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53 pages (3.94 MB)		**89 pages (5.16 MB)**
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Total Changes

385

Text only comparison

Content

213 Replacements

90 Insertions

82 Deletions

Styling and Annotations

0 Styling

0 Annotations

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Article 3 Zoning Standards

24.3.1 General Provisions

Purpose: this Article establishes development standards that apply to zoning applications, as indicated in each section. These standards:

- *Implement the Comprehensive Plan;*
- *Implement the purposes established for the zoning regulations;*
- *Ensure that new development, redevelopment, and land uses mitigate their development impacts;*
- *Provide uniform methods for the application of the dimensional, site design, amenity space, landscaping, and infrastructure standards established in this Article.*

(a) Applicability. This Article applies to:

(1) all zoning districts, and

(2) unless otherwise provided, any application for:

a. site plan approval where this Article was not previously applied to a subdivision plat approved for the subject property, or

b. building permit or certificate of occupancy where this Article was not previously applied to a subdivision plat or site plan approved for the subject property.

(b) Modification

(1) The City Council may modify any provision of this Article as a condition of rezoning to any "PD" (Planned Development) district or by the Planning and Zoning Commission as a site plan modification. If PD district is in complete compliance with TND Manual, no additional conditions will be placed on it from City Council or the Planning and Zoning Commission.

(2) The Planning Commission or Planning Director may modify any other provision of this Article where specifically authorized.

a. A modification is permitted only if:

1. It is consistent with Viva Laredo, and

2. It is consistent with the public interest, and

3. The applicant has agreed to conditions that will accomplish the purpose of the regulation to at least the same extent as the modified regulation.

4. It will not place an unnecessary burden on the City or surrounding neighborhoods.

24.3.2 Access Management

Purpose: This section contains the minimum standards for access management policies, median spacing, driveway spacing, traffic control changes and other traffic operation considerations that affect traffic control changes, which affect traffic operations and safety in City of Laredo. This section does not address specific locations but provides general guiding principles that the City of Laredo can then apply to effectively manage access at specific locations. To have an effective Access Management Policy a balance between land development and traffic must be maintained. As the volume of the roadway increases the access along the corridor must decrease as illustrated below in Figure 3.2-1. See section 24.4.6 (Streets), the City Comprehensive Plan and the Future Thoroughfare Plan for street classifications in the City of Laredo.

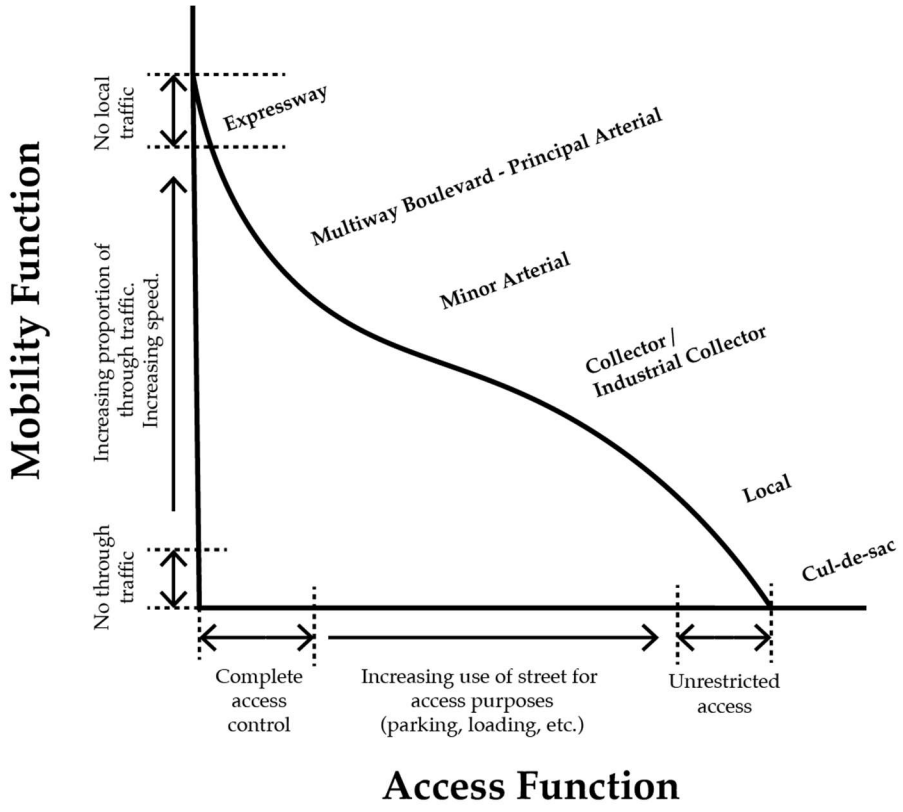


Figure 3.2-1 Relationship between Mobility and Access

(a) Applicability. This section applies to all points of vehicular access to public streets. Where this section differs from the TxDOT Access Management Policy, the more stringent policy applies on roads managed by TxDOT.

(b) Access Points

(1) *Single-Family Development*. Residential lots having direct access on a collector or thoroughfare may be platted only if:

a. *Lots **Exceeding** One (1) Acre.* All lots are greater than one (1) acre in size, have a minimum lot frontage of 100 feet, and provide for permanent vehicular turnaround on the lot to prevent backing onto the roadway. A plat note shall not waive this requirement.

b. *Lots **Less Than** One (1) Acre.* Access points that permit vehicular access to lots less than one (1) acre in size from a thoroughfare or collector are allowed if a marginal access street or easement is constructed that:

1. Provides access to 2 or more lots;

2. Is spaced at least 200 feet from a proposed marginal access street or easement, or an existing driveway or street;

3. Is designed to allow a motorist to enter the public street without executing a backing maneuver;

4. Is designated on the subdivision plat; and

5. Is constructed or bonded before the plat is recorded.

(2) *Commercial, Industrial and Medium or High-Density Residential Developments*

a. Lots proposed for commercial, mixed-use, industrial and multi-family residential developments in the ETJ or in the MX, C, I-1 or I-2 zoning districts may have vehicular access from a thoroughfare or collector. The maximum number of access points permitted is based on the criteria and driveway spacing requirements in Table 3.2-1 below:

Table 3.2-1 Access Points

Frontage Length (*unrestricted*)	**Number of Access Points**
< 200′	1 access point
≥ 200′	1 access point for every 200′ of unrestricted frontage

b. Commercial development in the ETJ or in MX, C, I-1 or I-2 zoning districts with less than 400 feet fronting an arterial street shall provide for shared access with adjacent lots fronting the thoroughfare. Shared access shall include platted common access easements across the lot or recorded deed covenants providing common access across that lot with adjacent lot(s).

(3) *Location*. To preserve the functionality of the adjacent roadway, the location and spacing of access points will be determined by classification. Table 3.2-2 shows the proper spacing by functional classification. A minimum of one hundred twenty-five feet (125 feet) is be required for Opposite Left Access Points. The spacing between access points shall be measured from the edge of one access point to the closest edge of the next access point along the adjacent roadway and shown on Figure 3.2-2.

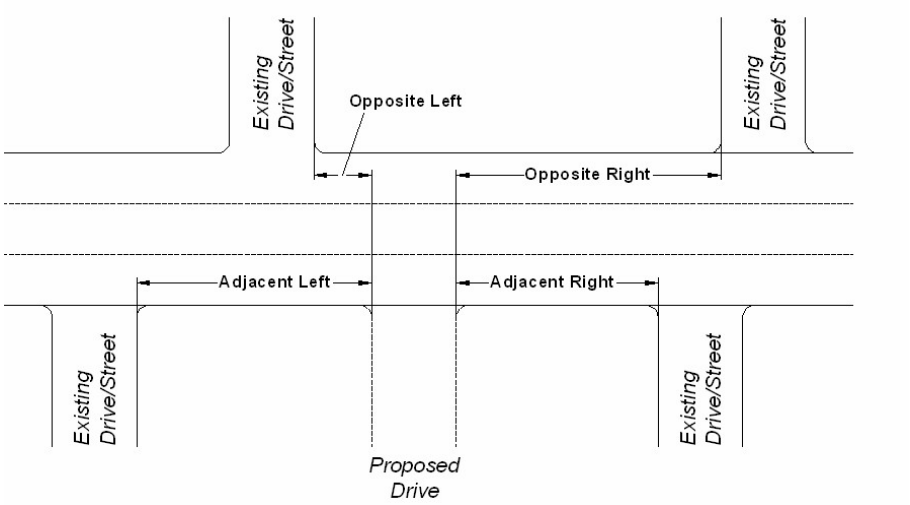


Figure 3.2-2 Measurement of Access Points
(source: City of McAllen Traffic Operations, Access Management Manual)

Table 3.2-2 Minimum Access Point Spacing

Functional Classification	**Adjacent Access Point spacing** (*feet*)	**Opposite Right Access Point Spacing** (*feet*)
Collector – Industrial Collector	200	175
Minor Arterial	250	225
Multiway Boulevard - Principal Arterial	360	300
Expressway	425	400

(4) *Corner Clearance*. As defined above, connecting streets are considered access points. A safe distance (i.e., corner clearance) shall be maintained from connecting streets to avoid interfering with the intersection operation. Driveways should not be within the area of deceleration and acceleration lanes, crosswalk, or a partial median opening. Table 3.2-3 shows the proper corner clearance distance by functional classification.

Table 3.2-3 Corner Clearance

Functional Classification	**Corner clearance** (*feet*)
Collector – Industrial Collector	200
Minor Arterial	250
Multiway Boulevard - Principal Arterial	360
Expressway	425

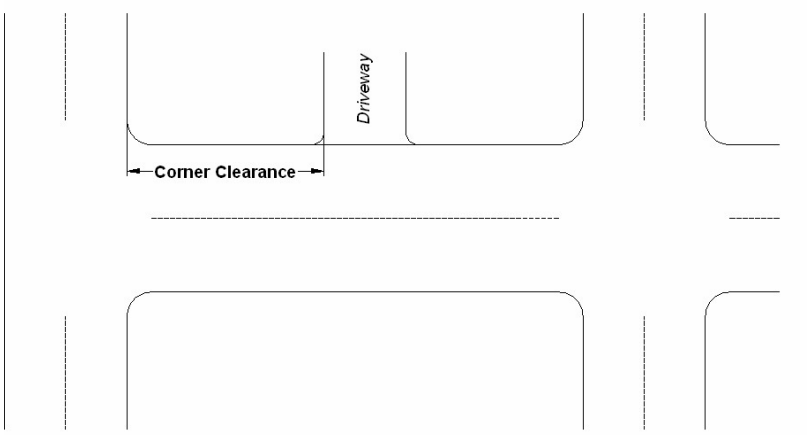


Figure 3.2-3 Corner Clearance
(source: City of McAllen Traffic Operations, Access Management Manual)

(5) *Non-Standard Access.* A lot included on an approved plat that does not otherwise limit access and was approved by the City and filed for record as of the effective date of this section, and which does not have sufficient frontage to meet the driveway approach spacing requirements in this section, is allowed one (1) driveway approach.

(c) Auxiliary Lanes. Table 3.2-4 shows the thresholds for auxiliary lanes was adopted from the TxDOT *Access Management Manual*. These thresholds represent examples of where left turn and right turn lanes should be considered. Refer to the TxDOT *Roadway Design Manual*, Chapter 3, for proper acceleration and deceleration lengths.

Table 3.2-4 Auxiliary Lane Thresholds

Median Type	Left Turn to or from Property		Right Turn to or from Property[5]	
	Acceleration	Deceleration	Acceleration	Deceleration
Non-Traversable (Raised Median)	(2)	All	Right turn egress> 200vph[4]	• > 45mph where right turn volume is > 50vph[3] • ≤ 45 where right turn volume is > 60vph[3]
Traversable (Undivided Road)	(2)	(1)	Same as above	Same as above

(1) Refer to Table 3-11, *TxDOT Roadway Design Manual*, for alternative left-turn-bay operational considerations.

(2) A left-turn acceleration lane may be required if it would provide a benefit to the safety and operation of the roadway. A left-turn acceleration lane is generally not required where the posted speed is 40 mph or less, or where the acceleration lane would interfere with the left-turn ingress movements to any other access condition.

(3) Additional right-turn consideration:

- Conditions for providing an exclusive right-turn lane the right-turn traffic volume projections are less than indicated in this table:
  - High crash experience
  - Heavier than normal peak flow movements on the main roadway
  - Large volume of truck traffic
  - Highways where sight distance is limited
- Conditions for NOT requiring a right-turn lane where right-turn volumes are more than indicated in this table:
  - Dense or built-out corridor where space is limited
  - Where queues of stopped vehicles would block the access to the right turn lane
  - Where sufficient length of property width is not available for the appropriate design

(4) The acceleration lane should not interfere with any downstream access connection.

- The distance from the end of the acceleration lane taper to the next unsignalized downstream access connection should be equal to or greater than the distance found in Table 3.2-2.
- Additionally, if the next access connection is signalized, the distance from the end of the acceleration lane taper to the back of the 90th percentile queue should be greater than or equal to the distance found in Table 1.

(5) Continuous right-turn lanes can provide mobility benefits both for through movements and for the turning vehicles. Access connections within a continuous right turn lane should meet the spacing requirements found in Table 3.2-2. However, when combined with crossing left movements, a continuous right-turn lane can introduce additional operation conflicts.

(d) Driveway Widths

(1) *Residential*. Single-family residential driveways shall be constructed with a minimum width of 12 feet and maximum width of 25 feet at the right-of-way.

(2) *Commercial*. Commercial, non-single family residential and multi-family driveways that connect to an arterial street, highway, or freeway shall be a minimum of 25 feet wide to a maximum of 45 feet wide at the right-of-way.

(3) *Utility Facilities.* Driveways for utility facilities shall be constructed using single-family residential driveway standards with specific approval from the city engineer.[1]

(e) On-Sight Storage. Throat length and storage shall comply with this subsection. For purposes of this subsection, "storage" means stacking of vehicles usually in a queue.

(1) *Throat Lengths*. All commercial developments shall provide 30 feet minimum of throat length. Any development plan with an internal roadway network, a minimum storage of 80 feet measure from right-of-way line is required before any crossing or left turning conflicts are allowed, as shown on Figure 3.2-4. The minimum driveway throat length requirement may increase on a project-by-project basis based on a TIA on the internal roadway network.

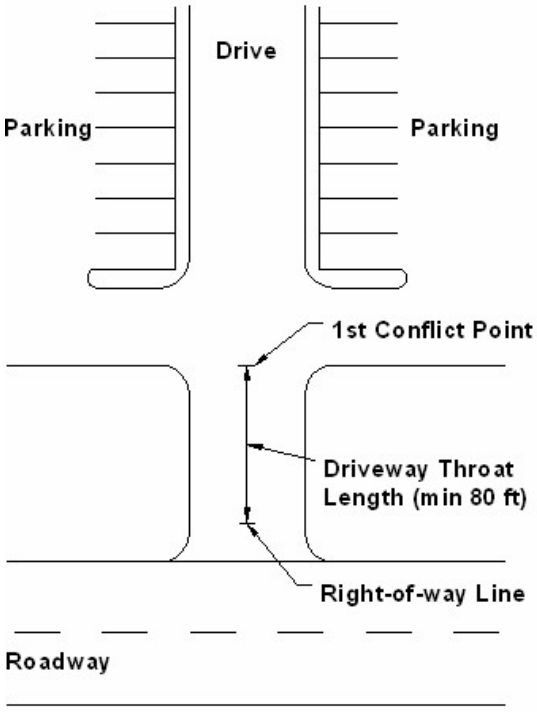


Figure 3.2-4 Driveway Throat Length
(source: City of McAllen Traffic Operations, Access Management Manual)

(2) *Residential*. Residential access along arterials shall provide adequate space on the property for vehicles to turn around without the need to back onto the roadway.

(3) *Non-Residential*. Non-residential and mixed use access shall ensure that backing, loading, unloading, and other maneuvers are accommodated on-site and not using the public right- of-way and the access shall provide adequate storage to prevent entering or exiting vehicles from obstructing the flow of traffic on roadways. The City Engineer may provide verification by means of turning movement templates. A driveway median may be required to preserve the length of storage, or to prevent cross access to an out- parcel within the storage area of a driveway.

[1] From the McKinney Access Management Standards. This needs criteria.

(4) *Special Traffic Generators*. Adequate storage shall be provided within the internal circulation system for properties that include either a drop-off loop or drive-through facility so that vehicles do not queue onto streets, do not interfere with parking or internal circulation and do not block driveways. Dimensions are measured from the right of way. Minimum lengths are enumerated in Table 3.2-5.

Table 3.2-5 Special Traffic Generator Minimum Throat Lengths

Generator		Throat Length
Financial Institution (e.g. bank)	Single-lane	queue of six vehicles
	Multi-lane	queue of five vehicles per lane
Car Wash	Single-lane drive-through full service	queue of five vehicles
	Automatic or self serve multi bay	queues for two vehicles
Restaurant	Fast food with drive-through window	queue of eight vehicles measured from menu board and three vehicle lengths from menu board to pick-up window**
Convenience Store (with Gasoline Sales) or Gasoline or Diesel Fuel Sales	Pumps parallel to edge of pavement	minimum setback 35 feet from pump islands to parallel right-of-way
	Pumps not parallel to edge of pavement	minimum storage of 50 feet from pump islands to right-of-way
Control Access	Gated subdivision/service attendant	minimum of 40 feet from right-of-way to call box; from call box to gate 50 feet
* Note: 1 vehicle = 20 feet ** or a combination approved by City Engineer equaling at least 11 vehicles		

(5) *Schools*. Schools require adequate storage for drop-off and pick areas, which should be provided entirely on the school campus site to ensure safety for the students and to minimize the impact on the surrounding traffic network. The required treatments are shown in Table 3.2-6.

Table 3.2-6 School Storage Length

School Type	Student Population	Loop Drive Stacking Length
Elementary	200 – 600 600 – 1,200	650 – 1,000 Linear Feet 1,000 – 1,500 Linear Feet
Middle	200 – 600 600 – 1,200	700 – 1,000 Linear Feet 1,000 – 1,500 Linear Feet
High	400 – 800 800 – 2,500	800 – 1,200 Linear Feet 1,200 – 1,500 Linear Feet
Note: For high school populations greater than 2,500 students, two separate student pick-up drop-off loops should be considered.		

(f) Location of Access Points. The Traffic Director (or TXDOT or county authority, if appropriate), will determine the specific location of access points when a site plan is reviewed prior to issuance of a building permit.

(1) The location is based on the following criteria:

a. The location shall minimize conflicts with vehicle turning movements;

b. The location shall be as far as practicable from intersections; and

c. The location shall be at least 50 feet from another driveway location.

(2) If this standard is not possible, based upon the frontage of the property, the location shall be directed as far as practicable from other driveway locations.

(3) Driveways along a thoroughfare within 400 feet of a major intersection, such as the intersection of arterial streets or the intersection of a collector and an arterial street, may be restricted to right turn movements.

(g) Medians

(1) *Medians*. Medians should be installed on all new multilane arterials and on existing multilane arterials with an average daily traffic (ADT) volume of 24,000 vehicles per day or greater.

(2) *Median Openings*

a. There are two types of median openings, directional and full opening. Directional median opening generally allows only left or right turns into a driveway, but left turns or through movements are not permitted out of the driveway. A full median opening allows all traffic movements.

b. To preserve the functionality of the median and the adjacent roadway a minimum distance is required between openings. Table 3.2-7 shows the minimum distance to maintain by functional classification of the adjacent roadway.

c. Full medians opening shall align with cross streets or with driveways.

d. Left-turn bays shall be provided at all median openings for safe left turn movements.

Table 3.2-7 Median Opening Requirements

Functional Classification	Median Opening (*feet*)	
	Full	**Directional**
Principal Arterial	2640	1320
High Speed Arterial	2640	1320
*Signalized intersections shall not be spaced less than 2640 feet apart.		

(h) Projecting Streets

(1) Streets and traffic lanes shall be properly aligned across an intersection. Proposed streets shall be aligned with existing streets. Where an area is built in phases, an obvious effort to preserve future alignment shall be made. Local roads should not have access to principal arterials or high-speed arterials.

(2) Offset intersections are not permitted on any arterial if the offset distance (or clearance between streets) is less than 300 feet. The minimal allowable offset is 250 feet on collector streets and 125 feet on local streets.

(3) Table 3.2-8 lists the intersection spacing requirements by functional classification. Each column describes the criteria in relation to identical intersections.

Table 3.2-8 Intersection Spacing

Functional Classification	Intersection Spacing (*feet*)
Minor Arterial	470
Principal Arterial	870
Expressway	1320
*Signalized intersections shall not be spaced less than 2640 ft apart.	

(i) Shared Access.[2] Shared access is required if the frontage of a property is insufficient for proper spacing of an access point. The property owner shall:

(1) Record a common ingress/egress access easement with the plat allowing ingress/egress to properties that share access as determined by City Engineer or designee pursuant to this policy.

(2) If property is being platted through which ingress/egress is necessary for another property to have access to the public right-of-way, the property owner shall record a common ingress/egress access easement allowing the other property shared access.

(3) Use of the shared access easement by other property owners shall be made contingent on the other owner's agreement to the shared maintenance responsibilities on a pro-rata basis, proportional to respective square footage of all properties having access to the easement.

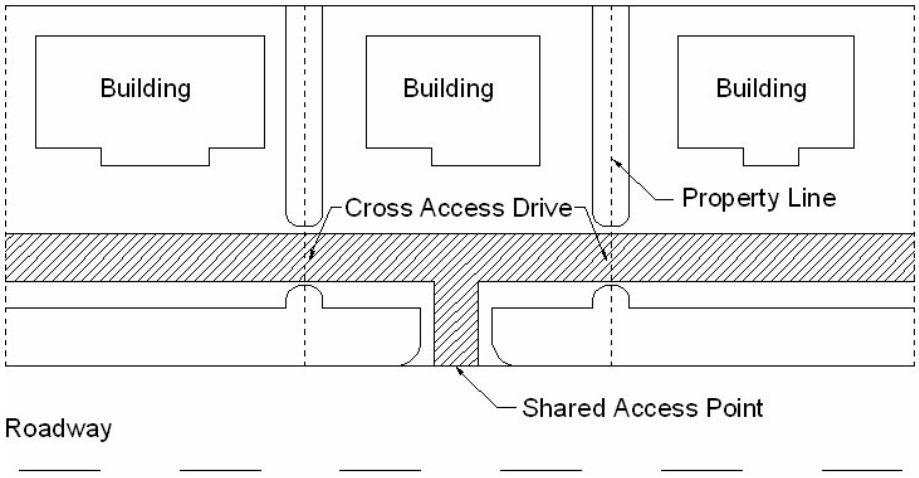


Figure 3.2-5 Shared Access

(j) Truck Access.

[2] Inserted at your direction. The right to exclude is a property right, so requiring shared access is a takings and property rights issue. We could require a TIA to demonstrate that the property owner is mitigating their impacts, with a shared access easement to mitigate impacts on the surrounding streets.

(1) Truck access is not permitted on local residential streets, except as permitted below when within 300 feet of a City designated truck route.[3]

(2) All access for truck traffic shall:

a. Include direct frontage onto a City designated truck route; or,

b. Private drive easement to a designated truck route; or

c. The lot or private drive easement is located within 300 feet of a designated truck route. (This distance is measured excluding public rights-of- way.)

(3) Trucks owned or leased shall not use local residential streets,

(4) All driveways not located on a truck route, but within the allowed distance from a truck route, shall be constructed to direct traffic to the truck route and away from residential streets. If more than one block of land for development is involved, all truck traffic shall use one route of access to the truck route.

[3] This is currently limited to the MXD district (§ 24.65.18). Because residents along a residential street would not care where the trucks are coming from, this makes more sense as a general standard.

24.3.3 Blocks, Lots and Yards

(a) Dwelling Units per Lot. In the AG, RL-1, and RL-2 districts, only one principal dwelling unit is allowed per lot. This does not apply to accessory dwelling units as provided in Article 6.

(b) Lots

(1) *Access*. For subdivision plats, each lot shall include adequate access to an existing public street by:

a. frontage along that street, or

b. connection to a new street, or

c. a continuous permanent easement connected to an existing street.

(2) *Lot Area and Width*

a. Minimum lot area and width applies to all conversions and new construction.

b. Lot width is measured at the front setback line.

c. At least of the following lot width is required:

1. The minimum width required by the zoning district regulations, or

2. The minimum width required by another provision of this Chapter that supersedes the zoning district regulations (for example, 24 feet for townhomes in Article 6), or

3. as provided by an approved site plan through the PD rezoning process.

(3) *Placement*. For subdivision plats:

a. Side lot lines shall be substantially at right angles or radial to street lines.

b. Adjacent lots shall not be placed at right angles to each other if possible.

(4) *Double and Reverse Frontage Lots*.

a. A proposed subdivision plat shall not include double or reverse frontage lots, except where required separate residential development from arterial or collector streets or to overcome specific disadvantages of topography and orientation.

b. Double or reverse frontage lots shall include a planting screen easement at least 10 feet wide, or a fence at the property line along the line of lots abutting arterial, collector or higher order streets.

c. The plat shall not allow a right of access across the planting screen or fence. To separate residential development from major street rights-of-way, a subdivision application shall include a 1-foot easement prohibiting access (as provided in subsection b above).

d. Where a planting screen or fence does not allow access for the adjacent residences, the right-of-way normally maintained by the adjoining property owner becomes the responsibility of the city to maintain if within city limits.

(c) Setbacks and Yards

(1) *Applicability*. This subsection (c) applies to Article 2 (Zoning Districts) and any other provision of this Chapter that refers to or requires a setback or yard. Regardless of

the setbacks, the requirements for easements. minimum parking requirements and site traffic visibility must be followed.

(2) *Definition.* Setbacks and yards are defined as follows:

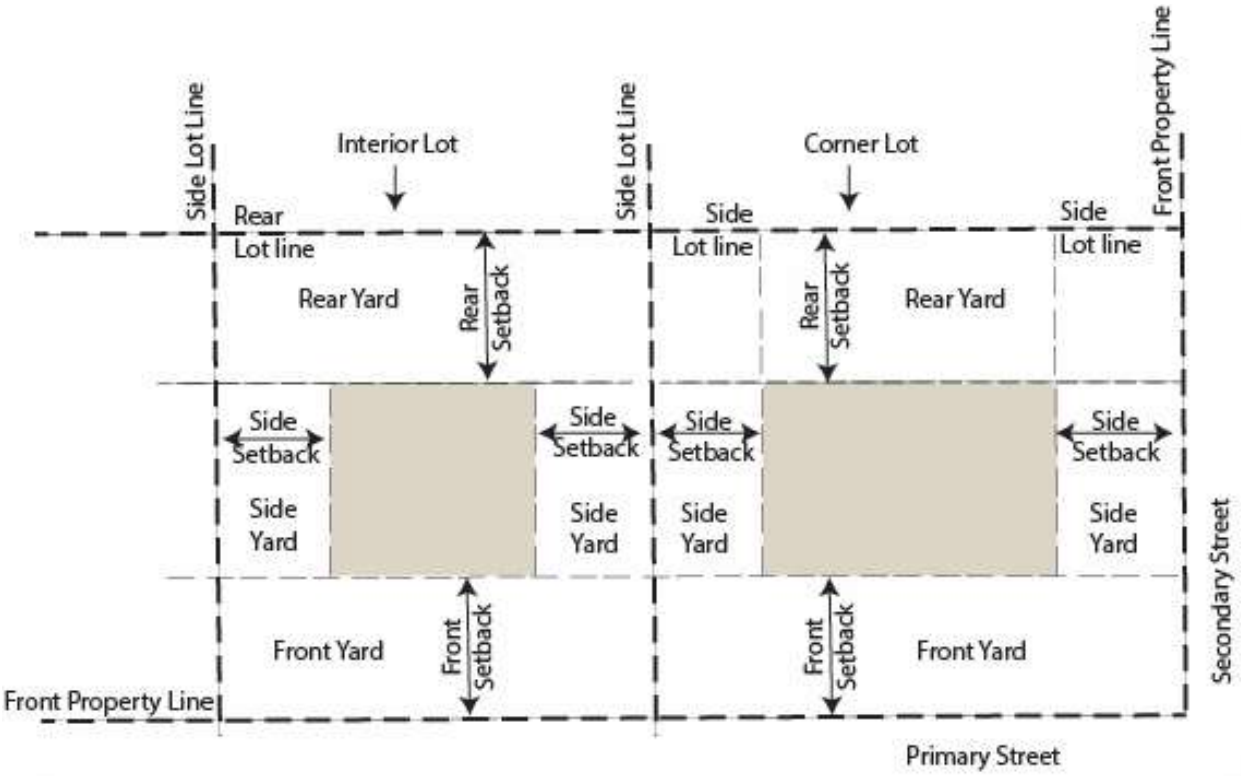


Figure 3.3-1 Setbacks and Yards

Table 3.3-1 Setbacks and Yards

Front Setback	A line extending the full width of the building site across its front, with required depth measured at right angles to the front street line of the building site. The front yard is the area lying between the front street line and the front setback.
Rear Setback	A line extending the full width of the building site across its rear, with required depth measured at right angles to the rear lot line of the building site. The rear yard is the area lying between the rear lot line and the rear setback.
Side Setback	A line extending the full width of the building site across its side, with required depth measured at right angles to the adjacent side lot lines of the building site. The side yard is the area lying between the side lot line and the side setback. In any district where side yards are not required by the district regulations, a side yard shall have the minimum width required by the currently adopted building code, as applicable.

(3) *Corner Lots*

a. A corner lot has a front yard on the lot line abutting a primary street, a side yard abutting an interior lot, and a side yard abutting the secondary street. For

purposes of this section, the primary street is the higher order street, and the secondary street is other street.

b. For residential subdivision plats, corner lots shall have extra width to permit appropriate building setback from and orientation to both streets.

(4) *Modification*. The Planning Commission may modify the front and rear setbacks through the subdivision approval process, based on the criteria identified in Section 24.3.1(b) above.

(5) *Contextual Front Yard Adjustment.* When existing buildings are closer to the front property line than the minimum requirements, the required front setback for a new building or building extension is the average depth of the existing structures along that block front, but no closer to the property line than fifty (50) percent of the minimum front setback required by the applicable zoning district.

(6) *Side Yards for Cumulative Side Setbacks.* Where a total or cumulative side setback is indicated, the side setback on one lot line may drop to zero (0) feet if the sum of both setbacks meet the total required setback.

(7) *Rear Yards for Commercial or Industrial Buildings.* Where the rear yard of a commercial or industrial building abuts a public street or alley, a rear yard setback of at least 10 feet is required.

(8) *Setback Based on Building Height*. If the height of a proposed structure on a lot abutting a more restricted district is greater than that allowed in the more restricted district, the minimum side and/or rear yard requirements for the structure in the less restricted district is increased by 1 foot for every two 2 in height that the proposed structure exceeds the height requirement in the more restricted district up, to a maximum of fifty (50).

(9) *Downtown / Regional Mixed-Use Center (MX-3).* In the MX-3 district, no front building setback is required. However, that a minimum 8 foot wide unobstructed sidewalk is required for all new construction. Side or rear building setbacks are not required, except as required by Table 503 of the International Building Code.

(10) *Setbacks Conflicting with Easements*.

a. Easements shall supersede setback requirements. No structure shall be placed within an easement if the setback encroaches in the easement.

b. Setbacks conflicting with easements are illustrated in Figure 3.3-2 to show what is allowed and is not allowed.

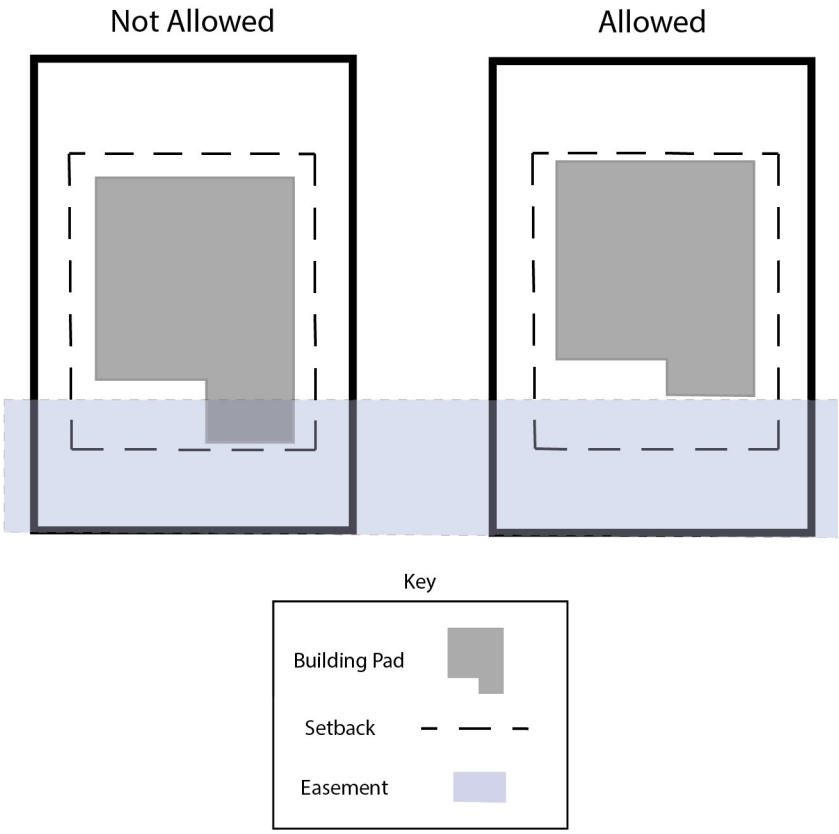


Figure 3.3-2 Setback and Easement Conflicts

(d) Setback Encroachments

(1) Except as provided below, yards shall be unoccupied and unobstructed from 3 feet above the general ground level of the lot upward. This applies to any overhang or projection from a building or structure except as provided in subsection (2) below.

(2) The features designated and as conditioned below may encroach into a required yard subject to height, intersection visibility, easements, and building code separation requirements:

Table 3.3-2 Encroachments (not permitted in easements)

Feature	**Yards** *where encroachment is permitted*	**Encroachment** *(max – i.e., may encroach up to this distance inside the yard)*	**Setback from property line** *(min – i.e. must stay at least this distance from the property line)*
Accessory building	Side	--	2½ feet
Arbors (maximum footprint of 80 sf and maximum height of 12')	Any yard	No restriction	--
Architectural projections of sills, belt courses, cornices, buttresses, eaves, spouts/gutters, brackets, pilasters, grill work, trellises and similar architectural features (unenclosed*)	Any yard	2 feet	2½ feet from side lot line
Basketball goal	Any yard	No restriction	--
Bird houses, dog houses	Any yard	No restriction	--
Balcony (upper floor), wing walls, stoops, landings, and patios (unenclosed*)	Front, Rear	--	50% of minimum setback
	Side	--	2½ feet

Feature	**Yards** *where encroachment is permitted*	**Encroachment** *(max – i.e., may encroach up to this distance inside the yard)*	**Setback from property line** *(min – i.e. must stay at least this distance from the property line)*
Palapa, Canopies, Freestanding	Front, Rear	10 feet into yard	6 feet
Canopy, awning or other window shading (unenclosed*)	Side	--	2½ feet
Carport (unenclosed*)	Front, Rear	--	--
	Side	--	2½ feet
Carport (unenclosed*), residential use only	Front (measured vertically)	No restriction except as provided in next column	Subject to easements. site visibility. minimum parking requirements and utilities
Chimney	Front, Side	--	50% of minimum setback
	Side	--	5 feet
Clothes line (up to 2 poles)	Rear/Side	No restriction	--
Decks, covered	Rear	30 inches into yard	--
Decks, uncovered	Rear/Side	5 feet into yard	--
Driveways	Any Yard	No restriction	--
Equipment, ancillary (Residential or Commercial / Mixed Use districts)	Interior Side/Rear	No restriction	--
Equipment, ancillary (non-residential districts)	Interior Side/Rear	No restriction	--
Fences, walls, poles, posts and other customary yard accessories, ornaments and furniture	Any yard	No restriction	--
Open fire escapes / enclosed outside stairways / handicap ramps required by the building code	Any	3½ feet	--
	Rear:	5 feet into rear yard	--
Flag Pole	Any yard	No restriction	--
Garage, attached or detached and loaded from an alley	Rear	No restriction	6 feet
Gates	Any yard	No restriction	--
Pool equipment, generators, HVAC units	Side/Rear	No restriction	Per currently adopted IBC codes
Landscaping, lawns, berms, trees, shrubs	Any yard	No restriction	--
Light Poles	Any yard	No restriction	--
Mailboxes	Any yard	No restriction	--
Playground equipment, trampolines	Any yard	No restriction	--
Open pools, screened or enclosed pools, spas, and uncovered decks or patios, up to 20 feet from a dwelling unit on an abutting lot	Rear/Side	No restriction	--
Other solid projections not listed in this table	Side	--	5 feet
Parking areas, subject to zoning district regulations and this Article	Any	No restriction	--
Porch (enclosed)	Side	--	5 feet
Porch (unenclosed*)	Front, Rear	--	50% of minimum setback
Projecting overhangs on the ground floor not listed above	Any	No restriction	Per currently adopted ICC codes
Projecting windows such as bays, bows, oriels, or dormers	Any yard	5 feet	Per currently adopted ICC codes
Ramps for citizens with impairments	Any	No restriction	--
Retaining Walls	Any	No restriction	--
Sidewalks	Any	No restriction	--
Stairway or fire escape (outside, unenclosed*)	Side	--	5 feet
	Rear	5 feet	--
Stormwater detention or retention facilities or ditches, unless the Director finds that underground stormwater management facilities are not currently available	Rear (MX), Any yard (all other districts)	No restriction	--
Terraces (unenclosed*)	Front, Rear	--	50% of minimum setback

Feature	Yards *where encroachment is permitted*	Encroachment *(max – i.e., may encroach up to this distance inside the yard)*	Setback from property line *(min – i.e. must stay at least this distance from the property line)*
Vending Machines (including ice machines, video rental machines), ATMs	Side/Rear	No restriction (prohibited in a required buffer)	--

Notes:

* Where indicated with an asterisk (*), "unenclosed" means that all sides are open with walls no higher than three (3) feet

(e) Lot Grading

(1) Lots shall be gradeds in accordance with section 24.4.5(d)(2)(Stormwater Management- Typical FHA lot grading).All lots graded within developments will be sloped to a minimum grade of one-half of one percent (0.5%) from the property lines to the rear of the lot.

(2) The applicant may submit an alternate drainage plan to the City of Laredo Engineering Department. The Engineering Department shall approve the alternative drainage plan if it finds that:

a. it is not practical to drain lots to the street (rear to front), and

b. the alternate drainage plan provides an equivalent level of protection for stormwater management and erosion control as the standard provided in subsection (1) above.

(3) If drainage from adjacent property crosses the development, drainage from adjacent property will be physically diverted to adequate drainage facilities or handled with the run-off from the development itself.

(4) A lot grading plan shall be made part of the final plans and is considered an improvement for the development. Construction of the items provided in the lot grading plan is a condition precedent to the final acceptance of the development by the City Engineer.

24.3.4 Building Design & Height

(a) Building Design

(1) *Principal Entrances*. If a maximum front setback applies, the principal entrance of every principal building must be located along the primary façade and directly face a street or civic space. Public space may include a central garden or courtyard when that public space opens directly onto the primary Street. Additional building entrances are permitted.

(2) *Frontage Buildout*. Frontage buildout is the percentage of the property width that is occupied by the building facade within the front yard.

(3) *Wide Façades*. Building façades longer than 50 feet shall be varied with at least one change of architectural expression. These changes in expression may include a vertical element running from the ground plane to the roof, a change in fenestration, color, or texture, or a break in building façade plane or roof line.

(b) Frontage Types

(1) *Applicability*

a. The frontage is the area of a property that faces a street or other public space and an assembly of components within that area. Frontage components include:

1. The building facade; and

2. Structures that project from the facade such as porches, terraces, stoops, awnings, canopies, and bay windows.

3. Where required, any front yard landscape elements between the building facade and the public street or space.

b. This subsection applies to any application for a rezoning, conditional use permit, building permit or certificate of occupancy where building design is regulated by Article 2 and the applicable zoning district.

c. The application for approval shall designate the frontage type for all proposed buildings.

d. Each building shall comply with the standards for the required frontage type when new construction or substantial improvement is proposed, when the frontage type is changed, or when the primary frontage of the property is re-designated to another street on a corner lot.

e. New additions to existing buildings are not required to designate frontage types.

(2) *Frontage Types Required*. The frontage elements shown in Table 3.4-1 and defined in subsections (3) through (9) are required for the following use categories in the RM, RH and MX districts:

Table 3.4-1 Frontage Types

Frontage Type	A *Multi-family*	B *Mixed-Use*	C *Commercial*
*Gallery	--	■	■
*Common Yard	■	--	--
*Forecourt	■	■	■
*Stoop	■	❍	❍
*Shopfront	--	■	■
*Porch	❍	■	--
Tower	❍	❍	■

Notes:

■ One of these elements is required.
❍ Element is allowed but not required.
-- Element is prohibited.

The use categories in Table 3.4-1 refer to the following uses, where permitted in the applicable RM, RH and MX districts (see Use Chart, § 24.2.17):

A **Multi-Family:** Any use under the Residential category other than Single-Family Detached Dwelling, Manufactured Home, Manufactured Housing Park or Zero Lot Line House.

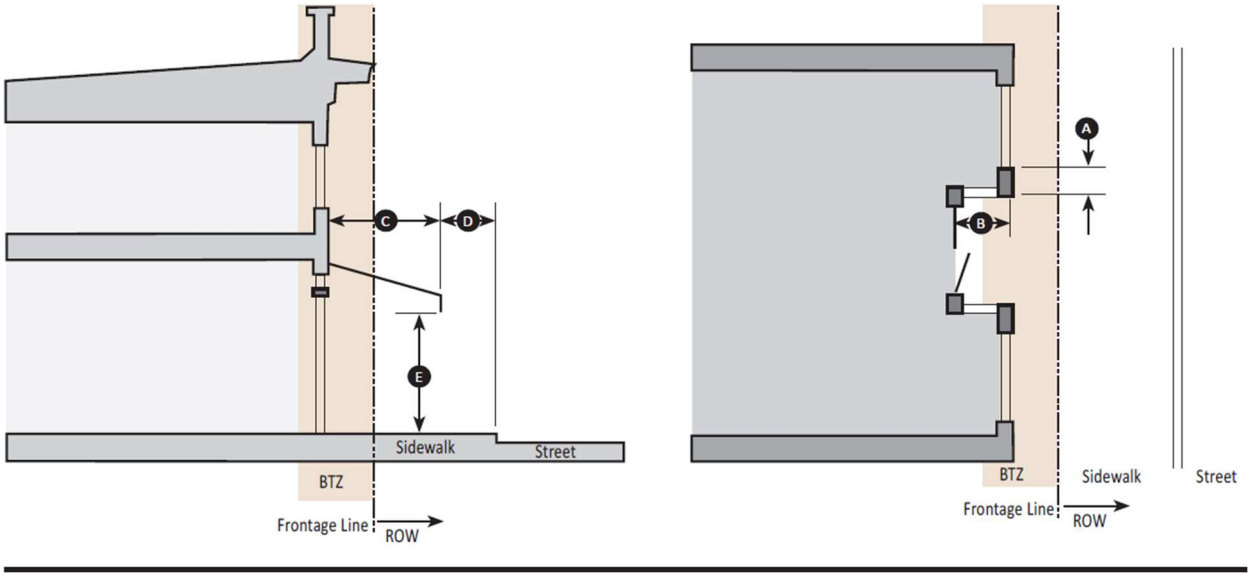
B **Mixed-Use**: Any Mixed-Use Building or Live-Work Dwelling (which may also use a Multi-Family frontage type).

C **Commercial**: Any use under the Commercial / Mixed-Use category (except Mixed-Use or Automotive).

This section does not require frontage types for any use in the Public/Civic/Institutional, Industrial / Production, Infrastructure, Agriculture, Accessory, or Miscellaneous categories.

Description and standards for frontages appear below:

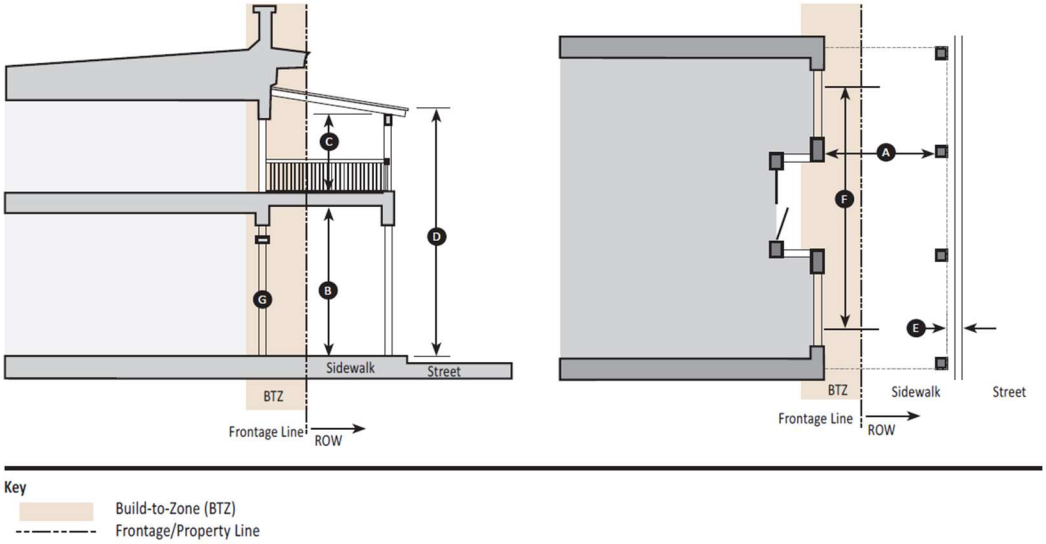
(3) *Shopfronts*



Description: The front façade of the building is within the front yard and covered by an awning, canopy, marquee, second floor balcony, arcade / colonnade, or inset into the main body of the building.

Size		
A	Distance between glazing or min. 4" break in the wall plane	2' (*max*)
B	Door recess (a recessed entry may be designed in a variety of configurations (recessed door, sawtooth pattern, etc.) and may be located on the front facade or the corner of a building.	5' (*max*)
Canopy or Awning		
C	Depth	4' (*min*)
	Width, Cumulative	70% of façade width (*min*)
D	Setback from curb	2' (*min*)
E	Height, Clear	8' (*min*)
Entryways and Habitable Space		
	Interval between doors or entrances for public access	50' (*max*)
	Depth of habitable space shall be provided behind each shopfront on the primary façade	15' (*min*)

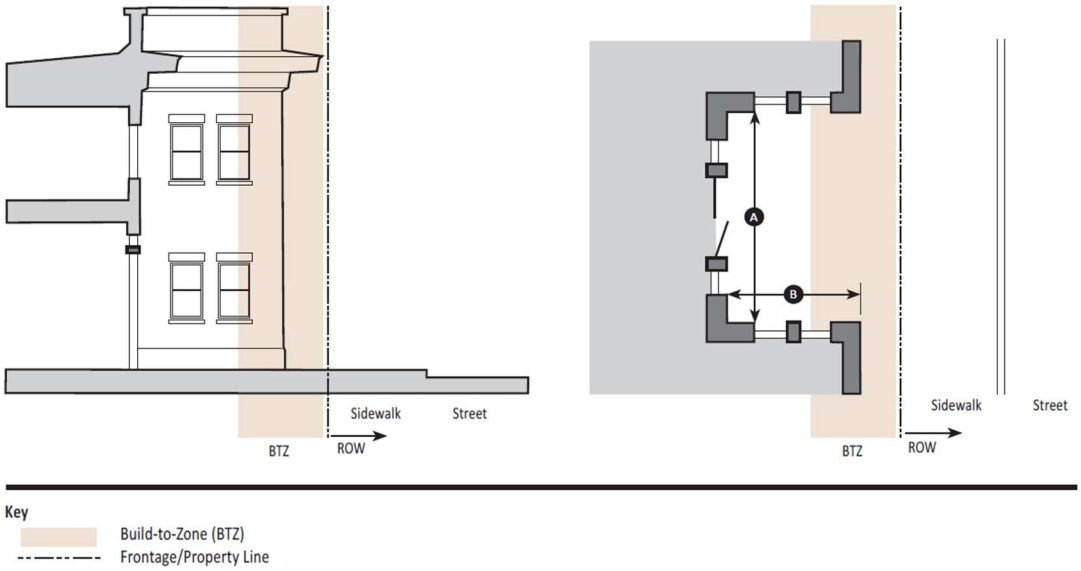
(4) *Gallery*



Description: The front façade of the building is in the front yard (build-to-zone or BTZ in the figure above) and the gallery element overlaps the sidewalk, eliminating the need for an awning or canopy. This frontage type is intended for buildings with ground-floor commercial or retail uses and may be one or two stories in height.

Size		
A	Depth, Clear	8′ min.
B	Ground Floor Height, Clear	9′ min.
C	Upper Floor Height, Clear	9′ min.
D	Height	2 stories max.
E	Setback from Curb	2′ min.
F	Width	75% of façade width min.
Miscellaneous		
G	Galleries must also follow all the rules of the shopfront frontage type.	
	Arcades must have a consistent depth along a frontage.	
	Arcades with more than 2 floors of habitable space above the colonnade must not encroach onto a public right-of-way, and must be located so that they abut the right-of-way.	

(5) *Forecourt*

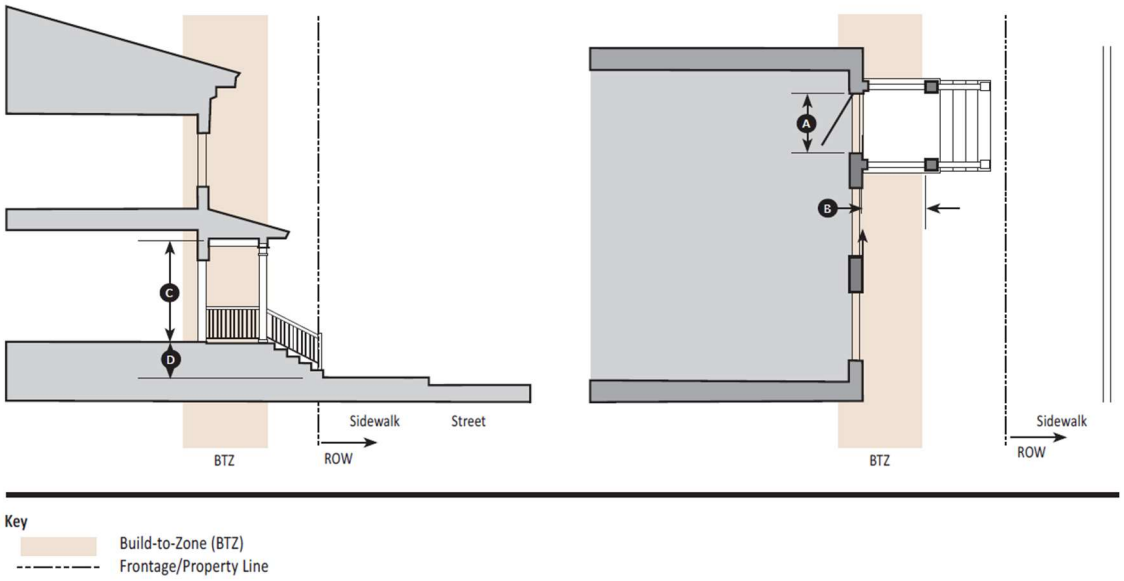


Description: The primary portion of the building's main Facade is in the front yard (at the Build-to-Zone or BTZ in the image) while a small percentage is set back, creating a court space. This space can be used as an apartment or office entry court, garden space, or for restaurant outdoor dining.

Size		
A	Width, Clear	12' (*min*)
B	Depth, Clear	12' (*min*)
Miscellaneous		

Forecourts are especially useful along larger, more auto-dominant streets in order to provide well-shaped, intimately sized public outdoor spaces. The proportions and orientation of courtyard spaces must be carefully considered for solar orientation and user comfort.

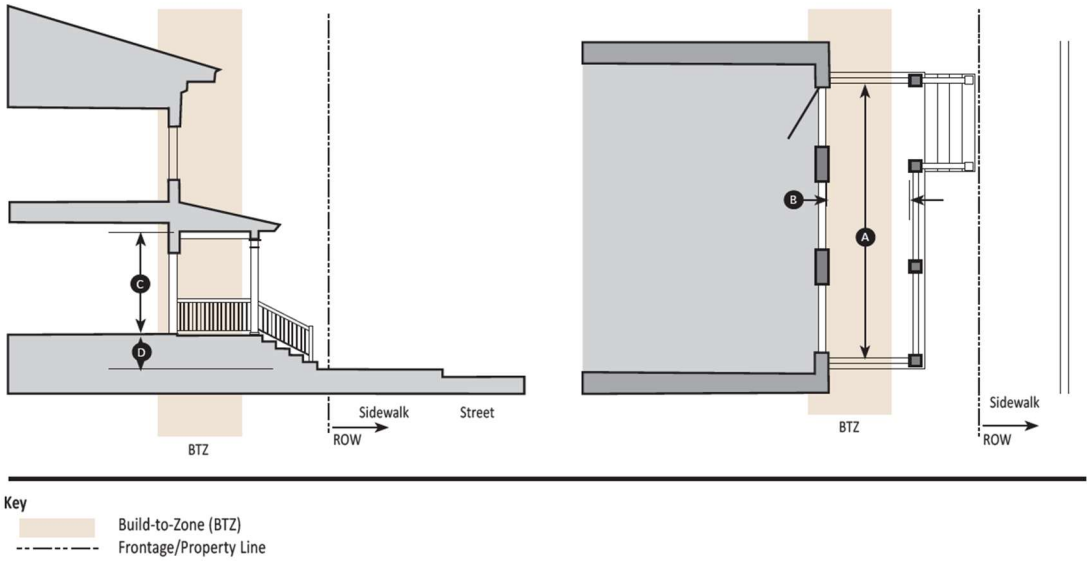
(6) *Stoop*



Description: The main façade of the building is in the front yard (at the Build-to-Zone or BTZ in the image) and the elevated stoop projects forward. The stoop is used to access a first floor that is elevated above the sidewalk to ensure privacy within the building. Stairs from the stoop may descend forward or to the side. Stoops may extend beyond the front yard and into the Right-of-Way if a 6′ minimum clear zone is maintained for pedestrians on the sidewalk.

Size		
A	Width, Clear	5′ (*min*) 8′ (*max*)
B	Depth, Clear	5′ (*min*) 8′ (*max*)
C	Height, Clear	8′ (*min*)
D	Finish Level Above Sidewalk	24″ (*min*)
Miscellaneous		
	A stoop is appropriate for residential uses with small setbacks.	
	Stairs may be perpendicular or parallel to the building facade.	
	Gates are not allowed.	
	All doors must face the street.	

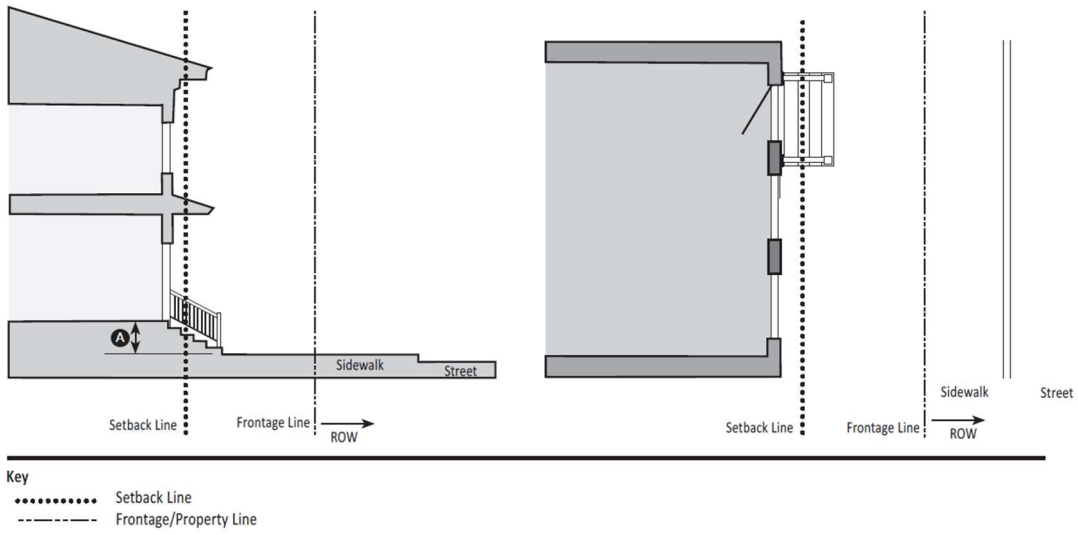
(7) *Porch*



Description: The main Façade of the building is in the front yard (at the Build-to-Zone or BTZ in the image) and the elevated porch projects forward. The porch is used to access a first floor that is elevated above the sidewalk to ensure privacy within the building. A porch is large enough to function as an outdoor living space. Stairs from the porch may descend forward or to the side. Porches may extend into the min front setback, but only the stairs from the porch may extend into the Right-of-Way if 6′ minimum clear zone for pedestrians is maintained on the sidewalk.

Size	
A Width, Clear	10′ (*min*)
B Depth, Clear	8′ (*min*)
C Height, Clear	8′ (*min*)
E Finish Level Above Sidewalk	24″ (*min*)

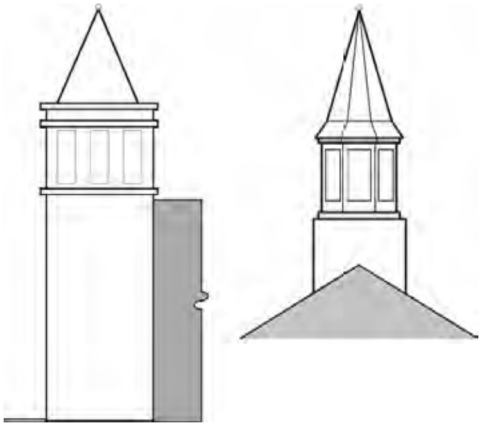
(8) *Common Yard*



Description: The front façade is set back from the front lot line with a planted front yard. The front yard is unfenced and visually continuous with adjacent yards, supporting a common landscape.

Size	
A Finish Level Above Sidewalk	24" (*min*)

(9) *Tower*



Description: These features are designed to extend above the roofline, and are generally intended to be visual landmarks.

Height / Size
If a terminated vista is indicated on an approved site plan, towers are required and extend up the following distance above the designated height limit:

• Towers with a footprint smaller than 30 feet x 30 feet	30′ (*max*)
• Towers with a footprint smaller than 20 feet x 20 feet	40′ (*max*)
In all other locations:	
• Footprint	30 feet x 30 feet (*max*)
• Height encroachment above maximum height	20′ (*max*)

(c) Height Measurement. Height is measure as follows:

(1) *Buildings-Measured in Feet*. For buildings, and where height is measured in feet, height is the distance from the average elevation of the proposed finished grade at the front of the building to the highest point of the roof for flat roofs, to the deck line of mansard roof and the mean height between eaves and ridge for gable hip and gambrel roofs.

(2) *Buildings-Measured in Stories*. For buildings, and where height is measured in stories:

a. A "story" is as defined in the adopted building code. [*Note: the 2012 International Building Code defines a "story" as: "[t]hat portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above…. It is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters."]*

b. Habitable attics (space within the roof structure), basements and underground parking are not considered stories.

c. A single floor level exceeding 14 feet, or 25 feet for ground floor commercial, counts as 2 stories. Mezzanines extending beyond 33% of the floor area count as an additional story.

(3) *Towers and Structures*. For towers or other structures, height is the distance from the finished grade of the parcel to the highest point on the tower or other structure, including the base pad and any antenna.

(d) Height Exceptions. The height regulations prescribed in this Chapter do not apply to television and radio towers, church spires, belfries, monuments, water tanks, chimneys, or smokestacks and flag poles.

24.3.5 Fencing and Screening

(a) Fencing (Generally)

(1) *Materials*. Plywood, sheet metal, and corrugated steel fencing is prohibited.

(2) *Construction*. All fences shall test plumb and square at the time of installation.

(3) *Maintenance*. All fences shall be maintained by the property owner free of accumulations of trash, advertising, and graffiti.

(4) *Chain Link*. Chain link fencing is prohibited in the RL-1, RL-2, RM, and RH districts.

(b) Fence Height

(1) Fences exceeding 4 feet in height shall not be located within the front yard along any collector, arterial or thoroughfare.

(2) Fences located along side and rear lots lines adjoining public streets shall not be located within the visibility triangle on any corner lot, and shall be set back from the curb line at least 8 feet to provide for pedestrian circulation.

(3) Fences exceeding 7 feet in height or masonry walls exceeding 30 inches in height require issuance of a building permit.

(c) Screening Required

(1) *Non-Residential Uses Abutting Residential Property.* The following apply to any non-residential uses along any side or rear property line that abuts any residential property or zoning district, or which abuts a school, civic space, or religious land use:

a. An opaque fence or wall at least nine (9) feet in height is required.

b. A buffer of at least 10 feet in width along the property line is required. The buffer shall be planted with at least 4.4 equivalent planting units (EPUs) at regular intervals for each 100 lineal feet along the property line (see plant list in section 24.3.7 [Landscaping & Tree Preservation], Table 3.7-4 Plant List for EPU planting ratios). *Example: a large tree is 1 EPU and a large shrub is 0.4 EPU. If 2 large trees and 6 large shrubs are planted, this is 4.4 EPU (2 x 1 = 2; 6 x 0.4 = 2.4; 2 + 2.4 = 4.4).*

c. The following activities are prohibited in any yard abutting the districts or uses listed above:

1. Parking of trucks.

2. Exterior lighting on detached structures that are directed toward the property line, or on poles exceeding 12 feet in height.

3. Outdoor storage of:

a. Bulk materials (including solid matter such as powder, grain, stone, or sand) or materials used as components of a manufacturing process,

b. recyclable or reusable scrap and waste materials,

c. dismantled vehicles, machines or equipment, and

d. vehicles, machines or equipment parts.

(2) *Non-Residential Uses Abutting Mixed-Use or Non-Residential Property.* No screening fence is required for non-residential property adjoining vacant land in an MX-1, MX-2, MX-3, C, I-1 or I-2 district.

(3) *Outdoor Operations and Storage.* All outdoor operations and storage shall be screened from adjacent, more restrictive zoning districts with an opaque fence of at least nine (9) feet in height. *(As amended 2/26/90, Ord. #90-0-36 and 2/22/93 Ord. #93-0-229)*

(d) Screening Fences. All screening fences required under this section shall be constructed of brick, stone, masonry, cement, stucco, cinder block or pressure treated weather resistant

lumber, and shall be structurally reinforced to resist wind damage. They shall be constructed in such a manner as to provide visual screening.

24.3.6 Incentives[4]

Purpose: This subsection establishes incentives to encourage higher levels of design to implement the Comprehensive Plan, the purposes of the zoning districts, and to offset increases in development costs and risks associated with implementing designated design elements or fulfilling public policy.

(a) Applicability

(1) This section applies to any application for rezoning, site plan or preliminary plat approval where the application includes the features provided in Table 3.6-2 below and requests the incentives provided in Table 3.6-3 below.

(2) This section awards points that are associated with tradeoffs such as increased density or development potential, parking reductions, and other forms of regulatory relief. Applicants cannot reuse points awarded for one regulatory incentive for another regulatory incentive (*example: an applicant has 20 points and uses 10 incentive points to reduce parking; those 10 points are debited toward the total incentive points available, and the applicant now has another 10 points to use for another regulatory incentive*).

(b) Point Calculation. Points are calculated as part of a rezoning application. If no rezoning or subdivision is requested, points are calculated as part of site plan review. If a subdivision is requested and a rezoning is not requested, points are calculated as part of the preliminary plat application. The planning director shall prepare forms for determining point scores pursuant to this section.

(c) Housing

(1) *Middle Housing*

a. Applicability. For purposes of this section, "middle housing" includes any of the following residential uses that meet the design standards below:

1. Accessory dwelling units

2. Dwelling, Single-Family Detached on lots of less than 40 feet in width

3. Dwelling, Two-Family (Duplex)

4. Dwelling, Multi-Family

5. Live/Work Dwelling

6. Townhouse

7. Zero Lot Line House

b. *Design Standards*. Middle housing shall:

1. For uses other than accessory dwelling units, include no more than the following heights within the following proximity to an existing block developed with single-family detached dwellings:

[4] The section numbering is automatic. I would insert this as 24.3.6 to maintain alphabetical order.

	Height (max)	
Distance	**Stories**	**Feet**
1 block	2-½ stories	35′
2-3 blocks	3	42′
4+ blocks	See zoning district regulations	

2. Include an entryway that faces the street.

3. Comply with the following front yard requirements:

Front Setback *(min setback to front building plane)*	5 feet
Front Setback *(max-principal building only, not applicable to garage)*	20 feet
Frontage Buildout *(min – see Article 10)*	70%

4. Locate garages to the rear of the principal building.

5. Include no more than 25% of the front yard in driveways or parking areas.

(2) *Affordable Housing*. To be eligible for affordable housing points, dwelling units designated as affordable housing shall meet the following affordability requirements, which shall run with the land.

a. For purposes of this section, "affordable housing" means dwelling units reserved for families whose incomes do not exceed 80 per cent (80%) of median income for the Laredo Metropolitan Statistical Area calculated in accordance with 42 U.S.C. § 1437a by the Laredo Housing Authority.

b. A dwelling unit is affordable for purchase or rental if the household is required to spend no more than 30 percent of its gross monthly income on utilities and mortgage or rental payments for the unit as determined by the Laredo Housing Authority, based on the current Annual Median Family Income for the Laredo Metropolitan Statistical Area.

c. Affordable housing must be available for occupancy by a family at the purchase or rental income limits for the household category established above for at least 30 years.

d. The dwelling units designated for affordable housing must be reserved for rent or sale through a deed restriction or an enforceable contract with a public housing authority or community development corporation.

(d) Site Standards

(1) *"A" and "B" Street Types*. "A" and "B" streets govern design regulations. The preliminary plat, site plan or zoning map shall designate street categories as provided below. The City may also designate "A" and "B" streets on the Official Zoning Map. The applicant will design the street type subject to staff approval. These designations are used to determine building setbacks, frontages, and related standards.

a. *"A" Streets.* An "A" Street is a street with frontage that is restricted to building types and uses that promote multimodal transportation and pedestrian activity, and which benefit from pedestrian and/or transit access. Only compact/urban street categories are eligible for designation as "A" Streets (see section 24.4.6(c)). All buildings along an "A" Street shall:

1. Meet the maximum front setback and minimum frontage buildout requirements of the applicable zoning district. If the zoning district does not establish a maximum front setback and minimum frontage buildout, buildings along an "A" Street shall have a maximum front setback of 20 feet and minimum frontage buildout of 75%; and

2. Include at least one public entryway on the ground floor for every 50 feet facing and oriented to the front lot line.

b. *"B" Streets*. A "B" Street permits utilitarian buildings, site design and uses such as front-loaded surface parking, heavy or large format retail and service uses, drive-through uses, and single-story buildings. This accommodates economic activities that support the other uses in the mixed-use district, but are not generally consistent with the compact, mixed-use and pedestrian or transit orientation. A "B" Street designation may be considered an interim designation as part of a phased place type plan.

c. *Split Street Types*. The place type plan or official zoning map may split the frontage on either side of a street as an "A" Street and a "B" Street, if the split frontage adjoins at least two (2) blocks of streets with continuously facing "A" Street frontage.

(2) *Transportation Connectivity*. See Table 3.6-2 and section 25.3.10.

(3) *Amenity Space*. See Table 3.6-2 and section 24.4.2 (Amenity Space) and 24.4.5 (for LID or LI design). Amenity space that qualifies due to its proximity to an existing City park, open space or trail system counts toward required amenity space if the proposed development achieves at least 10 points from another incentive category.

(4) *Street Trees*. See Table 3.6-2 and section 24.4.5. Street trees shall be planted between the back of curb and a sidewalk to qualify for this bonus.

(e) Placement Standards

(1) Transitions. See Table 3.6-2 and section 24.4.2 (Amenity Space) and 24.4.5 (for LID or LI design). Amenity space used in lieu of a landscaped buffer or fence is counted toward and reduces required landscaping and buffer space.

(2) Parking. See Table 3.6-2, subsection (d)(1)(for "A" Streets), and section 24.3.8 (parking and loading).

(f) Massing Standards. See applicable zoning district for maximum front setback. If the zoning district does not establish a maximum front setback and minimum frontage buildout, the maximum front setback is 20 feet.

(g) Activation Standards

(1) *Articulation*. The building includes frontage types defined in section 24.3.4, and with a maximum horizontal distance between a vertical plane break as provided below. For buildings that exceed 150 feet in width along the frontage, the figures below are averages. The vertical plane break shall extend at least 12 inches from or into the facade.

a. RM: 100 feet.

b. RH: 75 feet.

c. MX-1: 75 feet.

d. MX-2: 60 feet.

e. MX-3: 50 feet.

(2) *Pedestrian Access*. See Table 3.6-2.

(h) Uses. See section 24.2.16 (Use Table) and Article 10 for definitions of uses. The references to uses for mixed use combinations or active uses in Table 3.6-2 include the following:

Table 3.6-1 Use Categories

Uses *(from section 24.2.16 (Use Table))*	**Mixed Use Combinations in Table 3.6-2** ■ = *combination includes uses from that category in section 24.2.16 (Use Table)*				**Active Uses**
	Residential + Commercial	**Residential + Office**	**Office + Commercial \ Retail**	**Residential + Commercial, Office or Retail**	
Residences = Dwelling, Multi-Family, Live/Work Dwelling, Townhouse	■	■		■	
Commercial = Financial Institution, Bar, Food Market, Food Preparation, Food Service, Restaurant, Sidewalk Café, Snack or Beverage Bar, Business Support Services, General Personal Services, Maintenance and Repair Services	■			■	
Commercial = Bar, Food Market, Food Service, Restaurant, Sidewalk Café, Snack or Beverage Bar, General Personal Services			■	■	■
Office = Office, Business & Professional		■	■	■	
Retail = Convenience Store, General Retail	■		■	■	■

(i) Energy Efficiency. See Table 3.6-2. For LEED Gold, the applicant shall provide proof of registration accepted by USGBC and completed LEED checklist for with the building permit application. Construction drawings and LEED templates required for building permit. For Passive House Standard, project must be certified by the Passive House Institute (PHI) or PHI U.S.

Table 3.6-2 Incentive Points

	Condition	AG	RL	RM	RH	MX-1	MX-2	MX-3	C	I-1, I-2
	Density/Intensity									
Middle Housing	Include at least two middle housing types (see subsection (c)).	1	1	2	2	2	2	2		
Affordable Housing	The development includes housing pursuant to subsection (points per unit reserved as affordable housing)	2	2	2	2	2	2	2		
	Site Standards									
"A" Street Frontage	Every 200 linear feet of "A" Streets				2	2	2	2	2	2
Transportation Connectivity	Every 0.1 increase in the connectivity ratio (section 25.3.10(d))	2	2	2	2	2	2	2	1	1
Amenity Space	Every 10,000 sf of amenity space	2	2	2	1	1	1	1	1	1
Amenity Space	Every 5,000 square feet of qualifying amenity space protected by a conservation easement	2	2	2	2	1	1	1	1	1
Amenity Space	Every 1,000 sf of (g) Low-Impact Development (LID) or Light Imprint (LI) design (LID/ NCDP per section 24.4.5(g))	2	2	2	2	2	2	2	2	2
Amenity Space	Every 10 dwelling units within two (2) blocks or 1,400 linear feet of an existing City park, open space or trail system	1	2	2	2	2	2	2		
Amenity Space	Every 20 dwelling units within four (4) blocks or 2,500 linear feet of an existing City park, open space or trail system	1	2	2	2	2	2	2		
Amenity Space	Amenity space includes outdoor tables and chairs, landscaping with trees, pedestrian scaled lighting (minimum 3 footcandles), or outdoor public art (every 500 sf for any of these elements)				1	2	2	2	2	2
Street Trees	Every 8 large trees and 12 medium trees (see section 24.4.5)	2	2	2	2	2	2	2	2	2
	Placement Standards									
Transitions	Every 100 sf of amenity space used in lieu of a landscaped buffer or fence	1	1	1	2	2	2	2	2	2
Parking	Every 10 parking spaces located to the rear of the principal building along "A" Streets			2	2	2	2	2	2	1
	Massing Standards									
Frontage buildout	Every 50 linear feet of frontage between the street line and maximum front setback			1	2	2	2	2	2	1
	Activation Standards									
Articulation	Every 75 linear feet of building frontage that complies with the articulation standards			1	1	2	2	2	2	1
Pedestrian Access	Every public building entrance within the maximum front setback at ground level that opens to a sidewalk or civic space				1	1	1	1	1	1
	Uses									
Mixed Use	Building includes 2 uses (see subsection (h))					1	2	2	1	1
Mixed Use	Building includes 3 uses (see subsection (h))					2	3	3	2	1
Mixed Use	Each building that includes residential above first floor retail					1	2	2		
Active Uses	Street level retail uses (buildings that meet maximum front setback only)					1	2	2	1	
Healthy foods	Each food market (e.g., grocery store), if there is no other food market located within 2,500 linear feet of the site					2	2	2	2	1
Healthy foods	Each 5,000 sf of community garden space	2	2	2	2	2	1	1	1	
	Energy Efficiency									
Energy Efficiency	Achievement of LEED Gold or the Passive House Standard.	2	2	2	2	2	2	2	2	2
Energy Efficiency	Achievement of LEED Silver	1	1	1	1	1	1	1	1	1

Table 3.6-3 Regulatory Incentives

	Condition	AG	RL	RM	RH	MX-1	MX-2	MX-3	C	I-1, I-2
	District Standards									
Lot Area	1,000 sf reduction in minimum lot area	10	10							
Density	Increase in density by 5 dwelling units per acre				10	10	5			
Front Setback	2' increase in maximum setback			5	5	5	5	10		
Coverage	5% increase in maximum coverage	10	10		10	5	5		10	10
Frontage Buildout	5% reduction in frontage buildout				10	10	10	10		
Lot Width	5' decrease in lot width	10	10	5	5	5	5	5	10	10
Height	One (1) story or 12 feet in building height (*up to the following total stories: RM-3 stories, RH/MX-1 - 6 stories, MX-2 - 8 stories; stories exceeding 14' from floor to ceiling are counted as 2 stories*)			10	10	10	5			
	Stie and Placement Standards									
Access Point	1 additional access point				20	20	20	20	20	20
Landscaping	Reduction of 2 trees in surface parking lots	5	5	5	5	2	2	2	10	10
Parking	5% increase in surface parking lot coverage			10	10	10	20	20	20	20
Parking	Reduction in 10 required parking spaces	5	5	5	5	5	5		5	5
Blocks	50' increase in maximum block perimeter	10	10	20	20	20	20	20	20	10
Transportation Connectivity	0.1 decrease in connectivity ratio	20	20	20						
Amenity Space	500 sf reduction in required amenity space	10	10	10	5	5	5	5	20	

24.3.7 Landscaping & Tree Preservation

(a) Applicability

(1) *Development that Requires Landscaping.* This section applies to:

a. new subdivisions (subsection 24.3.7(b) only), and

b. building permits for the construction or expansion of non-residential structures of at least 1,000 square feet or 25% of an existing structure, whichever is more.

(2) *Exemptions.* This section does not apply to:

a. the reconstruction, modification or addition to property used for single family residential purposes, and

b. subdivisions approved before October 19, 1998 where the street tree or money-in-lieu of requirement is met,

c. construction or expansions of structures that do not meet the thresholds in subsection (1) above.

(b) New Subdivisions

(1) *Street Trees Required.* The owner or subdivider of property in new subdivisions shall plant, or require the planting of the total number of street trees (T) required under the following calculations, whichever is greatest:

Table 3.7-1 Street Trees for New Subdivisions

Formula	Applies to -	
T = (L x 2)/30	Street dedication plat and/or where the property to be platted lies adjacent to both sides of a public street.	L = the length of the public street measured in linear feet at the centerline of the street
T = L/30	The plat lies adjacent to only one side of a public street.	
T = Y x 2	The property is proposed to be platted into single-family residential lots. Y = the number of single family residential lots included in the proposed plat.	

(2) *Plat Notes.* Where the subdivider proposes to plant trees required by this subsection in conjunction with construction or development of the property, this requirement shall be noted on the plat. The note does not relieve the subdivider of the responsibility to plant trees along any collector or arterial where a new single-family residential subdivision abuts a collector or arterial street along the rear property line of any single-family residential lot.

(3) *Planting Locations.* Trees required under this section shall be planted within the public rights-of-way, within landscaped area restricted for street trees, on private property within the 10 feet parallel and adjacent to a local street right-of-way, or on private non-residential property within 25 feet parallel and adjacent to a major thoroughfare.

(4) *Median Planting*

a. Trees or shrubs planted within a median shall comply with the following:

Table 3.7-2 Median Planting Locations

Street Category	Location
Major arterial	> 75′ from the nose of the median
Minor arterial	> 50′ from the nose of the median
Any median	> 50′ from any mid-block opening in the median
	> 5' from the back of the final approved design line for the curb

b. Trees in medians shall be spaced at intervals of at least 30 feet and no more than an average of 60 feet.

(5) *Visibility Maintained*

a. Within the visibility triangle no shrub, tree, plant or structure shall exceed a height greater than 24 inches measured from the centerline of the adjacent roadway.

b. Trees shall be kept trimmed so that all branches or growth are at least 10 feet above the adjacent roadway measured from the centerline of that roadway.

(c) Street Tree Planting in Existing Subdivisions

(1) Required planting on existing platted lots is as follows:

Table 3.7-3 Planting on Existing Platted Lots

Use of Lot	Number of Trees	Location
Single-family residential	2	Public right-of-way, within a landscape or other reserve restricted for the purpose, or on private property 10' parallel and adjacent to a local street right-of-way.
Non-residential or multi-family residential	1 per 30' of public street right-of-way	10' parallel and adjacent to a local street right-of-way, or within 25' parallel and adjacent to a major thoroughfare

(2) Trees shall be planted within the public rights-of-way, within landscape or other reserves restricted for the purpose, or on private property within locations specified above.

(d) Surface Parking Lots

(1) *Number of Trees Required*

a. New surface parking lots with more than 15 parking spaces require 1 eligible tree for every 10 parking spaces or fraction thereof. The trees shall be located within and/or on the perimeter of the parking lot.

b. Existing parking lots that are expanded to comply with 24.3.8 (Parking and Loading) and that contain more 15 parking spaces after the expansion shall provide 1 eligible tree for each 10 additional spaces or fraction thereof. The trees shall be located within and/or on the perimeter of the parking lot.

c. A permeable area with a radius of at least 3 feet measured from the trunk of each eligible tree shall be maintained, and each eligible tree shall be protected from automobiles by curbs or tire stops located at least 3 feet from the tree trunk.

(2) *Perimeter Landscaping*

a. Parking surface areas adjacent to the public street right-of-way shall have shrubs planted at regular intervals along the perimeter of all parking surfaces adjacent to the right-of-way, exclusive of driveway entrances, pedestrian walkways and cutback areas.

b. The shrubs shall be maintained at a height of at least 18 and no more than 36 inches. The minimum number of shrubs provided the total number of required street trees multiplied by four. Seventy-five percent (75%) or more of the required shrubs shall be planted along the perimeter of the parking surface.

(e) Tree Preservation Credit

(1) Applicants are awarded a credit toward the tree requirement at the rate of two (2) street trees for each existing healthy tree actually preserved.

(2) The owner or subdivider shall provide reasonable measures to ensure the continued survival of existing trees for which credit is claimed.

(3) Any eligible tree for which credit is claimed shall have a minimum caliper of 6 inches.

(4) The owner or subdivider of the property may request credit for the planting of up to 50% of the trees required under this code.

(5) If the preserved tree dies, the tree must be replaced with a minimum 3-inch caliper tree.

(f) Removal, Replanting, and Replacement of Protected Trees

(1) *Protected Trees.* All trees on public land within the city limits of Laredo with a caliper of 8 inches are considered protected trees.

(2) *Removal of Protected Trees.* No person or corporation shall remove or cause the removal of any protected tree without first securing approval from the Tree Board as provided in subsection (3) below.

(3) *Tree Board Approval*

a. When site plan approval is required by Building Services Department for any improvements on public land, the actual or schematic location of existing protected trees shall be shown on those site plans for review by the Tree Board. The Tree Board shall submit their order regarding the proposed plan within 14 days of the date the plans were received by the Board.

b. The Tree Board shall review site plans for all improvement projects from any city, state, and federal government agency. The Tree Board's approval of these

public projects constitute approval for the removal of any protected tree indicated on the project plans.

(4) *Standards for Removal of Protected Trees.*

a. The Tree Board shall approve removal of a protected tree located on public property if:

1. The tree is diseased, severely damaged, dead on the site, or constitutes a hazard.

2. The tree's location prevents reasonable access to the property or precludes reasonable and lawful use of the property.

b. The Tree Board may approve the removal of a protected tree in connection with construction, maintenance, or repair of public facilities in or upon a public street, alley, right-of-way, greenbelt , or other public land under one or more of the following conditions:

1. The location of the tree prevents the opening of reasonable and necessary vehicular traffic lanes.

2. The location of the tree prevents the construction of utility lines or drainage facilities which may not be feasibly rerouted.

(5) *Replacement Trees*

a. The Tree Board may require replacement trees where deemed necessary to mitigate the loss of protected trees. This subsection does not apply to trees that have grown into overhead electric utility wires.

b. Where replacement trees are required:

1. The minimum diameter of replacement trees shall be at least 3 caliper inches, unless otherwise approved by the Tree Board.

2. When it is found impractical to relocate or replace the removed trees on the same property, replacement may be made upon any public owned property, property of non-profit organizations, public parks, or right-of-ways, subject to the approval of the Tree Board.

3. Tree species used for replacement shall conform to subsection (j) and Table 3.7-4 of this Section.

(6) Any person aggrieved by the decision of the Tree Board may appeal the decision to the City Council by filing a written appeal, specifying the reasons thereof, within 30 days of the time the order is issued.

(g) Special Requirements

(1) Any tree on privately owned property that is found to be a nuisance shall receive a notice to abate such nuisance as described in Chapter 21 of the Code of Ordinances, City of Laredo.

(2) All utility franchise holders shall present scheduled tree pruning plans to the Tree Board prior to the start of pruning work.

(3) Unless specifically authorized by the Tree Board, no person shall:

a. remove, intentionally damage, or mutilate protected trees;

b. allow any gaseous liquid or solid substances which are harmful to protected trees to come in contact with protected trees; or

c. set fire or permit any fire to burn that will injure any portion of any protected tree.

(4) All applicants for permits to work on public trees must comply with State and Local liability insurance requirements, workmen's compensation and safety codes.

(h) Alternate Planting Proposals

Purpose: It is the intent of the City to provide an opportunity for the development of exceptional or unique landscape designs which cannot meet the express terms of this Section. Special consideration is given to exceptional landscape designs that preserve and incorporate existing vegetation in excess of the minimum requirement and/or in innovative ways.

(1) Applicants for approval of an alternate tree/shrub plan may demonstrate that the intent of this article is more effectively met in whole or in part through an alternate tree/shrub plan.

(2) An alternate landscape plan shall be reviewed by the Tree Board and, if approved, substituted in whole or in part for a landscape plan meeting the express terms of this section.

(i) Money-In-Lieu of Trees. Up to fifty percent (50%) of the total planting requirements may be met by depositing, with the Parks and Recreation Department, a sum of money equal to the cost of the required trees and their planting. This money shall be placed in a special fund designated for the purposes of planting of eligible trees in city parks or public rights-of-way. The cost per tree shall be determined by the Tree Board on an annual basis. The remaining fifty percent (50%) of the trees shall be planted as required by this ordinance.

(j) Selection and Plant List

(1) All trees and shrubs planted in accordance with this Article shall be a native or naturalized species as recommended in the Plant List (Table 3.7-4) below, and shall be planted and maintained in accordance with the standards established in subsection (k) below.

(2) The Plant List not all-inclusive and may be updated as needed by the Tree Board without formal amendment to this section.

(3) Some provisions of this chapter (for example, section 24.3.5 [Fencing and Screening]) refer to equivalent planting units (EPUs). EPUs are calculated based on the ratios assigned in the Plant List (Table 3.7-4) below.

(4) *Overhead Electric Utilities*. Only short trees or dwarf trees (see Table 3.7-4 Plant List) are permitted within overhead electric utility easements. Large trees are not permitted in these locations. Electric utility providers may trim trees in these locations to the extent needed to provide clearance from overhead utility wires.

(k) General Planting and Maintenance Standards

(1) *Planting*

a. All trees shall be planted in holes two (2) to five (5) times wider than the rootball diameter. The depth of the hole shall not exceed that necessary to set the plant at

the same depth it was in the nursery. All shrubs shall be planted in holes at least 6 inches wider on each side than their root spread, whether container grown or balled and burlapped. This enables the plant to extend the small roots in the first few weeks in the ground.

b. Place the tree or shrub in the hole. If the tree is container grown, pull the container away from the rootball. Do not pull the tree by its trunk. Pulling the tree out of the container by its trunk will damage the small roots within the ball. Place the tree or shrub in the center of the hole and adjust it so that it is straight and at the proper level.

c. For balled and burlapped plants, pull the top and sides of the burlap away from the ball after the hole has been partially backfilled but before watering. Do not attempt to pull the burlap out from under the ball under any condition. All wire and surplus binding from the top and sides of the ball should be removed.

d. Backfill with the original soil and firm the soil until approximately two-thirds (2/3) full. Before completing, fill the hole with water and allow the soil to settle around the roots. After the water has been absorbed, add topsoil to bring up to grade and form a watering basin around the tree.

e. An earth basin, approximately 4 inches in height, shall be formed around the tree or shrub pit to help retain water and protect the trunk from mower damage. Individual plant pits shall be completely encircled by the basin, except on steep slopes where the basin is formed on the downhill side to serve as a dam.

f. Trees taller than 4 feet may need to be staked. Rubber hose shall be used to protect the tree from the staking wire.

g. The trees and shrubs must be watered immediately after planting and as needed during the first 2 growing seasons. A thorough soaking is preferred over light, frequent soakings.

h. The entire area formed within the earth basin shall be filled with 3 to 4 inches of mulch to help conserve moisture and reduce competition from weeds.

i. All trees and shrubs shall be planted in individual holes with the exception of hedges. Hedges may be planted in a continuous trench as long as adequate room is allowed for root development.

(2) *Staking, Guying and Wrapping*

a. Support all evergreen and deciduous trees over 4 feet tall by an acceptable method to keep the tree trunk in an upright position immediately after planting. Bracing prevents the tree from being damaged by strong winds which loosens the soil around the base of the tree and injures the rooting system.

b. Trees shall be staked or guyed for a minimum of one growing season. All bracing and tree supports should be eliminated as soon as the tree becomes self-supporting.

c. If the tree has sparse foliage and is exposed to full sun, the trunk shall be wrapped with an appropriate material to prevent sun scalding. Special tree wrap

paper is available; however, strips of burlap and aluminum foil will also protect the tree.

(3) *Irrigation Requirements*

a. The installation of a supplemental irrigation system is required to give the trees and shrubs an adequate amount of water without waste. All required landscaping shall be irrigated by either an underground sprinkling system, drip irrigation system or a hose attachment within 100 feet of the landscaped area.

b. The irrigation systems shall be designed and calibrated to thoroughly soak the root area of the plant area with the frequency necessary to establish newly planted trees and shrubs and to sustain their healthy growth.

c. The system used shall be designed to minimize the amount of spray that will fall on sidewalks, neighboring properties and adjacent buildings in order to achieve water conservation.

d. The property owner shall be responsible for irrigation as well as regular maintenance of the trees and shrubs.

Table 3.7-4 Plant List

Common name	Scientific name	Characteristics
Recommended Trees		
Short Trees (6 to 25 feet tall) (0.5 EPU)		
Huisache+	Acacia smallii	Deciduous; Delicate leaves
Jerusalem Thorn+	Parkinsonia aculeata	Deciduous; yellow flowers; Fast growing and hardy
Mexican Buckeye+	Ingnadia speciosa	Deciduous; Rose colored flowers; Fall leaf color
Wright's Acadia+	Acacia wrightii	Deciduous; Rounded crown; Flowers in spring
Small Trees (20 to 35 feet tall) (0.7 EPU)		
Desert Willow*	Chilopsis linearis	Flowers in summer
Eldarica Pine+	Pinus eldarica	Best for alkaline soils; Christmas tree shaped
Honey Mesquite*	Prosopis glandulosa	Lacy spreading form
Mexican Plum*	Prunus mexicana	Spring flowers
Texas Ebony*	Pithecellobium flexicaule	Airy foliage and flowers
Wild Olive*	Corida boissieri	White flowers and bold foliage
Large Trees (above 35 feet tall) (1 EPU) (not allowed within overhead electric utility easements)		
Bald Cypress*	Taxodium distichum	Deciduous conifer; Fall color
Chinquapin Oak*	Quercus muhlenbergi	Round-topped tree; Bold foliage
Honey Locust	Gleditsia triacanthos	Thornless varieties available
Live Oak*	Quercus virginiana	Evergreen shade tree
Shumard Oak*	Quercus shumardii	Fall color
Texas Red Oak*	Quercus texana	Fall color
RECOMMENDED SHRUBS		
Dwarf Shrubs (1 to 3 feet tall) (0.05 EPU)		
Autumn Sage+	Salvia greggii	Evergreen; Full to part sun; Flowers
Dwarf Pittosporum	Pittosporum tobira w.	Small, round evergreen
Mealy Blue Sage+	Salvia farinacea	Evergreen; Blue flowers
Mountain Sage+	Salvia farinacea	Evergreen; Sun; Flowers spring thru fall seasons
Rosemary	Rosmarinus offcinalis	Fragrant blue-green foliage; Blue flowers; Herb
Small Shrubs (3 to 5 feet tall) (0.1 EPU)		
China Rose	Rosa chinensis	Hardy; Long-blooming; Pest resistant
Dwarf Palmetto*	Sabal minor	Trunkless, bushy palm
Sotol+	Dasylirion texanum	Evergreen; Flowers; Cactus-like narrow leaves
Tea Rose	Rosa odorata	Pest resistant; Flowers; Hardy
Medium Shrubs (6 to 9 feet tall) (0.25 EPU)		
Agarita*	Mahonia trifoliata	Yellow spring flowers; Red edible berries; Evergreen
Catclaw Acacia+	Acacia greggii	Deciduous; Delicate leaves
Central Texas Sage*+	Leucophyllum sp.	Evergreen foliage; Summer flowers

Common name	Scientific name	Characteristics
Green Pittosporum	Pittosporum tobira	Large evergreen shrub
Italian Jasmine	Jasmine humile	Sprawling evergreen; summer flowers
Pomegranate	punica granatum	Orange flowers; Edible fruit
Roemer Acacia+	Acacia roemeriana	Deciduous; Delicate leaves
Variegated Pittospurum	Pittosporum tobira variegata	Green/white variegated evergreen
Large Shrubs (10 to 25 feet tall) (0.4 EPU)		
California Fan Palm	Washingtonia filifera	Tree-like palm; slow growth
Cherry Laurel*	Prunus caroliana	Tree-like evergreen
Oleander	Nerium oleander	Summer flowers; Evergreen
Possumhaw*	Ilex decidua	Deciduous holly; Red berries
Texas Mountain Laurel*	Sophora secundiflora	Tree-like evergreen; Spring flowers
Texas Palmetto*	Sabal texana	Tall palm
Texas Persimmon*	Diospyros texana	Tree-like; Fruit edible by animals
White-Thorn Acacia+	Acacia constricta	Deciduous; Delicate leaves; Filtered shade
Windmill Palm	Tachycarpus fortunei	Tree-like

24.3.8 Lighting

Purpose: this section protects public health and general welfare by:

- *improving sleep by reducing light and acoustical pollution,*
- *establishes Dark Sky principles,*
- *locates residential areas at a safe distance from major sound and light polluters or limits hours and levels of illumination to allow for a period of darker skies between midnight and sunrise, and*
- *discourage commercial uses that have intrusive levels of lighting from locating adjacent to residential land uses.*

(a) Applicability

(1) *Outdoor Lighting*. This section applies to outdoor lighting. For purposes of this section, "outdoor lighting" means temporary or permanent lighting that is installed, located or used to cause light rays to shine outdoors, and

a. Nonresidential fixtures that are installed indoors that cause light to shine outside, and

b. Residential fixtures installed indoors generating more than 6,200 lumens (approximately equal to a 300 watt incandescent bulb) that cause light to shine outside.

(2) *Construction*. This section applies to outdoor lighting installed on or affixed to any construction project for which a building permit is required.

(3) *Exemption* . This section does not apply to:

a. Lighting equipment required by law to be installed on motor vehicles; or

b. Lighting required for the safe take-off and landing of aircrafts.

c. Outdoor light fixtures with a maximum output of 180 lumens per fixture, regardless of the number of bulbs, may be left unshielded if the fixture has a diffuser installed, and the source of the light is not visible from any other property. The output from these fixtures shall not exceed ten percent of the total outdoor light output allowed.

d. Outdoor light fixtures with a maximum output of 360 lumens per fixture, regardless of the number of bulbs, which are shielded with a medium to dark tone lens if that lens reduces the lumen output approximately in half, and the source of the light is not visible from any other property. The output from these fixtures shall not exceed ten percent of the total outdoor light output allowed.

e. Outdoor lighting for which light is produced directly by the combustion of fossil fuels.

f. Lighting required by law to be installed on motor vehicles.

g. Lighting needed during activities of law enforcement, fire and other emergency services.

h. Lighting employed during emergency repairs of roads and utilities may be unshielded provided the lights are positioned so they do not shine in the eyes of passing drivers.

i. Lighting required for the safe operation of aircraft.

j. Temporary lighting required to save life or property from imminent peril if the lights are positioned so they do not shine in the eyes of passing drivers.

k. Festoon type low-output lamps limited to small individual bulbs on a string. The bulbs must have a rating of no more than 3,000 Kelvin and may not be visible from any residential property within 50 feet of the installed lights. Festoon type low-output lamps are not required to be shielded.

l. Low-intensity mini-lights or rope-type lights in amber, gold, yellow, cream, red, orange, or warm white wrapped on a tree, post, or similar object if the layers are at least six inches apart. Low-intensity mini-lights or rope lights as described in this subsection are not required to be shielded.

m. Temporary lighting for theatrical, television, performance areas, events, or construction areas if the lights are positioned so they do not shine in the eyes of passing drivers and the source of the illumination is shielded from any other property. This temporary lighting must not allow any light to be projected or reflect above the structures or trees on the property.

n. Lighting required by federal or state laws or regulations.

(b) Generally. All outdoor lighting shall comply with this section, applicable electrical codes, energy codes, and building codes.

(c) Prohibitions

(1) *Uplighting*. Outdoor uplighting is prohibited, unless the fixture is shielded by a roof overhang or similar structural shield and a licensed architect or engineer has stamped a prepared lighting plan that ensures that the light fixtures(s) will not cause light to extend beyond the structural shield, and except as specifically permitted in this section.

(2) The installation of any mercury vapor fixture or lamp for use as outdoor lighting is prohibited.

(3) Luminaries rated at more than 3,000 Kelvin (K) are prohibited with the exception of luminaries installed prior to the enactment of this section rated no more than 4,000K, which are shielded on every side so that the source of light is not visible from any other property and the combination of all such fixtures within any ten-foot by ten-foot area does not produce more than 4,100 lumens for a pole mounted fixture or 2,050 lumens for a wall mounted fixture. Luminaries with higher Kelvin ratings are permitted if the Scotopic-to-Photopic (S/P) ratio is no greater than 1.2 as shown in Figure 3.8-1.

Figure 3.8-1 Scotopic-to-Photopic (S/P) ratio

(4) The installation of any barn-light style fixture for use as outdoor lighting is prohibited unless the fixture includes a full opaque reflector instead of the standard translucent lens. An example of barn-light style with and without the required opaque reflector is shown in Figure 3.8-2.

Figure 3.8-2 Acceptable Shielding of Barn-Style Light Fixtures

(5) The operation of searchlights is prohibited, except for public safety operations conducted by a government agency.

(d) B-U-G Rated Fixtures. Light fixtures rated by the B-U-G classification system:

(1) Shall be rated and installed with the maximum backlight component limited to the values in Table 3.8-1 based on location of the light fixture where the property line is considered to be five feet beyond the actual property line;

(2) Shall be rated and installed with the uplight components of zero (U0), except for uplighting covered in this section;

(3) Shall be rated and installed with the glare component no more than G0 unless four sided external shielding is provided so that the luminous elements of the fixture are not visible from any other property; and

(4) Shall be shielded in accordance with this section.

Table 3.8-1 B-U-G Fixture Rating

Mounting Height	Rating
Fixture is greater than 2 mounting heights from property line	B3
Fixture is 1 to less than 2 mounting heights from property line	B2
Fixture is -.5 to 1 mounting heights from property line	B1
Fixture is less than 0.5 mounting height to property line	BO

(e) Shielding and Total Outdoor Light Output

(1) *Generally.* All outdoor lighting, except streetlights or lights exempted from this section, shall be shielded so that the luminous elements of the fixture are not visible from any other property. Mounting height or proximity to property lines may cause the luminous elements of a light fixture to require additional shielding (see Figure 3.8-3 and Figure 3.8-4).

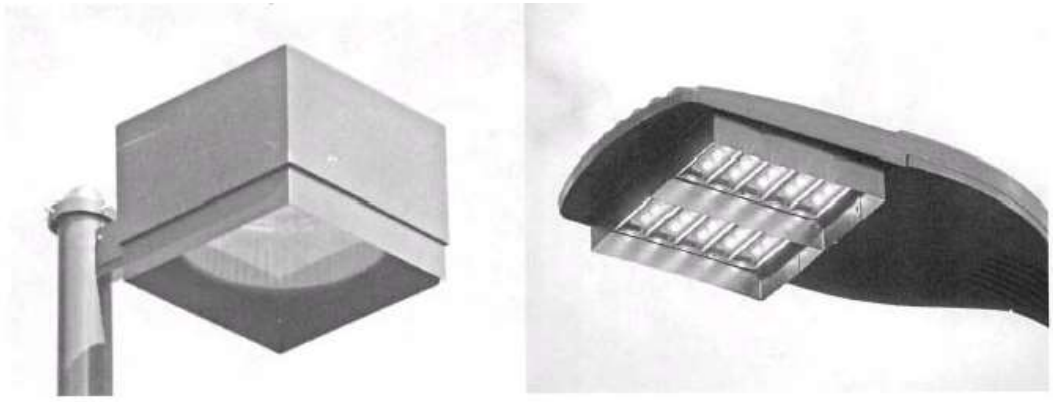


Figure 3.8-3 Downward Facing Fixtures

Figure 3.8-4 Unacceptable Fixtures and Fixtures Requiring Shielding

Figure 3.8-4: The lights on the left are nonconforming. Those on the right can be used in most cases. However, the mounting height and proximity to the property line may cause them to need additional shielding to prevent the luminous elements from being visible from any other property.

(2) *Light Direction.* Outdoor lighting fixtures shall direct light so that it does not escape above a horizontal plane running through the lowest point of the luminous elements. (See Figure 3.8-5 and Figure 3.8-6).

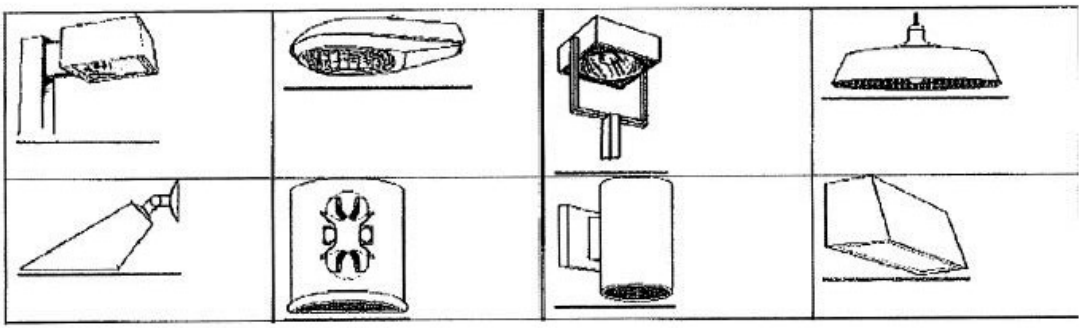


Figure 3.8-5 Lighting Direction – Suggested Elements

Figure 3.8-5: This figure shows examples of fixtures that may conform to the provision to not allow light to escape above a horizontal plane running through the lowest point of the luminous elements if they are closed on top and mounted such that the bottom opening is horizontal. Note that the mounting height and proximity to the property line, or internal optics may cause them to need additional shielding to prevent the luminous elements from being visible from any other property.

A practical way to determine if a light fixture will conform to the provision to not allow light to escape above a horizontal plane running through the lowest point of the luminous elements: the lamp or tube, any reflective surface or lens cover (clear or prismatic) must not be visible when viewed from above or the side.

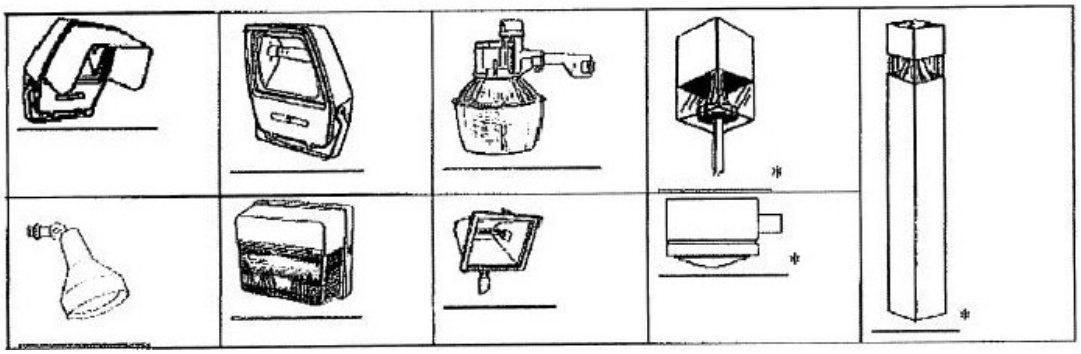


Figure 3.8-6 Lighting Direction – Prohibited Elements

Figure 3.8-6: This figure illustrates examples of fixtures that do not conform to the provision to not allow light to escape above a horizontal plane running through the lowest point of the luminous elements.

**Note: Even though the lamps in these fixtures are shielded from direct view when viewed from the side or above, reflective surfaces within the fixtures and/or lens covers are directly visible from the side.*

(3) *Lumen Cap*. Total outdoor light output (excluding streetlights used for illumination of public rights-of-way and outdoor recreation facilities) shall not exceed the following lumens per acre in any contiguous illuminated area:

a. Mixed-Use and Non-Residential Zoning Districts: 100,000 lumens per acre.

b. AG and Residential Zoning Districts: 25,000 lumens per acre.

(4) *Full Cutoff Fixtures*. Some provisions of this section require full cutoff fixtures. The qualifications for full cutoff fixtures are provided in (see Figure 3.8-7 below.

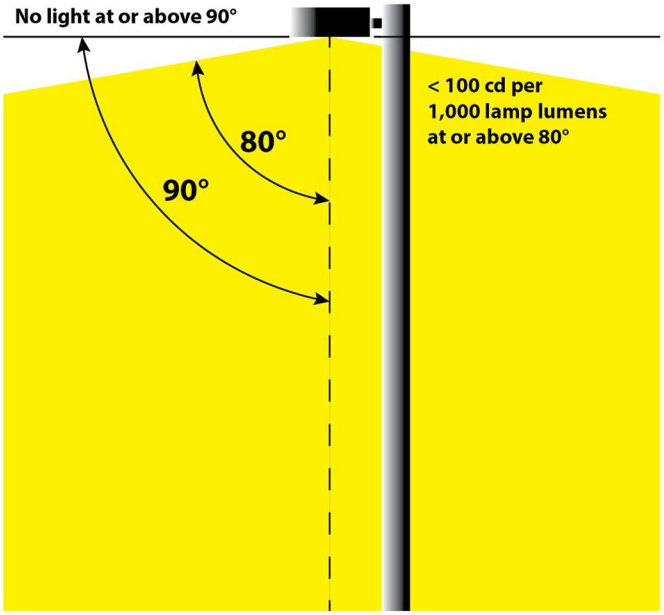


Figure 3.8-7 Full Cutoff Fixtures

Figure 3.8-7: Full cutoff fixtures do not allow any light to be emitted above the fixture. The fixture limits the light output in the first ten degrees below the horizontal, to less than 10% of the total light output.

(f) Lighting Curfews.

(1) Nonresidential outdoor lighting intended to be left on more than 30 minutes after closing, or the completion of activities, must be reduced to 25% or less of the total outdoor light output allowed. Any method that results in a total outdoor light output of no more than 25% of the total outdoor light output is allowed.

(2) Street lighting, other than at the intersection of roadways, shall utilize half night photocells or timers to turn off the lights halfway between dusk and dawn. Passive reflective roadway markings are required.

(g) Streetlights. Streetlights, if not rated by the B-U-G classification system, shall meet the qualifications for full cutoff fixtures (see Figure 3.8-7). Mounting height or topography may cause the luminous elements of a streetlight to require additional shielding to reduce glare.

(h) Outdoor Recreation Facilities

(1) *Lumen Cap Exemption*

a. Outdoor recreational facilities are not subject to the lumens per net acre limit.

b. Outdoor lighting for sports facilities shall be designed to create minimum off-site spill, glare, and sky glow while honoring the guidelines for class IV play, as defined by the Illuminating Engineering Society of North America (IESNA) publication IES RP-06 or guidelines of a recognized sports organization such as the Texas University Interscholastic League (UIL), Little League, or the United States Soccer League. To be considered a recognized sports organization, the Planning Director must approve the organization's guidelines.

c. Class IV levels of illumination, as defined by IESNA, are required during practices if the competition lighting is established at a higher illumination level than class IV.

(2) *Shielding*. Fixtures used for nonaerial sports, such as track and field, shall be fully shielded. Fixtures used for aerial sports, such as baseball and softball shall be shielded to the full extent possible while also allowing the minimum of vertical illuminance needed by the players to track the ball as stated in writing by a sports lighting engineer recognized by peers as being an expert in that field. The sports lighting vendor must meet the guidelines for the specific sport and have the lowest available off-site spill, glare, and sky glow values.

(3) *Certification* . Lighting systems for outdoor recreational facilities shall be designed and certified by an engineer registered in the state as conforming to all applicable restrictions of this code before construction commences. Further, after installation is complete, an engineer registered in the state shall certify that the lighting system installation is consistent with the certified design.

(4) *Curfew* . No sports facility shall be illuminated between 10:30 p.m. and sunrise, except to conclude a scheduled recreational or sporting event in progress that began prior to 9:30 p.m.

24.3.9 Parking and Loading

Purpose: This section provides the standard specifications required for the design and layout of off-street parking facilities in the City of Laredo. These specifications provide for the minimum adequate level of internal vehicular movement and maneuvering, ingress and egress, and patron security and convenience.

(a) Applicability

(1) *Generally*. This section applies to all private surface or structured parking facilities in the City, except as provided below.

(2) *Exemptions*. The following are exempt from this section:

a. Facilities owned or operated by the City of Laredo.

b. Any use or development in the MX-3 district. However, any off-street parking constructed shall comply with this Section.

(3) *Change or Enlargement of Use (Commercial Parking Lots)*

a. This subsection applies if a building or structure Commercial / Mixed-Use (excluding a mixed-use building) or Lodging / Short-Term Rental (excluding short-term rentals) categories in the Use Chart:

1. is constructed, or

2. changes its use to another use in the categories listed above, or

3. expands its use by an increase in floor area, number of employees, number of dwelling units, seating capacity, or

4. otherwise creates a need for an increase in the number of existing parking spaces.

b. Any use subject to this subsection shall provide additional parking spaces as needed to accommodate the new use, expansion, or additional parking demand.

(4) *Construction and Layout*. See the *Layout and Design Standards for Parking Lots* (City of Laredo Engineering Department, June 1990) ("Parking Layout and Design Standards") and Ordinance No. 90-0-107 (adopted July 16, 1990), which documents are incorporated by this reference and made a part of this Chapter.

(5) *Downtown (MX-3)*. Although encouraged to consider off-street parking for their customers and residents in their planning, off-street parking is not required within the MX-3 District. However, any off-street parking that is provided shall be constructed in accordance with this section.

(6) *H (Historic) Districts.* The Building Official upon written application and good cause shown may waive up to fifty (50%) percent of the off-street parking requirements for properties in a historic district or a locally significant historic landmark.

(b) General Requirements

(1) *Parking Spaces for Persons with Disabilities*. Parking for persons with disabilities shall comply with the applicable requirements of the 2010 ADA Standards for Accessible Design (United States Department of Justice, September 15, 2010), as amended and the Texas Accessibility Standards (TAS) adopted pursuant to Texas Government Code, Chapter 469 (*note: see TAS Online at* https://www.tdlr.texas.gov/ab/abtas.htm).

This applies to both new construction and the alteration of existing parking facilities as provided in 28 CFR Part 36, Subpart D (§§ 36.401 – 36.406), as amended.

(2) *Drainage*. All parking and loading areas shall provide for proper drainage of surface water to prevent ponding and the drainage of such water onto adjacent properties or walkways.

(3) *Maintenance*. The owner of property used for parking and/or loading shall maintain the area in good condition without holes and free of all dust, trash, and other debris.

(4) *Lighting*. Commercial parking lots used during non-daylight hours shall be illuminated so that the parking space and aisle markings are visible from the inside of a parked automobile. Any lights used to illuminate a commercial parking lot shall be arranged to deflect the light away from adjoining residential property.

(c) Building Permit. A building permit is required for the construction of a commercial parking lot unless the parking lot is authorized by a building permit for another building or structure. [*See Article 12 for Construction Plan and Parking Plan submittal requirements*.]

(d) Number of Parking Spaces. The number of required parking spaces is calculated based on existing or proposed principal and accessory uses on site as provided below.

(1) *Surface Parking Lot Coverage.* Surface parking lots shall not occupy more than the following area:

Table 3.9-1 Maximum Surface Parking Ara

Zoning District	Maximum Percent (*of lot, parcel or development*)	Maximum Contiguous Area
AG, RL-1, RL-2, I-1, I-2	n/a	n/a
RM	30%	15,000 sf
RH ~~-2~~	40%	20,000 sf
MX-1, MX-2	50%	8,000 sf
MX-3	40%	n/a
C	70%	40,000 sf

(2) *Valet Parking Reduction*. Up to 50% of the minimum required parking spaces are reduced if the principal and accessory uses provide valet parking during times of operation, and the combined number of spaces on-site and in the valet facility equals at least half of the spaces otherwise required.

(3) *Occupancy Load Calculation.* Where the number of parking spaces required is based on occupancy loads, those loads are calculated according to the adopted building code. [*Note: this is currently Section 1004 of the International Building Code 2018*].

Table 3.7-1 Parking Ratios

Use Category	Parking Minimum
Residential	
Residences	
Accessory Dwelling Unit	1/dwelling unit
Dwelling, Single-Family Detached	1/dwelling unit
Dwelling, Two-Family (Duplex)	1/dwelling unit
Dwelling, Multi-Family	1/dwelling unit
Live/Work Dwelling	1/dwelling unit
Manufactured Home	1/dwelling unit
Manufactured Housing Park	1/dwelling unit
Townhouse	1/dwelling unit
Zero Lot Line House	1/dwelling unit
Group Living	
Rooming/Boarding House	1 + 1/3 bedrooms
Community Housing	1 + 1/3 bedrooms
Life Care or Continuing Care Services	1 + 1/3 bedrooms
Retirement Home	1 + 1/3 bedrooms
Residential Care Facilities	1 + 1/3 bedrooms
Lodging / Short-Term Rental	
Bed and Breakfast	1 + 0.75/bedroom
Hotel / Motel	0.75/guestroom
Recreational Vehicle Park	1/4 recreational vehicle or camping spaces
Commercial / Mixed Use	
Animal Services	
Animal Hospital (Indoor)	3/1000 sf
Animal Hospital (Outdoor)	3/1000 sf
General Animal Services	3/1000 sf
Day Care	
Adult Day Care	2/1000 sf
Child Day Care	2/1000 sf
Financial Services	
Automated Teller Machine (ATM)	N/A
Financial Institution	2/1000 sf
Pawnshop	2/1000 sf
Payday Lender	2/1000 sf
Food & Beverage Sales / Service	

Use Category	Parking Minimum
Alcohol Sales	2/1000 sf
Bar	9/1000 sf
Food Market	2/1000 sf
Food Preparation	3/1000 sf
Food Service	2/1000 sf
Food Truck	4/1000 sf
Food Truck Court	4/1000 sf
Restaurant	4/1000 sf
Smoking Establishment	3/1000 sf
Snack or Beverage Bar	N/A
Mixed Use	
Mixed-Use Building	1/1000 sf
Office, Business & Professional	
Office	2/1000 sf
Personal / Business Services	
Bail Bond Services	2/1000 sf
Buildings or Home Services	2/1000 sf
Business Support Services	2/1000 sf
Crematorium	2/1000 sf
Day Labor Service	1/1000 sf
Funeral & Interment Services	2/1000 sf
General Personal Services	2/1000 sf
Maintenance and Repair Services	2/1000 sf
Retail Sales	
Agriculture sales and service	1/1000 sf
Building Materials Sales and Storage	2/1000 sf
Convenience Store	4/1000 sf
Convenience Store (with Gasoline Sales)	4/1000 sf
Drug and Tobacco Paraphernalia Shop (Head Shop)	2/1000 sf
Flea Market	1/2000 sf land area
Machinery and Equipment Sales, Rental, and Leasing	2/1000 sf
Mobile Vendor	N/A
General Retail	2/1000 sf
Automotive	
Aircraft Repair	N/A
Auto and Truck Repair	2/1000 sf
Auto Repair, Minor	2/1000 sf
Automobile or Vehicle Sales	2/1000 sf

Use Category	Parking Minimum
Heavy Equipment Sales and Service	2/1000 sf
Car Wash	1 per stall
Gasoline or Diesel Fuel Sales	1/2 fuel pumps
Nationalization/"Nacionalizacion" of Vehicles Enterprise	N/A
Truck Stop	3/1000 sf
Public/Civic/Institutional	
Assembly	
Cemetery/Mausoleum	N/A
Civic Club	2/1000 sf
Exhibition, Convention, or Conference Facility	2/1000 sf
Religious Land Use	9/1000 sf
Government / Non-Profit	
Civic Building	2/1000
Correctional Facilities	2/1000 sf
International Bridge Facility	N/A
Public Safety Facility	2/1000 sf
Rehabilitation Facility and Services	2/1000 sf
Social Assistance, Welfare, and Charitable Services	2/1000 sf
Postal Services	4/1000 sf
Vehicle / Equipment Maintenance Facility	2/1000 sf
Education	
Business College / Technical or Trade School	3/1000 sf
College / University	3/1000 sf
Personal Instructional Services and Display	3/1000 sf
School (Public or Private)	3/1000 sf
Medical	
Hospital	2/1000 sf
Clinic (Dental or Medical)	4/1000 sf
Arts, Entertainment, & Recreation	
Adult Entertainment	4/1000 sf
Amusement Redemption Machine Establishment	5/1000 sf
Civic Space	0.25/1000 sf
Cultural Facility	2/1000 sf
Day Camp	2.5/1000 sf
Entertainment Facility	9/1000 sf
Health/Fitness Club	4/1000
Indoor Amusement	2/1000 sf

Use Category	Parking Minimum
Outdoor Amusement	8/acre
Shooting Range	2/1000 sf
Studio	4/1000 sf
Industrial / Production	
Manufacturing & Employment	
Contractor	1/1000 sf
Extraction	0.5/1000 sf
Manufacturing, Artisan	0.5/1000 sf
Manufacturing, Light	1/1000 sf
Manufacturing, Heavy	1/1000 sf
Industrial Launderer	1/1000 sf
Warehousing, Storage & Distribution	
Oil and Gas Storage	N/A
Outdoor storage	N/A
Railroad Freight Depot	N/A
Self-Service Storage Facility	0.25/1000 sf
Vehicle Towing and Storage Facility	0.5/1000 sf
Wholesale distribution and sales, warehousing, and storage	0.5/1000 sf
Wholesale distribution and sales, warehousing, and storage (Vehicular)	0.5/1000 sf
Infrastructure	
Transportation / Parking	
Airport	N/A
Ground Passenger Transportation	N/A
Heliport and Miscellaneous Air Transportation	N/A
Parking Facility	N/A
Parking Garage	N/A
Parking Lot	N/A
Railroad Facilities	N/A
Railroad Right-of-Way	N/A
Passenger Terminal	N/A
Transit shelter	N/A
Truck Lot	N/A
Utilities	
Utility (Major)	1/1000 sf
Utility (Minor)	1/1000 sf
Communications Facilities	

Use Category	Parking Minimum
Antenna	N/A
Communication Tower	N/A
Telecommunications Facility	N/A
Weather / Environmental Monitoring Station	N/A
Waste-related	
Hazardous Waste Disposal	N/A
Hazardous Waste Transfer	N/A
Recycling Plant	0.25/1000 sf
Transfer Station	N/A
Junkyard	0.25/1000 sf
Solid Waste Facility	N/A
Agriculture	
Agricultural Sales	N/A
Farming and Ranching	N/A
Livestock Sales	N/A
Plant Nursery	2/1000 sf
Accessory	
Accessory Building or Structure	N/A
Accessory use (generally)	N/A
Construction Yard	N/A
Home Occupation A	N/A
Home Occupation B	N/A
Model Home	N/A
Outside Storage	N/A
Parking garage, private	N/A
Recycling drop-off center	N/A
Miscellaneous	
Special Events (Temporary)	N/A

(e) Location of Parking Spaces. The following regulations govern the location of off- street parking spaces and areas:

(1) This subsection describes the permitted location of required parking. Where parking spaces are allowed within a defined distance off-site, measurement is from the property line of the primary use to the driveway of the off-site parking lot using the shortest path between the demarcation points that can be lawfully traveled by foot (including pedestrian corridors, and street crossings at designated crosswalks or on local streets).

(2) Parking spaces for all single-family detached dwellings shall be located on the same lot as the use which they are intended to serve.

(3) Parking spaces for commercial, industrial, or institutional uses shall be located no more than 1,000 feet from the principal use.

(4) In the "H" (Historic) district:

a. Legal and adjacent on-street parking spaces are counted toward required off-street parking. To be considered adjacent, the on-street parking must be located on right-of-way which fronts the site being considered. To be considered legal, the on-street parking must be on a street which allows long-term public parking during business hours (whether metered or un-metered).

b. The Building Official shall determine the off-street parking space credit at the time of building permit approval.

(5) Where an increase in the number of parking spaces is required by a change in use or enlargement, or where those spaces are provided collectively or used jointly by two or more activities or establishments, the required space may be located up to 1,320 feet (1/4 mile) from the principal use.

(6) All required parking must be permanent, and not provided in a temporary manner. The user must reserve the off-premises parking as provided in subsection (f)(3) below.

(7) Parking areas shall not be located in way that destroys required landscaping, such as trees, shrubs, or lawns. The Building Official may reduce the parking space requirements by up to 25% and waive maneuvering space requirements as needed to accommodate this requirement.

(f) Shared Parking

(1) *Applicability.* The off-street parking facilities required by two or more uses may be combined and used jointly.

(2) *Location*. The joint spaces shall be located –

a. On the same building site, or

b. Within 1,320 feet of the building or area that includes each use.

(3) *Reservation of Spaces*. The user of off-premise spaces must demonstrate that they are reserved for the use in a lease agreement or other written, enforceable contract or agreement. The instrument reserving the spaces shall remain in effect during the life of the use that reserves the spaces.

(4) *Number of Spaces*

a. The off-street parking facilities shall be adequate to provide the sum total of the facilities required for all of the uses.

b. Two or more owners or operators of buildings or uses requiring off-street parking or loading facilities may collectively use those facilities if the total minimum number of parking or loading spaces conform with this section when computed separately for each use or building type.

c. An off-street parking area required for any building or use may be used as part of an off-street parking area required for another building or use where peak use periods do not overlap, as provided below. The required parking spaces are reduced as follows:

1. Determine the minimum parking requirements in accordance with Table 3.9-2 for each land use as if it were a separate use (refer to Section 24.2.16, Table 2.16 1 (Use Table) and Article 10 of the UDC for use categories and definitions of specific uses),

2. Multiply each amount by the corresponding percentages for each of the five time periods set forth in Columns (B) through (F) of Table 3.9-2 below,

3. Calculate the total for each time period, and

4. Select the Column with the highest total. This is the required number of spaces.

Table 3.9-2 Shared Parking Ratios

	Weekday		Weekend		
(A) Land Use	(B) Daytime (9 a.m. - 4 p.m.)	(C) Evening (6 p.m. - midnight)	(D) Daytime (9 a.m. - 4 p.m.)	(E) Evening (6 p.m. - midnight)	(F) Nighttime (midnight 6 a.m.)
Office Business & Professional or Industrial / Production	100%	10%	10%	5%	5%
Retail	60%	90%	100%	70%	5%
Lodging/Short-Term Rental	75%	100%	75%	100%	75%
Restaurant	50%	100%	100%	100%	10%
Arts, Entertainment & Recreational	40%	100%	80%	100%	10%

d. If an office and retail use share parking and the office space comprises at least 35% of the space and at least 2,000 square feet, the parking required for the retail use is reduced to the lesser of –

1. 80% percent of the parking spaces otherwise required, or

2. 1 parking space per 500 square feet.

e. If a residential use shares parking with a retail use, the parking required for the residential use is reduced by 30 percent or the minimum parking required for the retail and service use, whichever is less.

f. If an office and residential use share off-street parking, the parking requirement for the residential use is reduced to the lesser of –

1. 50 percent of the parking normally required for the residential use, or

2. 1 space per 1,000 square feet.

g. No parking spaces are required for any residential uses located in the upper floors of a mixed-use building if the ground floor is occupied by retail or office uses.

(g) Parking Space Dimensional Requirements

(1) *Single-Family Dwellings*. The dimensional standards for parking spaces required for single-family detached and two-family (duplex) dwellings and manufactured homes, are 8 feet wide and 16 feet long. Stacking of spaces directly behind another and/or using concrete runners 2' wide for each tire track, is permitted. All spaces for single family dwellings and duplexes shall be paved with concrete or brick.

(2) *All Other Uses.* Parking space dimensional requirements for all other uses shall comply with the *Parking Layout and Design Standards*.

(3) When off-street parking facilities are located adjacent to a public alley, one-half (½) of the alley width is counted toward maneuvering space requirements.

(h) Loading Space Requirements

(1) One off-street loading space shall be provided and maintained on the same lot for every separate occupancy requiring pick-up and delivery of goods and having a modified gross floor area of over 5,000 square feet.

(2) A loading space shall have minimum dimensions of at least 10 feet with the apron and total offset provided below, and a clearance of at least 15 feet.

(3) One loading space shall be provided for each additional 20,000 square feet. For businesses not required to have a loading space, any loading space constructed shall comply with minimum dimensions listed above.

(i) Design and Construction Requirements for Parking and Loading

(1) *Applicability.* This subsection applies to all parking spaces, except for single-family detached and two-family dwellings.

(2) *Generally*. Driveway approaches, paving, and lighting of parking lots shall comply with the *Parking Layout and Design Standards*, except as provided below.

(3) *Delineation*

a. The parking lanes and spaces shall be clearly marked by traffic paint, buttons or other materials meeting specifications and standards set forth by the Texas Department of Transportation minimum standards and *Parking Layout and Design Standards*.

b. *Signs and Markings.* Parking areas having more than one aisle or driveway shall have directional signs or marking in each aisle or driveway.

(4) *Wheel Blocks*. Whenever a parking lot extends to a property line, wheel blocks or other suitable devices shall be installed to prevent any part of a parked vehicle from extending beyond the property line.

(5) *Access and Maneuvering Space Requirements*. All parking areas shall be designed so that any vehicle leaving the parking area travels in a forward motion. Access driveways for parking areas or loading spaces shall be located so that any vehicle entering or leaving the area is clearly visible for a reasonable distance to any

pedestrian or motorist approaching the access or driveway from a public or private street.

(j) Driveways

(1) *Applicability*. This subsection applies to the MX-1, MX-2, C, I-1 and I-2 districts.

(2) *Generally*. Access driveways shall comply with the *Parking Layout and Design Standards*, except as provided below.

(3) *Marking*. The entrances and exits to the parking area shall be clearly marked.

(4) *Width*. Entranceways or exits shall maintain the following minimum standards:

Table 3.9-3 Driveway Widths for Parking Areas

Type of Driveway Approach	Width	
	Min	Max
Residential Zoning Districts		
One-way traffic	12 feet	18 feet
Two-way traffic	14 feet	22 feet
MX and C Districts		
One-way traffic	14 feet	16 feet
Two-way traffic	22 feet	30 feet
I-1 and I-2 Districts		
One-way traffic	14 feet	24 feet
Two-way traffic	14 feet	30 feet
Public Parking Lots		
One-way traffic	12 feet	22 feet
Two-way traffic	22 feet	30 feet

Note: this standard supersedes the driveway approach standards of the Parking Layout and Design Standards.

(5) *Distance from Intersection.* The nearest edge of any driveway shall be at least 50 feet from the property corner nearest the intersection.

(k) Dead Storage Parking Lots. Where the sole purpose of a commercial parking lot is dead storage, and the parking lot does abuts a residential district or development, paving shall be provided as follows:

(1) There shall be a concrete apron at the entrance of the parking lot.

(2) Landing pads shall be provided. The landing pads shall be paved with:

a. Concrete,

b. Asphalt,

c. Turf,

d. Pervious pavement,

e. Grasscrete or grass pavers, or

f. Other surface approved by the Building Official that provides a durable, dustless and continuous (from point of access to edge of public street) all weather surface that is appropriately structured and bordered for permanence.

(3) All unpaved dead storage parking areas shall be covered in caliche and treated with oil or an oil base compound at least once a year.

(4) A solid opaque wall of at least 10 feet in height shall be erected around the parking lot.

(l) Modification of Parking Requirements

(1) *Applicability.* The Planning and Zoning Commission may authorize a reduction of all of these parking requirements.

(2) *Exception*. For a change in use in a "C" district that requires additional parking, the additional parking and maneuvering space requirements shall not be waived or reduced, where access is to major streets listed on the current, functional classification map of the City.

(3) *Criteria*. The modification:

a. must demonstrate that following the parking requirements would create an undue hardship

b. shall not infringe on vehicular or pedestrian traffic safety,

c. include conditions that protect adjoining residential areas, and

d. be consistent with all other provisions of this Chapter and the City's Comprehensive Plan.

24.3.10 Riparian Buffers

Purpose: this section establishes minimal acceptable requirements for the design of buffers to protect the streams, wetlands and floodplains of Laredo, Texas; to protect the water courses, reservoirs, lakes, and other significant water resources within Laredo, Texas; to protect Laredo's riparian and aquatic ecosystems; and to provide for the environmentally sound use of Laredo's land.

(a) Applicability

(1) *Geographic Scope*. This section applies to the City of Laredo.

(2) *Activities Covered*. This section applies to:

a. development subject to this Chapter, and

b. surface mining operations, except that the design standards do not apply to active surface mining operations that are operating in compliance with an approved U. S. Department of the Interior surface mining permit.

(3) *Exemptions*. This section does not apply to:

a. development that does not contain a stream system, or

b. activities that were initiated prior to the effective date of this ordinance and:

1. has a valid, unexpired permit in accordance with development regulations; or

2. has a current, executed public works agreement; or

3. has a valid, unexpired building permit; or
4. has a complete, unexpired plat application; or
5. has a current, approved master plan on file with the City of Laredo Planning Department; or
6. is platted property.

(b) Preservation and Buffering Requirements

(1) All third order and higher stream systems including the Rio Grande shall be preserved and buffered in accordance with this section.

(2) First and Second order stream systems which include any of the following criteria shall be preserved and buffered in accordance with this section unless the requirements of subsection (f)(conservation plans) are satisfied.

a. An environmentally sensitive area.

b. Wetlands and protected waters according to the Wetland Map.

c. Existing trees with a caliper equal to or greater than 8 inches (excluding salt cedar) within the stream channel or potential stream buffer.

(c) Protected Waters

(1) *Generally*. As used in this section, "protected waters" means:

a. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

b. All interstate waters, including interstate wetlands;

c. All impoundments of waters otherwise identified as protected waters under this section;

d. All tributaries (as defined in subsection (3)c of this section) of waters identified in subsections (1)a through c above;

e. All waters adjacent to a water identified in subsections (1)a through d above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

f. All waters located within the 100-year floodplain of a water identified in subsections (1)a through c above and all waters located within 4,000 feet of the ordinary high water mark of a water identified in subsections (1)a through d above where they are determined on a case-specific basis to have a significant nexus to a water identified in subsections (1)a through d above. For waters determined to have a significant nexus, the entire water is a protected water if a portion is located within the 100-year floodplain of a water identified in subsections (1)a through c above or within 4,000 feet of the ordinary high water mark. Waters identified in this subsection shall not be combined with waters identified in subsection (1)e above when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under subsection (1)e, they are an adjacent water and no case-specific significant nexus analysis is required.

(2) *Exclusions from Protected Waters*. The following are not "protected waters" even where they otherwise meet the terms of subsection (1) above.

a. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the federal Clean Water Act. This exclusion applies only to manmade bodies of water which neither were originally created in protected waters (such as disposal area in wetlands) nor resulted from the impoundment of protected waters.

b. Prior converted cropland, as determined by the Planning Director.

c. The following ditches:

1. Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.

2. Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.

3. Ditches that do not flow, either directly or through another water, into a water identified in subsections (1)a through c of this definition.

d. The following features:

1. Artificially irrigated areas that would revert to dry land should application of water to that area cease;

2. Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

3. Artificial reflecting pools or swimming pools created in dry land;

4. Small ornamental waters created in dry land;

5. Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;

6. Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary, non-wetland swales, and lawfully constructed grassed waterways; and

7. Puddles.

e. Groundwater, including groundwater drained through subsurface drainage systems.

f. Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

g. Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

(3) *Definitions*. In this subsection, the following terms apply:

a. *Adjacent*. The term adjacent means bordering, contiguous, or neighboring a water identified in subsections (1)a through d of this definition, including waters

separated by constructed dikes or barriers, natural river berms, and the like. For purposes of adjacency, an open water such as a pond or lake includes any wetlands within or abutting its ordinary high-water mark. Adjacency is not limited to waters located laterally to a water identified in subsections (1)a through d of this subsection. Adjacent waters also include all waters that connect segments of a water identified in subsections (1)a through d or are located at the head of a water identified in subsections (1)a through d of this subsection and are bordering, contiguous, or neighboring such water. Waters used for established normal farming, ranching, and silviculture activities (see 33 U.S.C. 1344(f)) are not adjacent.

b. *Neighboring*. The term neighboring means:

1. All waters located within 100 feet of the ordinary high-water mark of a water identified in subsections (1)a through d of this subsection. The entire water is neighboring if a portion is located within 100 feet of the ordinary high-water mark;

2. All waters located within the 100- year floodplain of a water identified in subsections (1)a through d of this subsection and not more than 1,500 feet from the ordinary high-water mark of such water. The entire water is neighboring if a portion is located within 1,500 feet of the ordinary high-water mark and within the 100-year floodplain;

c. *Tributary and tributaries*. The terms tributary and tributaries each mean a water that contributes flow, either directly or through another water (including an impoundment identified in subsection (1)c of this subsection), to a water identified in subsections (1)a and b of this subsection that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high-water mark. These physical indicators demonstrate there is volume, frequency, and duration of flow sufficient to create a bed and banks and an ordinary high-water mark, and thus to qualify as a tributary. A tributary can be a natural, man-altered, or man-made water and includes waters such as rivers, streams, canals, and ditches not excluded under subsection (2) of this subsection. A water that otherwise qualifies as a tributary under this subsection does not lose its status as a tributary if, for any length, there are one or more constructed breaks (such as bridges, culverts, pipes, or dams), or one or more natural breaks (such as wetlands along the run of a stream, debris piles, boulder fields, or a stream that flows underground) so long as a bed and banks and an ordinary high-water mark can be identified upstream of the break. A water that otherwise qualifies as a tributary under this subsection does not lose its status as a tributary if it contributes flow through a protect water that does not meet the definition of tributary or through a non-jurisdictional water to a water identified in subsections (1)a and b of this subsection.

d. *Wetlands*. The term wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and

that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

e. *Significant nexus*. The term significant nexus means that a water, including wetlands, either alone or in combination with other similarly situated waters in the region, significantly affects the chemical, physical, or biological integrity of a water identified in subsections (1)a and b of this subsection. The term ''in the region'' means the watershed that drains to the nearest water identified in subsections (1)a and b of this subsection. For an effect to be significant, it must be more than speculative or insubstantial. Waters are similarly situated when they function alike and are sufficiently close to function together in affecting downstream waters. For purposes of determining whether or not a water has a significant nexus, the water's effect on downstream subsections (1)a and b waters shall be assessed by evaluating the aquatic functions identified in subsections 1 through 9 of this below. A water has a significant nexus when any single function or combination of functions performed by the water, alone or together with similarly situated waters in the region, contributes significantly to the chemical, physical, or biological integrity of the nearest water identified in subsections (1)a and b of this subsection. Functions relevant to the significant nexus evaluation are the following:

1. Sediment trapping,
2. Nutrient recycling,
3. Pollutant trapping, transformation, filtering, and transport,
4. Retention and attenuation of flood waters,
5. Runoff storage,
6. Contribution of flow,
7. Export of organic matter,
8. Export of food resources, and
9. Provision of life cycle dependent aquatic habitat (such as foraging, feeding, nesting, breeding, spawning, or use as a nursery area) for species located in a water identified in subsections (1)a and b of this subsection.

f. *Ordinary high water mark*. The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(d) Design Standards for Stream Buffers. The width for vegetative buffers depends on the order of the stream developed.

Table 3.10-1 Stream Buffers

Stream Order	Buffer Width	
	(min)	*(max)*
	(measured from either side of the centerline)	
First and second order streams	55 feet	105 feet
Third order stream or above	55 feet + 25 feet for each level of increase in stream order. *(Example: a fourth order stream has an 80-foot buffer, a fifth order stream has a 105-foot buffer, etc.)*	105 feet
Rio Grande	Lesser of the 100-year flood plain or 300 feet from the centerline of the watercourse	n/a

(1) The applicant shall install permanent boundary signs approved by the ESD Director after construction is completed.

(2) All development shall comply with the City's Floodplain Management Ordinance (2002-O-164) and Storm Water Management Ordinance (99-O-186)

(3) The buffer width on each side of the stream may vary (in both width and length) if the total square footage of the buffer remains the same for the stream order. However, the buffer shall not fall below 25 feet on any side.

(4) The first 30 feet of buffer immediately adjacent to the centerline of streams and first 125 feet adjacent to the Rio Grande centerline containing undisturbed native vegetation, is restricted to permitted road, utility crossings, storm water management facilities and recreational facilities approved by the city. The remainder of the buffer, also containing native vegetation, is restricted to utility right of ways, designated biking/hiking paths, storm water management facilities, and recreational facilities by the City.

(e) Design Standards for Existing Ponds and Buffers

(1) Existing ponds may be used as storm water management facilities, in accordance with Section 24.4.5, if a conservation plan is submitted (see Article 12). An existing pond used as a storm water management facility shall have a buffer width of at least 20 feet in addition to the Maintenance Access Easement requirements (see Section 24.4.5(c)(5) (Stormwater Management - Retention / Detention Facilities)).

(2) The area of the 20-foot buffer may include the embankment as long as the total square footage is maintained.

(f) Tree Mitigation. Where disturbance of protected first or second order stream systems are proposed and trees are removed:

(1) All 4-inch caliper or greater trees removed must be replaced by an equal caliper sized tree of the same species except salt cedar; or smaller trees of the same tree species that equal the caliper of the removed tree (i.e.: 4 one inch trees to replace a 4-inch caliper tree).

(2) The replacement tree(s) must be located within the stream system or buffer on the property where the removed tree was located.

(3) Twenty-five percent of the original tree species must be replaced with the same species. The remaining 75% of original tree species may be replaced with favorable species determined and listed by the Tree Board.

(g) Buffer Management and Maintenance

(1) *Management*. Protected stream systems and vegetative buffers shall be managed to enhance and maximize the unique value of these resources. Management includes specific limitations on alteration of the natural conditions of these resources. The following practices and activities are restricted within the vegetative buffer:

a. Clearing of any existing vegetation;

b. Soil disturbance by grading, stripping, or other practices;

c. Filling or dumping;

d. Use, storage, or application of herbicides.

(2) *Activities in Buffer*. The following structures, practices, and activities are permitted in the vegetative buffer, with specific design or maintenance features:

a. *Roads, Bridges, Sidewalks, and Utilities*.

1. These facilities may be constructed if:

a. they are required by the City;

b. access to the property would be hindered or compromised because of the property's location; or

c. if conditions specific to the land require it.

2. In any of these instances the ESD Director may administratively grant approval or deny the request for the construction of the structure/s. The applicant may appeal a denial of the request to the Planning and Zoning Commission whose decision is final.

3. The right-of-way shall be the minimum width needed to allow for maintenance access and installation.

4. The angle of the crossing shall be as near to perpendicular as allowed by the ESD Director. The applicant may appeal a denial of the proposed angle crossing to the Planning and Zoning Commission whose decision is final.

5. The applicant shall minimize the number of road crossings within each subdivision. No more than one road crossing is allowed for every 1,200 feet of buffer.

b. *Storm Water Management*

1. Stormwater management facilities may be constructed if they are required by the City, the facilities are necessary for flood control or significantly improves water quality or habitat in the stream. In any of these instances the ESD Director may administratively grant approval or deny the request for the construction of the structure/s. The applicant may appeal a denial of the request to the Planning and Zoning Commission whose decision is final.

2. The applicant shall observe "best management practices" (i.e., BMPs) when constructing storm water management facilities. The area cleared is limited to the area required for construction and adequate maintenance access as outlined in the most recent edition of City of Laredo Storm Water Management Ordinance.
3. Material dredged or otherwise removed (during construction or maintenance) from a storm water management facility shall be stored outside the buffer.

c. Stream restoration projects approved by the ESD Director are permitted within the vegetative buffer.

d. Water quality monitoring and stream gauging are permitted within the vegetative buffer as approved by the ESD Director.

e. Individual trees within the buffer that are in danger of falling, causing damage to dwellings or other structures, or causing blockage of the stream, may be removed. Other tree cutting techniques approved by the ESD Director may be undertaken within the vegetative buffer under the advice and guidance of the Tree Board if necessary to preserve the riparian forest from extensive pest infestation and disease infestation.

f. Selective clearing for health and safety purposes is allowed as determined by the Fire Chief and/or the Health Department Director.

(3) The Final Plat and all right-of-way plans shall clearly show the extent of any vegetative buffer on the subject property.

(4) All protected vegetative buffer areas and stream systems shall run with the land and continue in perpetuity. Protected vegetative buffer areas and stream systems may be dedicated to the public by separate instrument (which must be submitted to the City Engineer for approval and recorded in the land records) unless the protected vegetative buffer area and stream system is dedicated to the public on the face of an approved plat. If the owner of the property desires to keep the stream system and buffer private, there shall be a covenant (which must be submitted to the City Engineer for approval and recorded in the land records) restricting the use of the stream system and buffer to uses set forth herein, and the owner must ensure that the stream system and buffer shall be maintained by the owner, his heirs, successors and assigns as long as the stream system and buffer remain private.

(5) The ESD shall inspect the buffer annually and immediately following severe storms for evidence of sediment deposition, erosion, or concentrated flow channels. Corrective actions shall be taken to ensure the integrity and functions of the vegetative buffer.

(6) The City of Laredo will maintain all vegetative buffer and stream systems that are created pursuant to section 24.4.1(b)(2)(Standard Technical Specification Manual - Optional Specifications) and dedicated to the public.

(h) Incentives

(1) *Conservation Plan Waiver*. If buffer widths on first and second order streams are strictly adhered to, the conservation plan requirement shall be waived.

(2) *Park Development*. Credit shall be given as determined by the Planning Director for the development of Linear Parks around natural drainage and wooded areas that provide potential recreational uses. Criteria for flood plain areas (based upon a hundred-year flood plain) that is dedicated as parkland, will be given credit as determined by the Parks and Recreation Director by meeting the following requirements:

- **a.** Floodplain and natural drainage area are credited toward total parkland dedication requirements to the extent provided by section 24.4.4.
- **b.** The dedicated parkland shall comply with all applicable criteria of section 24.4.4.
- **c.** The Director of the Parks and Recreation Department shall determine whether land offered for dedication complies with the standards for dedication as provided in the Parks Master Plan.

(3) *Storm water discharges into large creeks.* For development adjacent to the main stem of Sombrerito Creek, below Middle Pasture Lake, and Chacon Creek below Lake Casa Blanca, storm water discharge does not require detention facilities if there is compliance with the floodplain management ordinance and storm water management ordinance.

(4) *On-site detention within the plat boundaries of residential subdivision*

- **a.** For detention ponds in residential developments voluntarily created to enhance the protection of 1st & 2nd order streams, the required private maintenance shall extend to the warranty period as provided by other ordinances.
- **b.** When a first or second order stream within development is voluntarily protected, a R.O.W. section may be similarly modified as provided below

(5) *Commercial subdivisions distributed detention*

- **a.** Distributed detention on commercial subdivisions where streams are to be voluntarily protected is allowed, deferring the construction of required storm water detention facilities to the building permit (construction) phase, if the deferral is approved at final platting and covered by a note on the face of the plat.
- **b.** If a development includes a protected stream system, the required detention volume may be distributed over the site if the plat is annotated with a note indicating the "Q" (volumetric discharge) of each lot.
- **c.** The required private maintenance period for off-line detention facilities shall extend to the warranty period. Warranties shall remain in effect as provided by other ordnances.
- **d.** For developments where all lots are at least one acre in area, minimum storage requirements for detention as well as maximum discharge rate requirements shall be included on the plat for each lot, specifying the requirement for each lot to individually meet the requirements of the Storm Water Management

Ordinance included in the City of Laredo Land Development Code during the building permit process. A note approved by the City of Laredo Planning Department indicating the requirement shall be included on the face of the plat. Calculations for the lot storage volumes and discharge rates shall be approved by the City Engineer in conjunction with their review of the improvement plans for the development during the platting process.

(6) *Park credit transferability*

a. Voluntary protection of first and second order streams entitle the owner to a park credit for the stream system protected and its surrounding buffer on an equivalent square footage basis. If the following criteria is met:

1. Flood plain and natural drainage area shall generally not exceed 25% of the site;

2. At least 50% of the buffer shall have slopes in the range of 2% and not to exceed 5%, be well drained and suitable for active use;

3. Additional park requirements, if any, shall be incorporated (be adjacent) to any buffer.

4. The buffer and the park space shall be reviewed by the Parks and Recreation Director to ensure that the buffer and park space requirement comply with the City Standards for Dedication as a park and buffer.

5. If the buffer and park meet the requirements of this subsection, the Parks and Recreation Director shall make a recommendation to the City Council regarding the acceptance of said buffer and park.

b. Mandatory protected third order streams and higher qualify for a park credit for the surrounding buffer on an equivalent square footage basis. If the following criteria is met:

1. Flood plain and natural drainage area shall generally not exceed 25% of the site;

2. At least 50% of the buffer shall have slopes in the range of 2% and not to exceed 5%, well drained and suitable for active use;

3. Additional park requirement, if any, shall be incorporated (be adjacent to) any buffer.

4. The buffer and the park space shall be reviewed by the Parks and Recreation Director to ensure that the buffer and park space requirement comply with the City standards for dedication as a park and buffer.

5. If the buffer and park meet the requirements set forth herein the Parks and Recreation Director shall make a recommendation to the City Council regarding the acceptance of the buffer and park.

c. Park credits obtained pursuant to this provision are transferable but may only be used within the Council District in which they were originally acquired.

d. If there is first or second order stream systems located on a tract of 10 acres or smaller and the owner or said tract voluntarily preserves the stream system, the owner is entitled to a park credit.

e. Any decision by the Parks and Recreation Director which does not favor the acceptance of park and buffer may be appealed to the Planning and Zoning Commission for a recommendation regarding the acceptance of the park and buffer to the City Council.

(i) Waivers / Variances

(1) The ESD Director may grant a variance for the following:

a. Those projects or activities for which it can be demonstrated that strict compliance with the ordinance would result in a practical difficulty.

b. Those projects or activities serving a public need where no feasible alternative is available

(2) The City of Laredo may, as deemed appropriate by the ESD Director, give credit towards the average buffer width on the platted property for the restoration of riparian habitat and/or installation of a wetlands area within the property boundaries if the installations are ecologically integrated with the riparian system. The square footage of the restored area or wetlands area shall be credited toward the square footage required for the buffer zone.

(3) The applicant shall submit a written request for a variance to the ESD Director. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance request. The ESD Director may require an analysis demonstrating undue hardship would result from a strict application of the ordinance.

(4) In granting a request for a variance, the ESD Director may require site design, landscape planting, fencing, and signs.

(j) Appeals Procedures. See Article 5.

(k) Conflict with Other Regulations. Where the standards and management requirements of this buffer ordinance are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive standard applies.

24.3.11 Site Design

(a) Applicability. This section applies to any application for a site plan or subdivision plat approval. For purposes of this section, a "street" includes public streets created by a subdivision plat, or private drives that conform to public street standards.

(b) Blocks

(1) *Maximum Block Perimeter*. Blocks shall not exceed the length around their perimeter established in Table 3.11-1 below. This standard applies to blocks formed by public streets in subdivisions, or by private streets or drives in multi-use or mixed-use developments as provided in subsection (2) below.

Table 3.11-1 Maximum Block Perimeter

	Express way	Multiway Boulevard	Principal Arterial	Minor Arterial	Collector	Industrial Collector	Main Street	Yield Street
Agriculture (AG)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Residential Low (RL-1)	n/a	2,000	2,000	2,000	2,000	n/a	4,800	4,800
Residential Low (RL-2)	n/a	2,000	2,000	2,000	2,000	n/a	4,800	4,800
Residential Medium (RM)	n/a	2,000	2,000	2,000	2,000	n/a	2,400	2,400
Residential High (RH)	n/a	1,800	1,800	1,800	1,800	n/a	1,800	1,800
Mixed Use (MX-1)	n/a	1,800	1,800	1,800	1,800	n/a	1,200	1,800
Mixed Use (MX-2)	n/a	1,800	1,800	1,800	1,800	n/a	1,200	1,800
Downtown (MX-3)	n/a	1,800	1,800	1,800	1,800	n/a	1,200	1,800
Commercial (C)	n/a	2,000	2,000	2,000	2,000	n/a	1,200	1,800
Industrial Light (I-1)	n/a	4,000	4,000	4,000	4,000	n/a	1,200	4,000
Industrial Heavy (I-2)	n/a	4,000	4,000	4,000	4,000	n/a	1,200	4,000
Planned Development (PD)	n/a	2,000	2,000	2,000	2,000	n/a	1,200	1,800
ETJ (Subdivision Plat)	n/a	2,000	2,000	2,000	2,000	n/a	1,200	1,800

(2) *Block Measurement*. For purposes of this subsection, blocks are measured from curb to curb, regardless of whether the street is public or private.

(3) *Walkways*. Walkways within a pedestrian access easement or tract are required at the end of cul-de-sacs or closed end streets and at the approximate midpoint of any block exceeding six hundred feet (600') in length. The required access easements or tracts must be at least 15 feet wide and contain a paved path at least 8' wide. The walkways shall be included as part of a maintenance agreement (see section 24.4.3). Street lighting is required as provided in section 24.4.6 (Streets).

(c) Lots

(1) If a proposed residential subdivision abuts a collector, arterial, boulevard or expressway street, lots that are smaller than the average lot size in the subdivision and lots reserved for attached dwelling units may abut those streets.

(2) Lots that abut riparian buffers or passive open space shall exceed the average lot size in a subdivision plat by at least 20%.

(d) Street Network and Connectivity

Purpose: This subsection ensures that street layouts respond to local conditions such as topography, watercourses, greenways and the existing street systems of neighboring developments. Local street patterns may discourage through traffic but should also include interconnecting streets with alternative routes throughout the neighborhood to diffuse automobile traffic and shorten walking

distances. A well-connected street network spreads traffic efficiently, and provides greater opportunities for access and circulation of motor vehicle, pedestrian, and bicycle modes of travel.

(1) *Network.* Buildings and sites exceeding the thresholds identified in Table 3.11-2 below shall include a street and block network.

(2) *External Connectivity*

a. Where adjoining areas are not subdivided, the arrangement of streets in a subdivision shall provide for the extension of streets into the unsubdivided areas.

b. The site design shall arrange parcels to allow the opening of future streets and logical further subdivision.

c. Proposed streets shall extend to the boundary lines of the tract to be subdivided or developed, unless prevented by topography or other physical conditions, or unless the Planning Director determines that the extension is not necessary or desirable to coordinate the subdivision or development layout with the existing layout or the most advantageous future development of adjacent tracts.

d. At least one (1) street shall extend to the boundary line of the tract for each 600 linear feet of the boundary line with adjoining tracts. This section does not require designated local streets to extend into riparian buffers, tree save areas, or other natural features or existing development that does not accommodate the connection. This subsection does not apply to the I-1 or I-2 zoning districts.

(3) *Internal Connectivity*

a. The following terms are defined for purposes of this subsection only:

1. A "**Street Link**" is that portion of a street that lies between 2 nodes.

2. A "**Node**" is the intersection of two (2) or more streets, a cul-de-sac head or a dead-end. The following are not considered Nodes:

a. An **eyebrow**. An eyebrow is a semicircular shaped portion of a street that is configured so that a circle with a radius of thirty (30) feet can fit within the confines of the paved portion of the surface.

b. External intersections. The intersection of a local street within the proposed subdivision with an external public street that connects to the proposed subdivision is not considered a node in computing the connectivity ratio.

3. **A "Pedestrian Connection**" is a pedestrian accessway or portion of a development's trail system that connects a dead-end street, cul-de-sac, or T-intersection to another public street or to a commercial or office development that is built, approved, or designated as part of the proposed development. Pedestrian accessways or trails that connect only to parks, greenways or recreational areas are not counted as a pedestrian connection for purposes of calculating the connectivity ratio.

b. Streets within any proposed subdivision or site plan with a network of private drives shall provide a connectivity ratio as provided in Table 3.11-2 below. The

connectivity ratio is computed by dividing the number of street links and pedestrian connections by the number of nodes within the development.

c. The Planning and Zoning Commission may modify the connectivity ratio by counting a feature as a street link or pedestrian connection or reducing the required ratio if:

1. Existing topography or natural features make the required number of connections impractical, and

2. The applicant provides alternative solutions that substantially accomplish the purposes of this section.

(e) Orientation.

(1) *Buildings*

a. Principal buildings on a site shall orient to a street, civic space, or open space. A principal building shall not orient to a parking lot except to the extent permitted by Table 3.11-2 below. For purposes of this subsection:

b. Principal buildings shall orient to the fronts of other buildings, or the sides where necessary. Buildings shall not orient to the backs of other buildings.

(2) *Parking*. To create an interesting street frontage and to deemphasize front-loaded parking, the number and percent of parking spaces located between the principal building and a public or private street (other than an alley) shall not exceed the number specified in Table 3.11-2 below.

Table 3.11-2 Connectivity and Parking Orientation

Zoning District	Connectivity Ratio (*see subsection (3)b above*)	Threshold for Street Network*	Front-Loaded Parking Space Limit	
			Number *(max)*	**Percent** *(max)*
Agriculture (AG), Residential Low (RL-1), Residential Low (RL-2)	1.2 (Base Option) n/a to Cluster or Conservation Option	n/a	n/a	n/a
Residential Medium (RM)	1.2	1 acre or 35 DU	n/a	15%
Residential High (RH)	1.3	1 acre or 35 DU	10	15%
Mixed Use (MX-1)	n/a	1 acre or 30,000 sf	15	10%
Mixed Use (MX-2)	n/a	1 acre or 30,000 sf	10	5%
Downtown (MX-3)	n/a	1 acre or 30,000 sf	0	0%
Commercial (C)	n/a	3 acres or 60,000 sf	60	20%
Industrial Light (I-1), Industrial Heavy (I-2)	n/a	n/a	n/a	n/a
Planned Development District (PD)	n/a	3 acres or 60,000 sf	60	15%
ETJ (Subdivision Plat)	n/a	1 acre or 30,000 sf	30	15%

* All subdivision plats must include a street network.

24.3.12 Traffic Impact Analysis Standards

Purpose: A traffic impact analysis (TIA) identifies the relationship between land use and transportation systems. The TIA ensures adequate review and consideration of the potential impacts of proposed development on the surrounding thoroughfare and local street system.

(a) Applicability

(1) *Generally*. A traffic impact analysis (TIA) is required for applications for rezoning and site plan review.[5]

(2) *Waiver of Requirement*. If the proposed development or rezoning generates less than 1,000 average daily trips, the city's traffic engineer may waive the requirement.[6]

(b) Adopted Level of Service ("LOS"). A level of service "C" is the design objective for the city. A TIA must attempt to identify sufficient transportation improvements to achieve or maintain a level of service "C" or better.

(c) Study Area. The minimum transportation impact study area shall include the entire neighborhood plus any neighborhood that abuts or is adjacent to the proposed development.

(d) Contents.

(1) *Completion by Registered Professional Engineer*. The traffic impact analysis shall be completed by a registered professional engineer with a background in traffic engineering.

(2) *Report Requirements*. Specific report requirements may vary depending on the site location and characteristics, geographic area, and size and type of development. However, each TIA must clearly state all assumptions and methodologies, and at a minimum include the following:

a. Transportation System.

1. Vicinity map that relates the site location to the thoroughfare and local street system.

2. Thoroughfare designation according to the city thoroughfare plan.

3. Number of roadway lanes, lane widths, and right-of-way widths.

4. Traffic signal locations.

b. Land Uses

1. Existing and proposed (if applicable) land use characteristics for the subject site.

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[5] This could require street width and capacity expansions citywide that are inconsistent with long-range planning objectives. For example, is the city prepared to require historic buildings downtown to come down to widen a road in order to meet LOS C? Should we: (1) exempt the MX districts or PUD that builds to the TND Manual, and (2) require connectivity and multi-modal improvements in lieu of road width and capacity expansions where possible? And, shouldn't we require this for preliminary subdivision plats – whether in the City or ETJ?

[6] This is from the model I was sent. We need to revise this to either: (1) exempt all development under 1,000 ADT, or (2) place conditions on when the city engineer will waive the require (this just gives them unfettered authority).

2. Number of acres (gross and net) classified by zoning and density.

3. Approximate gross square footage of existing and proposed structures.

(e) Background Traffic

(1) *Existing Conditions*

a. Current traffic counts (both average daily traffic and morning and afternoon peak hours) on thoroughfares and collectors around the site shall be collected for the TIA and the counts shall be not more than one year old. The city's most current annual traffic counts may be used for the TIA if available.

b. Turning movements at critical intersections should be collected for the intersection's analysis.

c. For proposed new developments, if the site will be built in the future year, projected growing traffic volume, calculated by using a growth factor, between the current year and a tentative built year should be added to the current traffic counts. The growth factor will be determined by the city based on historical data from the city's annual counts.

(2) *Projected Build-Out Assumptions*

a. Projected traffic volume for build-out scenarios will be provided by the city by using the results from Laredo travel demand model (TDM) model completed by the Webb County-City of Laredo Regional Mobility Authority for the Webb County-City of Laredo Regional Mobility Authority.[7]

b. Projected traffic volume for the streets, which were not included in the TDM model, should be calculated by using a growth factor. The growth factor will be provided by the city based on historical data from the city's annual counts.

(f) Site Traffic and Trip Generation

(1) Assume full development and occupancy.

(2) Show in tabular form the land use components, the trip generation rates (daily and peak hour), and total trips generated by land use types.

(3) Use the latest *Trip Generation Manual* published by Institute of Transportation Engineers.

(4) No passerby trip reductions allowed.[8]

(g) Capacity Analysis

(1) Separate maps illustrating traffic volumes for different scenarios:

a. Nonsite traffic projections for design year (ADT and AM/PM peak hour turning movements);

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[7] The City needs to confirm that this is the correct reference, or provide a reference to the model they want to use.

[8] This would seem to render the results inaccurate, as the study's purpose is to determine the project's impacts on the transportation network (we cannot require developers to mitigate more than their own, proportionate impacts). Also, shouldn't we consider mode shifts resulting from the network configuration, modal splits from ability to walk or transit, etc.?

b. Development traffic (ADT and AM/PM peak hour turning movements); and

c. Nonsite traffic plus development traffic for design year (ADT and AM/PM peak hour turning movements).

(2) Capacity analysis of roadway links shall be performed for the ultimate design. Identify level of service with and without development site traffic. If the roadway links exhibit a LOS D, E, or F, then intersection analyses will need to be performed for those facilities.

(h) Mitigation of Impacts

(1) Identification of actions or alternatives required to maintain an acceptable level of service on the street system. If the street system already functions below the adopted LOS, the TIA shall identify actions or alternatives to maintain the existing LOS resulting from the proposed development.[9] Candidate actions include:[10]

a. Roadway link and intersection improvements.

b. New or modified traffic signals.

c. Access locations and driveway design.

d. Transportation system management programs.

e. Neighborhood traffic deviators/controls.

(2) Site plans or preliminary engineering plans for all thoroughfares, local streets, and intersection improvements must at a minimum conform to the requirements of this Chapter.

(i) Revised Traffic Figures. If the proposal is significantly revised before it is finally approved, then revised traffic figures must be generated to comply with the final approval.

[9] I added this sentence. We cannot require the development to improve an already deficient LOS.

[10] Should we require improving connectivity and multi-modal improvements, with expanding road lanes and signalization as a last resort? Otherwise, this entire section is at odds with the comprehensive plan.

24.3.13 Tree Protection

(a) Applicability. This section applies only to commercial development. For purposes of this section, "commercial development" means a platted property that is Zoned MX-2, MX-3, C, I-1, or I-2, where commercial uses is the principal use

(b) Prohibited Activities

(1) It is unlawful for any person to remove any protected tree without first securing a tree removal permit as specified in subsection (d)(2).

(2) It is unlawful for any person to damage a protected tree, such as through tree topping, over pruning or chemical poisoning.

(3) It is unlawful for a person to continue work or removal of trees after the Building Services Director has issued a stop work order.

(4) It is unlawful for a person to engage in any hazardous activities as described in subsection VI (c), which causes damage to the crown or trunk or disturbs the critical root zone of a protected tree without the written approval of the Building Services Director.

(c) Sizes and Types of Protected Trees

(1) *Size & Type of Tree*. A specific tree listed Table 3.13-1 below and having the common name and minimum diameter specified on Table 3.13-1, is a protected tree:

(2) *Protection Required.* Protected Trees will be protected on all platted commercial lots.

(3) *Protected Tree List.* Except as approved by the Building Services Director, the sizes and types of protected trees will be as follows:

Table 3.13-1 Protected Trees

Common Names	Scientific Name	Size	Caliper
Deciduous (S - 15-25 ft; M - 25-40 ft; L - over 40 ft)			
Bald Cypress	Taxodium distichum	L	>12"
Bur Oak	Quercus macrocarpa	L	>12"
Cedar Elm, Olmo	Ulmus crassifolia	M-L	>12"
Chinkapin Oak	Quercus muehlenbergii	L	>12"
Common Crape Myrtle	Lagerstroemia indica	S	> 6"
Desert Willow, Mimbre	Chilopsis lineraris	S	> 6"
Honey Locust	Gleditsia triacanthos	L	> 6"
Honey Mesquite *	Prosopis glandulosa	M	> 8"
Jacaranda	Jacaranda mimosifolia	L	> 6"
Japanese Persimmon	Diospyros kaki	S	> 6"
Jerusalem-Thorn, Retama, Lluvia de Oro, Crown of Thorns *	Parkinsonia aculeata	S	> 6"
La Coma, Caimito	Sideroxylon celastrina	S	> 6"
Lace Bark Elm	Ulmus parvifolia	L	>12"
Lacey Oak	Quercus glaucoides	S-M	>12"

Common Names	Scientific Name	Size	Caliper
Mexican Sycamore	Platanus mexicana	L	>12"
Montezuma Bald Cypress, Sabino, Ahuehuete	Taxodium mucronatum	L	>12"
Pecan	Carya illinoesis	L	>12"
Soapberry, Western Soapberry, Jaboncillo *	Sapindus drummondii	M-L	> 6"
Texas Paloverde, Paloverde	Parkinsonia texana	S	> 6"
Texas Persimmon, Chapote, Mexican Persimmon *	Diospyrus texana	S	> 6"
Texas Pistache	Pistacia texanaTc>S	Wildlife food	> 6"
Texas Red Oak	Quercus buckleyi, Quercus texana	S-M	>12"
Evergreen (S - 15-25 ft; M - 26-40 ft; L - over 40 ft)			
Afghan Pine	Pinus eldarica	L	>12"
Aleppo Pine	Pinus halapensis	L	>12"
Anacahuite, Anacahuita, Mexican Olive Tree*	Cordia boissieri	S	> 6"
Arizona Cypress	Cupressus arizonica	M-L	>8"
Cork Oak	Quercus suber	L	>12"
Deodar Cedar	Cedros deodora	L	> 6"
Escarpment Live Oak	Quercus fusiformis, Quercus virginiana var. fusiformis	M	>12"
Huisache	Acacia minuata, A. farnesiana, A. smallii	M	>8"
Italian Cypress	Cupressus sempervirens	L	>8"
Italian Stone Pine	Pinus pinea	L	>12"
Japanese Black Pine	Pinus thunbergii	S	>12"
Japanese Loquat	Eriobotrya japonica	M	> 6"
Live Oak	Quercus virginiana	L	>12"
Mexican White Oak, Monterrey Oak	Quercus polymorpha	L	>12"
Pinyon Pine, Mexican Pinyon	Pinus cembroides	L	>12"
Sandpaper Tree, Anaqua *	Ehretia anacua	M-L	>8"
Texas Ebony, Ebano *	Pithecellobium ebano, P. flexicaule	M	>8"
Texas Mountain Laurel, Mescalbean *	Sophora secundiflora	S	>8"
Palm Trees (S- up to 10 ft; L - over 10 ft)			
California Washingtonia, California Fan Palm, Petticoat Palm	Washingtonia filifera	L	>12"

Common Names	Scientific Name	Size	Caliper
Date Palm		L	>12"
Mexican Fan Palm (Washingtonia robusta)	Mexican Fan Palm (Washingtonia robusta)	L	>12"
Palmetto Palm	Sabal Palmetto	L	>12"
Texas Palmetto, Texas Sabal, Palma de Macharos, Texas Palmetto, Sabal Palm *	Sabal texana, Sabal mexicana	L	>12"

(d) Tree Removal Process

(1) *Dead Trees*. A dead tree is not considered a protected tree and is not subject to the tree removal permit requirements set forth in this section. The process for removal of a dead tree that was considered a protected tree at the time it was alive, is as follows:

For removal of a dead tree that was designated as a protected tree:

a. A commercial property owner shall request that the Building Services Director inspect the tree.

b. The Building Services Director shall inspect the tree within 15 working days of the request and make a determination if the tree is dead or alive.

c. Upon a determination that the tree is dead, the Building Services Director shall approve or deny the removal request.

d. Upon a determination by the Building Services Director that the tree is alive, the Commercial Property Owner shall comply with the requirements of the protected tree removal permit process set forth in this subsection.

(2) *Protected Tree Removal Permit Process*

a. *Protected Tree Removal Permit*. A protected tree shall not be removed without a permit. By way of clarification, this type of permit is required only when the commercial lot owner wants to remove trees that are found on the protected tree list. Applications for protected tree removal permits are reviewed by the Building Services Director.

b. *Tree Removal Permit Application*. The application for a protected tree removal permit shall be made by the owner of the platted commercial property on which the protected tree is located, and shall be accompanied by documentation showing:

1. The approximate location of the tree;

2. The diameter of the tree;

3. The approximate dripline of the tree;

4. The species and/or common name of the tree;

5. The approximate size of the lot, tract or parcel on which the tree is located;

6. Reason for the proposed removal;

7. A tree replacement plan, as provided for in subsection (e).

c. *Application Review.* Upon receipt of the application, the Building Services Director shall inspect the subject tree and approve or deny the application in accordance with the provisions of this section.

(3) *Tree Protection Removal and Replacement*

a. Except as specifically provided in subsection (f), replacement trees are required if any protected tree is removed. See subsection (e) for tree replacement requirements.

b. A tree replacement plan shall accompany any tree removal permit application. The tree replacement plan will be reviewed in conjunction with the protected tree removal permit application and will be approved or denied by the Building Services Director.

(e) Tree Replacement

(1) *Requirements and Regulations*

a. Except as expressly provided in this section, when protected trees are removed, tree replacement is required.

b. Replacement trees of the same caliper as the protected trees to be removed shall be planted as required in the tree replacement schedule. Each replacement tree shall have the same caliper as the tree to be replaced, or with more than one tree which have a total sum of caliper diameters that add up to the size caliper of the tree to be replaced. When more than one tree will replace a protected tree, each replacement tree shall have a minimum of one inch caliper size.

c. Each replacement tree shall have an irrigation system or watering schedule.

d. Each replacement tree shall be planted on the same platted commercial lot from which the tree was removed. If there is not a suitable location for the replacement tree(s) on the same platted commercial site, as determined and approved by the Building Services Director, or if the Building Services Director determines that replacement trees are unable to survive on the site, the owner of the site may pay a fee in lieu payment into the tree fund, in accordance with the tree replacement schedule, which shall be used to fund tree plantings or tree replacement on public property.

e. Replacement trees shall be planted on platted commercial lots prior to issuance of a certificate of occupancy. A certificate of occupancy shall not be issued if the replacement tree(s) is/are not correctly and fully planted.

f. Except as provided in this section, any replacement tree that dies prior to the expiration of two years after a certificate of occupancy is issued shall be replaced by the developer or owner.

(2) *Tree Replacement Fee*

a. Payment shall be $150.00 per caliper inch of each protected tree replacement. The payment is calculated as currently established or as adopted by resolution of the city council from time to time.

b. The tree replacement fee shall be tendered in the form of a cashier's check or other form of payment acceptable by the city, payable to the city.

(f) Tree Removal Without Replacement. A protected tree may be removed without replacement, provided approval is granted by the Building Services Director, and one of the following conditions exists:

(1) The protected tree is damaged by natural causes or is diseased beyond the point of recovery;

(2) The protected tree should be removed as a safety measure because it is in danger of falling; or

(3) The protected tree threatens to damage property.

(g) Tree Protection Measures

(1) *Critical root zone*. During construction, temporary tree protection devices shall be installed at least to the limit of the critical root zone or dripline, whichever is greater, for any protected tree to be preserved when the respective critical root zone is within the limits of construction.

(2) *Disturbance of critical root zone*. If any of the hazardous activities described in subsections (3)b and d, below occurs within six feet of the trunk of a protected tree, that tree is considered removed and shall be replaced as required in this section.

(3) *Hazardous activities*. Activities hazardous to the health of any protected tree being preserved are prohibited, including but not limited to the following and as generally described in the tree technical manual:

a. *Physical damage*. Any physical damage, including tree topping that may lead to the death of the tree.

b. *Impervious paving*. Paving with asphalt, concrete or other impervious materials, within the limits of the critical root zone, may reasonably be expected to kill a tree.

c. *Tree attachments*. Attaching to a tree any signs, wires, or other items, other than those of a protective nature.

d. *Excavation and trenching*. Excavation and trenching within the limits of the critical root zone, except as otherwise approved by the Building Services Director, as appropriate.

(h) Tree Fund. The tree fund shall consist of fees generated as a result of tree replacement requirements as well as general donations for public tree plantings.

(1) *Establishment of Fund*. A tree fund is hereby established.

(2) *Funds to be Deposited*. Tree replacement fees for the installation of replacement trees, as provided for in subsection (e), shall be deposited in the tree fund.

(3) *Use of Funds*. Expenditures from the tree fund shall be used solely for the purpose of purchasing and installing trees and associated irrigation on public rights-of-way, public park land, or any other city-owned property.

(i) Administration. The role of the Building Services Director is to:

(1) Provide technical advice to the Platted Commercial Property Owners regarding trees;

(2) Provide technical advice regarding protected trees and tree replacement plans to the Platted Commercial Property Owners;

(3) Approve or disapprove of the protected tree removal permit; and

(4) **Review and recommend updates to this section.**

(j) Violations and Non-compliance

(1) *Generally.* This section will be administered and enforced by the city Building Services Director. The Building Services Director is authorized to:

a. make any inspections and take any actions required to enforce this section;

b. enforce the provisions of this section;

c. enter any premises to inspect the trees provided for in the tree surveys and tree replacement plans; the protection of trees on the site; the trees being installed; the trees being removed or to perform his/her official duties;

d. ensure compliance with this section where a tree replacement plan is submitted and approved; and

e. issue a stop work order to a person to cease performing any work done without a requisite permit or otherwise in violation of this article

(2) *Penalty*

a. A penalty is established where any person who violates any provision of this section shall be deemed guilty of a misdemeanor and shall upon conviction be fined a minimum amount of at least five hundred dollars ($500.00) per violation and a maximum amount of up to two thousand dollars ($2000.00) per violation. Each protected tree that is unlawfully removed or damaged is a separate offense. Also, for the enforcement purpose of this ordinance, each day of violation and each violation of a particular subsection of this section is a separate offense. A culpable mental state is not required to prove an offense under this section.

b. Criminal prosecution does not preclude civil action by the city to recover for the damage or loss of the tree, and the city attorney is authorized, without further authorization from the city council, to institute and prosecute a lawsuit against any person who unlawfully removes or damages a protected tree, to recover the reasonable value of the tree.

c. Upon the written certification by the City Building Services Director of the violation of any subsection of this section, the City Attorney is authorized to petition any court of competent jurisdiction for an injunction to enjoin the continuance of that violation. This remedy is cumulative of and to all other enforcement powers granted to the City by the terms of its Charter or any ordinance, or by the laws of the State.

d. No provision of this section is intended, nor shall any part or portion of this section be construed, to conflict with any state or federal regulations or laws.

e. If any provision of this section or its application to any person or circumstance is held invalid, the remainder of this section and its application to other persons and circumstances is valid, and the City Council declares that this Ordinance would have been enacted without the invalid provision.

f. If compliance is not achieved to the City's satisfaction, the City may, at its discretion, report the noncompliance to the corresponding federal or state agency for further action.

(3) *Non-Compliance Flag and Stop Work Orders*

a. If the Building Services Director determines that activities are being carried out in violation of this ordinance, a notification of non-compliance shall be issued.

b. In addition to the notification, if the violation continues beyond five (5) days, a "Non-compliance Flag" will be posted at the site.

c. If the violation continues after the five (5) days after the "Non-compliance Flag" is posted, the Building Services Director may stop all work until corrective measures have been completed. The site shall be posted with a "stop work" notice.

d. No other permits may be issued by the City until corrections have been made to the satisfaction of the Building Services Director.

e. It is a separate and independent violation of this section to either to move or interfere with "Non- compliance Flag" and/or stop work order.

(4) *Notification of Violation*. Any person found to be in violation of the provisions of this section is required to correct the problem upon written notification from the Building Services Director. The written notification may require that certain conditions be adhered to in the correction of the problem. These may include, but are not limited to, the following:

a. If the installation of replacement trees are found to be of substandard quality, incorrectly or defectively installed or found not to be installed in accordance with the tree replacement plan, the Building Services Director, as appropriate, shall notify the owner in writing of all the changes that need to be made for the work to conform with the tree replacement plan and the provisions of this section.

b. If the Building Services Director, as appropriate, finds that the protected trees on the site were damaged due to construction during the site plan process, the Building Services Director, as appropriate, shall notify the owner in writing identifying the damaged trees and the owner shall replace the damaged trees.

(5) *Final Inspection*

a. Upon the completion of all the installation of trees, the owner shall notify the Building Services Director, as appropriate, that the work is ready for final inspection.

b. If faulty work or substandard plant material is found, the owner shall be notified of the necessary changes to be done. If the work is found to be correctly installed and in accordance with the tree replacement plan, the Building Services Director,

as appropriate, shall provide written notification to the appropriate city official that the owner has met the requirements of this article.

(6) *Citizen Participation*. Citizen reports of violations: All citizens are encouraged to report to the Building Services Director's office or 311, any violation of this section which they become aware.

(k) Exceptions

(1) During the period of an emergency, such as a tornado, storm, flood or other natural disaster, the requirements of this section may be waived as deemed necessary by the emergency management coordinator or other designee of the city manager. In addition to rights granted by easement, utility service providers, lawfully within the right-of-way, may remove trees that are determined by the utility provider to be a danger to public safety and welfare by interfering with utility service.

(2) The city may plant, prune, remove and maintain any protected tree located on a right-of-way, easement, public parkland or any other city-owned property as necessary to ensure public safety. The city may remove or cause or order to be removed any or all of a protected tree which is in an unsafe condition, or which by reason of its nature or location unreasonably interferes with the construction, maintenance or replacement of wastewater lines, water lines, drainage facilities, streets or other public improvements.