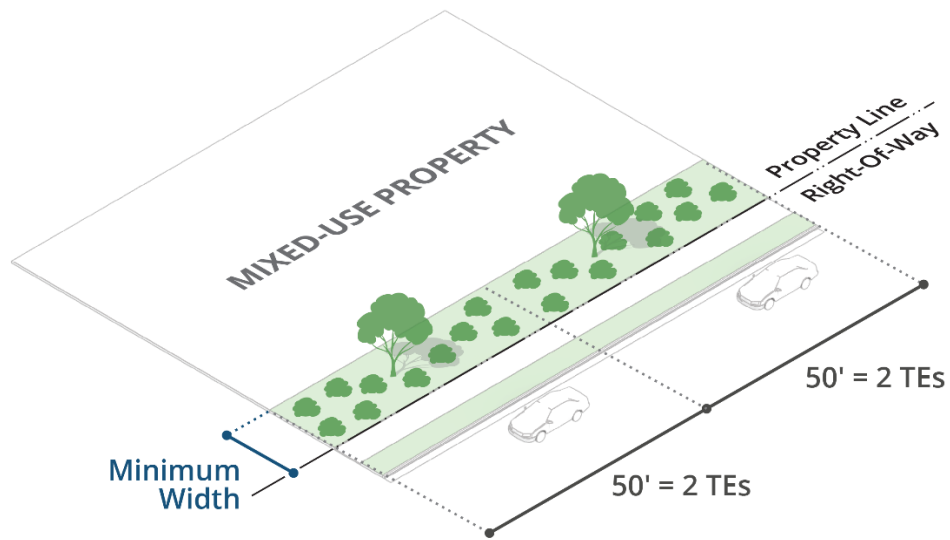
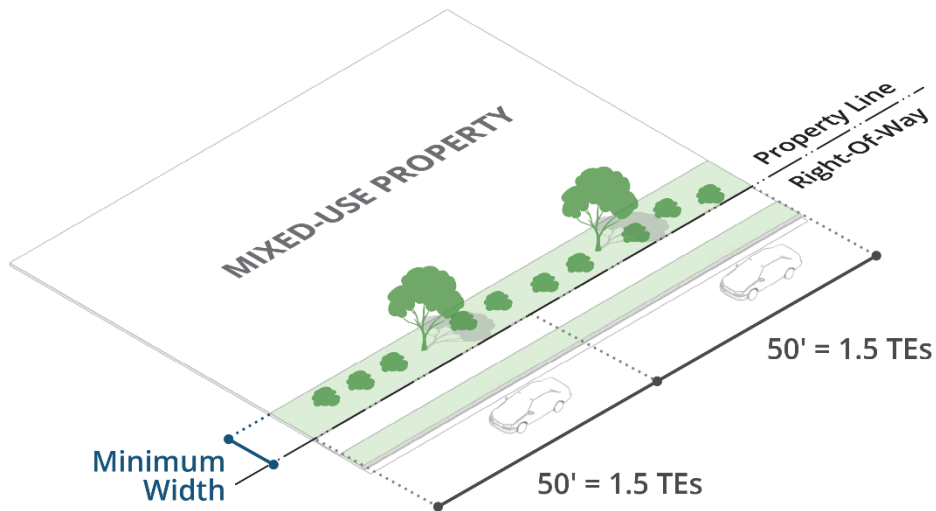


Figure 18-599.9. Mixed-use and nonresidential street buffer requirements – Minor Arterial/Collector Option 1.

MINOR ARTERIAL/ COLLECTOR OPTION 1



SEC. 18-600. TRANSITION LANDSCAPE AREA BUFFER / BUFFER YARD.

- (a) **Intent.** The transition landscape area buffer, also referred to as buffer yard, shall ensure that new development and redevelopment is compatible with adjacent development or is separated from adjacent development by appropriate distance, landscape, and/or screening elements.
- (b) **Applicability.**
 - (1) Transition area buffer requirements shall apply to the uses listed below if adjacent to a residential property in the RL, RM, and SFD-L Districts and detached residential portions of a Planned Development (development zoned PD).
 - a. Cottage Housing;
 - b. Dwelling, Live-Work;
 - c. Multi-Unit Dwellings;
 - d. Multi-Unit Dwelling Complex;
 - e. Multi-Unit Dwelling, Above Ground Floor; and
 - f. Nonresidential uses.
- (c) **Location.** The transition area buffer shall be located on the subject property along all perimeter property lines not adjacent to a street right-of-way.
- (d) **Requirements.**
 - (1) One of the transition landscape area buffer / buffer yard options detailed in Table 18-600.1, and depicted in Figures 18-600.1 – 18-600.4, shall be installed when required by this subsection unless one or more of the following are approved by the director as an Administrative Adjustment per Section 18-36:
 - a. A deviation in minimum width; or
 - b. A reduction in TEs.
 - (2) Following in Table 18-600.1 are the options for the transition landscape area buffer specifications.

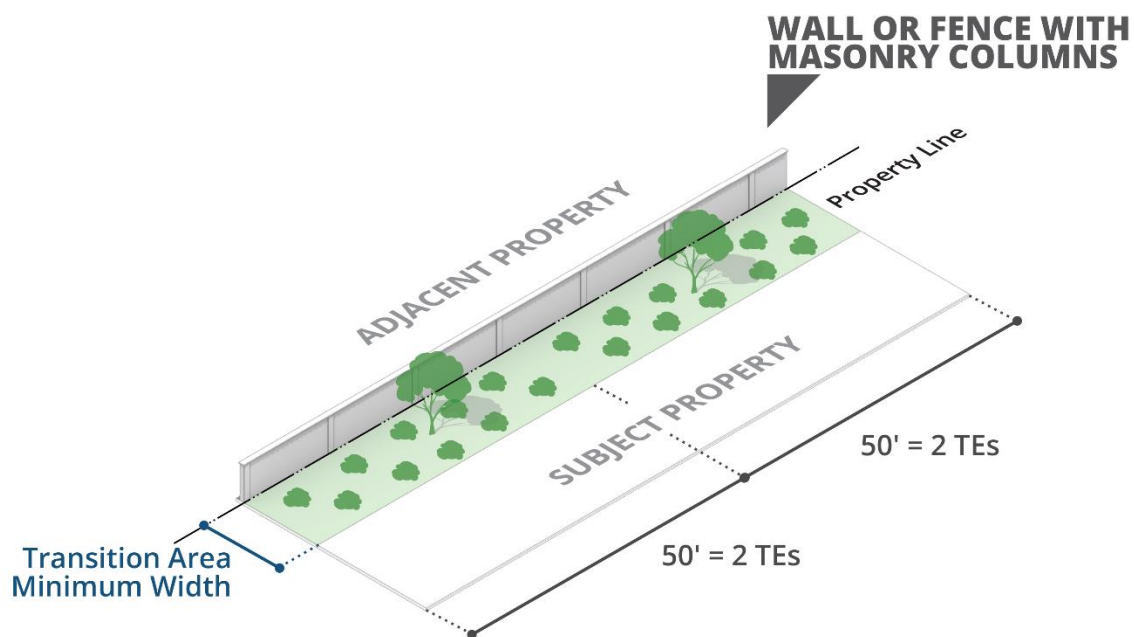
Table 18-600.1. Transition landscape area buffer / buffer yard requirements.

Specification	Option 1	Option 2	Option 3	Option 4
Minimum Width (landscape area width as measured from the Property Line)	30 feet	20 feet	15 feet	8 feet
6-foot minimum height wall or solid fence with masonry columns [1]	optional	optional	required [2]	required [2] [3]
Minimum 8-foot private soft surface trail connection and/or amenities [4]	required	optional	N/A (not applicable)	N/A (not applicable)
Minimum TE per 50 linear feet	2.5	3	2	2

Table 18-600.1 footnotes:

- [1] Masonry columns shall be located at the property corners, or adjacent as required due to intersection visibility requirements, and a minimum of every 100 feet along the property line.
- [2] Existing, well maintained, 6-foot height solid fencing may be allowed to meet the wall requirements of Options 3 or 4 with director approval.
- [3] A six-foot height fence with masonry columns is not applicable to Option 4.
- [4] Trail enhancements (width, surface, etc.) or amenity upgrades can be applied to required public land dedication as described in Section 18-691

Figure 18-600.3. Transition landscape buffer Option 3.



SEC. 18-601. COMMON AREA LANDSCAPING.

- (a) **Intent.** The intent of the common area landscaping requirements is to ensure all provided landscape areas within the site not specifically covered in other sections of this article are landscaped appropriately.
- (b) **Applicability.** The general landscape area requirements of this section shall be provided for any common landscape areas created as a result of the development that are not specifically covered in other sections of this article.
- (c) **Location.** These areas are typically, but not limited to, areas outside 100-year water surface elevation, privately owned common ownership association tracts not adjacent to the right-of-way or other buffers, and general landscape areas within commercial development. Common area landscaping can be used to supplement other required landscape areas or may be used for TEs of other landscaped areas required in this article where there is insufficient space for the required number of TEs.
- (d) **Requirements.**
 - (1) One TE shall be provided for 600 square feet of landscape area or any fraction thereof.

HINT – LOOK FOR A TOTAL LANDSCAPE AREA PROVIDED ON THE SITE DATA TABLE.

SEC. 18-602. PARKING LOTS.

- (a) **Intent.** Parking lot landscape area standards are intended to provide shade within parking areas, break up large expanses of parking area pavement, support stormwater management where appropriate, improve the appearance of parking areas as viewed from rights-of-way, and provide a safe pedestrian environment.
- (b) **Applicability.** Parking lot landscape standards shall apply as detailed in this section if a parking lot has 30 or more parking spaces.
- (c) **Location.** Required parking lot landscape shall be located within the subject parking lot unless otherwise approved during the development review process.
- (d) **Requirements.**
 - (1) **Minimum landscape islands.** Minimum landscape areas within parking lots shall be provided at a rate of 100 square feet per six parking stalls.
 - (2) **Parking lot islands.**
 - a. Landscaped islands shall be a minimum width of nine feet, and a minimum of 100 square feet in plantable landscape area to qualify.
 - 1. Islands used as a pedestrian walkway or crossing shall still qualify as a parking lot island as long as the required TEs are located in other landscape areas.
 - b. A minimum of one tree equivalent per 75 square feet of parking lot island area, or fraction thereof to the nearest one-tenth of a fraction, is required.
 - c. Parking lot islands shall have parking and/or drive lanes on at least 3 sides and be separated by no more than 15 parking stalls in a continuous row.

SEC. 18-605. RETAINING WALL LANDSCAPE BUFFER

- (a) **Intent.** The retaining wall landscape buffer and screening requirements are intended to soften and screen the impact of proposed retaining walls from site users and adjacent properties to the greatest extent feasible and allowed per any applicable geotechnical reports.
- (b) **Requirements.**
- (1) All retaining walls and wall systems described in Article VI, Division 3 shall meet the landscape requirements of Table 18-605.1. Figures 18-605.1 and 18-605.2 depict examples of these requirements.

Table 18-605.1. Retaining wall and wall system landscape.

Wall Height	Required TEs per 100 Linear Feet
4-7.99 feet	Foreground and Terrace (if provided): 3 TEs
8 feet and above	Foreground: 5 TEs
8 feet and above	Terrace: 3 TEs, per terrace

- (2) Trees shall be setback a minimum of 10 feet from the retaining wall or wall system. Additional distance may be required for segmental walls.

Figure 18-605.1. Retaining wall and wall system landscape, 4-7.99 feet.

