ARTICLE 4.

DEVELOPMENT STANDARDS

SEC. 4.1. **GENERAL PROVISIONS**

4.1.1. **Applicability**

A. Development standards apply based on the types of project activities proposed, as shown in the table below. Typically, more than one project activity will apply to a proposed project (for example, an expansion of an existing use may include both an addition and a facade modification).

		Project Activity						
Cross-reference	Development Standards	New Construction	Addition	Site Modification	Facade Modification	Change of Use	Renovation	Maintenance and Repair
Sec. 4.2.1.	**Pedestrian and Bicycle Access**	●	○	○	○	○	○	○
Sec. 4.2.2.	**Bicycle Parking**	●	●	○	○	●	●	○
Sec. 4.2.3.	**Transit Access**	●	○	○	○	○	○	○
Sec. 4.3.1.	**Vehicle Access**	●	○	●	○	○	○	○
Sec. 4.3.2.	**Parking Lot Dimensions**	●	○	●	○	○	○	○
Sec. 4.3.3.	**Parking Lot Landscaping**	●	○	●	○	○	○	○
Sec. 4.3.4.	**Vehicle Use Areas**	●	○	●	○	○	○	○
Sec. 4.4.1.	**Transitions**	●	○	○	○	●	○	○
Sec. 4.4.2.	**Transition Screens**	●	○	○	○	●	○	○
Sec. 4.4.3.	**Frontage Screens**	●	○	○	○	●	○	○
Sec. 4.4.5.	**Site Element Screens**	●	○	○	○	●	○	○

● = Standards may apply ○ = Standards do not apply

C. Project activities are defined in XX.

D. Where a Section is listed as applying, all applicable standards must be met. The applicable standards may be further modified by the applicability provisions for each development standard. Applicability may also be modified by XX.

SEC. 4.2. MULTI-MODAL ACCESS AND MOBILITY

4.2.1. Pedestrian and Bicycle Access

A. Intent

To provide for safe and convenient pedestrian and bicycle travel by:

1. Improving pedestrian access from the public realm to building entrances;
2. Improving bicycle access from the public realm.
3. Ensuring that pedestrian entrances are conveniently and effectively accessible to pedestrians; and
4. Activating the public realm with building access points and improving pedestrian circulation through large sites.

B. External Connectivity

1. Pedestrian ingress and egress to and from public sidewalks, greenways, trails and bicycle lanes must be provided.
2. The minimum width of a pedestrian walkway is 6 feet.
3. Walkways must be constructed of an all-weather solid surface material such as concrete, asphalt, or another similar material that would satisfy the State accessibility code.
4. Pedestrian connections must be made to any existing or proposed off-site pedestrian, bicycle, or transit facility.
5. Adjacent public greenways must be connected to pedestrian and bicycle facilities on the site.

C. Internal Connectivity

1. General

a. ADA compliant pedestrian access must be provided connecting main entrances of buildings, establishments or uses on a site that allows for public access, with all other public entrances and with available access points including parking, streets, sidewalks and transit stops.

b. Pedestrian walkways must be provided along common access driveways and areas that serve as ingress/egress for the development site. A pedestrian walkway must be placed along both sides of the driveway.

c. The minimum width of a pedestrian walkway is 6 feet.

d. Walkways must be constructed of an all-weather solid surface material such as concrete, asphalt, or another similar material that would satisfy the State accessibility code.

e. Driveways and areas that solely serve as access for rear-loaded townhouses or loading areas for nonresidential buildings do not require a separate pedestrian walkway.

2. Pedestrian Access Required

Pedestrian walkways to required street-facing building entrances must be provided as listed below.

	R-C	RD-	RA-	RX-	MX-	IX-	CG	IL	IH	INS	CEM	OS
Type 1	--	--	--	--	■	--	--	--	--	--	--	--
Type 2	■	■	■	■	--	■	--	--	--	■	--	--
Type 3	--	--	--	--	--	--	■	--	--	--	--	--

■ = Required -- = Not Required

D. Pedestrian Access Standards

1. Applicability

Pedestrian access standards apply to all required street-facing entrances (*see 2.6.12*). Pedestrian access standards do not apply to non-required entrances.

2. Pedestrian Connection Types

a. Type 1

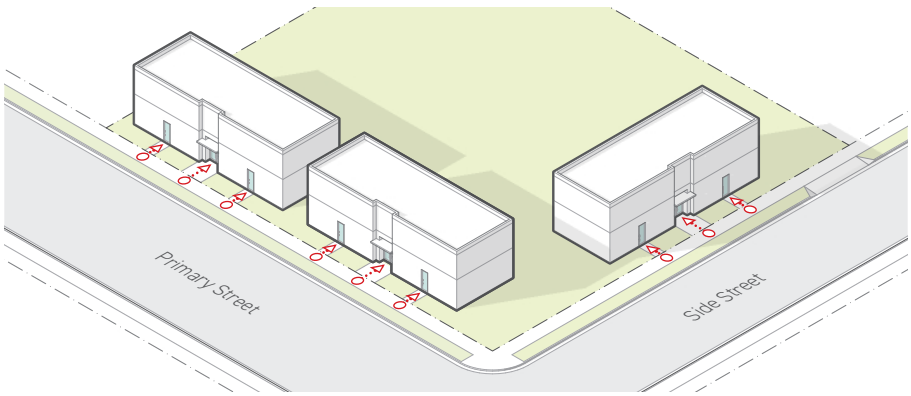
i. Intent

Intended to ensure buildings are highly integrated with the public pedestrian system and promote walking as a safe and convenient mobility option through frequent physical connections between the street and building entrances.

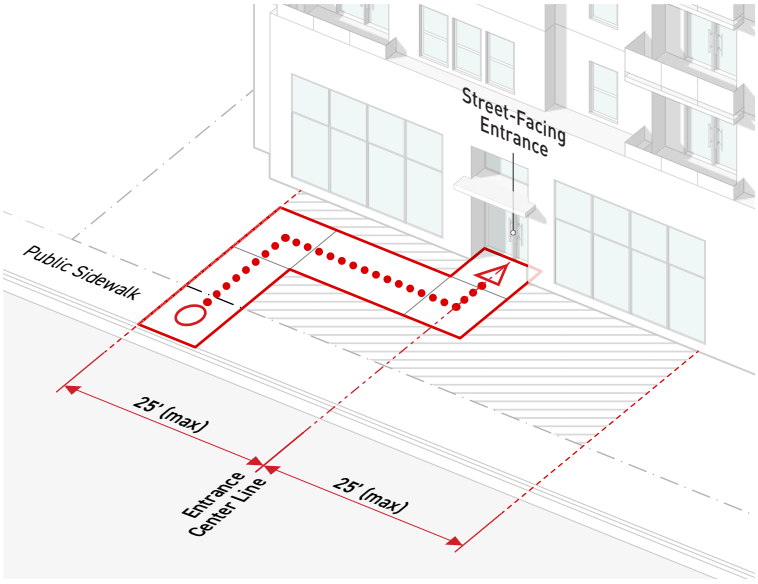
ii. Standards

a). A direct pedestrian walkway must be provided to each required street-facing entrance. A direct pedestrian walkway provides access to a single building entrance.

b). The pedestrian walkway must connect to the public sidewalk, or other publicly accessible pedestrian-facility along the street or trail, to a required street-facing entrance.



c). The connection to the public sidewalk system must be within 25 feet of the center of the street-facing entrance, measured parallel to the street lot line.



b. Type 2

i. Intent

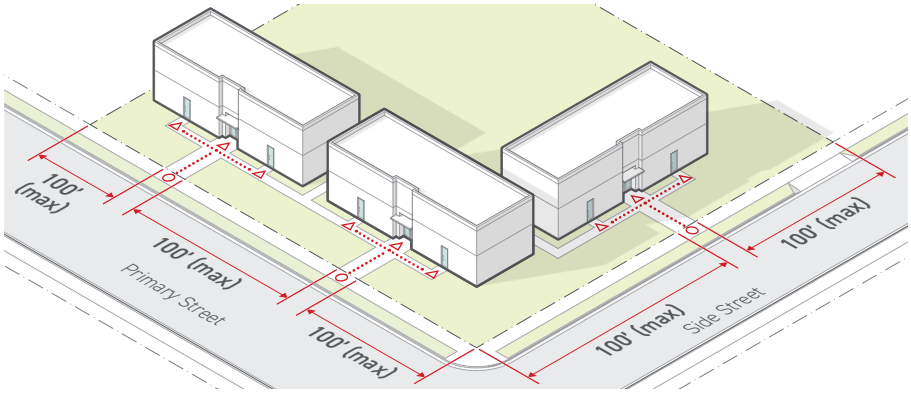
Intended to ensure buildings are conveniently accessible from the public pedestrian system and promote walking as a safe and convenient mobility option through regular physical connections between the street and building entrances.

ii. Standards

a). One grouped pedestrian walkway must be provided every 100 feet along each street frontage. A grouped pedestrian walkway provides consolidated access to multiple building entrances.

b). A grouped pedestrian walkway can be no more than 100 feet from a street intersection.

c). The grouped pedestrian walkway must connect to the sidewalk, or other publicly accessible pedestrian-facility along the street or trail, to a required street-facing entrance.



c. Type 3

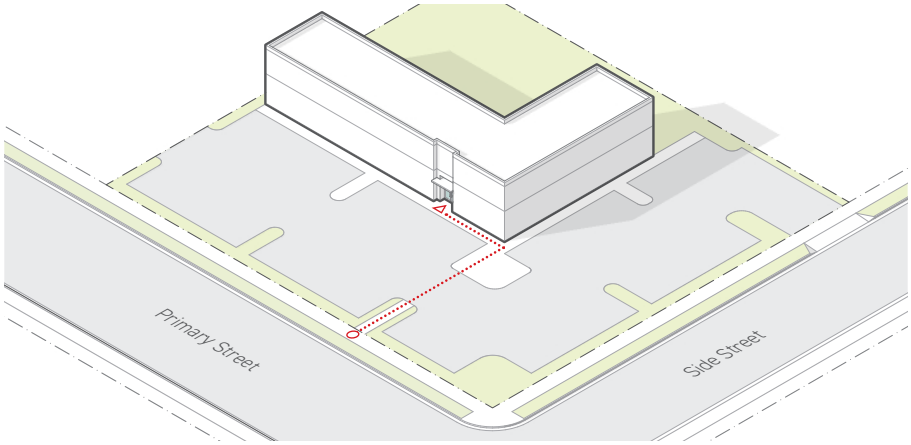
i. Intent

Intended to ensure buildings are accessible from the public pedestrian system by requiring a physical connection between the street and a building entrance.

ii. Standards

a). At least one pedestrian walkway must connect to the public sidewalk, or other publicly accessible pedestrian-facility along the street or trail, to a required street-facing entrance.

b). The pedestrian walkway must be physically separated from and uninterrupted by motor vehicle use areas except where required to cross a drive-aisle. Drive-aisle crossings must be the shortest practical.



4.2.2. Bicycle Parking

A. Intent

To promote bicycling as an alternative to automobile transportation and help ensure safe, secure, accessible, and convenient storage of bicycles for all users.

B. Applicability

1. All principal uses in *Sec. 3.2*.
2. For additions, bicycle parking is required for the new floor area only.
3. For a renovations, bicycle parking is required for the renovated floor area only
4. Dwelling units with individually accessed private garages are not required to provide long-term bicycle parking.

C. Standards

1. Required Bicycle Parking

Bicycle parking must be provided in accordance with the following table. When bicycle parking is required, a minimum of 2 short-term spaces and a minimum of 2 long-term spaces must provided, regardless of size.

	Spaces Required (min)	
USES	**Short-Term**	**Long-Term**
Residential Uses		
Household living		
1-3 units	None	None
4-9 units	None	1 per 2 units
10-49 units	1 per 10 units	1 per 3 units
50+ units	1 per 20 units	1 per 4 units
Group living	1 per 6 bedrooms	1 per 3 bedrooms
Special needs housing	1 per 10 beds	1 per 20 beds
Public and Institutional Uses		
Civic	1 per 5,000 SF of floor area	1 per 10,000 SF of floor area
Day care	1 per 5,000 SF of floor area	1 per 10,000 SF of floor area
Education	4 per classroom	1 per 10 classrooms
Parks and open space	5 per park	None
Utility service	None	None
Commercial Uses		
Adult business	1 per 2,500 SF of floor area	1 per 10,000 SF of floor area
Agriculture	None	None
Entertainment and recreation	1 per 2,500 SF of floor area	1 per 10,000 SF of floor area
Food and beverage	1 per 2,500 SF of floor area	1 per 10,000 SF of floor area
Lodging	1 per 4 rooms	1 per 8 rooms

	Spaces Required (min)	
USES	**Short-Term**	**Long-Term**
Medical	1 per 5,000 SF of floor area	1 per 5,000 SF of floor area
Office	1 per 10,000 SF of floor area	1 per 5,000 SF of floor area
Parking	None	None
Personal service	1 per 2,500 SF of floor area	1 per 10,000 SF of floor area
Retail sales and service	1 per 2,500 SF of floor area	1 per 10,000 SF of floor area
Vehicle sales and service	1 per 10,000 SF of floor area	1 per 10,000 SF of floor area
Manufacturing and Industrial Uses		
Industrial	1 per 20,000 SF of floor area	1 per 10,000 SF of floor area
Transportation	1 per 20,000 SF of floor area	1 per 10,000 SF of floor area
Warehouse and distribution	1 per 20,000 SF of floor area	1 per 20,000 SF of floor area
Waste-related	None	Non

2. Bicycle Facilities

a. General

i. Dimensions

a). Bicycle parking must consist of bicycle racks that support the bicycle frame at two points.

b). Racks must allow for the bicycle frame and at least one wheel to be locked to the rack.

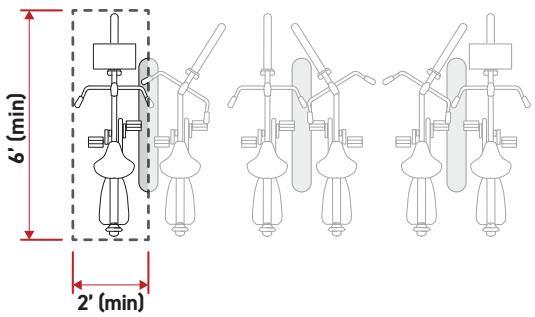
c). If bicycles can be locked to each side of the rack, each side can be counted as a required space.

d). Spacing of bicycle racks must provide clear and maneuverable access.

e). Bicycle racks must be permanently anchored to a floor, foundation or ground, wall, or ceiling as appropriate for the type rack proposed.

f). Bicycle parking spaces must be located on paved or pervious, dust-free surface with a slope no greater than 3%. Surfaces cannot be gravel, landscape stone, or wood chips. Racks must be securely anchored to a permanent surface.

g). Bicycle parking spaces must be a minimum of 2 feet wide and 6 feet long.



h). Bicycle parking must be placed at least 3 feet from all obstacles such as walls, fences, and curbs to provide clear and maneuverable access. Racks must be placed so that each required bicycle parking space is accessible without moving another bicycle.

i). Preferred bicycle rack styles are inverted U, circle, post and loop, and wave racks. . Comb bike racks can not be used for required racks.

j). All bicycle racks must be constructed of weather-resistant materials.

ii. Location

a). Bicycle parking must be provided in a safe, accessible and convenient location. Directional signage must be installed when bicycle parking facilities are not readily visible from the street, sidewalk, or main building entrance.

b). Bicycle parking must be provided in a well-lit area.

c). Bicycle parking locations cannot impede pedestrian or motorized vehicle movement or circulation.

d). Bicycle racks placed within the public right-of-way must not conflict with pedestrian use and encroachment agreements with the City, as applicable, must be obtained.

e). Applicants who choose to install bicycle parking within the public right-of-way are responsible for maintaining the racks.

f). Bicycle racks must be located on the ground level, not requiring the use of stairs, elevators, or ramps.

b. Short-Term Bicycle Parking

i. Short-term bicycle parking must be well distributed throughout the project. 50% of the required short-term bicycle parking must be placed within 50 feet of the main entrance with the remaining 50% placed within 100 feet of the main entrance.

ii. When there are multiple main entrances, bicycle parking can be distributed to accommodate each entrance.

iii. Short-term bicycle parking may be covered or uncovered. It must be publicly accessible at all hours.

c. Long-Term Bicycle Parking

i. Long-term bicycle parking must be located within 200 feet from an entrance to the building the bicycle parking is required to serve.

ii. Long-term bicycle parking is required to be secure, weather protected, and must include at least one of the following:

a). A locked facility/room with limited access;

b). A bicycle locker; or

c). A structure outside the main building that is covered and secured by means of a fence with a limited access gate or door.

iii. Long-term bicycle parking may also provide high density style racks (vertical or double decker) for optimizing parking capacity.

D. Measurement

1. When the application of these regulations results in a fraction, fractions of 1/2 or more are counted as one space.

2. Distance is measured in walking distance along the centerline of a sidewalk, walkway, or path from the nearest point of the bicycle rack to the main entrance of the use served.

4.2.3. Transit Access

A. Intent

To promote public transit use as an alternative to motor vehicle transportation and help ensure safe, lawful, and accessible access to public transit stops.

B. Applicability

All projects located on a current or future identified transit route as determined by the GTRC Transit Strategic Plan.

C. Standards

1. Required Transit Stop

If deemed appropriate by the Zoning Administrator, a projects must install on-site a 6' X 12' concrete pad connected to sidewalks at the location determined to be the safest and most practical location for a transit stop.

2. Transit Stop Facilities

a. GTRC may install and maintain necessary transit stop items, including signage, benches, lighting, and shelters.

b. Access to the transit stop must be allowed in perpetuity.

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SEC. 4.3. VEHICLE ACCESS AND MOBILITY

4.3.1. Vehicle Access

A. Intent

To facilitate transportation and to provide for safe and convenient vehicle and pedestrian travel by ensuring motor vehicle access is designed to support the safety of all users by minimizing conflicts with pedestrians, cyclists, transit vehicles, micro-mobility devices, and motor vehicles on the abutting public street and to avoid detrimental effects on the surrounding public realm, while providing sufficient access to vehicle parking and other motor vehicle use areas.

B. Applicability

1. Any lot that provides access to motor vehicles.
2. For site modifications, the vehicle access and mobility standards apply to new driveways only.

C. General

1. All on-site parking lots and motor vehicle use areas must have satisfactory means of motor vehicle access to and from a street or alley, or permanent access easement where no abutting street or alley is present.
2. A permit is required for any curb cut along a public right-of-way to provide vehicle access to a property. A driveway on to a City street may only be installed, reconstructed, or modified with a permit issued by the City Engineer.
3. For a driveway on to a State road, approval must be obtained from VDOT.
4. All vehicle access designs must be approved by the City Engineer and if applicable, conform to VDOT Standards.

D. Design Standards

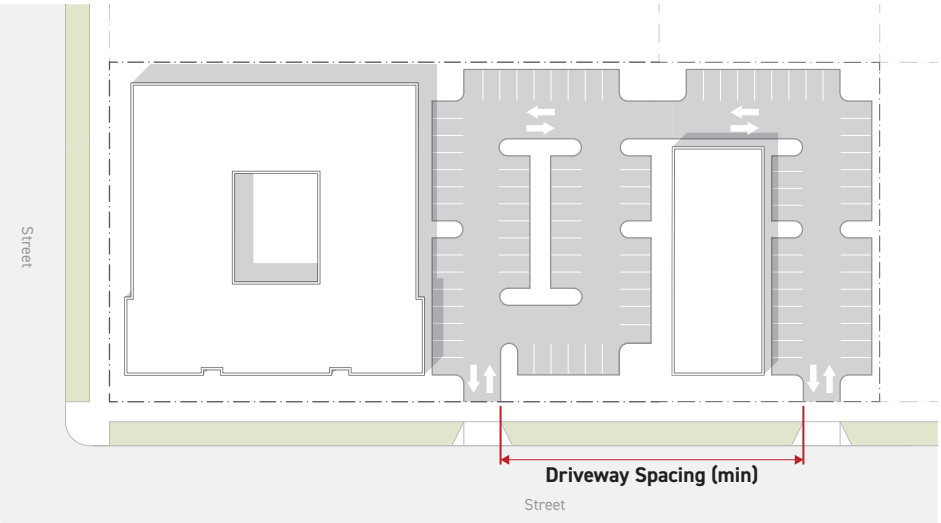
1. General

a. Every platted lot is allowed at least one driveway.

b. Minimum spacing between driveways on the same site can be no less than 100 feet.

c. For driveways serving parking lots or structures with 6 or more spaces, driveways on abutting sites must be spaced at least 50 feet apart.

d. Driveway spacing is measured along the street lot line from edge of pavement to edge of pavement between driveways located on the same site.



e. When a lot is adjacent to a primary street and side street without an alley, vehicle access must take place along the side street.

f. When an improved alley exists or is proposed, motor vehicle access must take place from the alley.

g. Motor vehicle access may be shared between abutting lots, provided an easement, deed restriction, or other similar agreement acceptable to the City is provided.

h. Driveway setbacks?

i. Driveways must meet the following standards:

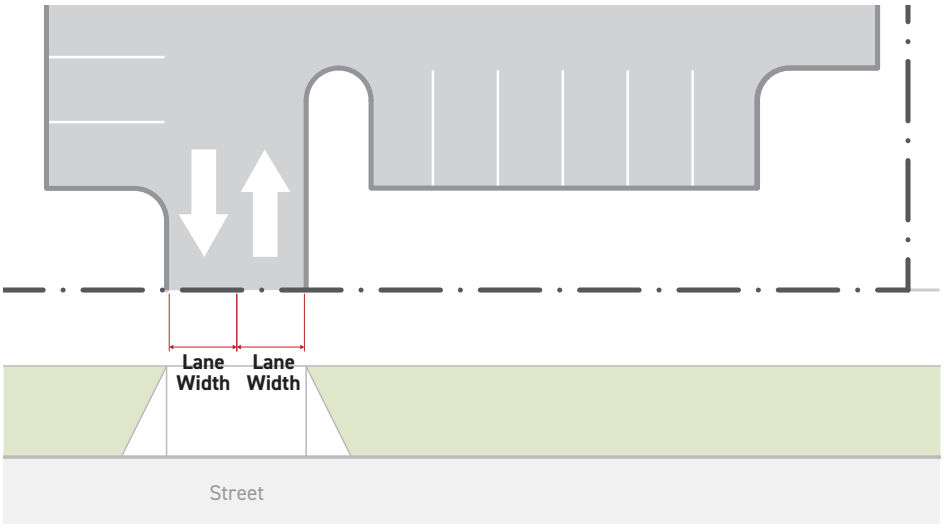
		Lane width (min/max)	
	Number of lanes per driveway (max)	Primary Street	Side Street
Driveway serving up to 5 parking spaces	1	8′/10′	8′/20′
Driveway serving 6 to 50 parking spaces	2	9′/11′	9′/11′
Driveway serving more than 50 parking spaces	2	9′/12′	9′/12′
Driveway serving a Manufacturing or Industrial Use	2	12′/20′	12′/20′

j. The City Engineer may waive or vary the design standards as indicated in this Section based on existing conditions, physical considerations unique to the particular site, and consideration for specific vehicle access needs for a proposed use

k. Pedestrian walkways that cross a driveway must be maintained as a level and continuous path.

l. Lane width is measured separately for each driveway.

m. Lane width is measured along the street lot line from edge of pavement to edge of pavement.

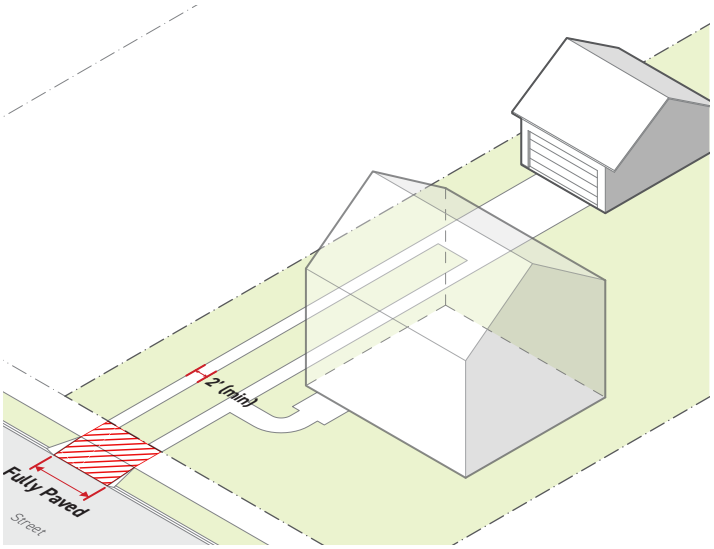


2. Ribbon Driveways

a. For driveways serving up to 5 on-site parking spaces, a ribbon driveway is allowed as an alternative to a fully-paved driveway.

b. The concrete strips in a ribbon driveway must be at least 2 feet in width. When the ribbon is also used as a walkway, the width of the strips must be increased to at least 3 feet.

c. Within the right-of-way, the driveway must be fully paved along its total width.



E. Cross Access

To be inserted - discuss

4.3.2. Parking Lot Dimensions

A. Intent

To facilitate the creation of a convenient, attractive, and harmonious community by ensuring parking lots are designed to create safe, comfortable, and attractive environments for vehicular and pedestrian travel.

B. Applicability

1. Where a parking lot with 6 or more spaces is provided, the parking lot must meet the standards of this Section. A parking lot is considered a parking lot when it has no building or parking floor area below or above it.
2. Where a parking structure is provided, the parking structure must meet the standards of this Section. A parking structure is considered a building that includes parking uses, including parking garages and integrated podium parking.
3. For site modifications, the parking lot standards apply to new parking areas only.

C. General

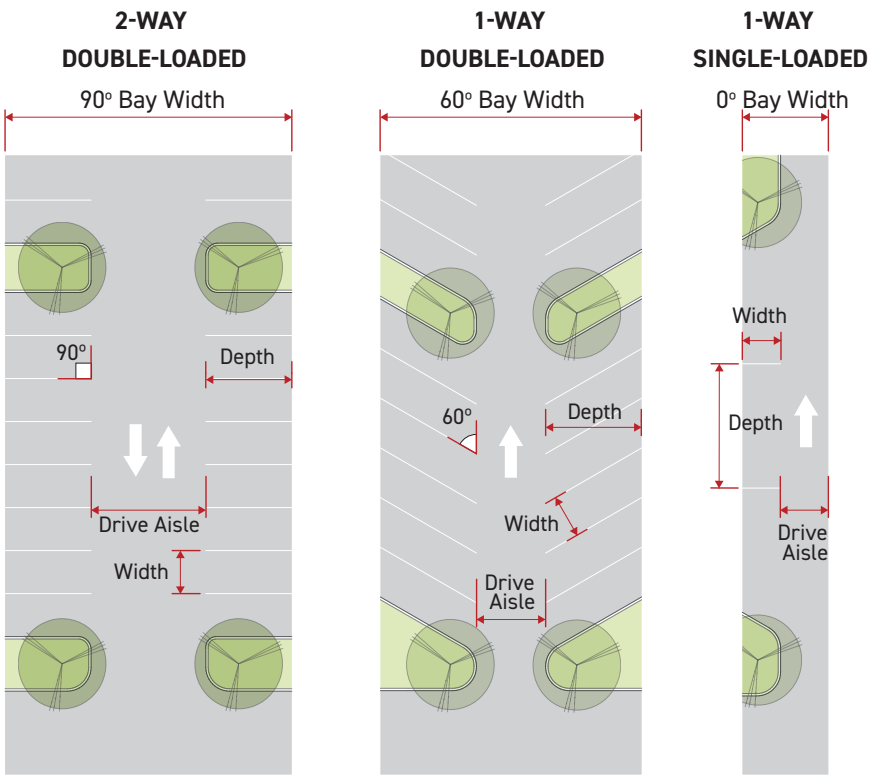
1. All portions of a parking lot must be accessible by vehicles to all other portions of the parking lot without requiring the use of a street, except for an alley. Parking structures may use a street to access different levels of the structure.
2. Each parking space must be located so that no vehicle is required to back onto any sidewalk or street, except for an alley, to leave the parking space.

D. Spaces and Drive Aisles

1. Parking spaces and drive aisles must meet the following minimum dimensions:

	Parking Space (min)		One-Way Drive (min)		Two-Way Drive (min)	
Angle	Width	Depth	Drive Aisle	Bay Width	Drive Aisle	Bay width
0°	8.0′	17.5′	11.0′	19.0′	19.0′	35.0′
60°	8.0′	15.8′	14.0′	45.6′	--	--
90°	8.0′	15.0′	--	--	20.0′	50.0′

2. Compact parking spaces may be used in place of a standard size space when the following requirements are met:
   a. Parking lots with 6 or more spaces, a maximum of 20% of the total amount of parking spaces can be sized and designated for compact vehicles.
   b. A compact vehicle space must be at least 7.5 feet in width and at least 14 feet in length, exclusive of access drives, aisles, or columns.
   c. Compact parking spaces must be signed and marked as “Compact.”
   d. No more than 10 compact spaces can be located contiguously together.



3. Within parking structures, columns can extend into a parking space as follows:

   a. A maximum of 30% of the total number of parking spaces within the structure can be affected by an encroachment.

   b. If the encroachment impacts only one space, then the maximum amount of encroachment is 18 inches. If the encroachment impacts two or more adjacent spaces, then the maximum amount of encroachment is 24 inches, with a maximum individual encroachment of 18 inches.

   c. Encroachments are not allowed for compact spaces.

4. Full and permanent parking space delineation is required for parking lots with 6 or more spaces Delineation may include striping, wheel stops, curbing, or other similar permanent material which can clearly define and delineate parking spaces. Full parking space delineation means clear markings for all three sides of a space.

5. All dead-end aisles providing access to parking spaces must provide backup space of not less than 5 feet in depth at the end of an aisle.

E. Lighting

1. Parking areas and parking lots must be provide lighting during the non-daylight hours when in use.

2. The intensity of illumination within the area devoted to parking can be not less than 0.5 horizontal footcandle at any location, provided that in no case can the intensity of illumination exceed 0.5 horizontal footcandle at any property line abutting a lot in an R- district.

3. The lighting maximum-to-minimum ratio within the area devoted to parking cannot exceed 15:1.

F. Electric Vehicle Charging

1. Where a parking lot with 6 or more spaces is provided, 20% of the parking spaces must be equipped with conduit and electrical capacity to accommodate the installation of electrical vehicle charging equipment.

2. Electric vehicle charging equipment, including pedestals, bollards, or cables, cannot encroach into drive aisles or pedestrian walkways.

G. Parking Lot Surfacing and Curbing

1. All parking lots including drive aisles must be fully paved and constructed with concrete, asphalt, paving blocks, pervious surfacing or other similar materials approved by the Administrator of the Erosion and Sediment Control Ordinance in Chapter 14, Article III.

2. All parking lots must be graded and drained to collect, retain and infiltrate surface water on-site by applying low impact development practices and standards and must be designed so as not to create or increase adverse effects on adjoining properties as a result of surface drainage.

3. For parking lots with 6 or more spaces, continuous curbing at least 6 inches in height or wheel stops at least 4 inches in height must be installed around the perimeter of all parking lots and landscaped areas. Curbing must be constructed of continuous concrete, granite, or other approved material of similar durability and appearance, and must contain inlets at appropriate intervals to allow stormwater infiltration from the open parking area. Loose material surfaces must be contained with a permanent edging.

4. Where a parking space abuts a landscaped island, the front 2 feet of the parking space can overhang the landscaped island, provided a wheel stop is installed.

4.3.3. Parking Lot Landscaping

A. Intent

To help ensure parking lots are designed to create safe, comfortable and attractive environments for users and pedestrians, while also mitigating heat island effects, absorbing noise pollution, managing stormwater runoff, sequestering carbon emissions and supporting urban biodiversity through landscaping and surface design.

B. Applicability

1. Perimeter landscaping is required for surface parking lots serving more than 6 parking spaces.
2. Interior landscaping is required for surface parking lots serving 20 or more parking spaces.
3. All landscaping must meet *4.6. Landscape*.

C. Perimeter Screening

1. A transition screen may be required between a parking lot and a common lot line, see XX. (does every parking lot have to be screened from an abutting use?)
2. A frontage screen may be required between a parking lot and a street lot line, see *4.4.3*.
3. For site modifications, the parking lot landscaping standards apply to new parking areas only.

D. Interior Landscaping

1. Interior Islands

a. No more than 10 consecutive parking spaces can be provided without a landscaped interior island.

b. Interior islands must be distributed evenly throughout the parking lot. Interior islands may be consolidated or intervals and may be expanded with the permission of the Zoning Administrator, in order to preserve existing trees.

c. An interior island abutting a single row of parking spaces must be a minimum of 9 feet in width and 150 square feet in area. Each island must include at least 1 canopy tree.

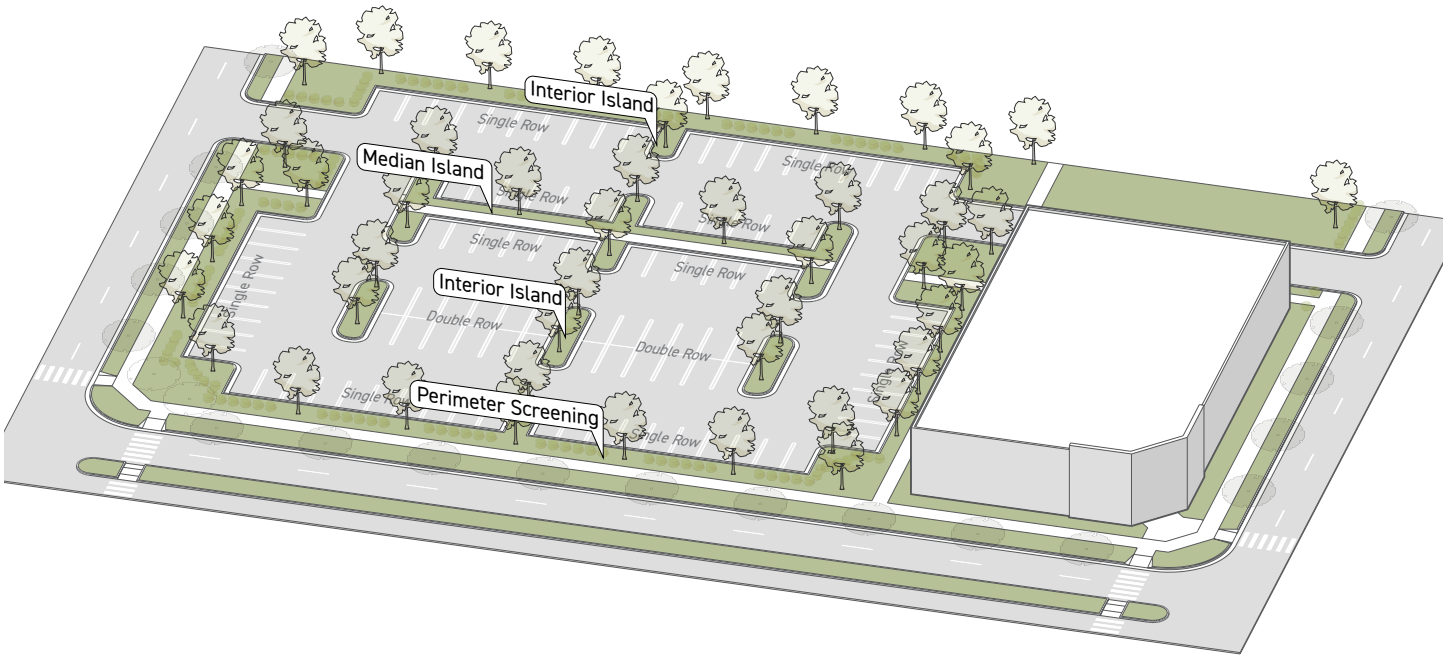
d. An interior island abutting a double row of parking spaces must be a minimum of 9 feet in width and 300 square feet in area. Each island must include at least 2 canopy trees.

e. Interior islands must be installed below the level of the parking lot surface to allow for stormwater runoff capture.

2. Median Islands

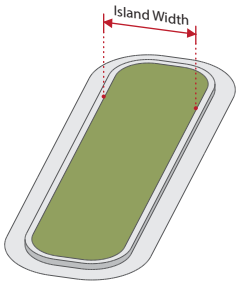
a. A landscaped median island must be provided between every 4 single parking rows. Intervals may be expanded to preserve existing trees.

b. A median island must be at least 6 feet wide. A median island with a pedestrian walkway must be a minimum of 12 feet wide.



E. Measurement

Interior and median island width is measured as the narrowest horizontal dimension from inside the top of curb to inside top of curb.



4.3.4. Vehicle Use Areas

A. Intent

To facilitate transportation and to provide for safe and convenient vehicular and pedestrian travel by ensuring vehicle use areas are designed in a manner that does not detract from the safety, comfort, or enjoyment of users of neighboring lots or the public realm.

B. Applicability

1. All portions of a lot are designed and intended for use by vehicles must comply with the following standards, including areas used for circulation, maneuvering, loading, staging, queuing, service, and areas to be used for the sale or storage of vehicles.
2. Parking lots are excluded from the vehicle use area requirements, *see 4.3.3*.
3. Loading standards apply to any lot that include on-site loading areas.
4. Stacking space standards apply to any lot that includes an on-site drive-through or control gate.
5. For site modifications, the vehicle use areas standards apply to new vehicle use areas only.

C. General

1. Surfacing

Vehicle use area surfacing must meet the standards in *4.3.2.G. Parking Lot Surfacing and Curbing*.

2. Perimeter Screening

a. A transition screen may be required between a vehicle use area and a common lot line, see XX. (does every vehicle use area have to be screened from an abutting use?)

b. A frontage screen may be required between a vehicle use area and a street lot line, see *4.4.3*.

3. Lighting

Vehicle use area lighting must meet *4.3.2.E*.

D. Vehicle Stacking

1. Required Stacking Spaces

a. Off-street stacking spaces must be provided as follows:

Activity Type	Stacking Spaces (min)	Measured from the stacking lane entry to the following point of service
ATM teller machine	2	Teller machine
Bank teller lane	2	Teller or window
Car wash bay, full-service	6	Bay
Car wash bay, self-service	2	Bay
Control gate	1	Gate
Dry cleaning/laundry	2	Cleaner/laundry window

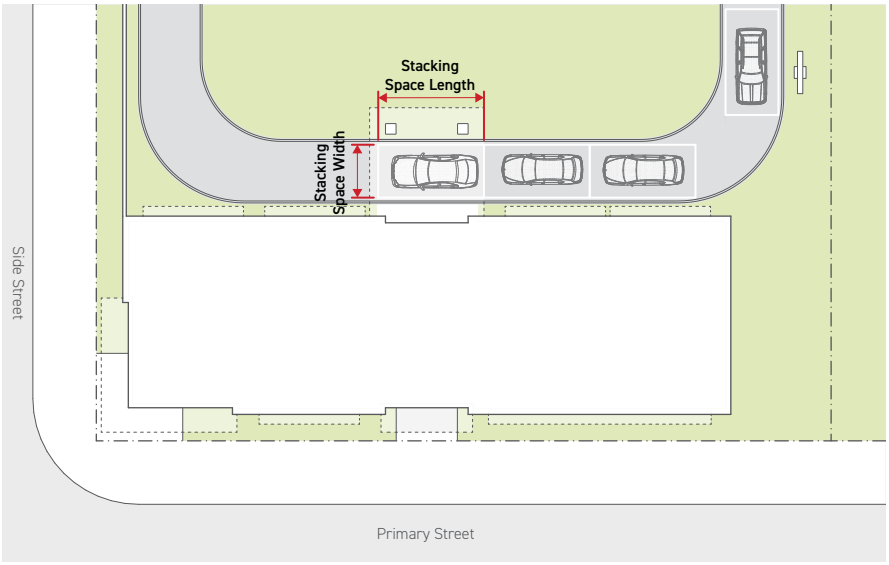
Activity Type	Stacking Spaces (min)	Measured from the stacking lane entry to the following point of service
Food and beverage	8	Order/pick-up window
Pharmacy	2	Pharmacy window

b. The minimum stacking space number includes the space at the point of service. A drive-through facility with unspecified activity type must comply with the most stringent stacking requirements applicable as determined by the City Engineer.

c. The City Engineer may modify the required number of stacking spaces based on existing conditions, physical considerations unique to the particular site, and consideration for specific stacking demands for the proposed use.

2. Design and Layout of Stacking Spaces

a. Stacking spaces must be a minimum of 8 feet in width by 20 feet in length.



b. Stacking spaces cannot encroach on or interfere with sidewalks, bike lanes, driveways, drive aisles, loading areas, or parking lots.

c. Where deemed necessary by the City Engineer for traffic movement and safety, stacking spaces must be separated from other internal driveways by raised medians or other fixed barriers.

d. Devices for the transmission or broadcasting of voices or music must be so directed or muffled as to prevent the sound or music from being audible beyond the boundaries of the site.

3. Alternative Compliance

Alternatives to the requirements indicated above are allowed through approval by the City Engineer, of a sealed traffic management plan, prepared by an engineer with expertise in transportation, utilizing one or more of the following:

a. Collection of data or studies of similar sites and uses;

b. Comparisons to minimum standards in national published data sources such as Institute of Transportation Engineers (ITE), Urban Land Institute (ULI), National Parking Association (NPA), American Planning Association (APA), or other professionally recognized data sources; or

c. Comparisons to minimum requirements of similar municipalities.

E. Loading

1. On-site Loading Not Required

On-site loading area is not required. If determined necessary by the City Engineer, adequate space must be made available on-site for the unloading and loading of goods, materials, items, or stock for delivery and shipping.

2. Location

a. With the exception of alleys and areas specifically designated by the City, loading and unloading activity is not allowed in the public right-of-way.

b. Loading areas must be located to the rear or side of buildings.

c. Loading and unloading activities cannot encroach on or interfere with sidewalks, bike lanes, driveways, drive aisles, stacking spaces, or parking lots.

3. Standards

If on-site loading is provided, it must meet the following.

a. Loading areas must be provided with a means of unobstructed ingress and egress to an alley or onto a public street wide enough to accommodate expected vehicles. Where ingress and egress is made onto a public street, it must be through driveways or openings which meet required standards. Permanent wheel stops or curbing must be provided to prevent any vehicle using the loading area from encroachment into a required yard or abutting property.

b. On-site loading spaces, excluding maneuvering areas, must be a minimum of 10 feet wide by 25 feet long.

c. Vertical clearance must be a minimum of 14 feet.

d. Loading areas must be screened from public streets in accordance with *4.4.3*.

SEC. 4.4. TRANSITIONS AND SCREENING

4.4.1. Transitions

A. Intent

To improve the compatibility of new development with its surrounding context where the scale of development changes between adjacent lots.

B. Applicability

1. Transitions are required along common lot lines and alley lot lines of lots with different zoning designations as specified in the table below.

2. A transition along a common lot line or alley lot line is not required when both lots are owned or functionally controlled by the same person or entity.

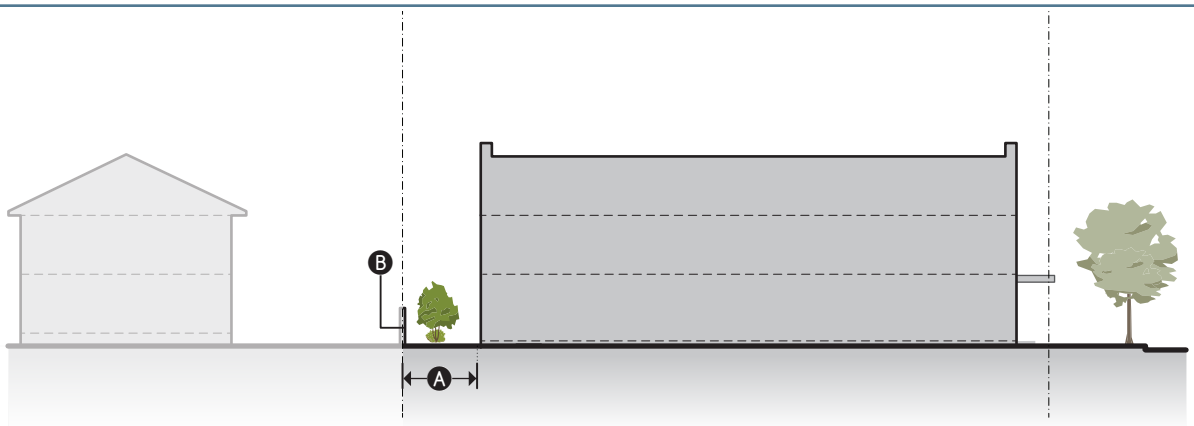
	Zoning of Abutting Property													
Zoning of Subject Property	R-C	RD-	RA-	RX-	MX-3, 6	MX-8, 13	MX-U	IX-6, 8	CG	IL	IH	INS	CEM	PK
R-C	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RD-	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RA-	A	A	--	--	--	--	--	--	--	--	--	A	--	--
RX-4	A	A	--	--	--	--	--	--	--	--	--	A	--	--
RX-6	C	C	--	--	--	--	--	--	--	--	--	A	--	--
MX-3	B	B	--	--	--	--	--	--	--	--	--	B	--	--
MX-6	C	C	--	--	--	--	--	--	--	--	--	B	--	--
MX-8, 13	C	C	--	--	--	--	--	--	--	--	--	B	--	--
MX-U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IX-6, 8	C	C	C	--	--	--	--	--	--	--	--	B	--	--
CG	C	C	B	B	B	B	B	--	--	--	--	B	B	--
IL	C	C	B	B	B	B	B	--	--	--	--	B	B	--
IH	C	C	B	B	B	B	B	B	B	B	--	B	B	B
INS	A	A	--	--	--	--	--	--	--	--	--	--	--	--
CEM	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PK	--	--	--	--	--	--	--	--	--	--	--	--	--	--

C. Transition Types

1. A required transition must be located along the entire length of the common lot line or alley lot line shared with the abutting district.

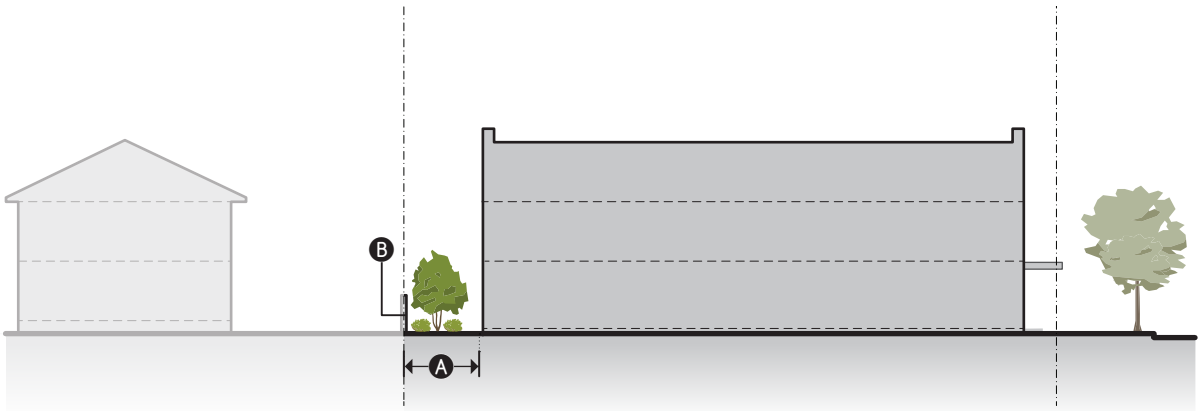
2. The standards for each transition screen are in *4.4.2. Transition Screens*.

TYPE A



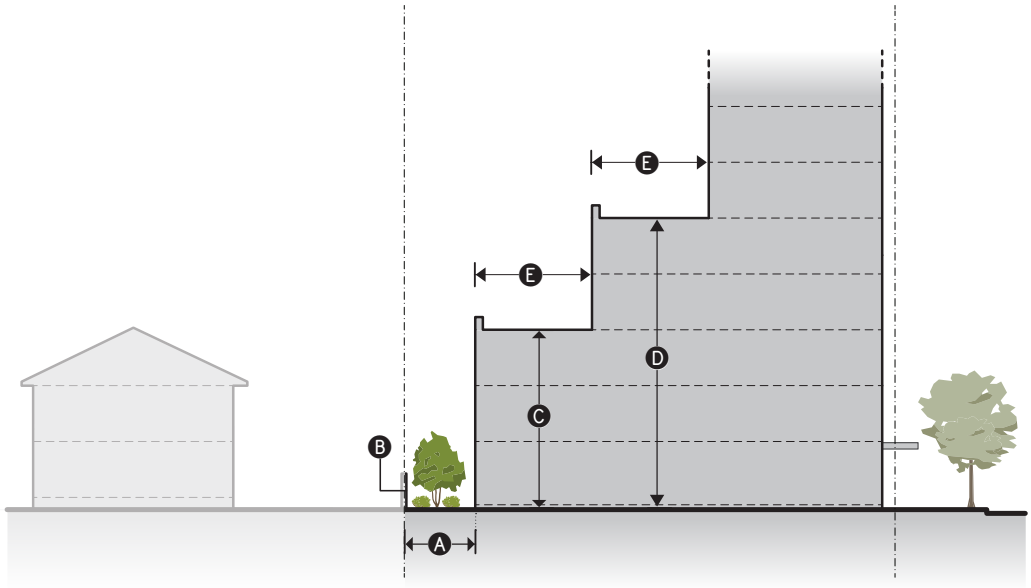
TRANSITION AREA		UPPER STORY STEP-BACK	
A Depth (min)	15'	Height step-back (max stories/feet)	None
B Transition screen	Light	Upper-story setback (min)	None

TYPE B



TRANSITION AREA		UPPER STORY STEP-BACK	
A Depth (min)		Height step-back (max stories/feet)	None
MX- IX-, CG, IL	15’	Upper-story setback (min)	None
IH	30’		
B Transition screen			
MX-, IX-, CG, IL	Moderate		
IH	Heavy		

TYPE C



TRANSITION AREA	
A Depth (min)	
RX-, MX-, IX-, CG, IL	15’
IH	30’
B Transition screen	
RX-, MX-, IX-, CG, IL	Moderate
IH	Heavy

UPPER STORY STEP-BACK	
C 1st step-back (max stories/feet)	3/35'
D 2nd step-back (max stories/feet)	5/60’
E Upper-story setback (min)	15’

4.4.2. Transition Screens

A. Intent

To protect and enhance the character and stability of neighborhoods by mitigating impacts from uses, activities, or site elements with significant impact on abutting lots.

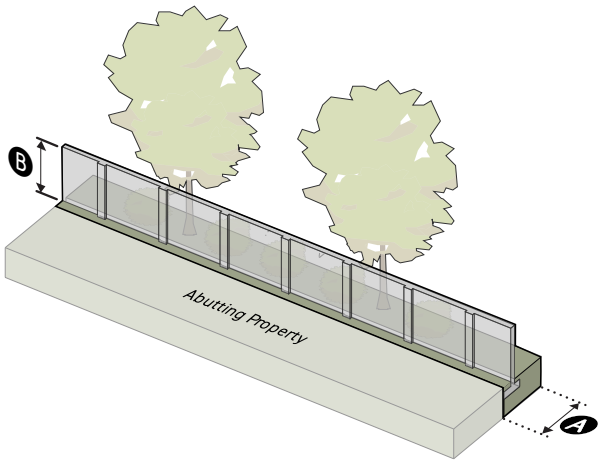
B. Applicability

1. A transition screen is required as specified by *4.4.1. Transitions*.
2. A transition screen may also be required as a use standard in *3.4, Specific Use Standards*.
3. Where a another standard requires a transition screen that conflicts with this Section, the more intensive requirement must be met. In no case is more than one screening type required.
4. The option of which screen to use within the required category is at the discretion of the applicant.
5. To allow for access for maintenance, required plantings must be located on the inside of a wall or fence.

C. Transition Screen Types

LIGHT TRANSITION SCREEN-1

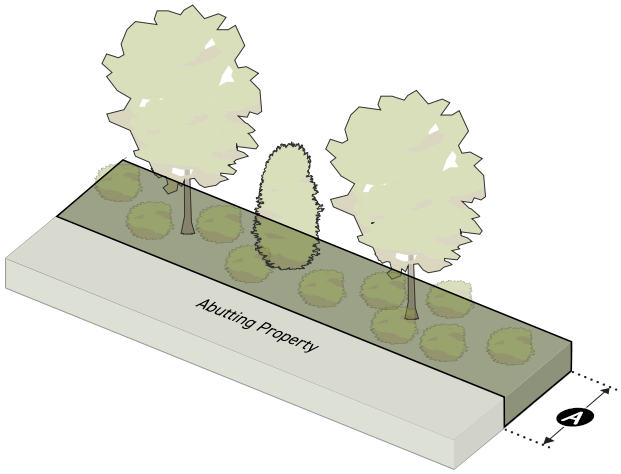
Narrow depth light landscape screen with a wall or fence.



SCREENING AREA	
A Depth (min)	6′
Landscaping (min per 50′)	
Canopy trees	2
Understory trees	0
Shrubs	5
WALL OR FENCE	
B Height (min)	6′
Opacity (min)	90%
Setback from property line (min)	0′

LIGHT TRANSITION SCREEN-2

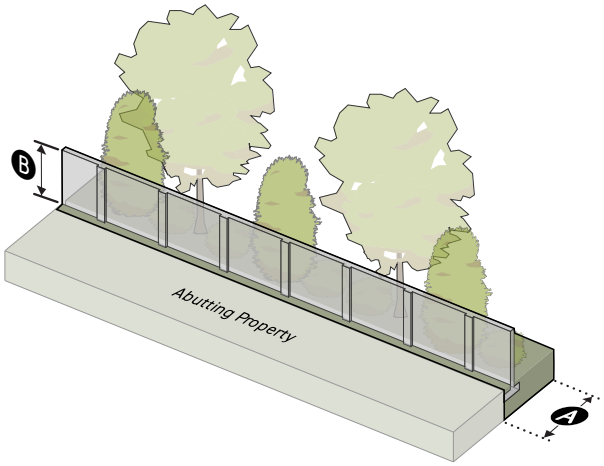
Medium depth light landscape screen with no wall or fence.



SCREENING AREA	
A Depth (min)	10′
Landscaping (min per 50′)	
Canopy trees	2
Understory trees	1
Shrubs	10
WALL OR FENCE	
Not required	

MODERATE TRANSITION SCREEN-1

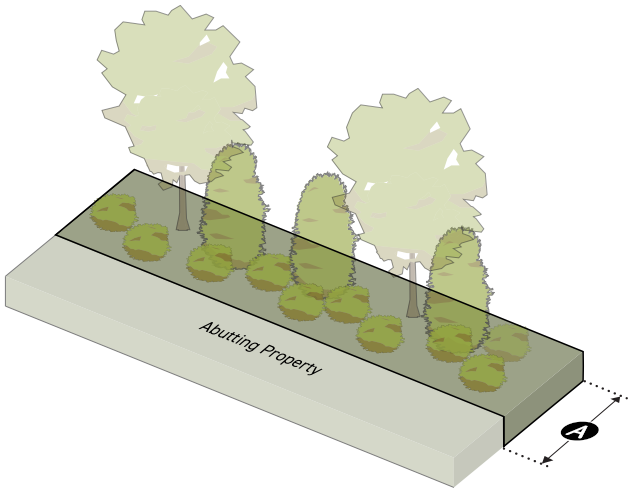
Narrow depth moderate landscape screen with a wall or fence.



SCREENING AREA	
A Depth (min)	10′
Landscaping (min per 50′)	
Canopy trees	2
Understory trees	3
Shrubs	5
WALL OR FENCE	
B Height (min)	6′
Opacity (min)	90%
Setback from property line (min)	0′

MODERATE TRANSITION SCREEN-2

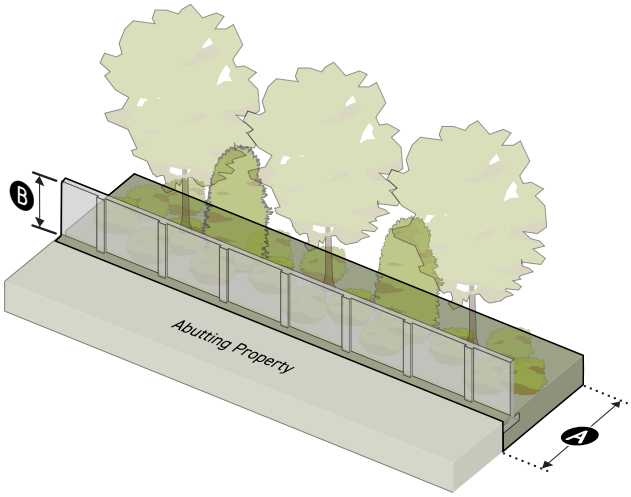
Medium depth landscape screen with no wall or fence.



SCREENING AREA	
A Depth (min)	15′
Landscaping (min per 50′)	
Canopy trees	2
Understory trees	3
Shrubs	10
WALL OR FENCE	
Not required	

HEAVY TRANSITION SCREEN-1

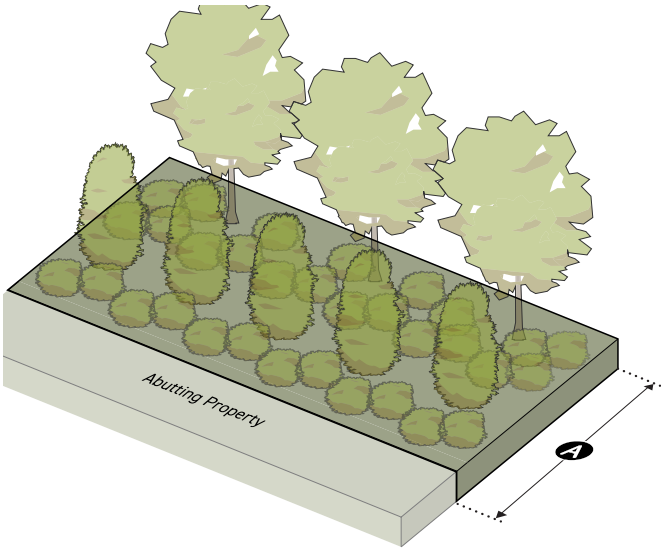
Medium depth heavy landscape screen with a wall or fence.



SCREENING AREA	
A Depth (min)	15’
Landscaping (min per 50’)	
Canopy trees	3
Understory trees	2
Shrubs	16
WALL OR FENCE	
B Height (min)	7’
Opacity (min)	90%
Setback from property line (min)	0’

HEAVY TRANSITION SCREEN-2

Deep heavy landscape screen with no wall or fence.



SCREENING AREA	
A Depth (min)	30’
Landscaping (min per 50’)	
Canopy trees	3
Understory trees	5
Shrubs	24
WALL OR FENCE	
Not required	

4.4.3. Frontage Screens

A. Intent

To screen the negative impacts of uses on the public realm, promoting visual interest and increasing comfort for uses of the adjacent streetscape.

B. Applicability

1. A frontage screen may also be required as a use standard in *3.4, Specific Use Standards*.
2. Where a use standard requires a frontage screen that conflicts with this Section, the more intensive requirement must be met. In no case is more than one screening type required.
3. The option of which screen to use within the required category is at the discretion of the applicant.

C. Standards

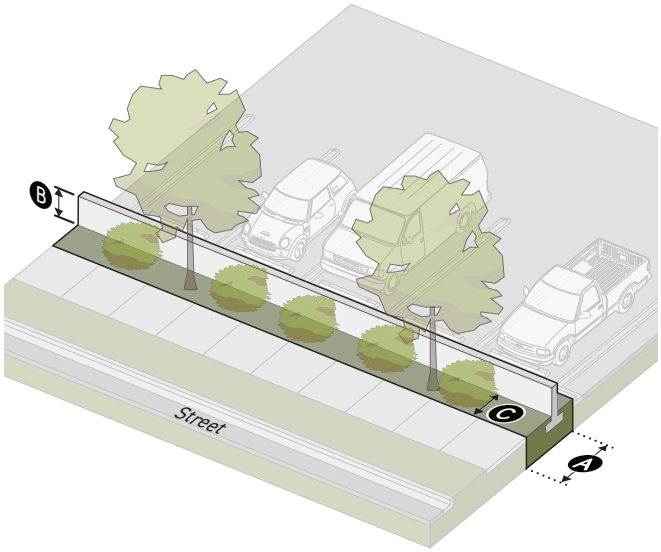
Frontage screening is required along street lot lines as specified in the table below:

	Frontage Screen Type
Outdoor Storage Areas	
Minor outdoor storage area	Moderate
Major outdoor storage area	Heavy
Vehicle Use Areas	
Loading/service area	Moderate
Drive-through area	Light
Parking area	Light
Vehicle sales area	Light
Utility Areas	
Utility area	Moderate

D. Frontage Screening Types

LIGHT FRONTAGE SCREEN-1

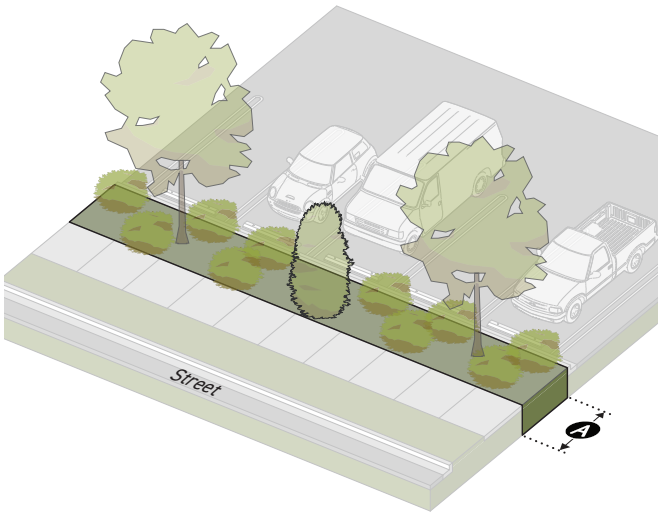
Narrow depth light landscape screen with a low wall or fence.



SCREENING AREA	
A Depth (min)	6’
Landscaping (min per 50’)	
Canopy trees	2
Understory trees	0
Shrubs	5
WALL OR FENCE	
B Height (min)	3.5’
Opacity	
3.5’ and below (min)	90%
Above 3.5’ (max)	50%
C Setback from property line (min)	3’

LIGHT FRONTAGE SCREEN-2

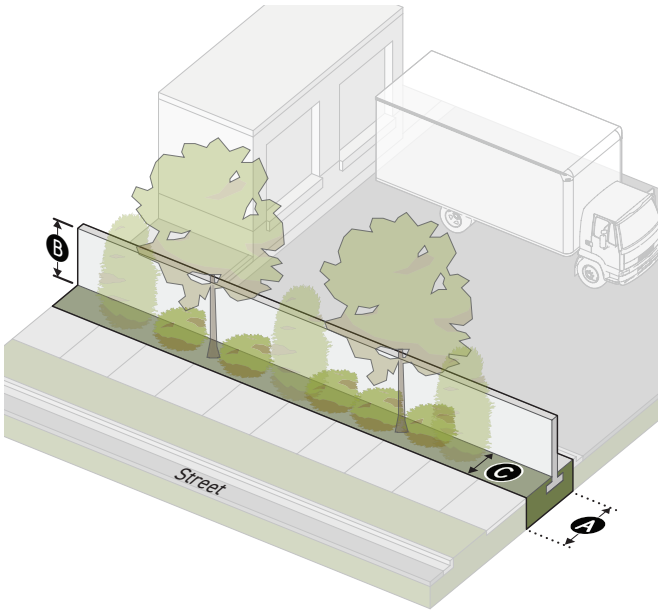
Medium depth light landscape screen with no wall or fence



SCREENING AREA	
A Depth (min)	10’
Landscaping (min per 50’)	
Canopy trees	2
Understory trees	1
Shrubs	10
WALL OR FENCE	
Not required	

MODERATE FRONTAGE SCREEN-1

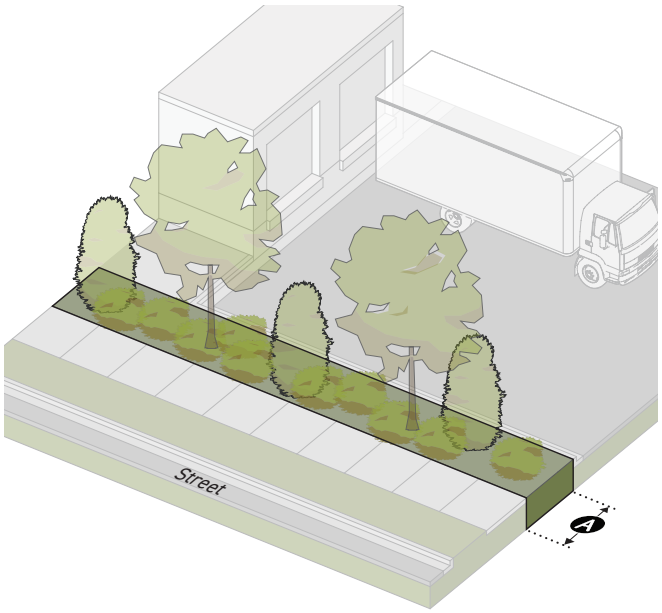
Narrow depth moderate landscape screen with a wall or fence.



SCREENING AREA	
A Depth (min)	10′
Landscaping (min per 50′)	
Canopy trees	2
Understory trees	3
Shrubs	5
WALL OR FENCE	
B Height (min)	6′
Opacity (min)	90%
C Setback from property line (min)	3′

MODERATE FRONTAGE SCREEN-2

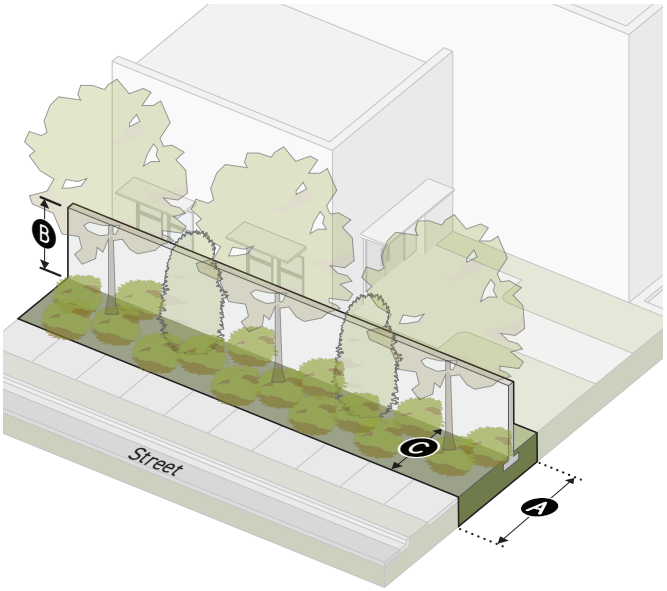
Medium depth landscape screen with no wall or fence.



SCREENING AREA	
A Depth (min)	15′
Landscaping (min per 50′)	
Canopy trees	2
Understory trees	3
Shrubs	10
WALL OR FENCE	
Not required	

HEAVY FRONTAGE SCREEN-1

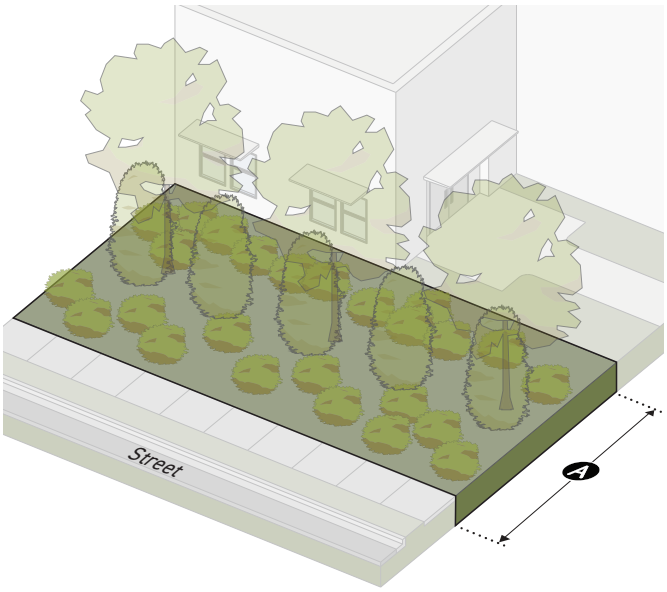
Medium depth landscape screening with a wall intended for high impact uses.



SCREENING AREA	
A Depth (min)	15’
Landscaping (min per 50’)	
Canopy trees	3
Understory trees	2
Shrubs	16
WALL OR FENCE	
B Height (min)	8’
Opacity (min)	90%
C Setback from property line (min)	3’

HEAVY FRONTAGE SCREEN-2

Deep landscape screening with no wall intended for high impact uses.



SCREENING AREA	
A Depth (min)	30’
Landscaping (min per 50’)	
Canopy trees	3
Understory trees	5
Shrubs	24
WALL OR FENCE	
Not required	

4.4.4. Requirements for All for Transition and Frontage Screens

A. Permitted Activity within Transition and Screening Areas

1. No buildings or structures, except for walls and fences, are allowed in a transition or screening area.
2. No vehicle use areas are allowed in a transition or screening area, including fire lanes.
3. Vehicle and pedestrian passageways such as driveways, railroad right-of-way, and bicycle and pedestrian paths, and utilities can cross a transition or screening area, provided they cross at a maximum of 15 degrees from perpendicular.
4. Stormwater management facilities can be located in a transition or screening area.

B. Vegetation

1. All required trees and shrubs must meet *4.6. Landscape*.
2. Where overhead utilities exist, 2 understory trees can be substituted for one canopy tree.
3. To the extent practical, natural vegetation must be used to meet the screening requirements. Where the natural vegetation is insufficient, supplemental plantings must be used.
4. Existing plant material on an abutting property can be credited toward the screening requirements, provided that the material is in a permanently protected area such as a conservation easement or similarly preserved area.

C. Walls and Fences

1. Walls and fences cannot exceed the maximum height requirements of *4.5.1, Fence and Wall Standards*.
2. All walls and fences must meet the design and installation standards of *4.5.1.E*.

D. Width Modification

1. Transition and screening area width is calculated perpendicular to the property line, however, width modifications are allowed and calculated based on the average width of the transition or screening area per 100 feet.
2. In no case can the minimum width of the transition or screening area be less than one-half the required width.

4.4.5. Site Element Screens

A. Intent

To minimize effects on surrounding properties and visibility from the public realm of site elements including mechanical, electrical, or utility requirement and waste receptacles.

B. Applicability

1. Site element screening is required for all outdoor waste receptacle enclosures (with the exception of lots serving up to 4 dwelling units) and all outdoor mechanical or electrical equipment located on the roof of a building, or attached to the wall of a building, or on the ground.
2. Site element screening requirements do not apply to the following:
    a. Electric vehicle charging infrastructure;
    b. Solar panels;
    c. Phone or cable boxes;
    d. Electrical meters; and
    e. Gas meters, when 3 gas meters or less are located in a row.

C. Standards

1. Waste Receptacle Screening

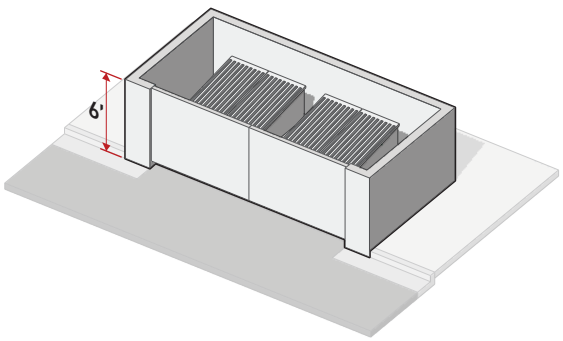
a. Waste receptacles cannot be located in a front or side street yard. Waste receptacles must be located to the side or rear of buildings and must meet the encroachment requirements of *2.6.5.E*.

b. Outdoor waste receptacles must be screened on three sides by a wall or fence a minimum height of 6 feet.

c. Access gates must be provided on the fourth side and must also be a minimum height of 6 feet.

d. The wall or fence and gate access screening must be at least 90% opaque.

e. The wall or fence and gate must meet *4.5.1.E. Design and Installation*.



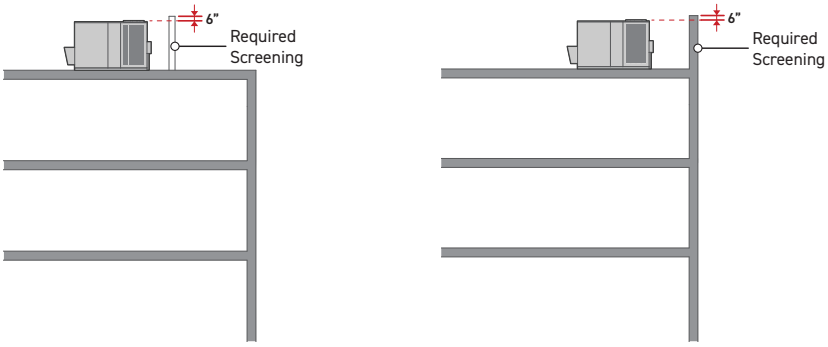
2. Roof-Mounted Equipment Screening

a. Roof-mounted equipment must be screened on the roof edge side by a parapet wall or other type of screen that is at least 6 inches higher than the topmost point of the equipment being screened.

b. Roof-mounted equipment cannot exceed the encroachment requirements of *2.6.8.A.5*.

c. The screening must be at least 75% opaque.

d. Screening must meet the standards of *4.5.1.E. Design and Installation*.



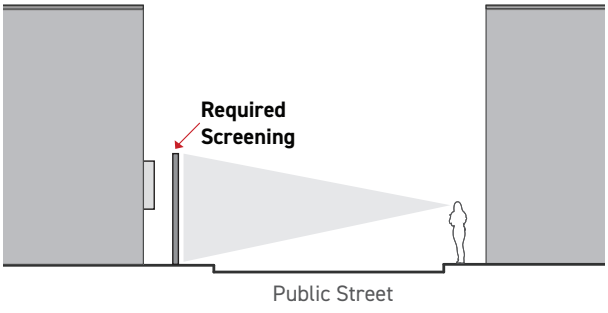
3. Wall-Mounted Equipment Screening

a. Wall-mounted equipment cannot be located in a front yard. Wall-mounted equipment must be located in the side or rear yard and must meet the encroachment requirements of *2.6.5.E*.

b. Wall-mounted equipment visible from a street (not including an alley) must be fully screened by an opaque wall or fence or other type of screen that is at least 6 inches higher than the topmost point of the equipment being screened.

c. The screening must be at least 75% opaque.

d. Screening must meet the standards of *4.5.1.E. Design and Installation*.



4. Ground-Mounted Equipment Screening

a. Ground-mounted equipment cannot be located in a front yard or side street yard. Equipment must be located in the side or rear yard and must meet the encroachment requirements of *2.6.5.E*.

b. Ground-mounted equipment visible from a street (not including an alley) must be fully screened by an opaque wall or fence or other type of screen that is at least 6 inches higher than the topmost point of the equipment being screened.

c. The screening must be at least 75% opaque.

d. Screening must meet the standards of *4.5.1.E. Design and Installation*.